Ikegami

CCU-970

Camera Control Unit

SERVICE MANUAL

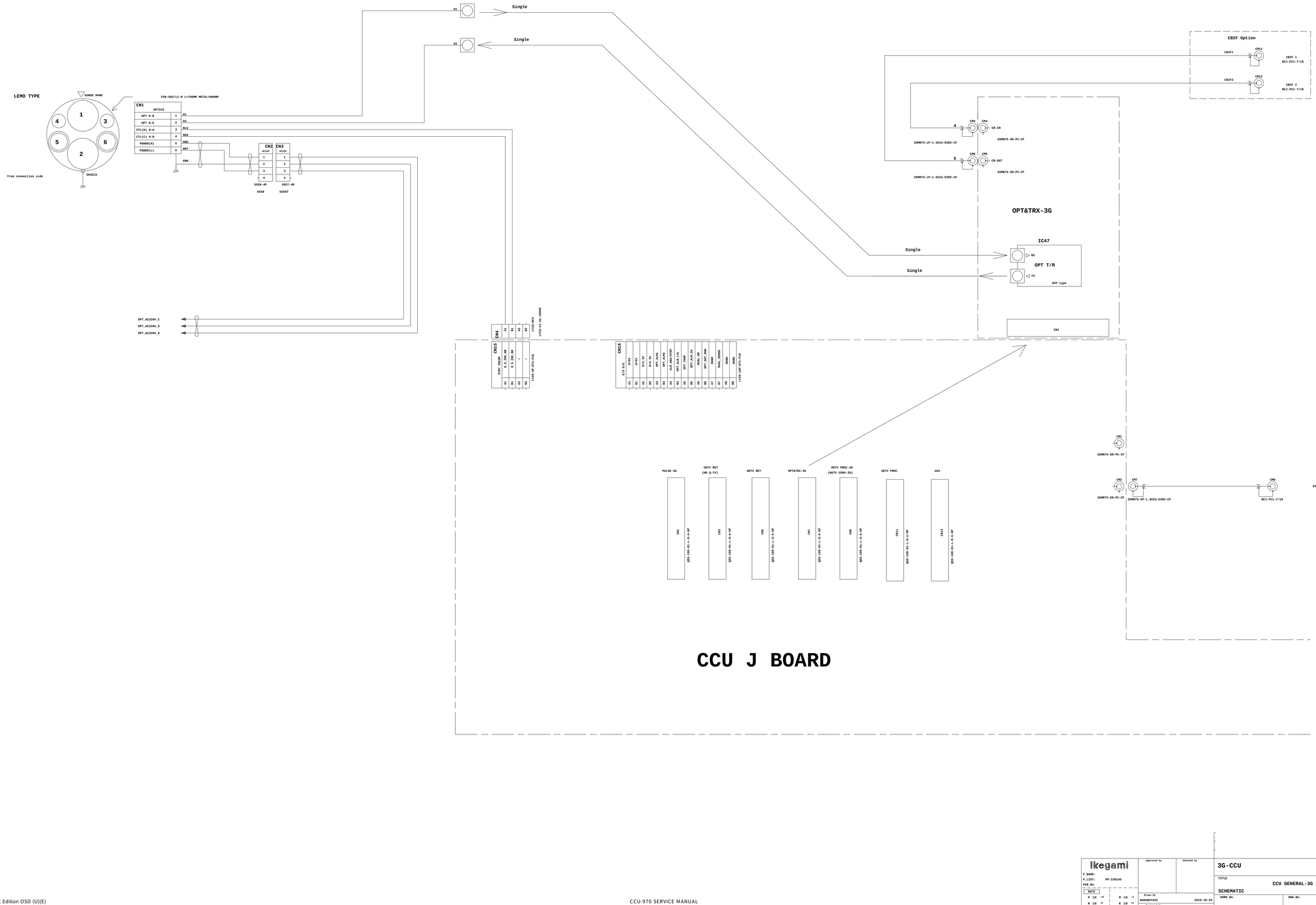
(SCHEMATIC DIAGRAMS)

1

SCHEMATIC DIAGRAMS

1.1 CAMERA Control Unit (CCU-970)

Module Name	Drawing No.	Rev.No	Page
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FRONT FUSE BOARD-A	C4-248997	0	133



CCU J BOARD

F_NAME:	
P_LIST:	PP-239145
PCB No:	
NOTE	
P :10 -12	M :10 -3
N :10 -9	K :10 +3
U :10 -6	MEG:10 +6

Ikegami

Approved by	Checked by	
Drawn by WAKABAYASI	2010-10-25	
Designed by WAKABAYASI	2010-10-15	

3G-CCU

TITLE: CCU GENERAL-3G (USA STD) (1/4)

SCHEMATIC

WORK No. | DWG.No. C1-100850-1 5 | REV.

CCU J BOARD

POWER BOX
CN101

POWER BOX
CN102

CN10 CONTROL	
AC14V_H	1
V_DET	2
RL_DRV	3
TRI_RL_ON	4
*	5
+12V_OUT	6
CABLE_NORM	7
CABLE_OPEN	8
CABLE_SHOR	9
TRI_PWR_ON	10
*	11
INC_BS-PS	12
GND	13
R_TALLY	14
G_TALLY	15
+12V_OUT	16
+12V_RET	17
PWR_TAP1	18
PWR_TAP2	19
PWR_TAP3	20
PWR_TAP4	21
*	22
+12V_RET	23
FAN_ALM_OUT	24
*	25
PS_HP_ON	26
GND	27
*	28
TRI_IND_ON	29
PS_CALL	30
PS_OPT/TRI	31
*	32
*	33
AC14V_C	34
FUSE_NG	35
FUSE_GND	36
*	37
*	38
OPT_C_ALMR	39
OPT_C_ALMY	40
OPT_C_ALMG2	41
OPT_C_ALMG1	42
*	43
INC_PSBS_S	44
INC_PSBS_H	45
INC_PSBS_C	46
PS_INC_PB/CM	47
Q_TX/RX_IND	48
-5.5V_OUT	49
-5.5V_RET	50

D02-50P-FGR
030-51452

CN11 → CN19 POWER CONT1

A		B	
A1		B1	AC14V_H
B1		C1	AC14V_C
A2		C2	FUSE_NG
B2		C3	FUSE_GND
A3		C4	V-DET
B3		C5	RL_DRV
A4		C6	TRI_RL_ON
B4		C7	PWR_TAP1
A5		C8	PWR_TAP2
B5		C9	PWR_TAP3
A6		C10	PWR_TAP4
B6		C11	CABLE_NORM
A7		C12	CABLE_OPEN
B7		C13	CABLE_SHOR
A8		C14	FAN_ALM_OUT
B8		C15	PS_HP_ON
A9		C16	DGND
B9		C17	TRI_IND_ON
A10		C18	PS_CALL
B10		C19	PS_OPT/TRI
A11		C20	R_TALLY
B11		C21	G_TALLY
A12		C22	FAN_ALMIND
B12		C23	INC_BP_RET
A13		C24	INC BS-PS
B13		C25	INC_PSBS_S
A14		C26	INC_PSBS_H
B14		C27	INC_PSBS_C
A15		C28	PS_INC_PB/CM
B15		C29	Q_TX/RX_IND

LY10-DC30
LY10-C1-A1-10000
LY20-30P-DT1-P1E

CN12 → CN20 POWER_CONT2

A		B	
A1		B1	OPT_C_ALMR
B1		C1	OPT_C_ALMY
A2		C2	OPT_C_ALMG2
B2		C3	OPT_C_ALMG1
A3		C4	+12V_OUT
B3		C5	+12V_OUT
A4		C6	+12V_RET
B4		C7	+12V_RET
A5		C8	-5.5V_OUT
B5		C9	-5.5V_OUT
A6		C10	-5.5V_RET
B6		C11	-5.5V_RET

LY10-DC12
LY10-C1-A1-10000
LY20-12P-DT1-P1E

OPT_AC220V_C
OPT_AC220V_S
OPT_AC220V_H

CN13 CCU POWER	
*	1
*	2
*	3
*	4
FG	5
D+3.3V	6
D+3.3V_RET	7
D+3.3V_RET	8
D+5V	9
D+5V_RET	10
D+5V_RET	11
A+9.5V	12
A-9.5V	13
A-9.5V	14
A+5.5V	15
A-5.5V	16
A-5.5V	17
O_AC220V(H)	18
*	19
O_AC220V(C)	20
*	21
+12V_RET	22
+12V	23
+12V	24
D+3.3V	25
D+3.3V	26
D+5V	27
D+5V	28
A+9.5V	29
A+9.5V_RET	30
A+5.5V	31
A+5.5V_RET	32
FAN_ALM_IN	33
*	34
*	35
*	36
*	37
+12V_RET	38
D+3.3V	39
D+3.3V_RET	40
D+3.3V_RET	41
D+5V	42
D+5V_RET	43
D+5V_RET	44
A+9.5V_RET	45
A-9.5V_RET	46
A-9.5V_RET	47
A+5.5V_RET	48
A-5.5V_RET	49
A-5.5V_RET	50

DDUF-50P-F0R
030-50635

CN14 → CN18 A_POWER

A		B	
A1		B1	+12V
B1		C1	+12V
A2		C2	+12V_RET
B2		C3	+12V_RET
A3		C4	A+9.5V
B3		C5	A+9.5V
A4		C6	A+9.5V_RET
B4		C7	A+9.5V_RET
A5		C8	A+5.5V
B5		C9	A+5.5V
A6		C10	A+5.5V_RET
B6		C11	A+5.5V_RET
A7		C12	A-9.5V
B7		C13	A-9.5V
A8		C14	A-9.5V_RET
B8		C15	A-9.5V_RET
A9		C16	A-5.5V
B9		C17	A-5.5V
A10		C18	A-5.5V_RET
B10		C19	A-5.5V_RET
A11		C20	TRI_PWR_ON
B11		C21	FAN_ALM_IN
A12		C22	*
B12		C23	*

LY10-DC24
LY10-C1-A1-10000
LY20-24P-DT1-P1E

CN15 → CN17 D_POWER

A		B	
1		1	D+3.3V
2		2	D+3.3V
3		3	D+3.3V_RET
4		4	D+3.3V_RET
5		5	D+5V
6		6	D+5V
7		7	D+5V_RET
8		8	D+5V_RET
9		9	D+3.3V
10		10	D+3.3V
11		11	D+3.3V_RET
12		12	D+3.3V_RET
13		13	D+5V
14		14	D+5V
15		15	D+5V_RET
16		16	D+5V_RET

5557-16R
5556T
5566-16A

CN29 D_POWER2

D+5V	1
D+5V_RET	2
D+3.3V	3
D+3.3V_RET	4

NOT_MOUTED(5566-04A)

CN14 TA_I/F

41	DGND	DGND	1
42	DGND	DGND	2
43	DGND	DGND	3
44	DGND	DGND	4
45	DGND	DGND	5
46	D+5V	D+5V	6
47	D+5V	D+5V	7
48	D+3.3V	D+3.3V	8
49	D+3.3V	D+3.3V	9
50	TA_SENSE2	TA_SENSE1	10
51	M_CLK1	PS_BUSY	11
52	PS_WR1	PS_DAT1	12
53	SP_WR1	SP_DAT1	13
54	TA_SCLK	TA_SCS	14
55	TA_SFS	TA_SDAT	15
56	HP_STBY/OPE	DGND	16
57	TA1080/720	TA_S12FS(+)	17
58	TA_59/50HZ	TA_S12FS(-)	18
59	TA_CODE_OK	DGND	19
60	DGND	TA_FS	20
61	DGND	TA_QTV/TRUNK	21
62	AGND	AGND	22
63	T_S_INC_HB	T_S_INC_BH	23
64	AGND	AGND	24
65	RF_UP	TA_RX_LVL	25
66	AGND	AGND	26
67	*	TR_VID(H)	27
68	*	TR_VID(S)	28
69	*	AGND	29
70	TA_QTV(H)	*	30
71	TA_QTV(S)	*	31
72	*	*	32
73	*	*	33
74	AGND	AGND	34
75	AGND	AGND	35
76	AGND	AGND	36
77	AGND	AGND	37
78	AGND	AGND	38
79	AGND	AGND	39
80	AGND	AGND	40

KX14-80K20E

F_NAME:		Approved by	Checked by
P_LIST:	PP-239145		
PCB No:			
NOTE		Drawn by	
P :10 -12	M :10 -3	WAKABAYASI	2010-10-25
N :10 -9	K :10 +3	Designed by	
U :10 -6	MEG:10 +6	WAKABAYASI	2010-10-15

Ikegami

3G-CCU

TITLE
CCU GENERAL-3G (USA STD) (2/4)
SCHEMATIC

WORK No.
DWG.No. C1-100850-2
REV.

AUDIO CN BOARD

CN22 — AUDIO

1	MIC1(H)
2	MIC1(C)
3	MIC1(S)
4	MIC2(S)
5	MIC2(H)
6	MIC2(C)
7	*
8	AUDIO T(S)
9	AUDIO T(H)
10	AUDIO T(C)

DF13-10DP-1.25V

CN18 — DF13-10DS-1.25C

CN19 CN1 — DF13-10DS-1.25C

CN2 — MIC-1 OUT

1	MIC1(S)
2	MIC1(H)
3	MIC1(C)

HA16RM-3PE76(U/E)

CN3 — MIC-2 OUT

1	MIC2(S)
2	MIC2(H)
3	MIC2(C)

HA16RM-3PE76(U/E)

CN4 — TRUNK IN

1	AUDIO T(S)
2	AUDIO T(H)
3	AUDIO T(C)

HA16PRM-3SE71(U.E)

D SUB BOARD

CN23 — D-SUB

A1	DGND
B1	DGND
A2	WFM CT0
B2	WFM CT1
A3	WFM CT2
B3	WFM CT3
A4	WFM CT4
B4	WFM CT5
A5	WFM CT6
B5	WFM CT7
A6	PREVIEW_SW
B6	PREVIEW_COM
A7	OUT(S)
B7	TR1_OUT+
A8	TR1_OUT-
B8	TR1_IN+
A9	TR1-IN-
B9	IN(S)

LY20-18P-DT1-P1E

CN20 — LY10-DC18

CN21 — LY10-DC18

LY10-C1-A1-10000

CN5 — LY10-DC18

CN6 — AUX

1	WFM CT0
2	WFM CT1
3	WFM CT2
4	N.C
5	PREVIEW_SW
6	PREVIEW_COM
7	N.C
8	WFM CT3
9	D.GND
10	*
11	N.C
12	WFM CT4
13	WFM CT5
14	WFM CT6
15	WFM CT7

DA-15SF-T-N

CN7 — 422 TRUNK

1	
2	TR1_OUT-
3	TR1_IN+
4	IN(S)
5	
6	OUT(S)
7	TR1_OUT+
8	TR1_IN-
9	D.GND

DE-9SF-T-N

CN24 — 422 TRUNK2

1	TR2_OUT+
2	TR2_OUT-
3	OUT(S)
4	IN(S)
5	TR2_IN+
6	TR2_IN-

(DF13-6P-1.25V)

CN25 — OPTION

1	INC B-SVO(H)
2	INC B-SVO(C)
3	INC B-SVO(S)
4	INC SVO-B(H)
5	INC SVO-B(C)
6	INC SVO-B(S)
7	ISO SVO

(DF13-7P-1.25V)

COMMAND BOARD

CN26 — COMMAND

A1	+12V
B1	AGND
A2	R TALLY
B2	G TALLY
A3	Y/COM TALLY
B3	SW ENABLE
A4	16:9 ON
B4	SPARE IN 1
A5	SPARE IN 2
B5	LETTER ON
A6	(RET SD ON)
B6	SCAN_TA_ON
A7	SPARE IN 3
B7	SPARE IN 4
A8	SPARE IN 5
B8	+12V
A9	AGND
B9	*
A10	*
B10	*

LY20-20P-DT1-P1E

CN22 — LY10-DC20

LY10-C1-A1-10000

CN23 CN8 — LY10-DC20

CN9 — TALLY OUT

A	+12V
B	R TALLY
C	Y/COM TALLY
D	G TALLY
E	A.GND

PRC05-RB5F1

CN10 — SCAN CTRL

A	SW'BLE EN
B	16:9 ON
C	SPARE IN 1
D	SPARE IN 2
E	LETTER ON
F	(RET SD ON)
G	SPARE IN 3
H	SPARE IN 4
J	SCAN_TA_ON
K	SPARE IN 5
L	+12V
M	A.GND

PRC05-RB12F1

TALLY/WFM BOARD

CN27 — TALLY/WFM

A1	R TALLY(H)
B1	G TALLY(H)
A2	TALLY COM
B2	Y TALLY(H)
A3	AGND
B3	STAIR SD
A4	SEQ ON
B4	EXPAND
A5	-15V(H)
B5	HP IND

LY20-10P-DT1-P1E

CN24 — LY10-DC10

LY10-C1-A1-10000

CN25 CN11 — LY10-DC10

CN12 — TALLY IN

A	R TALLY(H)
B	G TALLY(H)
C	R TALLY(C)
D	G TALLY(C)
E	Y TALLY(H)
F	HPIND/TLY_C
G	A.GND

PRC03-25A10-7M

CN13 — WFM OUT

A	STAIR SD
B	SEQ ON
C	
D	-15V(C)
E	WFM RET
F	EXPAND
G	-15V(H)

PRC03-25A10-7F

CN28 — MIC REMOTE

A1	MIC-1 CTRL
B1	MIC-2 CTRL
A2	MIC CTRL ON
B2	+9.5V
A3	-9.5V
B3	AGND

LY20-6P-DT1-P1E

INCOM BOARD (STD)

CN21 — INCOM

1	PROD BS-S(H)
2	PROD BS-S(C)
3	A.GND
4	A.GND
5	ENG BS-S(H)
6	ENG BS-S(C)
7	PROD S-BS(H)
8	PROD S-BS(C)
9	A.GND
10	A.GND
11	ENG S-BS(H)
12	ENG S-BS(C)
13	PGM-3(H)
14	PGM-3(C)
15	PGM-5
16	PGM-5
17	PGM-2(H)
18	PGM-2(C)
19	PGM-1(H)
20	PGM-1(C)
21	PGM-5
22	Y TALLY
23	R TALLY
24	G TALLY
25	TALLY COM
26	REM ISO OFF
27	EXT MIC OFF
28	SW_ENABLE
29	16:9_ON
30	LETTER ON

DF13-30DP-1.25V

CN26 — DF13-30DS-1.25C

CN27 — LY10-DC26

LY10-C1-A1-10000

CN1 — LY20-26P-DT1-P1E

INCOM		
*	A1	
SP2	B1	
SP1	A2	
PGM-2(S)	B2	
PGM-3(H)	A3	
PGM-3(C)	B3	
PGM-2(H)	A4	
PGM-2(C)	B4	
ENG(S)	A5	
PROD(S)	B5	
PROD BS-S(H)	A6	
ENG BS-S(H)	B6	
PROD BS-S(C)	A7	
ENG BS-S(C)	B7	
PROD S-BS(H)	A8	
ENG S-BS(H)	B8	
PROD S-BS(C)	A9	
ENG S-BS(C)	B9	
PGM-1(H)	A10	
PGM-1(C)	B10	
PGM-1(S)	A11	
REM ISO OFF	B11	
EXT_MIC_OFF	A12	
SP3	B12	
SP4	A13	
*	B13	

CN2 — INTERCOM

1	PROD BS-S(H)
2	PROD BS-S(C)
3	PROD S-BS(H)
4	PROD S-BS(C)
5	PROD(S)
6	ENG BS-S(H)
7	ENG BS-S(C)
8	ENG S-BS(H)
9	ENG S-BS(C)
10	ENG(S)
11	*
12	*
13	PGM-1(H)
14	PGM-1(C)
15	PGM-1(S)
16	PGM-2(H)
17	PGM-2(C)
18	PGM-2(S)
19	REM ISO OFF
20	(EXT MIC OFF)
21	*
22	*
23	*
24	*

TRC01-C25R24MA

CCU J BOARD

Ikegami

F_NAME:
P_LIST: PP-230145
PCB_No:

NOTE

P :10	-12	M :10	-3
N :10	-9	K :10	+3
U :10	-6	MEG:10	+6

Approved by | Checked by

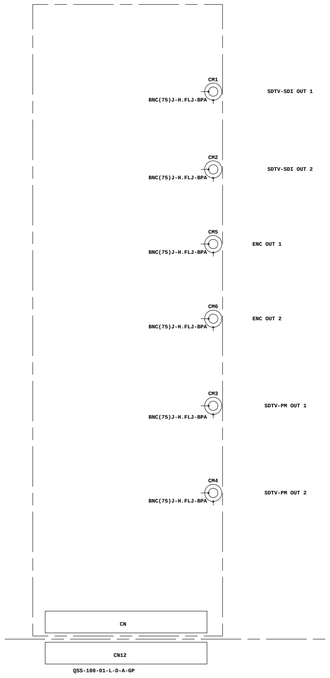
Drawn by: WAKABAYASI 2010-10-25
Designed by: WAKABAYASI 2010-10-15

3G-CCU

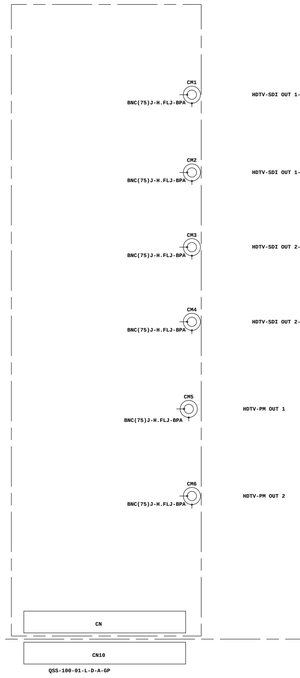
TITLE: CCU GENERAL-3G (USA STD) SCHEMATIC (3/4)

WORK No. | DWG.No. C1-100850-3 (7) | REV.

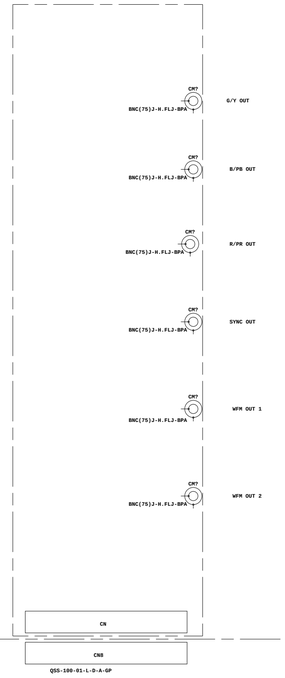
SDTV_OUT



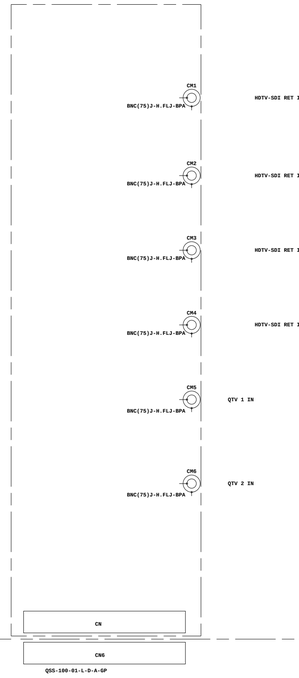
HDTV_OUT-3G



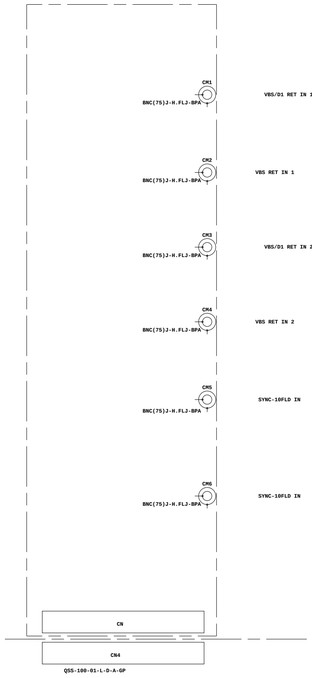
VIDEO_OUT-3G



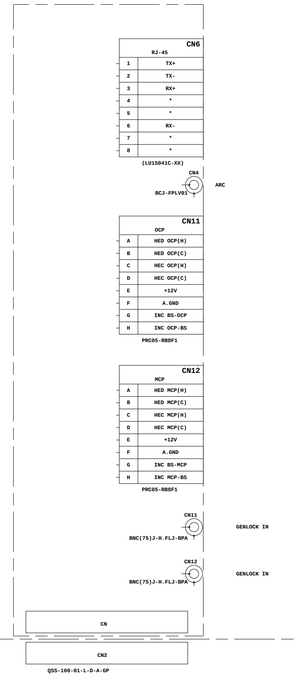
HD_RET_IN-3G



SD_RET_IN (HD_Q-TV_IN)

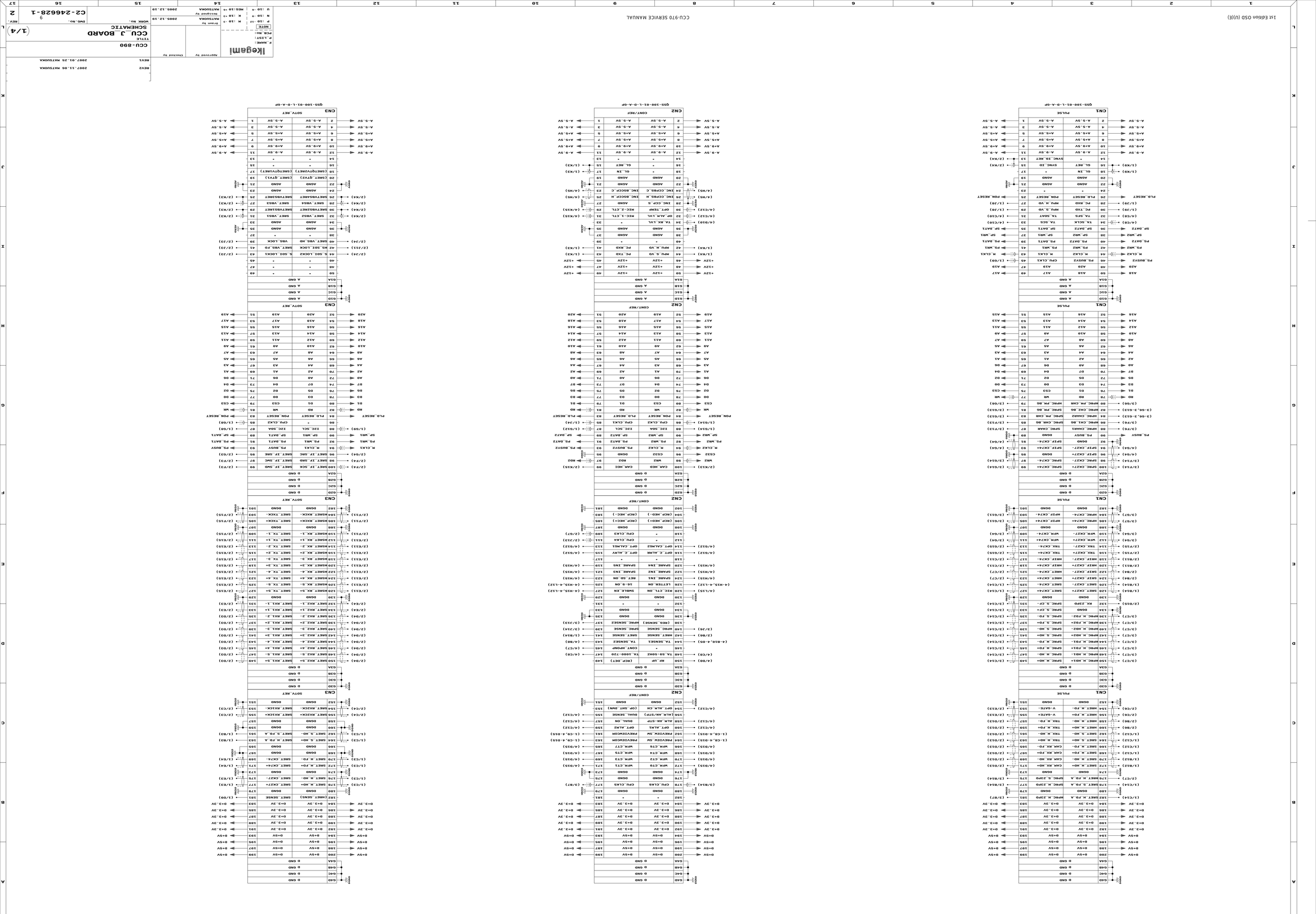


CONT/REF



CCU J BOARD

Ikegami	Approved by	Checked by	3G-CCU
P_NAME:			TITLE: CCU GENERAL-3G (USA STD) (4/4)
P_LIST: PP-230145			SCHEMATIC
PCB_NO:	Drawn by WAKABAYASI 2010-10-25		WORK No. / DWG.No. C1-100850-4 / REV. 8
NOTE: P ±10 -12, N ±10 -9, U ±10 -6, M ±10 -3, K ±10 +3, MEG±10 +6	Designed by WAKABAYASI 2010-10-15		



REV1	2007.11.06 MATSUOKA					
REV2	2007.01.25 MATSUOKA					
		Approved by	Checked by	Drawn by		
				MATSUOKA	2005.12.19	
				Designed by		
				MATSUOKA	2005.12.19	

F.NAME:	
PCB No:	
P.LIST:	
NOTE	

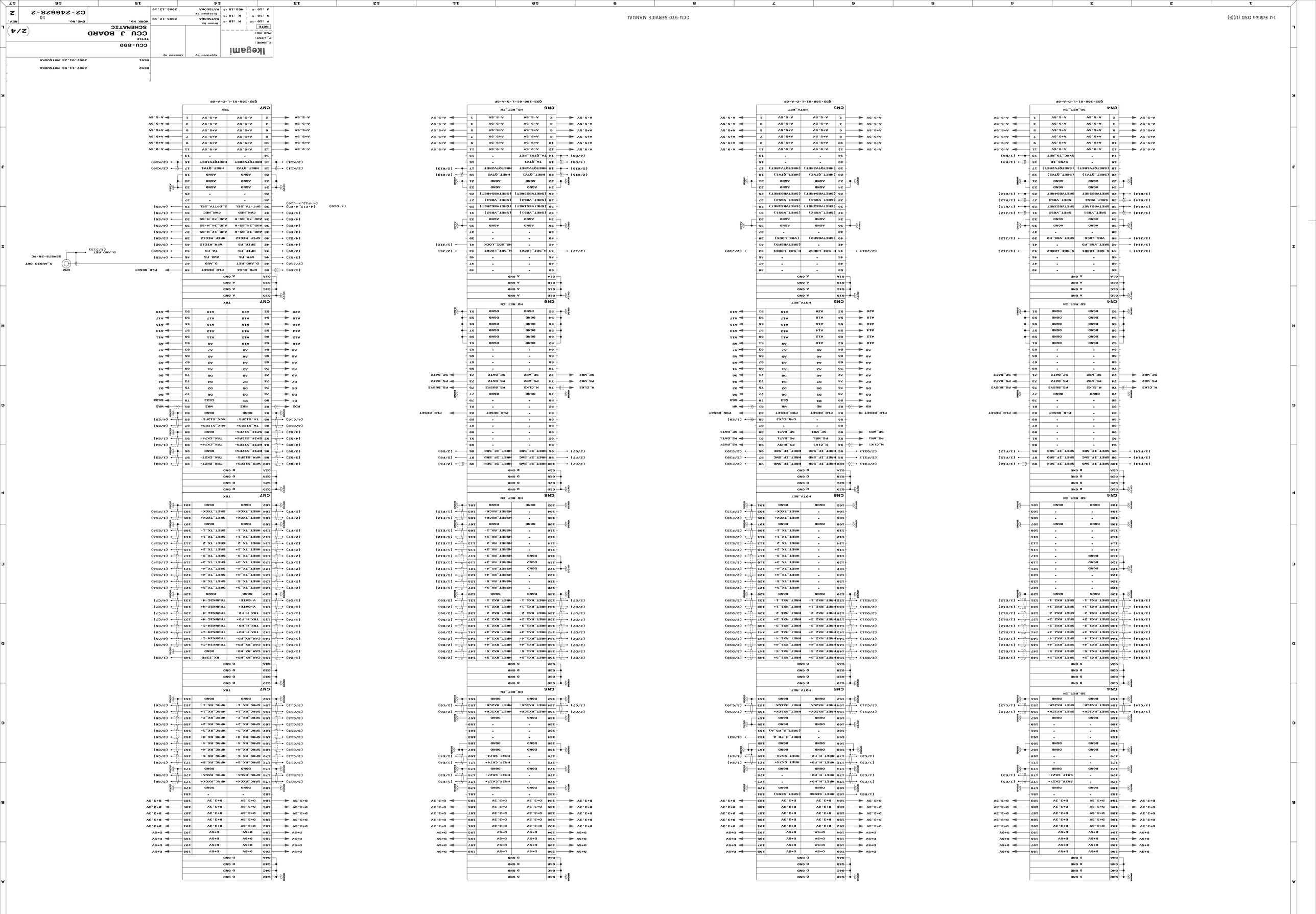
P 10-12	M 10-3
N 10-9	K 10-3
U 10-6	ME0:10-6

Keğami

TITLE: CCU-890 SCHEMATIC

CCU_J_BOARD (1/4)

WORK No.	DWG No.	REV.
C2-246628-1	9	2



REV.	DWG. NO.	10	2
17	C2-246628-2		

WORK NO.	2005.12.19	Drawn by	M :10 -3
			K :10 -3
		Designed by	N :10 -3
		MATSUOKA	P :10 -12
		ME0:10 -6	U :10 -6

NOTE

TITLE	CCU_J_BOARD
	SCHEMATIC
	CCU-890

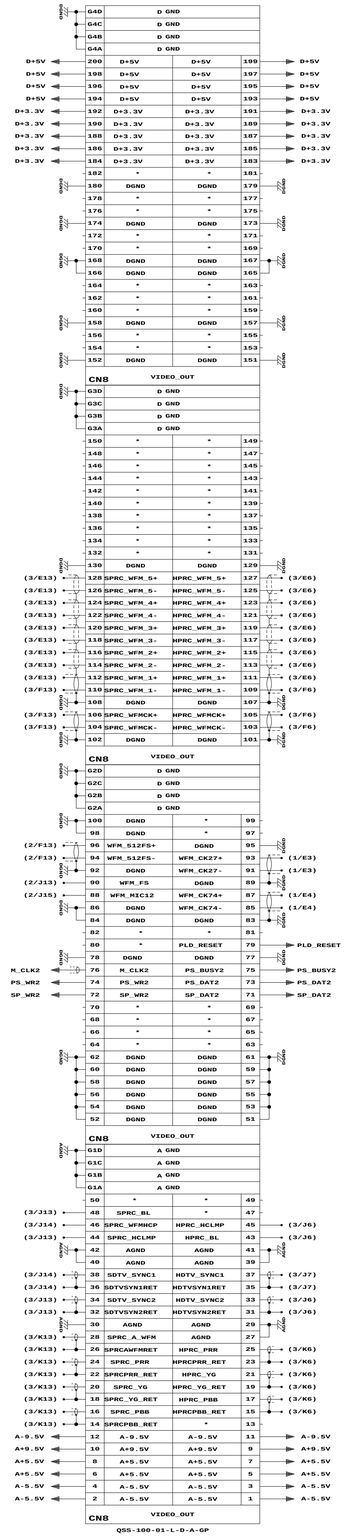
Approved by	Checked by

REV1	2007.01.25 MATSUOKA
REV2	2007.11.06 MATSUOKA

Ikegami

P_NAME:
PCB_No:
P_LIST:

(2/4)



REV2	2007.11.06 MATSUOKA
REV1	2007.01.25 MATSUOKA

Ikegami

F_NAME:
P_LIST:
PCB_No:

NOTE
P :10 -12
N :10 -9
U :10 -6
M :10 -3
K :10 +3
MEG:10 +6


Approved by | Checked by

Drawn by: MATSUOKA 2005.12.19
Designed by: MATSUOKA 2005.12.19

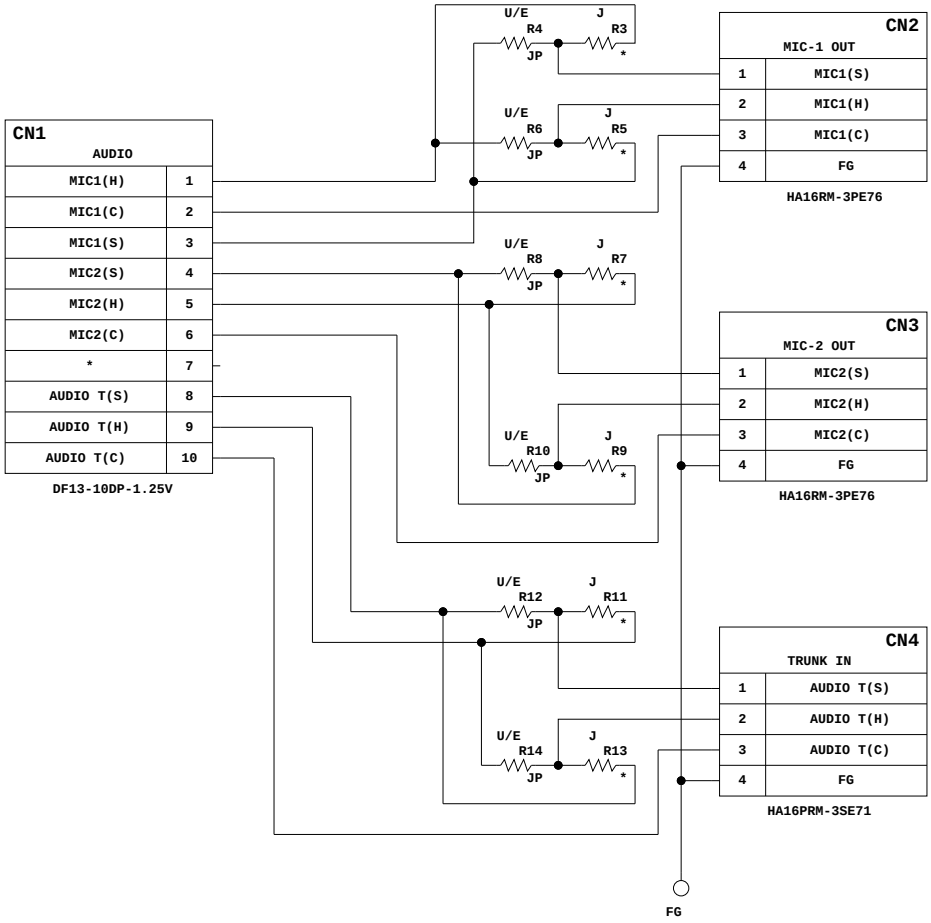
CCU-890

TITLE
CCU_J_BOARD
SCHEMATIC
(3/4)

WORK No. | DWG.No. 11 C2-246628-3 | REV. 2



CN12 SDTV_OUT
QSS-100-01-L-D-A-GP
CN13 AUX
QSS-100-01-L-D-A-GP
CN14 TA_I/F
KX14-80K2DE
CM1 TRUNK OUT
SSMB75-SR-PC
CN15 STBY INCOM
LY20-4P-DT1-P1E
CN16 E/O O/E
LY20-16P-DT1-P1E
CN17 D_POWER
5566-16A
CN18 A_POWER
LY20-24P-DT1-P1E
CN19 POWER CONT1
LY20-30P-DT1-P1E
CN20 POWER_CONT2
LY20-12P-DT1-P1E
CN21 INCOM
DF13-30DP-1.25V
CN22 AUDIO
DF13-10DP-1.25V
CN23 D-SUB
LY20-18P-DT1-P1E
CN24 422 TRUNK2
(DF13-6P-1.25V)
CN25 OPTION
(DF13-7P-1.25V)
CN26 COMMAND
LY20-20P-DT1-P1E
CN27 TALLY/WFM
LY20-10P-DT1-P1E
CN28 MIC REMOTE
LY20-6P-DT1-P1E
CN29 D_POWER2
NOT_MOUNTED(5566-04A)
Ikegami
REV2 2007.11.06 MATSUOKA
REV1 2007.01.25 MATSUOKA
CCU-890
TITLE
CCU_J_BOARD
SCHEMATIC
4/4
DWG.No. C2-246628-4
REV. 2
Drawn by MATSUOKA 2005.12.19
Designed by MATSUOKA 2005.12.19



REV1 2006.2.21 MATSUOKA

Ikegami

F_NAME:
P_LIST:
PCB_No:

NOTE

P :10 -12 | M :10 -3
N :10 -9 | K :10 +3
U :10 -6 | MEG:10 +6

Approved by | Checked by

Drawn by
MATSUOKA 2005.11.11

Designed by
MATSUOKA 2005.11.11

CCU-700

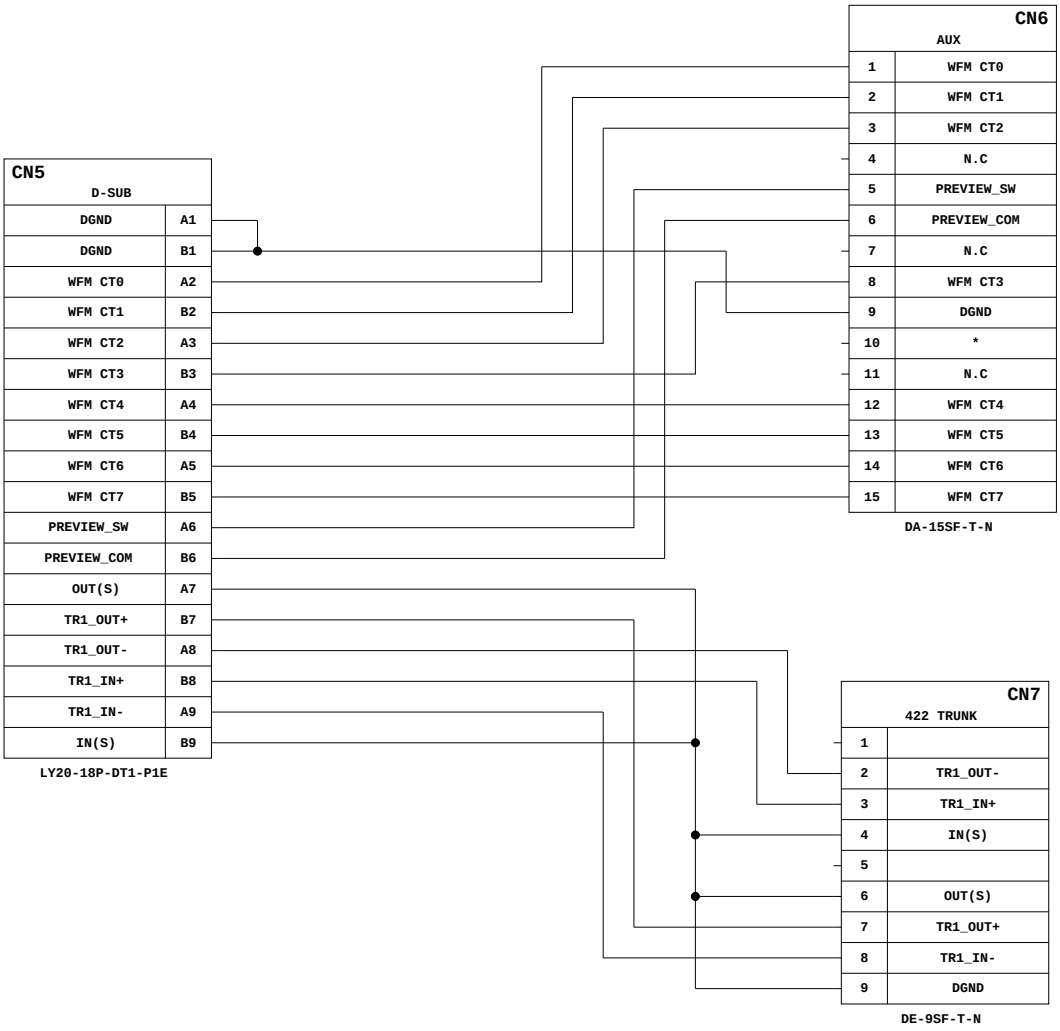
TITLE
AUDIO CN BOARD(U/E)
SCHEMATIC

1/1

WORK No.

DWG.No.
C4-246634

REV.
1



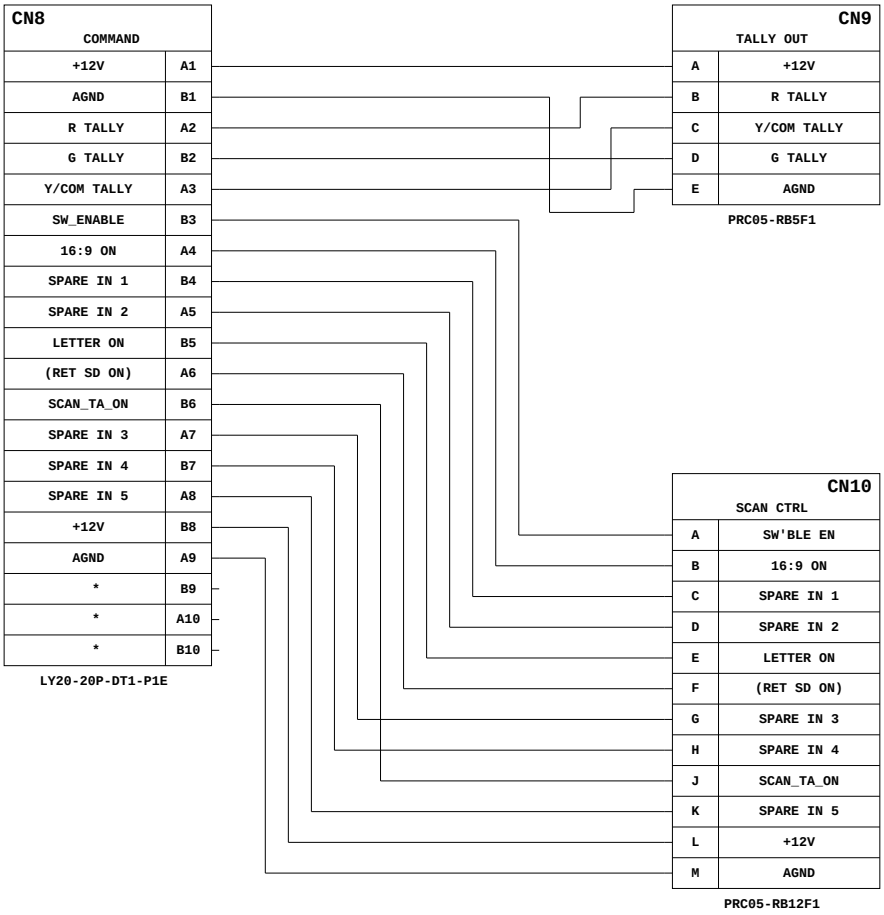
Ikegami

F_NAME:
P_LIST:
PCB_No:

NOTE

P :10 -12 | M :10 -3
N :10 -9 | K :10 +3
U :10 -6 | MEG:10 +6

Approved by	Checked by	CCU-700	
Drawn by MATSUOKA 2005.11.27		TITLE D SUB BOARD SCHEMATIC	1/1
Designed by MATSUOKA 2005.11.27		WORK No.	DWG.No. C4-246520 REV.



Ikegami

F_NAME:
P_LIST:
PCB_No:

NOTE

P :10 -12 | M :10 -3
N :10 -9 | K :10 +3
U :10 -6 | MEG:10 +6

Approved by | Checked by

Drawn by
MATSUOKA 2005.11.27

Designed by
MATSUOKA 2005.11.27

CCU-700

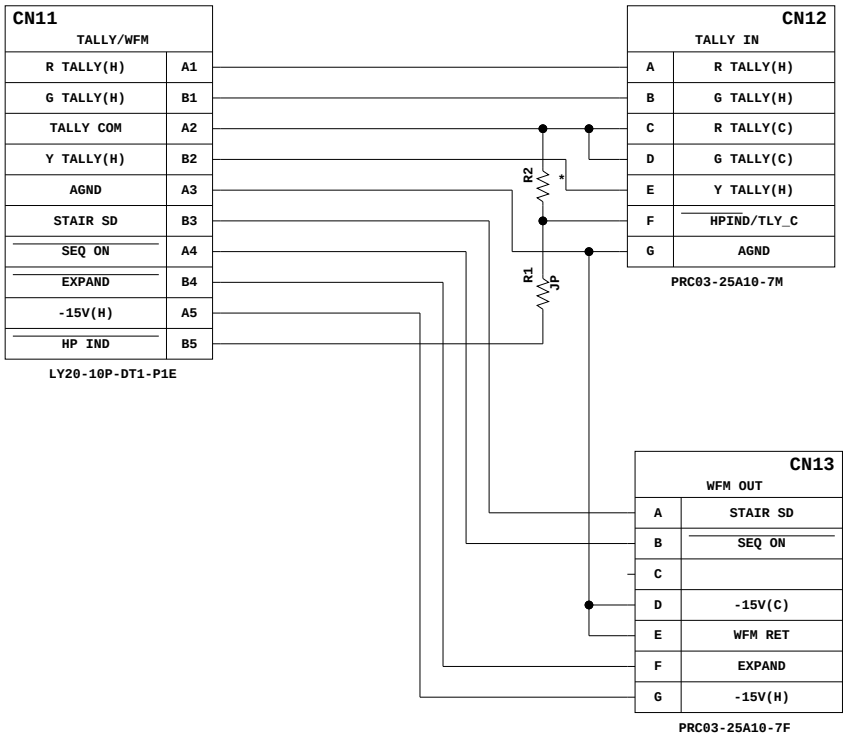
TITLE
COMMAND BOARD
SCHEMATIC

1/1

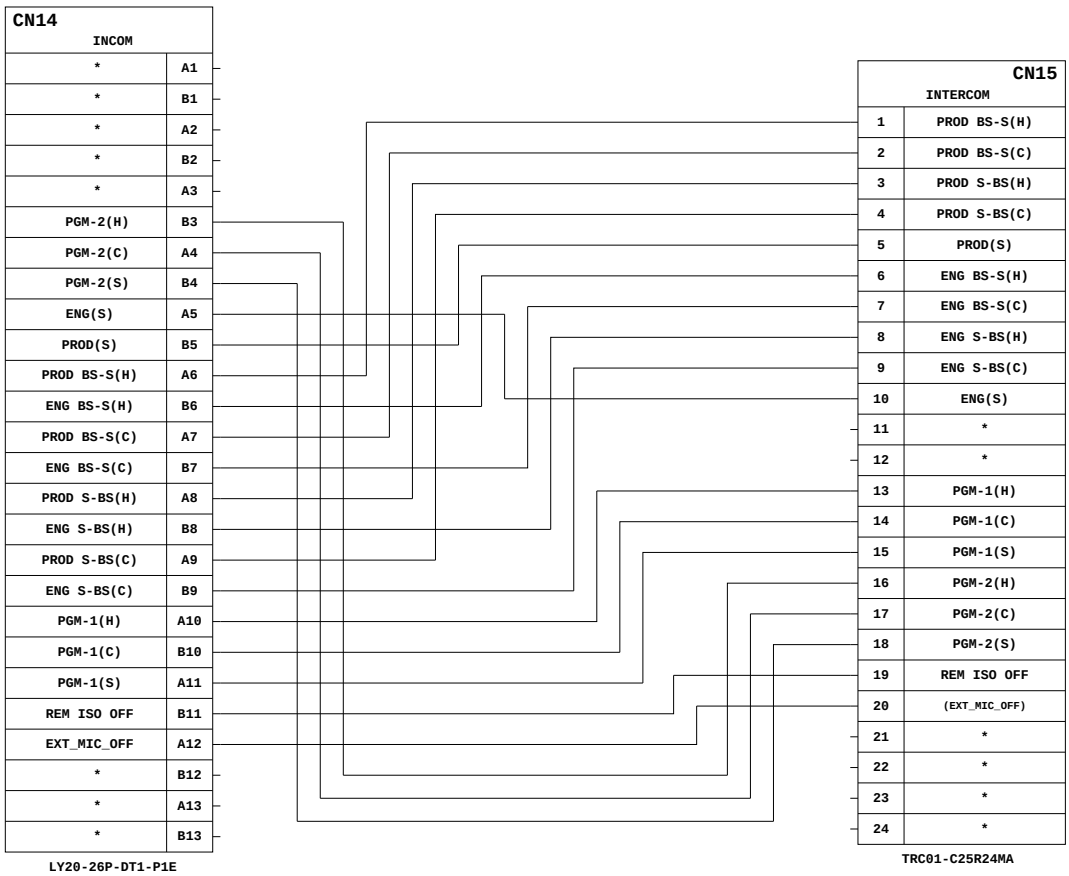
WORK No.

DWG.No.
C4-246521

REV.



Ikegami	Approved by	Checked by	CCU-700
F_NAME:			TITLE: TALLY/WFM BOARD SCHEMATIC
P_LIST:			1/1
PCB_No:	Drawn by NONOSHITA 2005.11.09		WORK No.
NOTE	Designed by NONOSHITA 2005.11.09		DWG.No. C4-246522
P :10 -12, N :10 -9, U :10 -6, M :10 -3, K :10 +3, MEG:10 +6			REV.



Ikegami

F_NAME:
P_LIST:
PCB_No:

NOTE

P :10 -12 | M :10 -3
N :10 -9 | K :10 +3
U :10 -6 | MEG:10 +6

Approved by | Checked by

Drawn by
MATSUOKA 2005.11.27

Designed by
MATSUOKA 2005.11.27

CCU-700

TITLE
INCOM BOARD(24P)
SCHEMATIC

1/1

WORK No.

DWG.No.
C4-246523

REV.

	GD7	D GND	D GND	GD8		
	GD5	D GND	D GND	GD6		
	GD3	D GND	D GND	GD4		
	GD1	D GND	D GND	GD2		
D+5V_S	200	D+5V	D+5V	199	D+5V_S	
	198	D+5V	D+5V	197		
	196	D+5V	D+5V	195		
	194	D+5V	D+5V	193		
D+3.3V_S	192	D+3.3V	D+3.3V	191	D+3.3V_S	
	190	D+3.3V	D+3.3V	189		
	188	D+3.3V	D+3.3V	187		
	186	D+3.3V	D+3.3V	185		
	184	D+3.3V	D+3.3V	183		
[4/F11] SRET_H_FD_ADJ	182	SRET_H_FD_A	HPRC_H_23PD	181	HPRC_H_23PD	[4/F11]
	180	DGND	DGND	179		
[4/F11] SRET_S_FD_ADJ	178	SRET_S_FD_A	SPRC_H_23PD	177	SPRC_H_23PD	[4/F11]
[4/F11] HRET_H_FD_ADJ	176	HRET_H_FD_A	SPRC_S_23PD	175	SPRC_S_23PD	[4/F11]
	174	DGND	DGND	173		
[4/A11] SRET_H_HD+	172	SRET_H_HD+	CAM_RX_HD+	171	CAM_RX_HD+	[4/B8]
[4/A11] SRET_H_HD-	170	SRET_H_HD-	CAM_RX_HD-	169	CAM_RX_HD-	[4/B8]
[4/A11] SRET_H_FD+	168	SRET_H_FD+	CAM_RX_FD+	167	CAM_RX_FD+	[4/B8]
[4/A11] SRET_H_FD-	166	SRET_H_FD-	CAM_RX_FD-	165	CAM_RX_FD-	[4/B8]
[4/A11] SRET_S_HD+	164	SRET_S_HD+	TRX_H_HD+	163	TRX_H_HD+	[4/B11]
[4/A11] SRET_S_HD-	162	SRET_S_HD-	TRX_H_HD-	161	TRX_H_HD-	[4/B11]
[4/B11] HRET_H_HD+	160	HRET_H_HD+	TRX_H_FD+	159	TRX_H_FD+	[4/B11]
[4/B11] HRET_H_HD-	158	HRET_H_HD-	TRX_H_FD-	157	TRX_H_FD-	[4/B11]
[4/B11] HRET_H_FD+	156	HRET_H_FD+	V-GATE+	155	V-GATE+	[4/B11]
[4/B11] HRET_H_FD-	154	HRET_H_FD-	V-GATE-	153	V-GATE-	[4/C11]
	152	DGND	DGND	151		

PULSE

CN1

QTS-100-01-L-D-RA-WT

	GB7	D GND	D GND	GB8		
	GB5	D GND	D GND	GB6		
	GB3	D GND	D GND	GB4		
	GB1	D GND	D GND	GB2		
[5/G10] SPRC_CK27+	100	SPRC_CK27+	SPRC_CK74+	99	SPRC_CK74+	[5/G10]
[5/G10] SPRC_CK27-	98	SPRC_CK27-	SPRC_CK74-	97	SPRC_CK74-	[5/G10]
[5/G10] SPIF_CK27+	96	SPIF_CK27+	DGND	95		
[5/G10] SPIF_CK27-	94	SPIF_CK27-	SPIF_CK74+	93	SPIF_CK74+	[5/G10]
	92	DGND	SPIF_CK74-	91	SPIF_CK74-	[5/G10]
[1/D4] PS_BUSY [3/F11]	90	PS_BUSY	DGND	89		
[3/H6] HD_CHAR1_B	88	HPRC_CHAR1	SPRC_CHAR	87	SD_CHAR_C	[4/A9]
[3/H6] HD_CHAR1_BG_B	86	HPRC_CH1_BG	SPRC_CHR_BG	85	SD_CHAR_BG_C	[4/A9]
[3/H6] HD_CHAR2	84	HPRC_CHAR2	SPRC_PM_CHR	83	SD_PM_CHAR_C	[4/A9]
[3/H6] HD_CHAR2_BG	82	HPRC_CH2_BG	SPRC_PM_BG	81	SD_PM_CHAR_BG_C	[4/A9]
[3/H6] HD_PM_CHAR_B	80	HPRC_PM_CHR	HPRC_PM_BG	79	HD_PM_CHAR_BG_B	[3/H6]
[1/A9] RD	78	RD	WR	77	WR	[1/A9]
[1/F9] D1	76	D1	CS3	75	CS3	[1/D9]
[1/F9] D3	74	D3	D0	73	D0	[1/F9]
[1/F9] D5	72	D5	D2	71	D2	[1/F9]
[1/E9] D7	70	D7	D4	69	D4	[1/F9]
[1/D9] A0	68	A0	D6	67	D6	[1/E9]
[1/D9] A2	66	A2	A1	65	A1	[1/D9]
[1/C9] A4	64	A4	A3	63	A3	[1/D9]
[1/C9] A6	62	A6	A5	61	A5	[1/C9]
[1/C9] A8	60	A8	A7	59	A7	[1/C9]
[1/C9] A10	58	A10	A9	57	A9	[1/C9]
[1/B9] A12	56	A12	A11	55	A11	[1/C9]
[1/B9] A14	54	A14	A13	53	A13	[1/B9]
[1/B9] A16	52	A16	A15	51	A15	[1/B9]

PULSE

CN1

QTS-100-01-L-D-RA-WT

	GC7	D GND	D GND	GC8		
	GC5	D GND	D GND	GC6		
	GC3	D GND	D GND	GC4		
	GC1	D GND	D GND	GC2		
[4/C11] HPRC_H_HD1+	150	HPRC_H_HD1+	SPRC_H_HD+	149	SPRC_H_HD+	[4/C11]
[4/C11] HPRC_H_HD1-	148	HPRC_H_HD1-	SPRC_H_HD-	147	SPRC_H_HD-	[4/C11]
[4/C11] HPRC_H_FD1+	146	HPRC_H_FD1+	SPRC_H_FD+	145	SPRC_H_FD+	[4/C11]
[4/C11] HPRC_H_FD1-	144	HPRC_H_FD1-	SPRC_H_FD-	143	SPRC_H_FD-	[4/D11]
[4/D11] HPRC_H_HD2+	142	HPRC_H_HD2+	SPRC_S_HD+	141	SPRC_S_HD+	[4/D11]
[4/D11] HPRC_H_HD2-	140	HPRC_H_HD2-	SPRC_S_HD-	139	SPRC_S_HD-	[4/D11]
[4/D11] HPRC_H_FD2+	138	HPRC_H_FD2+	SPRC_S_FD+	137	SPRC_S_FD+	[4/D11]
[4/D11] HPRC_H_FD2-	136	HPRC_H_FD2-	SPRC_S_FD-	135	SPRC_S_FD-	[4/E11]
	134	DGND	SPRC_S_CF+	133	SPRC_S_CF+	[4/E11]
[4/A5] RX_23PD	132	RX_23PD	SPRC_S_CF-	131	SPRC_S_CF-	[4/E11]
	130	DGND	DGND	129		
[5/D10] SRET_CK27+	128	SRET_CK27+	SRET_CK74+	127	SRET_CK74+	[5/D10]
[5/D10] SRET_CK27-	126	SRET_CK27-	SRET_CK74-	125	SRET_CK74-	[5/D10]
[5/D10] SRIF_CK27+	124	SRIF_CK27+	HRET_CK74+	123	HRET_CK74+	[5/D10]
[5/D10] SRIF_CK27-	122	SRIF_CK27-	HRET_CK74-	121	HRET_CK74-	[5/D10]
[5/E10] HRIF_CK27+	120	HRIF_CK27+	HRIF_CK74+	119	HRIF_CK74+	[5/E10]
[5/E10] HRIF_CK27-	118	HRIF_CK27-	HRIF_CK74-	117	HRIF_CK74-	[5/E10]
[5/E10] TRX_CK27+	116	TRX_CK27+	TRX_CK74+	115	TRX_CK74+	[5/E10]
[5/E10] TRX_CK27-	114	TRX_CK27-	TRX_CK74-	113	TRX_CK74-	[5/E10]
[5/F10] WFM_CK27+	112	WFM_CK27+	WFM_CK74+	111	WFM_CK74+	[5/F10]
[5/F10] WFM_CK27-	110	WFM_CK27-	WFM_CK74-	109	WFM_CK74-	[5/F10]
	108	DGND	DGND	107		
[5/F10] HPRC_CK74+	106	HPRC_CK74+	HPIF_CK74+	105	HPIF_CK74+	[5/F10]
[5/F10] HPRC_CK74-	104	HPRC_CK74-	HPIF_CK74-	103	HPIF_CK74-	[5/F10]
	102	DGND	DGND	101		

PULSE

CN1

QTS-100-01-L-D-RA-WT

	GA7	A GND	A GND	GA8		
	GA5	A GND	A GND	GA6		
	GA3	A GND	A GND	GA4		
	GA1	A GND	A GND	GA2		
A18 [1/B9]	50	A18	A17	49	A17	[1/B9]
A20 [1/A9]	48	A20	A19	47	A19	[1/A9]
PS_BUSY [1/B5] [3/F11]	46	PS_BUSY2	CPU_CLK1	45	CPU_CLK	[1/A9]
[2/C11] M_CLK2	44	M_CLK2	M_CLK1	43	M_CLK1	[2/B11]
[2/B11] PS_WR2	42	PS_WR2	PS_WR1	41	PS_WR1	[2/B11]
[2/B11] PS_DAT2	40	PS_DAT2	PS_DAT1	39	PS_DAT1	[2/B11]
[2/B11] SP_WR2	38	SP_WR2	SP_WR1	37	SP_WR1	[2/B11]
[2/B11] SP_DAT2	36	SP_DAT2	SP_DAT1	35	SP_DAT1	[2/B11]
[4/F11] TA_SCLK	34	TA_SCLK	TA_SCS	33	TA_SCS	[4/G11]
[4/G11] TA_SFS	32	TA_SFS	TA_SDAT	31	TA_SDAT	[4/G11]
[2/G2] PC_TXD	30	PC_TXD	MPU_S_VD	29	MPU_S_VD	[4/G11]
[2/G2] PC_RXD	28	PC_RXD	MPU_H_VD	27	MPU_H_VD	[4/G11]
[1/D9] PLD_RESET	26	PLD_RESET	PON_RESET	25	PON_RESET	[1/D9]
JP7	24			23	JP15	
AGND	22	AGND	AGND	21	AGND	
[5/B1] GL_IN_A	20	AGND	AGND	19		
	18	GL_IN		17	JP16	
	16	GL_RET	SYNC_ID	15	SYNC_ID	[5/E1]
JP8	14		SYNC_ID_RET	13		
	12	A-9.5V	A-9.5V	11	JP17	
A+9.5V	10	A+9.5V	A+9.5V	9	A+9.5V	
A+5.5V	8	A+5.5V	A+5.5V	7	A+5.5V	
	6	A+5.5V	A+5.5V	5		
A-5.5V	4	A-5.5V	A-5.5V	3	A-5.5V	
	2	A-5.5V	A-5.5V	1		

PULSE

CN1

QTS-100-01-L-D-RA-WT

D+3.3V

RS43 47K 1/16S
RS44 47K 1/16S
RS45 47K 1/16S
RS46 47K 1/16S
RS47 47K 1/16S
RS48 47K 1/16S
RS49 47K 1/16S
RS50 47K 1/16S

IC4 74LVC541A

[1/D7] CPU_CLK	2	18	FPGA_CLK [3/G8]
[1/B5] RD	3	17	READ [3/E8]
[1/B7] WR	4	16	WRITE [3/G8]
[1/D5] A20	5	15	AD20
[1/D7] A19	6	14	AD19
[1/D5] A18	7	13	AD18
[1/D7] A17	8	12	AD17
[1/C5] A16	9	11	AD16
	1G 1	2G 19	

D+3.3V

RS51 47K 1/16S
RS52 47K 1/16S
RS53 47K 1/16S
RS54 47K 1/16S
RS55 47K 1/16S
RS56 47K 1/16S
RS57 47K 1/16S
RS58 47K 1/16S

IC5 74LVC541A

[1/C7] A15	2	18	AD15
[1/C5] A14	3	17	AD14
[1/C7] A13	4	16	AD13
[1/C5] A12	5	15	AD12
[1/C7] A11	6	14	AD11
[1/C5] A10	7	13	AD10
[1/C7] A9	8	12	AD9
[1/C5] A8	9	11	AD8
	1G 1	2G 19	

D+3.3V

RS59 47K 1/16S
RS60 47K 1/16S
RS61 47K 1/16S
RS62 47K 1/16S
RS63 47K 1/16S
RS64 47K 1/16S
RS65 47K 1/16S
RS66 47K 1/16S

IC6 74LVC541A

[1/C7] A7	2	18	AD7
[1/C5] A6	3	17	AD6
[1/C7] A5	4	16	AD5
[1/C5] A4	5	15	AD4
[1/C7] A3	6	14	AD3
[1/C5] A2	7	13	AD2
[1/C7] A1	8	12	AD1
[1/C5] A0	9	11	AD0
	1G 1	2G 19	

AD[0:20] [3/E7]

D+3.3V

RS67 47K 1/16S
RS68 47K 1/16S
RS69 47K 1/16S

IC7 74LVC541A

[1/B7] CS3	2	18	CS_3 [3/F10]
[1/E5] PLD_RESET	3	17	FPGA_RST [3/E10]
[1/E7] PON_RESET	4	16	PON_RST [3/E10] [4/H7]
	5	15	
	6	14	
	7	13	
	8	12	
	9	11	
	1G 1	2G 19	

D+3.3V

RS70 47K 1/16S
RS71 47K 1/16S
RS72 47K 1/16S
RS73 47K 1/16S
RS74 47K 1/16S
RS75 47K 1/16S
RS76 47K 1/16S
RS77 47K 1/16S

IC8 74LV245A

[1/C5] D7	2	18	DA7
[1/C7] D6	3	17	DA6
[1/B5] D5	4	16	DA5
[1/C7] D4	5	15	DA4
[1/B5] D3	6	14	DA3
[1/B7] D2	7	13	DA2
[1/B5] D1	8	12	DA1
[1/B7] D0	9	11	DA0
	OE 19	DIR 1	

DA[0:7] [3/E10] [3/G7]

D+3.3V

RS78 47K 1/16S
RS79 47K 1/16S
RS80 47K 1/16S
RS81 47K 1/16S
RS82 47K 1/16S
RS83 47K 1/16S
RS84 47K 1/16S
RS85 47K 1/16S

DAT_ENAB [3/E10]

R11 10K

D+3.3V

D_DIR [3/E10]

D+5V_S

L1 NFM60R30T222T1

C1 47U/6.3
C2 10U

D+5V

D+3.3V_S

L2 NFM60R30T222T1

C3 47U/6.3
C4 47U/6.3

D+3.3V_R

L3 NFM60R30T222T1

C5 47U/6.3

D+3.3V

IC2 LTM4604A

B1 VIN1
C1 VIN2
C3 VIN3
C4 VIN4
C5 VIN5
C6 VIN6
C7 VIN7
D7 VIN8
E6 VIN9
E7 VIN10
B3 SW1
B4 SW2
D1 RUNSS
E1 TRACK
G1 COMP
G2 FB
F1 PGOOD

C7 22U /6.3V
C10 0.01U
R4 10K
R5 JP
R10 JP
R3 10K
TP56

VOUT1 B8
VOUT2 B9
VOUT3 B10
VOUT4 B11
VOUT5 E8
VOUT6 E9
VOUT7 E10
VOUT8 E11
VOUT9 E6
VOUT10 C7
VOUT11 C8
VOUT12 E9
VOUT13 C10
VOUT14 C11
VOUT15 G6
VOUT16 G7
VOUT17 G8
VOUT18 G9
VOUT19 G10
VOUT20 G11

C14 100U/6.3V

D+1.2V_S

L22 BLM21PZ221SG*

R497 JP
R498 JP

D+1.2V

AGND TP36
DGND TP37
DGND TP38

C20 0.1U
C21 0.1U
C22 0.1U
C23 0.1U
C24 0.1U
C25 10U

IC4 IC5 IC6 IC7 74LVC541A
IC8 74LV245A

D+3.3V

DGND

PS_BUSY [1/B5] [3/F11]

R525 *
R524 JP

D+3.3V

A18 [1/B9]
A20 [1/A9]

[2/C11] M_CLK2
[2/B11] PS_WR2
[2/B11] PS_DAT2
[2/B11] SP_WR2
[2/B11] SP_DAT2
[4/F11] TA_SCLK
[4/G11] TA_SFS
[2/G2] PC_TXD
[2/G2] PC_RXD
[1/D9] PLD_RESET

[5/B1] GL_IN_A

A+9.5V
A+5.5V
A-5.5V

AGND DGND

変更なし 2011.02.17 N.TAMAI

Ikegami

F_NAME:	PULSE_3G_R1
P_LIST:	PP-100103
PCB_No:	PE07090P

NOTE

P :10 -12 M :10 -3
N :10 -9 K :10 +3
U :10 -6 MEG:10 +6

Approved by | Checked by

Drawn by N.TAMAI 2010.08.26
Designed by N.TAMAI 2010.08.26

3G-CCU

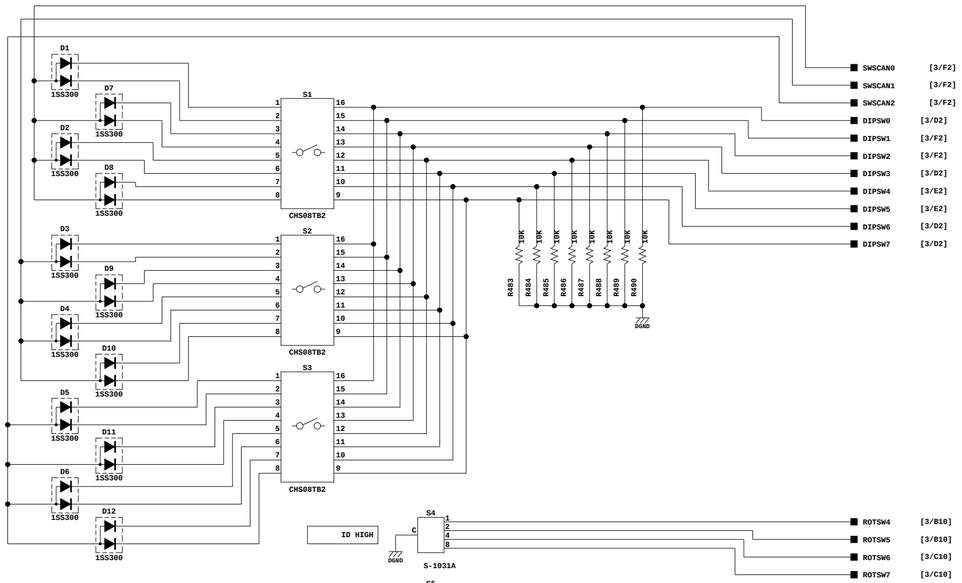
TITLE
PULSE-3G
SCHEMATIC DIAGRAM

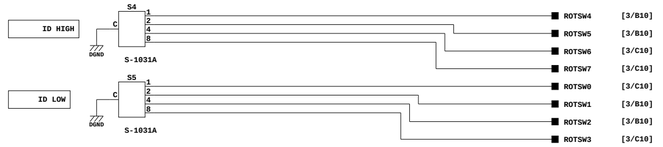
1/7

WORK No.

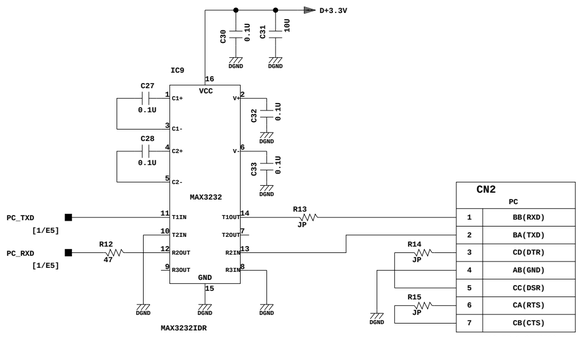
DWG.No. C3-100357-01

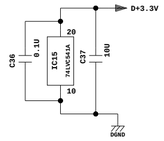
REV. 1

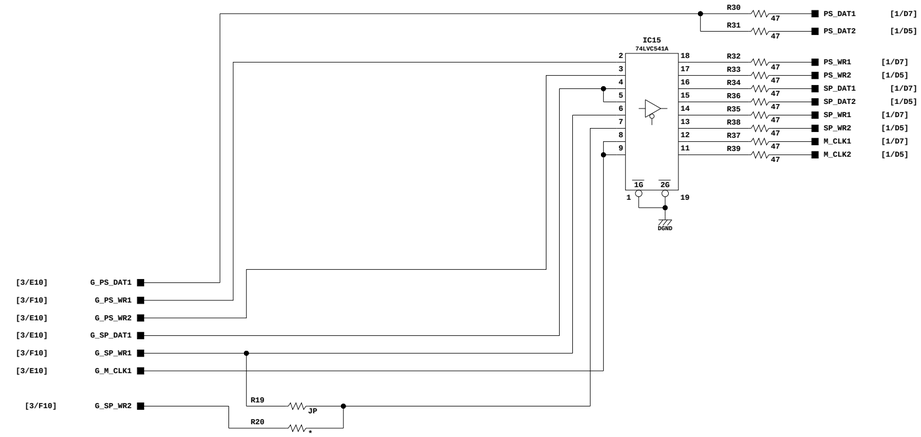


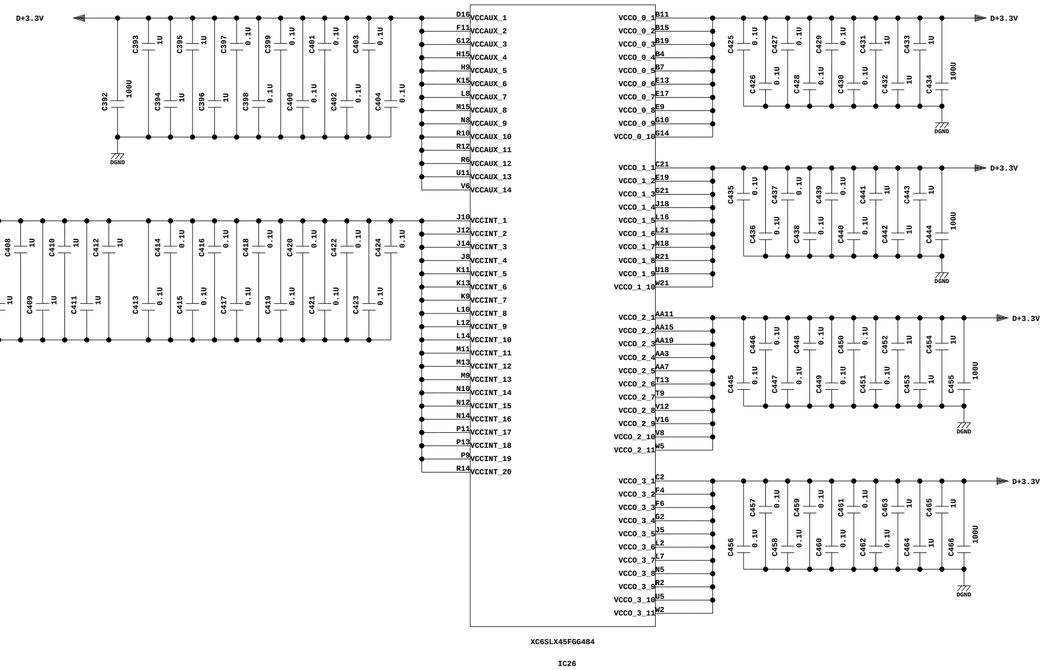




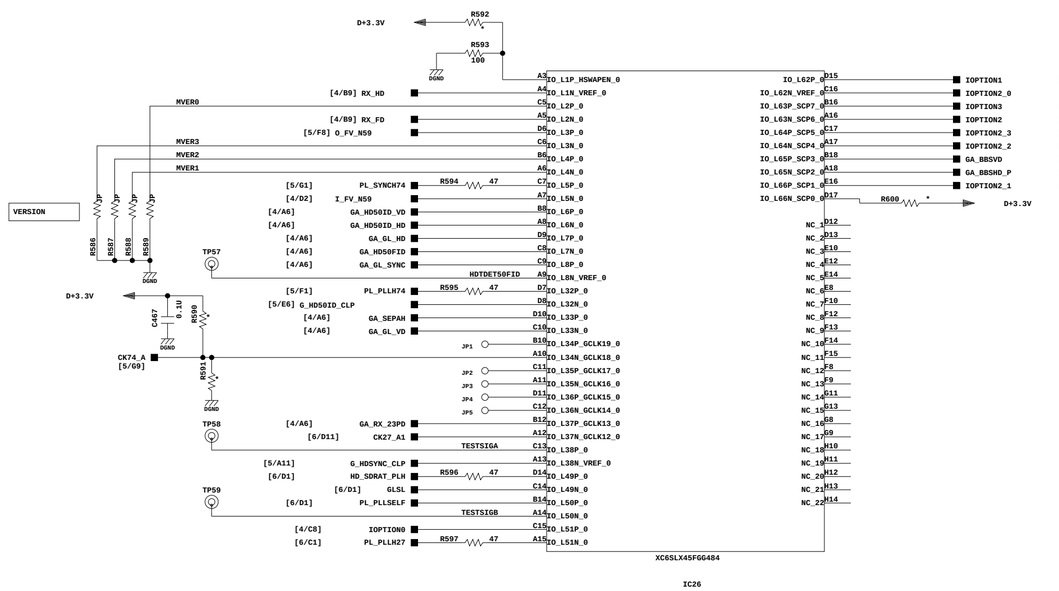


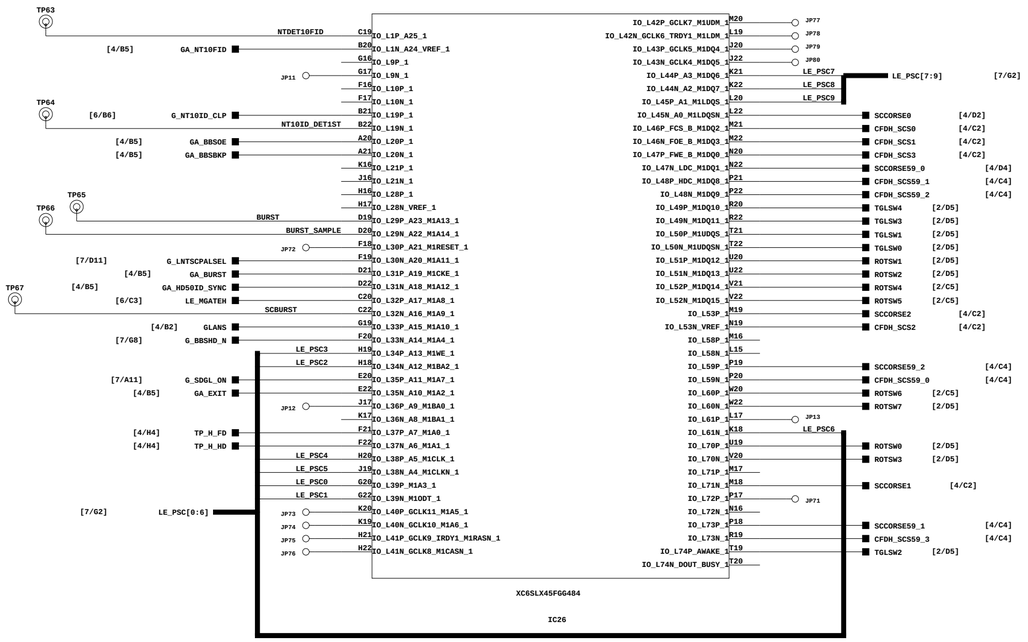


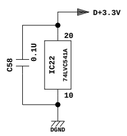


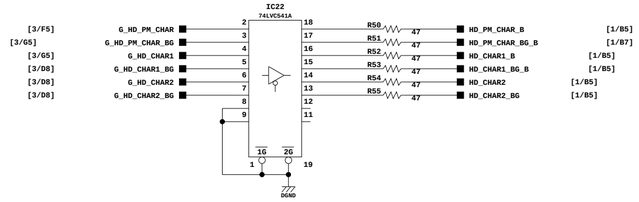


Ikegami	Approved by	Checked by	1 変更なし 2011.02.17 N.TAMAI
F_NAME: PULSE_3G_R1			3G-CCU
P_LIST:			TITLE: PULSE-3G SCHEMATIC DIAGRAM (2/7)
PCB_No:			
NOTE: P :10 -12, N :10 -9, U :10 -6, M :10 -3, K :10 +3, MEG:10 +6	Drawn by N.TAMAI 2010.08.26		WORK No.
	Designed by N.TAMAI 2010.08.26		DWG.No. C3-100357-02 (19) REV. 1









4	定数変更	2011.02.17	N.TAMAI		

ikegami

F_NAME: PULSE_3G_R1
P_LIST:
PCB_No:

NOTE
P :10 -12
N :10 -9
U :10 -6
M :10 -3
K :10 +3
MEG:10 +6

Approved by | Checked by

Drawn by: N.TAMAI 2010.08.26
Designed by: N.TAMAI 2010.08.26

3G-CCU

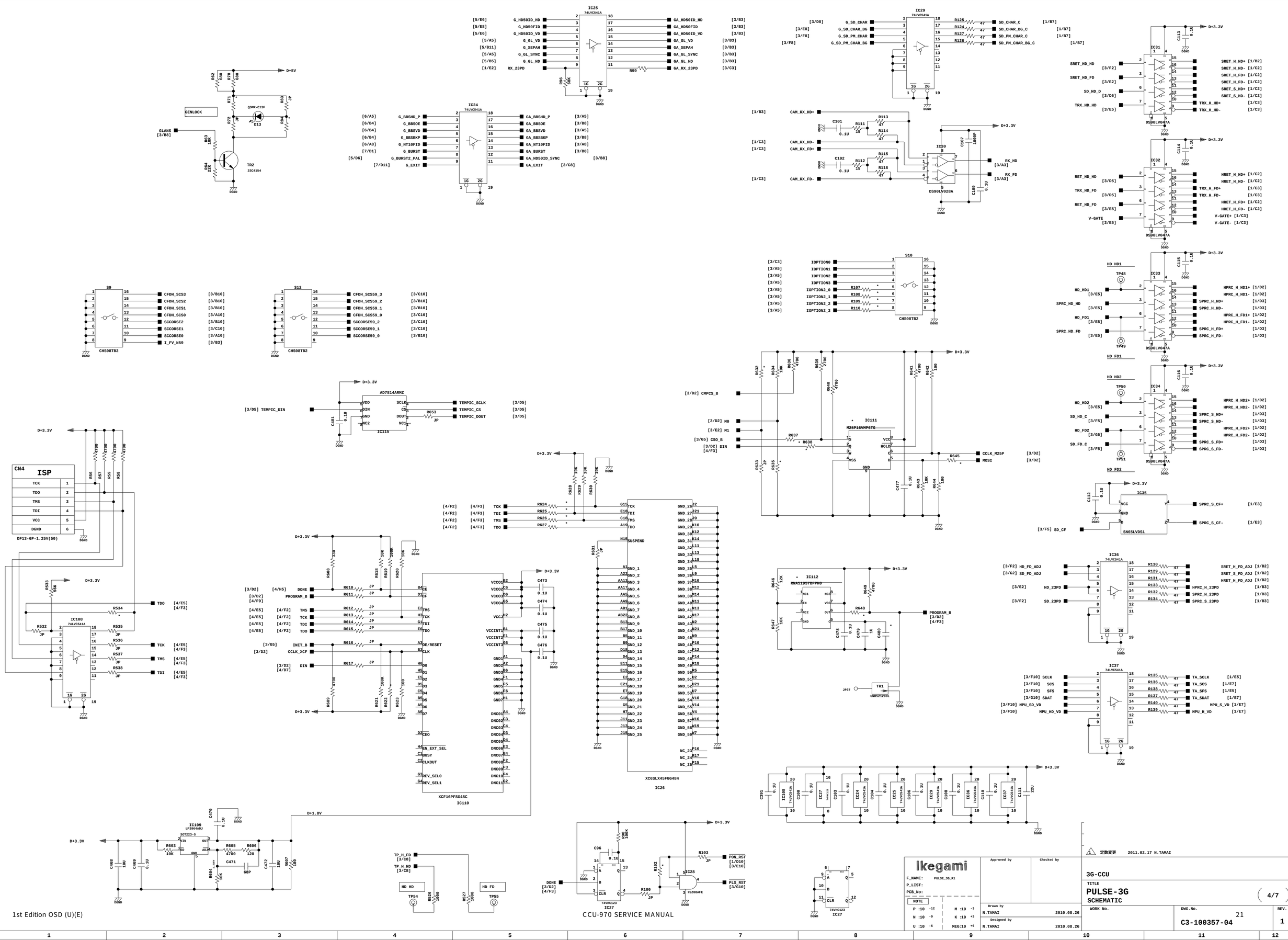
TITLE
PULSE-3G
SCHEMATIC DIAGRAM

3/7

WORK No.

DWG.No. C3-100357-03

REV. 1



1st Edition OSD (U)(E)

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4	定数変更 2011.02.17 N.TAMAI

Ikegami

F_NAME:	PULSE_3G_R1
P_LIST:	
PCB_No:	

NOTE

P :10 -12 | M :10 -3
N :10 -9 | K :10 +3
U :10 -6 | MEG:10 +6

Approved by | Checked by

Drawn by N.TAMAI 2010.08.26

Designed by N.TAMAI 2010.08.26

3G-CCU

TITLE
PULSE-3G
SCHEMATIC

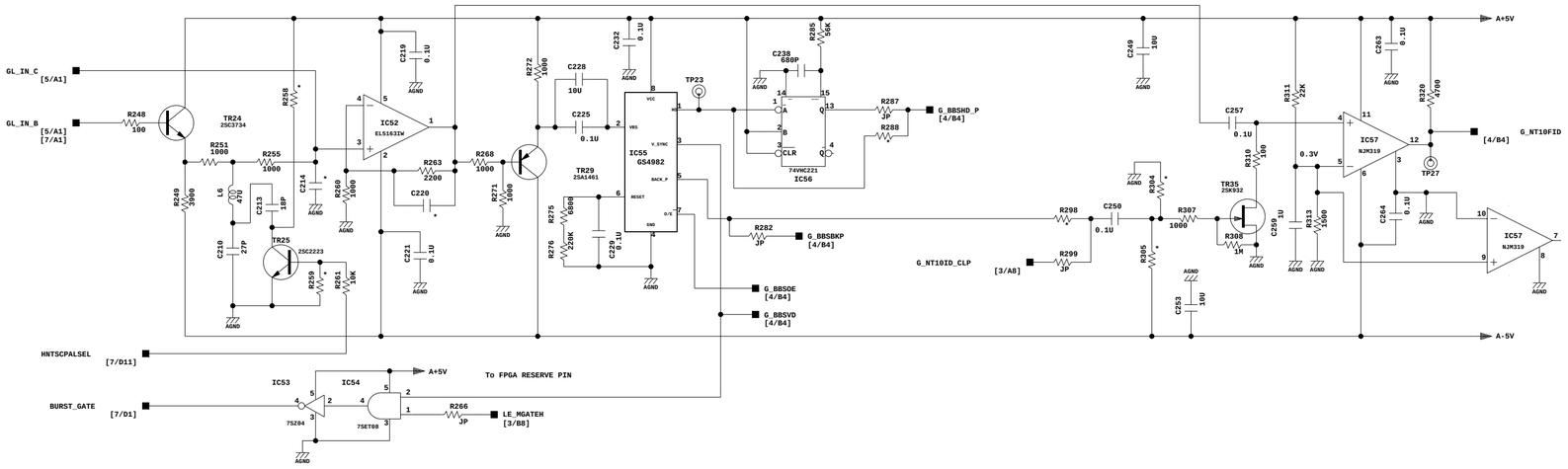
4/7

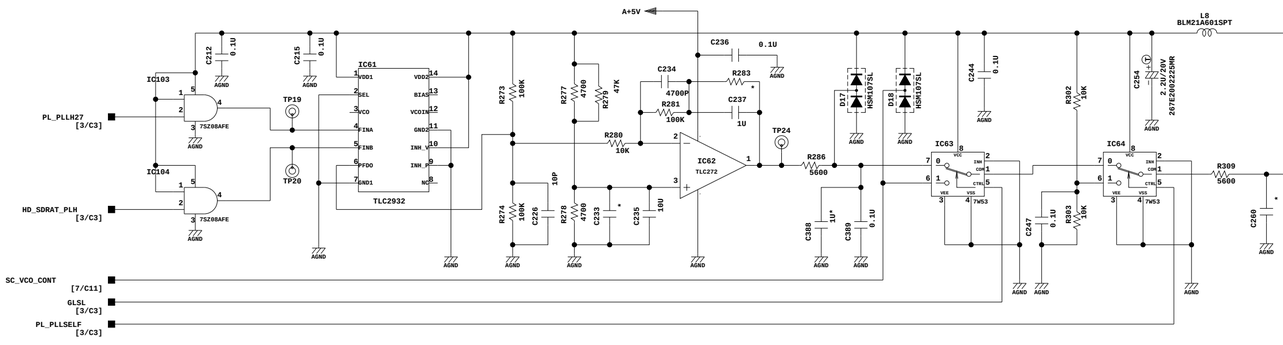
WORK No.

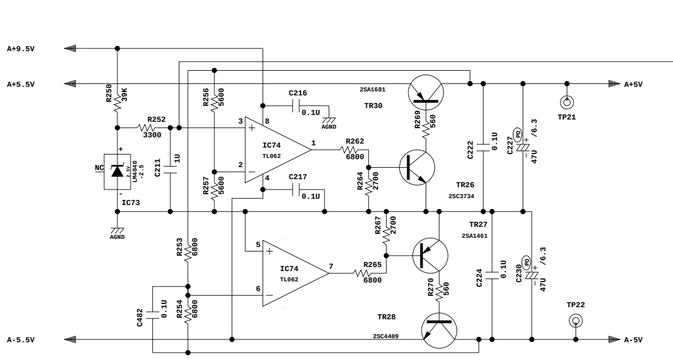
DWG.No. C3-100357-04

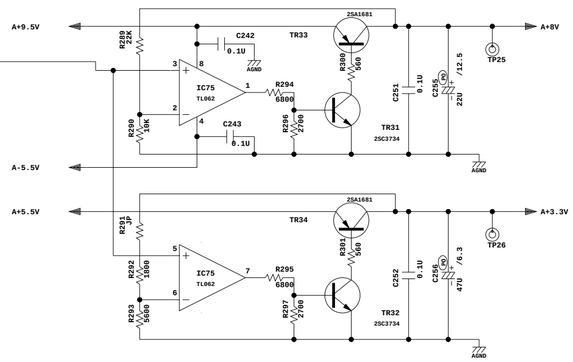
REV. 1

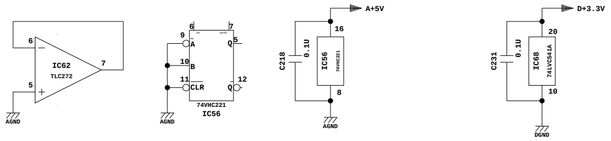
Ikegami	Approved by	Checked by	3 変更なし 2011.02.17 N.TAMAI
F_NAME: PULSE_3G_R1			TITLE: 3G-CCU
P_LIST:			PULSE-3G
PCB_No:			SCHEMATIC DIAGRAM (5/7)
NOTE	Drawn by N.TAMAI 2010.08.26		WORK No. / DWG.No. C3-100357-05 / REV. 1
P :10 -12, N :10 -9, U :10 -6, M :10 -3, K :10 +3, MEG:10 +6	Designed by N.TAMAI 2010.08.26		22







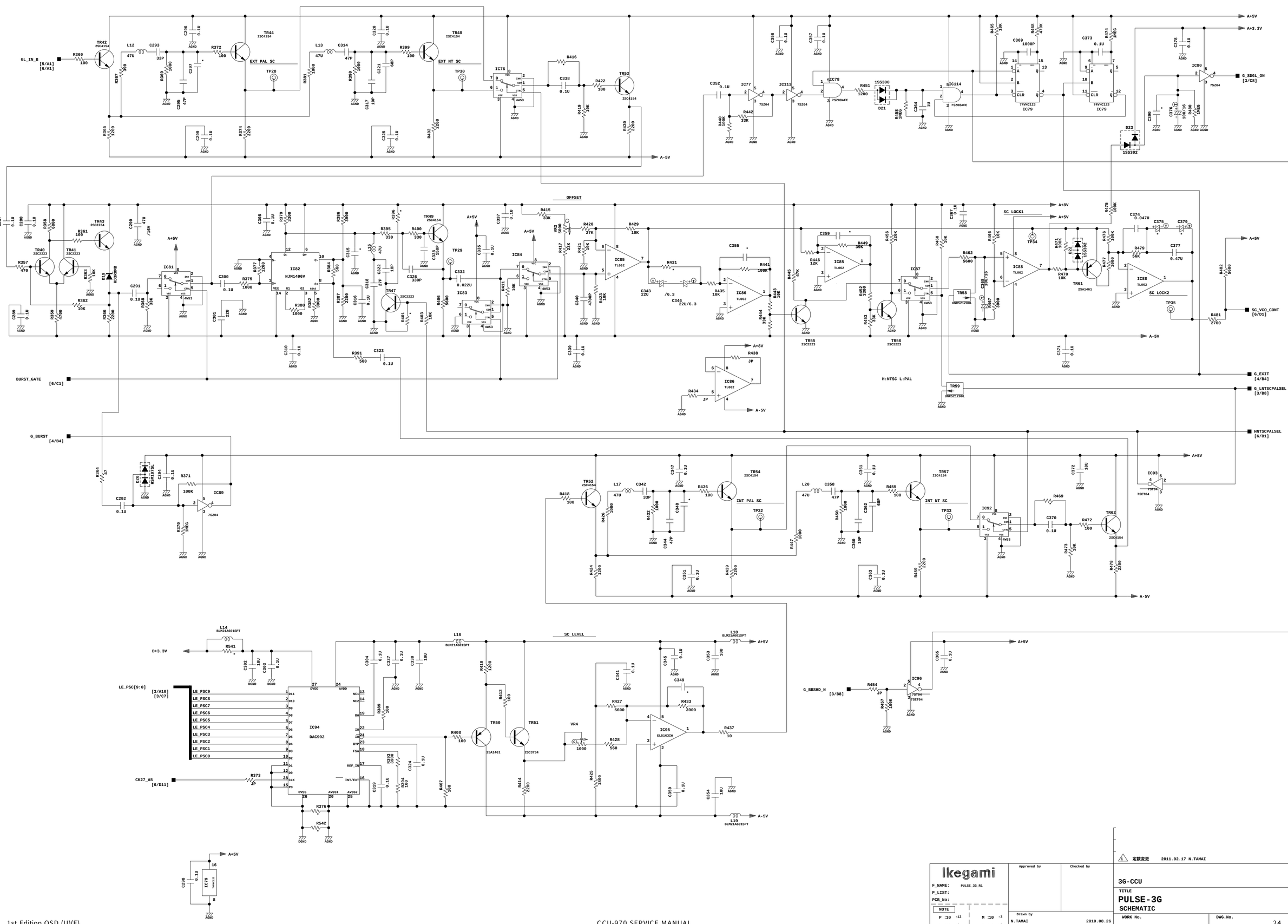




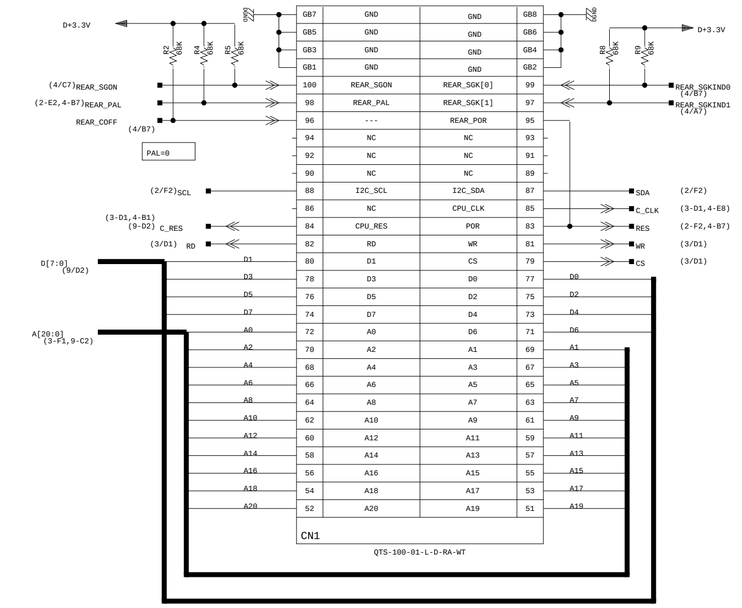
1st Edition OSD (U)(E)

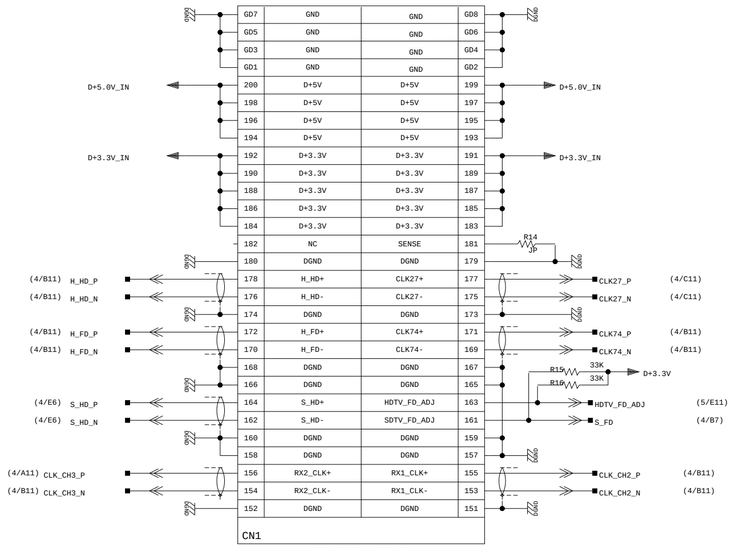
CCU-970 SERVICE MANUAL

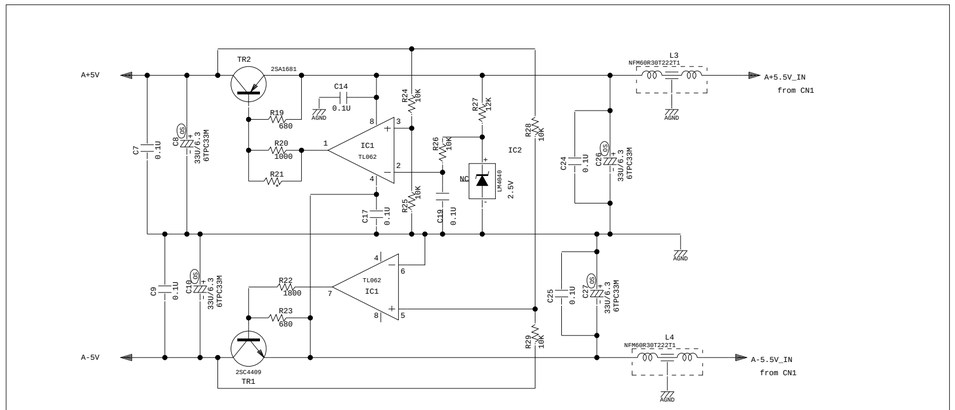
Ikegami	Approved by	Checked by	⚠1 C482を追加 2011.02.17 N.TAMAI
F_NAME: PULSE_3G_R1			3G-CCU
P_LIST:			TITLE
PCB_No:			PULSE-3G SCHEMATIC (6/7)
NOTE	Drawn by N.TAMAI 2010.08.26		WORK No. / DWG.No. C3-100357-06 (23) / REV. 1
P :10 -12 M :10 -3	Designed by N.TAMAI 2010.08.26		
N :10 -9 K :10 +3			
U :10 -6 MEG:10 +6			



Ikegami	Approved by	Checked by	1 定数変更 2011.02.17 N.TAMAI
F_NAME: PULSE_3G_R1			3G-CCU
P_LIST:			TITLE
PCB_No:			PULSE-3G SCHEMATIC (7/7)
NOTE P :10 -12 N :10 -9 U :10 -6 M :10 -3 K :10 +3 MEG:10 +6	Drawn by N.TAMAI 2010.08.26		WORK No.
	Designed by N.TAMAI 2010.08.26		DWG.No. C3-100357-07 24 REV. 1

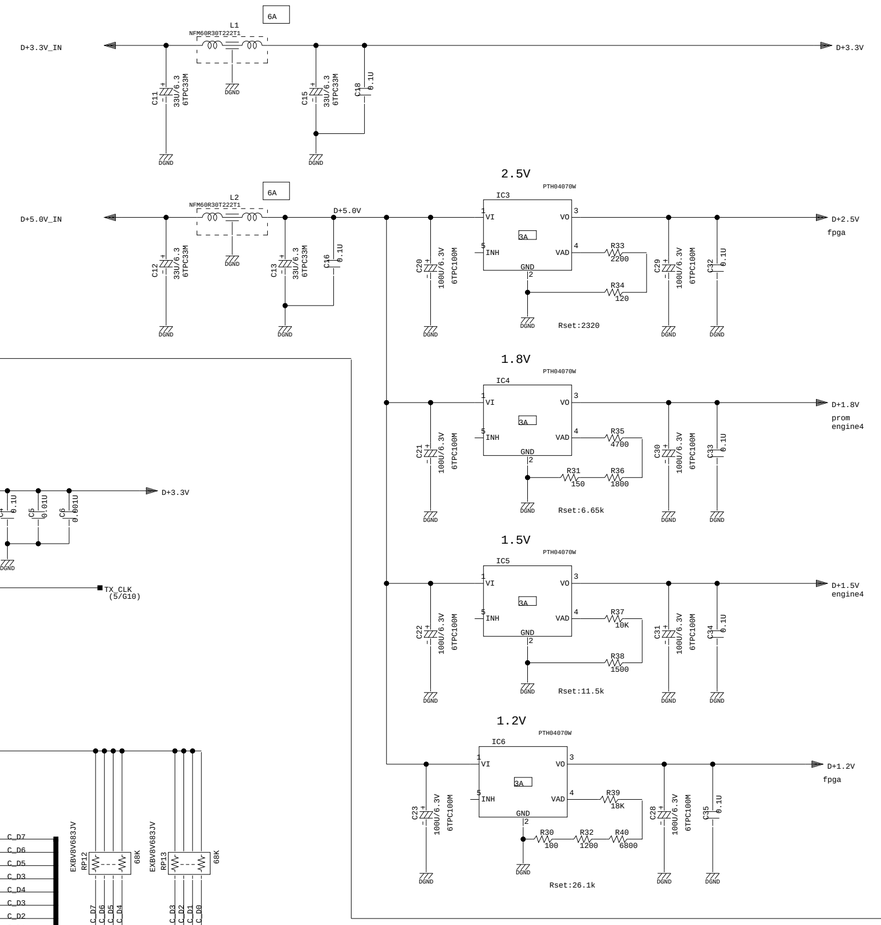






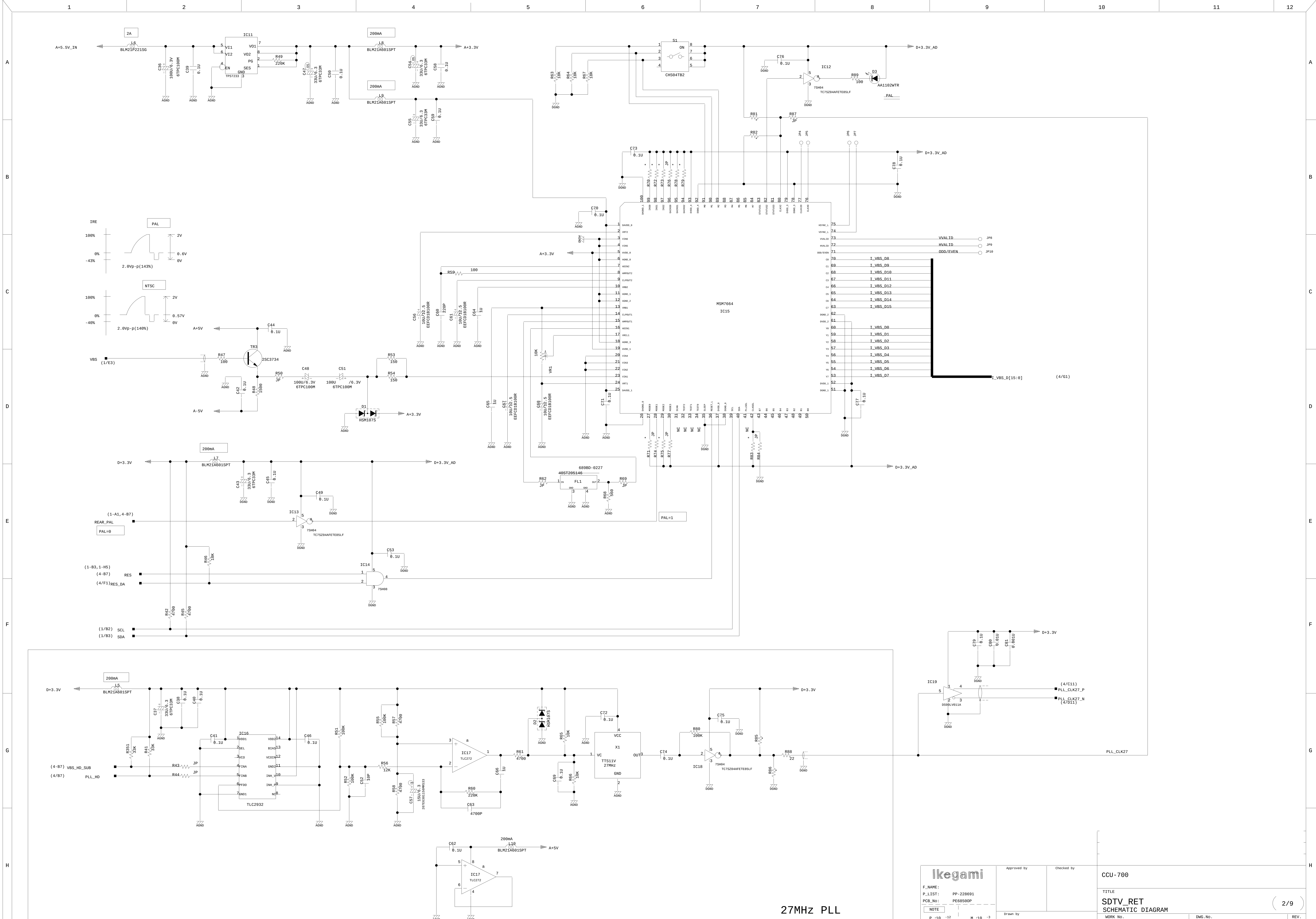
ANALOG POWER

DIGITAL POWER

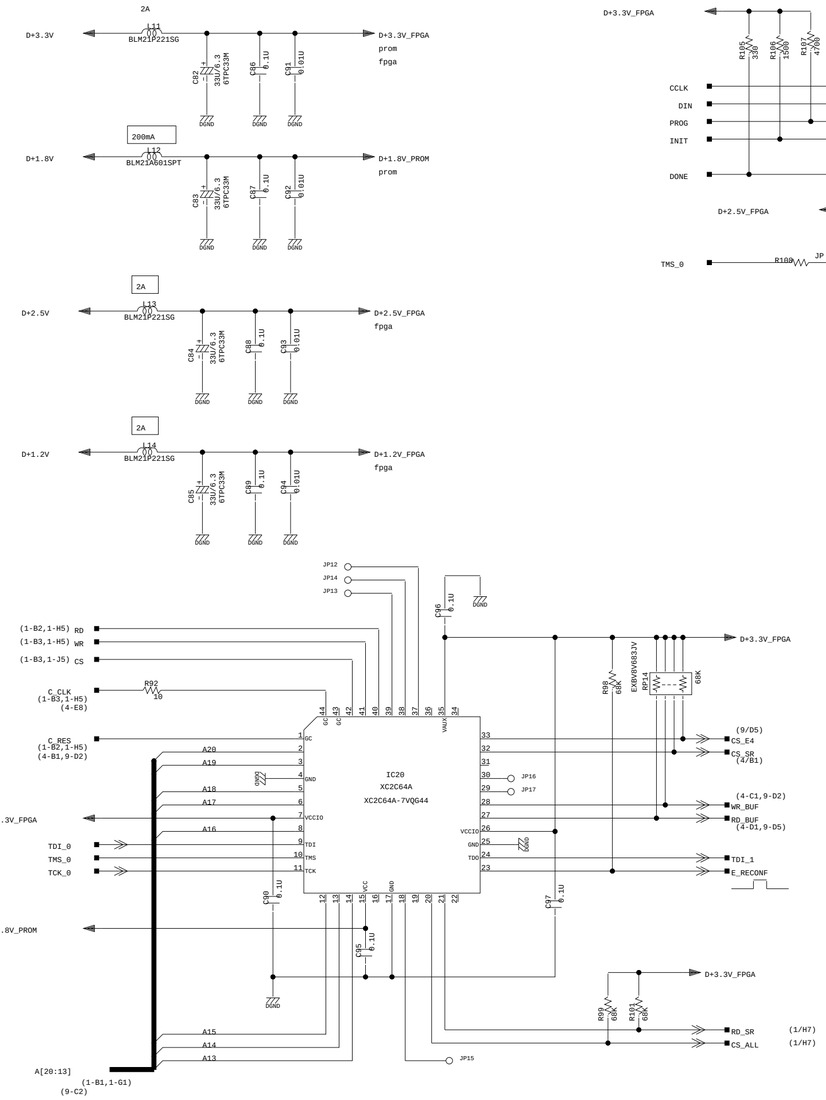


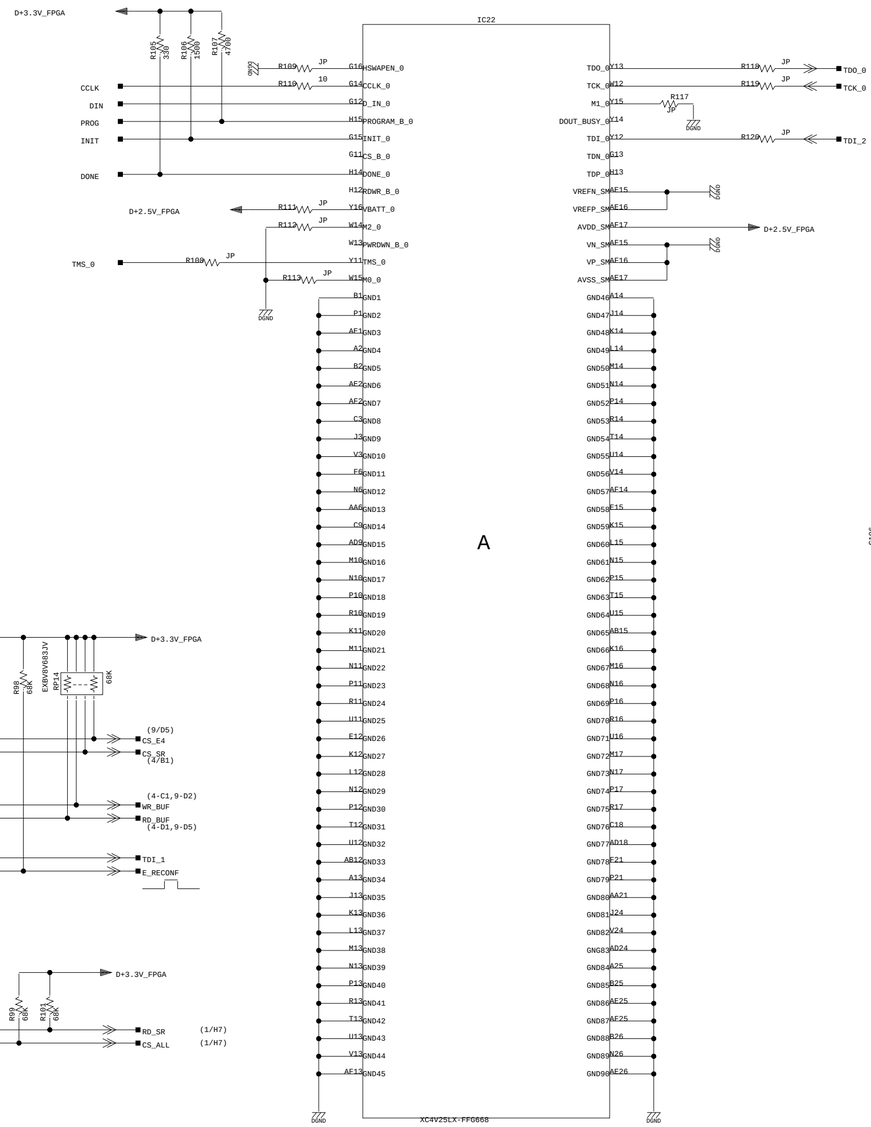
CCU-970 SERVICE MANUAL

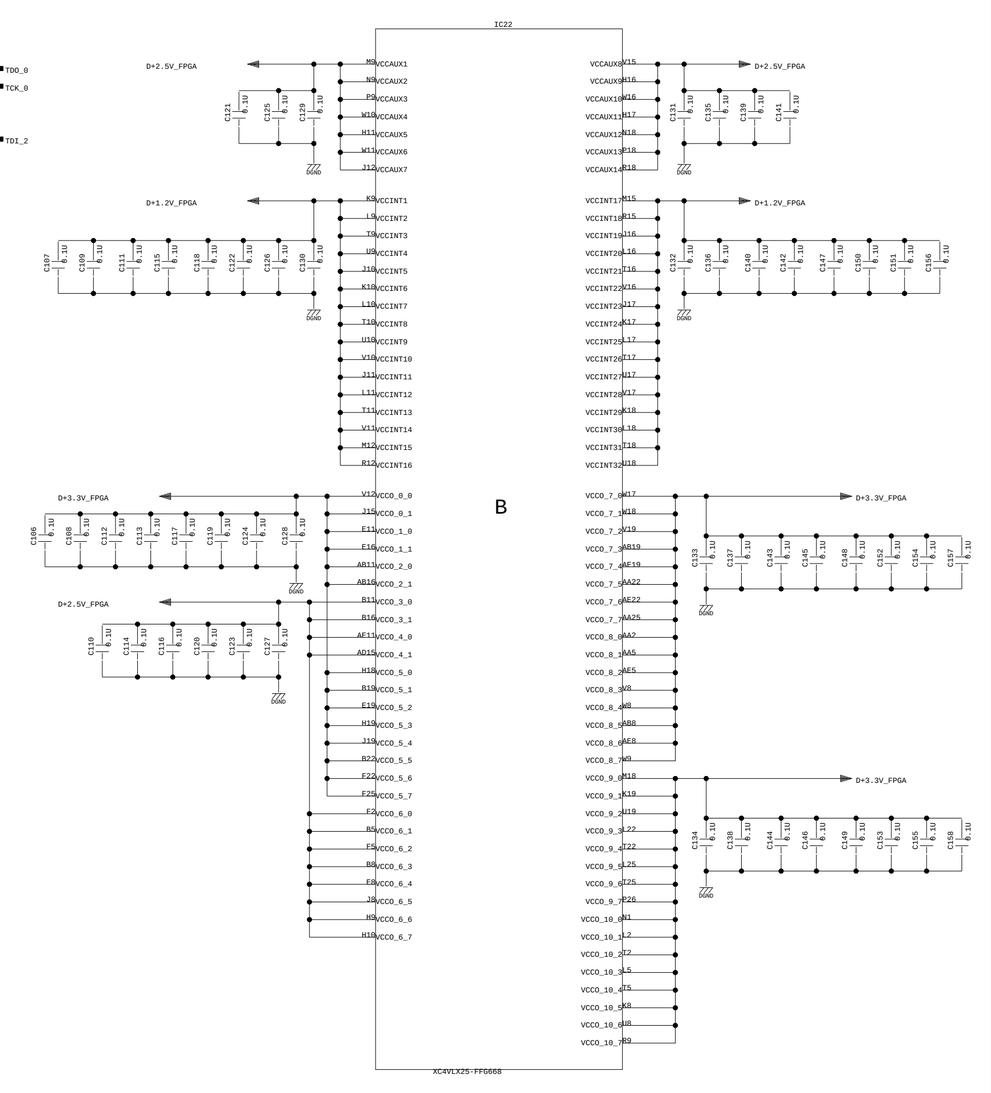
Ikegami	Approved by	Checked by	CCU-700
F_NAME:			TITLE: SDTV_RET SCHEMATIC DIAGRAM (1/9)
P_LIST: PP-228691			
PCB_No: PE6850DP			
NOTE: P :10 -12, N :10 -9, U :10 -6, M :10 -3, K :10 +3, MEG:10 +6	Drawn by J.SHIM AUGUST/2006		WORK No. 65AF-0347
	Designed by J.SHIM AUGUST/2006		DWG.No. C2-247740-1
			39
			REV. 0

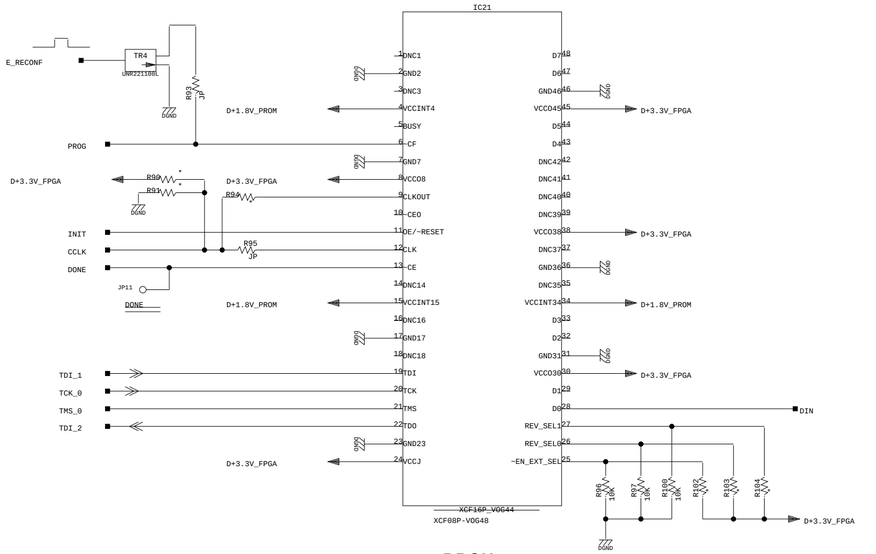


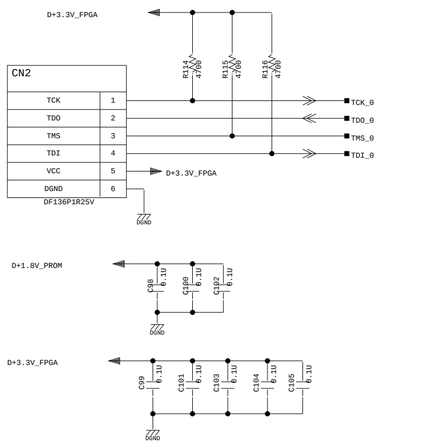
MSM7664
IC15
27MHz PLL
Ikegami
F_NAME:
P_LIST: PP-228691
PCB_NO: PE68500P
NOTE
Approved by
Checked by
Drawn by
J.SHIM
AUGUST/2006
Designed by
J.SHIM
AUGUST/2006
CCU-700
TITLE
SDTV_RET
SCHEMATIC DIAGRAM
2/9
WORK No.
65AF-0347
DWG.No.
40
C2-247740-2
REV.
0











STANDARD IO		
BANK 00	LVCMOS	3.3V
BANK 01	LVCMOS	3.3V
BANK 02	LVCMOS	3.3V
BANK 03	LVDS	2.5V
BANK 04	LVDS	2.5V
BANK 05	LVCMOS	3.3V
BANK 06	LVDS	2.5V
BANK 07	LVCMOS	3.3V
BANK 08	LVCMOS	3.3V
BANK 09	LVCMOS	3.3V
BANK 10	LVCMOS	3.3V

Ikegami

F_NAME:
P_LIST: PP-228691
PCB_No: PE6850DP

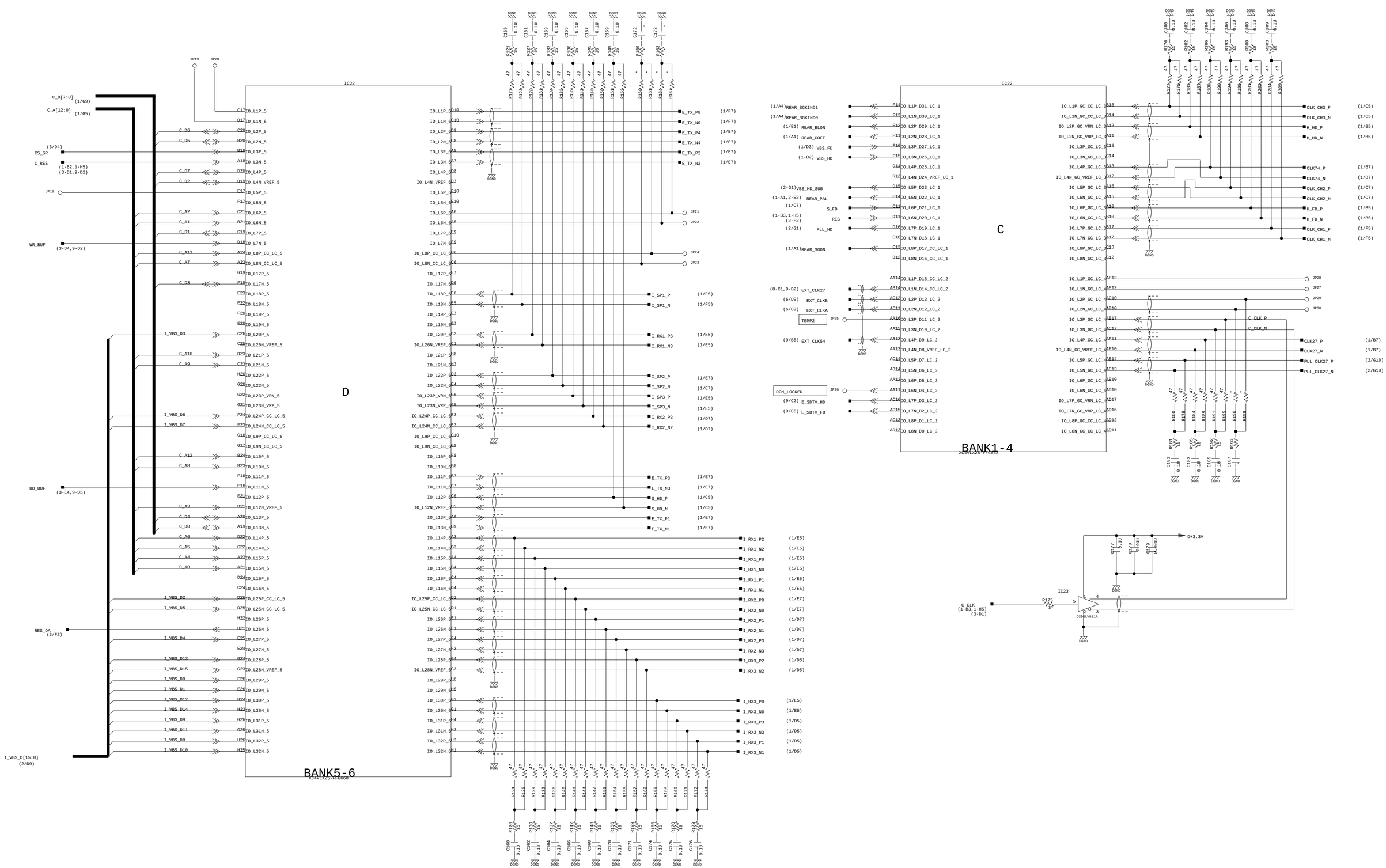
NOTE
P :10 -12
N :10 -9
U :10 -6
M :10 -3
K :10 +3
MEG:10 +6

Approved by	Checked by	
Drawn by J.SHIM	AUGUST/2006	
Designed by J.SHIM	AUGUST/2006	

CCU-700

TITLE
SDTV_RET
SCHEMATIC DIAGRAM
(3/9)

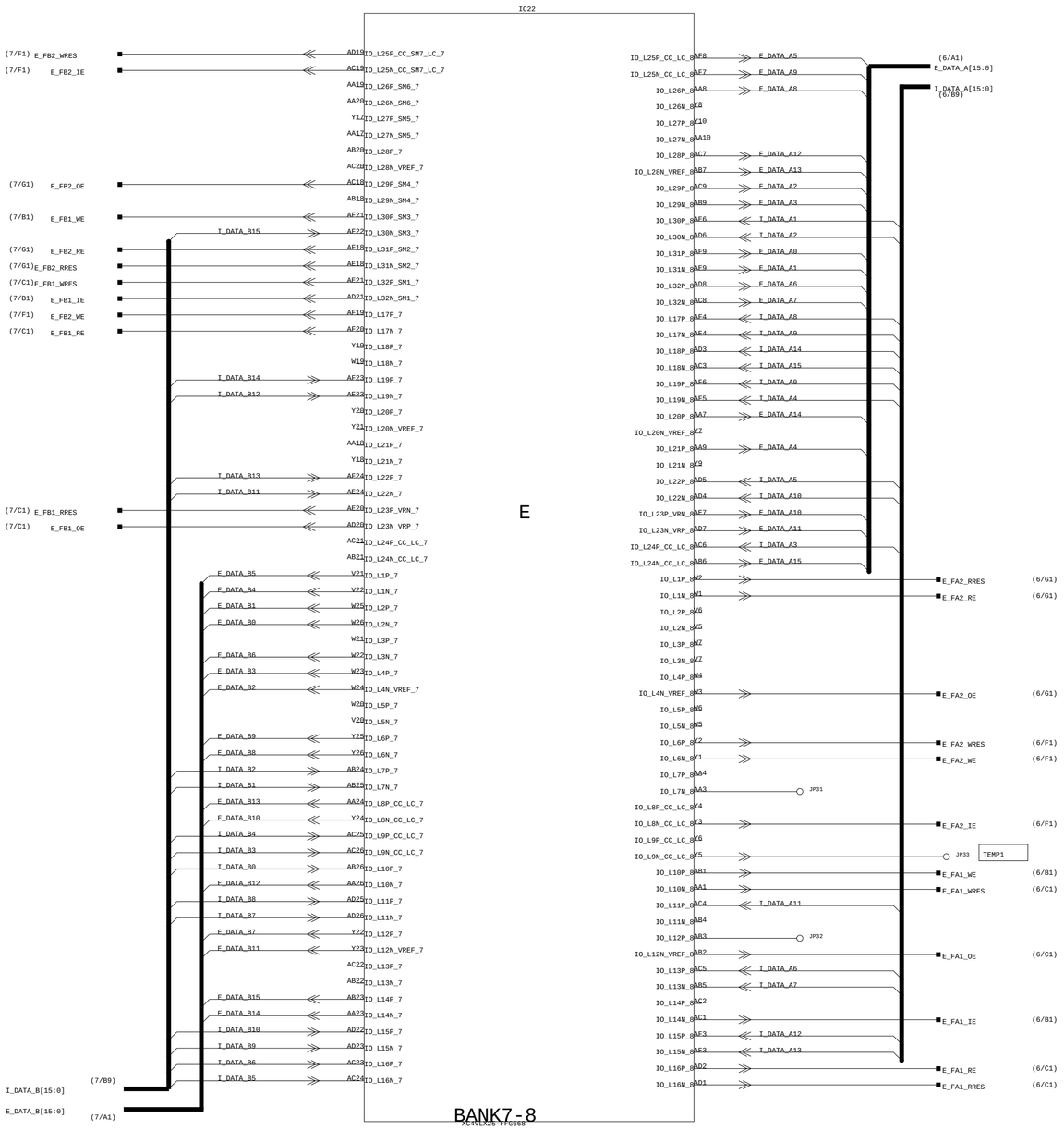
WORK No.	DWG.No.	REV.
65AF-0347	41 C2-247740-3	0

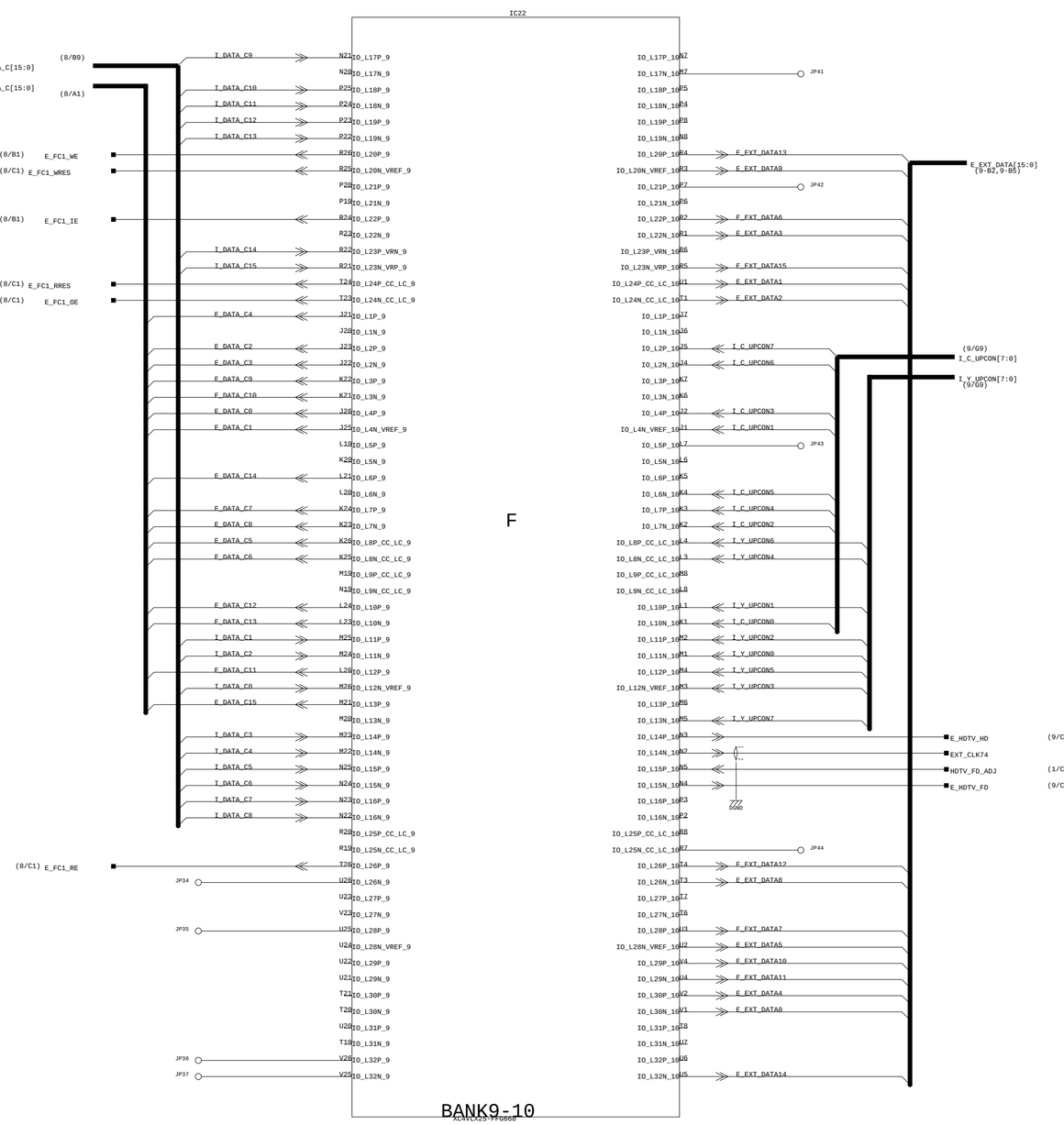


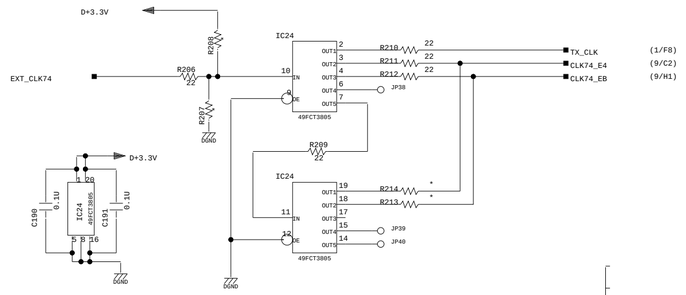
1st Edition OSD (U)(E)

CCU-970 SERVICE MANUAL

Ikegami	Approved by	Checked by	CCU-700
F_NAME:			TITLE
P_LIST: PP-228691			SDTV_RET
PCB_No: PE6850OP			SCHEMATIC DIAGRAM (4/9)
NOTE	Drawn by J.SHIM AUGUST/2006		WORK No. 65AF-0347
P :10 -12, N :10 -9, U :10 -6, M :10 -3, K :10 +3, MEG:10 +6	Designed by J.SHIM AUGUST/2006		DWG.No. 42 C2-247740-4
			REV. 0







Ikegami

F_NAME:
P_LIST: PP-228691
PCB_No: PE6850OP

NOTE

P :10 -12
N :10 -9
U :10 -6
M :10 -3
K :10 +3
MEG:10 +6

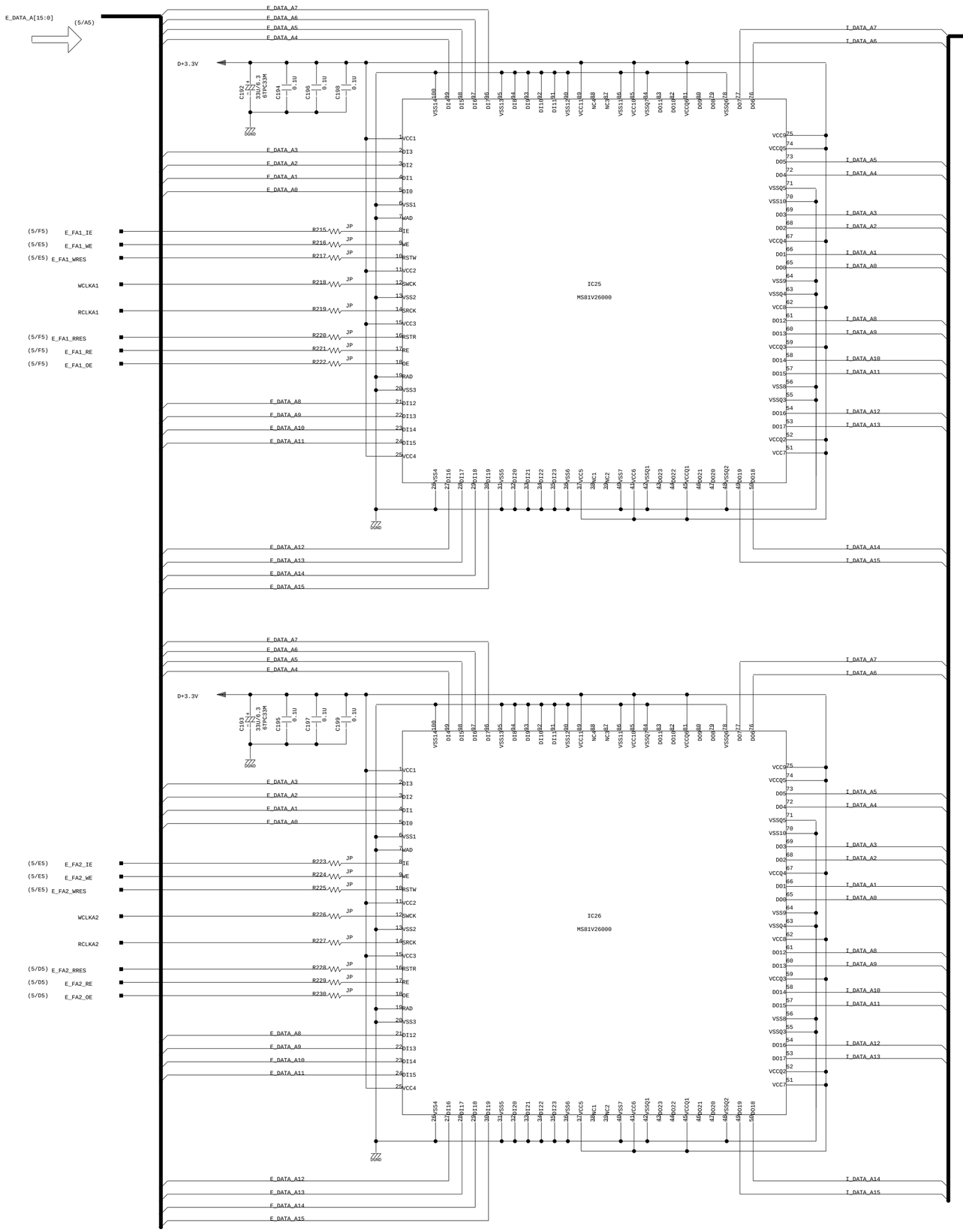
Approved by | Checked by

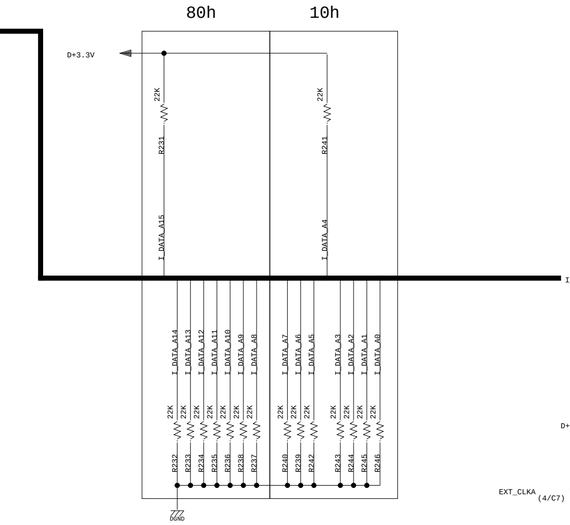
Drawn by: J.SHIM AUGUST/2006
Designed by: J.SHIM AUGUST/2006

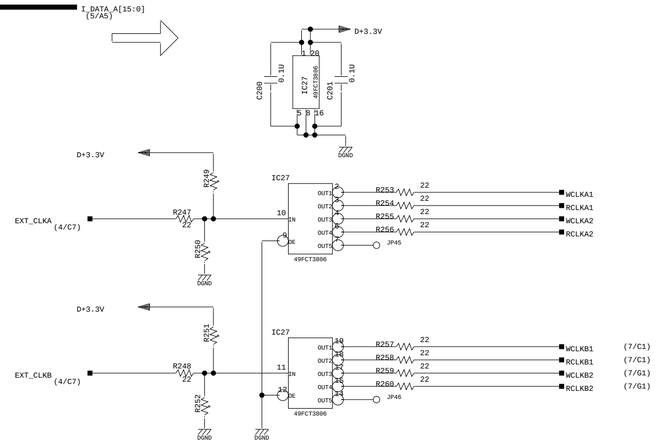
CCU-700

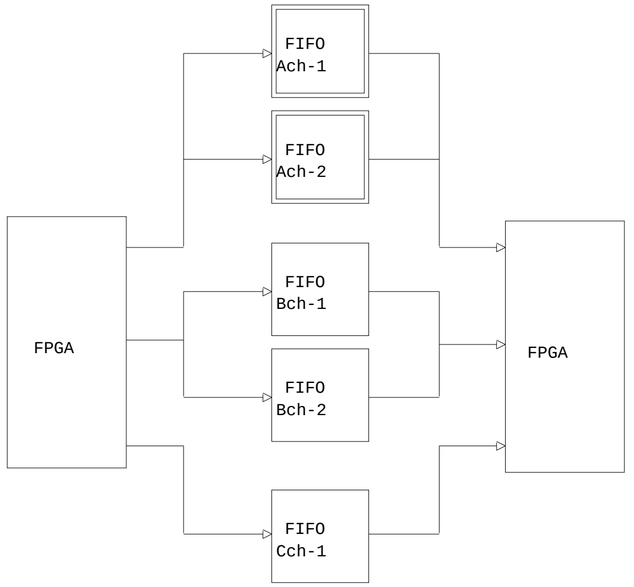
TITLE
SDTV_RET
SCHEMATIC DIAGRAM
5/9

WORK No. 65AF-0347
DWG.No. C2-247740-5
43
REV. 0







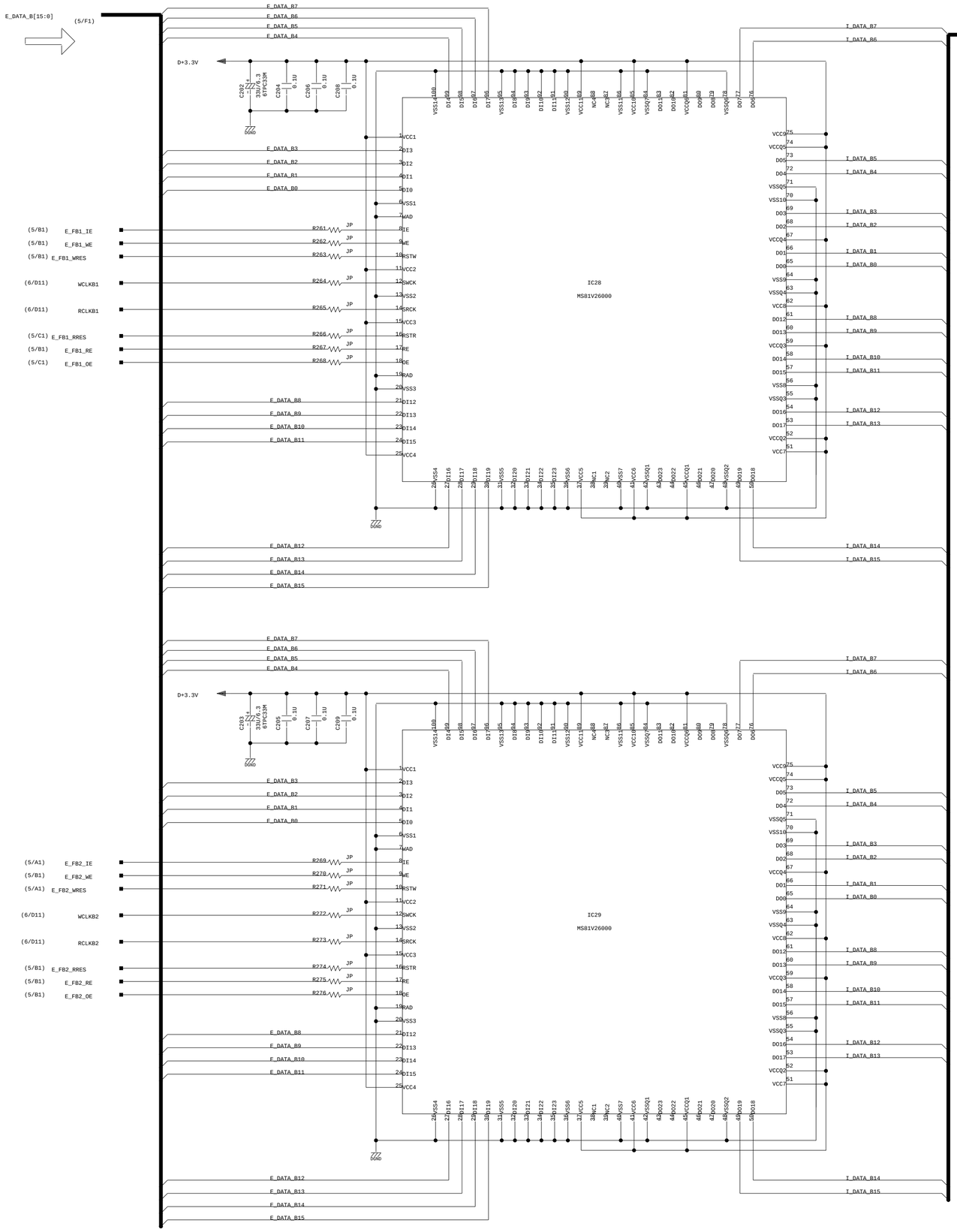


F_NAME:		Approved by	Checked by
P_LIST:	PP-228691		
PCB_No:	PE6850OP		
NOTE		Drawn by	
P :10 -12	M :10 -3	J.SHIM	AUGUST/2006
N :10 -9	K :10 +3	Designed by	
U :10 -6	MEG:10 +6	J.SHIM	AUGUST/2006

CCU-700

TITLE: SDTV_RET
SCHEMATIC DIAGRAM (6/9)

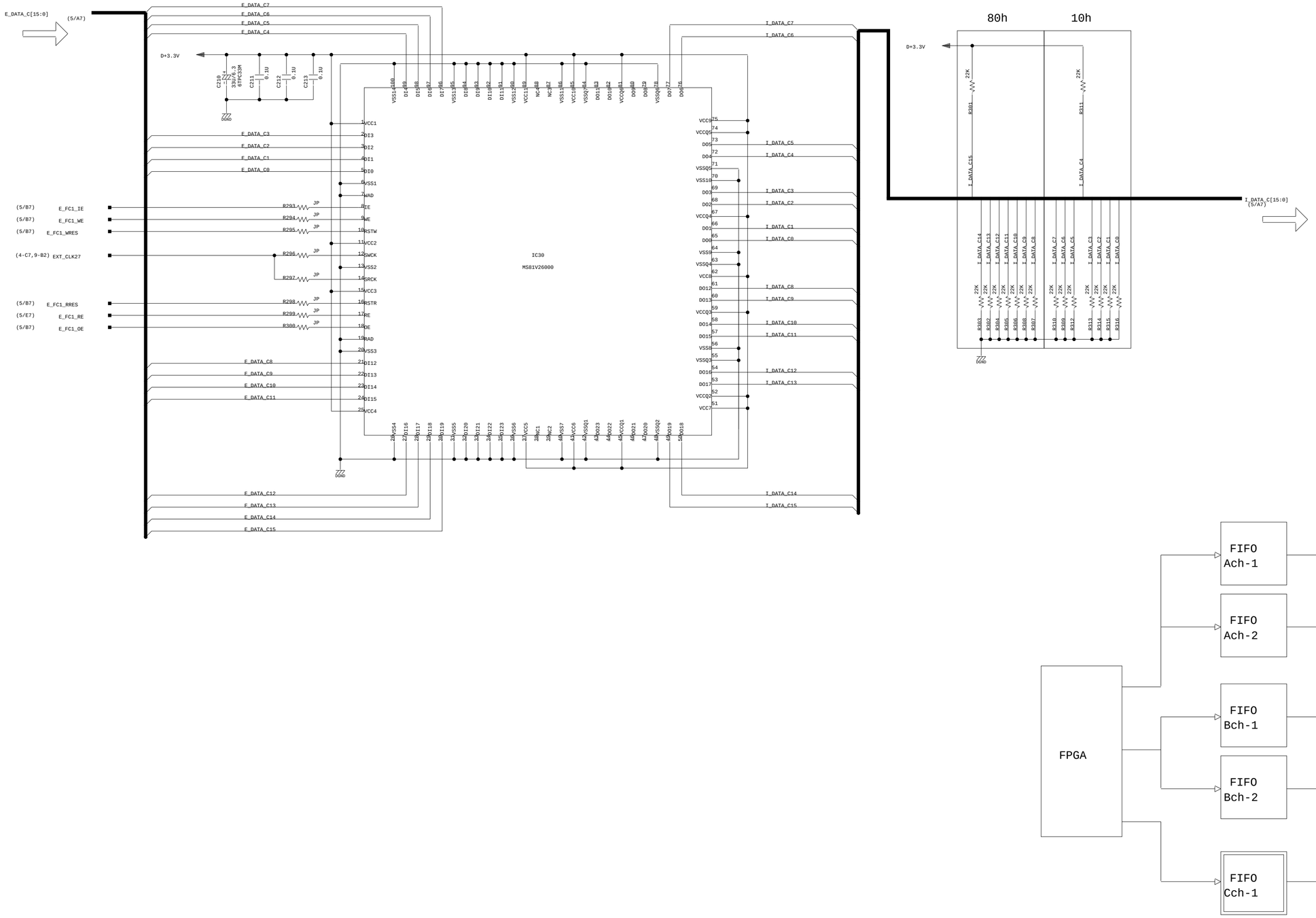
WORK No.	DWG.No.	REV.
65AF-0347	C2-247740-6	0



1st Edition OSD (U)(E)

CCU-970 SERVICE MANUAL

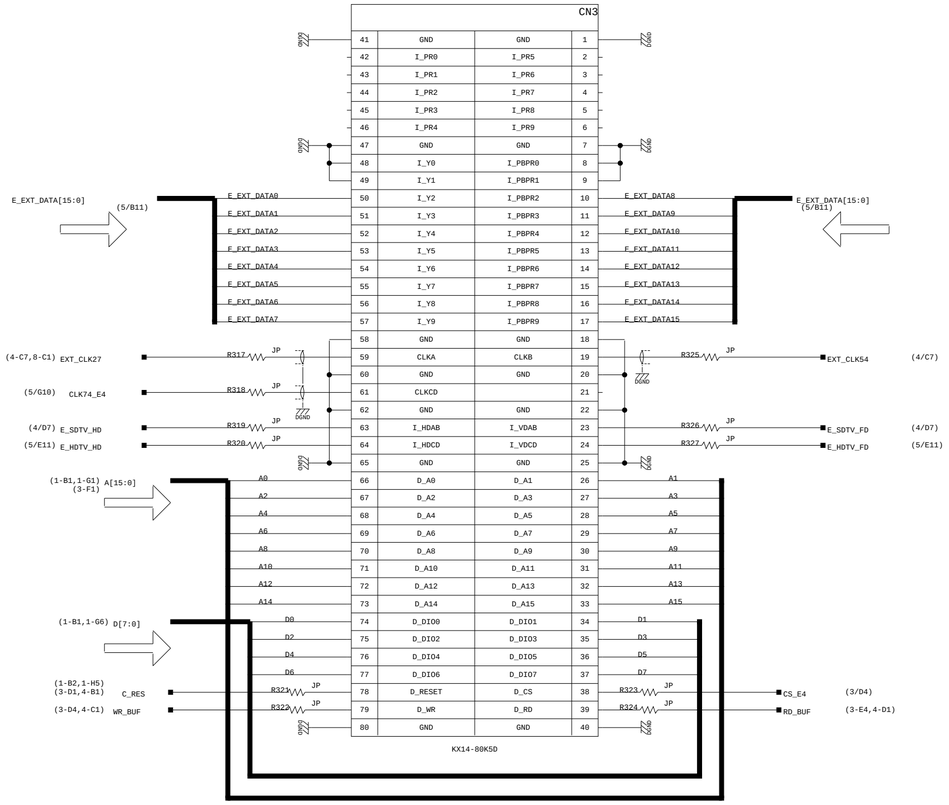
Ikegami	Approved by	Checked by	CCU-700
F_NAME:			TITLE
P_LIST: PP-228691			SDTV_RET
PCB_No: PE6850OP			SCHEMATIC DIAGRAM 7/9
NOTE	Drawn by J.SHIM AUGUST/2006		WORK No. 65AF-0347
P :10 -12 M :10 -3	Designed by J.SHIM AUGUST/2006		DWG.No. 45 C2-247740-8
N :10 -9 K :10 +3			REV. 0
U :10 -6 MEG:10 +6			

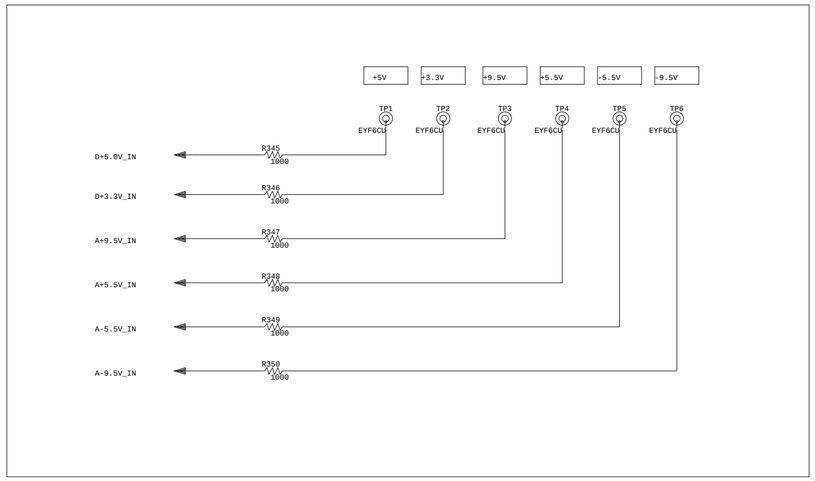


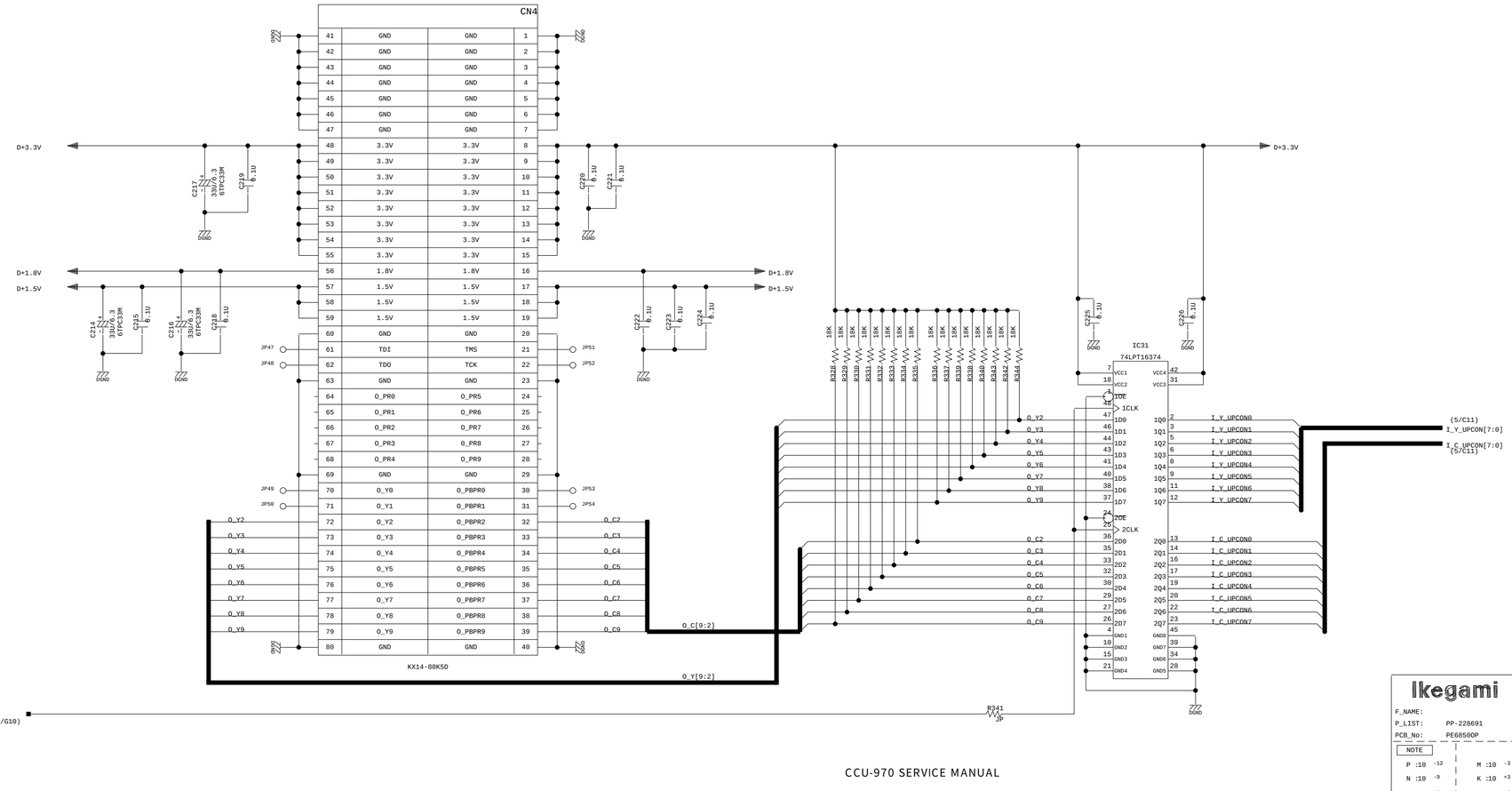
1st Edition OSD (U)(E)

CCU-970 SERVICE MANUAL

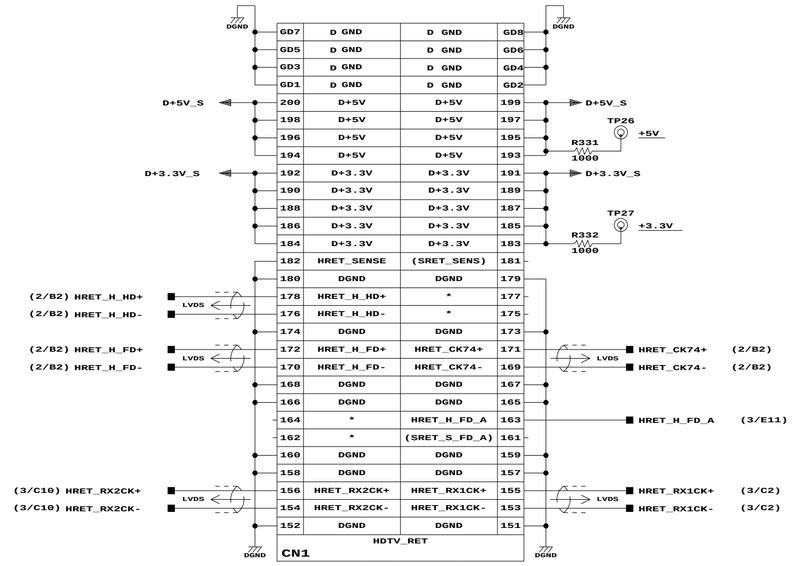
Ikegami	Approved by	Checked by	CCU-700
F_NAME:			TITLE
P_LIST: PP-228691			SDTV_RET SCHEMATIC DIAGRAM (8/9)
PCB_No: PE6850OP			
NOTE	Drawn by J.SHIM AUGUST/2006		WORK No. 65AF-0347
P :10 -12 M :10 -3	Designed by J.SHIM AUGUST/2006		DWG.No. C2-?????? 46
N :10 -9 K :10 +3			REV. 0
U :10 -6 MEG:10 +6			

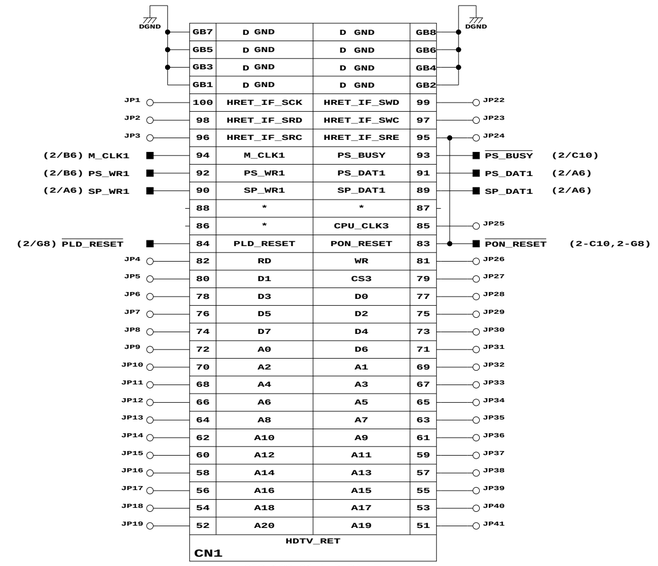


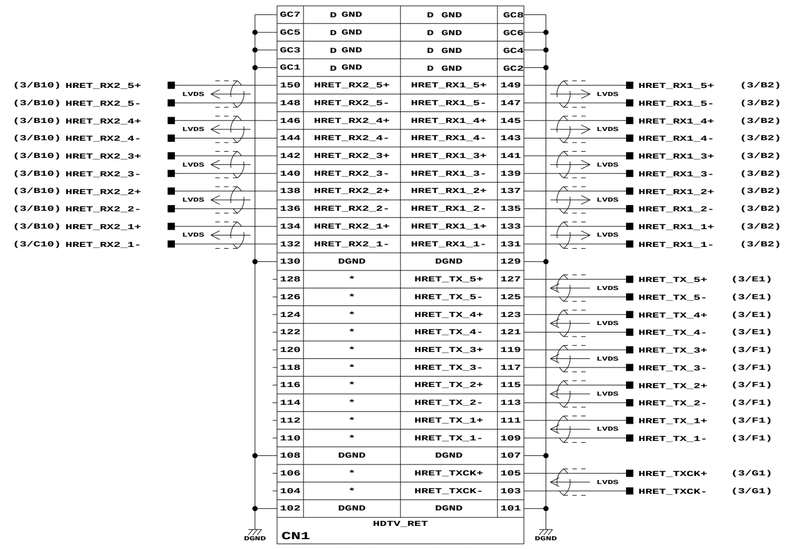


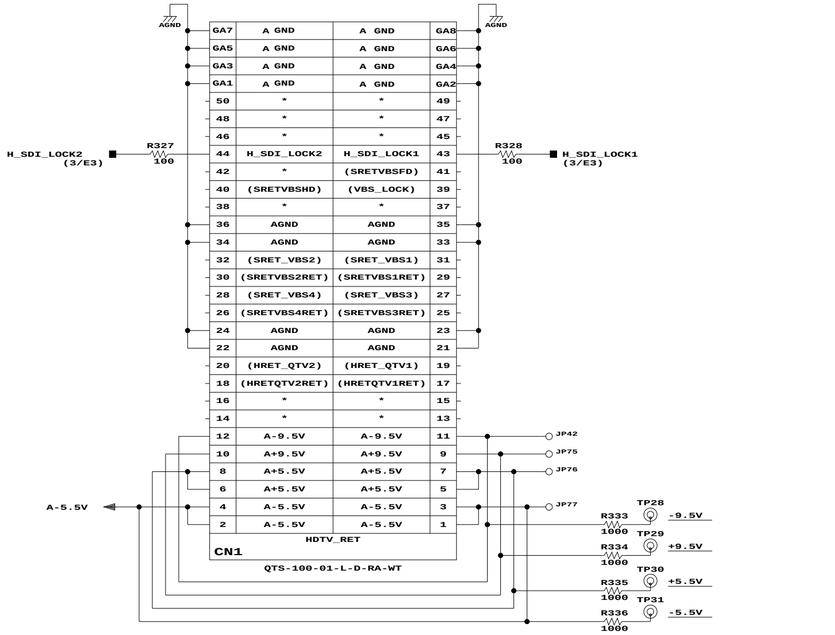


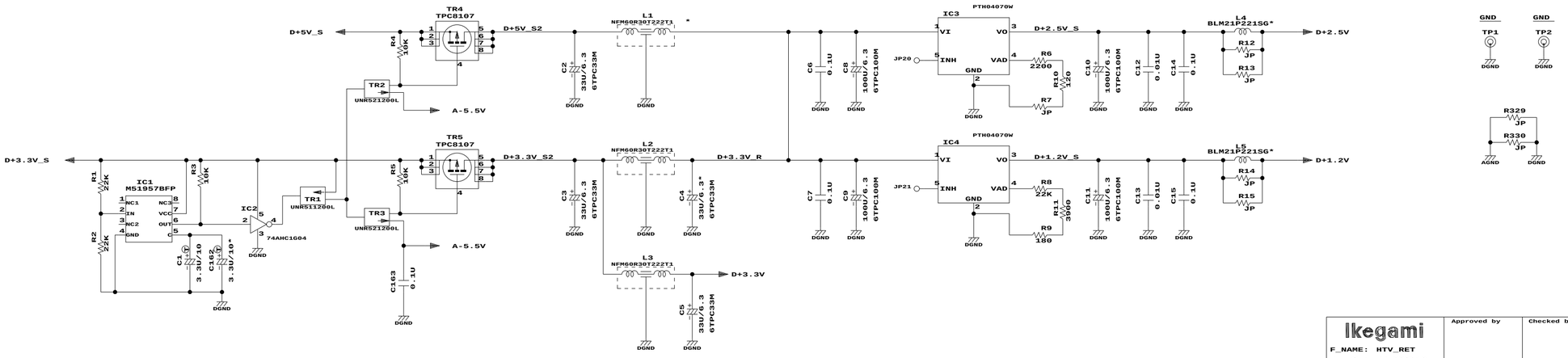
Ikegami	Approved by	Checked by	CCU-700
F_NAME:			TITLE: SDTV_RET SCHEMATIC DIAGRAM (9/9)
P_LIST: PP-228691			
PCB_No: PE6850DP	Drawn by J.SHIM AUGUST/2006		WORK No. 65AF-0347
NOTE	Designed by J.SHIM AUGUST/2006		DWG.No. 47 C2-247740-9
P :10 -12 N :10 -9 U :10 -6 M :10 -3 K :10 +3 MEG:10 +6			REV. 0



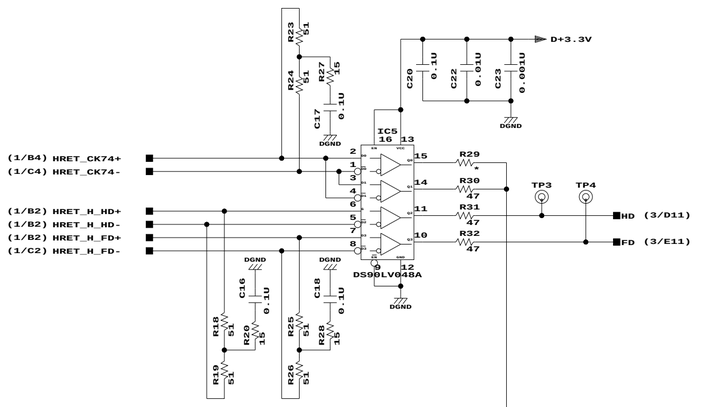


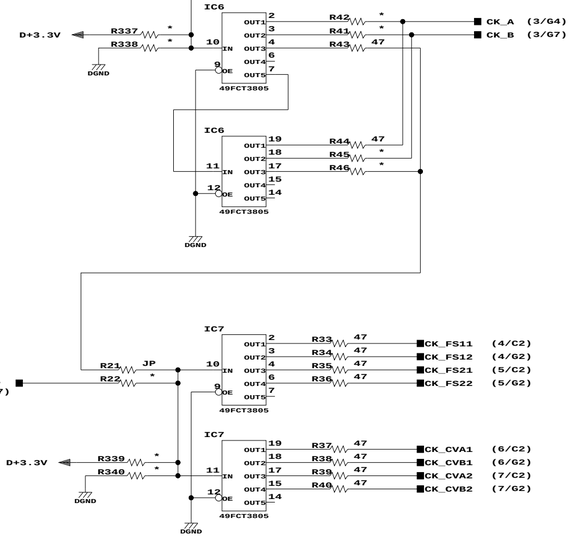


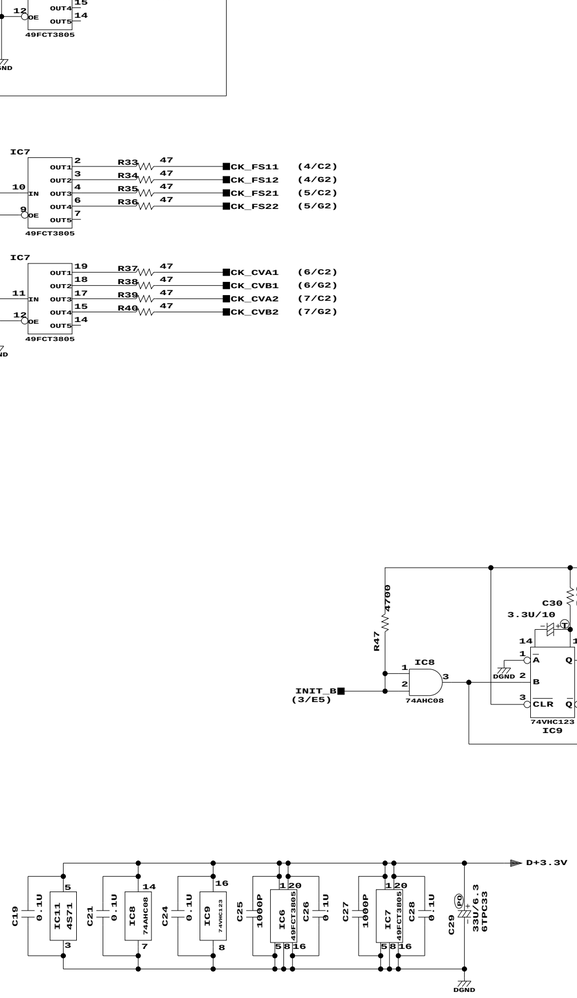


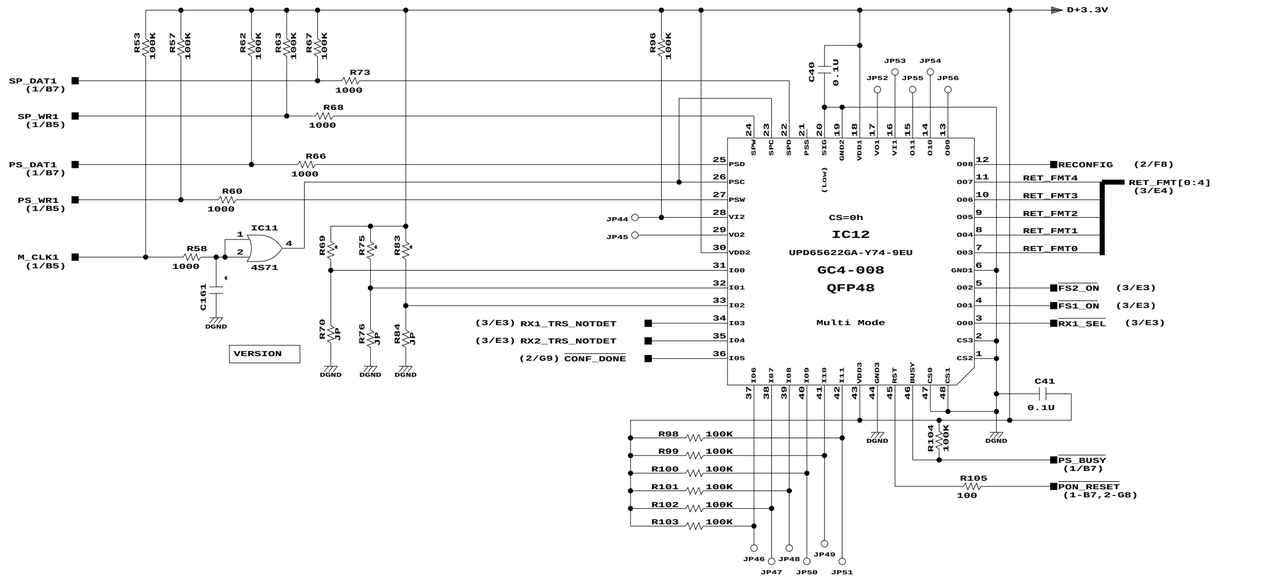


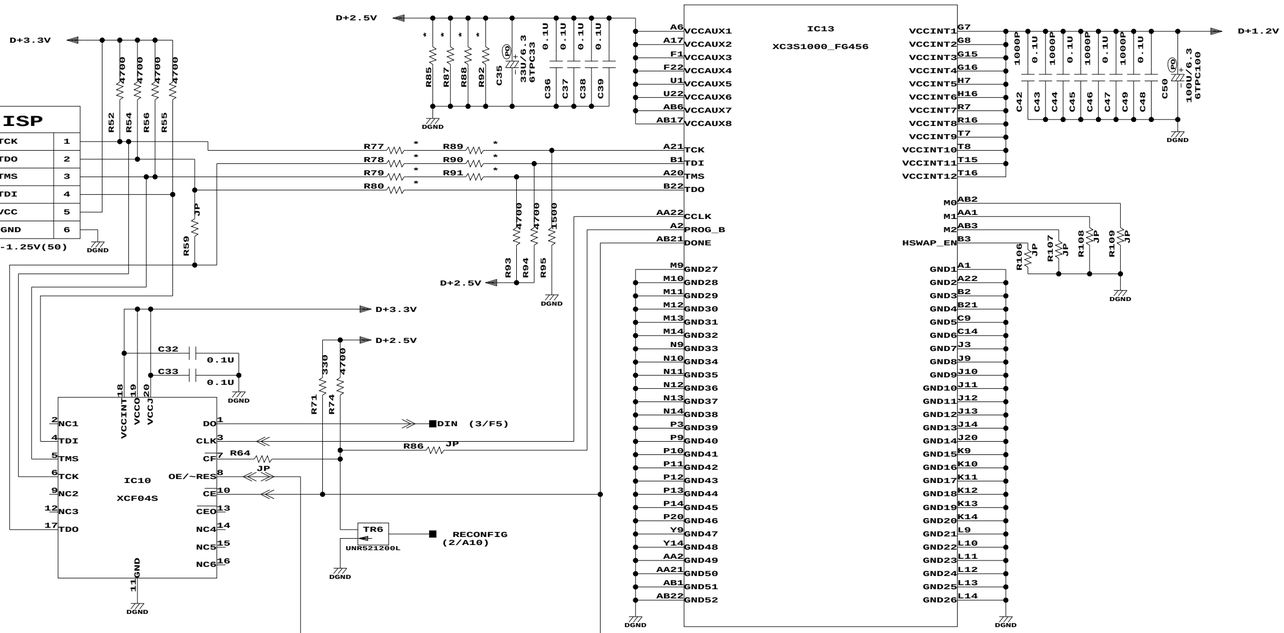
Ikegami	Approved by	Checked by	CCU-890
F_NAME: HTV_RET P_LIST: PP-228640 PCB_No: PE6631OP			TITLE HDTV RET SCHEMATIC DIAGRAM (1/7)
NOTE P :10 -12 M :10 -3 N :10 -9 K :10 +3 U :10 -6 MEG:10 +6	Drawn by N.TAMAI 2006.08.29 Designed by N.TAMAI 2006.08.29		WORK No. DWG.No. C3-247745 REV.









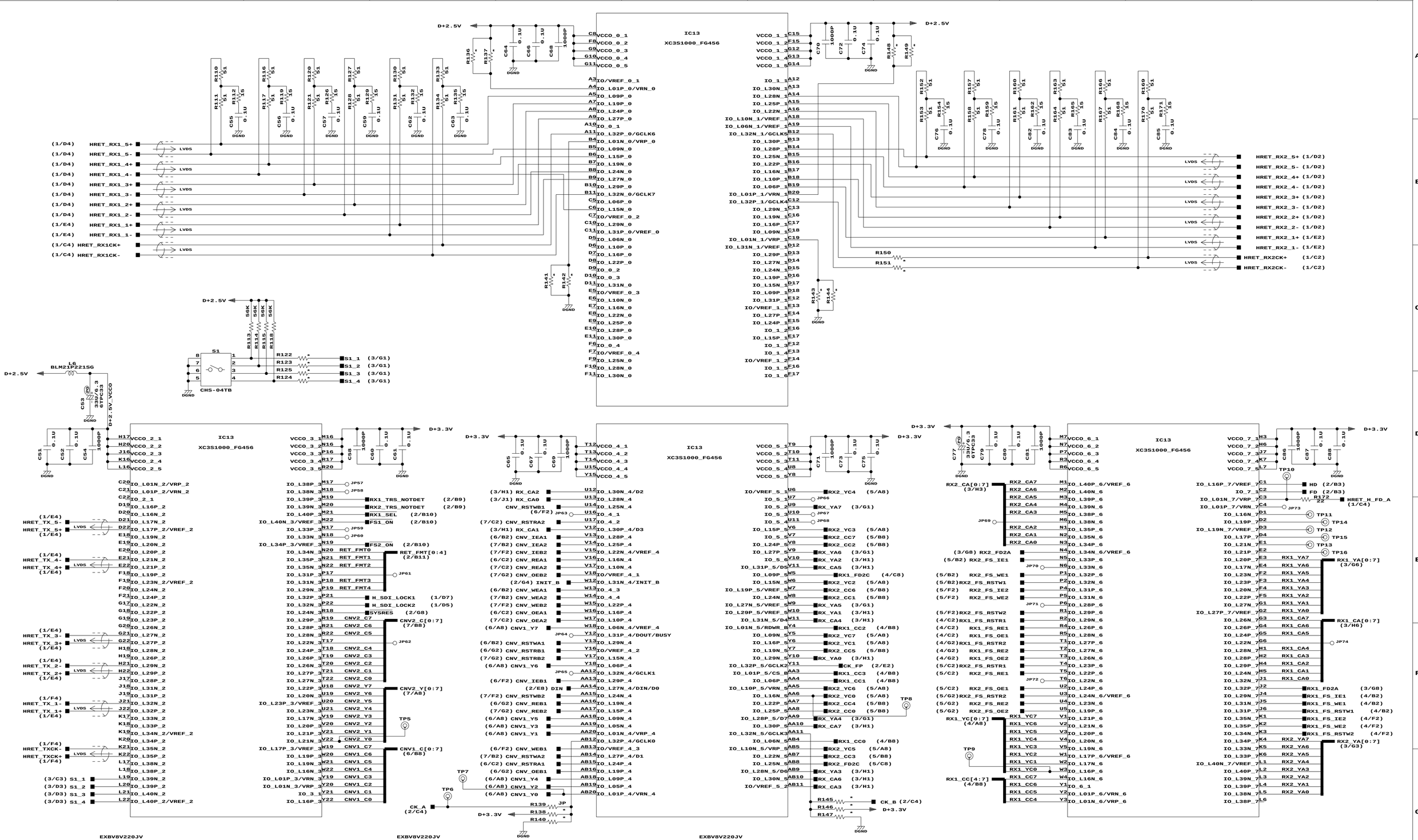


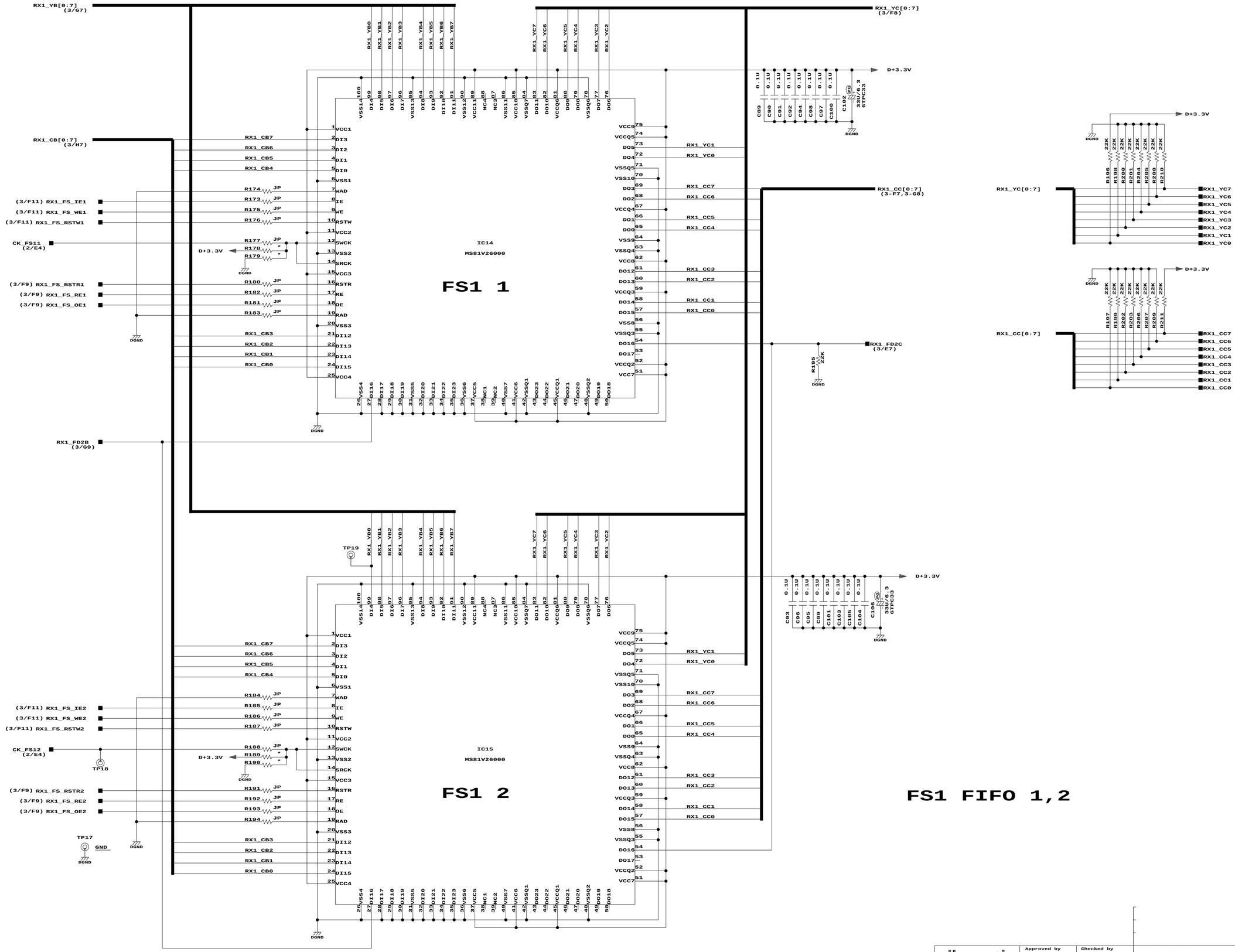
1st Edition OSD (U)(E)

CCU-970 SERVICE MANUAL

IC5-13

Ikegami	Approved by	Checked by	CCU-890
F_NAME: HTV_RET P_LIST: PCB_No:			TITLE HDTV RET SCHEMATIC DIAGRAM (2/7)
NOTE P :10 -12 M :10 -3 N :10 -9 K :10 +3 U :10 -6 MEG:10 +6	Drawn by N.TAMAI 2006.08.29 Designed by N.TAMAI 2006.08.29		WORK No. / DWG.No. C3-247746 / REV.


IC13
XC3S1000_FG456
D+2.5V
D+3.3V
D+2.5V_VCCO
DGND
LVDS
HRET_RX1_5+ (1/D4)
HRET_RX1_5- (1/D4)
HRET_RX1_4+ (1/D4)
HRET_RX1_4- (1/D4)
HRET_RX1_3+ (1/D4)
HRET_RX1_3- (1/D4)
HRET_RX1_2+ (1/D4)
HRET_RX1_2- (1/D4)
HRET_RX1_1+ (1/E4)
HRET_RX1_1- (1/E4)
HRET_RX1CK+ (1/C4)
HRET_RX1CK- (1/C4)
HRET_RX2_5+ (1/D2)
HRET_RX2_5- (1/D2)
HRET_RX2_4+ (1/D2)
HRET_RX2_4- (1/D2)
HRET_RX2_3+ (1/D2)
HRET_RX2_3- (1/D2)
HRET_RX2_2+ (1/D2)
HRET_RX2_2- (1/D2)
HRET_RX2_1+ (1/E2)
HRET_RX2_1- (1/E2)
HRET_RX2CK+ (1/C2)
HRET_RX2CK- (1/C2)
L6
BLM21P221SG
S1
CHS-04TB
HRET_TX_5- (1/E4)
HRET_TX_5+ (1/E4)
HRET_TX_4- (1/E4)
HRET_TX_4+ (1/E4)
HRET_TX_3- (1/E4)
HRET_TX_3+ (1/E4)
HRET_TX_2- (1/E4)
HRET_TX_2+ (1/E4)
HRET_TX_1- (1/F4)
HRET_TX_1+ (1/F4)
HRET_TXCK- (1/F4)
HRET_TXCK+ (1/F4)
(3/C3) S1_1
(3/D3) S1_2
(3/D3) S1_3
(3/D3) S1_4
RX1_TRS_NOTDET (2/B9)
RX2_TRS_NOTDET (2/B9)
RX1_SEL (2/B10)
FS1_ON (2/B10)
FS2_ON (2/B10)
RET_FMT[0:4] (2/B11)
H_SDI_LOCK1 (1/D7)
H_SDI_LOCK2 (1/D5)
SYSRES (2/G8)
CNV2_C[0:7] (7/B8)
CNV2_Y[0:7] (7/A8)
CNV1_C[0:7] (6/B8)
(3/H1) RX_CA2
(3/J1) RX_CA0
(3/H1) RX_CA1
(6/B2) CNV_IEA1
(7/B2) CNV_IEA2
(7/F2) CNV_IEB2
(6/C2) CNV_REA1
(7/C2) CNV_REA2
(7/G2) CNV_OEB2
(2/G4) INIT_B
(6/B2) CNV_WEA1
(7/B2) CNV_WEA2
(7/F2) CNV_WEB2
(6/C2) CNV_OEA1
(7/C2) CNV_OEA2
(6/A8) CNV1_Y7
(6/B2) CNV_RSTWA1
(6/G2) CNV_RSTRB1
(7/G2) CNV_RSTRB2
(6/A8) CNV1_Y6
(6/F2) CNV_IEB1
(2/E8) DIN
(7/F2) CNV_RSTWB2
(6/G2) CNV_REB1
(7/G2) CNV_REB2
(6/A8) CNV1_Y5
(6/A8) CNV1_Y3
(6/A8) CNV1_Y1
(6/F2) CNV_WEB1
(7/B2) CNV_RSTWA2
(6/C2) CNV_RSTRA1
(6/G2) CNV_OEB1
(6/A8) CNV1_Y4
(6/A8) CNV1_Y2
(6/A8) CNV1_Y0
CK_A (2/C4)
CK_B (2/C4)
JP
TP5
TP6
TP7
TP8
TP9
TP10
RX2_CA[0:7] (3/H3)
RX1_YC[0:7] (4/A8)
RX1_CC[4:7] (4/B8)
(3/G8) RX2_FD2A
(5/B2) RX2_FS_IE1
(5/B2) RX2_FS_WE1
(5/B2) RX2_FS_RSTW1
(5/F2) RX2_FS_IE2
(5/F2) RX2_FS_WE2
(5/F2) RX2_FS_RSTW2
(4/C2) RX1_FS_RSTR1
(4/C2) RX1_FS_RE1
(4/C2) RX1_FS_OE1
(4/G2) RX1_FS_RSTR2
(4/G2) RX1_FS_RE2
(4/G2) RX1_FS_OE2
(5/C2) RX2_FS_RSTR1
(5/C2) RX2_FS_RE1
(5/C2) RX2_FS_OE1
(5/G2) RX2_FS_RSTR2
(5/G2) RX2_FS_RE2
(5/G2) RX2_FS_OE2
RX1_FD2A (3/G6)
RX1_FS_IE1 (4/B2)
RX1_FS_WE1 (4/B2)
RX1_FS_RSTW1 (4/B2)
RX1_FS_IE2 (4/F2)
RX1_FS_WE2 (4/F2)
RX1_FS_RSTW2 (4/F2)
RX2_FD2A (3/G8)
RX2_FS_IE1 (4/B2)
RX2_FS_WE1 (4/B2)
RX2_FS_RSTW1 (4/B2)
RX2_FS_IE2 (4/F2)
RX2_FS_WE2 (4/F2)
RX2_FS_RSTW2 (4/F2)
RX1_CA[0:7] (3/H6)
RX2_CA[0:7] (3/H3)
RX1_YA[0:7] (3/G6)
RX2_YA[0:7] (3/G3)
HD (2/B3)
FD (2/B3)
HRET_H_FD_A (1/C4)
RX1_YA[0:7] (3/E11)
RX1_YB[0:7] (4/A2)
RX2_YA[0:7] (3/F11)
RX2_YB[0:7] (5/A2)
RX1_CA[0:7] (3/F11)
RX1_CB[0:7] (4/B2)
RX2_CA[0:7] (3/D8)
RX2_CB[0:7] (5/B2)
RX_YA[0:7] (3/E7)
RX_YB[0:7] (6-A2,7-A2)
RX_CA[0:7] (3/G7)
RX_CB[0:7] (6-B2,7-B2)
JP56
JP57
JP58
JP59
JP60
JP61
JP62
JP63
JP64
JP65
JP67
JP68
JP69
JP70
JP71
JP72
JP73
JP74
RX2_YC4 (5/A8)
RX_YA7 (3/G1)
RX2_YC3 (5/A8)
RX2_CC7 (5/B8)
RX2_CC2 (5/B8)
RX_YA6 (3/G1)
RX_YA2 (3/H1)
RX_CA5 (3/H1)
RX1_FD2C (4/C8)
RX2_YC2 (5/A8)
RX2_CC6 (5/B8)
RX2_CC1 (5/B8)
RX_YA5 (3/G1)
RX_YA1 (3/H1)
RX_CA4 (3/H1)
RX1_CC2 (4/B8)
RX2_YC7 (5/A8)
RX2_YC1 (5/A8)
RX2_CC5 (5/B8)
RX_YA0 (3/H1)
CK_FP (2/E2)
RX1_CC3 (4/B8)
RX1_CC1 (4/B8)
RX2_YC6 (5/A8)
RX2_YC0 (5/A8)
RX2_CC4 (5/B8)
RX2_CC0 (5/B8)
RX_YA4 (3/G1)
RX_CA7 (3/H1)
RX1_CC0 (4/B8)
RX2_YC5 (5/A8)
RX2_CC3 (5/B8)
RX2_FD2C (5/C8)
RX_YA3 (3/H1)
RX_CA6 (3/H1)
RX_CA3 (3/H1)
RX1_FD2B (4/D2)
RX2_FD2B (5/D2)
EXBV8V220JV
RP1
RP2
RP3
RP4
RP5
RP6
RP7
RP8
RP9
RP10
RP11
RP12
R155
R156
22
CCU-890
HDTV RET
SCHEMATIC DIAGRAM
3/7
C3-247747
N.TAMAI 2006.08.29
F_NAME: HTV_RET
P_LIST:
PCB_No:

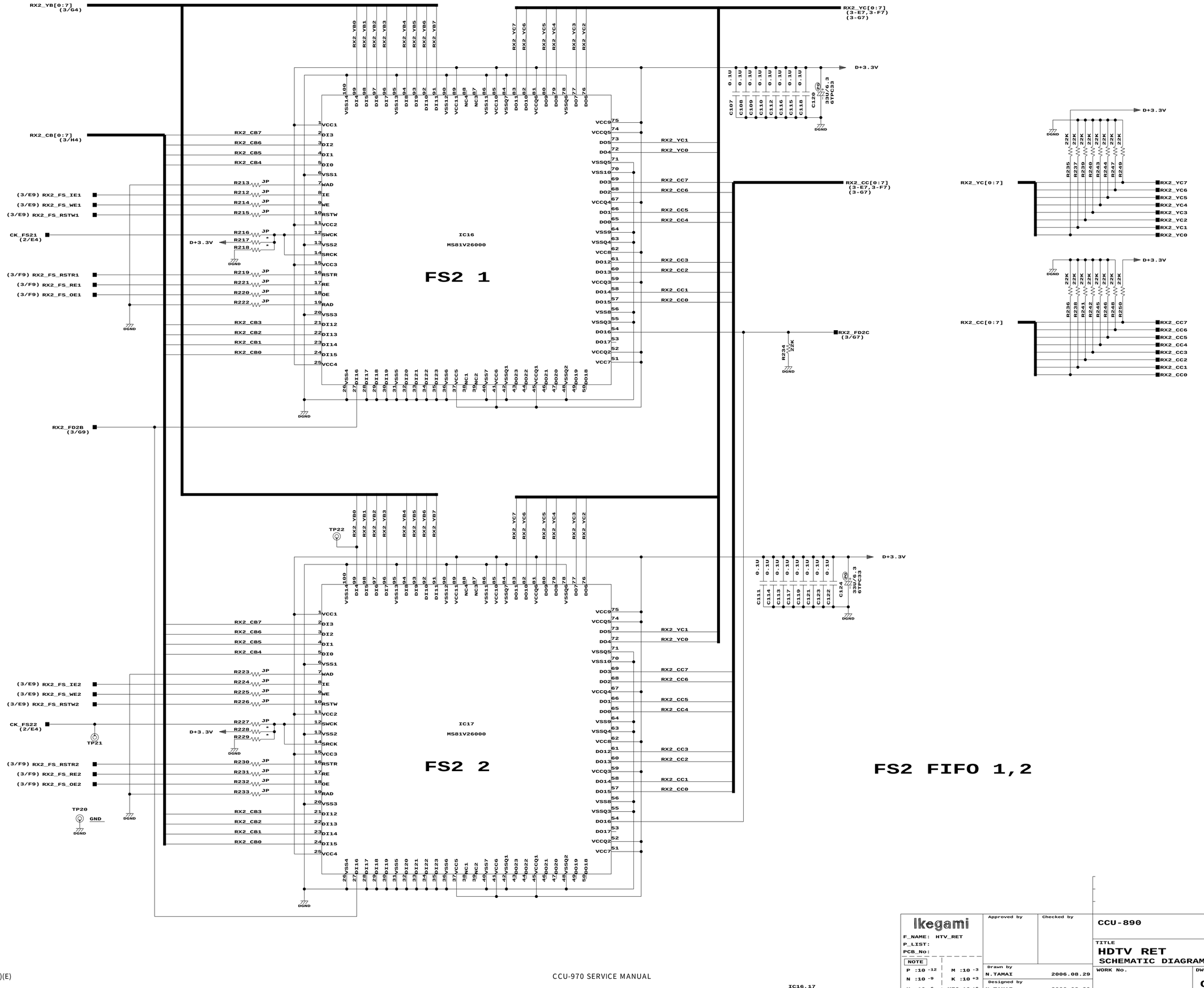


1st Edition OSD (U)(E)

CCU-970 SERVICE MANUAL

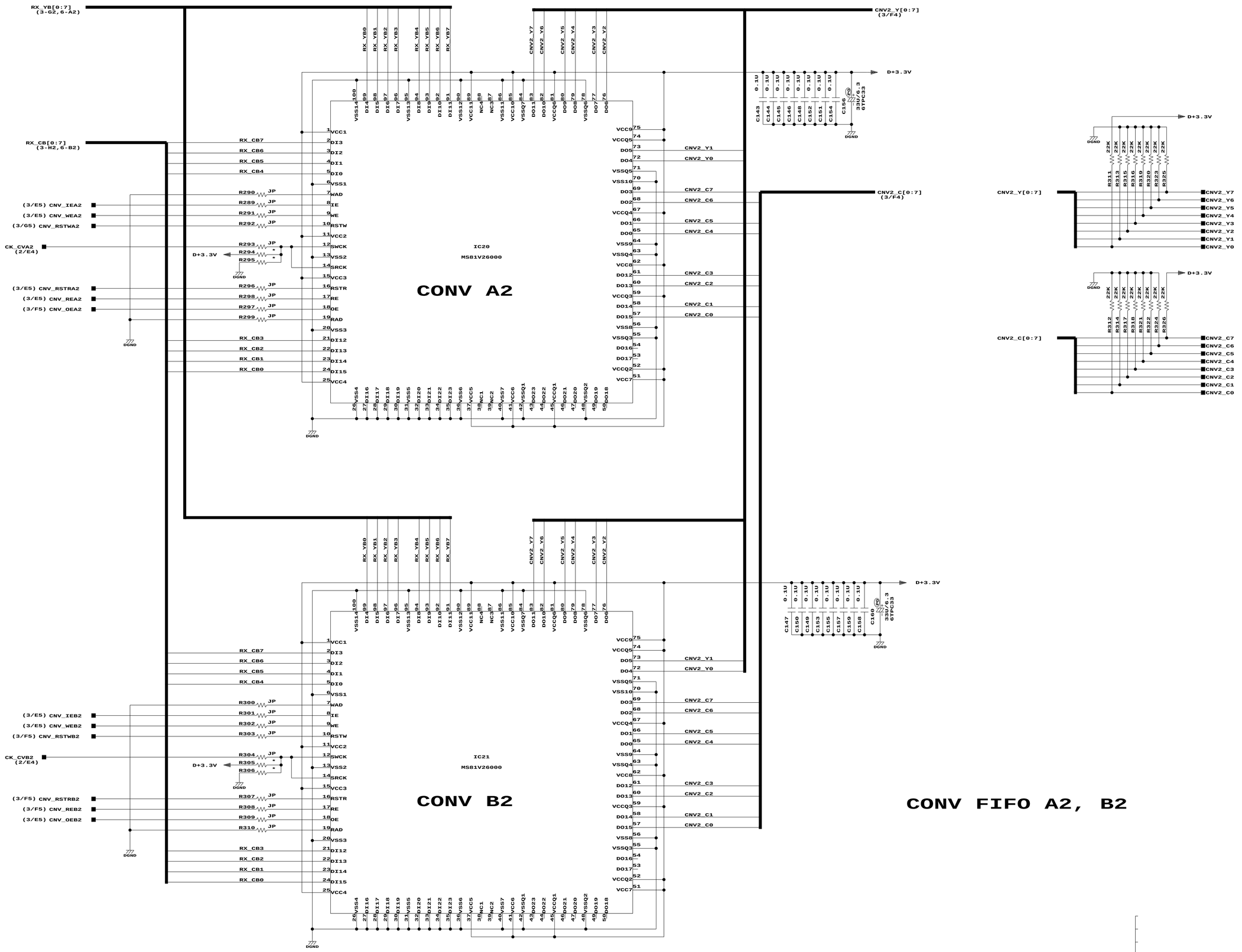
IC14,15

Ikegami	Approved by	Checked by	CCU-890
F_NAME: HTV_RET P_LIST: PCB_No:			TITLE HDTV RET SCHEMATIC DIAGRAM (4/7)
NOTE P :10 -12 M :10 -3 N :10 -9 K :10 +3 U :10 -6 MEG:10 +6	Drawn by N.TAMAI 2006.08.29 Designed by N.TAMAI 2006.08.29		WORK No. DWG.No. C3-247748 REV.

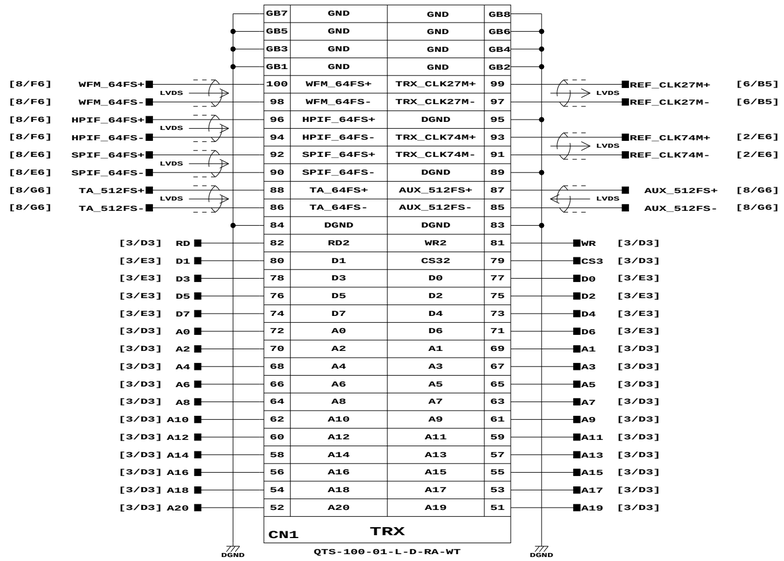


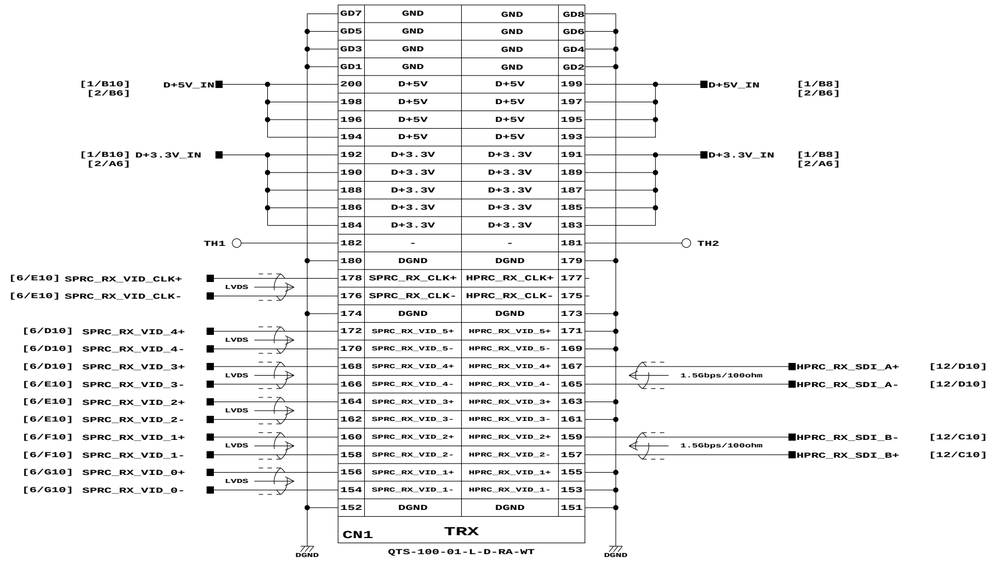
Ikegami	Approved by	Checked by	CCU-890
F_NAME: HTV_RET P_LIST: PCB_No:			TITLE HDTV RET SCHEMATIC DIAGRAM (5/7)
NOTE P :10 -12 M :10 -3 N :10 -9 K :10 +3 U :10 -6 MEG:10 +6	Drawn by N.TAMAI 2006.08.29 Designed by N.TAMAI 2006.08.29		WORK No. / DWG.No. C3-247749 / REV.

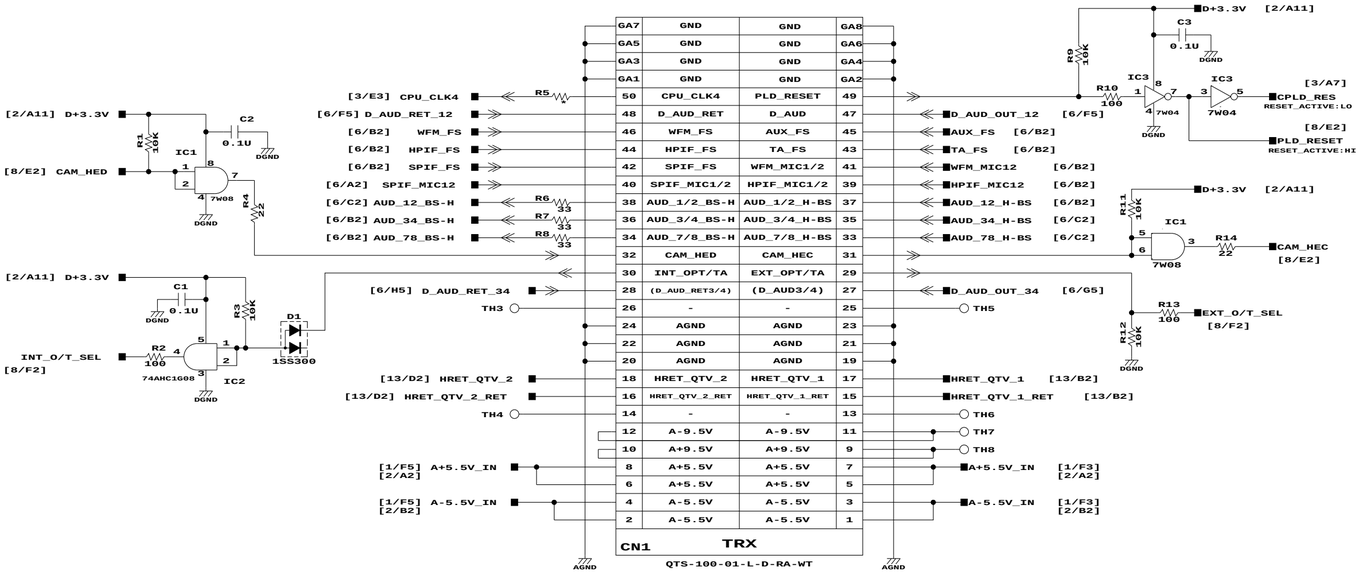
Ikegami	Approved by	Checked by	CCU-890
F_NAME: HTV_RET P_LIST: PCB_No:			TITLE HDTV RET SCHEMATIC DIAGRAM (6/7)
NOTE P :10 -12 M :10 -3 N :10 -9 K :10 +3 U :10 -6 MEG:10 +6	Drawn by N.TAMAI 2006.08.29 Designed by N.TAMAI 2006.08.29		WORK No. DWG.No. C3-247750 REV.

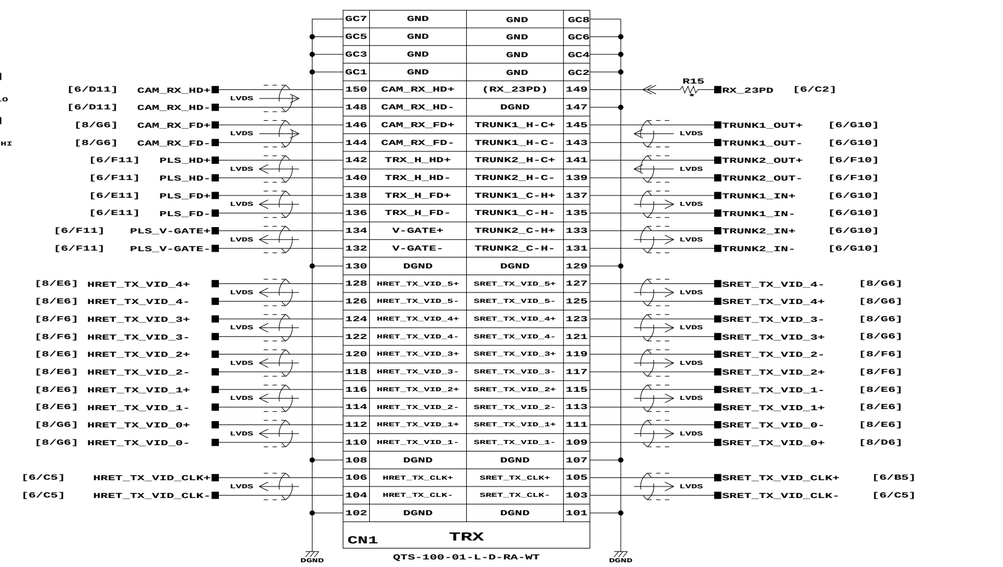


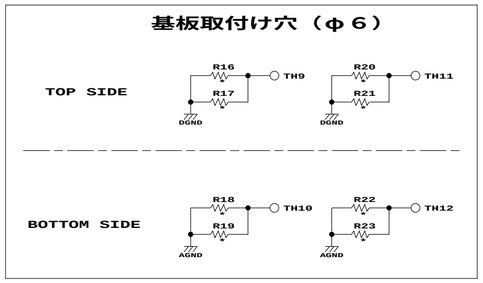
Ikegami	Approved by	Checked by	CCU-890
F_NAME: HTV_RET P_LIST: PCB_No:			TITLE: HDTV RET SCHEMATIC DIAGRAM (7/7)
NOTE P :10 -12 M :10 -3 N :10 -9 K :10 +3 U :10 -6 MEG:10 +6	Drawn by N.TAMAI 2006.08.29 Designed by N.TAMAI 2006.08.29		WORK No. / DWG.No. C3-247751 / REV.

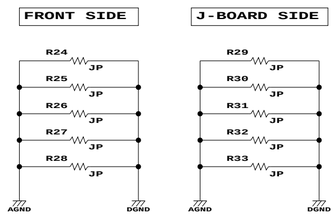




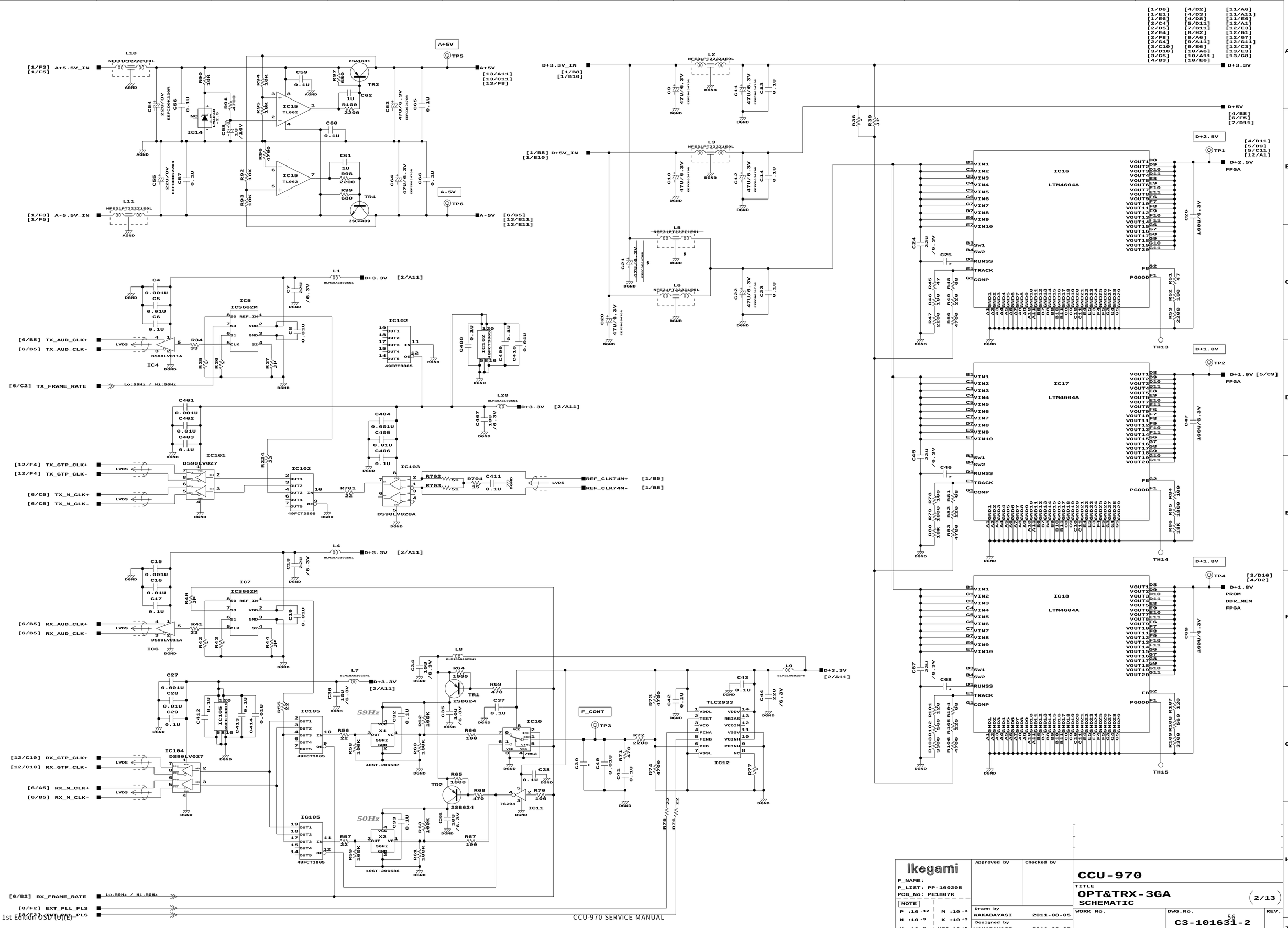




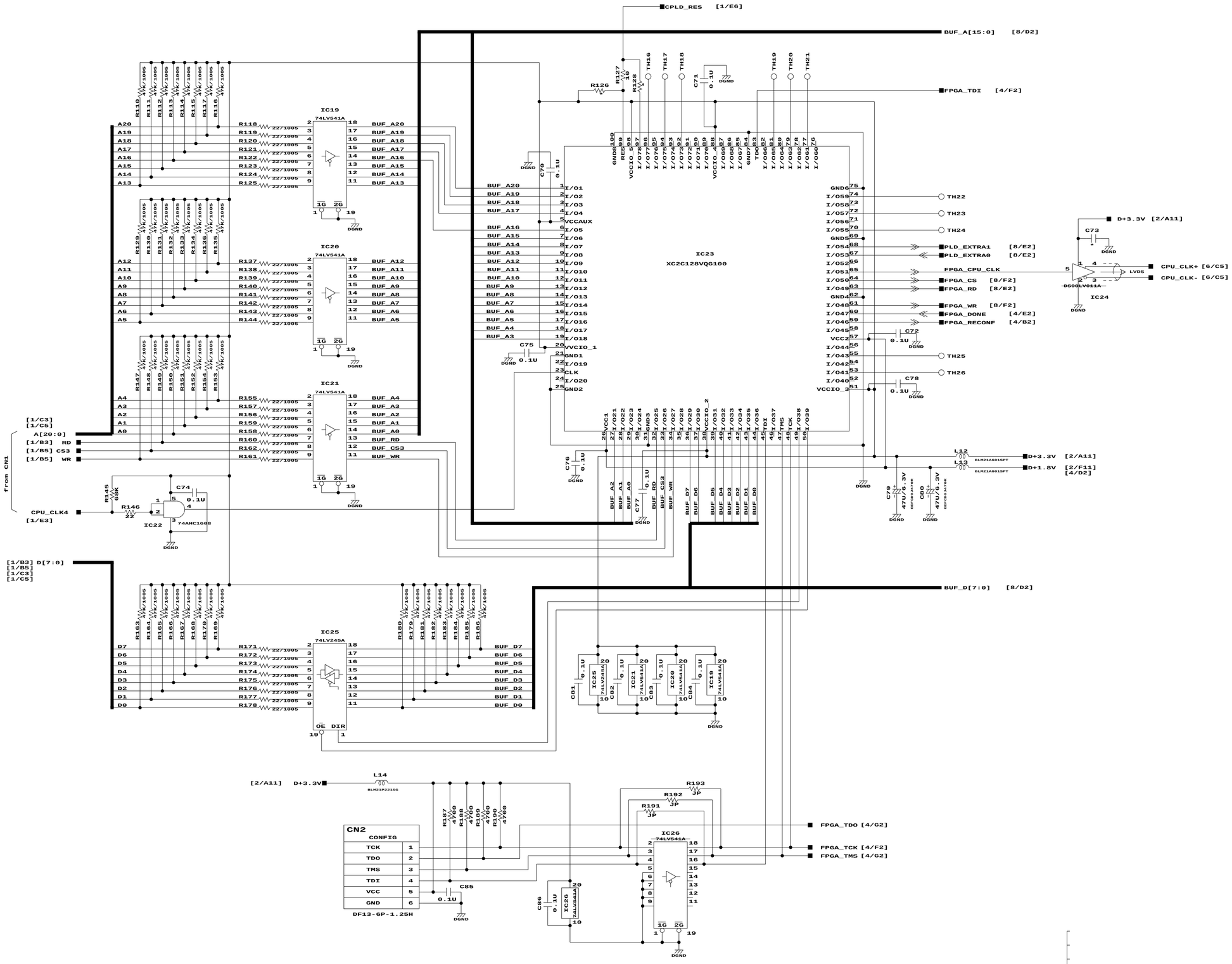




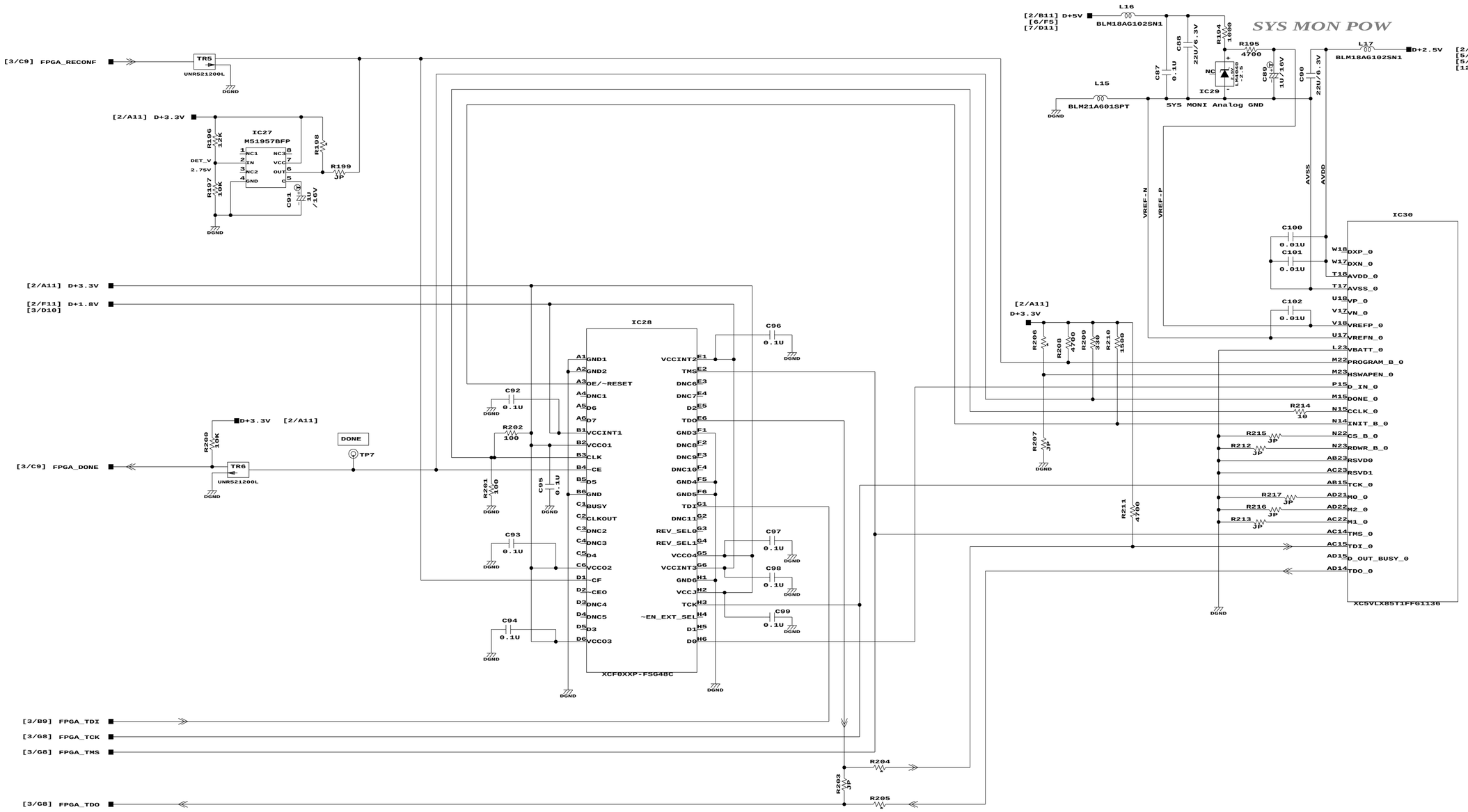
Ikegami	Approved by	Checked by	CCU-970
F_NAME:			TITLE: OPT&TRX-3GA SCHEMATIC (1/13)
P_LIST: PP-100205			
PCB_No: PE1807K			
NOTE: P :10 -12, N :10 -9, U :10 -6, M :10 -3, K :10 +3, MEG:10 +6	Drawn by WAKABAYASI 2011-08-05		WORK No. / DWG.No. C3-101631-1 / REV.
	Designed by WAKABAYASI 2011-08-05		



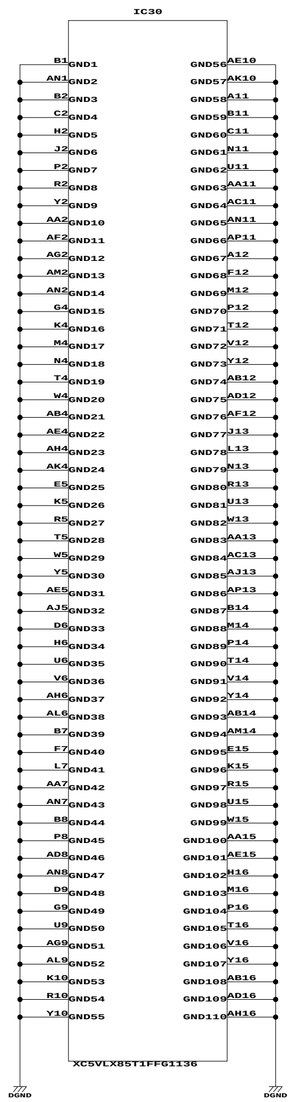
Ikegami	Approved by	Checked by	CCU-970
F_NAME:			TITLE: OPT&TRX-3GA SCHEMATIC (2/13)
P_LIST: PP-100205			
PCB_No: PE1807K			
NOTE	Drawn by WAKABAYASI 2011-08-05		WORK No.
P :10 -12 M :10 -3	Designed by WAKABAYASI 2011-08-05		DWG.No. C3-101631-2
N :10 -9 K :10 +3			REV.
U :10 -6 MEG:10 +6			

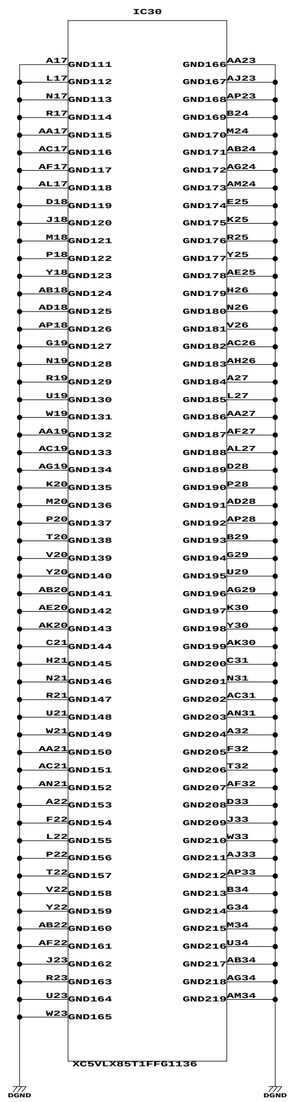


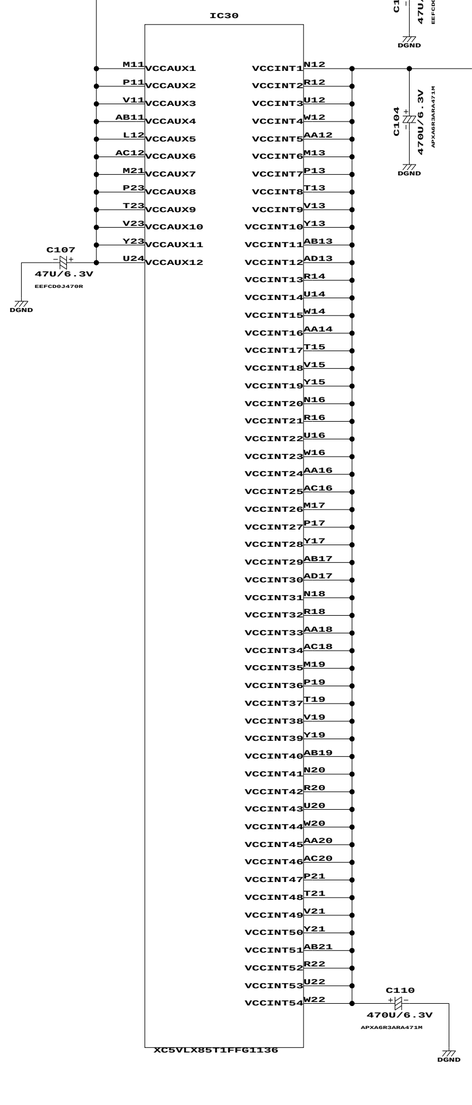
Ikegami	Approved by	Checked by	CCU-970
F_NAME:			TITLE: OPT&TRX-3GA SCHEMATIC (3/13)
P_LIST: PP-100205			
PCB_No: PE1807K			
NOTE: P :10 -12, N :10 -9, U :10 -6, M :10 -3, K :10 +3, MEG:10 +6	Drawn by WAKABAYASI 2011-08-05		WORK No. / DWG.No. C3-101631-3 / REV.
	Designed by WAKABAYASI 2011-08-05		



Ikegami	Approved by	Checked by	CCU-970
F_NAME:			TITLE: OPT&TRX-3GA SCHEMATIC (4/13)
P_LIST: PP-100205			
PCB_No: PE1807K	Drawn by WAKABAYASI 2011-08-05		WORK No. / DWG.No. C3-101631-4 / REV.
NOTE: P :10 -12, N :10 -9, U :10 -6, M :10 -3, K :10 +3, MEG:10 +6	Designed by WAKABAYASI 2011-08-05		







D+2.5V_FPGA [6/B5] [6/F16] [8/F6]

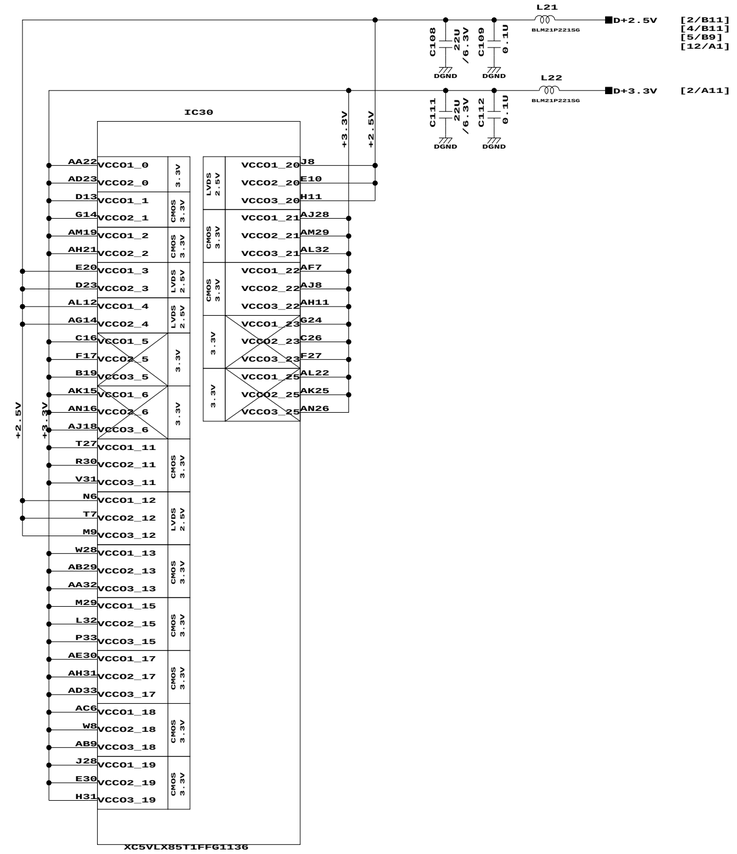
L18 BLM21PZ215G

D+2.5V [2/B11] [4/B11] [5/C11] [12/A1]

VCCINT [12/E4]

L19 BLM21PZ215G

D+1.0V [2/D11]



Ikegami

F_NAME:
P_LIST: PP-100205
PCB_No: PE1807K

NOTE
P :10 -12 M :10 -3
N :10 -9 K :10 +3
U :10 -6 MEG:10 +6

Approved by	Checked by

Drawn by WAKABAYASI 2011-08-05
Designed by WAKABAYASI 2011-08-05

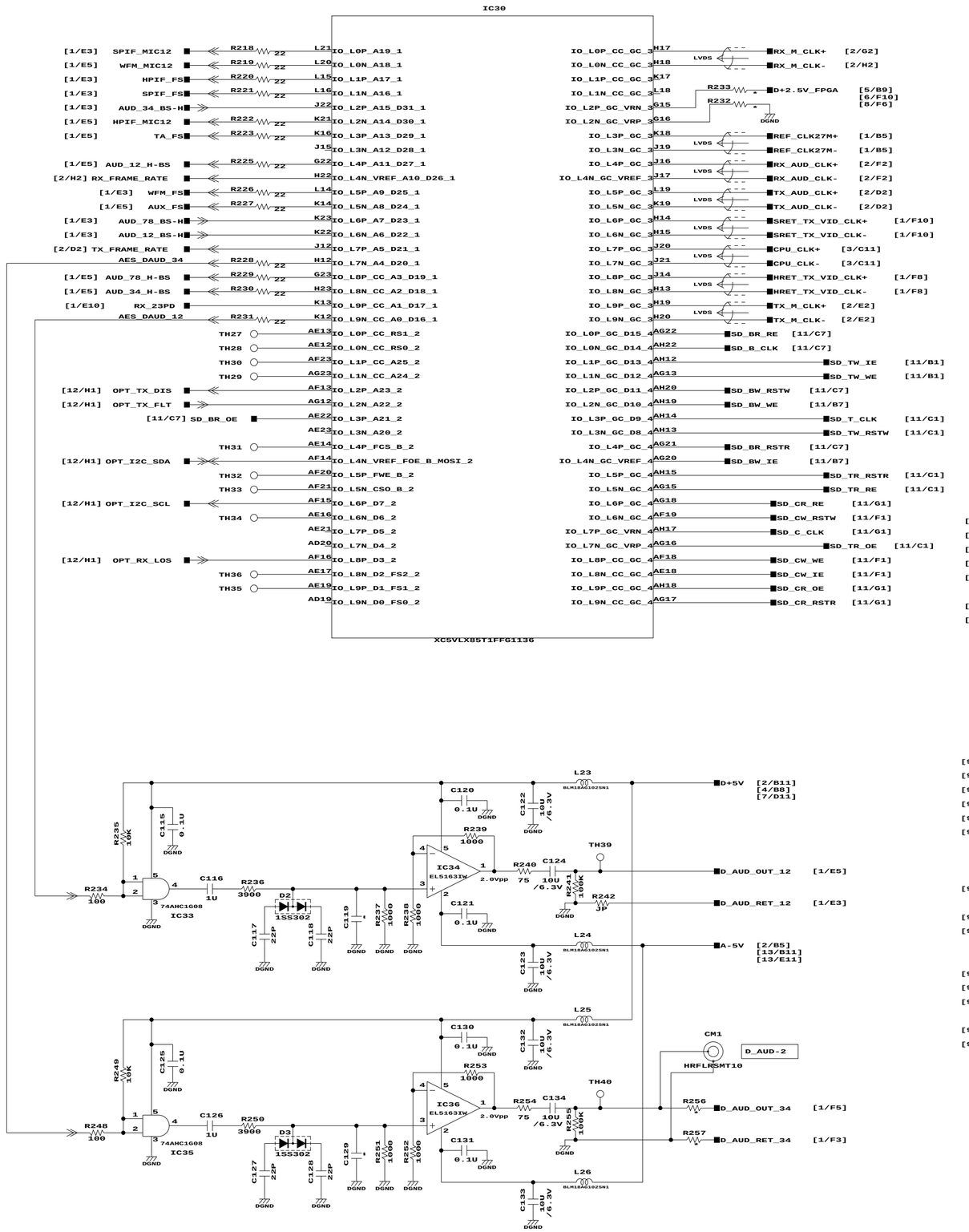
CCU-970

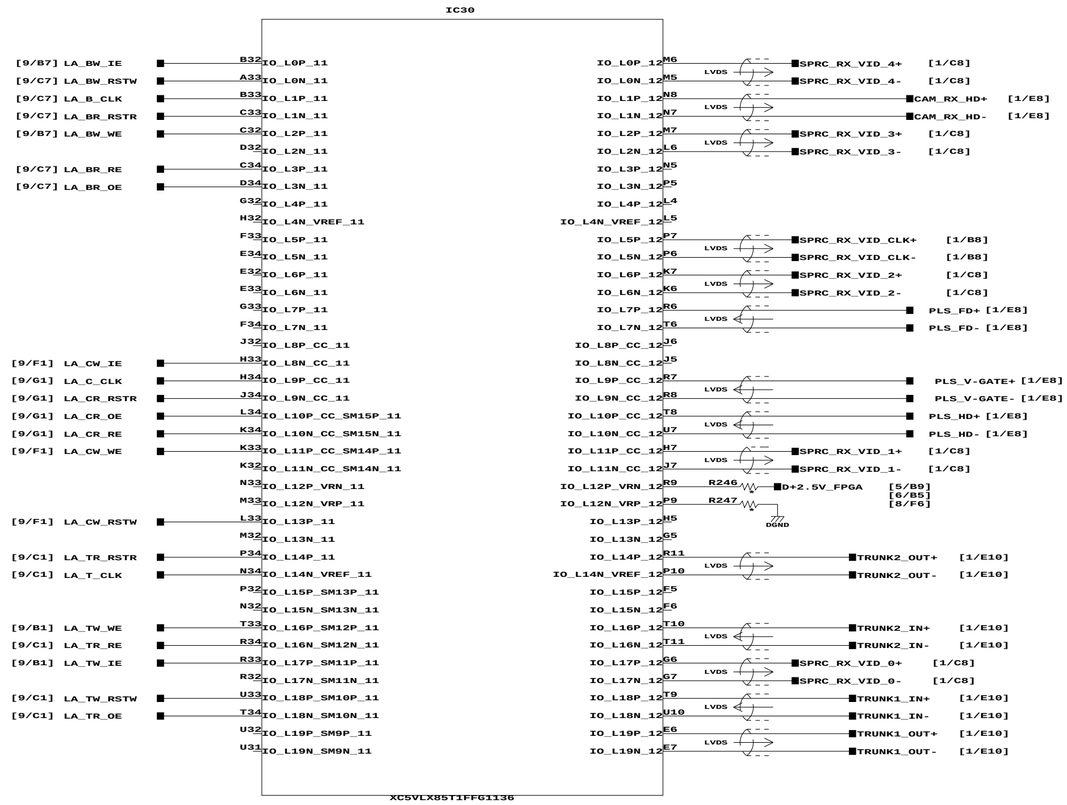
TITLE
OPT&TRX-3GA
SCHEMATIC
5/13

WORK No.

DWG.No. C3-101631-5

REV.



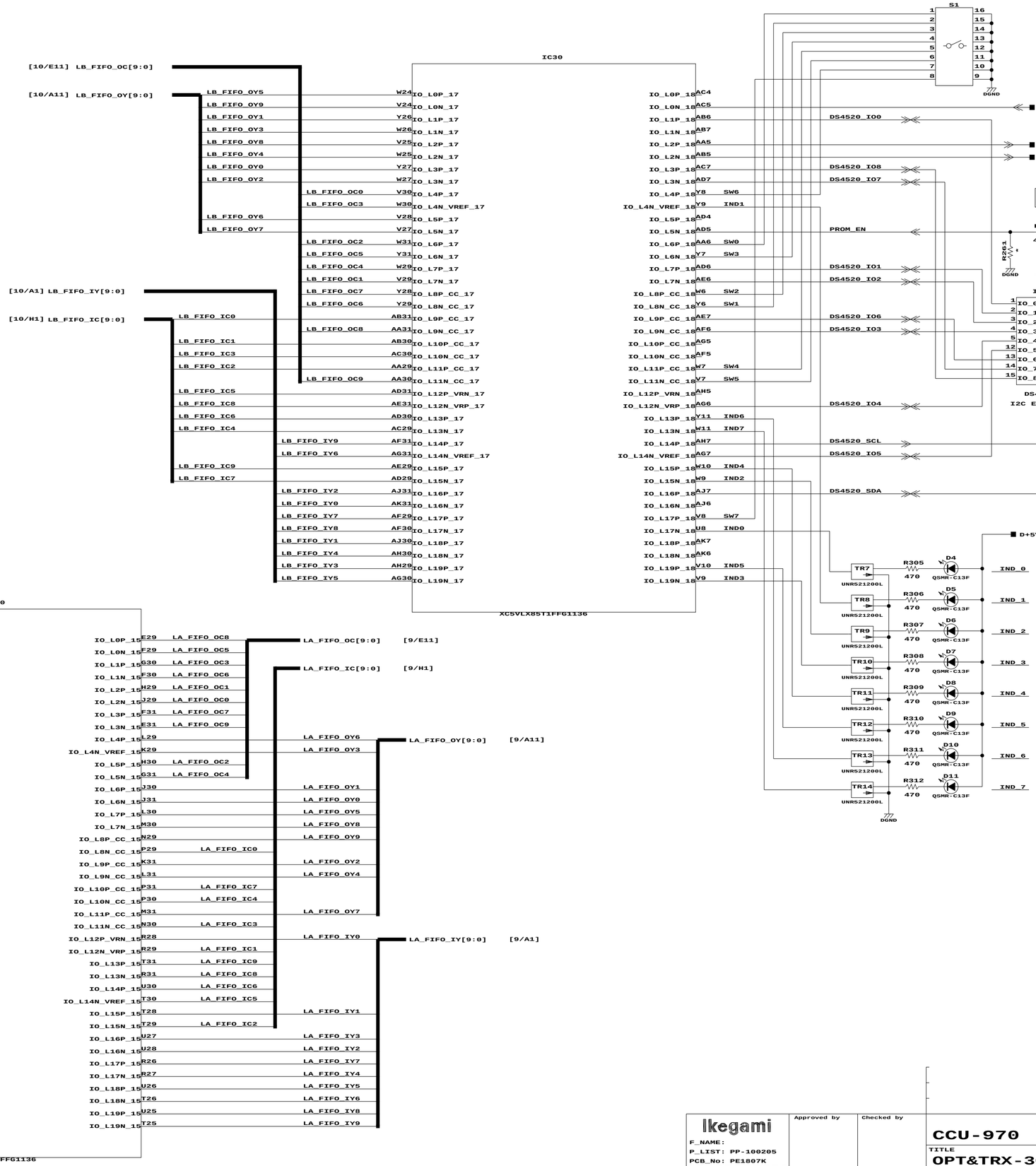


Ikegami	Approved by	Checked by
F_NAME:		
P_LIST: PP-100205		
PCB_No: PE1807K		
NOTE	Drawn by	
P :10 -12 M :10 -3	WAKABAYASI 2011-08-05	
N :10 -9 K :10 +3	Designed by	
U :10 -6 MEG:10 +6	WAKABAYASI 2011-08-05	

CCU-970

TITLE
OPT&TRX-3GA
SCHEMATIC (6/13)

WORK No.	DWG.No.	REV.
	C3-101631-6	

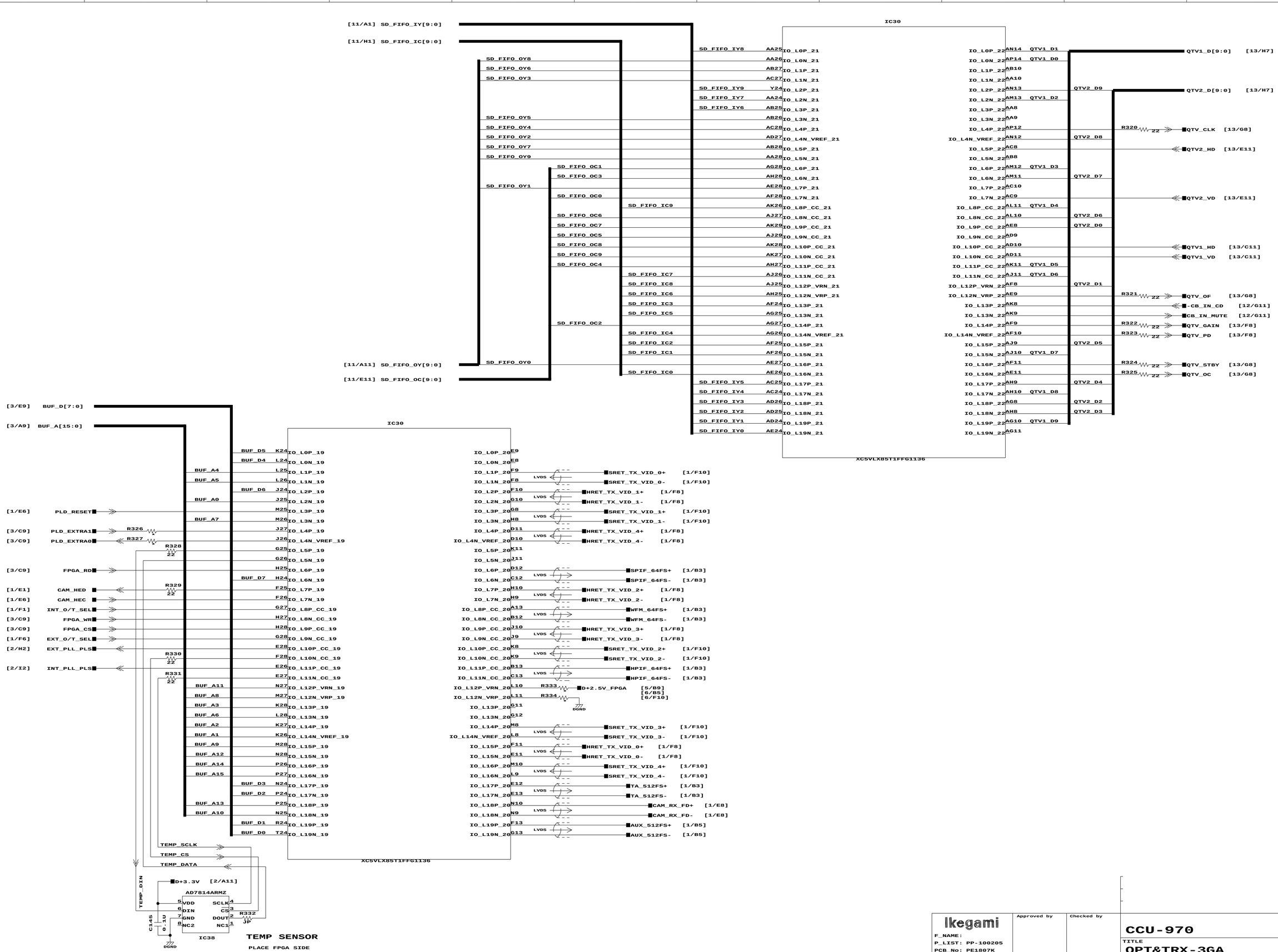


Ikegami	Approved by / Checked by
F_NAME:	
P_LIST: PP-100205	
PCB_No: PE1807K	
NOTE	
P :10 -12 M :10 -3	Drawn by WAKABAYASI 2011-08-05
N :10 -9 K :10 +3	Designed by WAKABAYASI 2011-08-05
U :10 -6 MEG:10 +6	

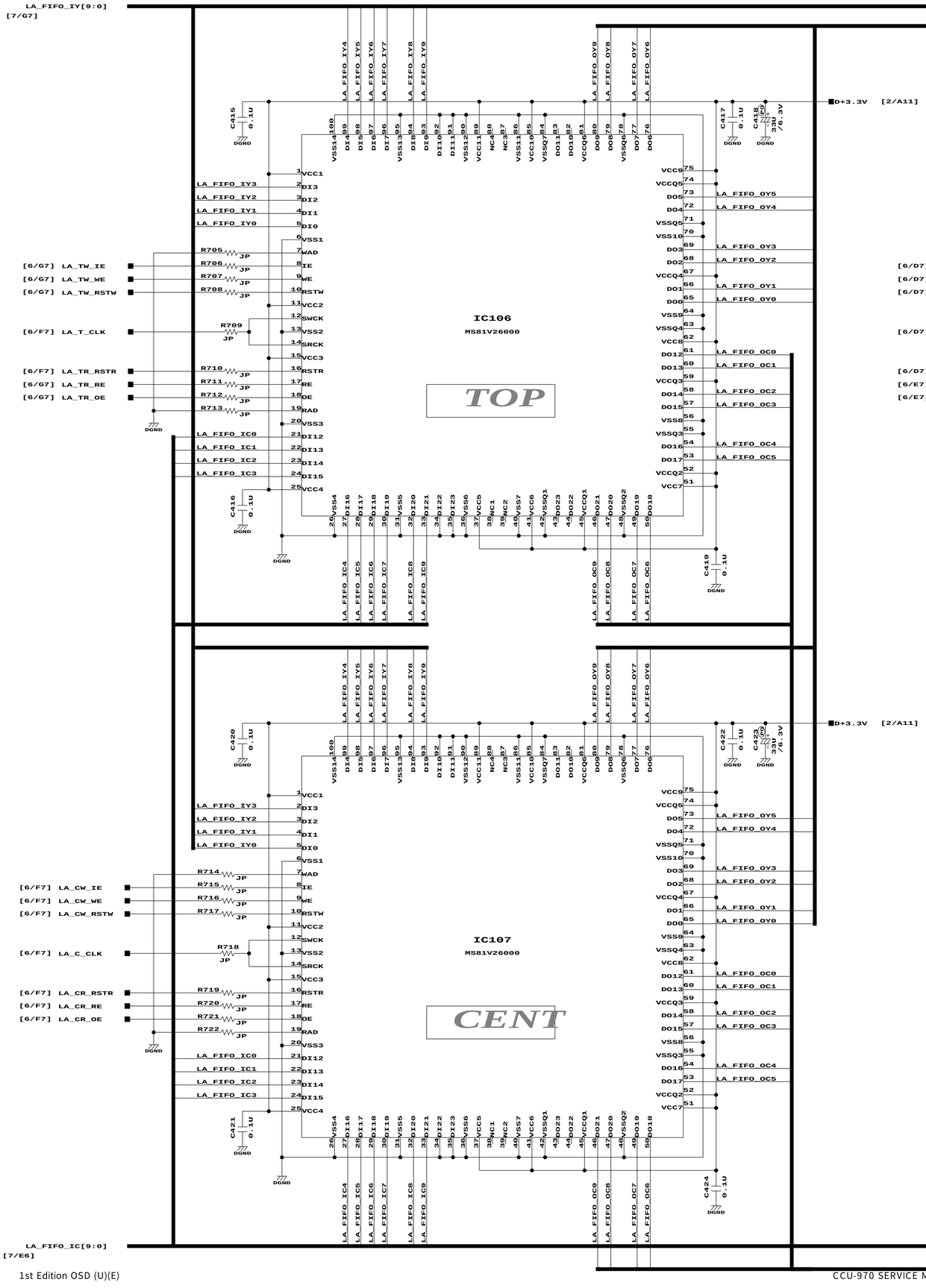
CCU-970

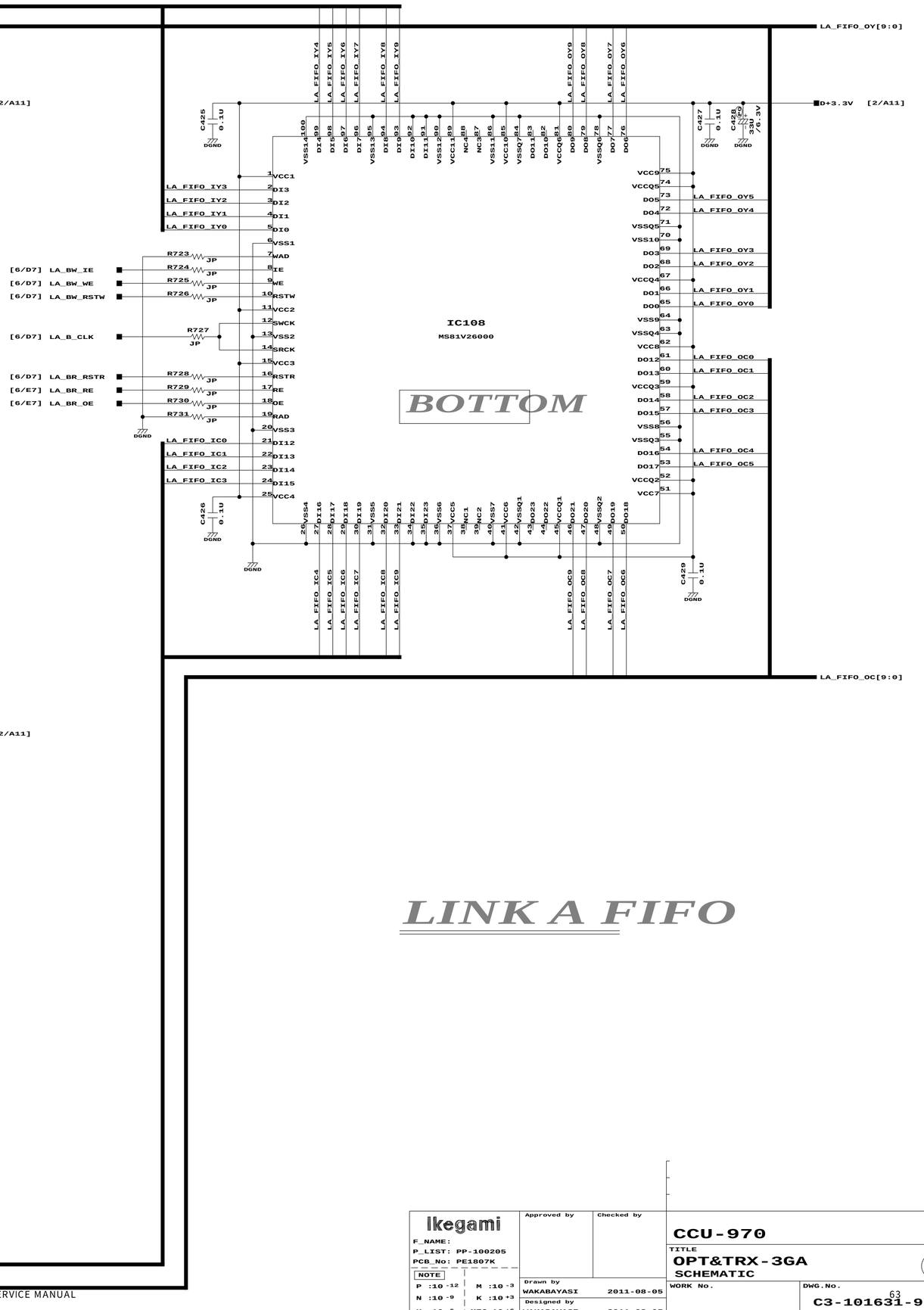
TITLE
OPT&TRX-3GA
SCHEMATIC
(7/13)

WORK No. | DWG.No. C3-101631-7 | REV.



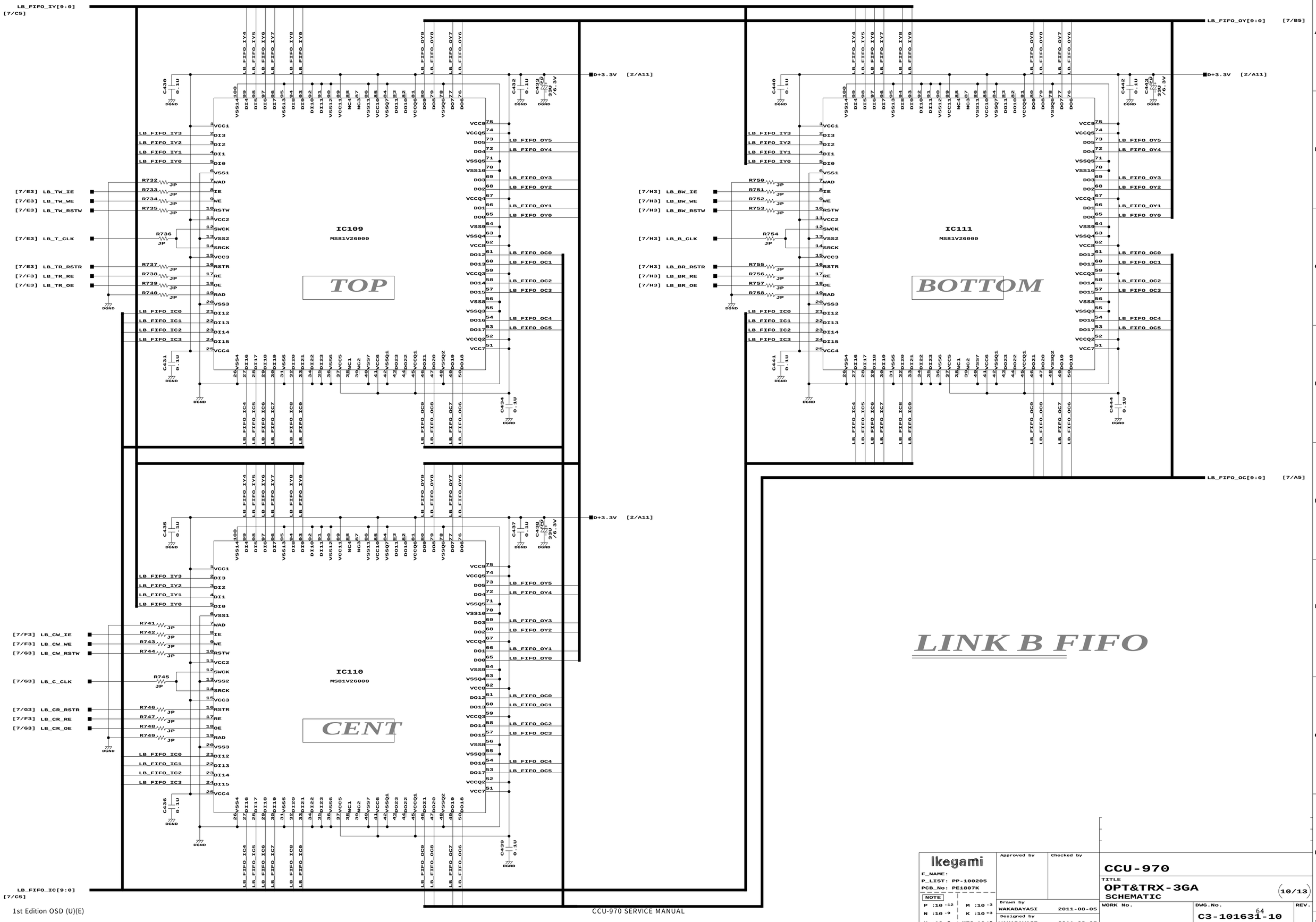
Ikegami	Approved by	Checked by	CCU-970
F_NAME:			TITLE: OPT&TRX-3GA SCHEMATIC (8/13)
P_LIST: PP-100205			
PCB_No: PE1807K			
NOTE: P :10 -12, N :10 -9, U :10 -6, M :10 -3, K :10 +3, MEG:10 +6	Drawn by: WAKABAYASI 2011-08-05		WORK No.
	Designed by: WAKABAYASI 2011-08-05		DWG.No. C3-101631-8
			REV.



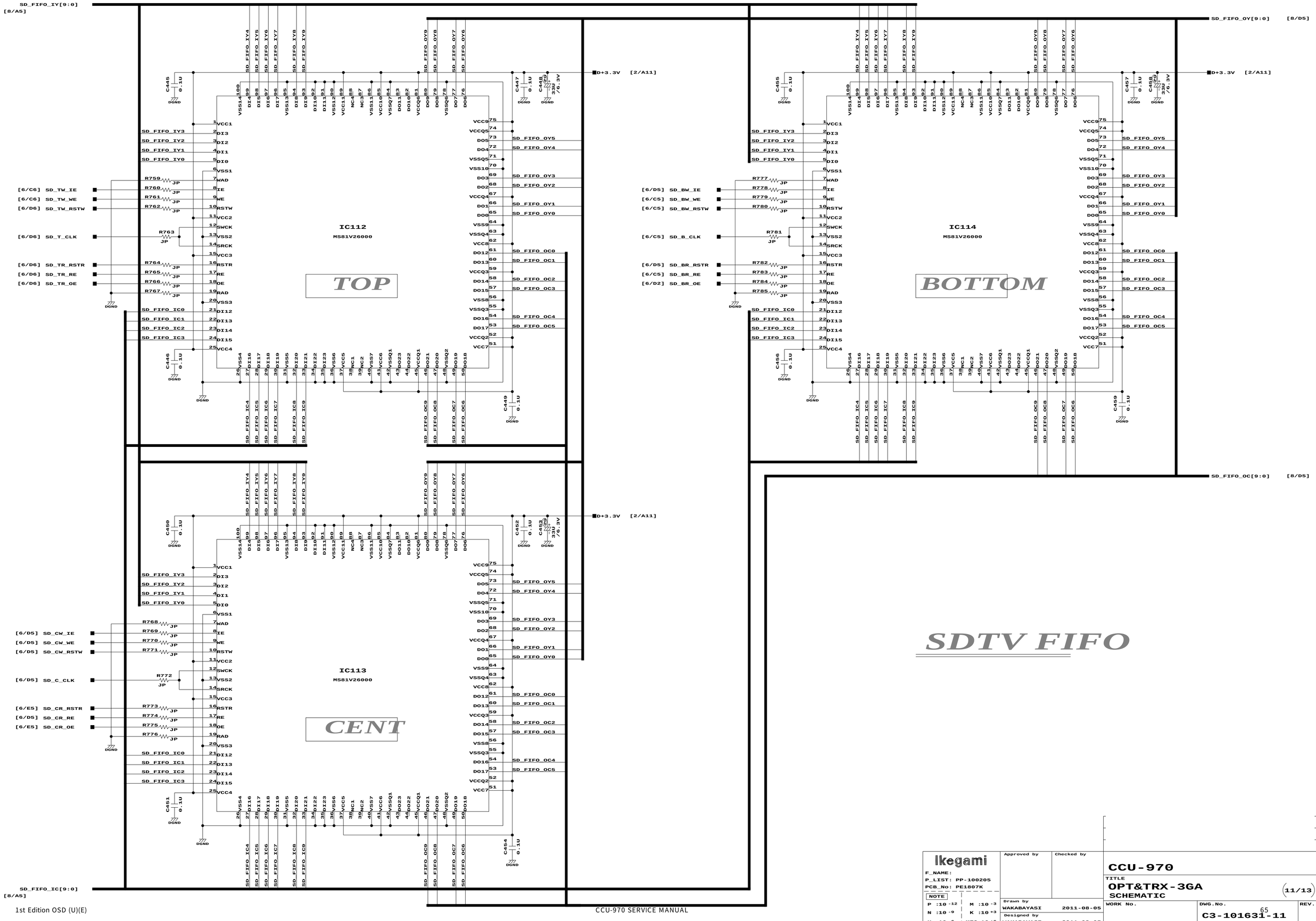


LINK A FIFO

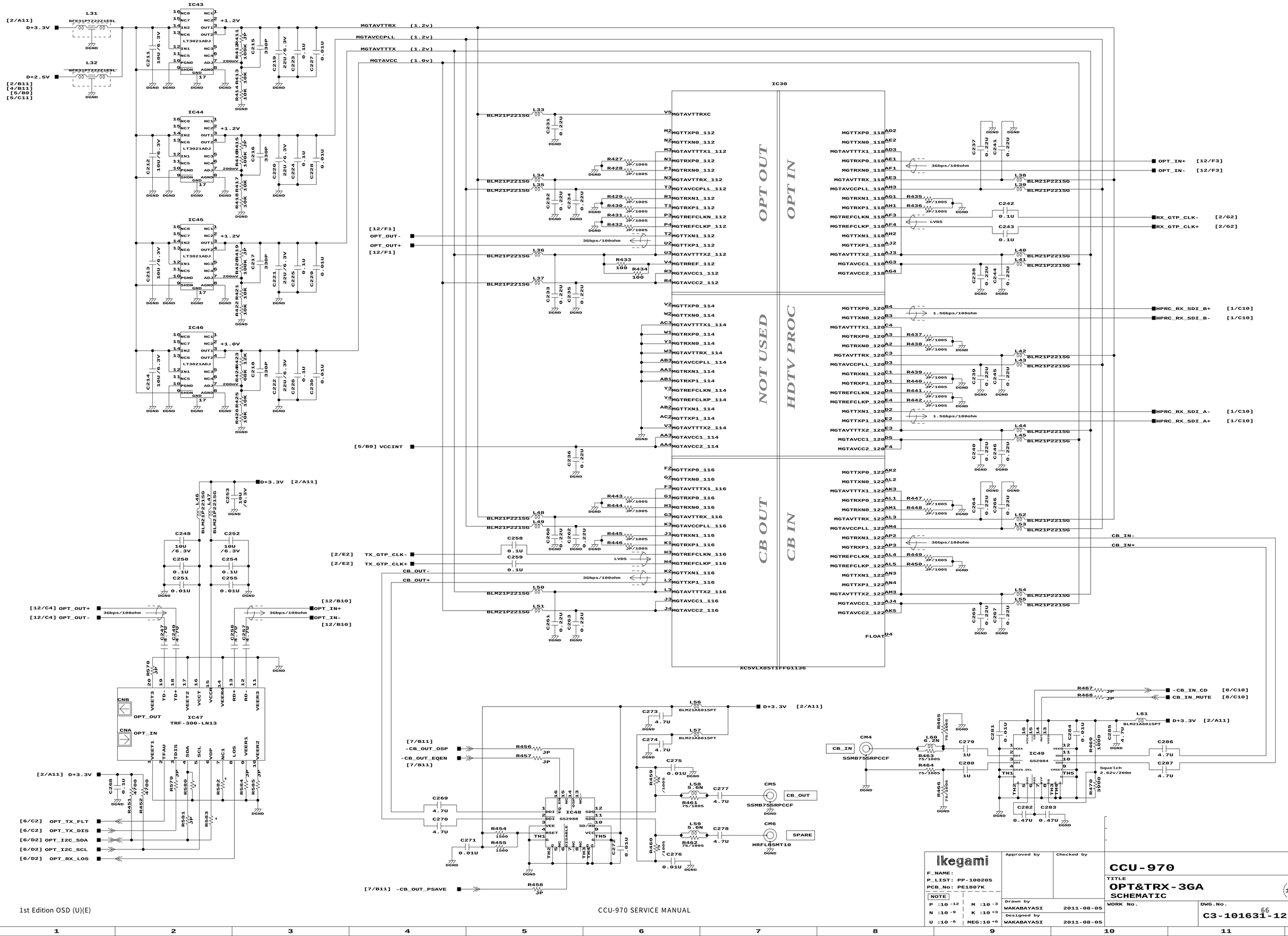
Ikegami	Approved by	Checked by
F_NAME:		
P_LIST: PP-100205		
PCB_No: PE1807K		
NOTE	Drawn by WAKABAYASI 2011-08-05	CCU-970
P :10 -12 M :10 -3	Designed by WAKABAYASI 2011-08-05	TITLE OPT&TRX-3GA SCHEMATIC (9/13)
N :10 -9 K :10 +3		WORK No.
U :10 -6 MEG:10 +6		DWG.No. C3-101631-9 REV.



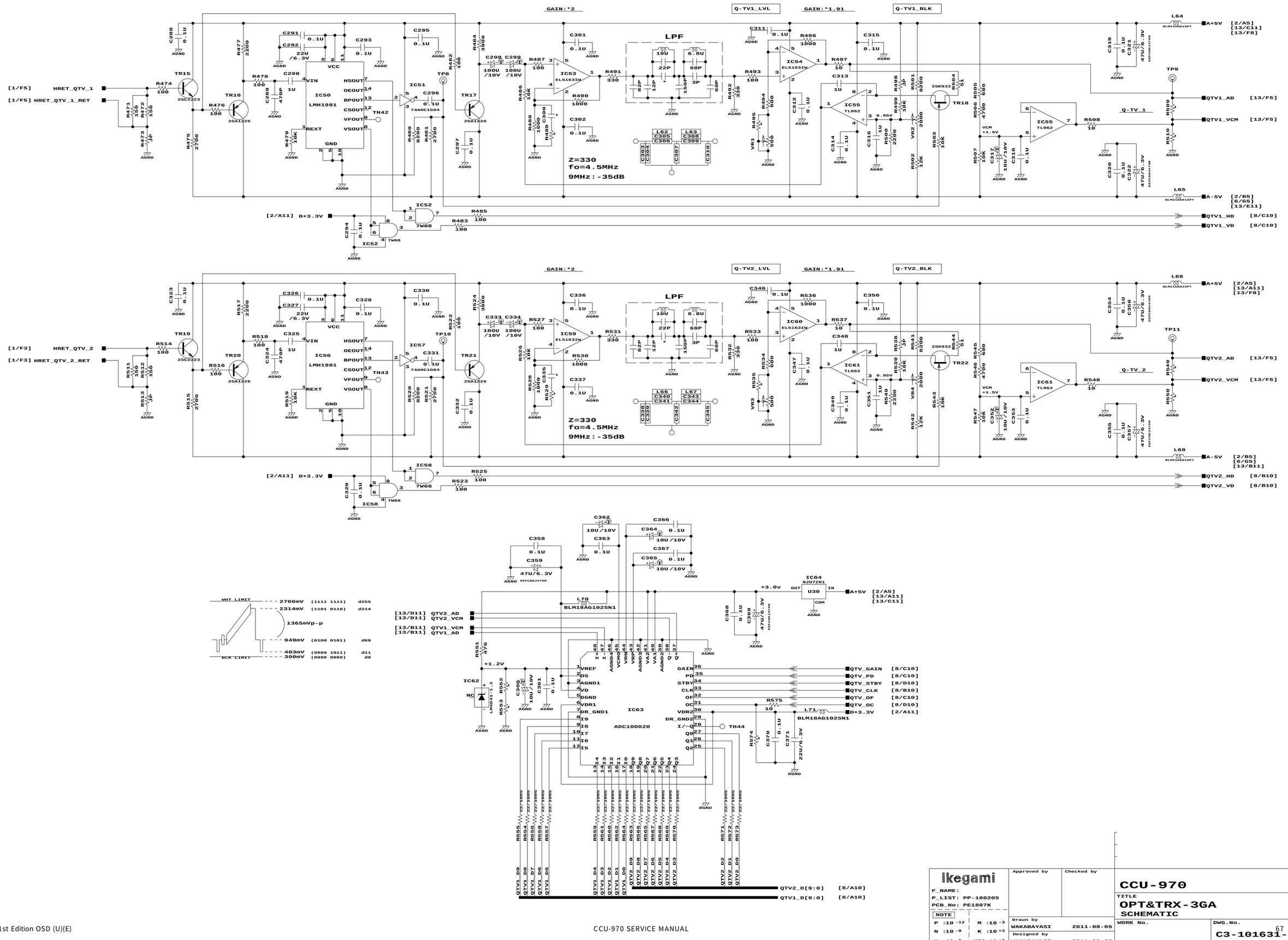
Ikegami	Approved by	Checked by	CCU-970
F_NAME:			TITLE: OPT&TRX-3GA SCHEMATIC (10/13)
P_LIST: PP-100205			
PCB_No: PE1807K			
NOTE: P :10 -12, N :10 -9, U :10 -6, M :10 -3, K :10 +3, MEG:10 +6	Drawn by WAKABAYASI 2011-08-05		WORK No. / DWG.No. C3-101631-10 / REV.
	Designed by WAKABAYASI 2011-08-05		



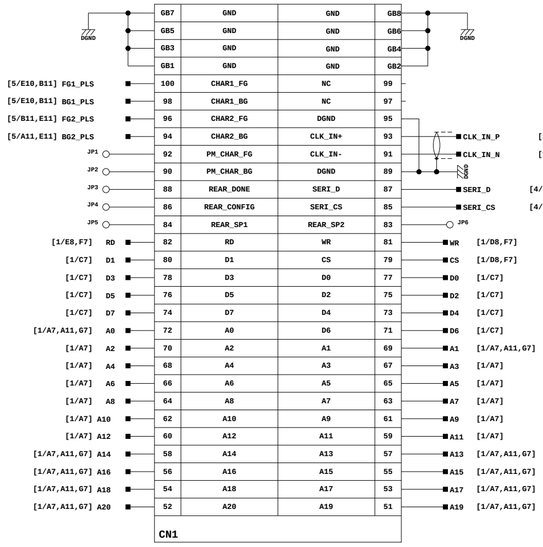
Ikegami	Approved by	Checked by	CCU-970
F_NAME:			TITLE: OPT&TRX-3GA SCHEMATIC (11/13)
P_LIST: PP-100205			
PCB_No: PE1807K			
NOTE	Drawn by: WAKABAYASI 2011-08-05		WORK No. / DWG.No. C3-101631-11 / REV.
P :10 -12, M :10 -3, N :10 -9, K :10 +3, U :10 -6, MEG:10 +6	Designed by: WAKABAYASI 2011-08-05		



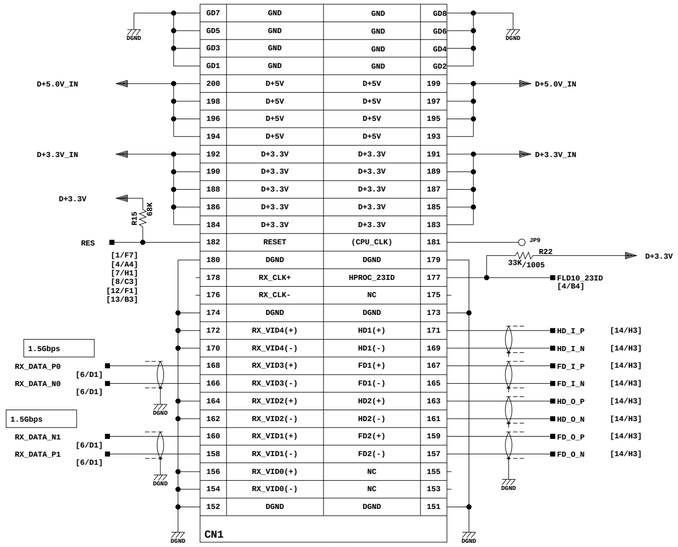
Ikegami	Approved by	Checked by	CCU-970
F_NAME:			TITLE: OPT&TRX-3GA SCHEMATIC (12/13)
P_LIST: PP-100205			
PCB_No: PE1807K			
NOTE: P :10 -12, N :10 -9, U :10 -6, M :10 -3, K :10 +3, MEG:10 +6	Drawn by WAKABAYASI 2011-08-05		WORK No. / DWG.No. C3-101631-12 / REV.
	Designed by WAKABAYASI 2011-08-05		



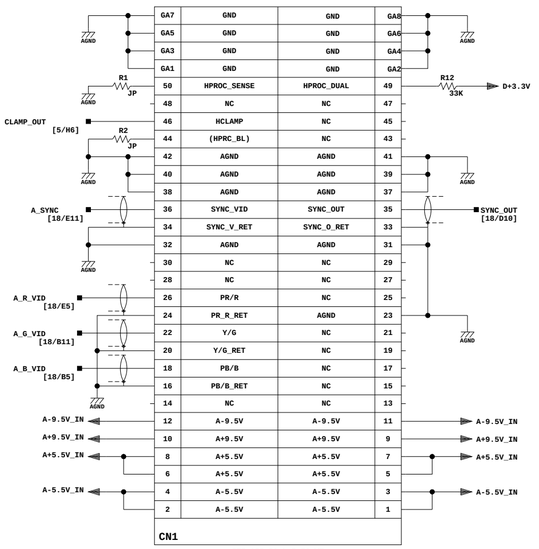
Ikegami	Approved by	Checked by	CCU-970
F_NAME:			TITLE: OPT&TRX-3GA SCHEMATIC (13/13)
P_LIST: PP-100205			
PCB_No: PE1807K	Drawn by: WAKABAYASI 2011-08-05		WORK No.
NOTE	Designed by: WAKABAYASI 2011-08-05		DWG.No. C3-101631-13
P :10 -12 M :10 -3			REV.
N :10 -9 K :10 +3			
U :10 -6 MEG:10 +6			



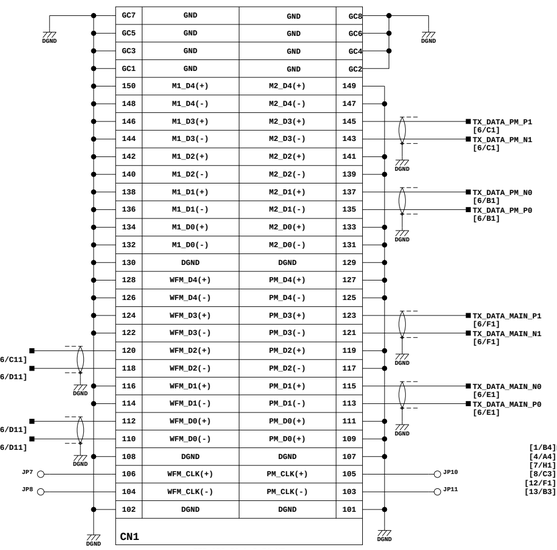
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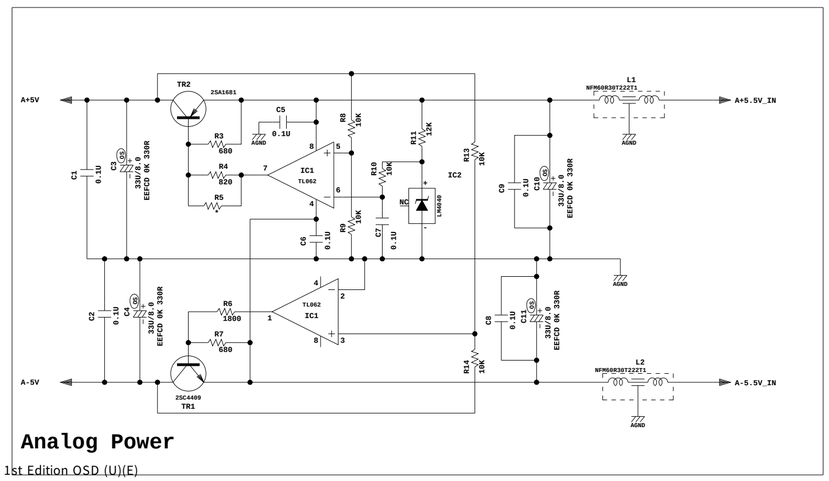
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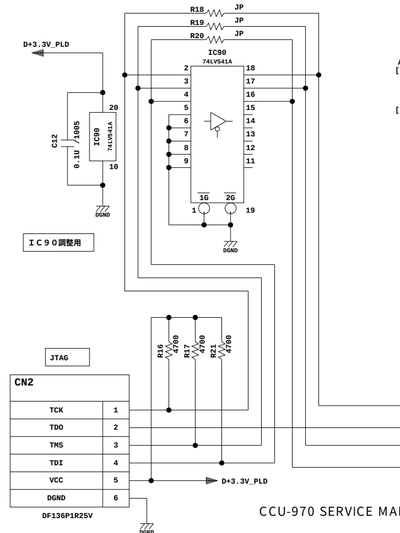


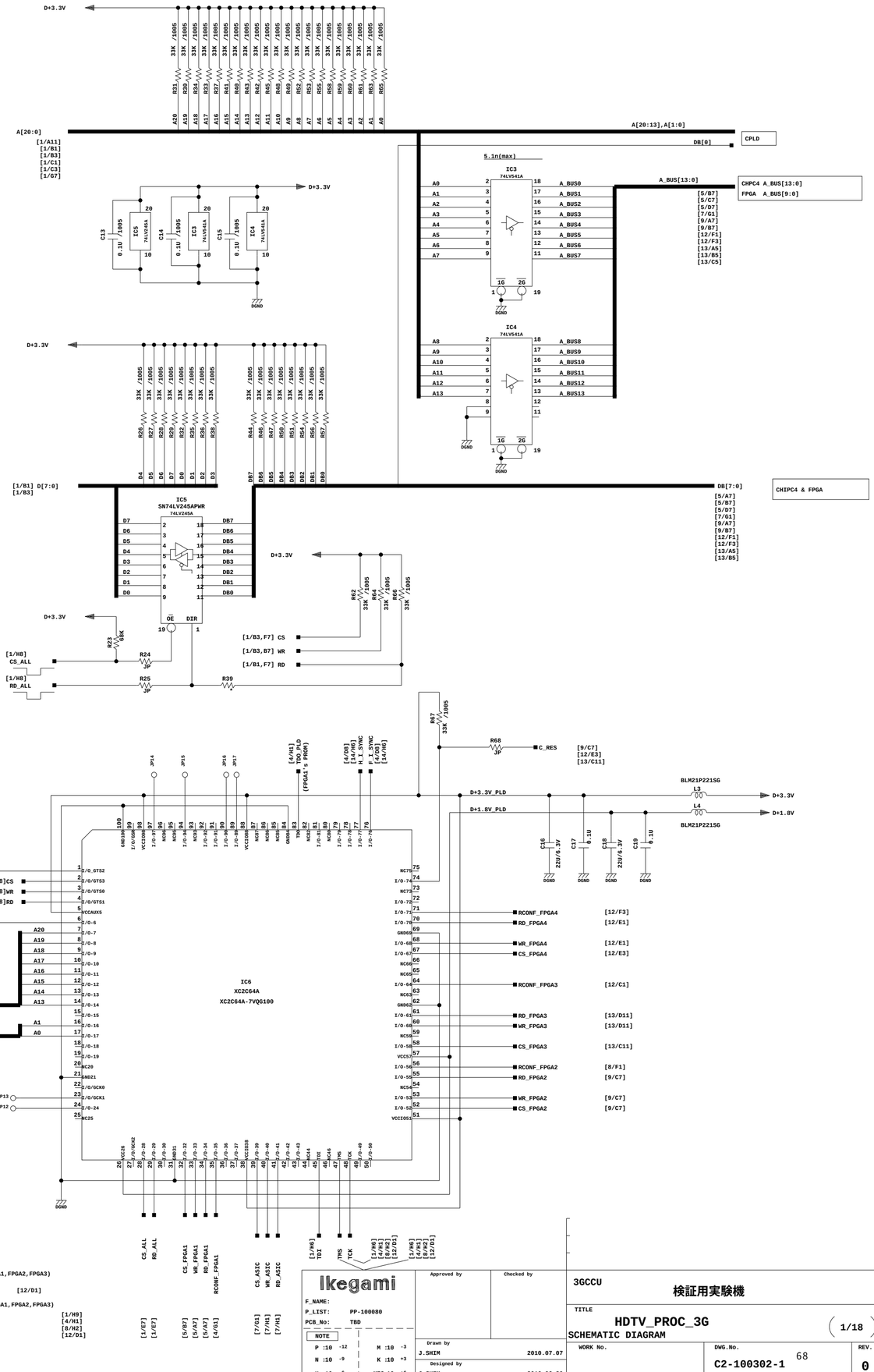
QTS-100-01-L-D-RA-WT



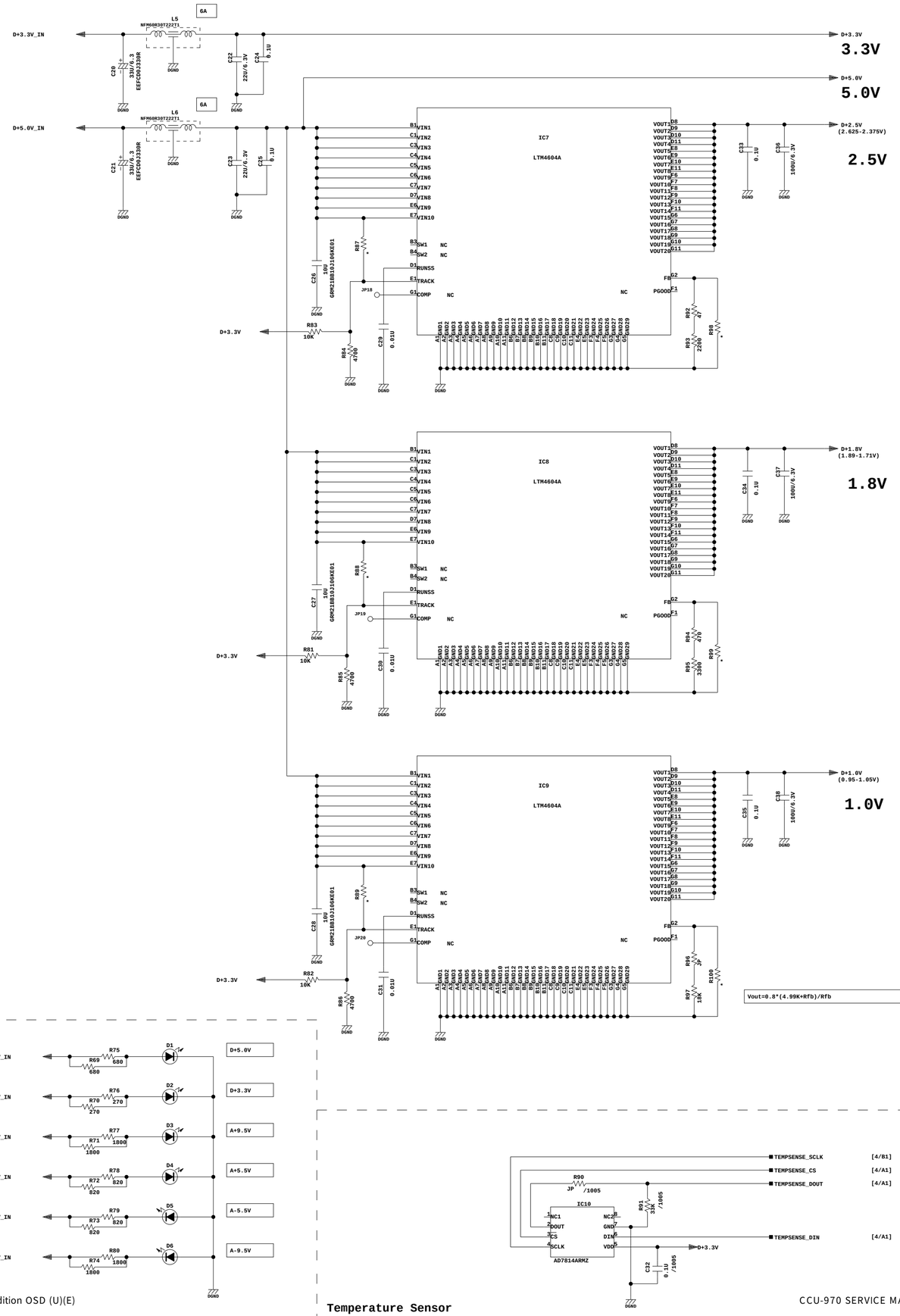
QTS-100-01-L-D-RA-WT

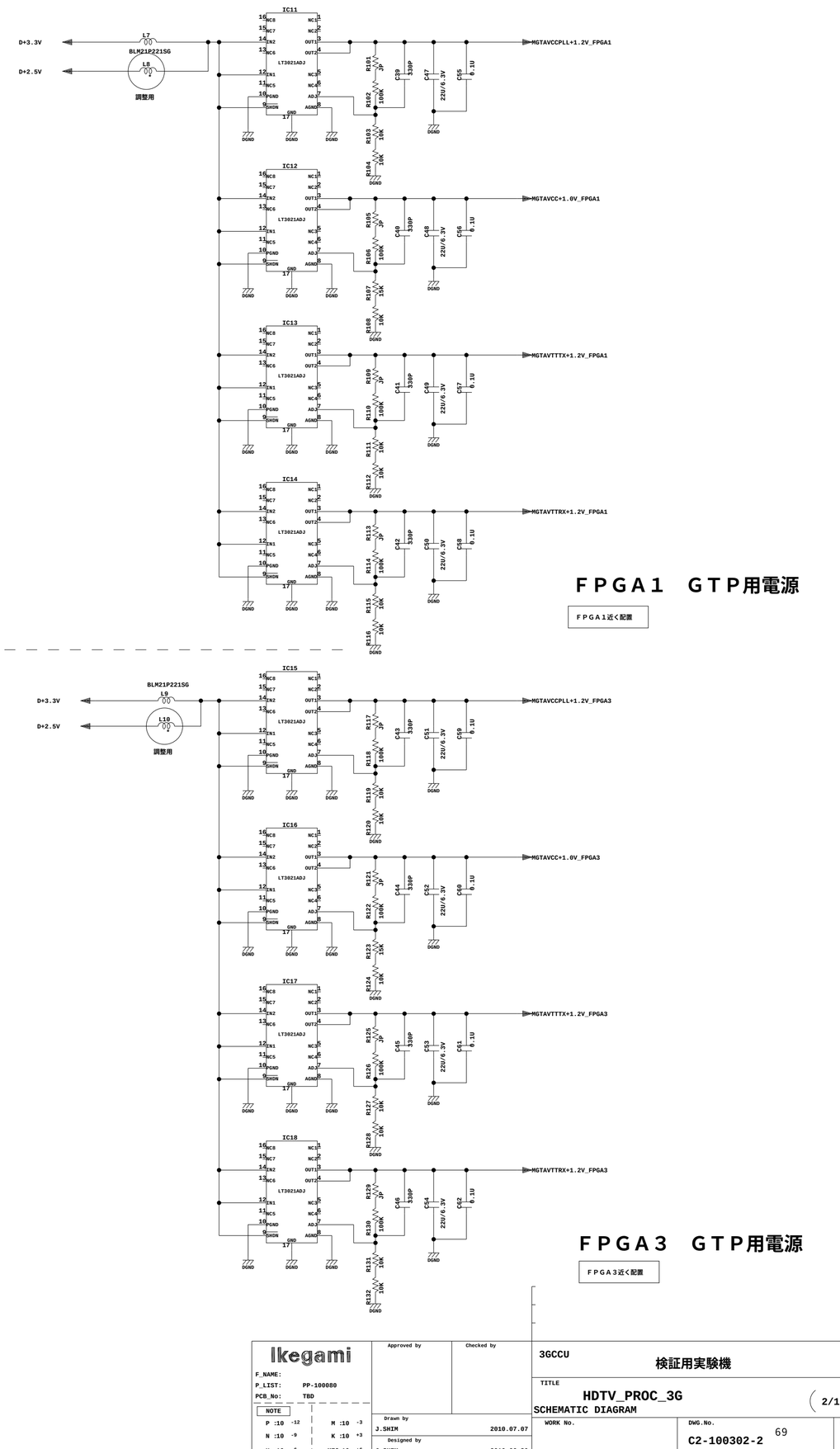






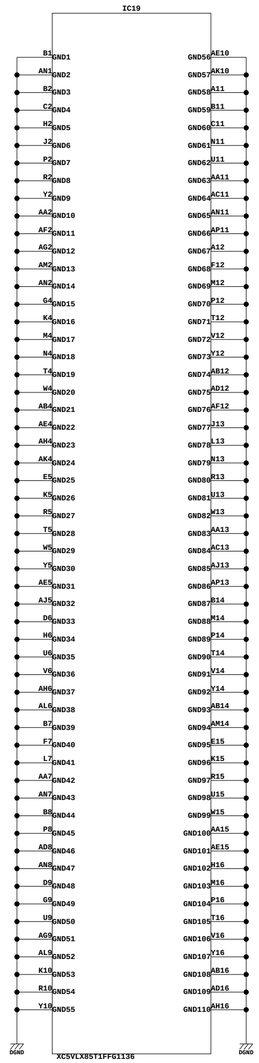
Ikegami	Approved by	Checked by	3GCCU 検証用実験機
F_NAME:			TITLE
P_LIST: PP-100080			HDTV_PROC_3G
PCB_No: TBD			SCHEMATIC DIAGRAM 1/18
NOTE	Drawn by J.SHIM 2010.07.07		WORK No.
P :10 -12 M :10 -3	Designed by J.SHIM 2010.06.30		DWG.No. C2-100302-1
N :10 -9 K :10 +3			REV. 0
U :10 -6 MEG:10 +6			



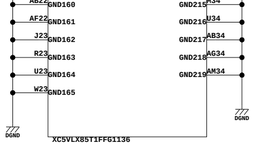


Ikegami	Approved by	Checked by	3GCCU 検証用実験機
F_NAME:			TITLE: HDTV_PROC_3G
P_LIST: PP-100080			SCHEMATIC DIAGRAM 2/18
PCB_No: TBD	Drawn by J.SHIM 2010.07.07		WORK No. / DWG.No. C2-100302-2 / REV. 0
NOTE	Designed by J.SHIM 2010.06.30		

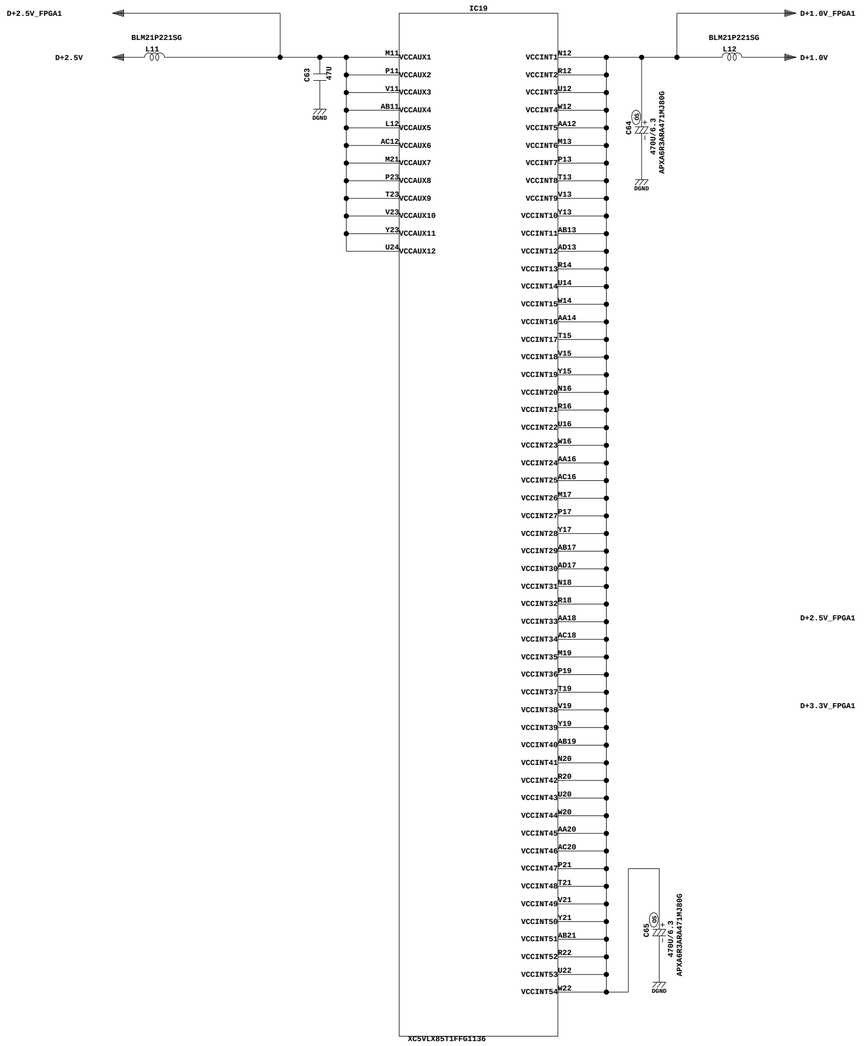
P :10 -12 M :10 -3
N :10 -9 K :10 +3
U :10 -6 MEG:10 +6



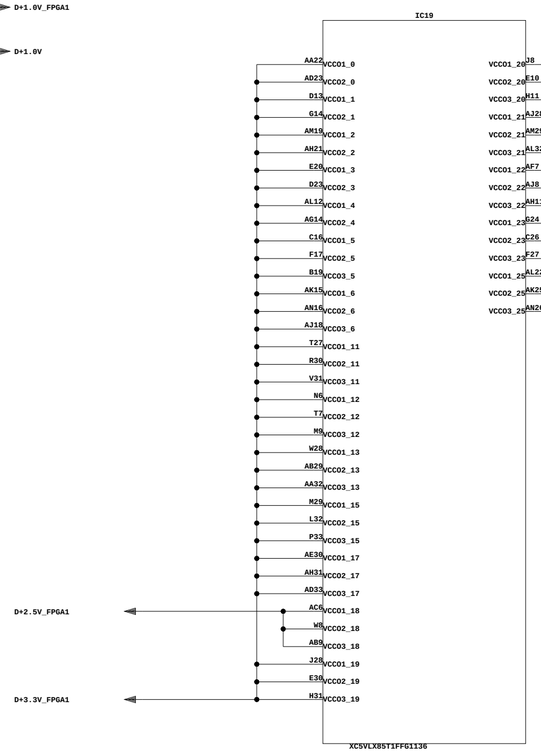
GND



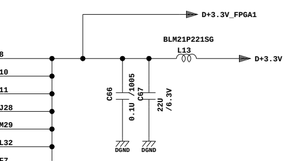
GND



VCCINT



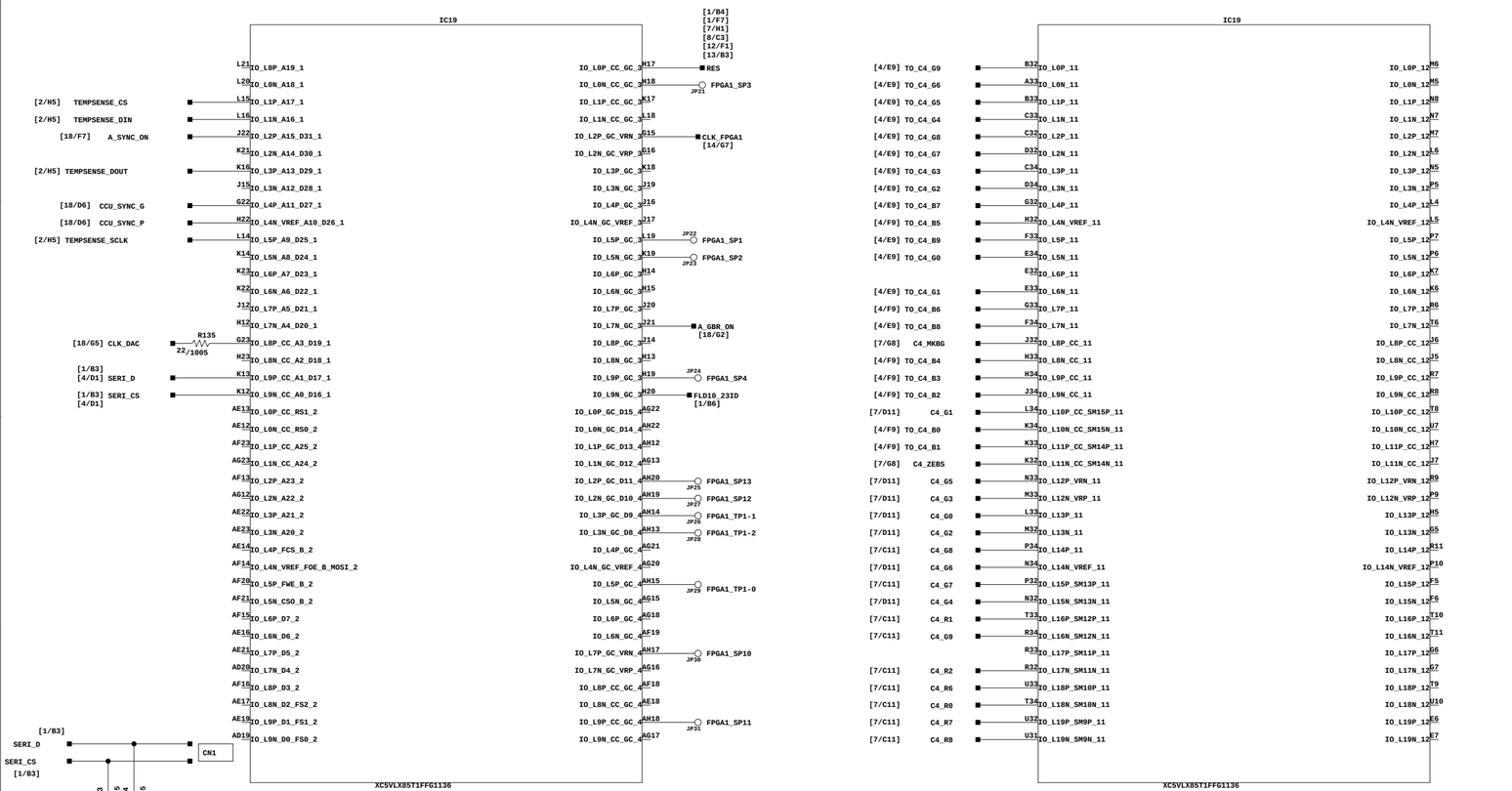
VCCIO

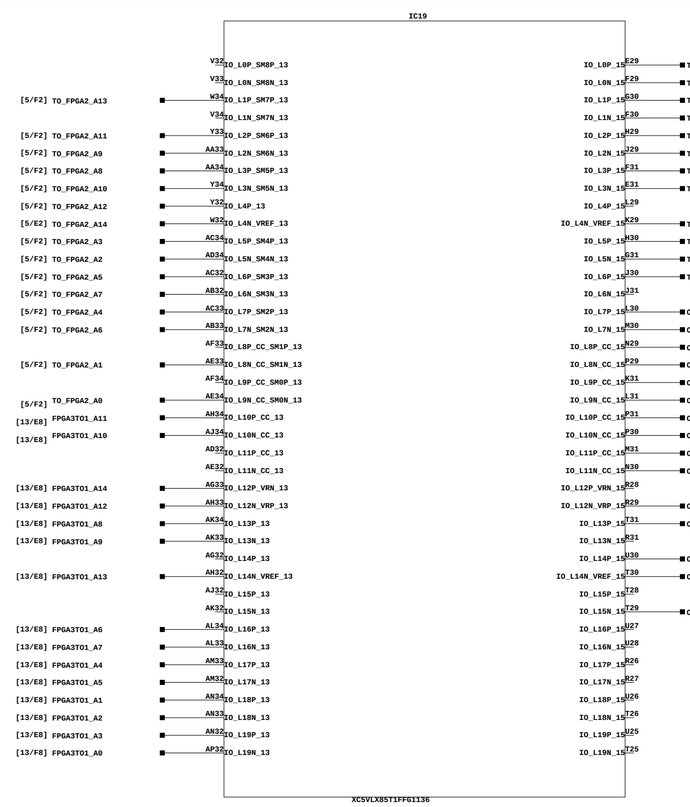


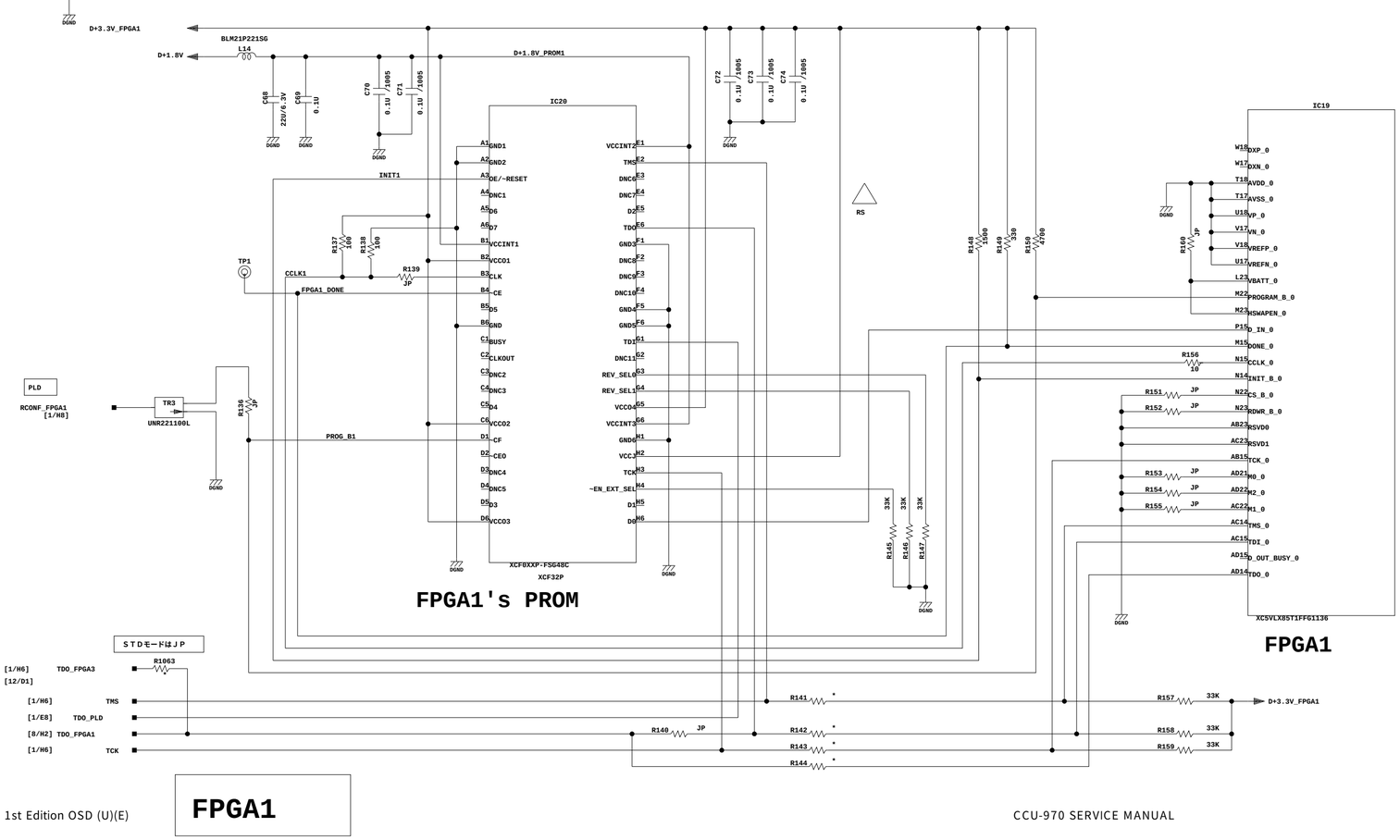
FPGA1

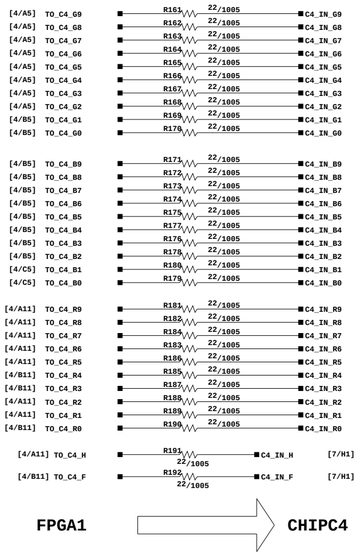
Ikegami	Approved by	Checked by	3GCCU 検証用実験機
F_NAME:			TITLE HDTV_PROC_3G SCHEMATIC DIAGRAM (3/18)
P_LIST: PP-100080			
PCB_No: TBD	Drawn by J.SHIM 2010.07.07		WORK No. / DWG.No. C2-100302-3 / REV. 0
NOTE	Designed by J.SHIM 2010.06.30		

P :10 -12 M :10 -3
N :10 -9 K :10 +3
U :10 -6 MEG:10 +6







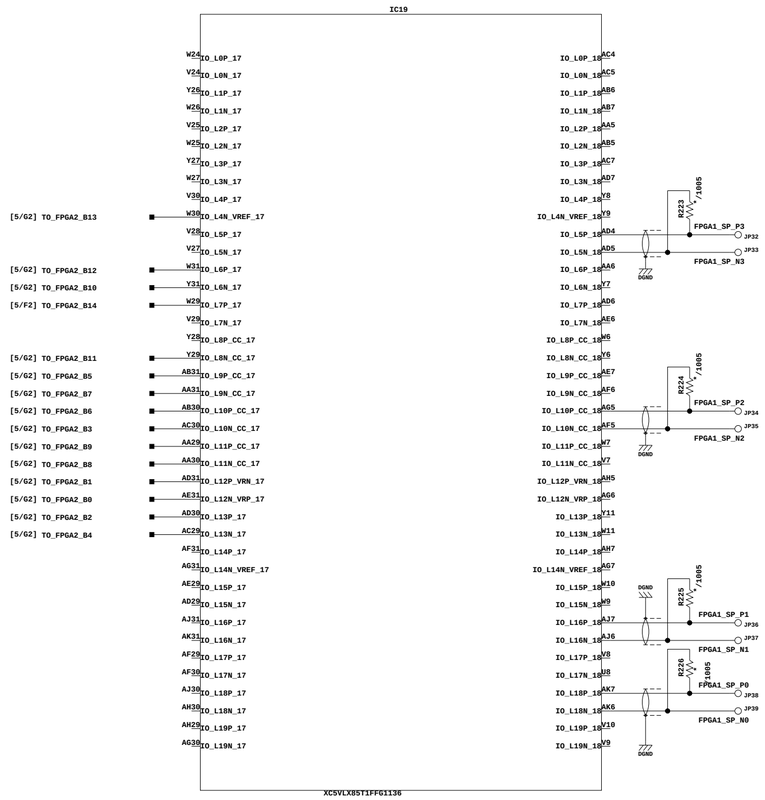


1st Edition OSD (U)(E)

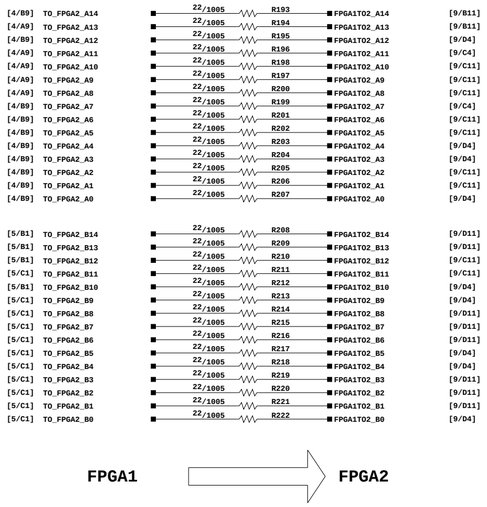
FPGA1

CCU-970 SERVICE MANUAL

Ikegami	Approved by	Checked by	3GCCU 検証用実験機
F_NAME:			TITLE
P_LIST: PP-100080			HDTV_PROC_3G
PCB_No: TBD			SCHEMATIC DIAGRAM 4/18
NOTE P :10 -12 N :10 -9 U :10 -6 M :10 -3 K :10 +3 MEG:10 +6	Drawn by J.SHIM 2010.07.07		WORK No.
	Designed by J.SHIM 2010.06.30		DWG.No. C2-100302-4 71 REV. 0

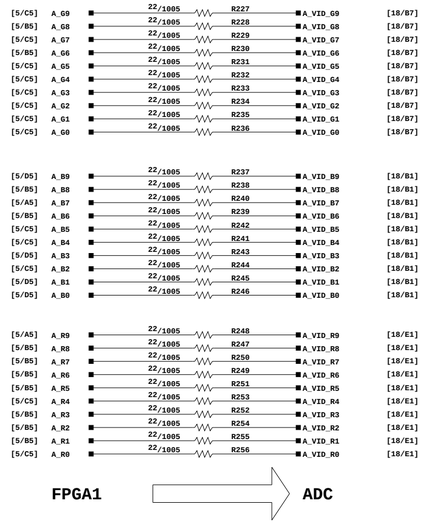


BANK(17)/(18)

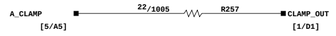


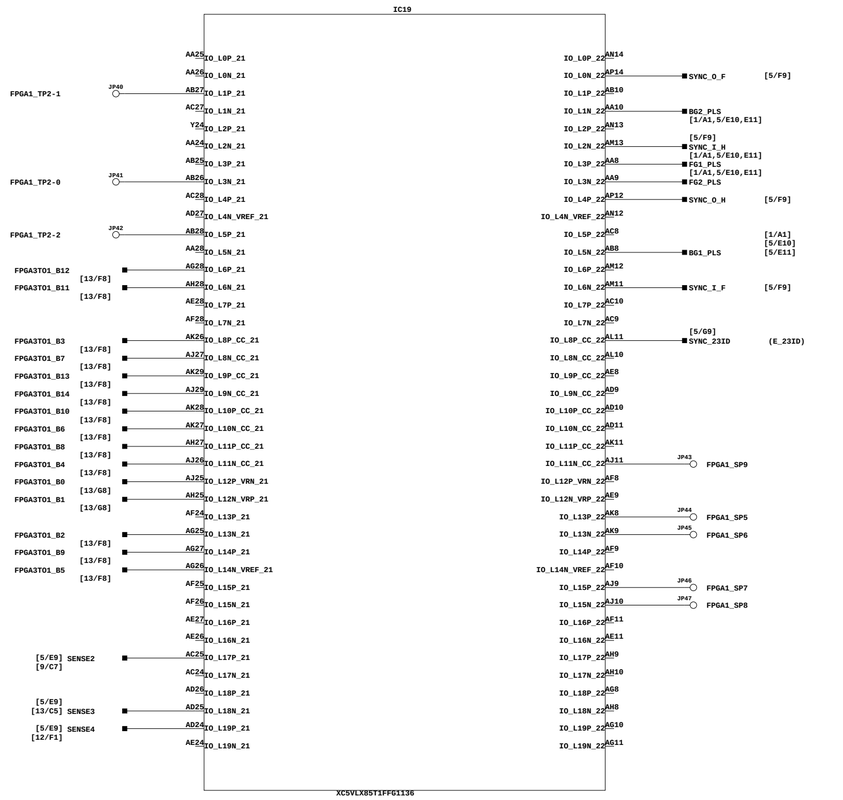
FPGA1 → FPGA2

BANK(19)/(20)

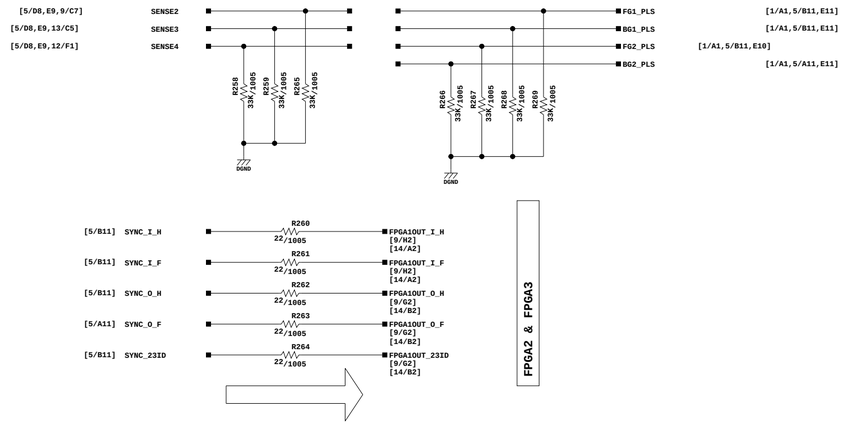


FPGA1 → ADC





BANK(21)/(22)

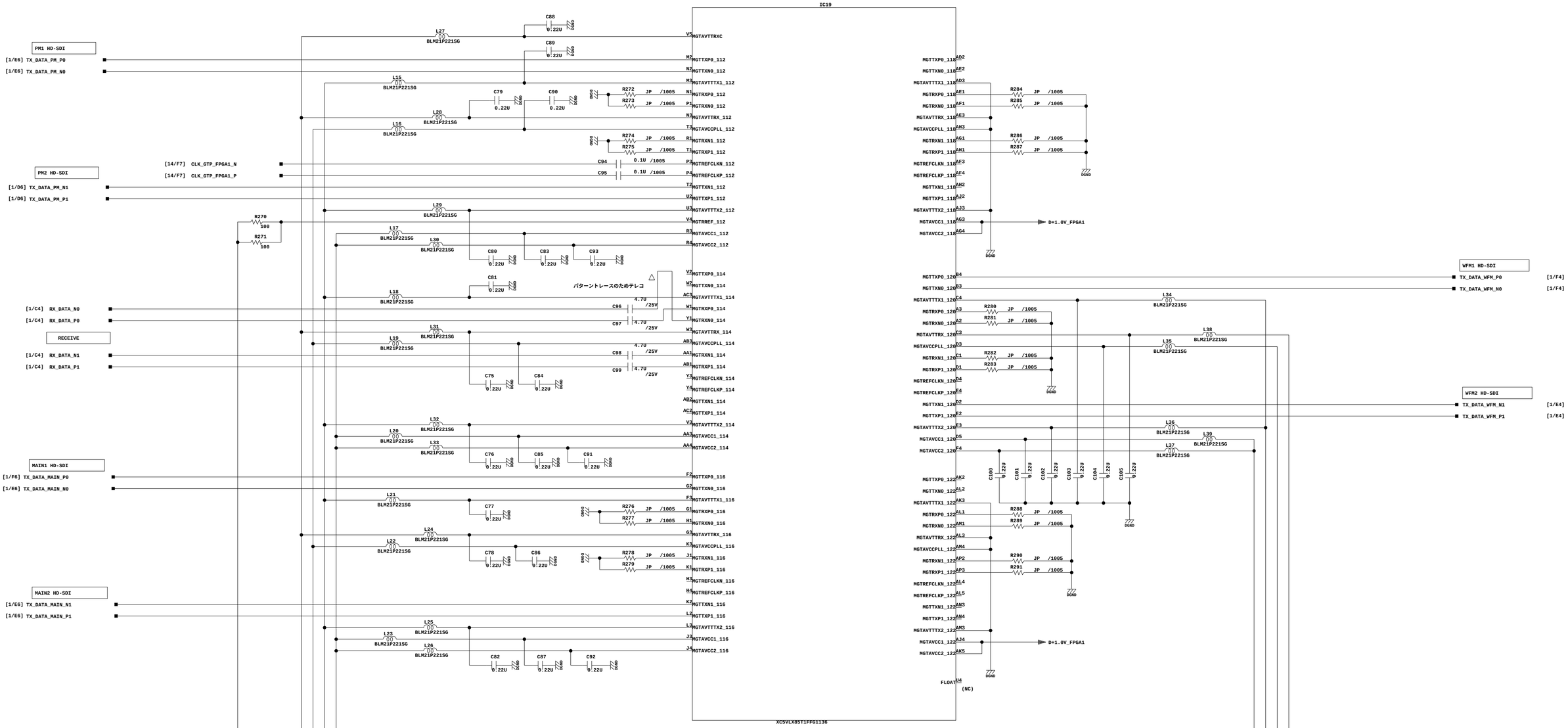


1	2	3	4	5	6	7	8	9	10	11	12

FPGA1

1st Edition OSD (U)(E)

Ikegami	Approved by	Checked by	3GCCU 検証用実験機
F_NAME:			TITLE HDTV_PROC_3G SCHEMATIC DIAGRAM 5/18
P_LIST: PP-100080			
PCB_No: TBD	Drawn by J.SHIM 2010.07.07		WORK No.
NOTE	Designed by J.SHIM 2010.06.30		DWG.No. C2-100302-5 72
P :10 -12 N :10 -9 U :10 -6 M :10 -3 K :10 +3 MEG:10 +6			REV. 0

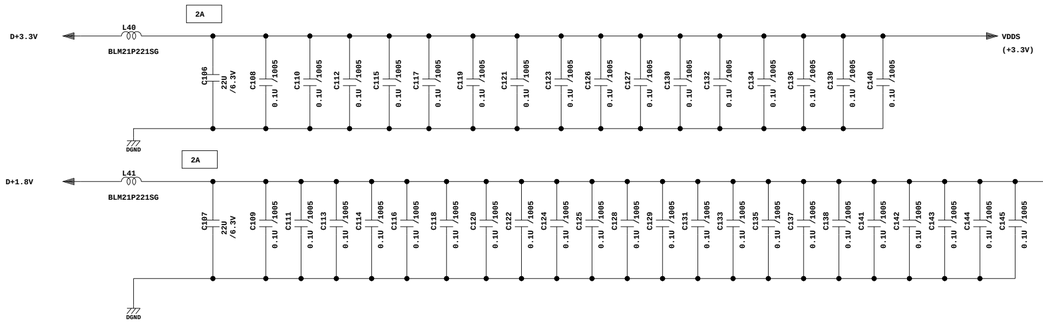


MGT

FPGA1

Ikegami	Approved by	Checked by	3GCCH 検証用実験機
F_NAME:			TITLE: HDTV_PROC_3G SCHEMATIC DIAGRAM (6/18)
P_LIST: PP-100080	Drawn by J.SHIM 2010.07.07		WORK No.
PCB_No: TBD	Designed by J.SHIM 2010.06.30		DWG.No. C2-100302-6 REV. 0

NOTE
P :10 -12 | M :10 -3
N :10 -9 | K :10 +3
U :10 -6 | MEG:10 +6



VDDC (1.8V)	D4	D8	D12	D15	D19	D23	H4	H23	M4	M23	R4	R23	W4	W23	AC4
	AC8	AC12	AC15	AC19	AC23	F23	AA23	AC21	AC6	AA4	F4	D9	AC18	AC9	AC16
	T23	AC11	D18	D16	D6	V23	J4	J23	N25	V4	D21	T4	D11		
VDDS (3.0V)	D10	D17	K4	K23	U4	U23	AC10	AC17	D20	AC22	AC20	AC7	G4	AB4	Y23
	G23	AC14	Y4	D5	N24	P4									
DGND	E5	E8	E10	E12	E15	E17	E19	E22	H5	H22	K5	K22	M5	M22	R5
	R22	U5	U22	W5	W22	AB5	AB8	AB10	AB12	AB15	AB17	AB19	AB22	E6	E7
	E9	F5	E16	E11	E18	E21	F22	G22	J22	L22	E20	V22	Y22	AA22	AB21
	AB20	AB18	AB16	AB14	AB13	AB11	AB9	R25	N22	AB7	AB6	AA5	Y5	V5	T5
	P5	N5	L5	J5	G5										

IC21 TC250C5A0TB-C001

GV4-016

420P BGA

FPGA1

CHIPC4

1st Edition OSD (0)(E)

CCU-970 SERVICE MANUAL

Ikegami	Approved by	Checked by
F_NAME:		
P_LIST: PP-100080		
PCB_No: TBD		
NOTE	Drawn by J.SHIM 2010.07.07	
P :10 -12 M :10 -3		
N :10 -9 K :10 +3	Designed by J.SHIM 2010.06.30	
U :10 -6 MEG:10 +6		

3GCCU 検証用実験機

TITLE HDTV_PROC_3G 7/18

SCHEMATIC DIAGRAM

WORK No. | DWG.No. C2-100302-7 | REV. 0

BANK(1)-(4)

IC22 — XC5VLX85-1FFG676

G14	IO_L0P_A19_1	IO_L0P_CC_GC_3	F14
F13	IO_L0N_A18_1	IO_L0N_CC_GC_3	E13
H14	IO_L1P_A17_1	IO_L1P_CC_GC_3	D13
H13	IO_L1N_A16_1	IO_L1N_CC_GC_3	D14
F15	IO_L2P_A15_D31_1	IO_L2P_GC_VRN_3	E12
G15	IO_L2N_A14_D30_1	IO_L2N_GC_VRP_3	F12
G12	IO_L3P_A13_D29_1	IO_L3P_GC_3	D15
H12	IO_L3N_A12_D28_1	IO_L3N_GC_3	E15
G16	IO_L4P_A11_D27_1	IO_L4P_GC_3	E10
H16	IO_L4N_VREF_A10_D26_1	IO_L4N_GC_VREF_3	E11
H11	IO_L5P_A9_D25_1	IO_L5P_GC_3	E16
G11	IO_L5N_A8_D24_1	IO_L5N_GC_3	E17
H17	IO_L6P_A7_D23_1	IO_L6P_GC_3	F9
G17	IO_L6N_A6_D22_1	IO_L6N_GC_3	F10
G10	IO_L7P_A5_D21_1	IO_L7P_GC_3	E18
G9	IO_L7N_A4_D20_1	IO_L7N_GC_3	E19
G19	IO_L8P_CC_A3_D19_1	IO_L8P_GC_3	F8
H18	IO_L8N_CC_A2_D18_1	IO_L8N_GC_3	E8
H9	IO_L9P_CC_A1_D17_1	IO_L9P_GC_3	F18
H8	IO_L9N_CC_A0_D16_1	IO_L9N_GC_3	F17
Y10	IO_L0P_CC_RS1_2	IO_L0P_GC_D15_2	AD18
Y11	IO_L0N_CC_RS0_2	IO_L0N_GC_D14_2	AC18
AA18	IO_L1P_CC_A25_2	IO_L1P_GC_D13_2	AB10
Y18	IO_L1N_CC_A24_2	IO_L1N_GC_D12_2	AB9
Y9	IO_L2P_A23_2	IO_L2P_GC_D11_2	AC17
AA8	IO_L2N_A22_2	IO_L2N_GC_D10_2	AC16
AA17	IO_L3P_A21_2	IO_L3P_GC_D9_2	AC8
AB17	IO_L3N_A20_2	IO_L3N_GC_D8_2	AC9
AA10	IO_L4P_FCS_B_2	IO_L4P_GC_2	AD15
AA9	IO_L4N_VREF_FOE_B_MOSI_2	IO_L4N_GC_VREF_2	AD14
AB15	IO_L5P_FWE_B_2	IO_L5P_GC_2	AD8
AB16	IO_L5N_CSO_B_2	IO_L5N_GC_2	AC7
Y12	IO_L6P_D7_2	IO_L6P_GC_2	AD13
Y13	IO_L6N_D6_2	IO_L6N_GC_2	AC14
AA15	IO_L7P_D5_2	IO_L7P_GC_VRN_2	AB12
AB14	IO_L7N_D4_2	IO_L7N_GC_VRP_2	AC11
AA12	IO_L8P_D3_2	IO_L8P_GC_2	AC13
AB11	IO_L8N_D2_FS2_2	IO_L8N_GC_2	AC12
AA13	IO_L9P_D1_FS1_2	IO_L9P_CC_GC_2	AD11
AA14	IO_L9N_D0_FS0_2	IO_L9N_CC_GC_2	AD10

DGND, R346 /1005, JP51 FPGA2_SP_P0, JP52 FPGA2_SP_N0, [14/F7] CLK_FPGA2_P, DGND, R346 /1005, CLK_FPGA2_N [14/F7], FPGA2_SP_P1, JP53, JP54, DGND, R347 /1005, FPGA2_SP_N1

CLK_FPGA2 [14/G7]

[1/B4] RES

JP48 FPGA2_TP3-0

JP50 FPGA2_TP3-1

JP49 FPGA2_TP3-2

BANK(11)-(12)

IC22 — XC5VLX85-1FFG676

[11/E11] FIFO4_R4	G20	IO_L0P_11	IO_L0P_12 E7
[11/D11] FIFO4_R9	F20	IO_L0N_11	IO_L0N_12 E7
	E21	IO_L1P_11	IO_L1P_12 E6 → TO_FIFO34_B4 [0/F9]
	E20	IO_L1N_11	IO_L1N_12 E5 → TO_FIFO34_B3 [0/F9]
	E22	IO_L2P_11	IO_L2P_12 G6 → TO_FIFO34_G5 [0/E9]
	E23	IO_L2N_11	IO_L2N_12 G7
[11/D11] FIFO4_R8	F22	IO_L3P_11	IO_L3P_12 F5 → TO_FIFO34_G9 [0/E9]
[11/E11] FIFO4_R7	F23	IO_L3N_11	IO_L3N_12 F4 → TO_FIFO34_G8 [0/E9]
[11/E11] FIFO4_R3	G21	IO_L4P_11	IO_L4P_12 J6 → TO_FIFO12_R9 [0/F7]
[11/E11] FIFO4_R2	G22	IO_L4N_VREF_11	IO_L4N_VREF_12 H7
[11/D11] FIFO4_B9	H21	IO_L5P_11	IO_L5P_12 H6 → TO_FIFO34_G4 [0/E9]
[11/D11] FIFO4_B8	H22	IO_L5N_11	IO_L5N_12 G5 → TO_FIFO34_G3 [0/E9]
	J19	IO_L6P_11	IO_L6P_12 K4 → TO_FIFO4_RSTR [0/H7]
	H19	IO_L6N_11	IO_L6N_12 G4 → TO_FIFO34_G2 [0/E9]
[11/D11] FIFO4_B7	H23	IO_L7P_11	IO_L7P_12 J5 → TO_FIFO3_RSTR [0/H7]
[11/D11] FIFO4_B1	J23	IO_L7N_11	IO_L7N_12 J4 → TO_FIFO3_RE [0/H7]
[11/D11] FIFO4_B2	J21	IO_L8P_CC_11	IO_L8P_CC_12 K6 → TO_FIFO12_R7 [0/F7]
[11/D11] FIFO4_B3	J20	IO_L8N_CC_11	IO_L8N_CC_12 K7
[11/C11] FIFO4_G8	K21	IO_L9P_CC_11	IO_L9P_CC_12 L7
[11/C11] FIFO4_G9	K20	IO_L9N_CC_11	IO_L9N_CC_12 M7
[11/C11] FIFO4_G6	K23	IO_L10P_CC_SM15P_11	IO_L10P_CC_12 K5 → TO_FIFO12_R8 [0/F7]
[11/C11] FIFO4_G7	K22	IO_L10N_CC_SM15N_11	IO_L10N_CC_12 L5 → TO_FIFO12_R3 [0/F7]
[11/C11] FIFO4_G1	L20	IO_L11P_CC_SM14P_11	IO_L11P_CC_12 L4 → TO_FIFO12_R2 [0/F7]
	L19	IO_L11N_CC_SM14N_11	IO_L11N_CC_12 L3 → TO_FIFO12_R1 [0/F7]
[11/D5] FIFO3_R9	L23	IO_L12P_VRN_11	IO_L12P_VRN_12 M5 → TO_FIFO12_B8 [0/F7]
[11/D11] FIFO4_G0	L22	IO_L12N_VRP_11	IO_L12N_VRP_12 M6 → TO_FIFO12_B9 [0/F7]
[11/E5] FIFO3_R3	M22	IO_L13P_11	IO_L13P_12 N7
[11/E5] FIFO3_R4	M21	IO_L13N_11	IO_L13N_12 N6 → TO_FIFO12_B4 [0/F7]
	P19	IO_L14P_11	IO_L14P_12 P3 → TO_FIFO12_G6 [0/F7]
	N19	IO_L14N_VREF_11	IO_L14N_VREF_12 N3 → TO_FIFO12_B2 [0/F7]
[11/E5] FIFO3_R6	M20	IO_L15P_SM13P_11	IO_L15P_12 M4 → TO_FIFO12_B7 [0/F7]
	M19	IO_L15N_SM13N_11	IO_L15N_12 N4 → TO_FIFO12_B3 [0/F7]
[11/D5] FIFO3_B3	P23	IO_L16P_SM12P_11	IO_L16P_12 P5 → TO_FIFO12_G8 [0/F7]
[11/D5] FIFO3_B8	N23	IO_L16N_SM12N_11	IO_L16N_12 P4 → TO_FIFO12_G7 [0/F7]
[11/D5] FIFO3_B9	N22	IO_L17P_SM11P_11	IO_L17P_12 R3 → TO_FIFO12_G2 [0/F7]
[11/E5] FIFO3_R5	N21	IO_L17N_SM11N_11	IO_L17N_12 T3 → TO_FIFO2_RSTW [0/H7]
[11/C5] FIFO3_G7	R22	IO_L18P_SM10P_11	IO_L18P_12 R6 → TO_FIFO12_G4 [0/F7]
[11/C5] FIFO3_G6	R23	IO_L18N_SM10N_11	IO_L18N_12 R5 → TO_FIFO12_G3 [0/F7]
[11/D5] FIFO3_B4	P21	IO_L19P_SM9P_11	IO_L19P_12 P6 → TO_FIFO12_G9 [0/F7]
[11/D5] FIFO3_B5	P20	IO_L19N_SM9N_11	IO_L19N_12 R7

POWER

IC22 — XC5VLX85-1FFG676

D+2.5V_FPGA2, L44 BLM21P221SG, D+2.5V

A1	GND1	GND63	U13
F1	GND2	GND64	V13
L1	GND3	GND65	C14
T1	GND4	GND66	T14
AA1	GND5	GND67	V14
AF1	GND6	GND68	Y14
D2	GND7	GND69	AE14
P2	GND8	GND70	C15
AD2	GND9	GND71	J15
B3	GND10	GND72	L15
G3	GND11	GND73	R15
M3	GND12	GND74	R15
U3	GND13	GND75	V15
K4	GND14	GND76	V15
Y4	GND15	GND77	AC15
AE4	GND16	GND78	A16
C5	GND17	GND79	F16
H5	GND18	GND80	C16
AC5	GND19	GND81	H16
A6	GND20	GND82	P16
F6	GND21	GND83	T16
T6	GND22	GND84	V16
AF6	GND23	GND85	Y16
J7	GND24	GND86	AF16
P7	GND25	GND87	J17
W7	GND26	GND88	L17
B8	GND27	GND89	R17
K8	GND28	GND90	R17
M8	GND29	GND91	U17
P8	GND30	GND92	Y17
T8	GND31	GND93	B18
V8	GND32	GND94	G18
AB8	GND33	GND95	M18
E9	GND34	GND96	P18
J9	GND35	GND97	AB18
L9	GND36	GND98	E19
N9	GND37	GND99	K19
R9	GND38	GND100	R19
U9	GND39	GND101	V19
W9	GND40	GND102	AE19
AE9	GND41	GND103	H20
H10	GND42	GND104	V20
M10	GND43	GND105	A21
P10	GND44	GND106	L21
T10	GND45	GND107	AA21
V10	GND46	GND108	AF21
A11	GND47	GND109	D22
L11	GND48	GND110	P22
N11	GND49	GND111	AD22
R11	GND50	GND112	G23
AA11	GND51	GND113	U23
AF11	GND52	GND114	K24
D12	GND53	GND115	Y24
K12	GND54	GND116	C25
M12	GND55	GND117	H25
P12	GND56	GND118	AC25
T12	GND57	GND119	A26
AD12	GND58	GND120	F26
B13	GND59	GND121	L26
G13	GND60	GND122	T26
J13	GND61	GND123	AA26
L13	GND62	GND124	AF26

C153 47U, DGND

C154 220U/6.3 APXA6R3ARA221MH80G, DGND

J8	VCCAUX1	VCCO1_0	Y9
L8	VCCAUX2	VCCO2_0	W12
N8	VCCAUX3	VCCO1_1	C10
R8	VCCAUX4	VCCO2_1	F11
U8	VCCAUX5	VCCO1_2	AA16
W8	VCCAUX6	VCCO2_2	AD17
W16	VCCAUX7	VCCO1_3	E14
K17	VCCAUX8	VCCO2_3	D17 → D+2.5V_FPGA2
M17	VCCAUX9	VCCO1_4	AC10
P17	VCCAUX10	VCCO2_4	AB13
T17	VCCAUX11	VCCO1_11	F21
V17	VCCAUX12	VCCO2_11	J22
K9	VCCINT1	VCCO3_11	H25
M9	VCCINT2	VCCO1_12	J2
P9	VCCINT3	VCCO2_12	H5
T9	VCCINT4	VCCO3_12	L6
V9	VCCINT5	VCCO1_13	N20
L10	VCCINT6	VCCO2_13	M23
N10	VCCINT7	VCCO3_13	R24
R10	VCCINT8	VCCO1_14	W2
U10	VCCINT9	VCCO2_14	R4
M11	VCCINT10	VCCO3_14	V5
P11	VCCINT11	VCCO1_15	C20
T11	VCCINT12	VCCO2_15	B23
J12	VCCINT13	VCCO3_15	E24
L12	VCCINT14	VCCO1_16	E4
N12	VCCINT15	VCCO2_16	D7
R12	VCCINT16	VCCO3_16	G8
U12	VCCINT17	VCCO1_17	T21
K13	VCCINT18	VCCO2_17	W22
T13	VCCINT19	VCCO3_17	V25
V13	VCCINT20	VCCO1_18	AB3
J14	VCCINT21	VCCO2_18	AA6
L14	VCCINT22	VCCO3_18	AD7
U14	VCCINT23	VCCO1_21	AC20
W14	VCCINT24	VCCO2_21	AB23
H15	VCCINT25	VCCO3_21	AE24
K15	VCCINT26		
M15	VCCINT27		
P15	VCCINT28		
T15	VCCINT29		
V15	VCCINT30		
Y15	VCCINT31		
J16	VCCINT32		
L16	VCCINT33		
N16	VCCINT34		
U16	VCCINT35		
R16	VCCINT36		

D+3.3V_FPGA2, L45 BLM21P221SG, D+3.3V, C156 47U, DGND

C155 220U/6.3 APXA6R3ARA221MH80G, DGND

D+1.0V_FPGA2, L43 BLM21P221SG, D+1.0V

GND

IC22 — XC5VLX85-1FFG676

R14	DXP_0		
R13	DXN_0		
M14	AVDD_0		
M13	AVSS_0		
N14	VP_0		
P13	VN_0		
P14	VREFP_0		
N13	VREFN_0		
K18	VBATT_0		
J18	PROGRAM_B_0		
L18	HSWAPEN_0		
K11	D_IN_0		
K10	DONE_0		
J10	CCLK_0		
J11	INIT_B_0		
N15	CS_B_0		
P18	RDWR_B_0		
R18	RSVD1		
T18	RSVD2		
U11	TCK_0		
W18	M0_0		
V18	M2_0		
Y17	M1_0		
V12	TMS_0		
V11	TDI_0		
W11	D_OUT_BUSY_0		
W10	TDO_0		

R369 10, R360 JP, R361 JP, R362 JP, R363 JP, R364 JP

R368 JP, R357 1500, R358 330, R359 4700

FPGA2

D+3.3V_FPGA2, D+1.8V, L42 BLM21P221SG, D+1.8V_PROM2

C146 220U/6.3V, C147 0.1U, C148 0.1U /1005, C149 0.1U /1005, C150 0.1U /1005, C151 0.1U /1005, C152 0.1U /1005, DGND

IC24 — XCF0XXP-FSG48C XCF32P

A1	GND1	VCCINT2	E1
A2	GND2	TMS	E2
A3	OE/-RESET	DNC6	E3
A4	DNC1	DNC7	E4
A5	D6	D2	E5
A6	D7	TDO	E6
B1	VCCINT1	GND3	F1
B2	VCCO1	DNC8	F2
B3	CLK	DNC9	F3
B4	CE	DNC10	F4
B5	D5	GND4	F5
B6	GND	GND5	F6
C1	BUSY	TDI	G1
C2	CLKOUT	DNC11	G2
C3	DNC2	REV_SEL0	G3
C4	DNC3	REV_SEL1	G4
C5	D4	VCCO4	G5
C6	VCCO2	VCCINT3	G6
D1	CF	GND6	H1
D2	CEO	VCC	H2
D3	DNC4	TCK	H3
D4	DNC5	~EN_EXT_SEL	H4
D5	D3	D1	H5
D6	VCCO3	D0	H6

INIT2, R343 200, R344 100, TP2, CCLK2, R345 JP, FPGA2_DONE, PROG_B2, RS, R354 33K, R355 33K, R356 33K

PLD, RCONF_FPGA2 [1/G10], TR4 UNR221100L, R342 1K

[1/H6] TMS, [4/H1] TDO_FPGA1, [12/D1] TDO_FPGA2, [1/H6] TCK

R350 *, R351 *, R352 *, R353 *, R349 JP

R365 33K, R366 33K, R367 33K, D+3.3V_FPGA2

FPGA2's PROM

Approved by	
Checked by	
Drawn by	J.SHIM 2010.07.07
Designed by	J.SHIM 2010.06.30

Ikegami

F_NAME:
P_LIST: PP-100080
PCB_No: TBD

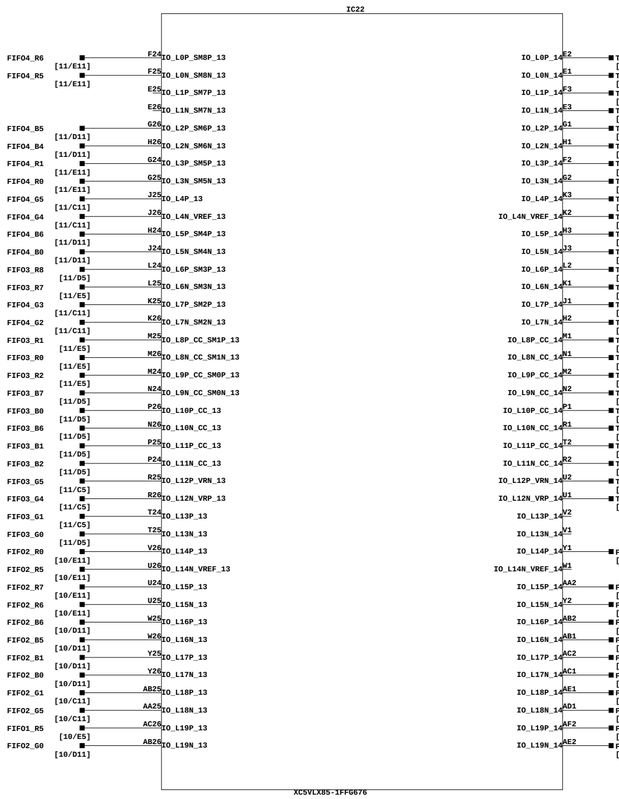
NOTE
P :10 -12 M :10 -3
N :10 -9 K :10 +3
U :10 -6 MEG:10 +6

3GCCU 検証用実験機

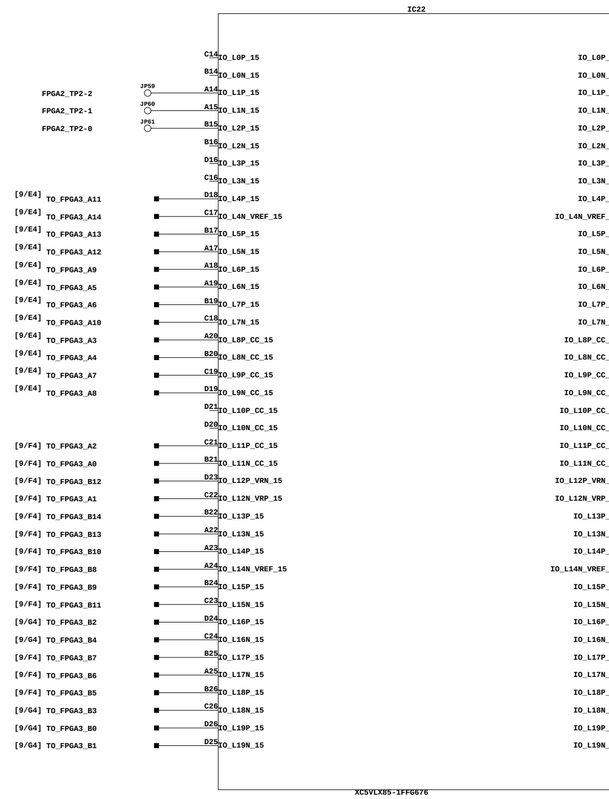
TITLE
HDTV_PROC_3G
SCHEMATIC DIAGRAM (8/18)

WORK No.
DWG.No. C2-100302-8
REV. 0

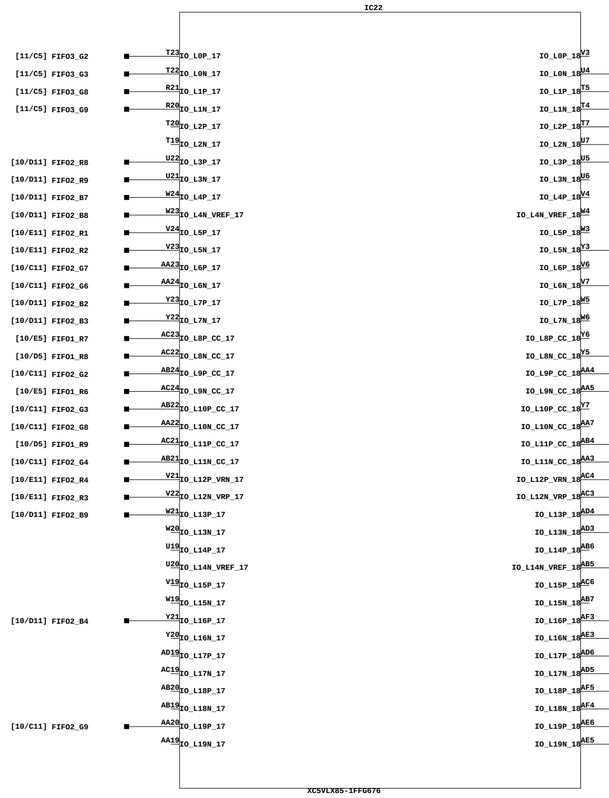
FPGA2



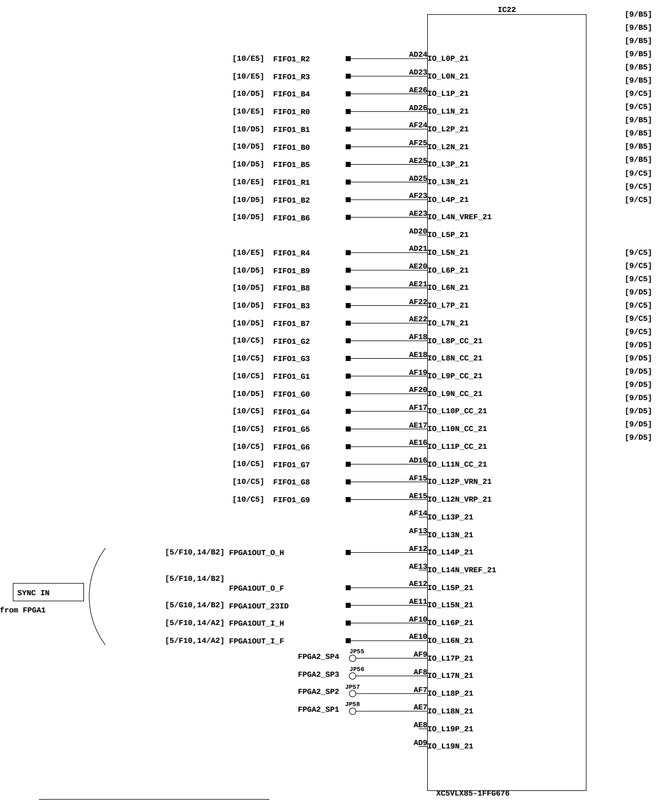
BANK(13)-(14)



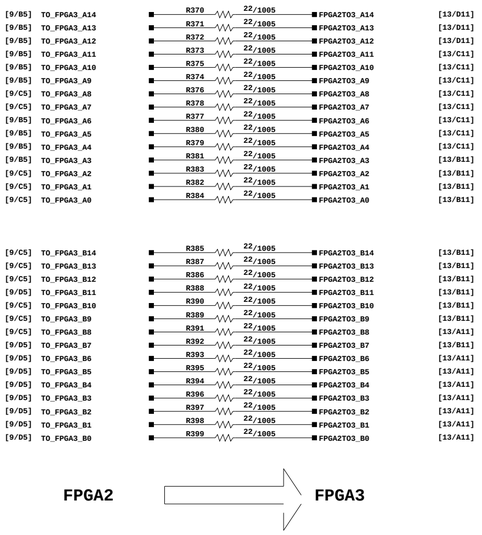
BANK(15)-(16)



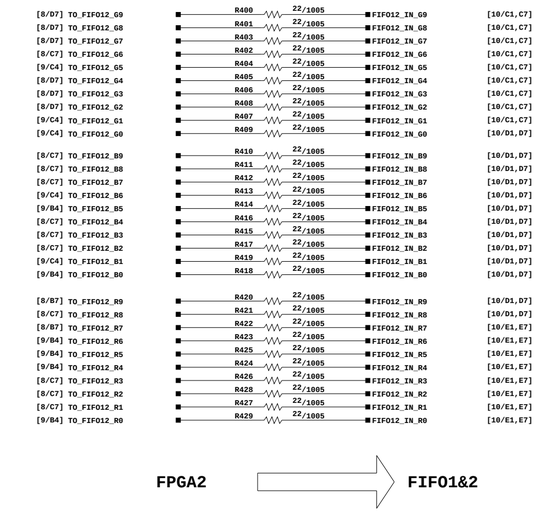
BANK(17)-(18)



BANK(21)



FPGA2 → FPGA3



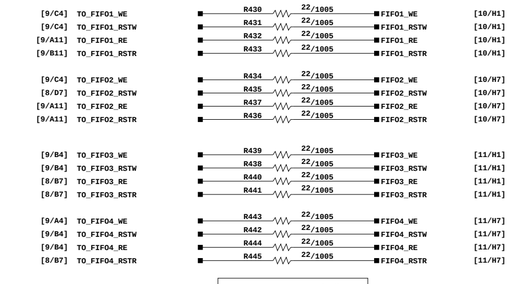
FPGA2 → FIFO1&2



FPGA2 → FIFO3&4

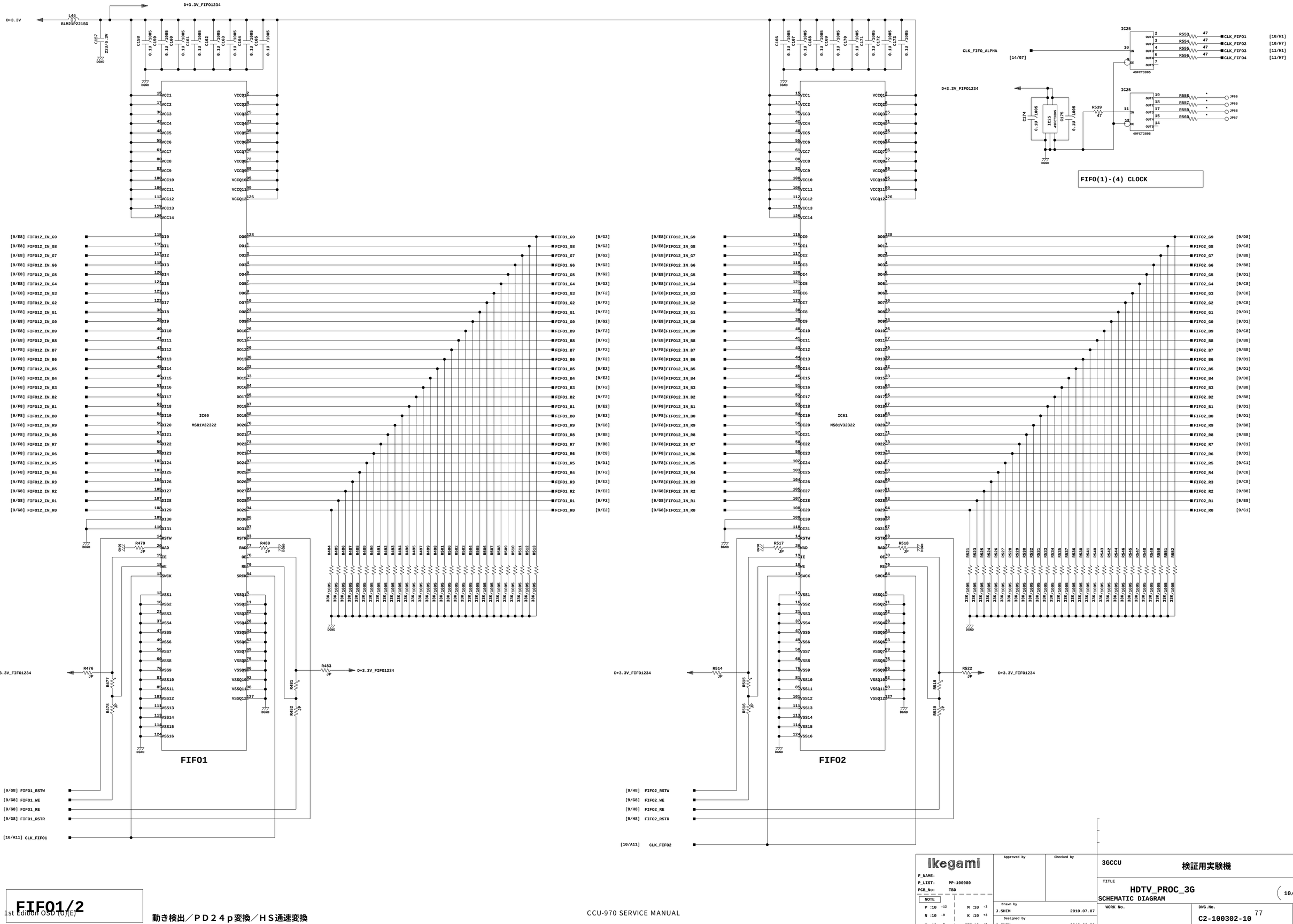
SYNC IN
from FPGA1

FPGA2



FIFO1～4制御

Ikegami	Approved by	Checked by	3GCCU 検証用実験機
F_NAME:			TITLE: HDTV_PROC_3G
P_LIST: PP-100080			SCHEMATIC DIAGRAM 9/18
PCB_No: TBD			
NOTE: P :10 -12, N :10 -9, U :10 -6, M :10 -3, K :10 +3, MEG:10 +6	Drawn by J.SHIM 2010.07.07		WORK No. / DWG.No. C2-100302-9 / REV. 0
	Designed by J.SHIM 2010.06.30		



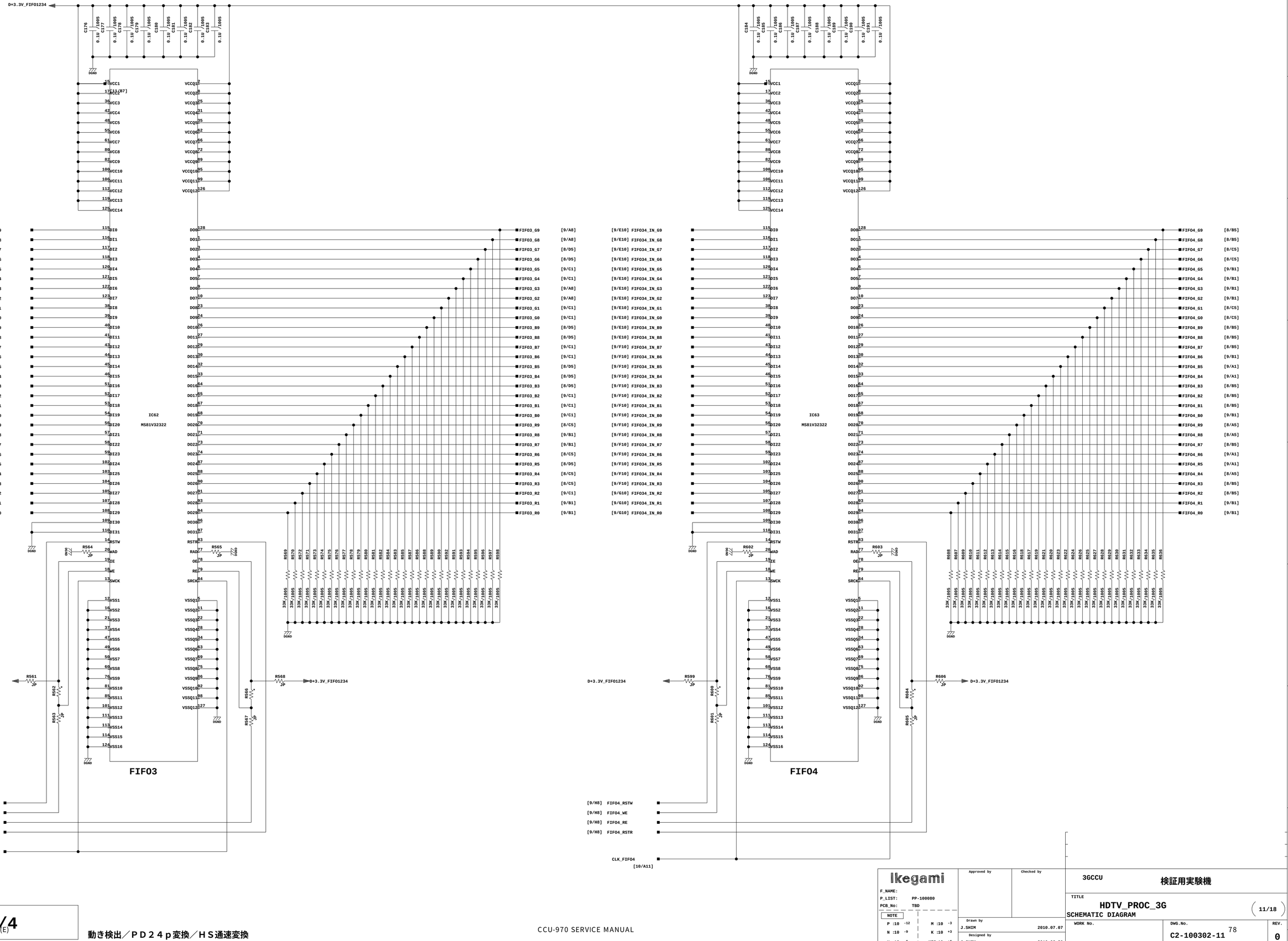
FIFO1/2

1st Edition OSD (U/E)

動き検出／ＰＤ２４ｐ変換／ＨＳ通速変換

CCU-970 SERVICE MANUAL

Ikegami	Approved by	Checked by	3GCCU 検証用実験機
F_NAME:			TITLE: HDTV_PROC_3G (10/18)
P_LIST: PP-100880			SCHEMATIC DIAGRAM
PCB_No: TBD			WORK No. / DWG.No. C2-100302-10 / REV. 0
NOTE: P :10 -12, N :10 -9, U :10 -6, M :10 -3, K :10 +3, MEG:10 +6	Drawn by J.SHIM 2010.07.07	Designed by J.SHIM 2010.06.30	

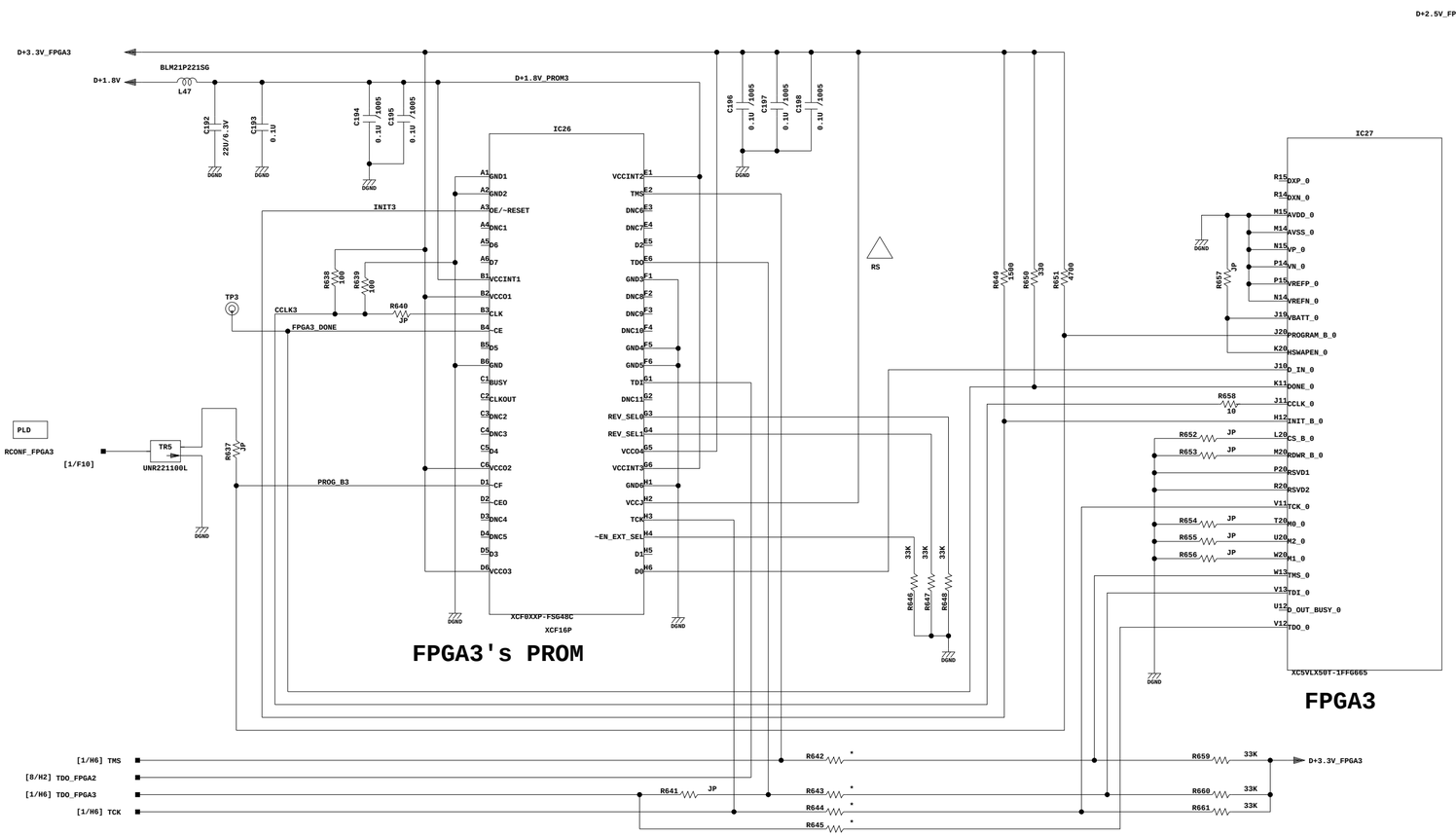


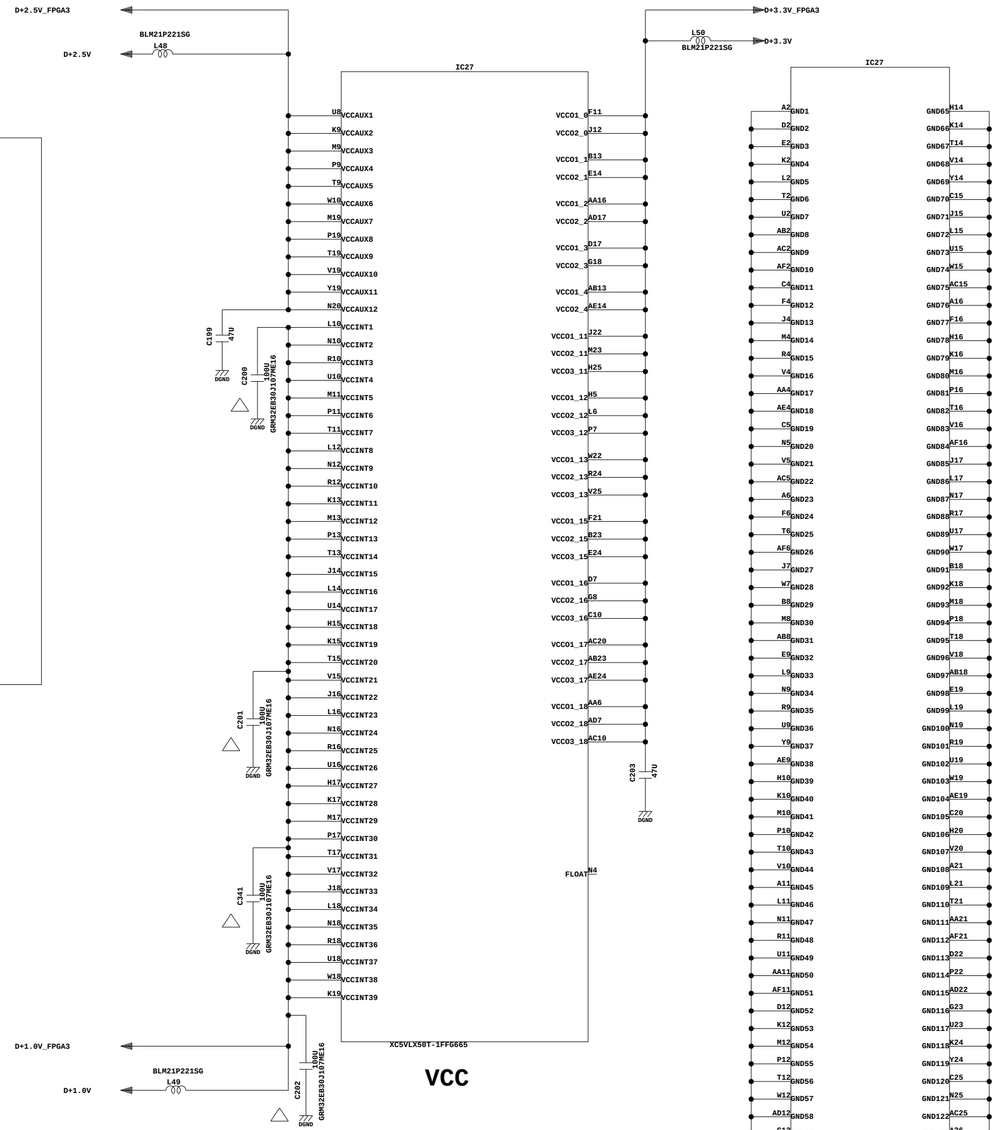
FIF03/4

1st Edition OSD (U/E)

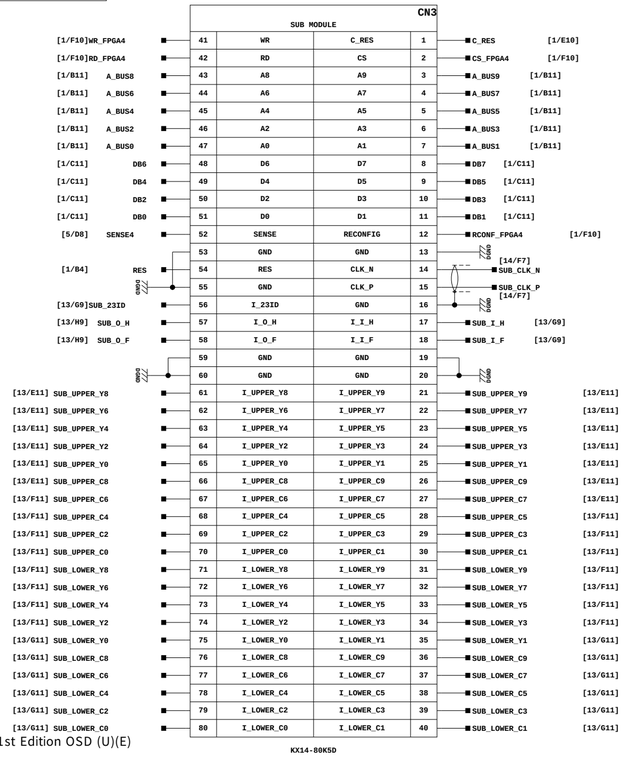
動き検出／ＰＤ２４ｐ変換／ＨＳ通速変換

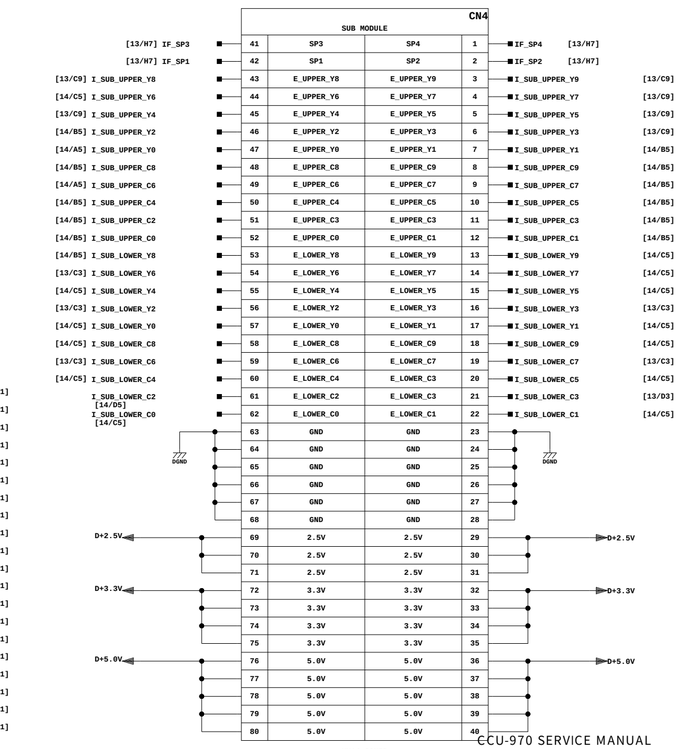
Ikegami	Approved by	Checked by	3GCCU 検証用実験機
F_NAME:			TITLE: HDTV_PROC_3G (11/18)
P_LIST: PP-100080			SCHEMATIC DIAGRAM
PCB_No: TBD	Drawn by J.SHIM 2010.07.07		WORK No. / DWG.No. C2-100302-11 / REV. 0
NOTE: P :10 -12, N :10 -9, U :10 -6, M :10 -3, K :10 +3, MEG:10 +6	Designed by J.SHIM 2010.06.30		





SUB



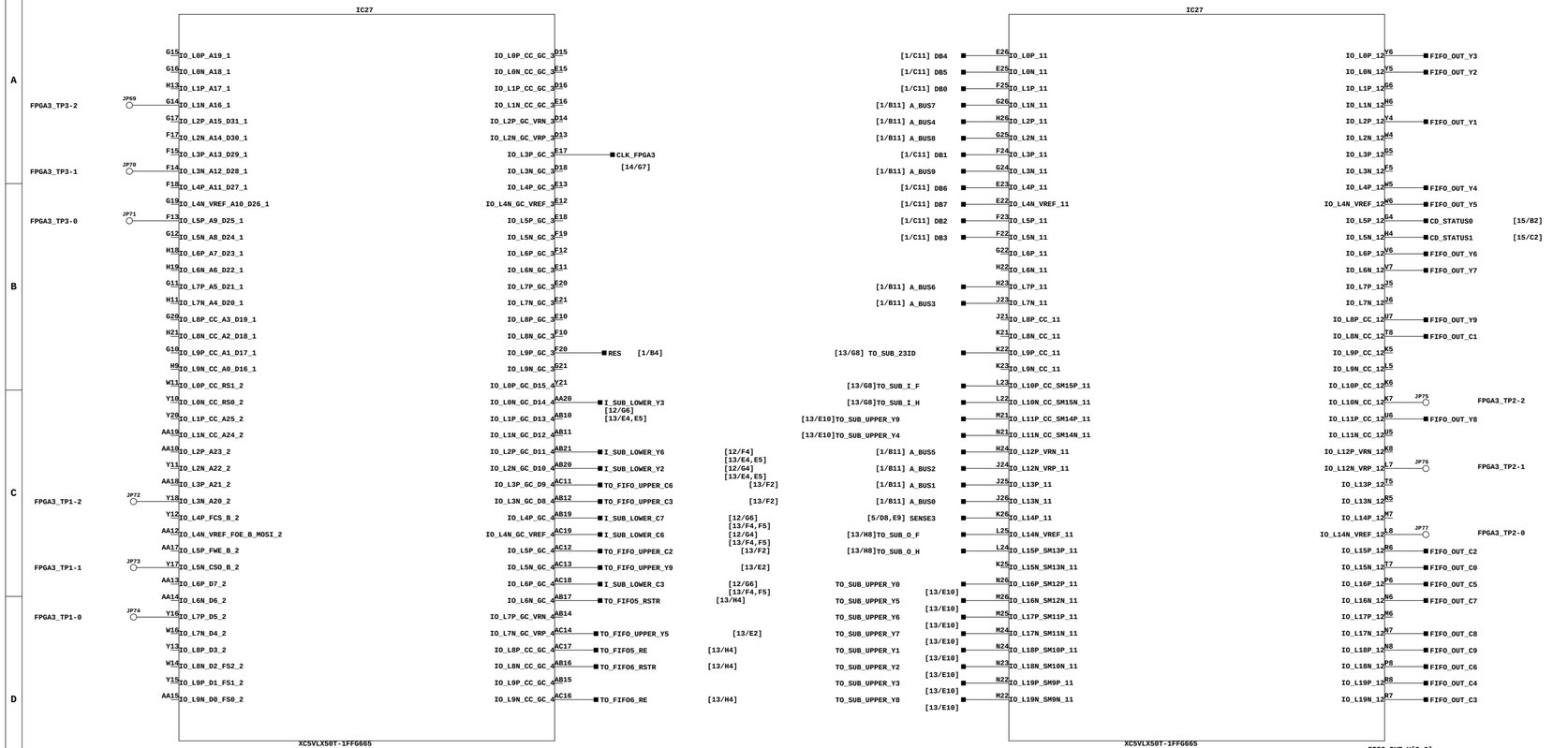


FPGA3

VCC

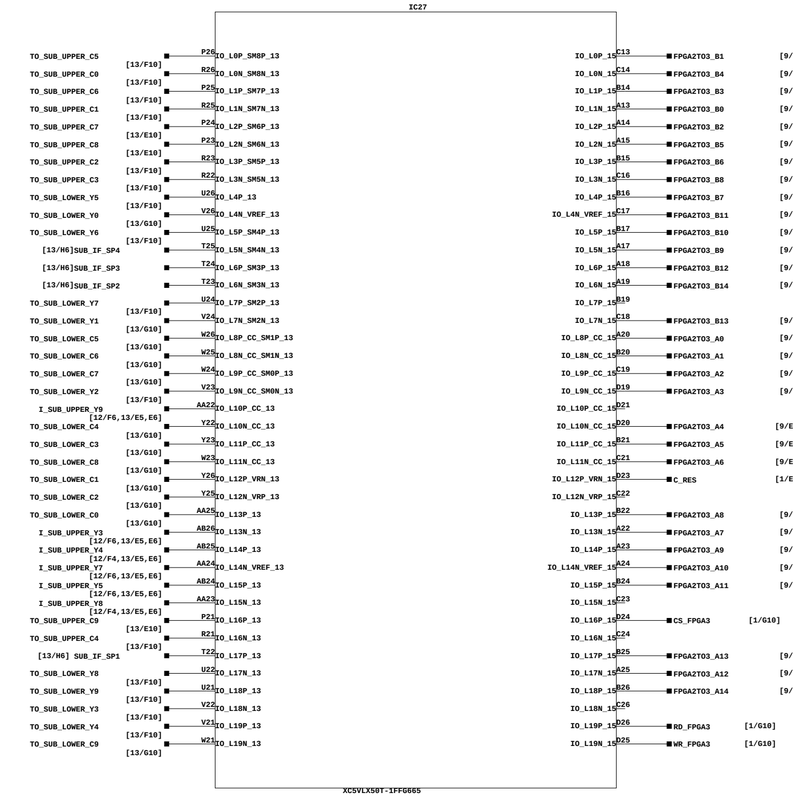
GND

Ikegami	Approved by / Checked by	3GCCU 検証用実験機	
F_NAME:		TITLE HDTV_PROC_3G	12/18
P_LIST: PP-100080		SCHEMATIC DIAGRAM	
PCB_No: TBD		WORK No.	DWG.No. C2-100302-12 REV. 0
NOTE P :10 -12 N :10 -9 U :10 -6 M :10 -3 K :10 +3 MEG:10 +6	Drawn by J.SHIM 2010.07.07		
	Designed by J.SHIM 2010.06.30		

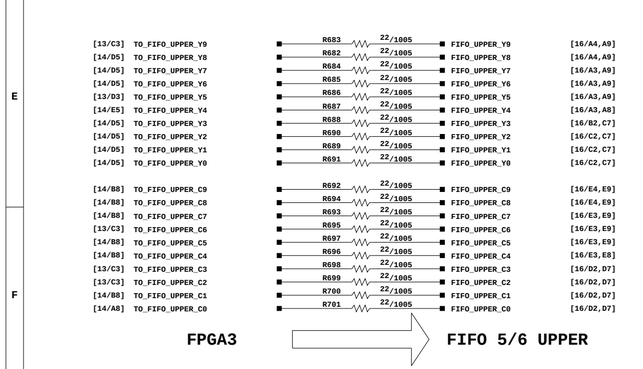


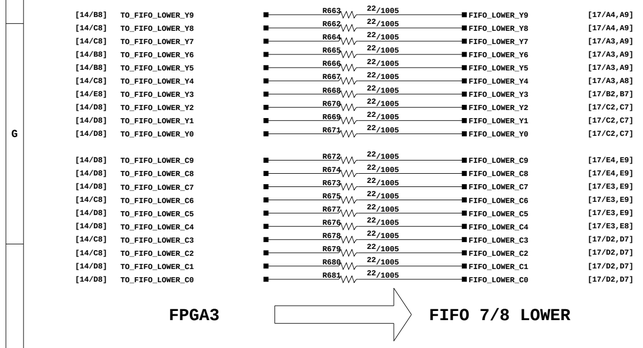
BANK(1)-(4)

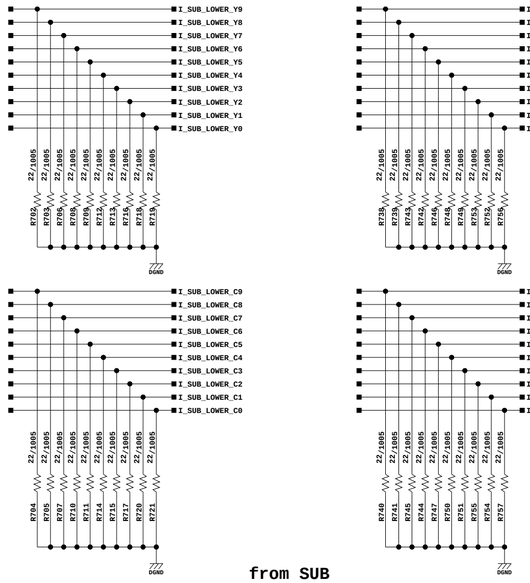
BANK(11)/(12)

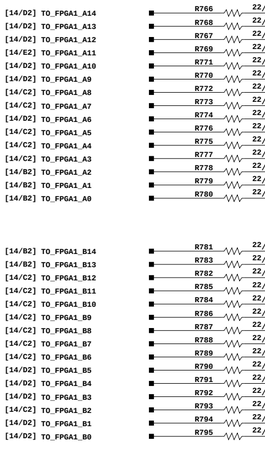


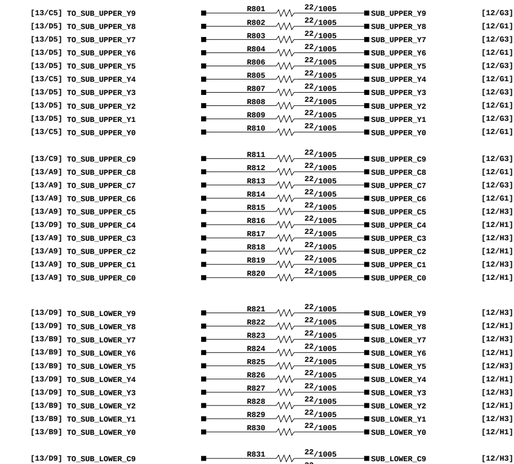
BANK(13)/(15)

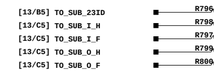


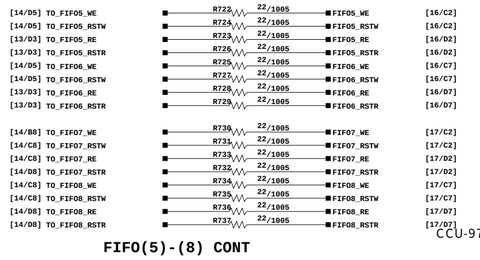


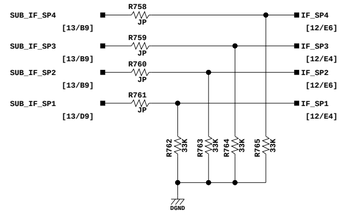








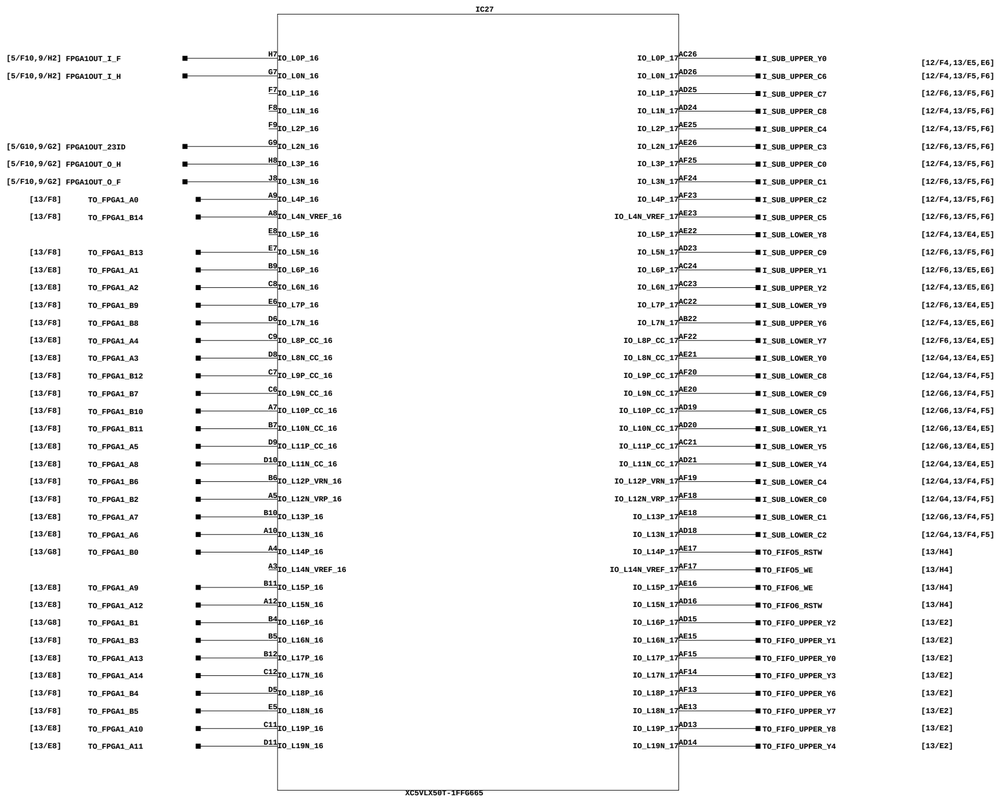




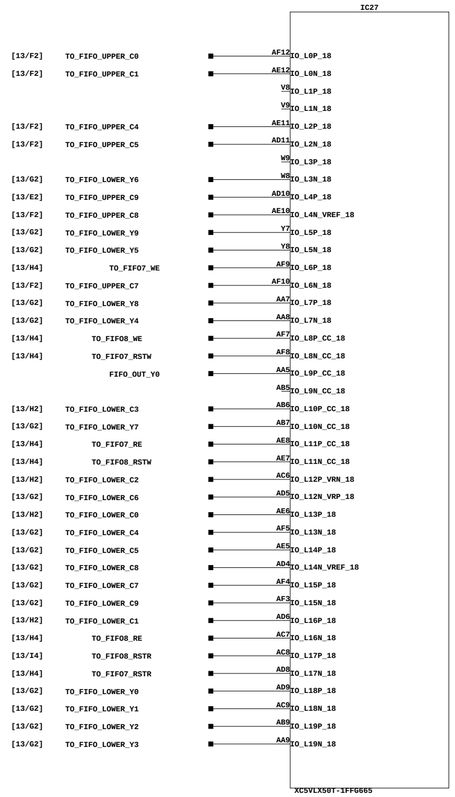
FPGA3
1st Edition OSD (U)(E)

Ikegami	Approved by	Checked by	3GCCU 検証用実験機
F_NAME:			TITLE HDTV_PROC_3G 13/18
P_LIST: PP-100080			SCHEMATIC DIAGRAM
PCB_No: TBD			WORK No. / DWG.No. C2-100302-13 / REV. 0
NOTE P :10 -12, N :10 -9, U :10 -6, M :10 -3, K :10 +3, MEG:10 +6	Drawn by J.SHIM 2010.07.07	Designed by J.SHIM 2010.06.30	

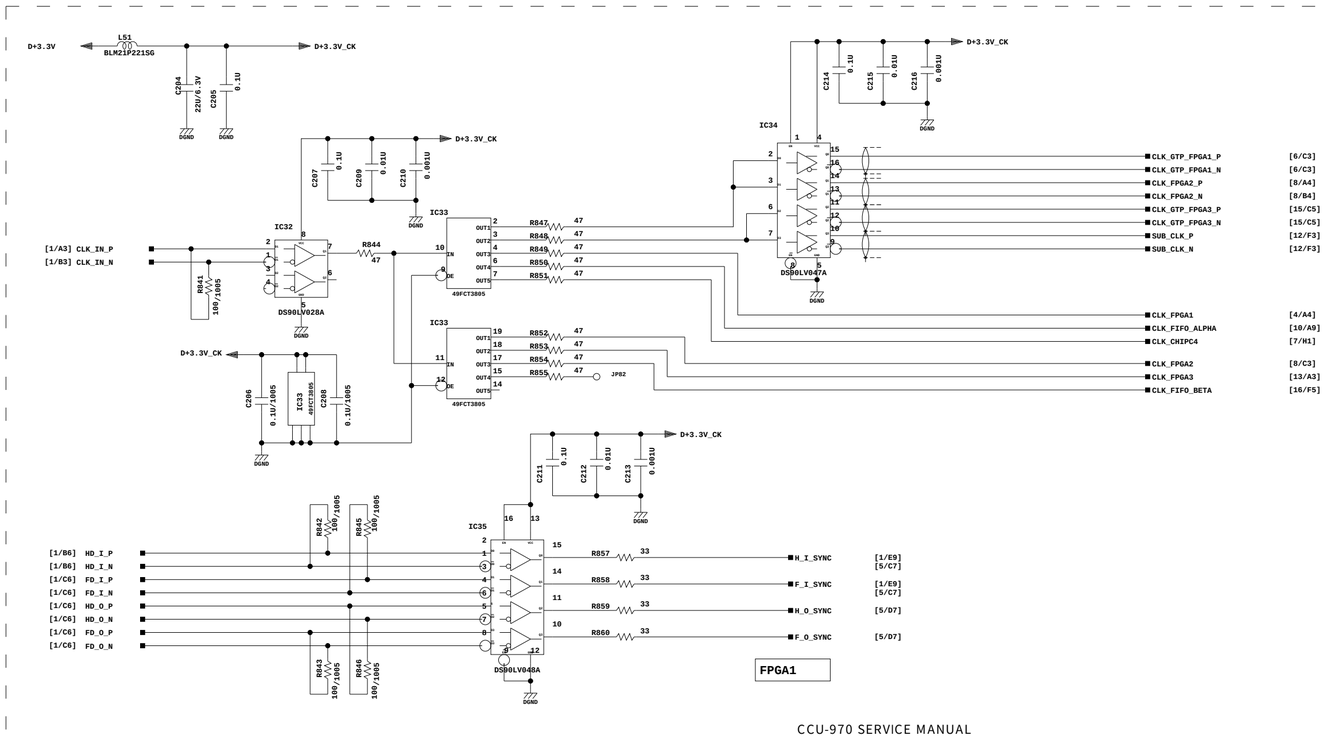
FPGA3



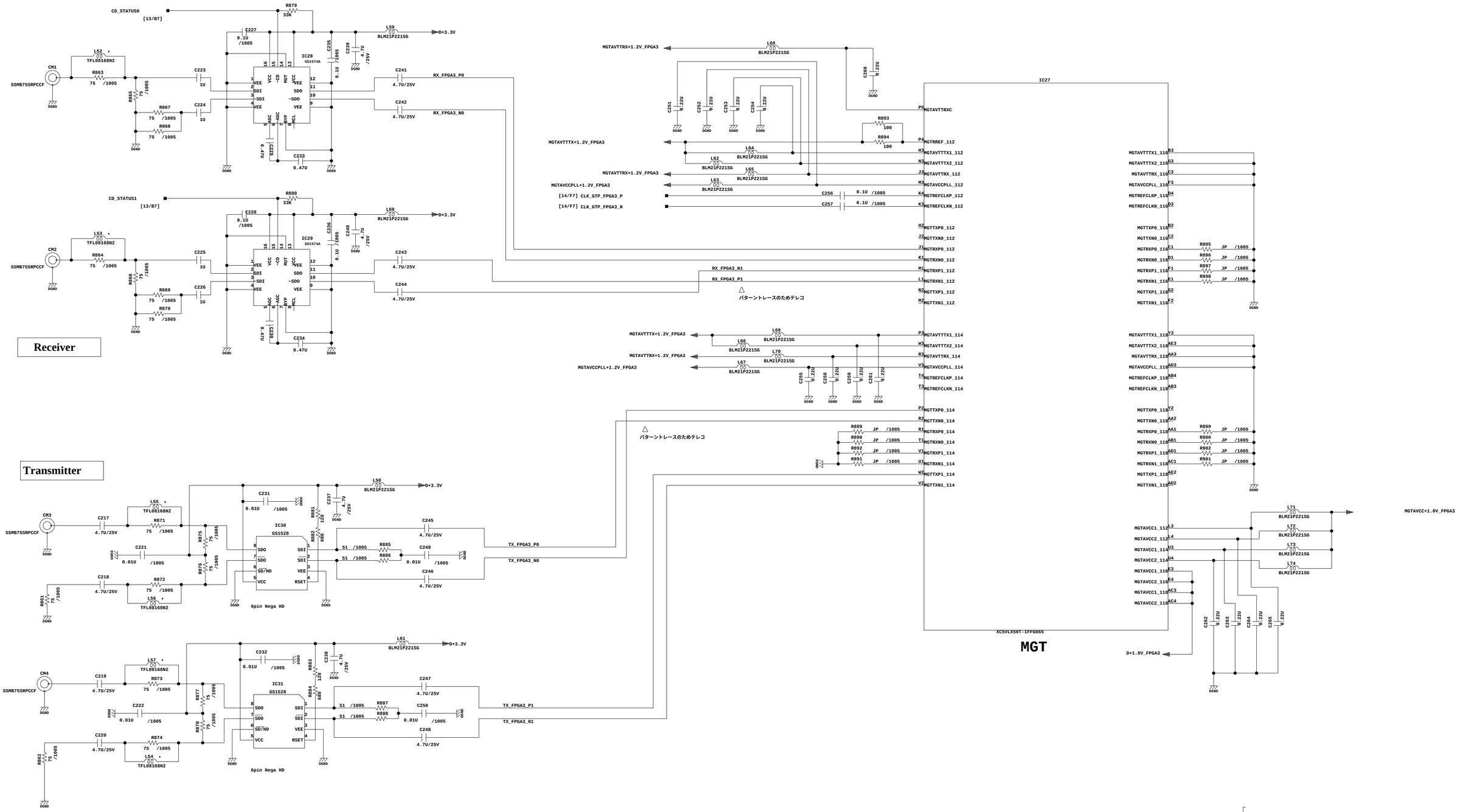
BANK(16)/(17)

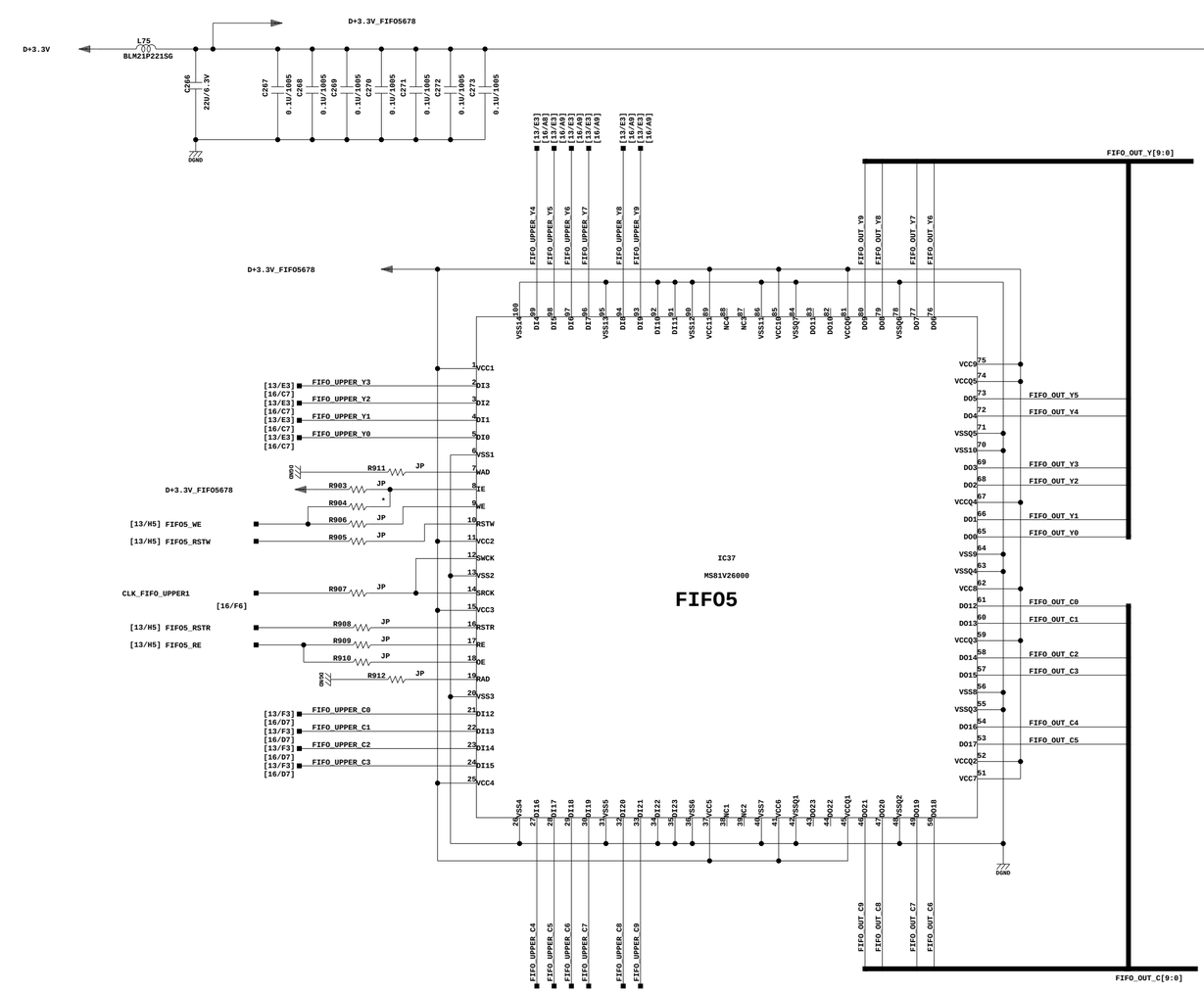


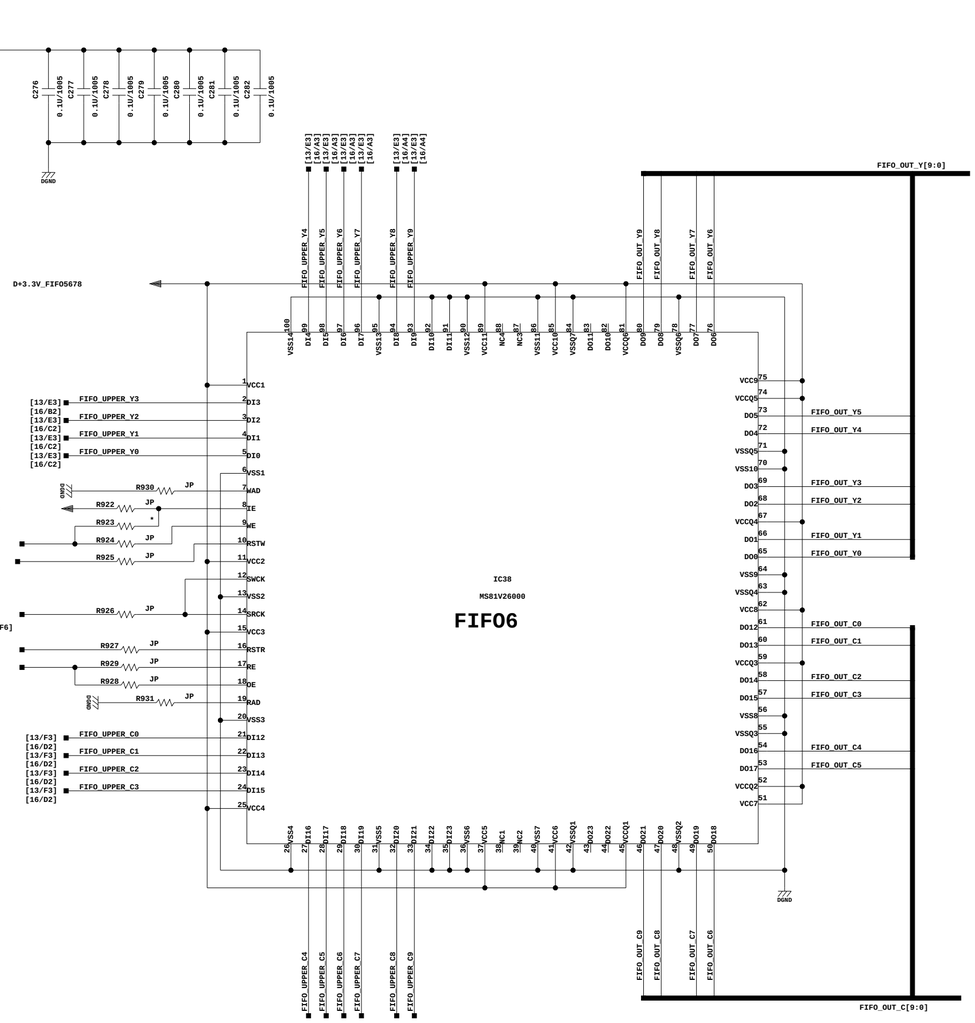
BANK(18)

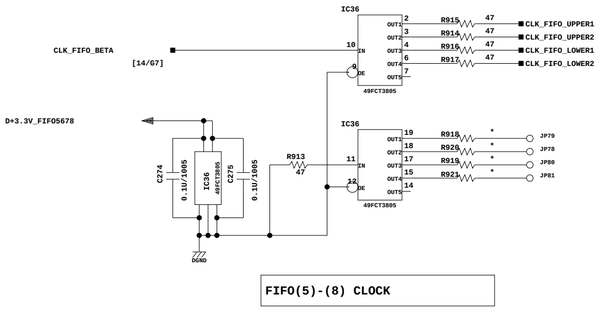


Ikegami	Approved by	Checked by	3GCCU 検証用実験機
F_NAME:			TITLE: HDTV_PROC_3G
P_LIST: PP-100080			SCHEMATIC DIAGRAM 14/18
PCB_No: TBD			WORK No.
NOTE	Drawn by J.SHIM 2010.07.07		DWG.No. C2-100302-14
P :10 -12 / N :10 -9 / U :10 -6 / M :10 -3 / K :10 +3 / MEG:10 +6	Designed by J.SHIM 2010.06.30		REV. 0

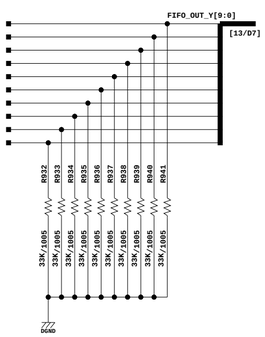

Receiver
Transmitter
FPGA3
CD_STATUS0
[13/B7]
CD_STATUS1
[13/B7]
CM1
CM2
CM3
CM4
SSMB75SRPCCF
TFL08168N2
IC28
IC29
IC30
IC31
GS1574A
GS1528
6pin Nega HD
D+3.3V
RX_FPGA3_P0
RX_FPGA3_N0
RX_FPGA3_N1
RX_FPGA3_P1
TX_FPGA3_P0
TX_FPGA3_N0
TX_FPGA3_P1
TX_FPGA3_N1
MGTAVTTRX+1.2V_FPGA3
MGTAVTTTX+1.2V_FPGA3
MGTAVCCPLL+1.2V_FPGA3
[14/F7] CLK_GTP_FPGA3_P
[14/F7] CLK_GTP_FPGA3_N
パターントレースのためテレコ
IC27
XC5VLX50T-1FFG665
MGT
MGTAVCC+1.0V_FPGA3
D+1.0V_FPGA3
1st Edition OSD (U)(E)
CCU-970 SERVICE MANUAL
Ikegami
F_NAME:
P_LIST: PP-100080
PCB_No: TBD
NOTE
Approved by
Checked by
Drawn by J.SHIM 2010.07.07
Designed by J.SHIM 2010.06.30
3GCCU
検証用実験機
TITLE
HDTV_PROC_3G
SCHEMATIC DIAGRAM
15/18
WORK No.
DWG.No. C2-100302-15
REV. 0
82

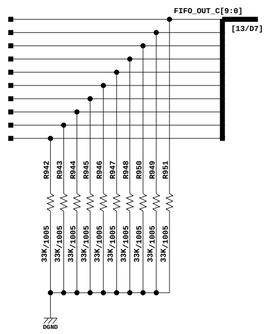


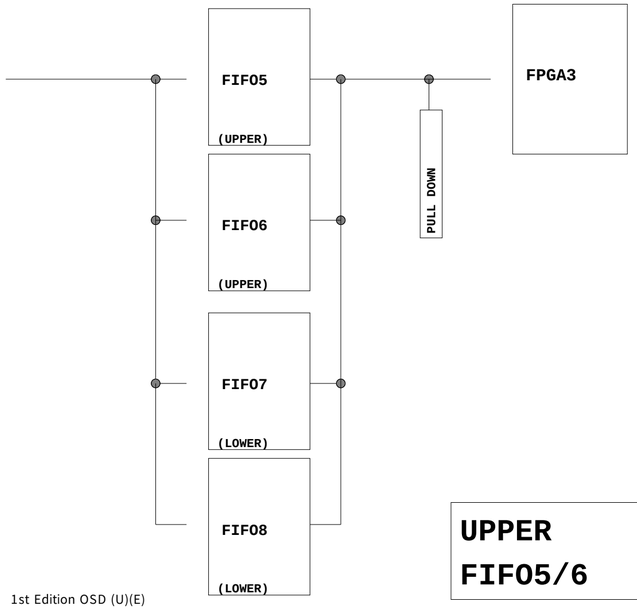




[16/C2]	(FIF05)	FIFO_OUT_Y9
[16/C7]	(FIF06)	FIFO_OUT_Y8
[17/C2]	(FIF07)	FIFO_OUT_Y7
[17/C7]	(FIF08)	FIFO_OUT_Y6
		FIFO_OUT_Y5
		FIFO_OUT_Y4
		FIFO_OUT_Y3
		FIFO_OUT_Y2
		FIFO_OUT_Y1
		FIFO_OUT_Y0







FIFO(5)-(8) CLOCK

FIFO(5)&(6)&(7)&(8) ⇒ FPGA3

UPPER
FIF05/6

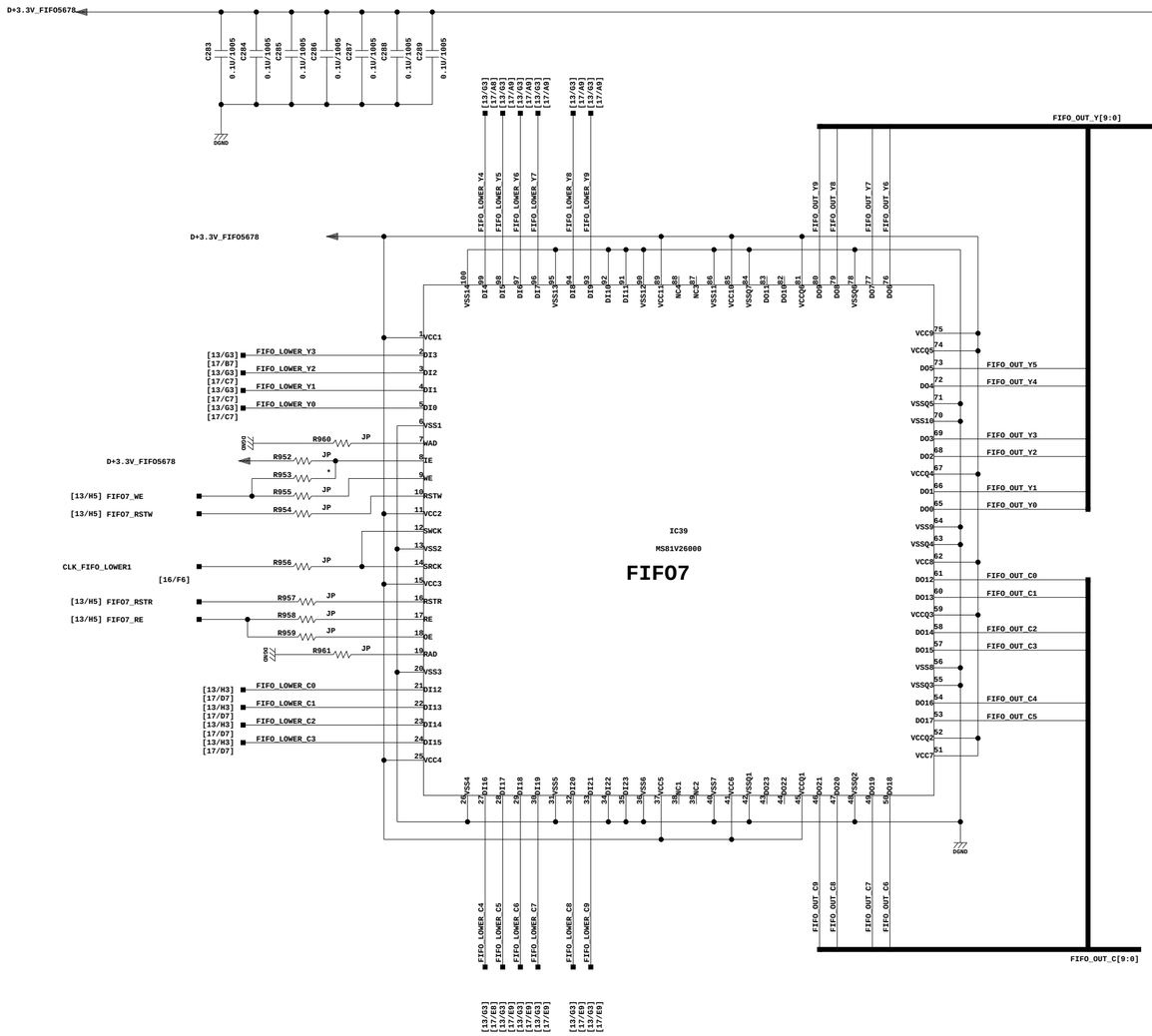
フレームレート調整／ライン間引き

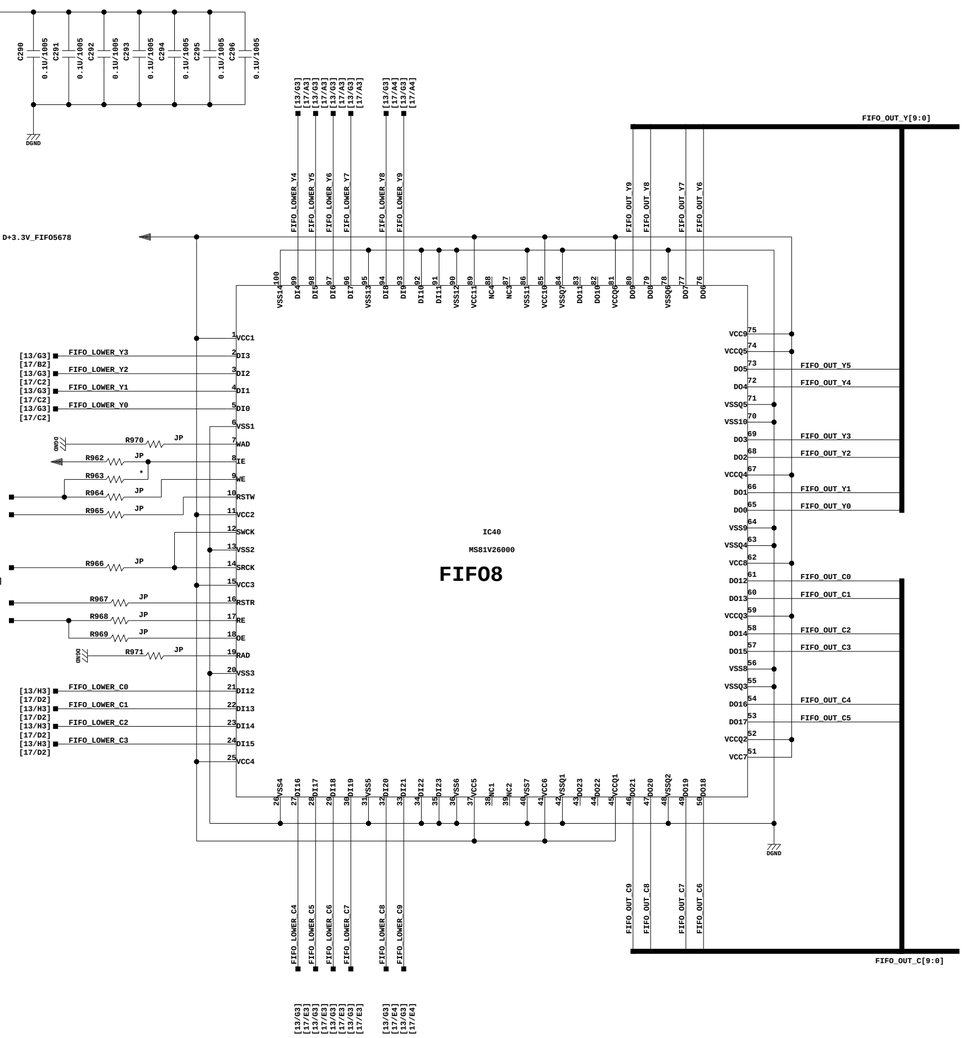
F_NAME:		Approved by	Checked by
P_LIST:	PP-100080		
PCB_No:	TBD	Drawn by J.SHIM 2010.07.07	
NOTE		Designed by J.SHIM 2010.07.07	
P :±0 -12	M :±0 -3		
N :±0 -9	K :±0 +3		
U :±0 -6	MEG:±0 +6		

3GCCU 検証用実験機

TITLE: HDTV_PROC_3G
SCHEMATIC DIAGRAM (16/18)

WORK No. | DWG.No. C2-100302-16 | REV. 0





LOWER
FIF07/8

フレームレート調整／ライン間引き

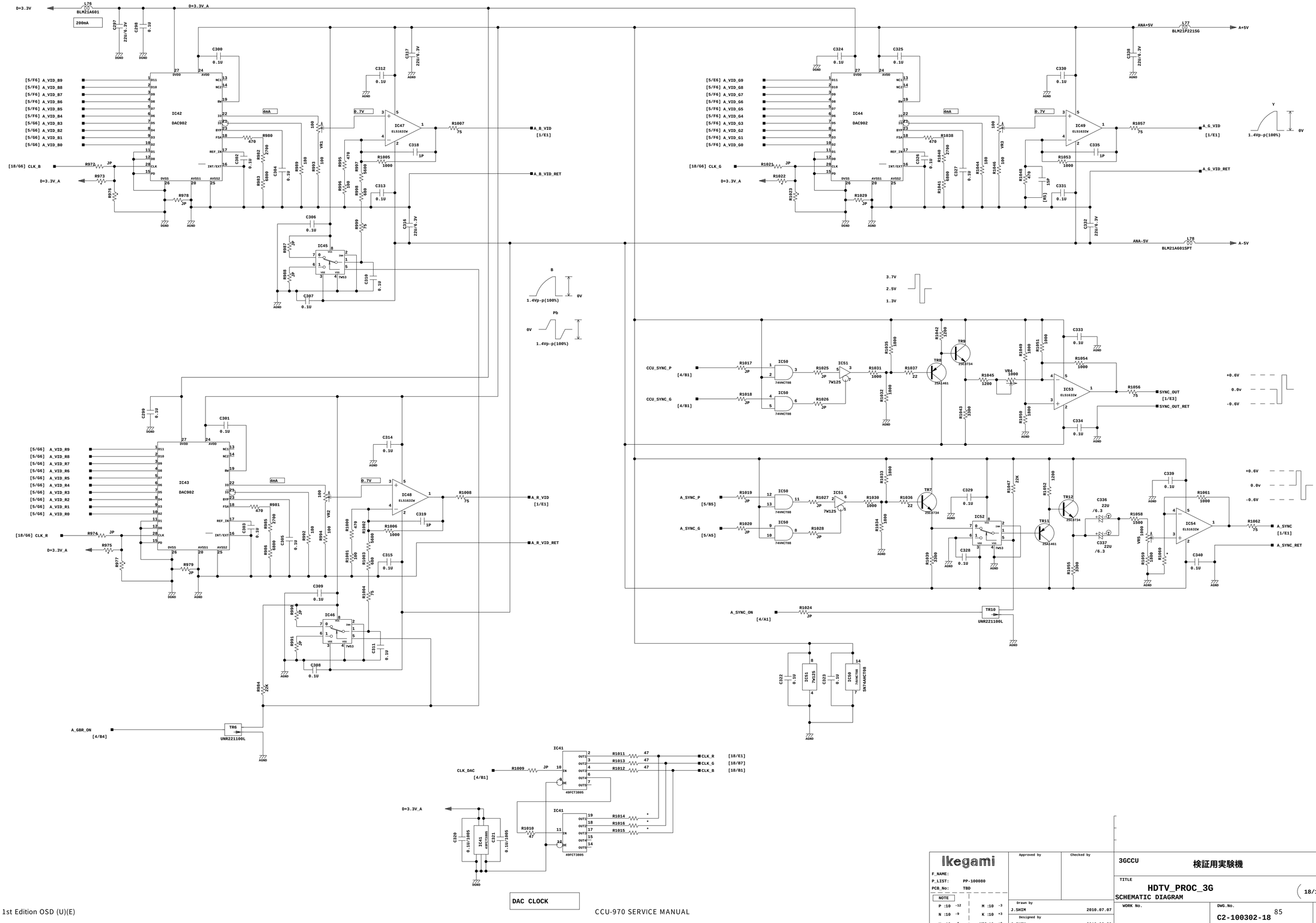
F_NAME:		Approved by	Checked by
P_LIST:	PP-100080		
PCB_No:	TBD		
NOTE		Drawn by	
P :10 -12	M :10 -3	J.SHIM 2010.07.07	
N :10 -9	K :10 +3	Designed by	
U :10 -6	MEG:10 +6	J.SHIM 2010.06.30	

Ikegami

3GCCU 検証用実験機

TITLE
HDTV_PROC_3G
SCHEMATIC DIAGRAM (17/18)

WORK No.	DWG.No.	REV.
	C2-100302-17	0


D+3.3V
L76
BLM21A601
200mA
C297
220/6.3V
C298
0.1U
DGND
D+3.3V_A
C300
IC42
DAC902
[5/F6] A_VID_B9
[5/F6] A_VID_B8
[5/F6] A_VID_B7
[5/F6] A_VID_B6
[5/F6] A_VID_B5
[5/F6] A_VID_B4
[5/G6] A_VID_B3
[5/G6] A_VID_B2
[5/G6] A_VID_B1
[5/G6] A_VID_B0
[18/G6] CLK_B
R972
JP
R973
R976
R978
R980
470
R982
2700
C302
C304
R983
6800
R989
100
R993
VR1
4mA
0.7V
IC47
EL5163IW
C312
C317
220/6.3V
C318
1P
R1007
75
A_B_VID
[1/E1]
A_B_VID_RET
R995
R996
R997
5600
R998
680
R1000
1000
C313
C316
R999
75
C306
R907
IC45
R908
C310
7W53
C307
R1001
R1002
R1003
R1004
C314
C315
R1006
R1008
A_R_VID
A_R_VID_RET
C309
R909
R910
C308
C311
IC43
IC48
C319
R981
R985
C383
C385
R992
180
R994
VR2
R986
R979
R984
22K
A_GBR_ON
[4/B4]
TR6
UNR221100L
B
1.4Vp-p(100%)
0V
Pb
IC41
R1009
R1010
R1011
R1012
R1013
R1014
R1015
R1016
47
49FCT3805
C320
C321
0.1U/1005
CLK_DAC
[4/B1]
CLK_R
CLK_G
CLK_B
[18/E1]
[18/B7]
[18/B1]
DAC CLOCK
IC44
DAC902
[5/E6] A_VID_G9
[5/F6] A_VID_G8
[5/F6] A_VID_G7
[5/F6] A_VID_G6
[5/F6] A_VID_G5
[5/F6] A_VID_G4
[5/F6] A_VID_G3
[5/F6] A_VID_G2
[5/F6] A_VID_G1
[5/F6] A_VID_G0
[18/G6] CLK_G
R1023
R1022
R1029
C324
C325
C326
R1038
R1040
R1041
C327
R1044
R1046
VR3
IC49
C330
C335
R1053
R1057
A_G_VID
[1/E1]
A_G_VID_RET
R1048
VR4
C331
C332
ANA+5V
L77
BLN21P221SG
A+5V
ANA-5V
L78
BLM21A601SPT
A-5V
Y
1.4Vp-p(100%)
0V
3.7V
2.5V
1.3V
CCU_SYNC_P
[4/B1]
CCU_SYNC_G
R1017
R1018
IC50
74VHCT08
R1025
R1026
IC51
7W125
R1031
1000
R1037
22
R1035
1800
R1032
R1042
470
TR9
2SC3734
TR8
2SA1461
R1043
3300
R1045
1200
R1049
R1051
C333
R1054
IC53
EL5163IW
R1056
SYNC_OUT
[1/E3]
SYNC_OUT_RET
C334
R1050
A_SYNC_P
[5/B5]
A_SYNC_G
[5/A5]
R1019
R1020
R1027
R1028
R1033
R1034
R1030
R1036
TR7
C329
C328
IC52
R1047
22K
TR11
TR12
R1062
1200
C336
22U
/6.3
C337
R1058
1000
VR5
R1059
R1060
C339
R1061
IC54
R1062
A_SYNC
[1/E1]
A_SYNC_RET
C340
+0.6V
0.0v
-0.6V
A_SYNC_ON
[4/A1]
R1024
TR10
UNR221100L
C322
C323
SN74AHCT08
Ikegami
F_NAME:
P_LIST: PP-100080
PCB_No: TBD
NOTE
P :10 -12
N :10 -9
U :10 -6
M :10 -3
K :10 +3
MEG:10 +6
Approved by
Checked by
Drawn by
J.SHIM 2010.07.07
Designed by
J.SHIM 2010.06.30
3GCCU
検証用実験機
TITLE
HDTV_PROC_3G
SCHEMATIC DIAGRAM
18/18
WORK No.
DWG.No.
C2-100302-18
REV.
0

D+3.3V
68K 68K 68K 68K
R379 R380 R381 R382

	GB7	GND	GND	GB8	GND
	GB5	GND	GND	GB6	
	GB3	GND	GND	GB4	
	GB1	GND	GND	GB2	
(4/D11) I_BARS_FG	100	CHAR1_FG	CLK27_IN+	99	(10/B7) CLK27_IN+
(4/C11) I_BARS_BG	98	CHAR1_BG	CLK27_IN-	97	(10/B7) CLK27_IN-
	96	(CHAR2_FG)	DGND	95	GND
	94	(CHAR2_BG)	CLK74_IN+	93	(10/B1) CLK74_IN+
(5/E1) I_PM_FG	92	PM_CHAR_FG	CLK74_IN-	91	(10/B1) CLK74_IN-
(5/B1) I_PM_BG	90	PM_CHAR_BG	DGND	89	GND
(2/E2) REAR_DONE	88	SP_IF DONE	SP_IF SERI_D	87	R16 JP (4/B11) E_SERI_D
(2/E6) RE_CONFIG2	86	SP_IF CONFIG	SP_IF SERI_CS	85	R15 JP (4/D11) E_SERI_CS
(2/E2) REAR_SP7	84	SP_IF SP7	SP_IF SP8	83	JP13
(2/G2) RD	82	RD	WR	81	WR (2/G2)
	80	D1	CS	79	CS (2/G2)
D1	78	D3	D0	77	D0
D3	76	D5	D2	75	D2
D5	74	D7	D4	73	D4
D7	72	A0	D6	71	D6
A0	70	A2	A1	69	A1
A2	68	A4	A3	67	A3
A4	66	A6	A5	65	A5
A6	64	A8	A7	63	A7
A8	62	A10	A9	61	A9
A10	60	A12	A11	59	A11
A12	58	A14	A13	57	A13
A14	56	A16	A15	55	A15
A16	54	A18	A17	53	A17
A18	52	A20	A19	51	A19
A20					

CN1

QTS-100-01-L-D-RA-WT

	GD7	GND	GND	GD8	
	GD5	GND	GND	GD6	
	GD3	GND	GND	GD4	
	GD1	GND	GND	GD2	
D+5.0V_IN	200	D+5V	D+5V	199	D+5.0V_IN
	198	D+5V	D+5V	197	
	196	D+5V	D+5V	195	
	194	D+5V	D+5V	193	
D+3.3V_IN	192	D+3.3V	D+3.3V	191	D+3.3V_IN
	190	D+3.3V	D+3.3V	189	
D+3.3V	188	D+3.3V	D+3.3V	187	
	186	D+3.3V	D+3.3V	185	
R14 68K	184	D+3.3V	D+3.3V	183	
RES (2-E2,4-B11) (7-H2,9-G1)	182	RES	CPU_CLK	181	R383 10 CPU_CLK (2-E2,4-B11)
	180	DGND	DGND	179	
(4/E1) CLKA0_P	178	RX_CLK(+)	HDTV_23PD_ID	177	JP (4/D5) I_HDTV_23ID
(4/E1) CLKA0_N	176	RX_CLK(-)	SDTV_23PD_ID	175	JP I_SDTV_23ID (6/F6)
	174	DGND	DGND	173	
(4/D1) I_RX_PQ4	172	RX_VID4(+)	HDTV_HD(+)	171	HDTV_HD+ (10/C1)
(4/D1) I_RX_NQ4	170	RX_VID4(-)	HDTV_HD(-)	169	HDTV_HD- (10/C1)
(4/D1) I_RX_PQ3	168	RX_VID3(+)	HDTV_FD(+)	167	HDTV_FD+ (10/C1)
(4/D1) I_RX_NQ3	166	RX_VID3(-)	HDTV_FD(-)	165	HDTV_FD- (10/C1)
(4/D1) I_RX_PQ2	164	RX_VID2(+)	SDTV_HD(+)	163	SDTV_HD+ (10/B7)
(4/D1) I_RX_NQ2	162	RX_VID2(-)	SDTV_HD(-)	161	SDTV_HD- (10/B7)
(4/C1) I_RX_PQ1	160	RX_VID1(+)	SDTV_FD(+)	159	SDTV_FD+ (10/B7)
(4/C1) I_RX_NQ1	158	RX_VID1(-)	SDTV_FD(-)	157	SDTV_FD- (10/B7)
(4/C1) I_RX_PQ0	156	RX_VID0(+)	SDTV_CF(+)	155	SDTV_CF+ (10/B7)
(4/C1) I_RX_NQ0	154	RX_VID0(-)	SDTV_CF(-)	153	SDTV_CF- (10/B7)
	152	DGND	DGND	151	

CN1

QTS-100-01-L-D-RA-WT

D+3.3V
EXBV8V683JV RP3 68K — D7 D6 D5 D4
EXBV8V683JV RP5 68K — D3 D2 D1 D0
EXBV8V683JV RP8 68K — C_D7 C_D6 C_D5 C_D4
EXBV8V683JV RP7 68K — C_D3 C_D2 C_D1 C_D0

D[7:0]

IC1
SN74LV245APWR
74LV245A

D7	2	18	C_D7
D6	3	17	C_D6
D5	4	16	C_D5
D4	5	15	C_D4
D3	6	14	C_D3
D2	7	13	C_D2
D1	8	12	C_D1
D0	9	11	C_D0
	OE 19	DIR 1	

C_D[7:0] (4-B11,7-H2) (9-G1)
A[20:16] (2/F2)
C_A[13:0] (4-C11,7-H2) (9-G1)

(2/H3) CS_ALL — R28 JP
(2/H3) RD_ALL — R29 JP — R30 RD (2/G2)

IC2 74LV541A

A0	2	18	C_A0
A1	3	17	C_A1
A2	4	16	C_A2
A3	5	15	C_A3
A4	6	14	C_A4
A5	8	13	C_A5
A6	9	12	C_A6
A7		11	C_A7

IC3 74LV541A

A8	2	18	C_A8
A9	3	17	C_A9
A10	4	16	C_A10
A11	5	15	C_A11
A12	6	14	C_A12
A13	7	13	C_A13
	8	12	
	9	11	

OE 1 16 20 19 DGND

5.1n(max)

D+3.3V
C33 0.1U — IC1 74LV245A — C38 0.1U — IC2 74LV541A — C43 0.1U — IC3 74LV541A — D+3.3V

D+3.3V
EXBV8V683JV RP2 68K — A20 A19 A18 A17
EXBV8V683JV RP4 68K — A16 A13 A12
EXBV8V683JV RP6 68K — A11 A9 A8
EXBV8V683JV RP8 68K — A7 A6 A4
EXBV8V683JV RP9 68K — A3 A2 A1 A0
JP14 — A15
JP15 — A14

(A[15:14] were not used)

A[20:0]

	GA7	GND	GND	GA8	
	GA5	GND	GND	GA6	
	GA3	GND	GND	GA4	R17 JP
	GA1	GND	GND	GA2	
	50	(HPRC_SENSE)	SPRC_SENSE	49	(5/G6) E_D1_OUT[9:0]
(5/E1) SEQ_ON	48	SEQ_ON	STAIR	47	STAIR_OUT (10/G7)
(5/B1) RGB_CLAMP	46	RGB_CLAMP	EXPAND_ON	45	EXPAND (5/A1)
	44	NC	WFM_CLAMP	43	WFM_CLAMP (5/E1)
	42	NC	NC	41	
	40	AGND	AGND	39	
	38	AGND	AGND	37	
(5/C1) RGB_SYNC	36	RGB_SYNC	SYNC_OUT	35	SDTV_SYNC (5/B1)
	34	RGB_SYNC_RET	SYNC_OUT_RET	33	
	32	AGND	AGND	31	
(11/F11) A_WFM_VID	30	WFM	NC	29	
	28	WFM_RET	NC	27	E_WFM_OUT[9:0] (5/H6)
(11/B5) A_R_VID	26	CR/R	NC	25	
	24	CR/R_RET	AGND	23	
(11/D5) A_G_VID	22	Y/G	PM	21	A_PM_VID (11/D11)
	20	Y/G_RET	PM_RET	19	
(11/F5) A_B_VID	18	CB/B	ENC	17	A_VBS_VID (11/B11)
	16	CB/B_RET	ENC_RET	15	
	14	NC	NC	13	
	12	A-9.5V	A-9.5V	11	
A+9.5V_IN	10	A+9.5V	A+9.5V	9	A+9.5V_IN
A+5.5V_IN	8	A+5.5V	A+5.5V	7	A+5.5V_IN
	6	A+5.5V	A+5.5V	5	
A-5.5V_IN	4	A-5.5V	A-5.5V	3	A-5.5V_IN
	2	A-5.5V	A-5.5V	1	

CN1

QTS-100-01-L-D-RA-WT

	GC7	GND	GND	GC8	
	GC5	GND	GND	GC6	
	GC3	GND	GND	GC4	
	GC1	GND	GND	GC2	
E_D1_OUT9	150	D1_VID[9]	SP_IF SP1	149	JP4
E_D1_OUT8	148	D1_VID[8]	SP_IF SP2	147	JP5
E_D1_OUT7	146	D1_VID[7]	SP_IF SP3	145	JP6
E_D1_OUT6	144	D1_VID[6]	SP_IF SP4	143	JP7
E_D1_OUT5	142	D1_VID[5]	SP_IF SP5	141	JP8
E_D1_OUT4	140	D1_VID[4]	SP_IF SP6	139	JP9
E_D1_OUT3	138	D1_VID[3]	PM_CLAMP	137	PM_CLAMP (6/E1)
E_D1_OUT2	136	D1_VID[2]	PM_CLAMP_RET	135	
E_D1_OUT1	134	D1_VID[1]	ENC_CLAMP	133	ENC_CLAMP (6/G1)
E_D1_OUT0	132	D1_VID[0]	ENC_CLAMP_RET	131	
	130	DGND	DGND	129	
E_WFM_OUT9	128	WFM_VID[9]	PM_VID[9]	127	E_PM_OUT9
E_WFM_OUT8	126	WFM_VID[8]	PM_VID[8]	125	E_PM_OUT8
E_WFM_OUT7	124	WFM_VID[7]	PM_VID[7]	123	E_PM_OUT7
E_WFM_OUT6	122	WFM_VID[6]	PM_VID[6]	121	E_PM_OUT6
E_WFM_OUT5	120	WFM_VID[5]	PM_VID[5]	119	E_PM_OUT5
E_WFM_OUT4	118	WFM_VID[4]	PM_VID[4]	117	E_PM_OUT4
E_WFM_OUT3	116	WFM_VID[3]	PM_VID[3]	115	E_PM_OUT3
E_WFM_OUT2	114	WFM_VID[2]	PM_VID[2]	113	E_PM_OUT2
E_WFM_OUT1	112	WFM_VID[1]	PM_VID[1]	111	E_PM_OUT1
E_WFM_OUT0	110	WFM_VID[0]	PM_VID[0]	109	E_PM_OUT0
	108	DGND	DGND	107	
JP1	106	(WFM_CLK+)	(PM_CLK+)	105	
JP2	104	(WFM_CLK-)	(PM_CLK-)	103	
	102	DGND	DGND	101	

CN1

QTS-100-01-L-D-RA-WT

E_PM_OUT[9:0] (6/A2)

Digitl Power

6A
D+3.3V_IN — L4 NFM60R30T222T1 — D+3.3V
C17 22U/6.3 6TPC33M — C21 330U/6.3 6TPC33M — C23 0.1U

6A
D+5.0V_IN — L5 NFM60R30T222T1 — D+2.5V

IC4	BSV-1.8S	C18 330U/6.3 6TPC33M	C20 330U/6.3 6TPC33M
IC5	BSV-1.8S	C25 100U/6.3V 6TPC100M	C30 0.1U
IC6	BSV-1.8S	C26 100U/6.3V 6TPC100M	C31 0.1U
IC7	BSV-1.8S	C27 100U/6.3V 6TPC100M	C32 0.1U

VIN — RC — PWGD — VOUT — VAR — G1 G2 — 3A

IC4	C22 0.1U	C24 100U/6.3V 6TPC100M	C26 0.1U	R31 100K, R35 100K, R43 68K, R36 51, R44 820, C34 100U/6.3V 6TPC100M, C39 0.1U, C44 0.01U
IC5	C29 0.1U	C28 100U/6.3V 6TPC100M	C30 0.1U	R32 100K, R37 1800, R45 1800, R38 10, C35 100U/6.3V 6TPC100M, C40 0.1U, C45 0.01U
IC6	C33 0.1U	C31 100U/6.3V 6TPC100M	C31 0.1U	R34 39K, R41 33K, R42 JP, C36 100U/6.3V 6TPC100M, C41 0.1U, C46 0.01U
IC7	C34 0.1U	C27 100U/6.3V 6TPC100M	C32 0.1U	R33 1200, R39 1200, R40 47K, C37 100U/6.3V 6TPC100M, C42 0.1U, C47 0.01U

D+2.5V, D+1.8V, D+1.5V, D+1.2V

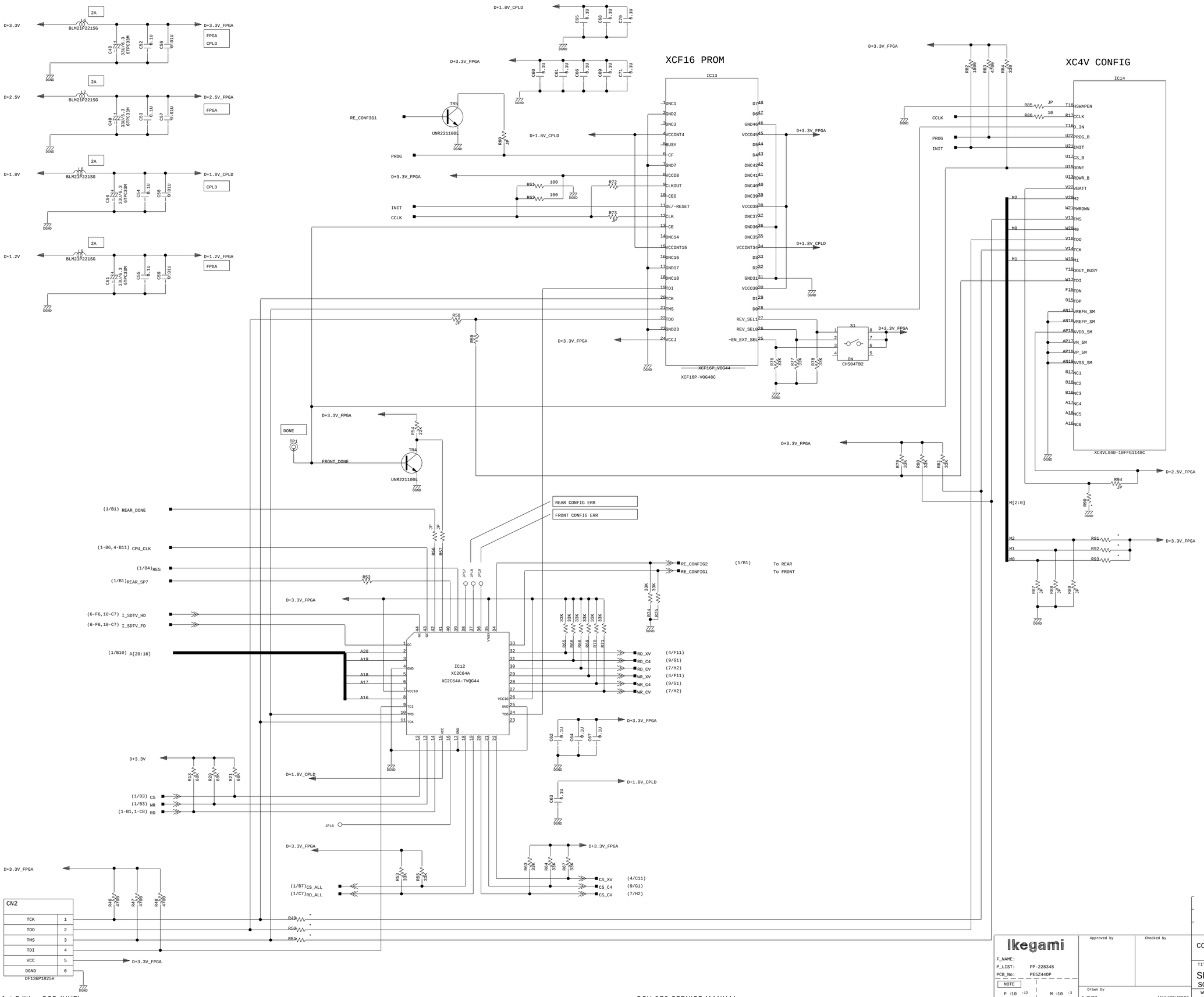
Analog Power

A+5V — TR2 2SA1681 — R2 680 — R3 1000 — R1 — C5 0.1U — R6 10K — R9 12K — R11 10K — L1 NFM60R30T222T1 — A+5.5V_IN
IC8 TL062 — R7 10K — R8 10K — NC — LM4040 2.9V — IC9
C1 0.1U — C2 0.1U — C3 100U/6.3 6TPC100M — C6 0.1U — C7 0.1U — C9 0.1U — C11 100U/6.3 6TPC100M
A-5V — C4 100U/6.3 6TPC100M — R4 1000 — R5 680 — 2SC4499 TR1 — R13 10K — L2 NFM60R30T222T1 — A-5.5V_IN
C8 0.1U — C10 100U/6.3 6TPC100M

A+9.5V_IN — L3 NFM60R30T222T1 — A+8V
C13 220U/20 20SVP22M — C14 0.1U — R18 1000 — IC10 NC LM4040 5V — R27 10K — C15 0.1U — R23 10K — 2.5V
R24 22K — D1 1SS154 — IC11 TL062 — R26 820 — TR3 2SA1681 — R21 470 — C16 220U/20 20SVP22M — C19 0.1U
IC11 TL062 — C12 0.1U — C340 0.1U — IC11 TL062

IC1-11

Ikegami	Approved by	Checked by	CCU-700
F_NAME:			TITLE: SDTV_PROC SCHEMATIC DIAGRAM (1/11)
P_LIST: PP-228348			
PCB_No: PE5Z440P			
NOTE	Drawn by J.SHIM JANUARY/2006		WORK No. 65AF-0347
P :10 -12, N :10 -9, U :10 -6, M :10 -3, K :10 +3, MEG:10 +6	Designed by J.SHIM JANUARY/2006		DWG.No. C2-246806 (86) REV. 0



1st Edition OSD (U)(E)

CCU-970 SERVICE MANUAL

F_NAME:	
P_LIST:	PP-228348
PCB_No:	PE5Z440P

NOTE

P :10 -12 | M :10 -3
N :10 -9 | K :10 +3
U :10 -6 | MEG:10 +6

Approved by | Checked by

Drawn by: J.SHIM JANUARY/2006

Designed by: J.SHIM JANUARY/2006

CCU-700

TITLE: SDTV_PROC
SCHEMATIC DIAGRAM

(2/11)

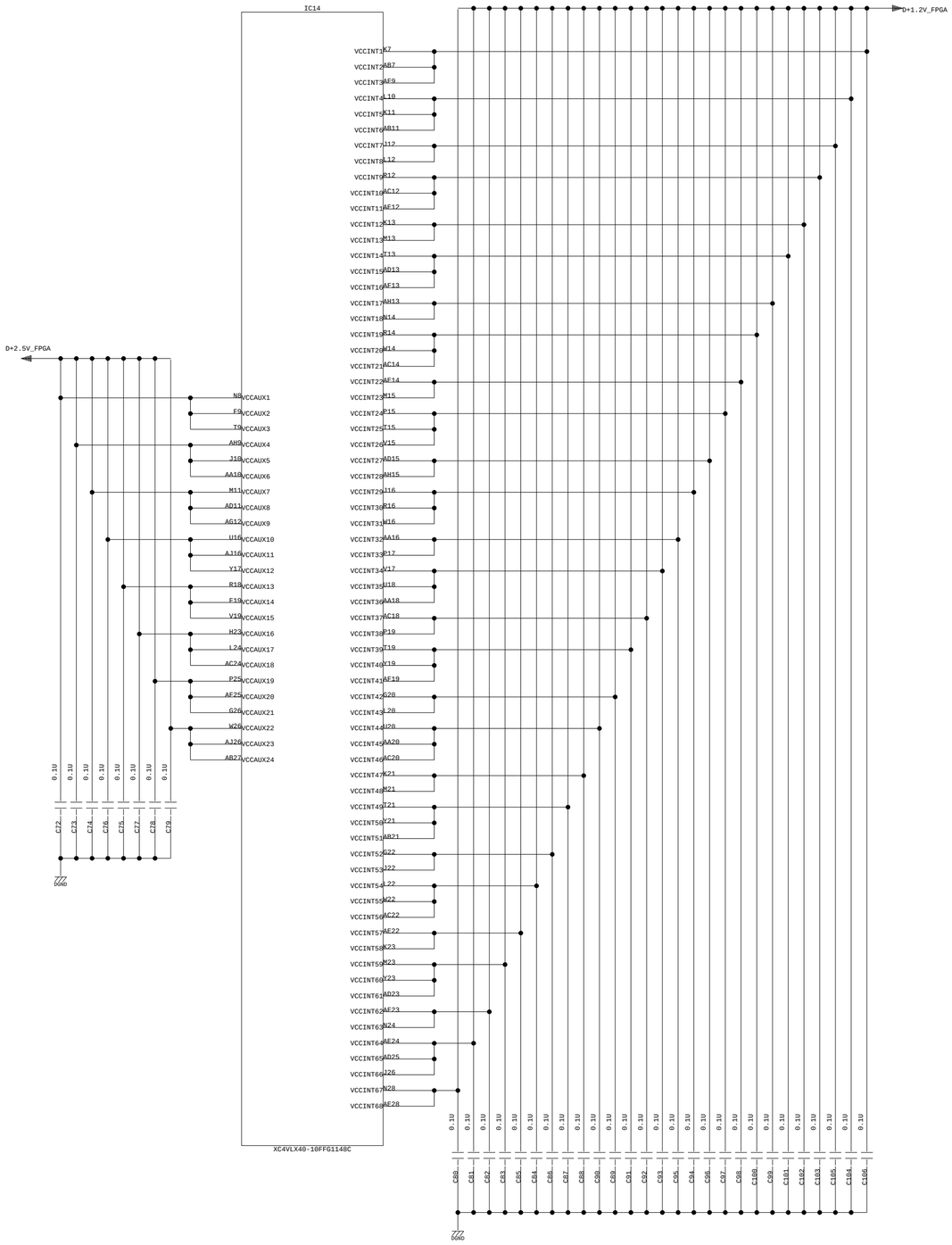
WORK No.: 65AF-0347

DWG.No.: C2-246807 87

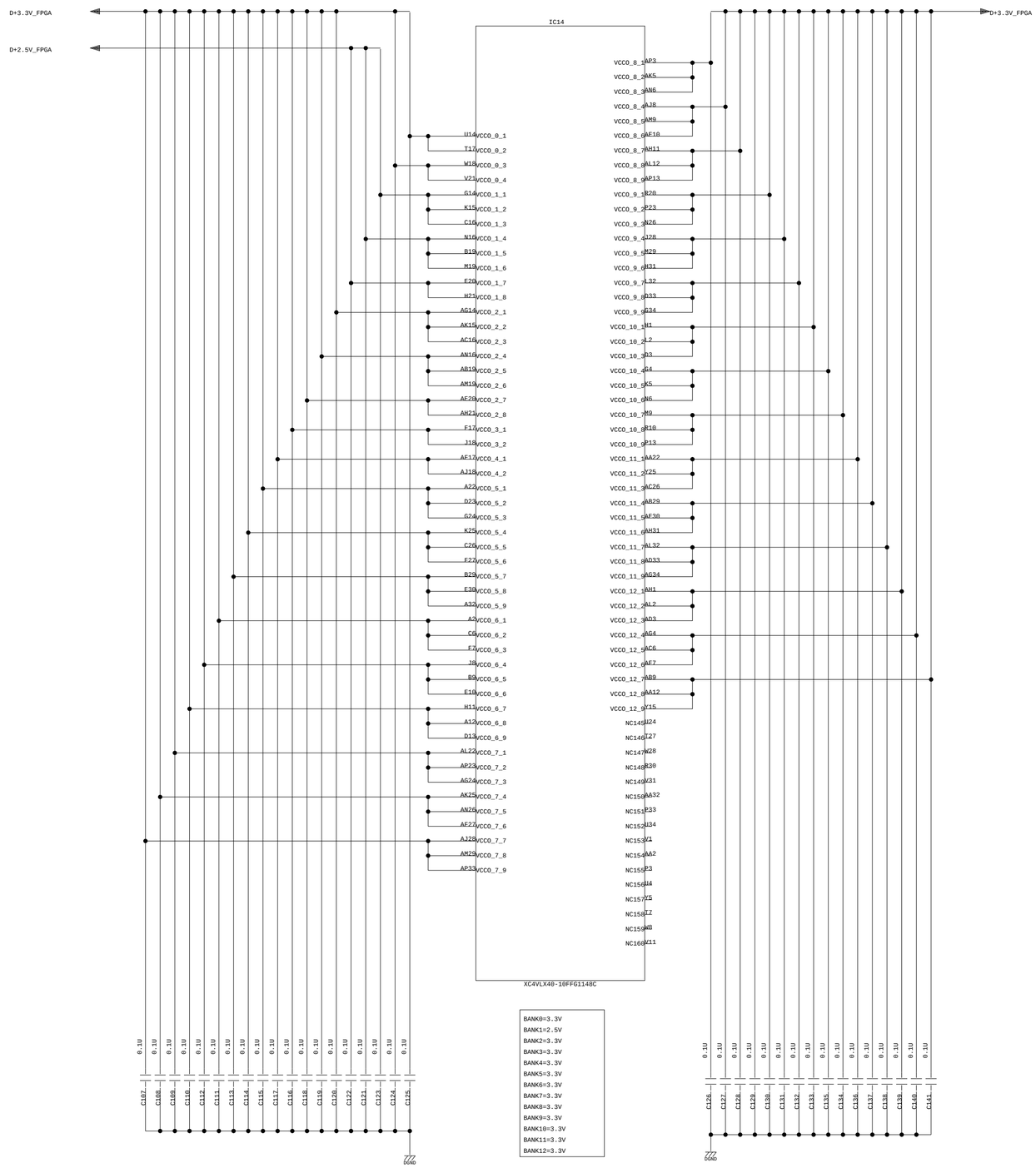
REV.: 0

IC12-14

XC4V POWER



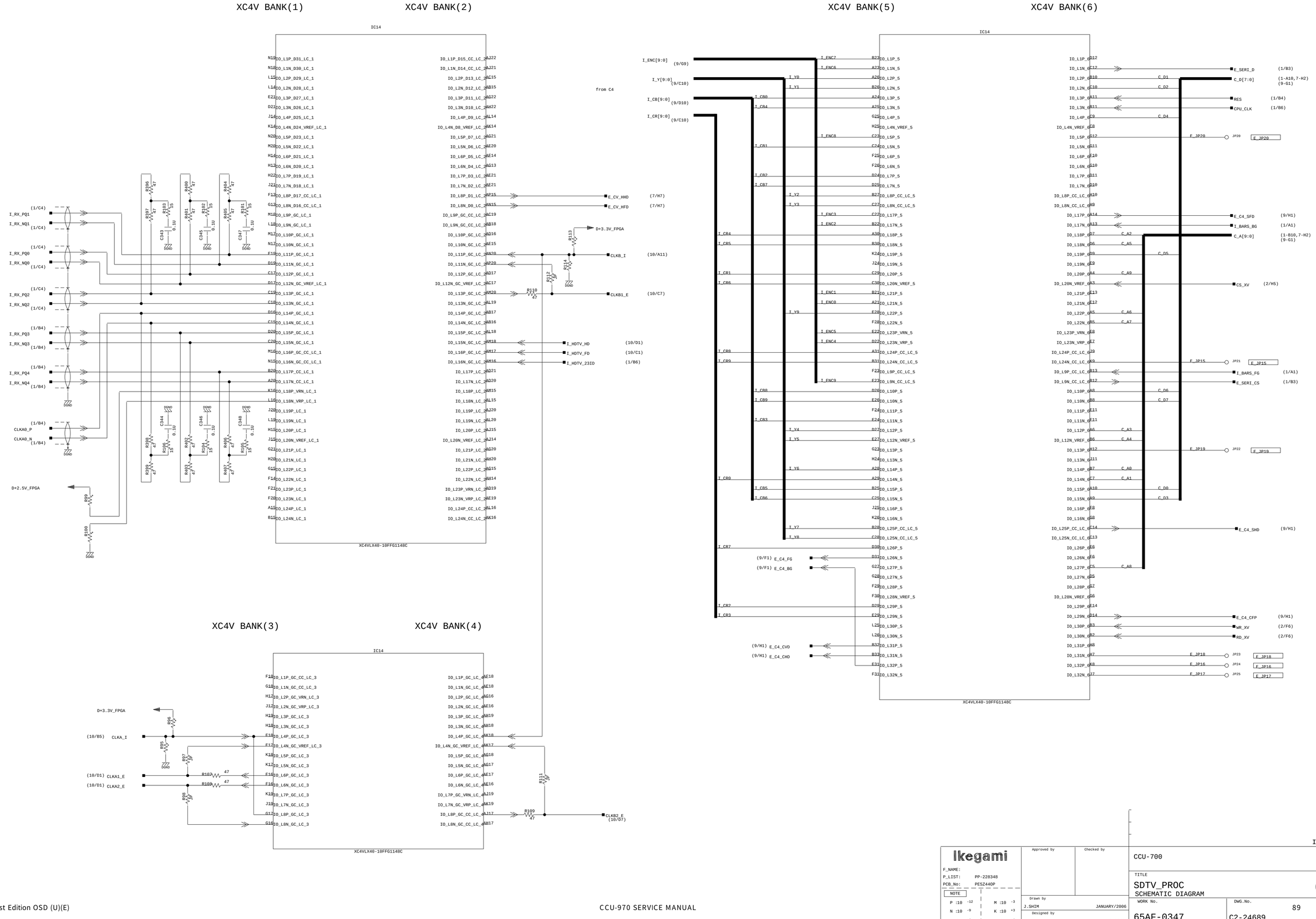
XC4V I/O POWER



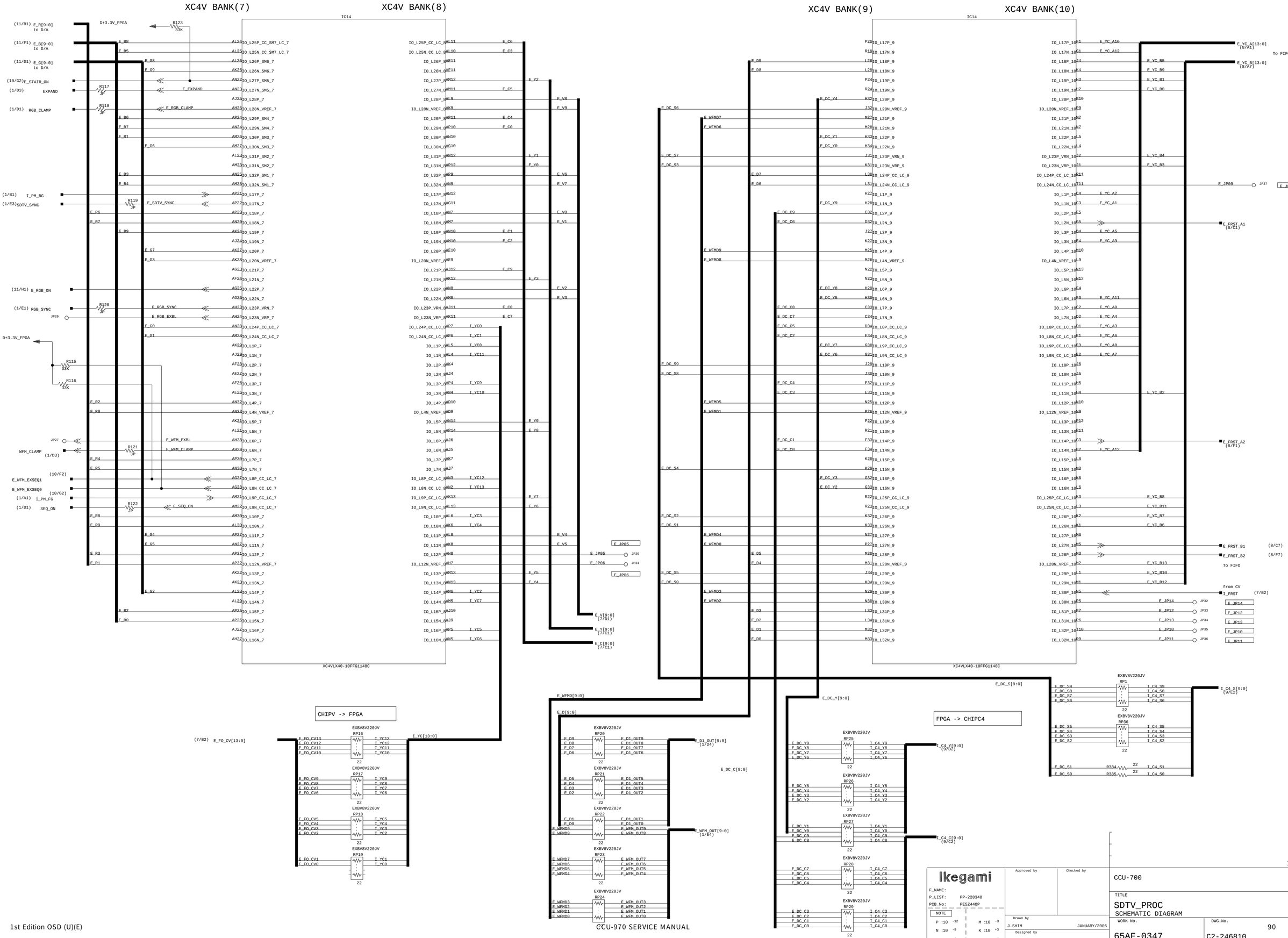
1st Edition OSD (U)(E)

CCU-970 SERVICE MANUAL

Ikegami	
F_NAME:	
P_LIST:	PP-228348
PCB_No:	PE5Z440P
NOTE	
P :10 -12	M :10 -3
N :10 -9	K :10 +3
U :10 -6	MEG:10 +6
Approved by	Checked by
Drawn by J.SHIM JANUARY/2006	
Designed by J.SHIM JANUARY/2006	
IC14	
CCU-700	
TITLE SDTV_PROC SCHEMATIC DIAGRAM	(3/11)
WORK No. 65AF-0347	DWG.No. 88 C2-246808
REV. 0	



Ikegami	Approved by	Checked by	CCU-700		
F_NAME:			TITLE		
P_LIST: PP-228348			SDTV_PROC		
PCB_No: PE5Z440P			SCHEMATIC DIAGRAM		(4/11)
NOTE	Drawn by		WORK No.	DWG.No.	REV.
P :10 -12 / M :10 -3	J.SHIM	JANUARY/2006	65AF-0347	C2-24689 89	0
N :10 -9 / K :10 +3	Designed by				
U :10 -6 / MEG:10 +6	J.SHIM	JANUARY/2006			


XC4V BANK(7)
XC4V BANK(8)
XC4V BANK(9)
XC4V BANK(10)
IC14
XC4VLX40-10FFG1148C
(11/B1) E_R[9:0] to D/A
(11/F1) E_B[9:0] to D/A
(11/D1) E_G[9:0] to D/A
D+3.3V_FPGA
R123 33K
(10/G2) E_STAIR_ON
(1/D3) EXPAND
E_EXPAND
R117 JP
(1/D1) RGB_CLAMP
E_RGB_CLAMP
R118 JP
(1/B1) I_PM_BG
(1/E3) SDTV_SYNC
E_SDTV_SYNC
R119 JP
(11/H1) E_RGB_ON
(1/E1) RGB_SYNC
E_RGB_SYNC
R120 JP
JP26
E_RGB_EXBL
R115 33K
R116 33K
JP27
E_WFM_EXBL
WFM_CLAMP
(1/D3)
E_WFM_CLAMP
R121 JP
(10/F2)
E_WFM_EXSEQ1
E_WFM_EXSEQ0
(10/G2)
(1/A1) I_PM_FG
(1/D1) SEQ_ON
E_SEQ_ON
R122 JP
E_JP05
E_JP06
JP30
JP31
E_V[9:0] (7/D1)
E_Y[9:0] (7/C1)
E_C[9:0] (7/C1)
CHIPV -> FPGA
(7/B2) E_FO_CV[13:0]
I_YC[13:0]
EXBV8V220JV
RP16
RP17
RP18
RP19
RP20
RP21
RP22
RP23
RP24
E_WFMD[9:0]
E_D[9:0]
E_D1_OUT[9:0] (1/D4)
E_WFM_OUT[9:0] (1/E4)
E_DC_C[9:0]
E_DC_S[9:0]
E_DC_Y[9:0]
FPGA -> CHIPC4
RP25
RP26
RP27
RP28
RP29
RP1
RP36
I_C4_S[9:0] (9/E2)
I_C4_Y[9:0] (9/D2)
I_C4_C[9:0] (9/C2)
E_YC_A[13:0] (8/A1)
E_YC_B[13:0] (8/A7)
To FIFO
E_JP09
JP37
E_FRST_A1 (8/C1)
E_FRST_A2 (8/F1)
E_FRST_B1 (8/C7)
E_FRST_B2 (8/F7)
from CV
I_FRST (7/B2)
E_JP14
E_JP12
E_JP13
E_JP10
E_JP11
JP32
JP33
JP34
JP35
JP36
Ikegami
F_NAME:
P_LIST: PP-228348
PCB_No: PE5Z440P
NOTE
Approved by
Checked by
Drawn by
J.SHIM JANUARY/2006
Designed by
J.SHIM JANUARY/2006
IC14
CCU-700
TITLE
SDTV_PROC
SCHEMATIC DIAGRAM
5/11
WORK No.
65AF-0347
DWG.No.
C2-246810
90
REV.
0

EXBV8V220JV RP30
E_PM_D9 E_PM_D8 E_PM_D7 E_PM_D6 → E_PM_OUT9 E_PM_OUT8 E_PM_OUT7 E_PM_OUT6
22
EXBV8V220JV RP31
E_PM_D5 E_PM_D4 E_PM_D3 E_PM_D2 → E_PM_OUT5 E_PM_OUT4 E_PM_OUT3 E_PM_OUT2
22
EXBV8V220JV RP32
E_PM_D1 E_PM_D0 → E_PM_OUT1 E_PM_OUT0
22
E_PM_OUT[9:0] (1/E6)

XC4V BANK(11)

XC4V BANK(12)

IC14

E_PM_D[9:0]
E_PM_D4
E_WFMA0 E_WFMA2 E_WFMA7 E_WFMA4 E_WFMA3
JP38 E_ENC_EXBL
PM_CLAMP (1/E6) R378 JP E_PM_CLAMP
E_PM_D7 E_PM_D6 E_PM_D2 E_PM_D5
JP39 E_PM_EXBL
E_PM_D9 E_PM_D1 E_PM_D0
E_ENC1 E_ENC0 E_ENC9 E_ENC8 E_ENC4 E_ENC7 E_ENC2 E_ENC5 E_ENC6 E_ENC3
E_PM_D8 E_PM_D3
E_WFMA6 E_WFMA5 E_WFMA9 E_WFMA8
ENC_CLAMP (1/E6) R124 JP E_ENC_CLAMP
E_ENC[9:0] (11/B7)
E_WFMA[9:0] (11/F7) E_WFMA1
E_PM_A[9:0] (11/D7)
E_PM_A7 E_PM_A6 E_PM_A5 E_PM_A4 E_PM_A1 E_PM_A0 E_PM_A8 E_PM_A3 E_PM_A2 E_PM_A9

AA23	IO_L17P_11		
AA24	IO_L17N_11		
AJ34	IO_L18P_11		
AH34	IO_L18N_11		
AD27	IO_L19P_11		
AC27	IO_L19N_11		
AB25	IO_L20P_11		
AB26	IO_L20N_VREF_11		
AG30	IO_L21P_11		
AG31	IO_L21N_11		
AH32	IO_L22P_11		
AH33	IO_L22N_11		
AC25	IO_L23P_VRN_11		
AD26	IO_L23N_VRP_11		
AF29	IO_L24P_CC_LC_11		
AF30	IO_L24N_CC_LC_11		
AA28	IO_L1P_11		
AA29	IO_L1N_11		
W24	IO_L2P_11		
Y24	IO_L2N_11		
AB30	IO_L3P_11		
AA30	IO_L3N_11		
W25	IO_L4P_11		
Y26	IO_L4N_VREF_11		
AE33	IO_L5P_11		
AE34	IO_L5N_11		
AC32	IO_L6P_11		
AC33	IO_L6N_11		
AC29	IO_L7P_11		
AC30	IO_L7N_11		
AD34	IO_L8P_CC_LC_11		
AC34	IO_L8N_CC_LC_11		
AA25	IO_L9P_CC_LC_11		
AA26	IO_L9N_CC_LC_11		
AE32	IO_L10P_11		
AD32	IO_L10N_11		
AC28	IO_L11P_11		
AB28	IO_L11N_11		
AD30	IO_L12P_11		
AD31	IO_L12N_VREF_11		
AG32	IO_L13P_11		
AG33	IO_L13N_11		
AF33	IO_L14P_11		
AF34	IO_L14N_11		
AE29	IO_L15P_11		
AD29	IO_L15N_11		
AF31	IO_L16P_11		
AE31	IO_L16N_11		
AK31	IO_L25P_CC_LC_11		
AK32	IO_L25N_CC_LC_11		
AK33	IO_L26P_11		
AK34	IO_L26N_11		
AM32	IO_L27P_11		
AM33	IO_L27N_11		
AJ31	IO_L28P_11		
AJ32	IO_L28N_VREF_11		
AB22	IO_L29P_11		
AB23	IO_L29N_11		
AL33	IO_L30P_11		
AL34	IO_L30N_11		
AM31	IO_L31P_11		
AL31	IO_L31N_11		
AJ30	IO_L32P_11		
AH30	IO_L32N_11		
AC9	IO_L17P_12		
AC8	IO_L17N_12		
AG3	IO_L18P_12	I_DC_Y6	
AF3	IO_L18N_12		
AE6	IO_L19P_12		
AE6	IO_L19N_12		
AE5	IO_L20P_12	I_DC_Y9	
AF4	IO_L20N_VREF_12	I_DC_Y8	
AL1	IO_L21P_12		I_DC_C3
AK1	IO_L21N_12		I_DC_C5
AJ2	IO_L22P_12		I_DC_C9
AJ1	IO_L22N_12		I_DC_C8
AG6	IO_L23P_VRN_12		
AG5	IO_L23N_VRP_12	I_DC_Y7	
AE7	IO_L24P_CC_LC_12		
AD7	IO_L24N_CC_LC_12		
AB6	IO_L1P_12		
AB5	IO_L1N_12		
AC3	IO_L2P_12		I_DC_V8
AC2	IO_L2N_12		I_DC_V7
Y11	IO_L3P_12		
AA11	IO_L3N_12		
AD2	IO_L4P_12		I_DC_V6
AD1	IO_L4N_VREF_12		I_DC_V5
Y14	IO_L5P_12		
AA13	IO_L5N_12		
AC5	IO_L6P_12		
AC4	IO_L6N_12		I_DC_V9
AE1	IO_L7P_12		I_DC_V0
AF1	IO_L7N_12		I_DC_V2
AA9	IO_L8P_CC_LC_12		
AA8	IO_L8N_CC_LC_12		
Y13	IO_L9P_CC_LC_12		
Y12	IO_L9N_CC_LC_12		
AE3	IO_L10P_12		I_DC_V4
AE2	IO_L10N_12		I_DC_V3
AD6	IO_L11P_12		
AD5	IO_L11N_12		
AC7	IO_L12P_12		
AB8	IO_L12N_VREF_12		
Y16	IO_L13P_12		
AA15	IO_L13N_12		
AE4	IO_L14P_12		
AD4	IO_L14N_12		
AH3	IO_L15P_12	I_DC_Y1	
AH2	IO_L15N_12	I_DC_Y0	
AG2	IO_L16P_12	I_DC_Y5	
AG1	IO_L16N_12	I_DC_Y4	
AC10	IO_L25P_CC_LC_12		
AB10	IO_L25N_CC_LC_12		
AK3	IO_L26P_12		I_DC_C7
AK2	IO_L26N_12		I_DC_C6
AE8	IO_L27P_12		
AE8	IO_L27N_12		
AH5	IO_L28P_12	I_DC_Y3	
AH4	IO_L28N_VREF_12	I_DC_Y2	
AB13	IO_L29P_12		
AB12	IO_L29N_12		
AM2	IO_L30P_12		I_DC_C1
AM1	IO_L30N_12		I_DC_C0
AG8	IO_L31P_12		
AG7	IO_L31N_12		
AM3	IO_L32P_12		I_DC_C2
AL3	IO_L32N_12		I_DC_C4

XC4VLX40-10FFG1148C

From CV
I_DC_Y[9:0] (7/F11)
I_DC_C[9:0] (7/G11)
I_DC_V[9:0] (7/F11)
F_JP04 JP40 E_JP04
I_CV_SFD (7/H7)
I_CV_SHD (7/H7)
I_SDTV_CF (10/C7)
F_JP01 JP41 E_JP01
E_JP02 JP42 E_JP02
I_SDTV_FD (10/C7)
I_SDTV_HD (10/C7)
I_SDTV_23ID (1/B6)
E_JP03 JP43 E_JP03
E_JP07 JP29 E_JP07
E_JP08 JP28 E_JP08

CPV_MA[9:0] (7/C10)
CPV_MA4 CPV_MA5 CPV_MA6 CPV_MA7 CPV_MA8 CPV_MA9
I_CPV_DC9 I_CPV_DC8 I_CPV_DC7 I_CPV_DC6
CPV_MA3 CPV_MA2 CPV_MA1 CPV_MA0
WE_MA (7/C10)
WRES_M (7/E10)
CLKA_FIFO_M (10/D5)
CLKB_FIFO (10/B11)
RRES_M (7/E10)
RE_MA (7/C10)
R127 R128 R129 R130 R131 R132 R125 R133 JP
C142 C144 C146 C148 0.1U
C150 330U/6.3 6TPC330M
DGND
IC15
MS81V26000
MA
I_CPV_DC5 I_CPV_DC4 I_CPV_DC3 I_CPV_DC2 I_CPV_DC1 I_CPV_DC0

CPV_MB[9:0] (7/D10)
CPV_MB4 CPV_MB5 CPV_MB6 CPV_MB7 CPV_MB8 CPV_MB9
I_CPV_DC9 I_CPV_DC8 I_CPV_DC7 I_CPV_DC6
CPV_MB3 CPV_MB2 CPV_MB1 CPV_MB0
WE_MB (7/D10)
WRES_M (7/E10)
CLKA_FIFO_M (10/D5)
CLKB_FIFO (10/B11)
RRES_M (7/E10)
RE_MB (7/D10)
R134 R136 R135 R137 R138 R139 R126 R140 JP
C143 C145 C147 C149 0.1U
C151 330U/6.3 6TPC330M
DGND
IC16
MS81V26000
MB
I_CPV_DC5 I_CPV_DC4 I_CPV_DC3 I_CPV_DC2 I_CPV_DC1 I_CPV_DC0
D+3.3V_FIFO

To CV

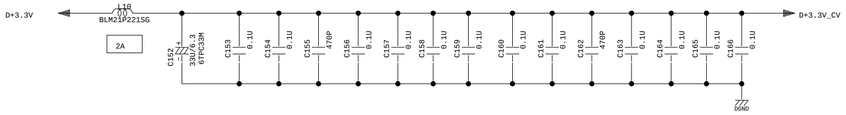
IC14-16

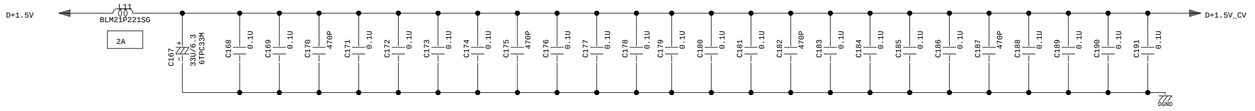
Ikegami	Approved by	Checked by
F_NAME:		
P_LIST: PP-228348		
PCB_No: PE5Z440P		
NOTE	Drawn by J.SHIM JANUARY/2006	
P :10 -12 M :10 -3	Designed by J.SHIM JANUARY/2006	
N :10 -9 K :10 +3		
U :10 -6 MEG:10 +6		

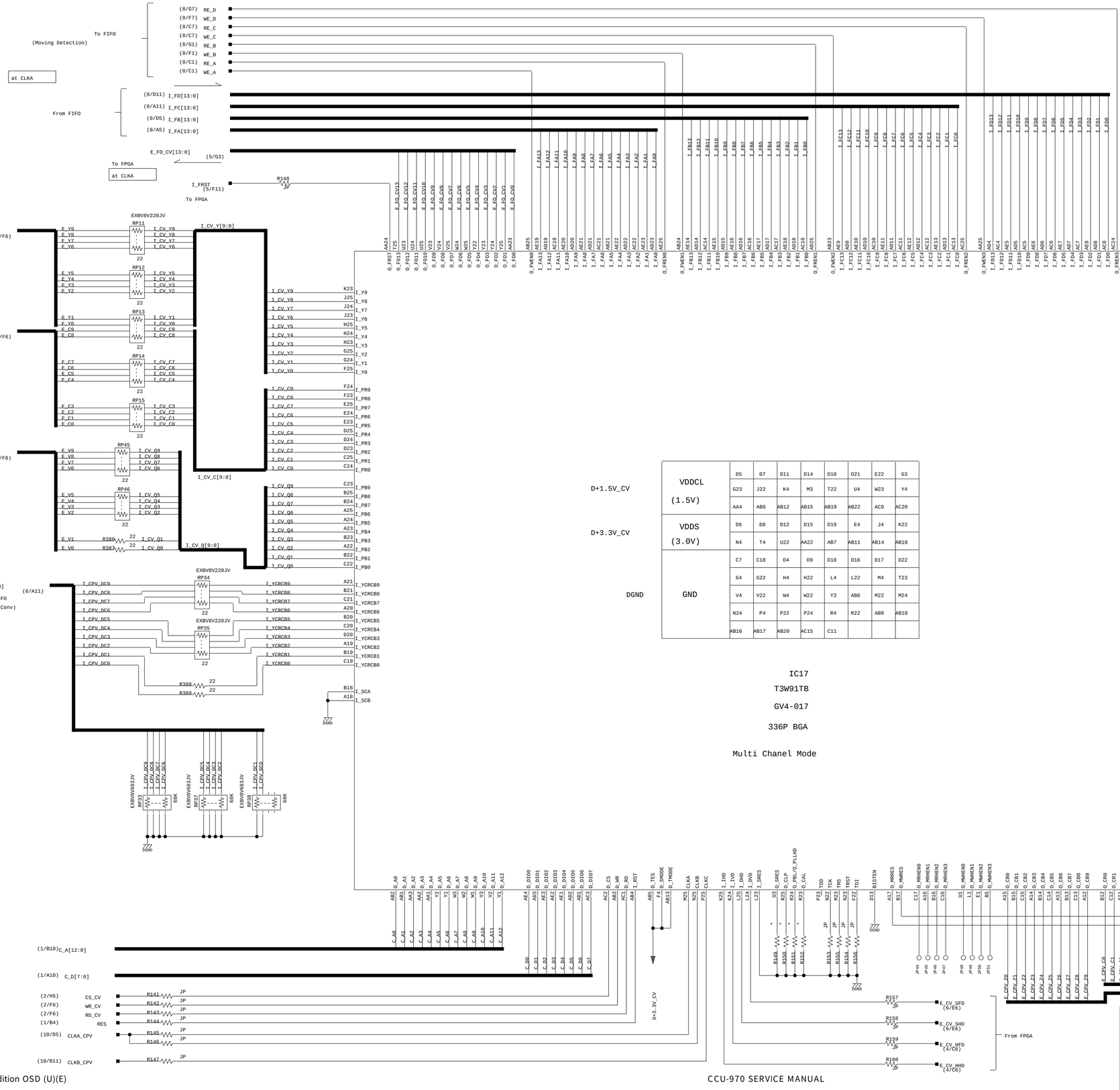
CCU-700

TITLE
SDTV_PROC
SCHEMATIC DIAGRAM
(6/11)

WORK No.	DWG.No.	REV.
65AF-0347	C2-246811	0
	91	







VDDCL (1.5V)	D5	D7	D11	D14	D18	D21	E22	G3
	G23	J22	K4	M3	T22	U4	W23	Y4
	AA4	AB8	AB12	AB15	AB19	AB22	AC9	AC20
VDDS (3.0V)	D6	D8	D12	D15	D19	E4	J4	K22
	N4	T4	U22	AA22	AB7	AB11	AB14	AB18
GND	C7	C18	D4	D9	D10	D16	D17	D22
	G4	G22	H4	H22	L4	L22	M4	T23
	V4	V22	W4	W22	Y3	AB6	M22	M24
	N24	P4	P22	P24	R4	R22	AB9	AB10
	AB16	AB17	AB20	AC15	C11			

D+1.5V_CV

D+3.3V_CV

DGND

IC17

T3W91TB

GV4-017

336P BGA

Multi Chanel Mode

F_NAME:	
P_LIST:	PP-228348
PCB_No:	PE5Z440P
NOTE	
P :10 -12	M :10 -3
N :10 -9	K :10 +3
U :10 -6	MEG:10 +6

Approved by

Checked by

Drawn by J.SHIM JANUARY/2006

Designed by J.SHIM JANUARY/2006

IC17

CCU-700

TITLE

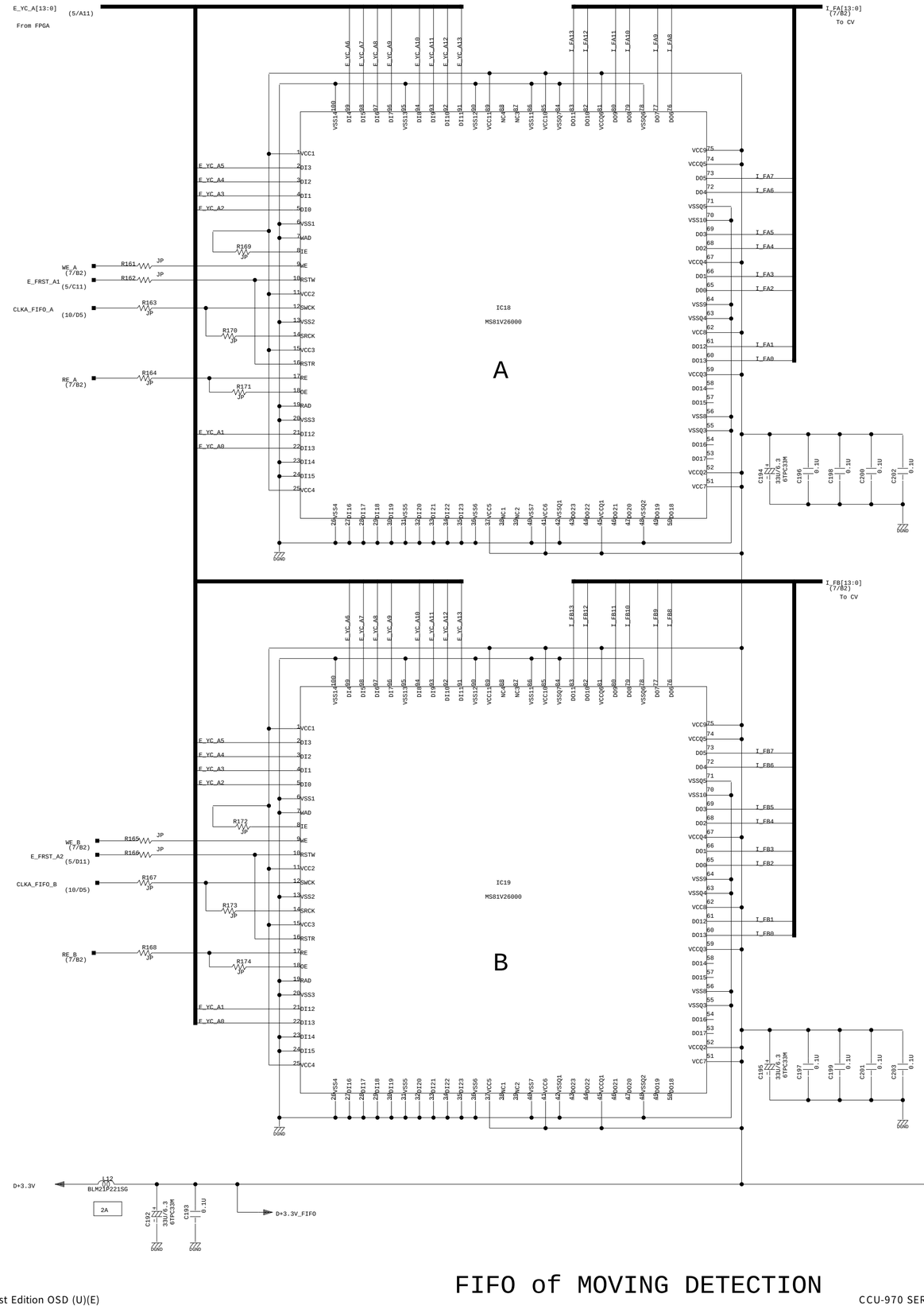
SDTV_PROC

SCHEMATIC DIAGRAM

7/11

WORK No.	DWG.No.	REV.
65AF-0347	C2-246812	0

92



FIFO of MOVING DETECTION

F_NAME:	
P_LIST:	PP-228348
PCB_No:	PE5Z440P
NOTE	
P :10 -12	M :10 -3
N :10 -9	K :10 +3
U :10 -6	MEG:10 +6

Approved by | Checked by

Drawn by: J.SHIM JANUARY/2006

Designed by: J.SHIM JANUARY/2006

IC18-21

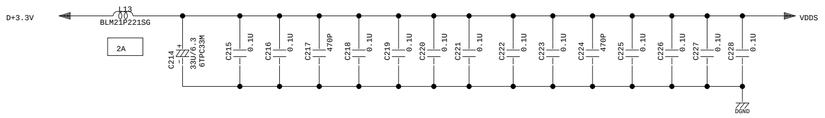
CCU-700

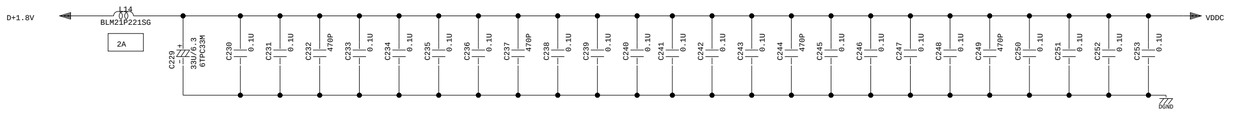
TITLE: SDTV_PROC SCHEMATIC DIAGRAM (8/11)

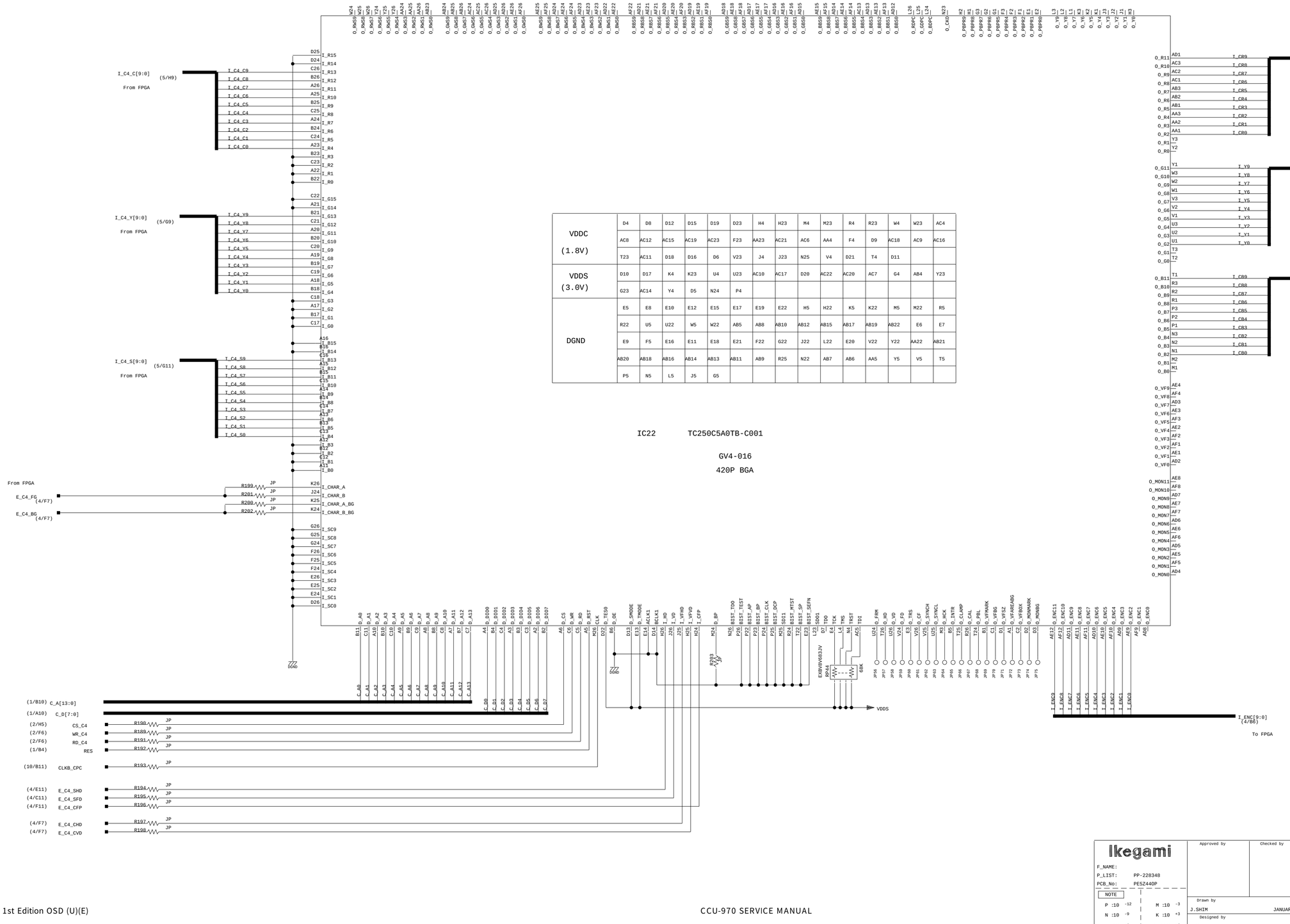
WORK No.: 65AF-0347

DWG.No.: C2-246813 93

REV.: 0







VDDC (1.8V)	D4	D8	D12	D15	D19	D23	H4	H23	M4	M23	R4	R23	W4	W23	AC4
	AC8	AC12	AC15	AC19	AC23	F23	AA23	AC21	AC6	AA4	F4	D9	AC18	AC9	AC16
	T23	AC11	D18	D16	D6	V23	J4	J23	N25	V4	D21	T4	D11		
VDDS (3.0V)	D10	D17	K4	K23	U4	U23	AC10	AC17	D20	AC22	AC20	AC7	G4	AB4	Y23
	G23	AC14	Y4	D5	N24	P4									
DGND	E5	E8	E10	E12	E15	E17	E19	E22	H5	H22	K5	K22	M5	M22	R5
	R22	U5	U22	W5	W22	AB5	AB8	AB10	AB12	AB15	AB17	AB19	AB22	E6	E7
	E9	F5	E16	E11	E18	E21	F22	G22	J22	L22	E20	V22	Y22	AA22	AB21
	AB20	AB18	AB16	AB14	AB13	AB11	AB9	R25	N22	AB7	AB6	AA5	Y5	V5	T5
	P5	N5	L5	J5	G5										

IC22

CCU-700

TITLE
SDTV_PROC
SCHEMATIC DIAGRAM
9/11

WORK No.	DWG.No.	REV.
65AF-0347	94 C2-246814	0

Ikegami

F_NAME:
P_LIST: PP-228348
PCB_No: PE5Z440P

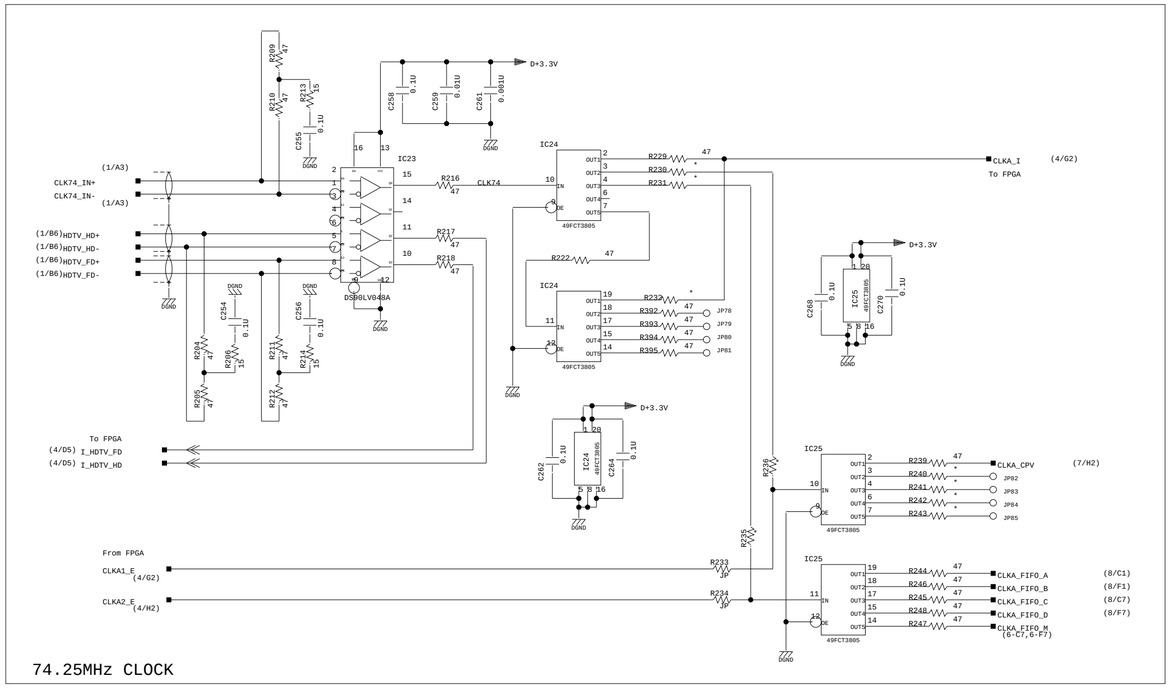
NOTE

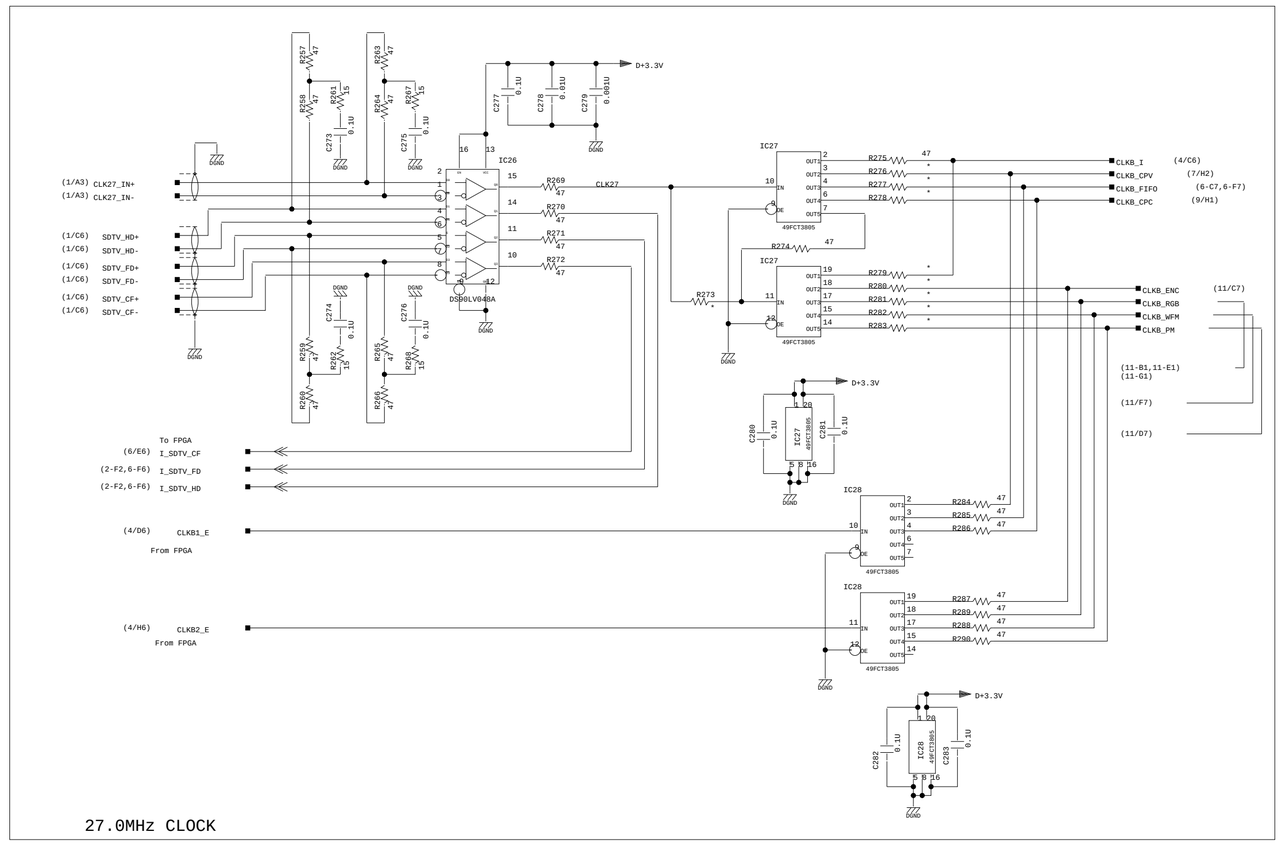
P :10 -12 | M :10 -3
N :10 -9 | K :10 +3
U :10 -6 | MEG:10 +6

Approved by | Checked by

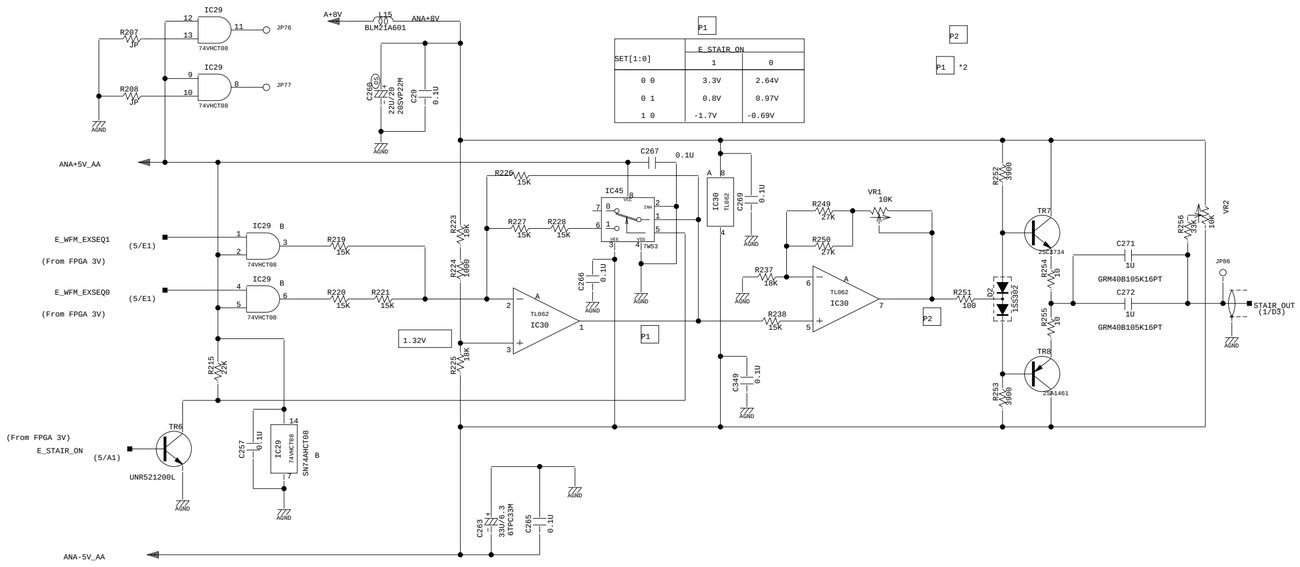
Drawn by J.SHIM JANUARY/2006

Designed by J.SHIM JANUARY/2006





SEQUENTIAL STAIR



CUT

~~RGB SYNC & SYNC OUT~~

IC23-30

Ikegami

F_NAME:
P_LIST: PP-228348
PCB_No: PE5Z440P
NOTE
P :10 -12 M :10 -3
N :10 -9 K :10 +3
U :10 -6 MEG:10 +6

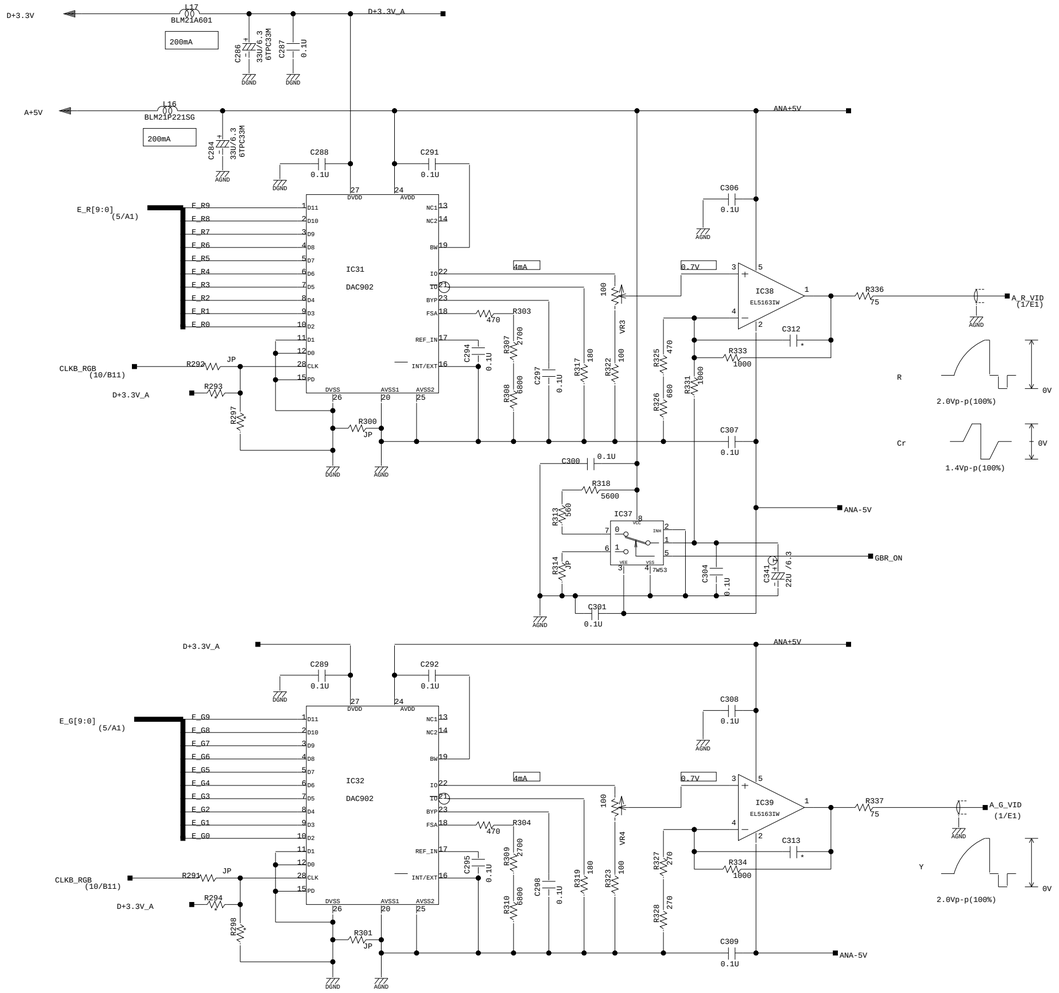
Approved by | Checked by

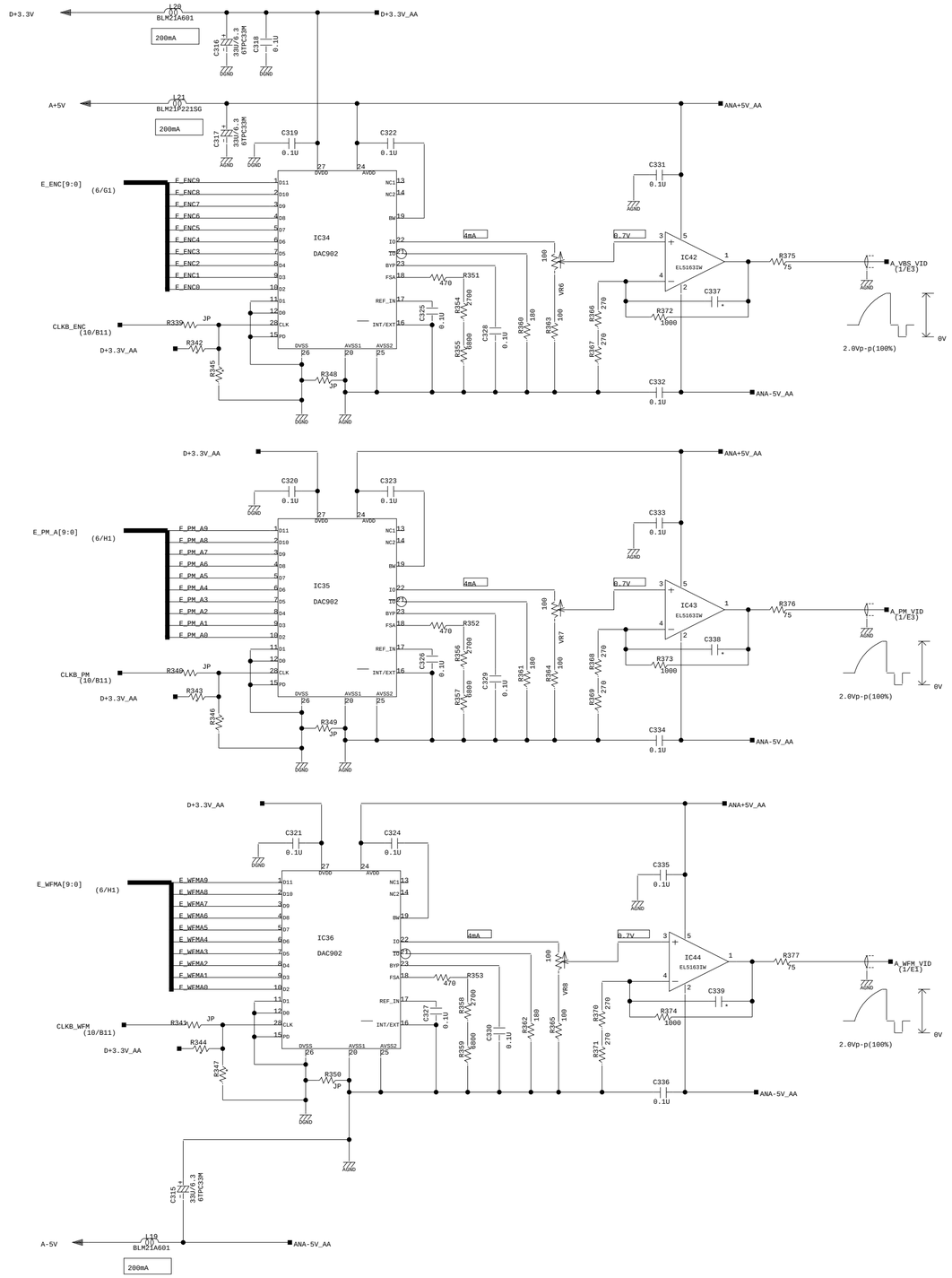
CCU-700

TITLE
SDTV_PROC
SCHEMATIC DIAGRAM
(10/11)

Drawn by J.SHIM JANUARY/2006
Designed by J.SHIM JANUARY/2006

WORK No. 65AF-0347
DWG.No. C2-246815
95
REV. 0





CCU-970 SERVICE MANUAL

F_NAME:	
P_LIST:	PP-228348
PCB_No:	PESZ440P
NOTE	
P :10 -12	M :10 -3
N :10 -9	K :10 +3
U :10 -6	MEG:10 +6

Approved by | Checked by

Drawn by: J.SHIM JANUARY/2006

Designed by: J.SHIM JANUARY/2006

IC31-44

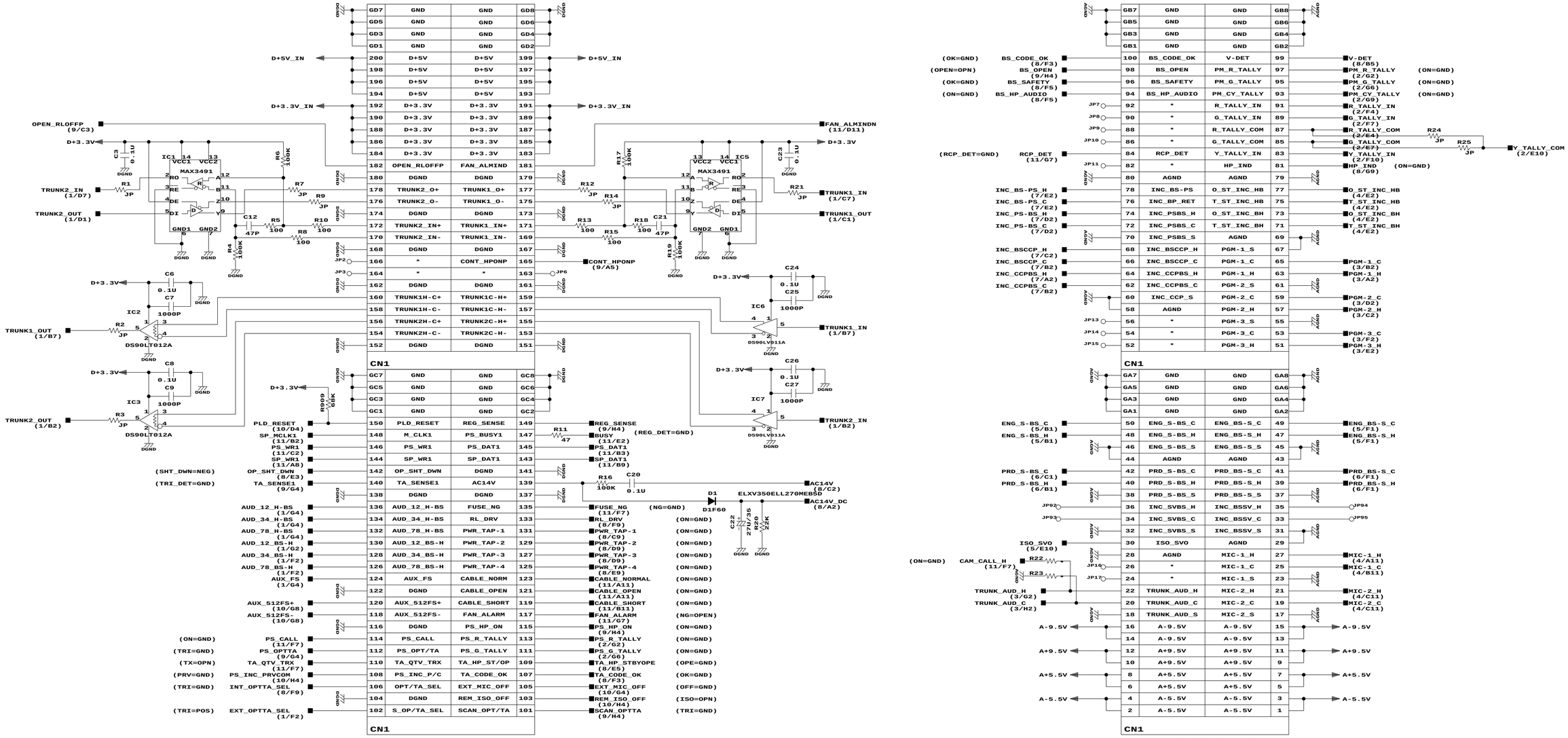
CCU-700

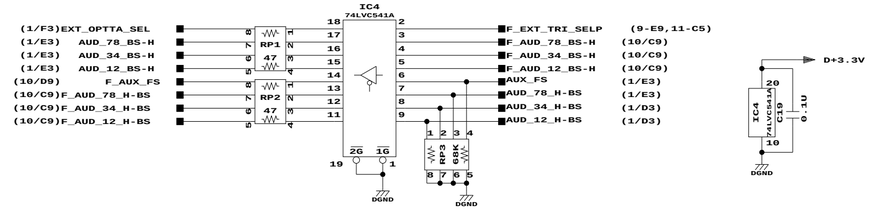
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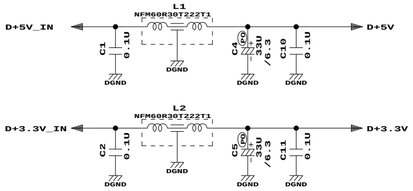
WORK No.: 65AF-0347

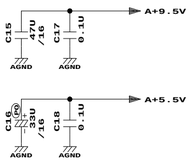
DWG.No.: C2-246816 96

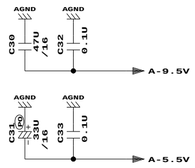
REV.: 0



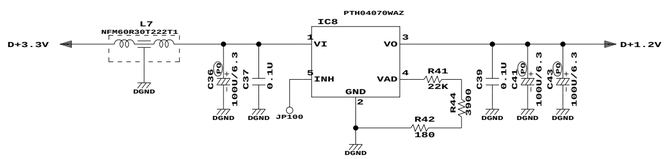


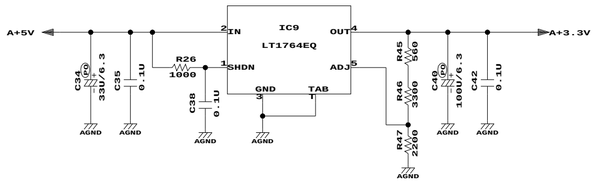


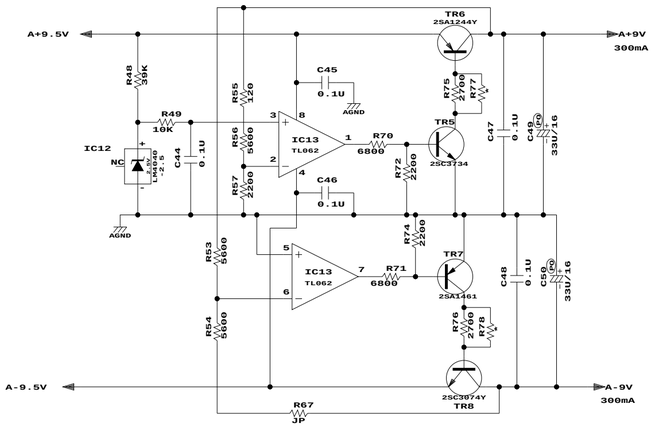


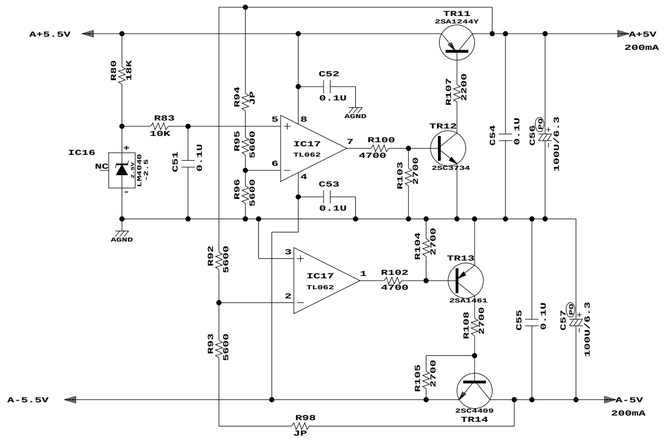


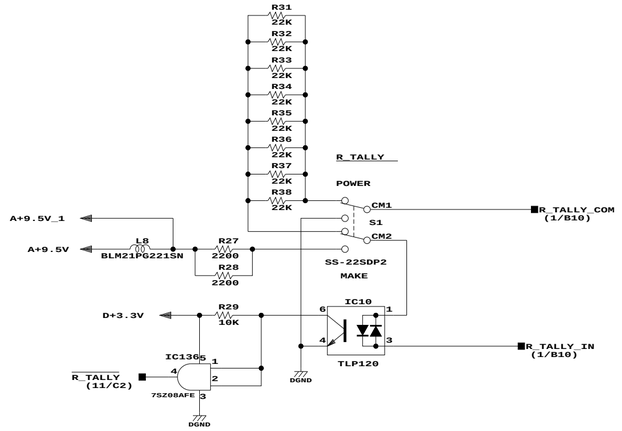
Ikegami	Approved by	Checked by	CCU-890
F_NAME:			TITLE: AUX-A SCHEMATIC (1/11)
P_LIST:			
PCB_No:			
NOTE	Drawn by: MATSUOKA 2007.10.31		WORK No. / DWG.No. C2-248948-1 / REV. 0
P :10 -12, M :10 -3, N :10 -9, K :10 +3, U :10 -6, MEG:10 +6	Designed by: MATSUOKA 2007.10.31		

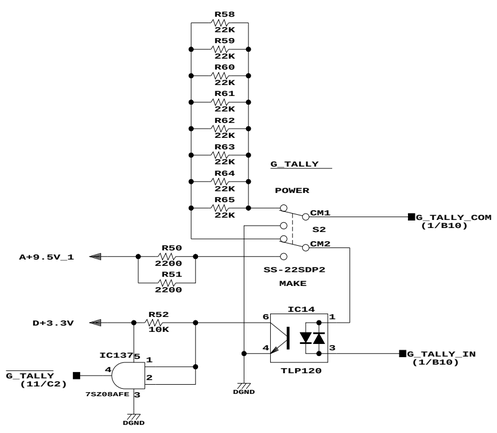


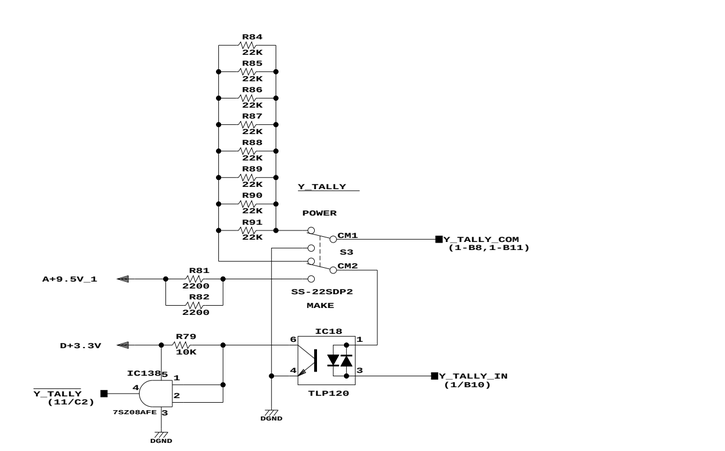


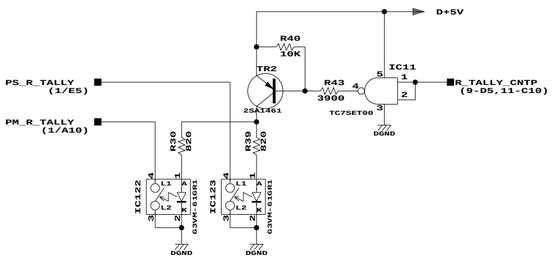


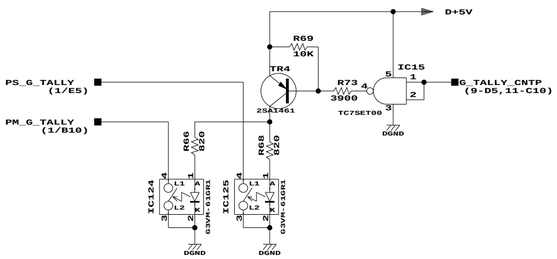


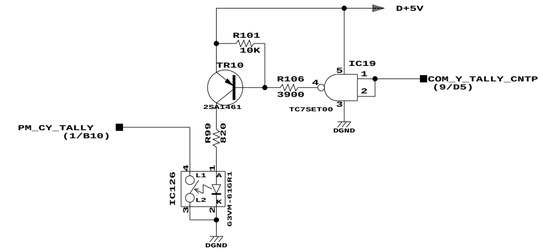




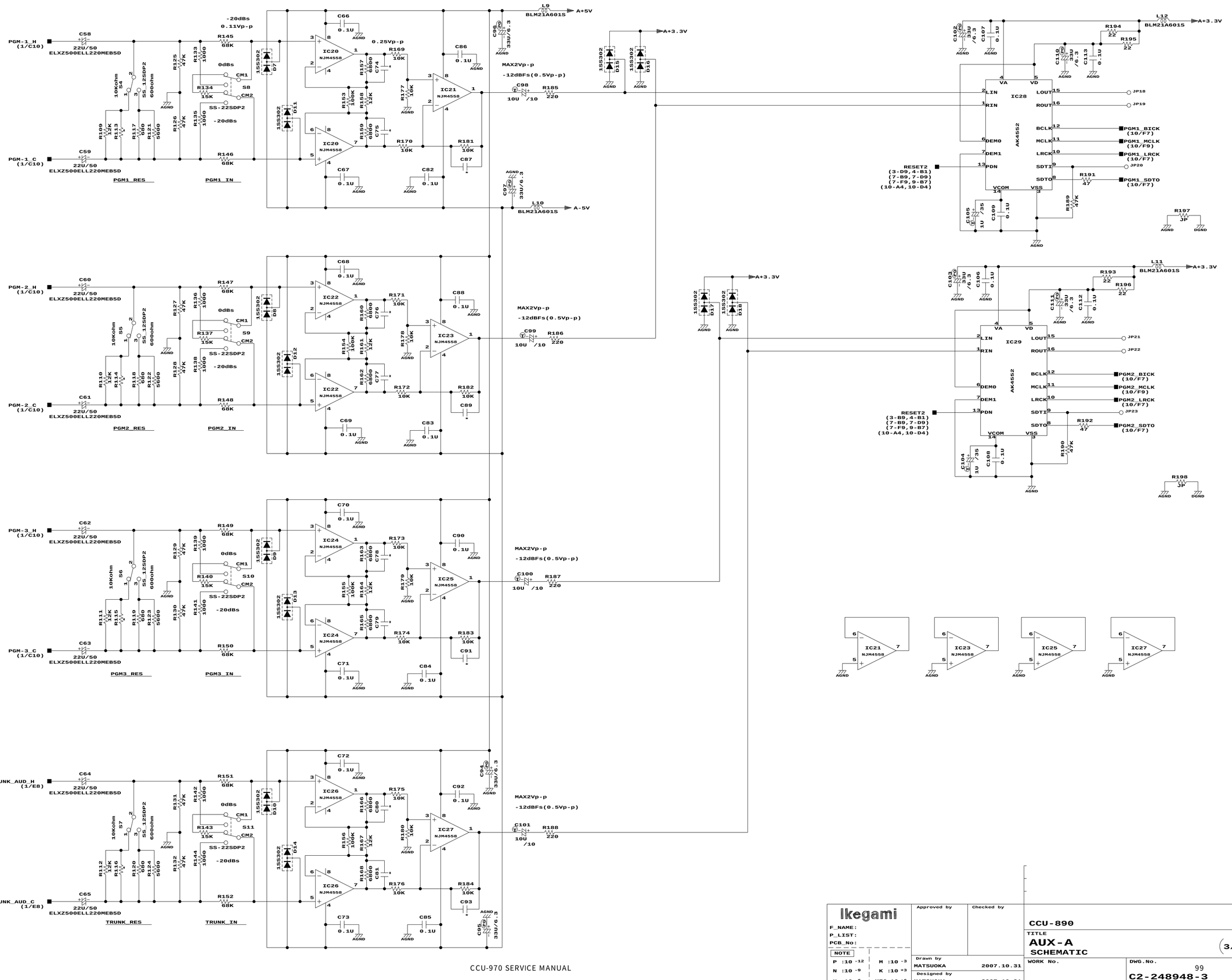




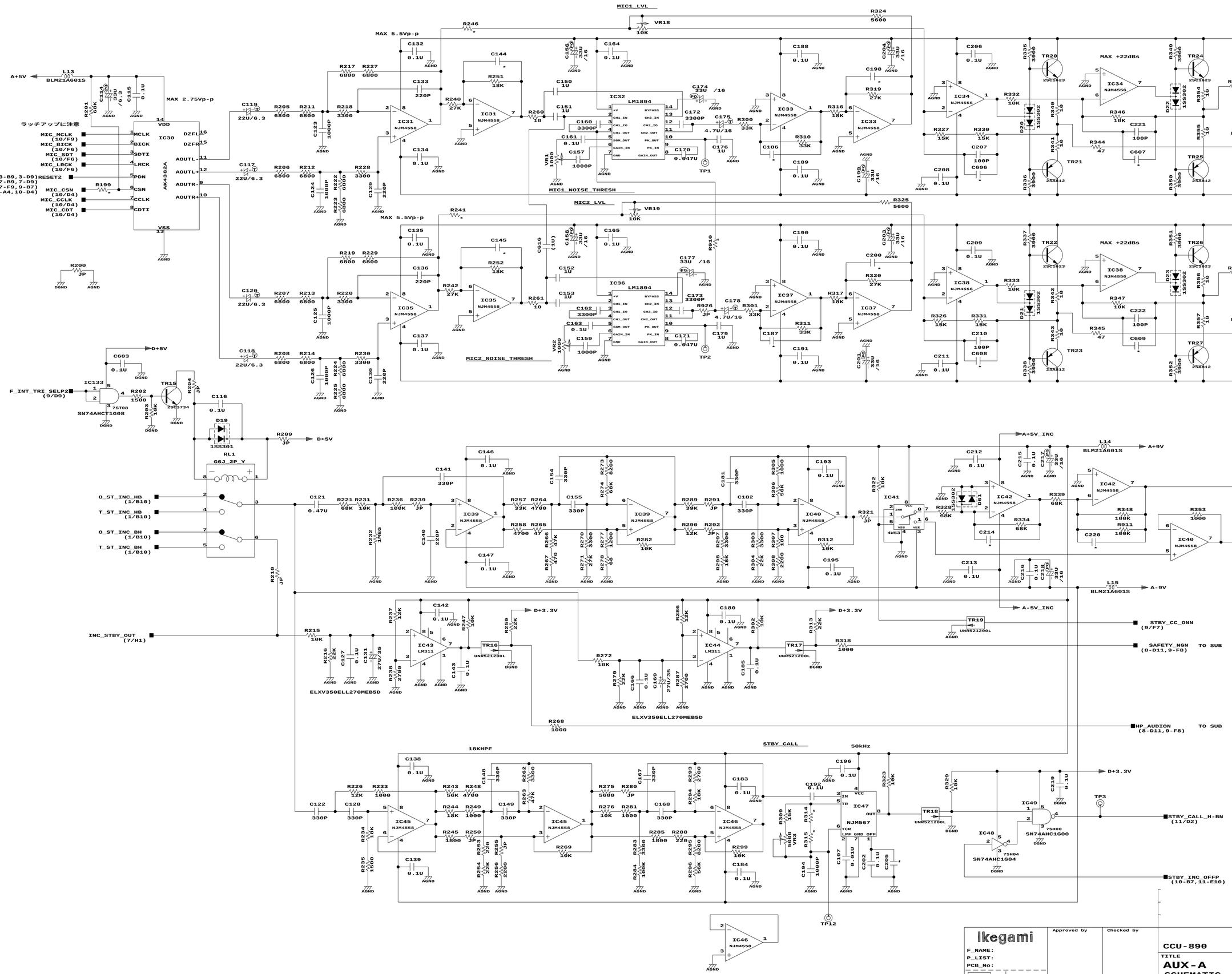




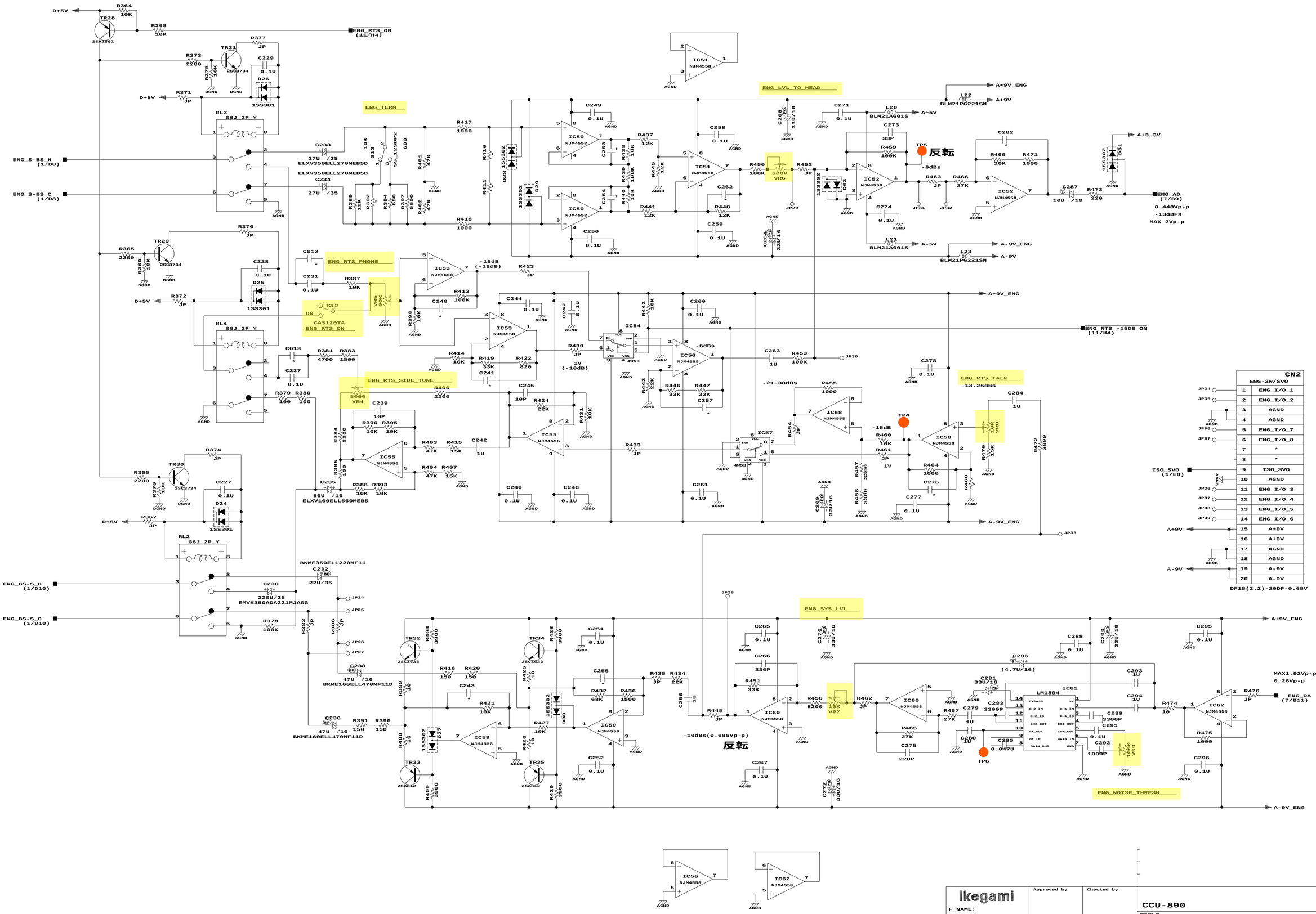
Ikegami	Approved by	Checked by	CCU-890
F_NAME:			TITLE: AUX-A SCHEMATIC (2/11)
P_LIST:			
PCB_No:			
NOTE	Drawn by MATSUOKA 2007.10.31		WORK No.
P :10 -12 M :10 -3	Designed by MATSUOKA 2007.10.31		DWG.No. C2-248948-2 (98)
N :10 -9 K :10 +3			REV. 0
U :10 -6 MEG:10 +6			



Ikegami	Approved by	Checked by	CCU-890
F_NAME:			TITLE: AUX-A SCHEMATIC (3/11)
P_LIST:			
PCB_No:			
NOTE	Drawn by MATSUOKA 2007.10.31		WORK No.
P :10 -12 M :10 -3	Designed by MATSUOKA 2007.10.31		DWG.No. 99 C2-248948-3
N :10 -9 K :10 +3			REV. 0
U :10 -6 MEG:10 +6			



Ikegami	Approved by	Checked by	CCU-890
F_NAME:			TITLE: AUX-A SCHEMATIC (4/11)
P_LIST:			
PCB_No:			
NOTE: P :10 -12, N :10 -9, U :10 -6, M :10 -3, K :10 +3, MEG:10 +6	Drawn by: MATSUOKA 2007.10.31		WORK No.
	Designed by: MATSUOKA 2007.10.31		DWG.No. 100 C2-248948-4 / REV. 0



Ikegami	Approved by / Checked by
F_NAME:	
P_LIST:	
PCB_No:	
NOTE	Drawn by: MATSUOKA 2007.10.31
P :10 -12 M :10 -3	Designed by: MATSUOKA 2007.10.31
N :10 -9 K :10 +3	
U :10 -6 MEG:10 +6	

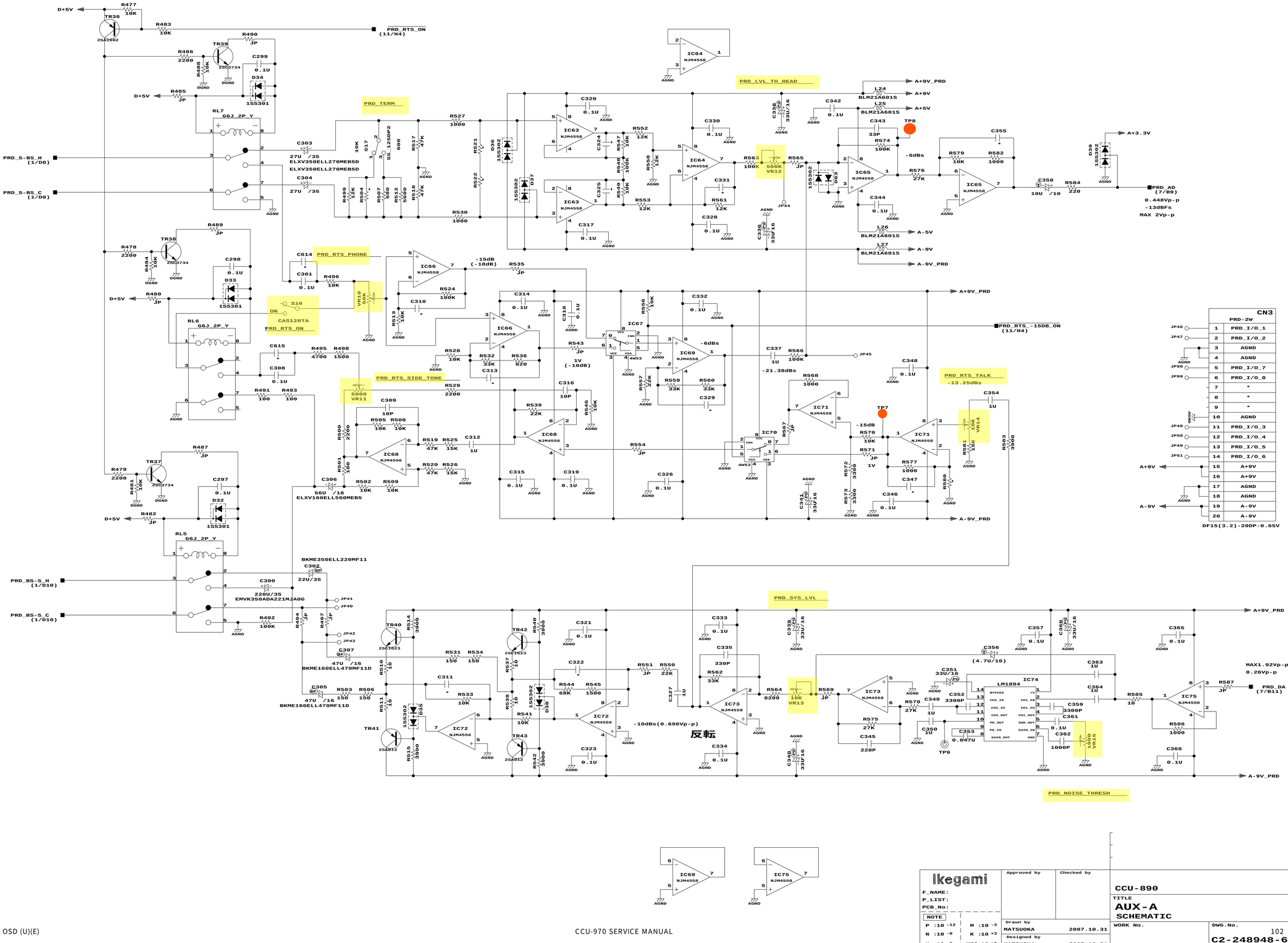
CCU-890

TITLE: AUX-A SCHEMATIC (5/11)

WORK No.

DWG.No. C2-248948-5

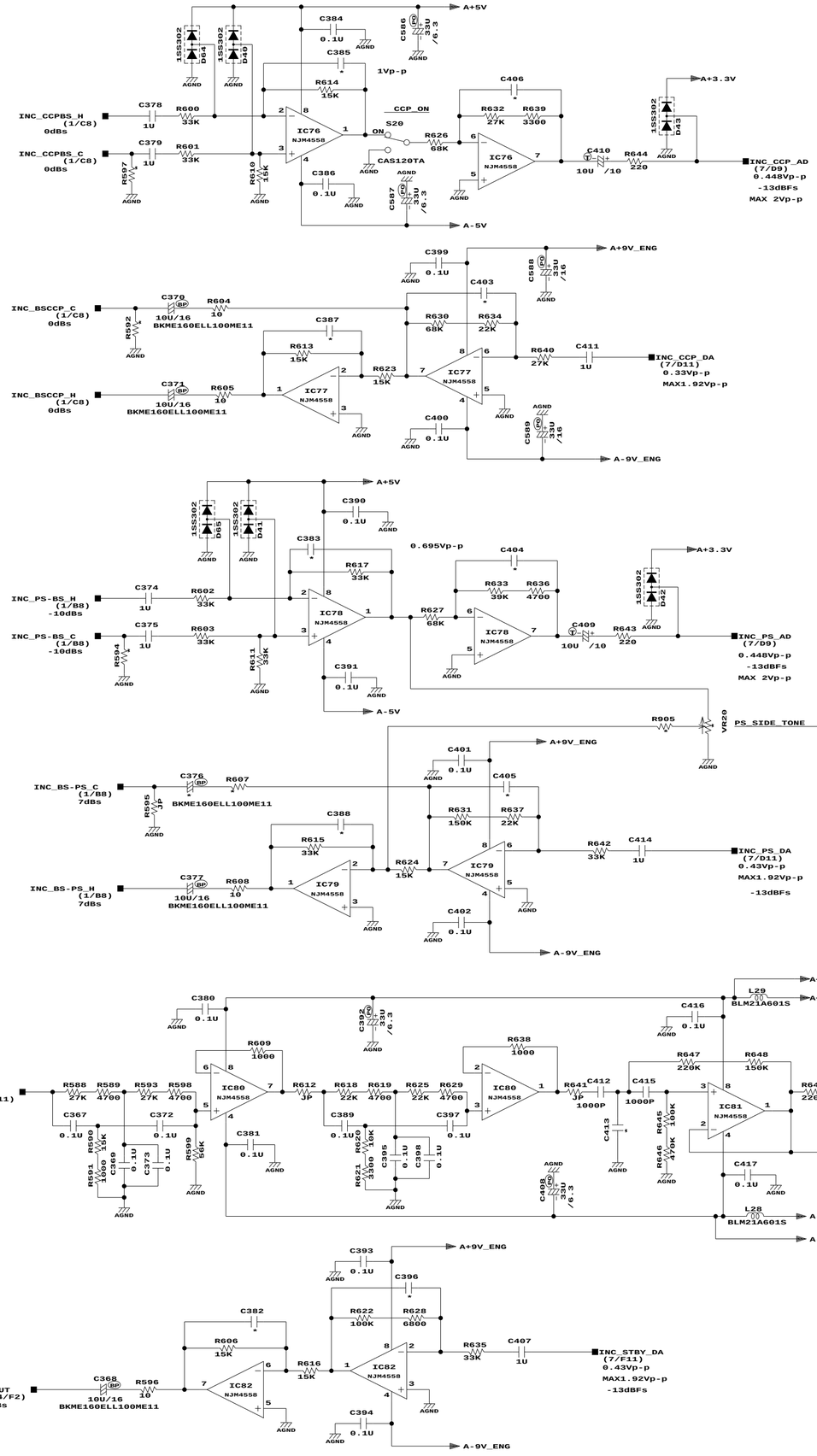
REV. 0



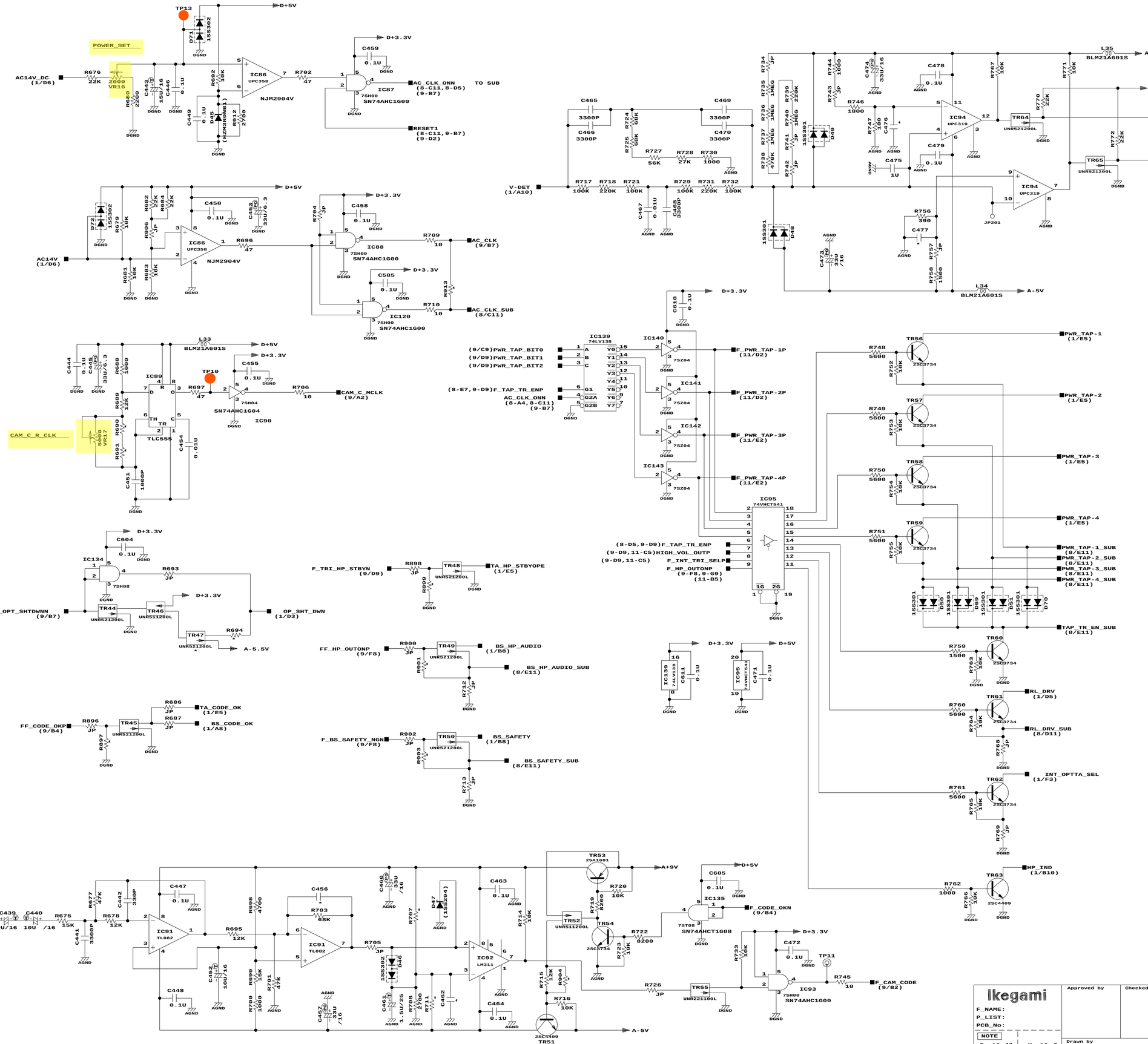
CN3 PRD-2W		
JP46	1	PRD_I/O_1
JP47	2	PRD_I/O_2
AGND JP98	3	AGND
	4	AGND
JP99	5	PRD_I/O_7
	6	PRD_I/O_8
	7	*
	8	*
	9	*
AGND	10	AGND
JP48	11	PRD_I/O_3
JP50	12	PRD_I/O_4
JP49	13	PRD_I/O_5
JP51	14	PRD_I/O_6
A+9V	15	A+9V
	16	A+9V
AGND	17	AGND
	18	AGND
A-9V	19	A-9V
	20	A-9V

DF15(3.2)-20DP-0.65V

Ikegami	Approved by	Checked by	CCU-890
F_NAME:			TITLE: AUX-A SCHEMATIC (6/11)
P_LIST:			
PCB_No:			
NOTE	Drawn by MATSUOKA 2007.10.31		WORK No.
P :10 -12 M :10 -3	Designed by MATSUOKA 2007.10.31		DWG.No. C2-248948-6
N :10 -9 K :10 +3			102
U :10 -6 MEG:10 +6			REV. 0



Ikegami	Approved by	Checked by	CCU-890
F_NAME:			TITLE: AUX-A SCHEMATIC (7/11)
P_LIST:			
PCB_No:			
NOTE	Drawn by MATSUOKA 2007.10.31		WORK No.
P :10 -12 M :10 -3	Designed by MATSUOKA 2007.10.31		DWG.No. 103 C2-248948-7
N :10 -9 K :10 +3			REV. 0
U :10 -6 MEG:10 +6			



1	AC_CLK_ONN	(8-A4,8-D5) (9-B7)
2	AC_CLK	AC_CLK_SUB (8/C5)
3	DGND	
4	DGND	
5	RESET1	(8-B4,9-B7) (9-D2)
6	REM_HP_ONP	REM_HP_ONN (9-C5,11-E10)
7	PS_HP_ONN	(9-C5,9-H7)
8	*	JP202
9	*	JP203
10	OPEN_RLOFFP	OPEN_RLOFFP_SUB (9-C3)
11	REG_SENSEN	(9-B4,9-C5) (9-H7,10-B6)
12	INT_SCAN_ONN	(9-C5,9-F2)
13	CODE_OKP	F_CODE_OKP_SUB (9/D5)
14	REP_ONN	(9-B7,9-E2)
15	CODE_ENP	CENP (9-A2,9-H2)
16	RL_DRV	RL_DRV_SUB (8/F9)
17	COAX_MODEN	(9-B8,9-E2)
18	SAFETY_BPN	(9-B8,9-F2) (11-C10,11-G2) SAFETY_BYPASSN
19	SAFETY_NGN	(4-F10,9-F8)
20	HP_AUDION	(4-F10,9-F8)
21	BS_HP_AUDIO	BS_HP_AUDIO_SUB (8/F5)
22	BS_SAFETY	BS_SAFETY_SUB (8/F5)
23	POWER_UPN	(9-C9,10-C4)
24	POWER_DOWNN	(9-C9,10-C4)
25	V_DET_SHTN	(8-B10,9-C9) V_DET_SHORTN
26	V_DET_OPENN	(8-B10,9-C9)
27	BS_OPENP	(8-B10,9-C9)
28	POWER_TAP1	PWR_TAP-1_SUB (8/E9)
29	POWER_TAP2	PWR_TAP-2_SUB (8/E9)
30	POWER_TAP3	PWR_TAP-3_SUB (8/E9)
31	POWER_TAP4	PWR_TAP-4_SUB (8/E9)
32	TAP_TR_EN	TAP_TR_EN_SUB (8/E9)
33	D+3.3V	D+3.3V
34	D+3.3V	
35	D+3.3V	
36	D+3.3V	
37	D+3.3V	
38	D+3.3V	
39	D+5V	D+5V
40	D+5V	
41	D+5V	
42	D+5V	
43	DGND	
44	DGND	
45	DGND	
46	DGND	
47	DGND	
48	DGND	
49	DGND	
50	DGND	

F_NAME:	Approved by	Checked by
P_LIST:		
PCB_No:		
NOTE	Drawn by	
P :10 -12 M :10 -3	MATSUOKA	2007.10.31
N :10 -9 K :10 +3	Designed by	
U :10 -6 MEG:10 +6	MATSUOKA	2007.10.31

Ikegami

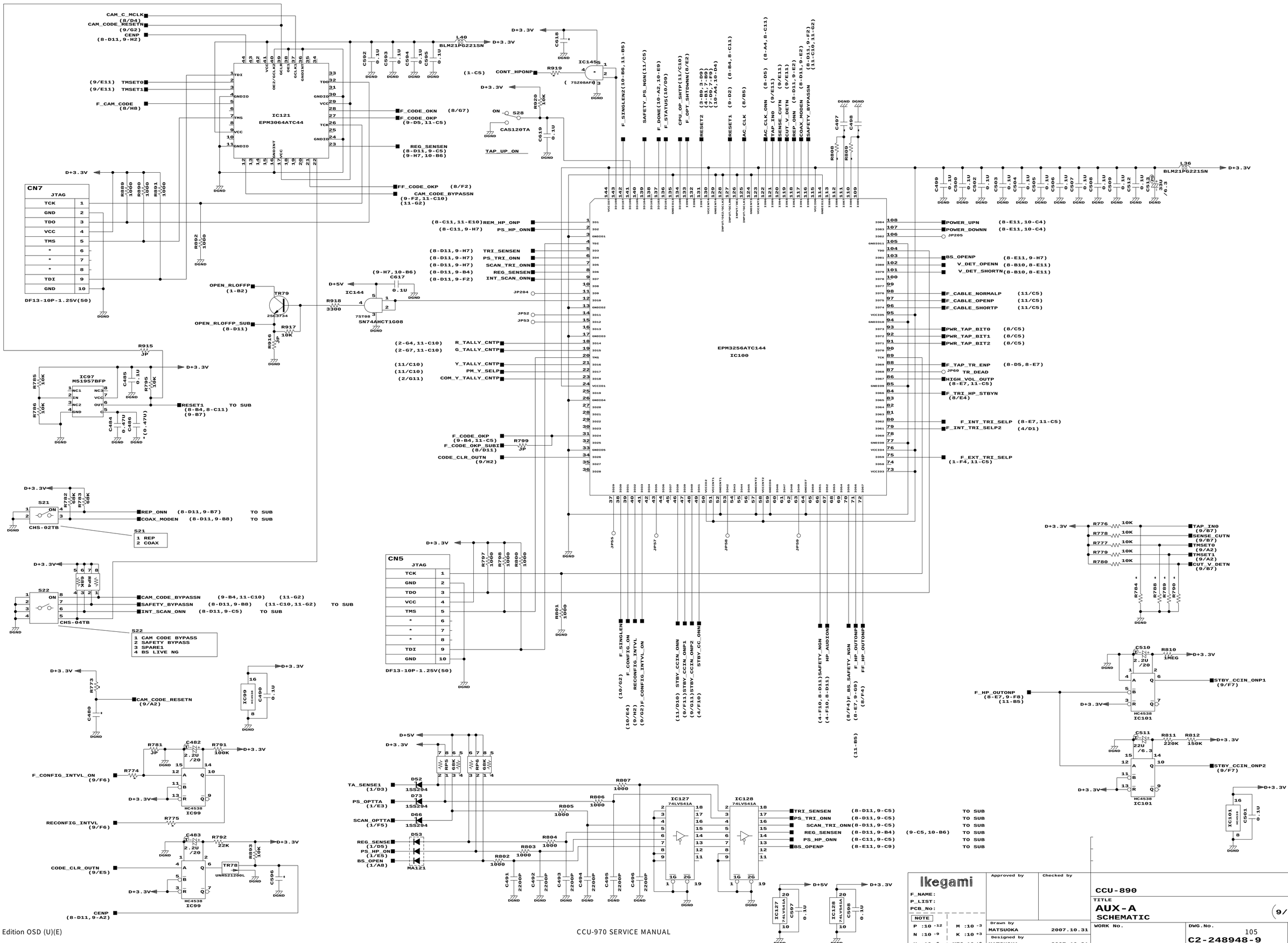
CCU-890

TITLE: AUX-A SCHEMATIC (8/11)

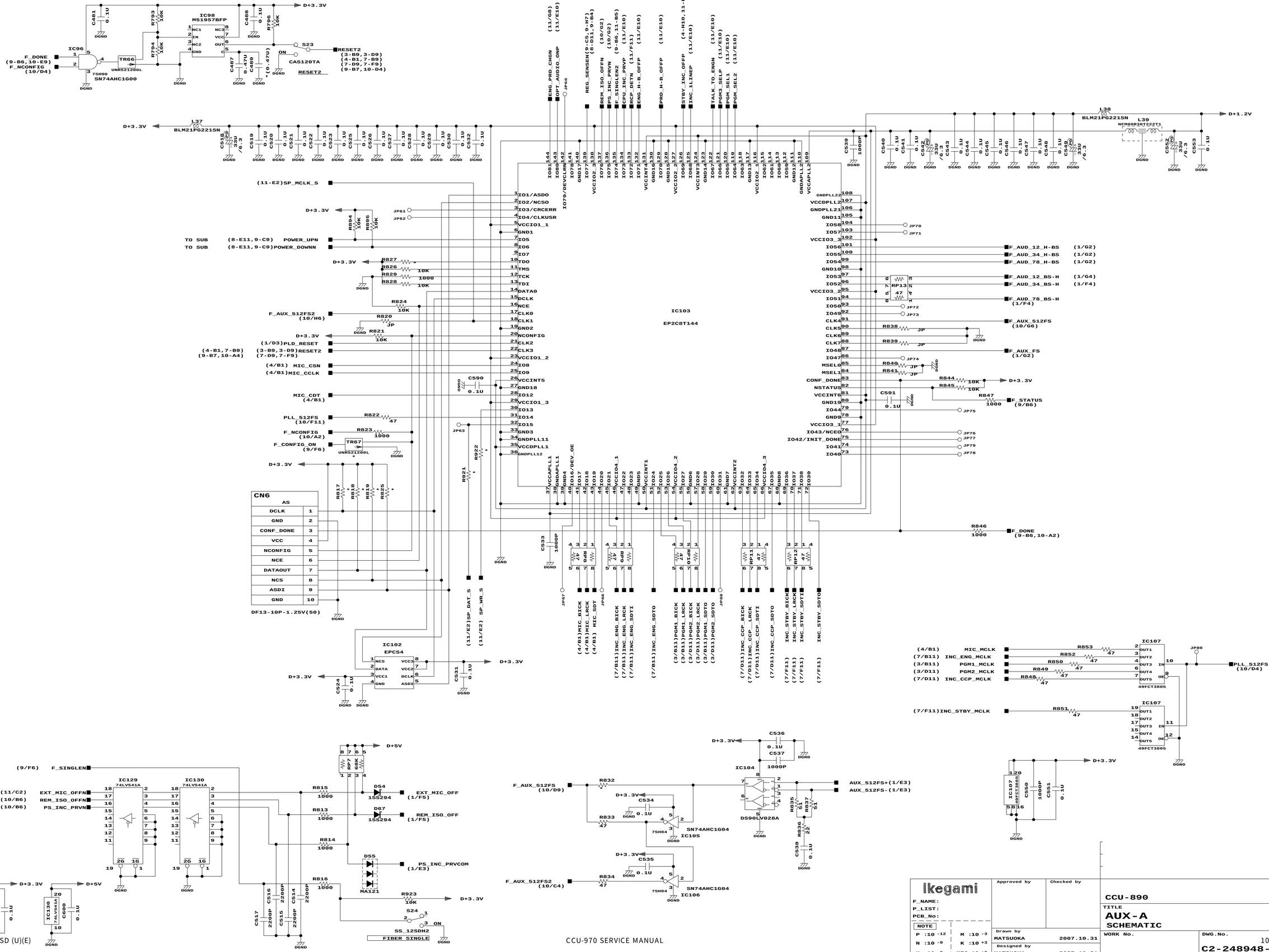
WORK No.

DWG.No. C2-248948-8 104

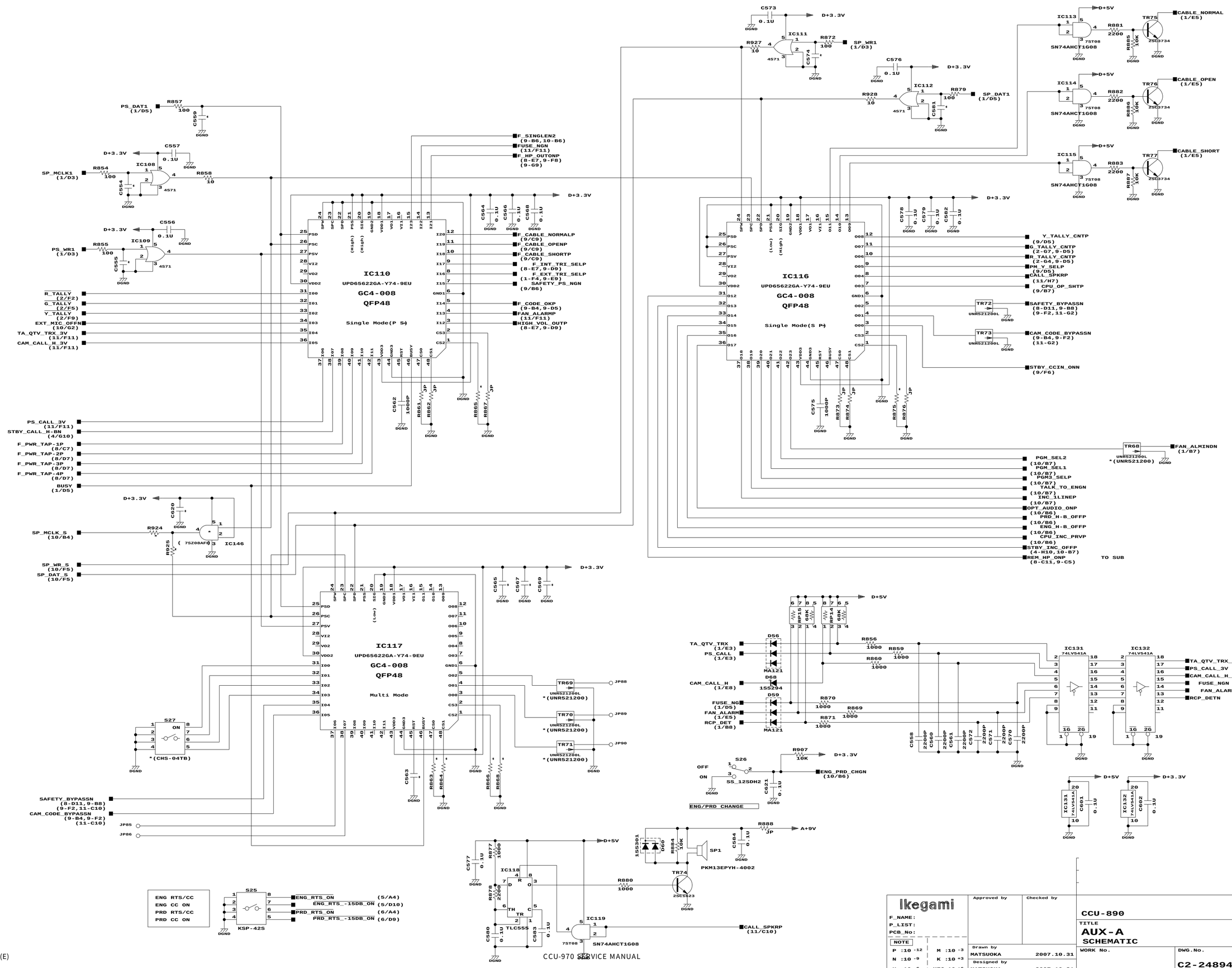
REV. 0



Ikegami	Approved by	Checked by	CCU-890		
F_NAME:			TITLE		
P_LIST:			AUX-A SCHEMATIC		(9/11)
PCB_No:					
NOTE			WORK No.	DWG.No.	REV.
P :10 -12	M :10 -3	Drawn by MATSUOKA 2007.10.31		105 C2-248948-9	0
N :10 -9	K :10 +3				
U :10 -6	MEG:10 +6	Designed by MATSUOKA 2007.10.31			

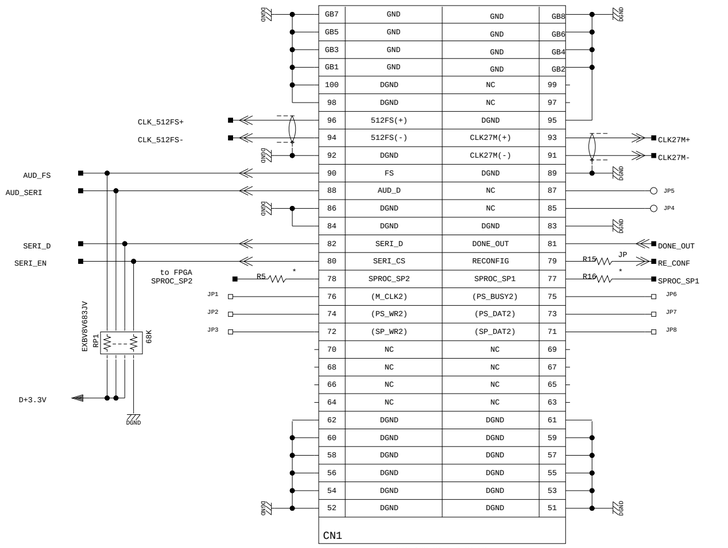


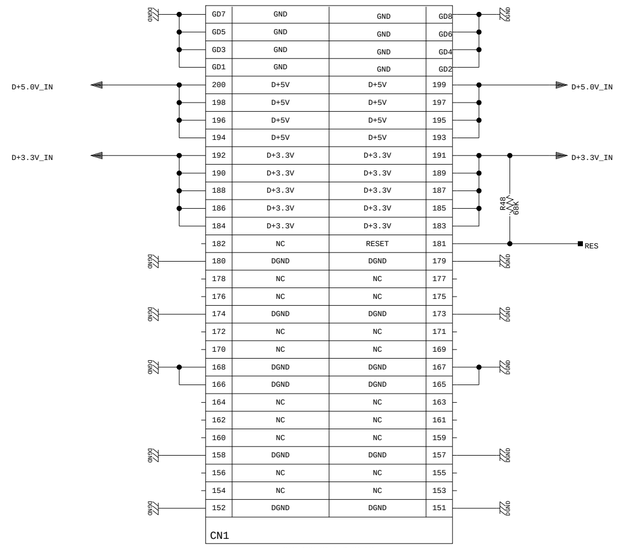
Ikegami	Approved by	Checked by	CCU-890
F_NAME: P_LIST: PCB_No:			TITLE: AUX-A SCHEMATIC (10/11)
NOTE: P :10 -12, N :10 -9, U :10 -6, M :10 -3, K :10 +3, MEG:10 +6	Drawn by: MATSUOKA 2007.10.31	Designed by: MATSUOKA 2007.10.31	WORK No. / DWG.No. 106 C2-248948-10 / REV. 0

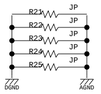


1st Edition OSD (U)(E)

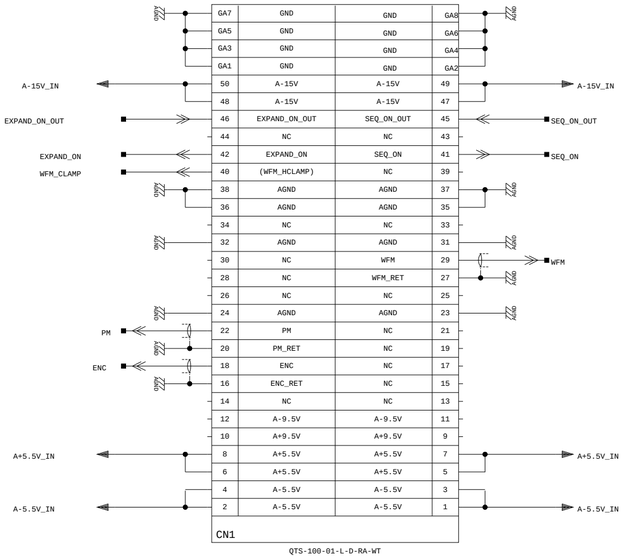
Ikegami	Approved by	Checked by	CCU-890
F_NAME:			TITLE: AUX-A SCHEMATIC (11/11)
P_LIST:			
PCB_No:			
NOTE	Drawn by MATSUOKA 2007.10.31		WORK No.
P :10 -12 M :10 -3	Designed by MATSUOKA 2007.10.31		DWG.No. 107 C2-248948-11
N :10 -9 K :10 +3			REV. 0
U :10 -6 MEG:10 +6			

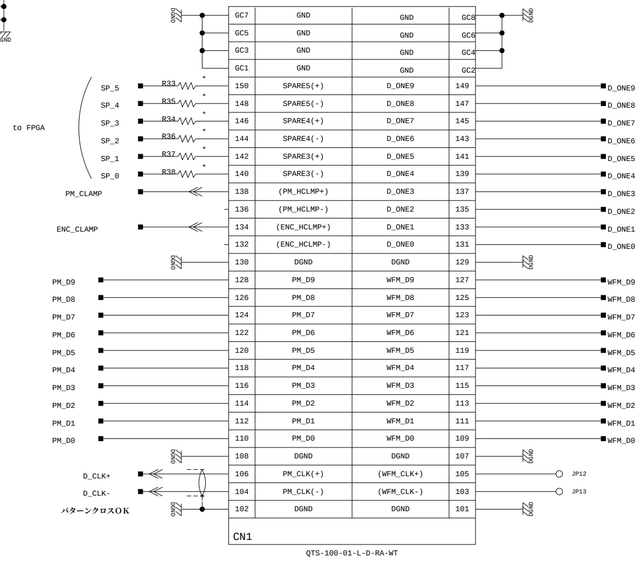


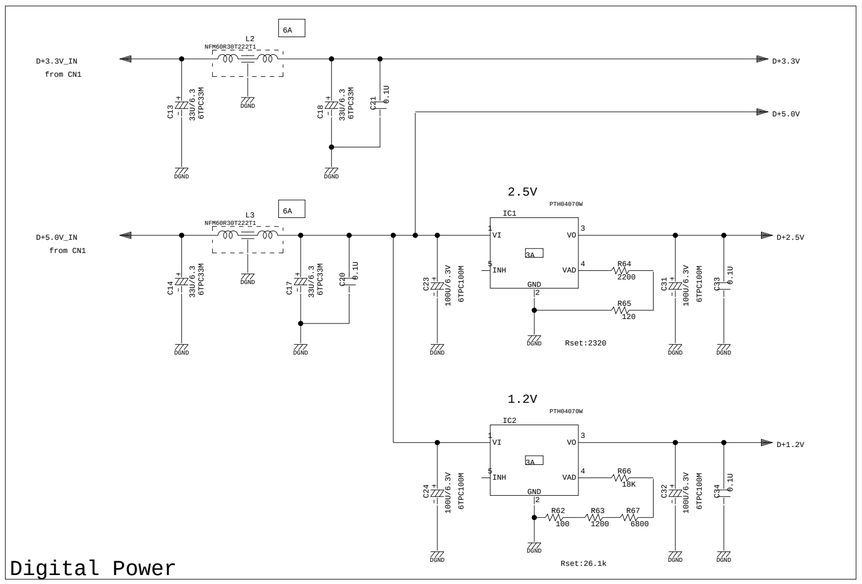


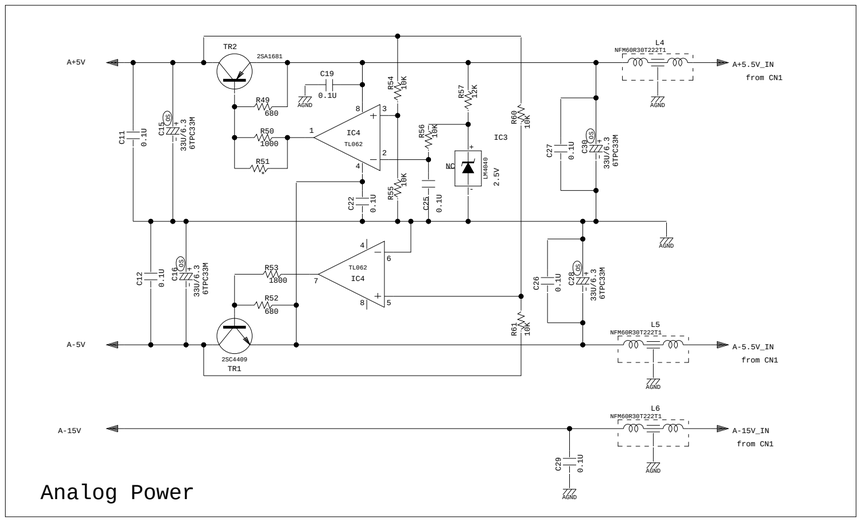


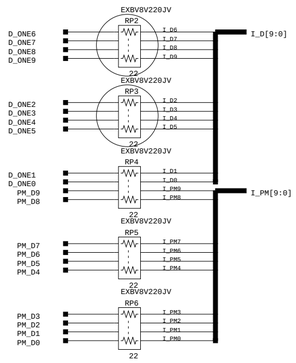


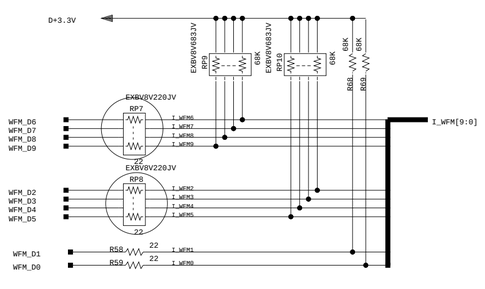


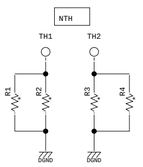


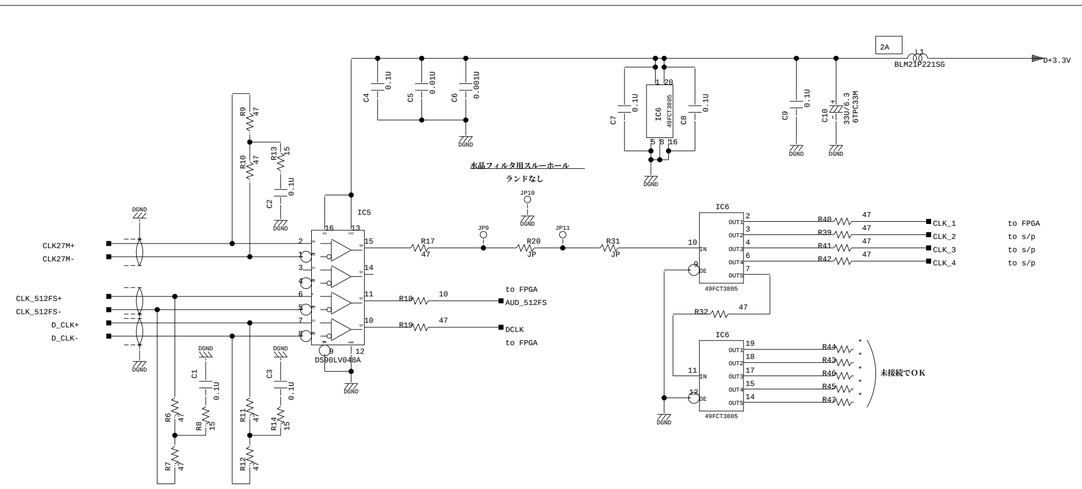






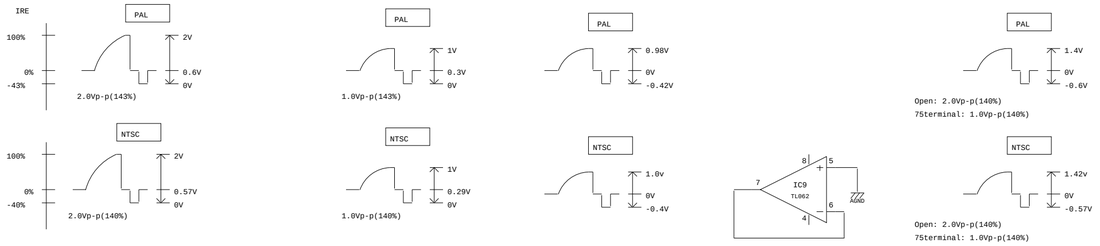


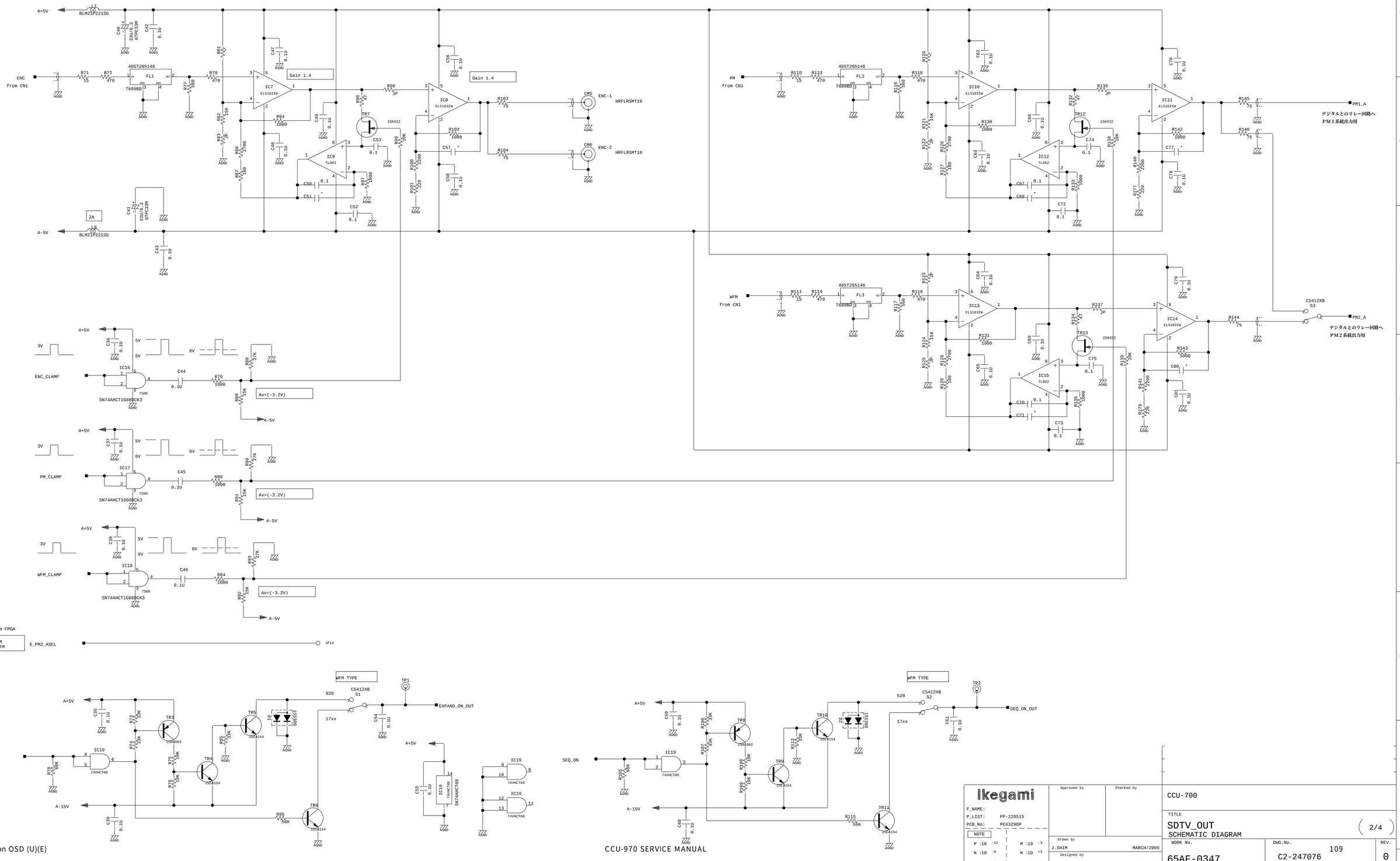




JP1-31 = TH
JP32-55 = PAD

Ikegami	Approved by	Checked by	CCU-700
F_NAME:			TITLE
P_LIST: PP-228515			SDTV_OUT SCHEMATIC DIAGRAM (1/4)
PCB_No: PE63290P	Drawn by J.SHIM MARCH/2005		WORK No. 65AF-0347
NOTE	Designed by J.SHIM MARCH/2005		DWG.No. C2-247076 108
P :10 -12 M :10 -3			REV. 0
N :10 -9 K :10 +3			
U :10 -6 MEG:10 +6			

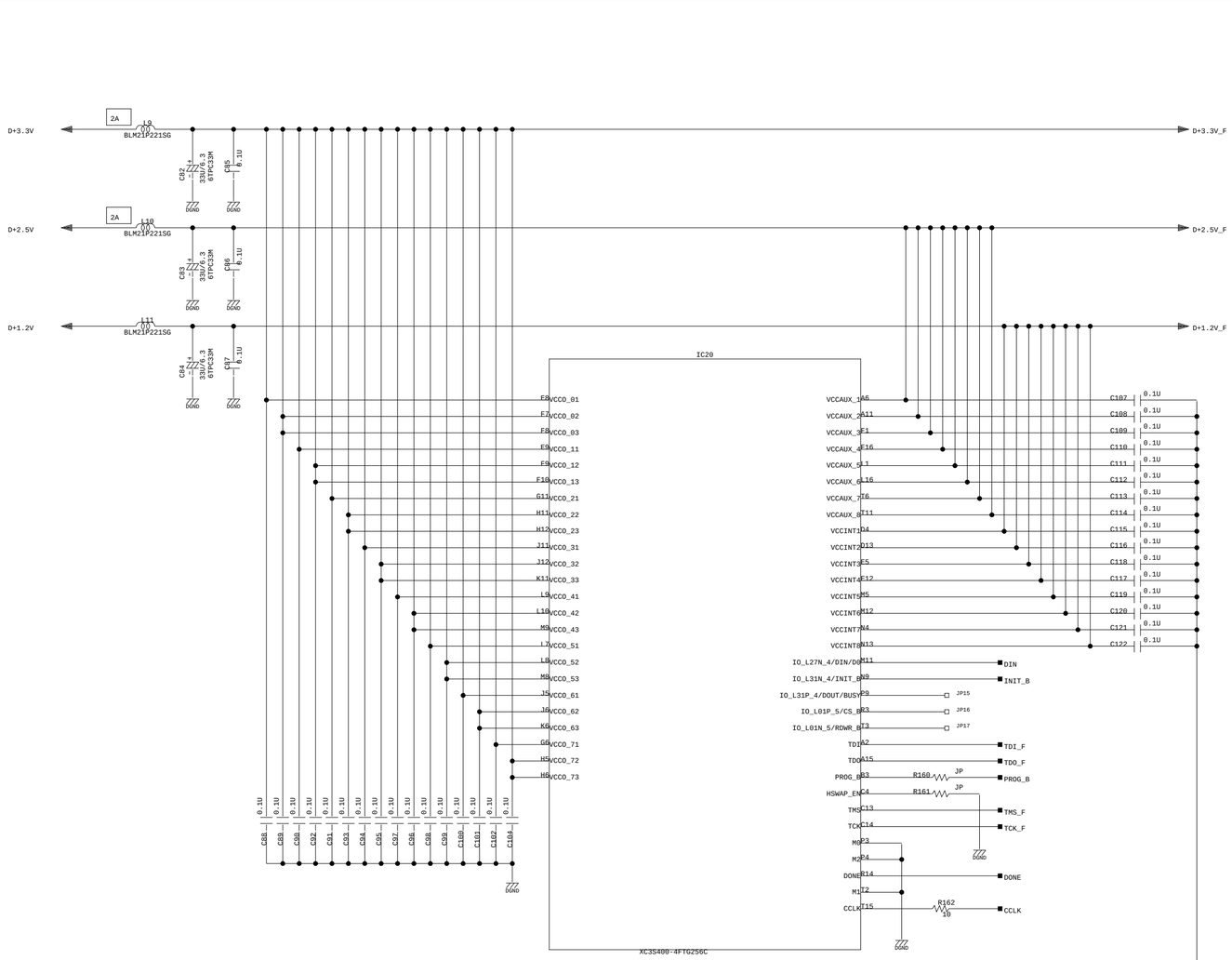


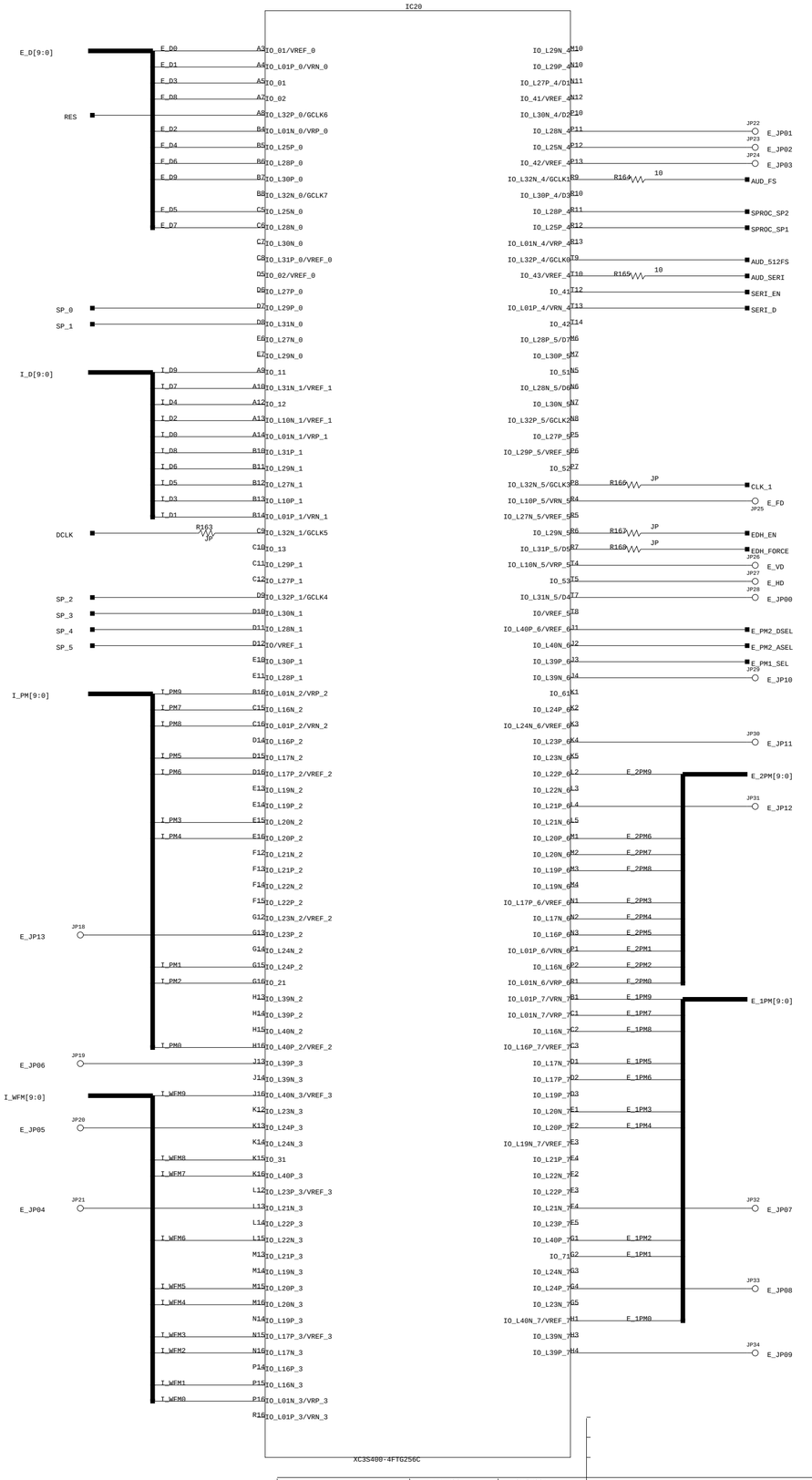


1st Edition OSD (U)(E)

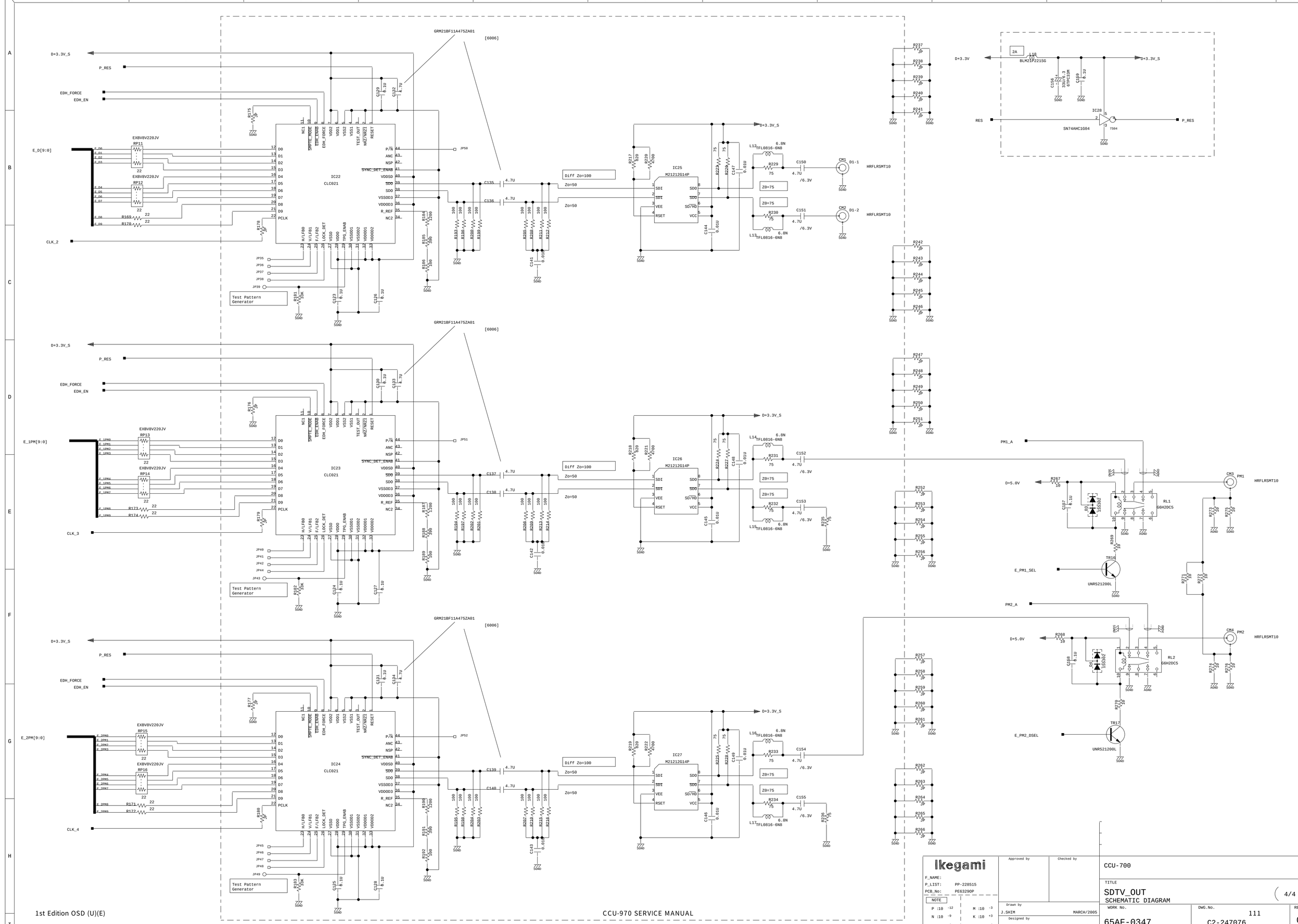
CCU-970 SERVICE MANUAL

Ikegami		Approved by	Checked by
F_NAME:			
P_LIST:	PP-228515		
PCB_No:	PE6329OP		
NOTE		Drawn by	CCU-700
P :10 -12	M :10 -3	J.SHIM MARCH/2005	TITLE
N :10 -9	K :10 +3	Designed by	SDTV_OUT (2/4)
U :10 -6	MEG:10 +6	J.SHIM MARCH/2005	SCHEMATIC DIAGRAM
WORK No.	DWG.No.	REV.	
65AF-0347	C2-247076 109	0	





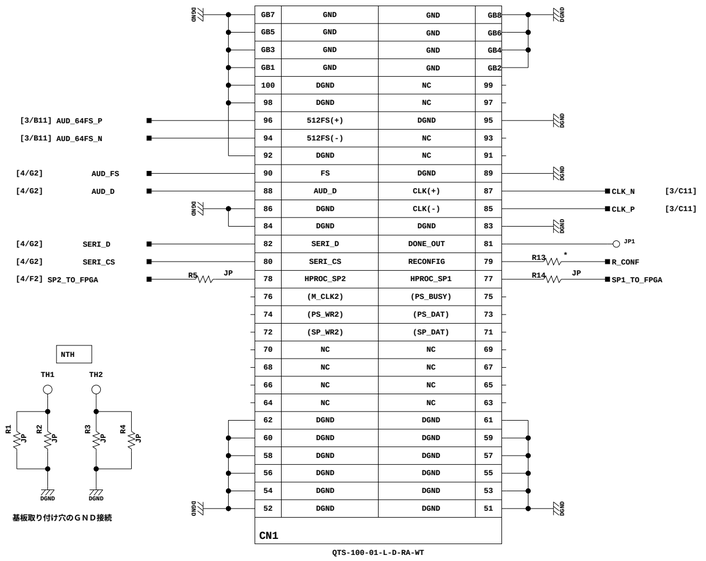
Ikegami	Approved by	Checked by	CCU-700
F_NAME:			TITLE
P_LIST: PP-228515			SDTV_OUT SCHEMATIC DIAGRAM (3/4)
PCB_No: PE63290P	Drawn by J.SHIM MARCH/2005		WORK No. 65AF-0347
NOTE	Designed by J.SHIM MARCH/2005		DWG.No. C2-247076 110
P :10 -12 / M :10 -3			REV. 0
N :10 -9 / K :10 +3			
U :10 -6 / MEG:10 +6			

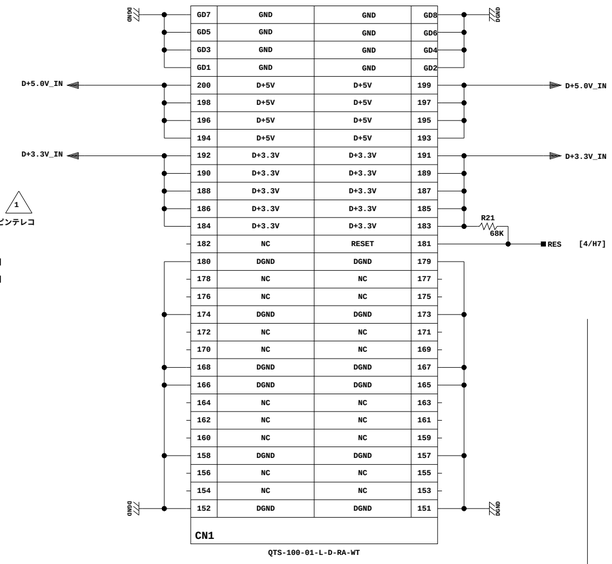


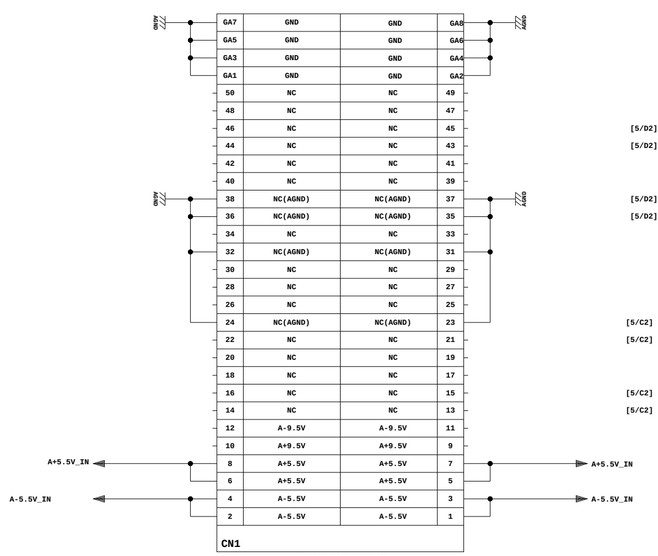
1st Edition OSD (U)(E)

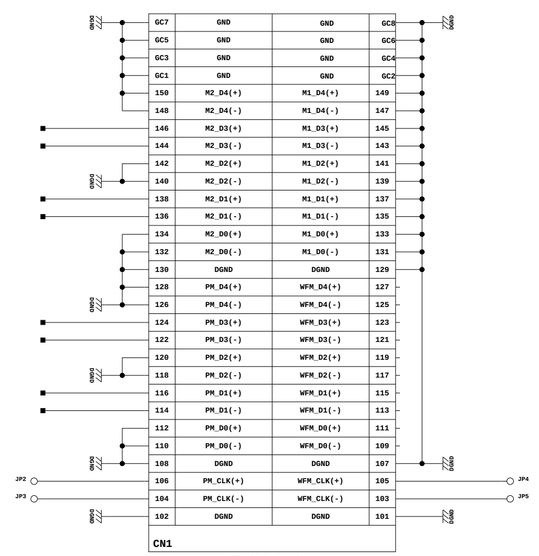
CCU-970 SERVICE MANUAL

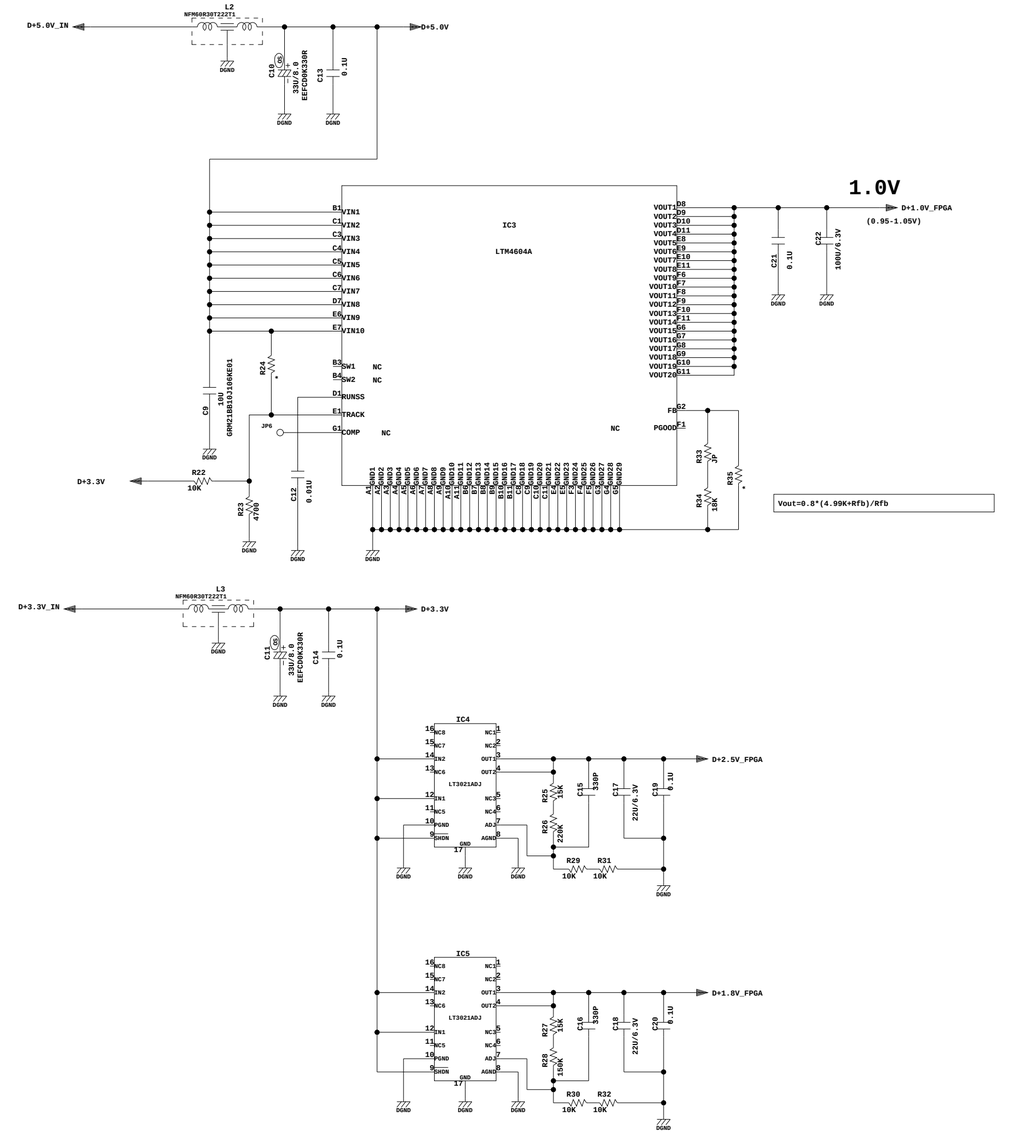
Ikegami	Approved by	Checked by	CCU-700
F_NAME:			TITLE
P_LIST: PP-228515			SDTV_OUT
PCB_No: PE63290P			SCHEMATIC DIAGRAM (4/4)
NOTE	Drawn by J.SHIM MARCH/2005		WORK No. 65AF-0347
P :10 -12, N :10 -9, U :10 -6, M :10 -3, K :10 +3, MEG:10 +6	Designed by J.SHIM MARCH/2005		DWG.No. 111 C2-247076 REV. 0

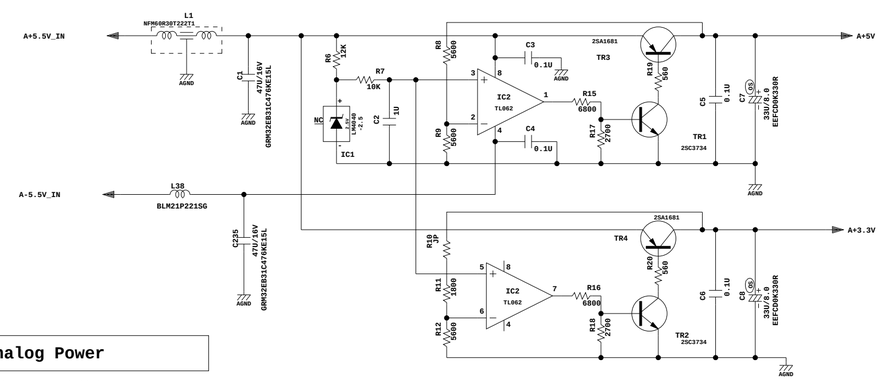








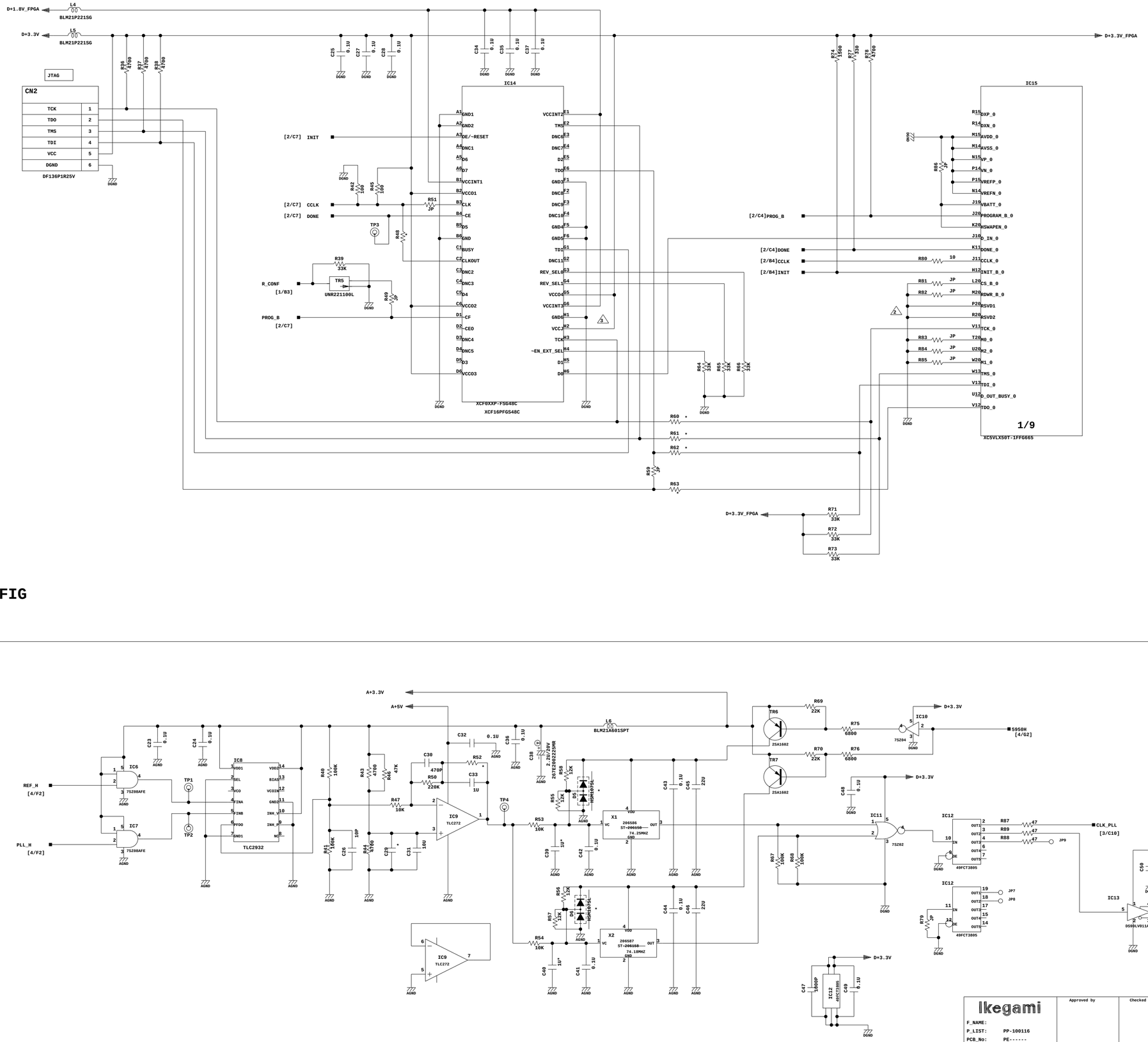




Analog Power

Ikegami	Approved by	Checked by	3G CCU
F_NAME:			TITLE: HDTV_OUT_3G SCHEMATIC DIAGRAM (1/7)
P_LIST: PP-100116			
PCB_No: PE------	Drawn by J.SHIM 2010/08/02		WORK No. / DWG.No. C2-100390-1 / REV. 1
NOTE: P :10 -12, N :10 -9, U :10 -6, M :10 -3, K :10 +3, MEG:10 +6	Designed by J.SHIM 2010/08/02		112

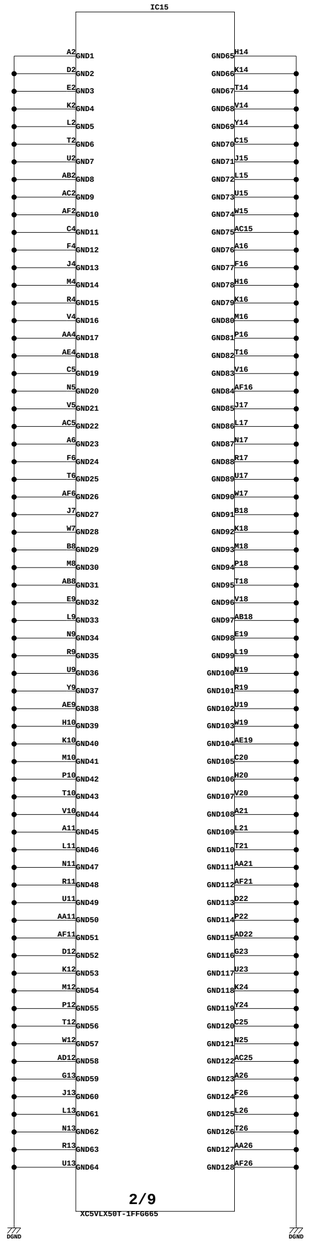
FPGA CONFIG

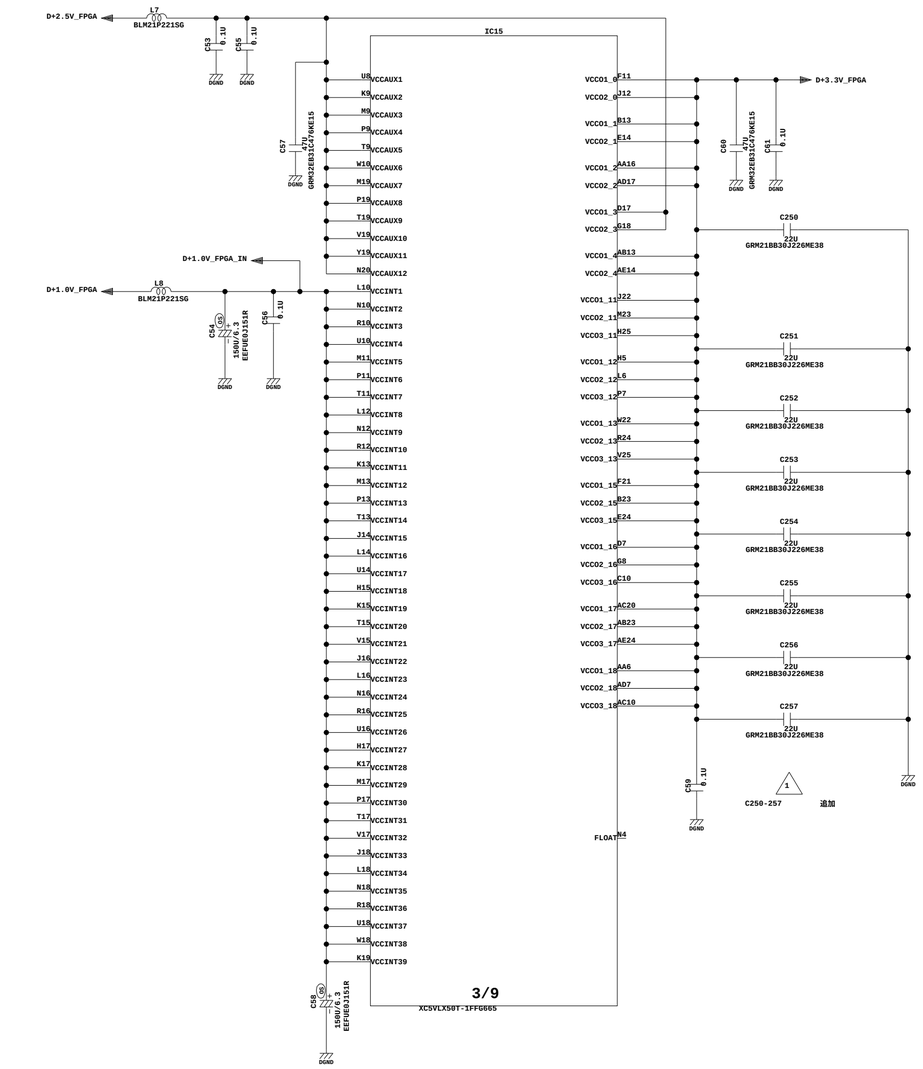


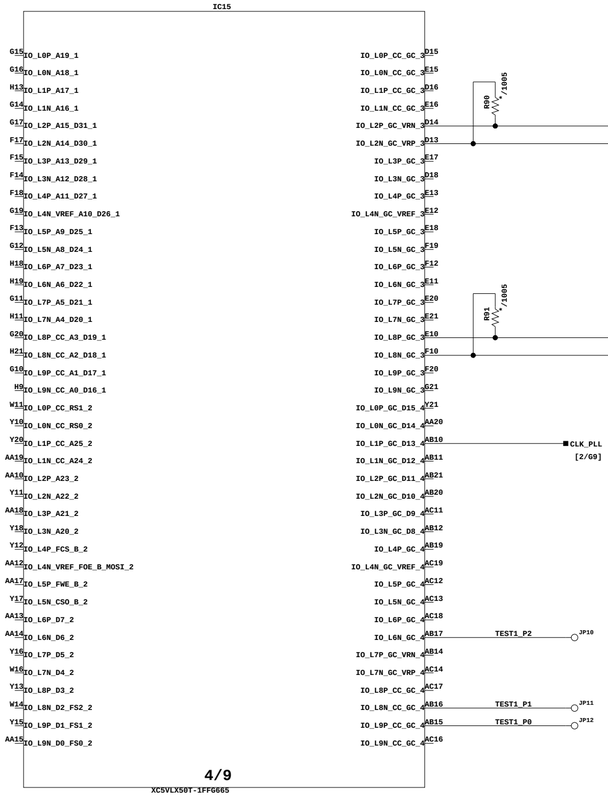
PLL

1st Edition OSD (U)(E)

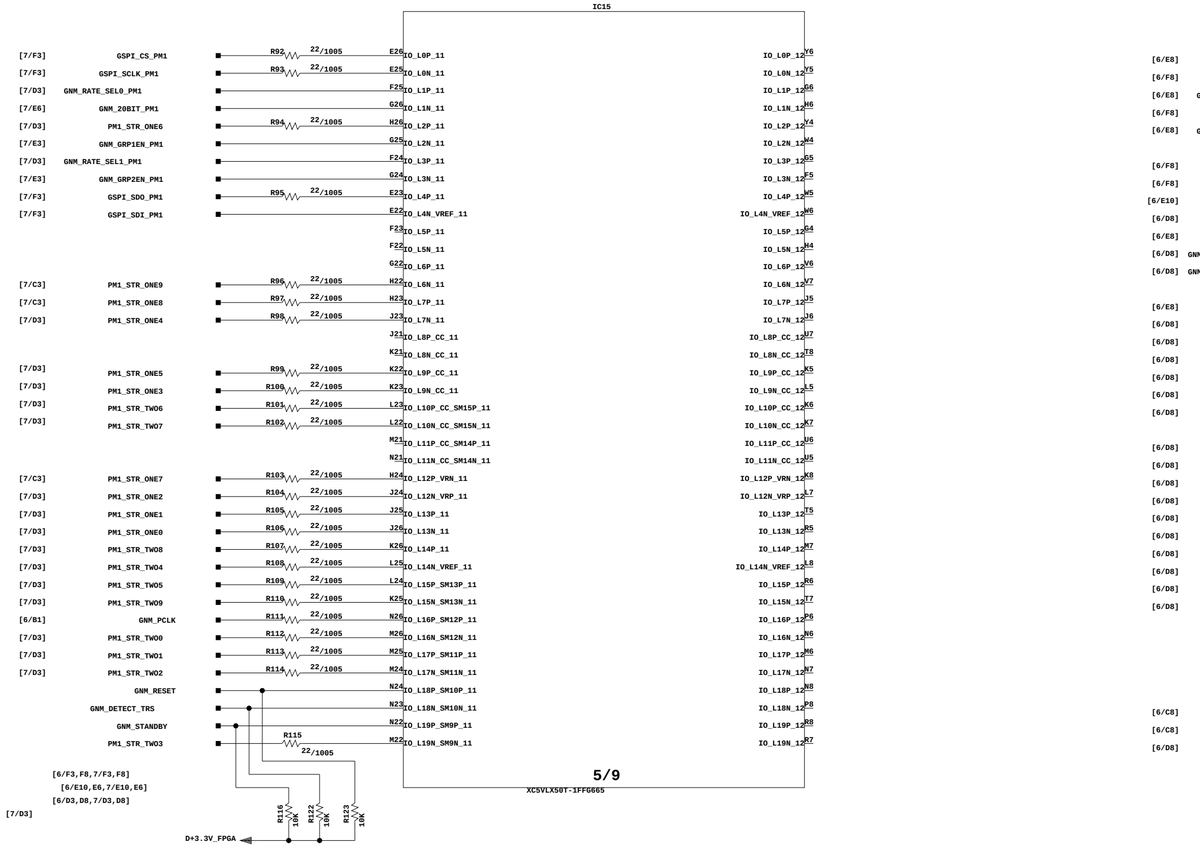
Ikegami	Approved by	Checked by	3G CCU
F_NAME:			TITLE
P_LIST: PP-100116			HDTV_OUT_3G
PCB_No: PE------			SCHEMATIC DIAGRAM 2/7
NOTE P :10 -12, N :10 -9, U :10 -6, M :10 -3, K :10 +3, MEG:10 +6	Drawn by J.SHIM 2010/08/02		WORK No.
	Designed by J.SHIM 2010/08/02		DWG.No. C2-100390-2 113
			REV. 1

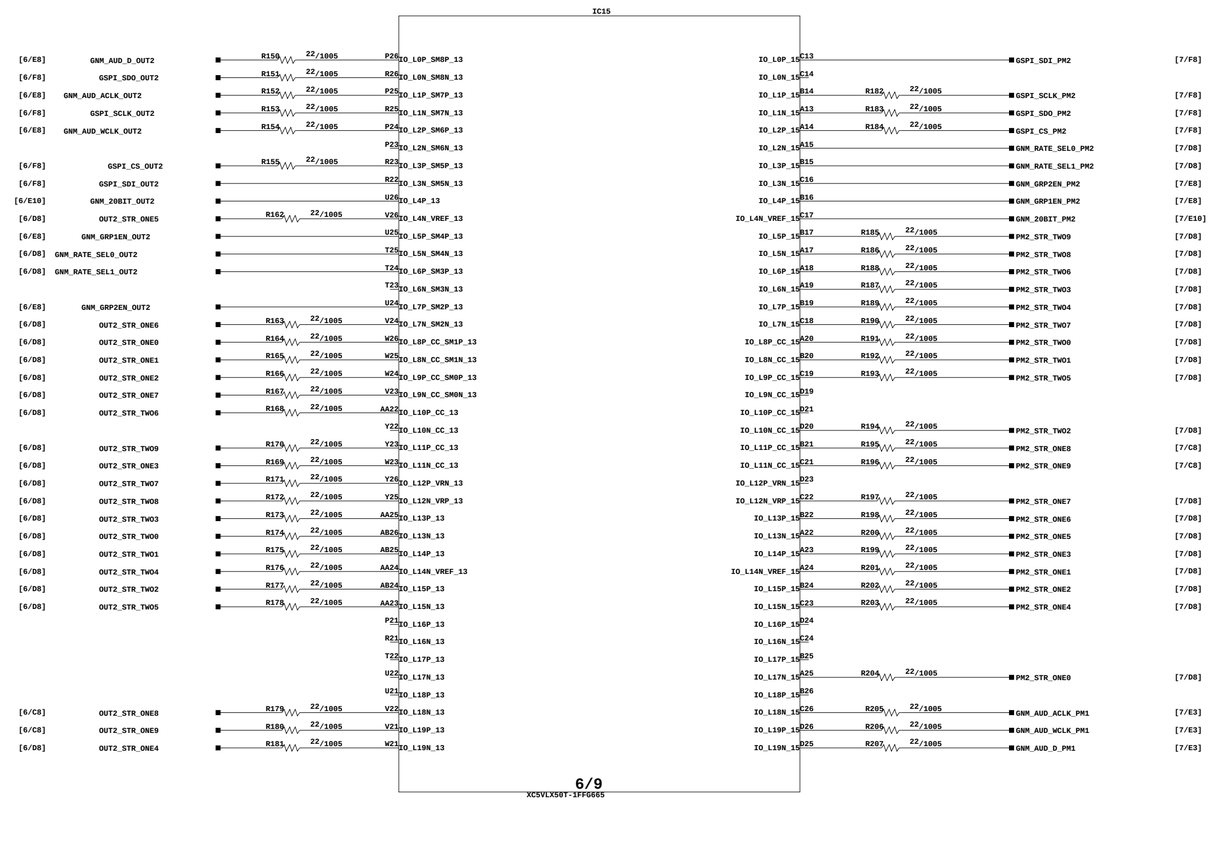


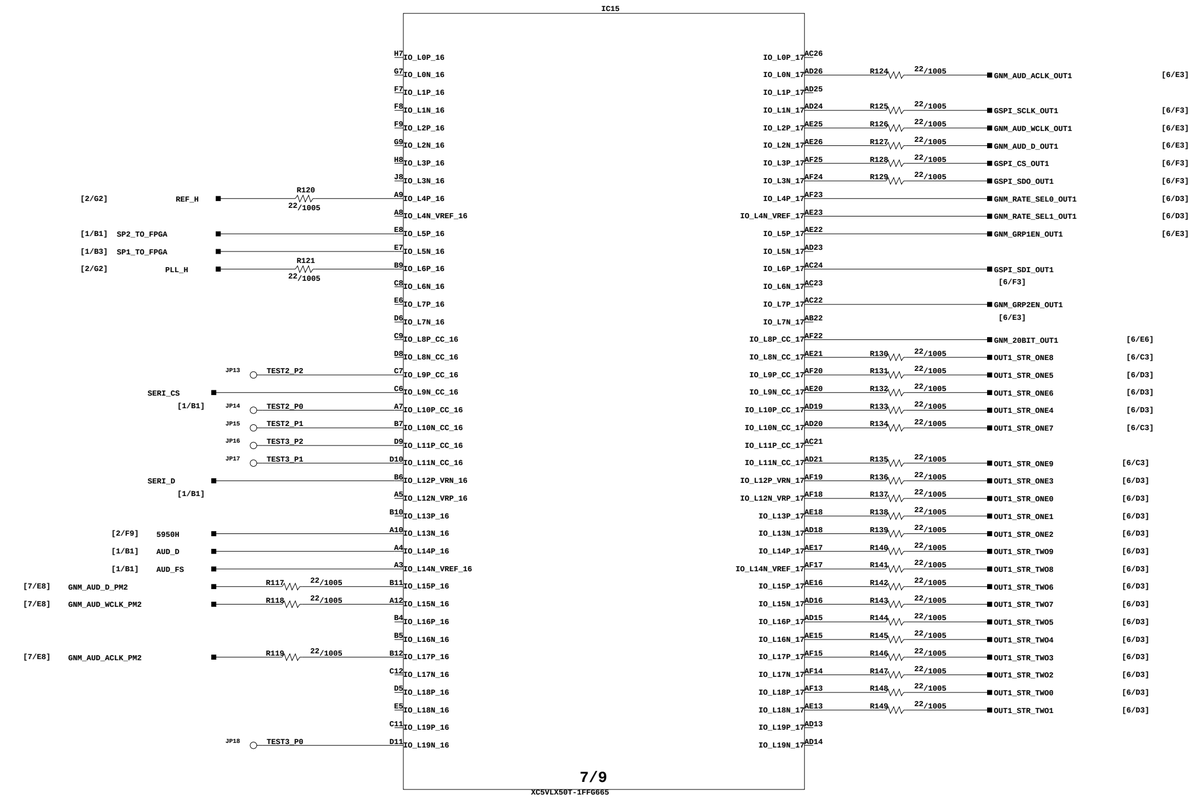


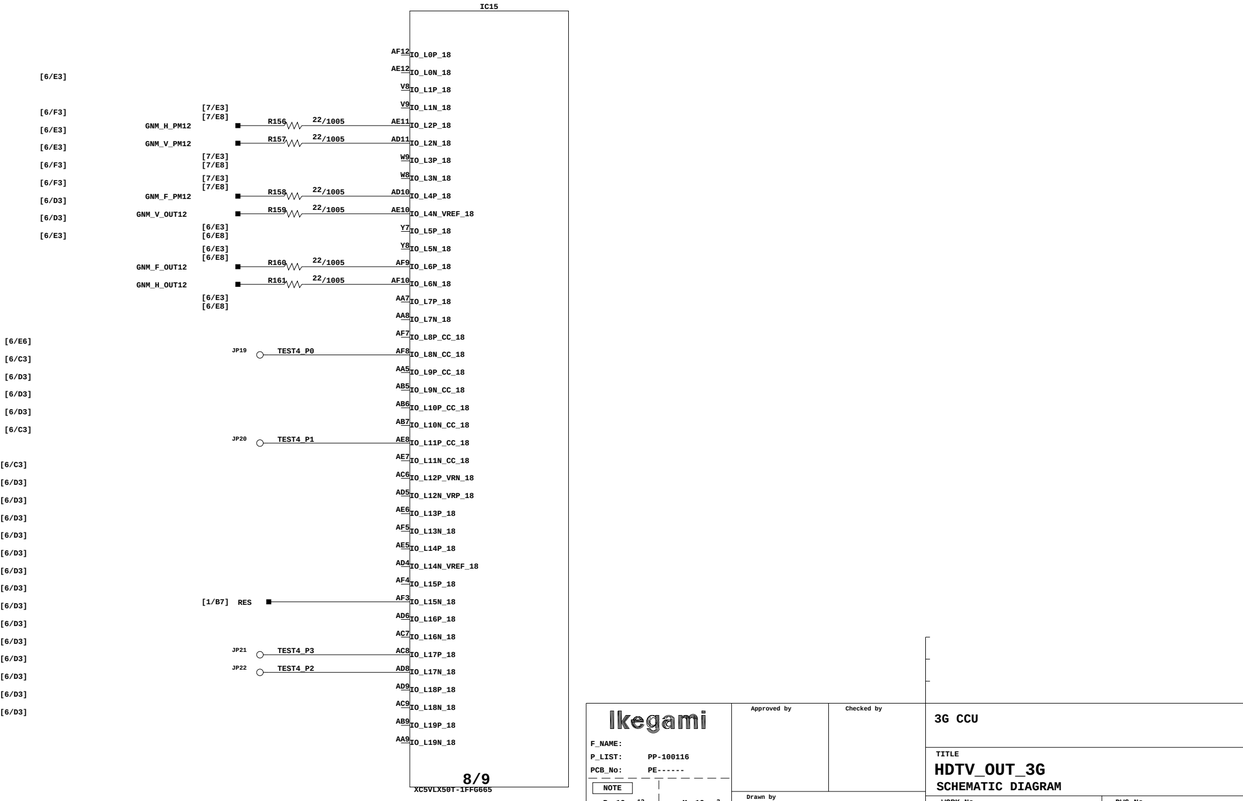


Ikegami	Approved by	Checked by	3G CCU		
F_NAME:			TITLE		
P_LIST: PP-100116			HDTV_OUT_3G		3/7
PCB_No: PE-----			SCHEMATIC DIAGRAM		
NOTE	Drawn by		WORK No.	DWG.No.	REV.
P :10 -12 M :10 -3	J.SHIM	2010/08/02		C2-100390-3 114	1
N :10 -9 K :10 +3	Designed by				
U :10 -6 MEG:10 +6	J.SHIM	2010/08/02			

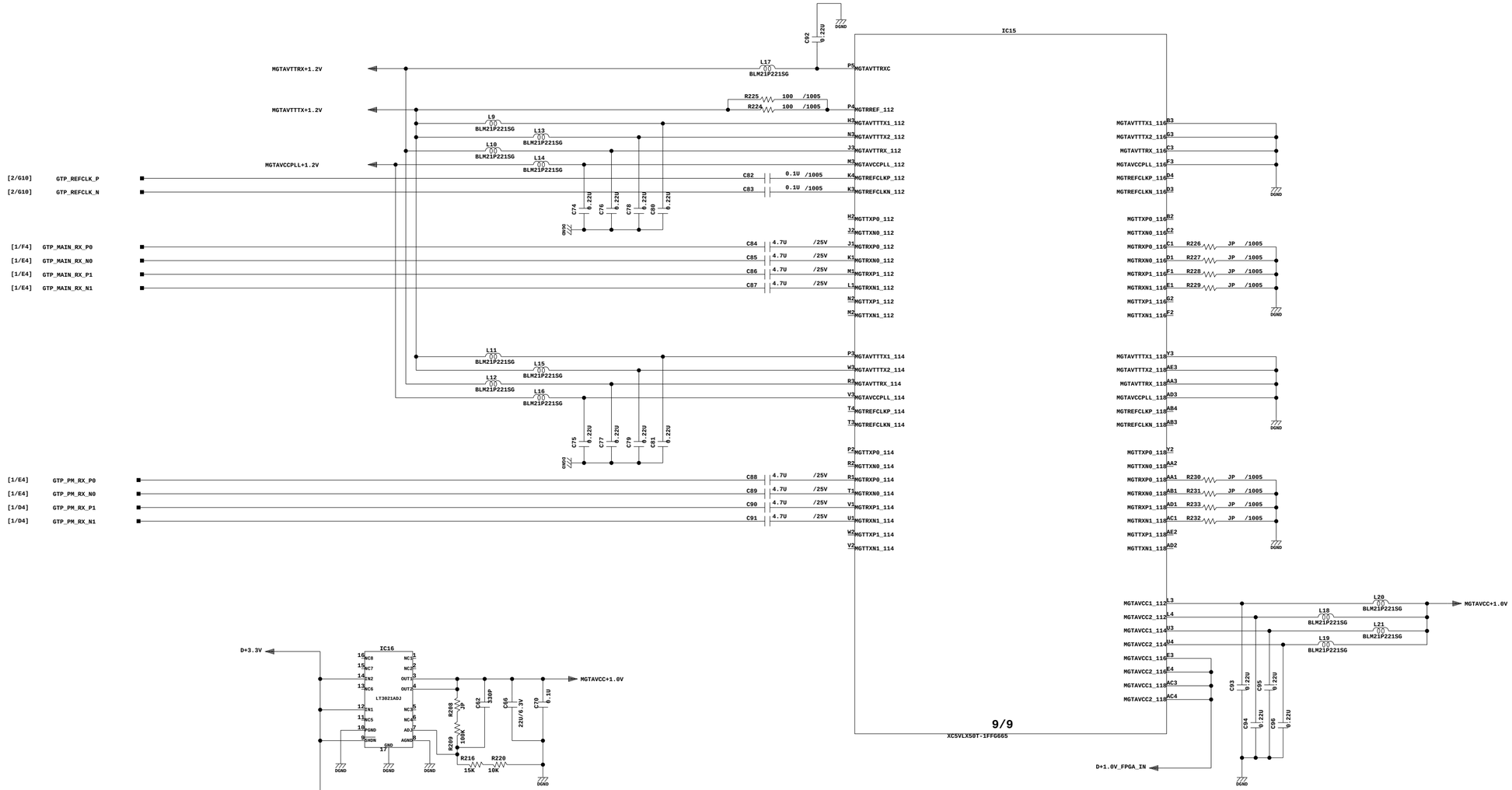


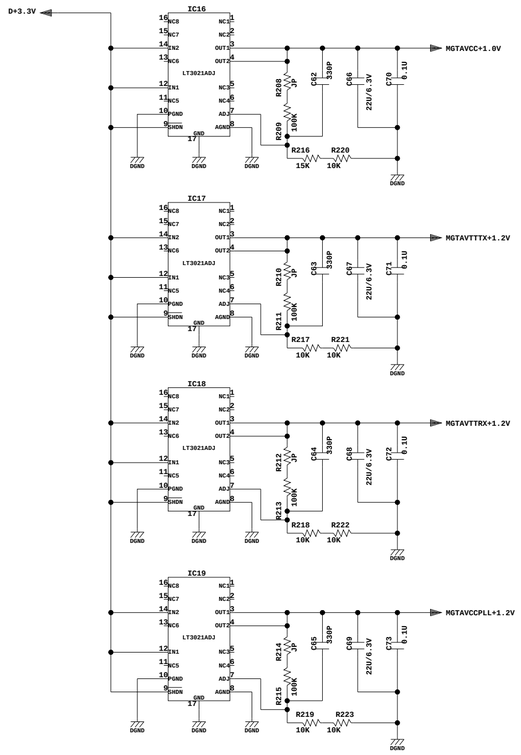






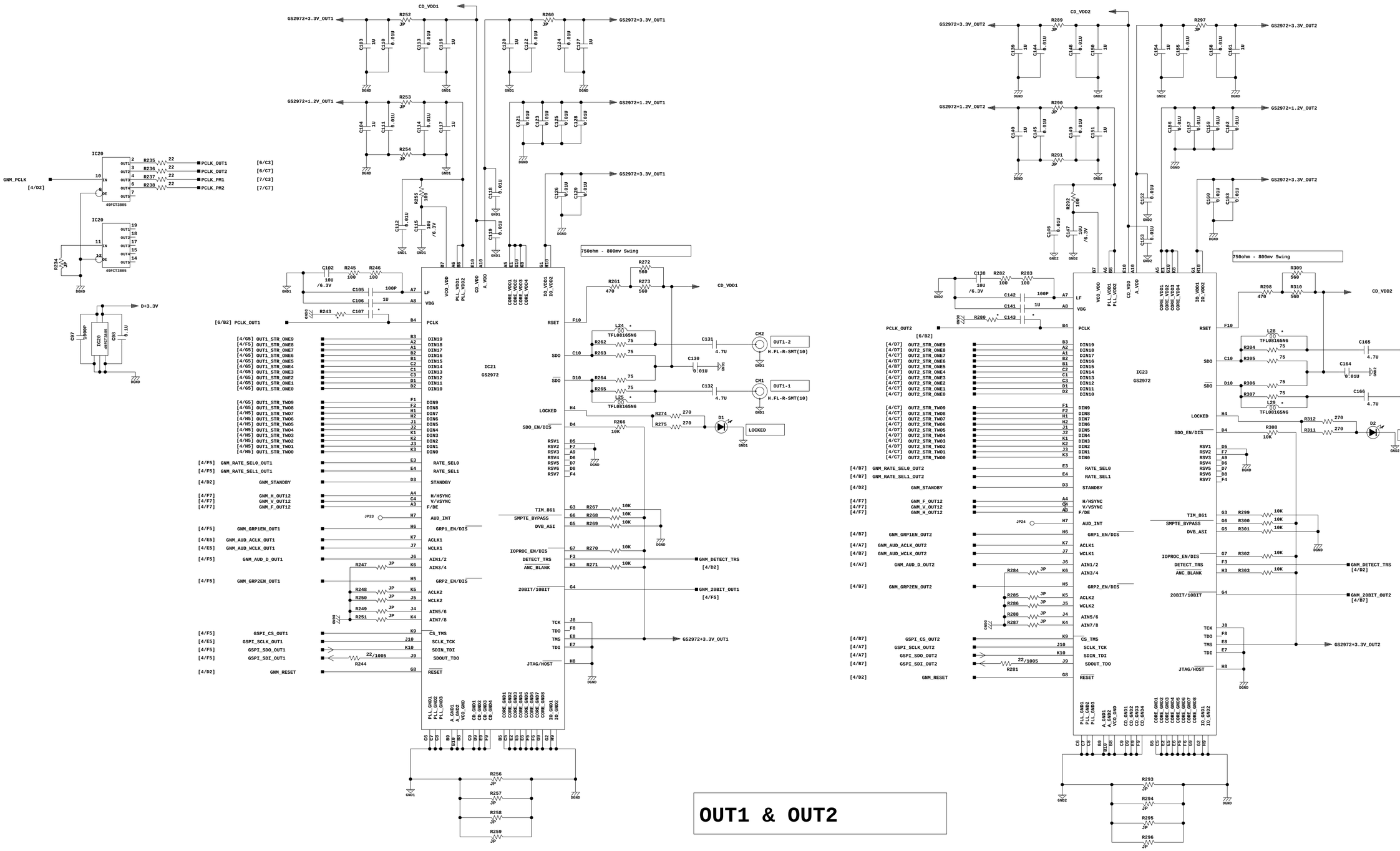
Ikegami	Approved by	Checked by	3G CCU
F_NAME:			TITLE: HDTV_OUT_3G SCHEMATIC DIAGRAM (4/7)
P_LIST: PP-100116			
PCB_No: PE------	Drawn by J.SHIM 2010/08/02		WORK No.
NOTE	Designed by J.SHIM 2010/08/02		DWG.No. C2-100390-4 REV. 1
P :10 -12 N :10 -9 U :10 -6 M :10 -3 K :10 +3 MEG:10 +6			





Ikegami		Approved by	Checked by	3G CCU	
F_NAME:				TITLE	
P_LIST:	PP-100116			HDTV_OUT_3G	
PCB_No:	PE------			SCHEMATIC DIAGRAM	5/7
NOTE		Drawn by		WORK No.	DWG.No. 116
P :10 -12	M :10 -3	J.SHIM	2010/08/02		C2-100390-5
N :10 -9	K :10 +3	Designed by			REV. 1
U :10 -6	MEG:10 +6	J.SHIM	2010/08/02		

OUT1 & OUT2



1st Edition OSD (U)(E)

CCU-970 SERVICE MANUAL

Ikegami	Approved by	Checked by	3G CCU
F_NAME:			TITLE: HDTV_OUT_3G SCHEMATIC DIAGRAM (6/7)
P_LIST: PP-100116			
PCB_No: PE------	Drawn by J.SHIM 2010/08/02		WORK No.
NOTE P :10 -12, N :10 -9, U :10 -6, M :10 -3, K :10 +3, MEG:10 +6	Designed by J.SHIM 2010/08/02		DWG.No. C2-100390-6 117 REV. 1

PM1 & PM2

750ohm - 800mv Swing

IC25 GS2972

IC27 GS2972

IC26 LT3021ADJ

IC28 LT3021ADJ

CM6 PM1 H.FL-R-SMT(10)

CM5 H.FL-R-SMT(10)

CM7 PM2 H.FL-R-SMT(10)

D3 LOCKED

D4 LOCKED

[6/B2] PCLK_PM1

[4/B2] PM1_STR_ONE9 … PM1_STR_ONE0 — DIN19 … DIN10

[4/D2] PM1_STR_TWO9 … PM1_STR_TWO0 — DIN9 … DIN0

[4/A2] GNM_RATE_SEL0_PM1

[4/B2] GNM_RATE_SEL1_PM1

[4/D2] GNM_STANDBY

[4/E7] GNM_H_PM12

[4/F7] GNM_V_PM12

[4/F7] GNM_F_PM12

[4/B2] GNM_GRP1EN_PM1

[4/D10] GNM_AUD_ACLK_PM1

[4/D10] GNM_AUD_WCLK_PM1

[4/D10] GNM_AUD_D_PM1

[4/B2] GNM_GRP2EN_PM1

[4/A2] GSPI_CS_PM1

[4/A2] GSPI_SCLK_PM1

[4/B2] GSPI_SDO_PM1

[4/B2] GSPI_SDI_PM1

[4/D2] GNM_RESET

[4/D2] GNM_DETECT_TRS

[4/A2] GNM_20BIT_PM1

[6/B2] PCLK_PM2

[4/C10] PM2_STR_ONE9 … PM2_STR_ONE0 — DIN19 … DIN10

[4/B10] PM2_STR_TWO9 … PM2_STR_TWO0 — DIN9 … DIN0

[4/B10] GNM_RATE_SEL0_PM2

[4/B10] GNM_RATE_SEL1_PM2

[4/D2] GNM_STANDBY

[4/E7] GNM_H_PM12

[4/F7] GNM_V_PM12

[4/F7] GNM_F_PM12

[4/B10] GNM_GRP1EN_PM2

[4/H2] GNM_AUD_ACLK_PM2

[4/H2] GNM_AUD_WCLK_PM2

[4/H2] GNM_AUD_D_PM2

[4/B10] GNM_GRP2EN_PM2

[4/B10] GSPI_CS_PM2

[4/A10] GSPI_SCLK_PM2

[4/A10] GSPI_SDO_PM2

[4/A10] GSPI_SDI_PM2

[4/D2] GNM_RESET

[4/D2] GNM_DETECT_TRS

[4/B10] GNM_20BIT_PM2

△1 CM7をSDO側に変更

Ikegami	Approved by	Checked by
F_NAME:		
P_LIST: PP-100116		
PCB_No: PE------		
NOTE	Drawn by J.SHIM 2010/08/02	
P :10 -12 M :10 -3	Designed by J.SHIM 2010/08/02	
N :10 -9 K :10 +3		
U :10 -6 MEG:10 +6		

△1 CM7をSDO側に変更 2010.12.8 shim

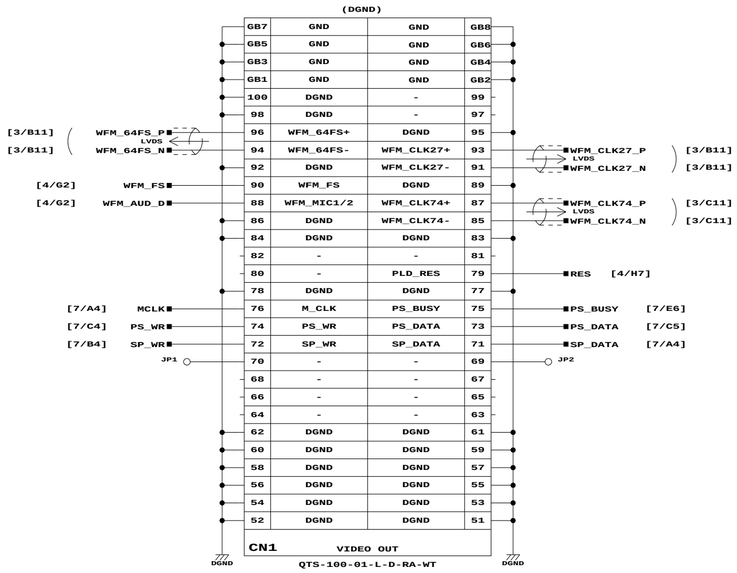
3G CCU

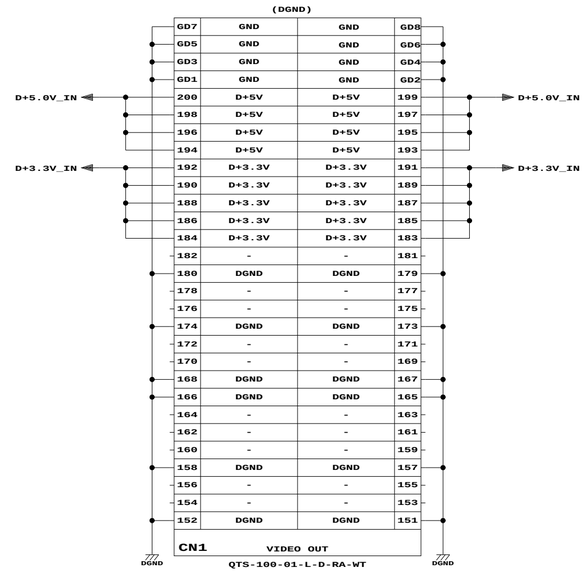
TITLE: HDTV_OUT_3G SCHEMATIC DIAGRAM (7/7)

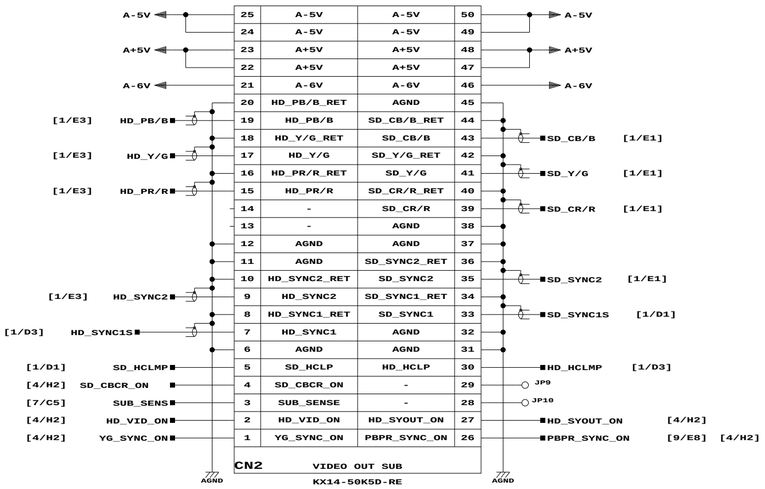
WORK No.

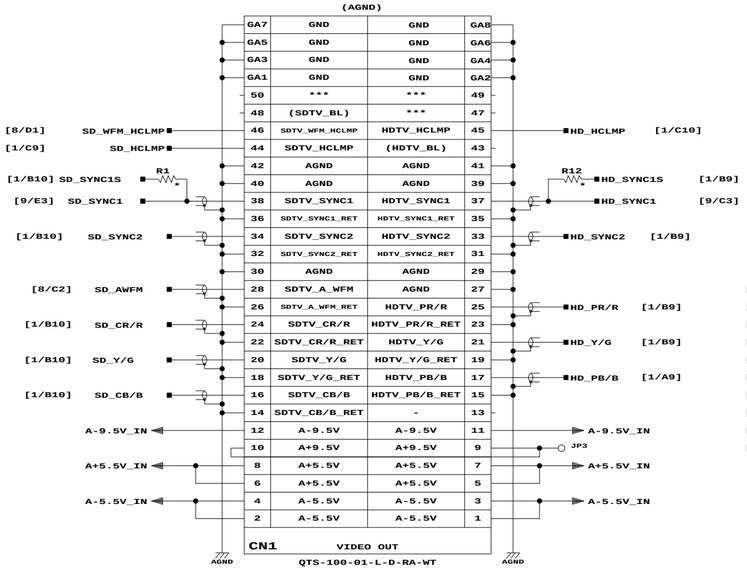
DWG.No. C2-100390-7

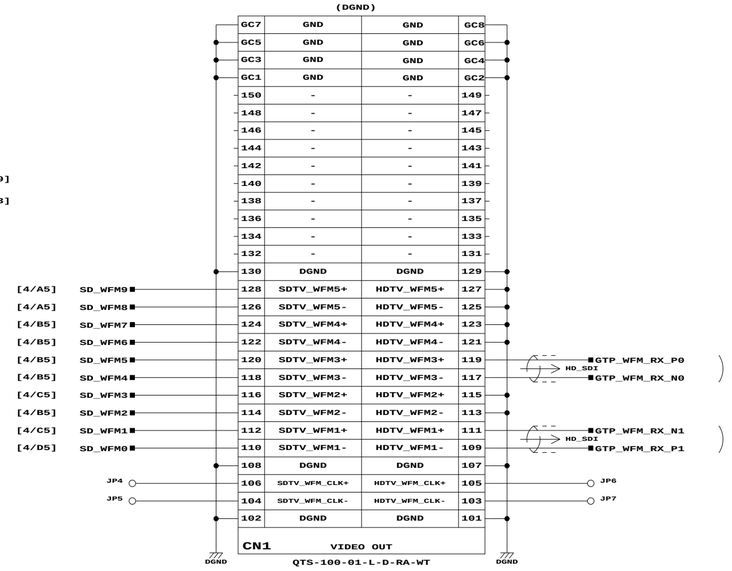
REV. 1

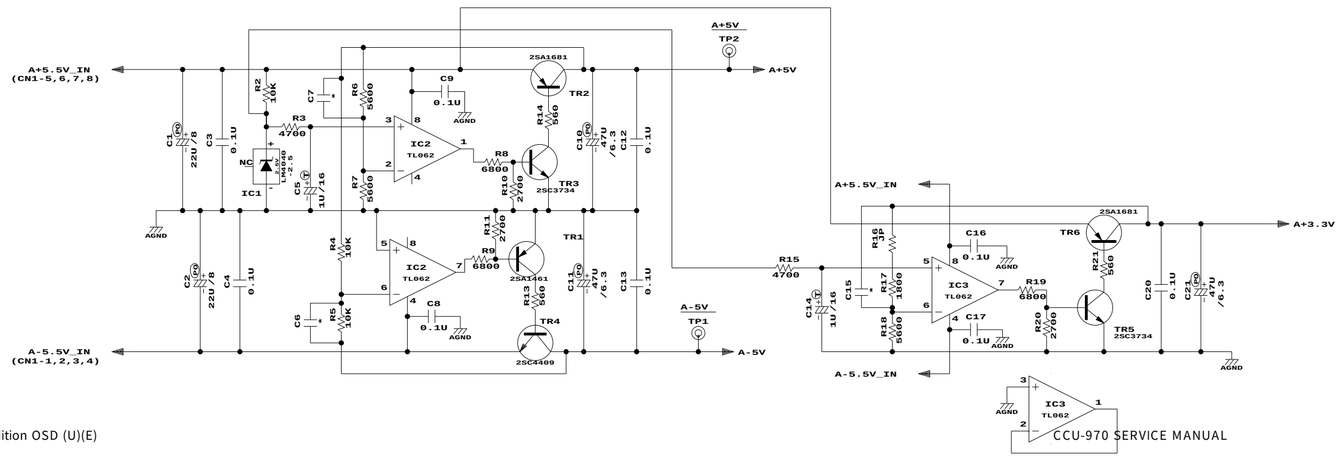


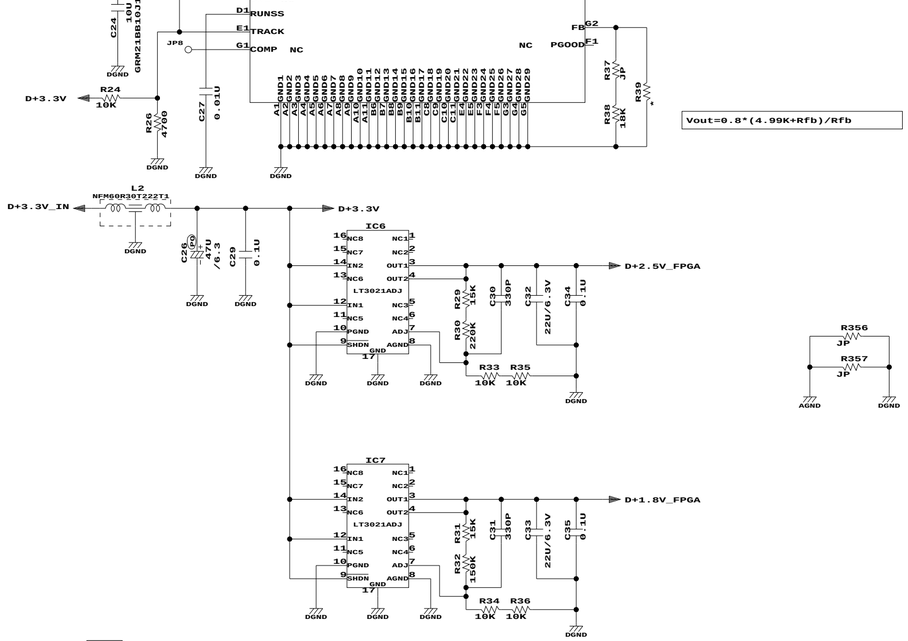












Ikegami	Approved by	Checked by
F_NAME: vidout3g P_LIST: PP-100234 PCB_No: PE0Y02AJ		
NOTE P :10 -12 M :10 -3 N :10 -9 K :10 +3 U :10 -6 MEG:10 +6	Drawn by SHIMAYA 2010/11/14 Designed by SHIMAYA 2010/11/14	

2011.02.23 SHIMAYA

3G CCU

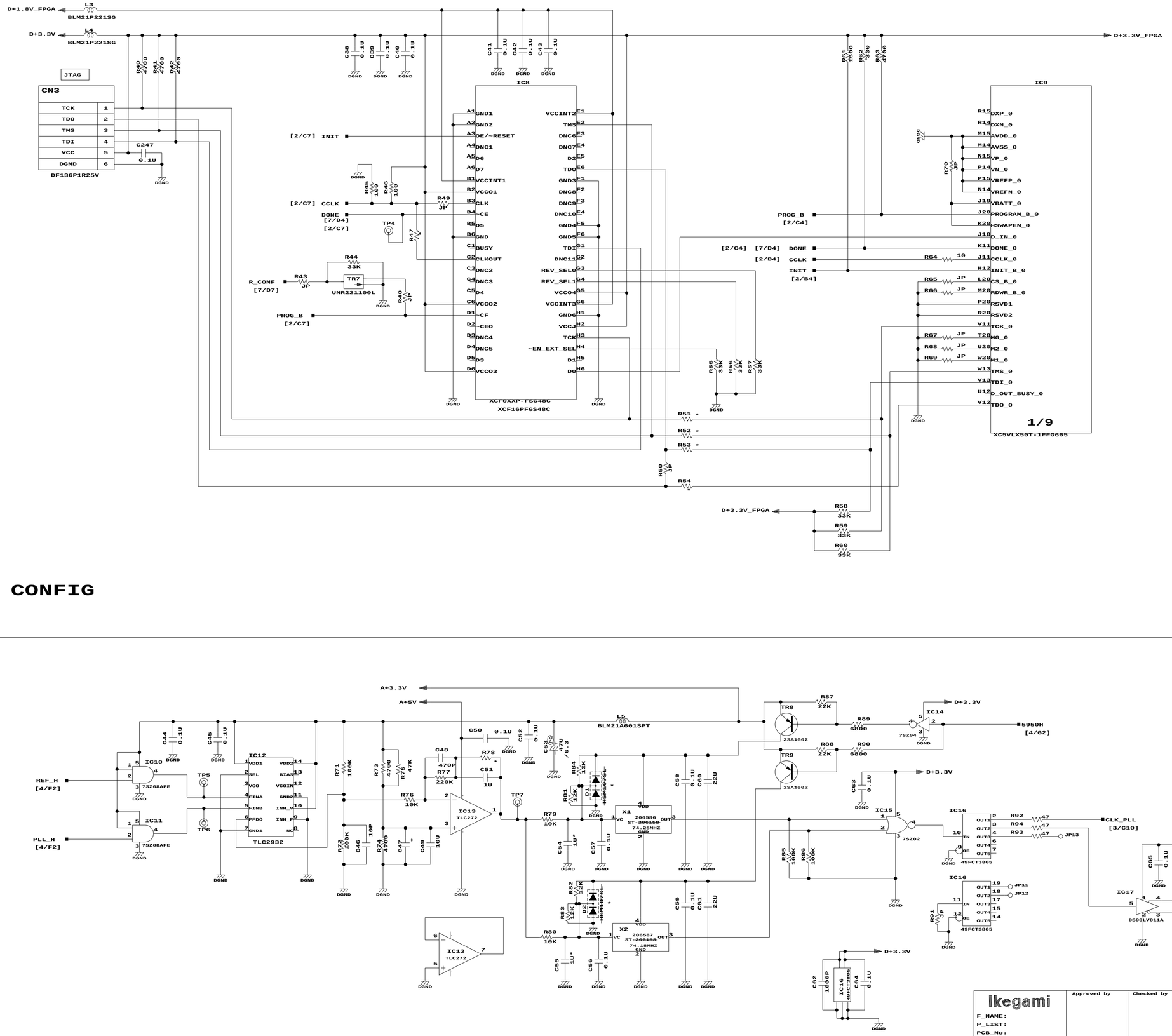
TITLE
VIDEO OUT_3G
SCHEMATIC DIAGRAM (1/9)

WORK No.

DWG.No. C3-100889-1

REV. 1

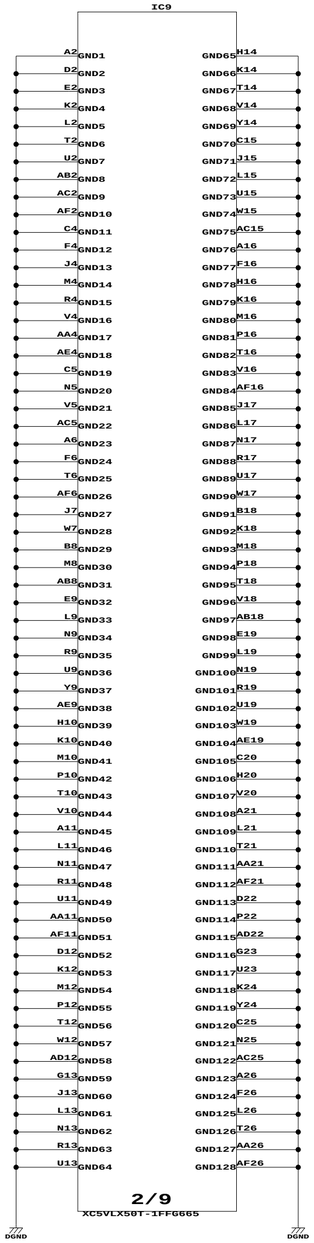
FPGA CONFIG

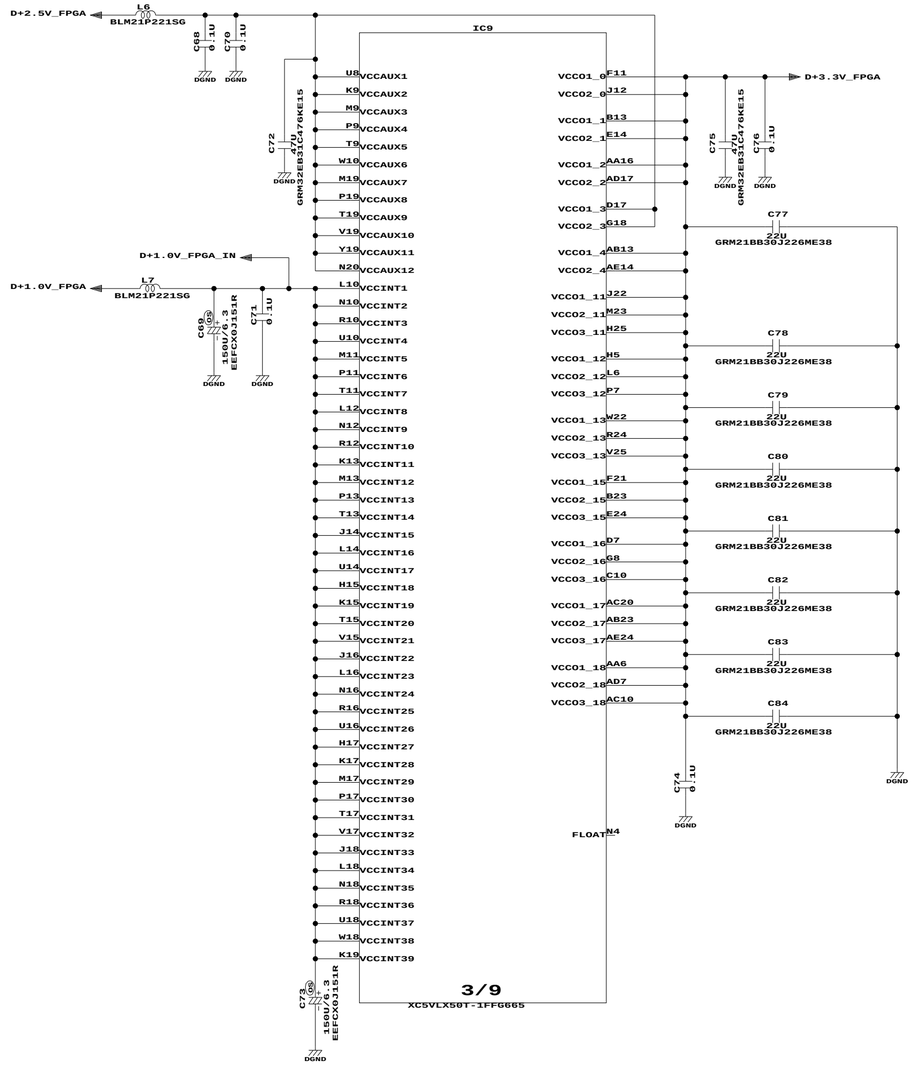


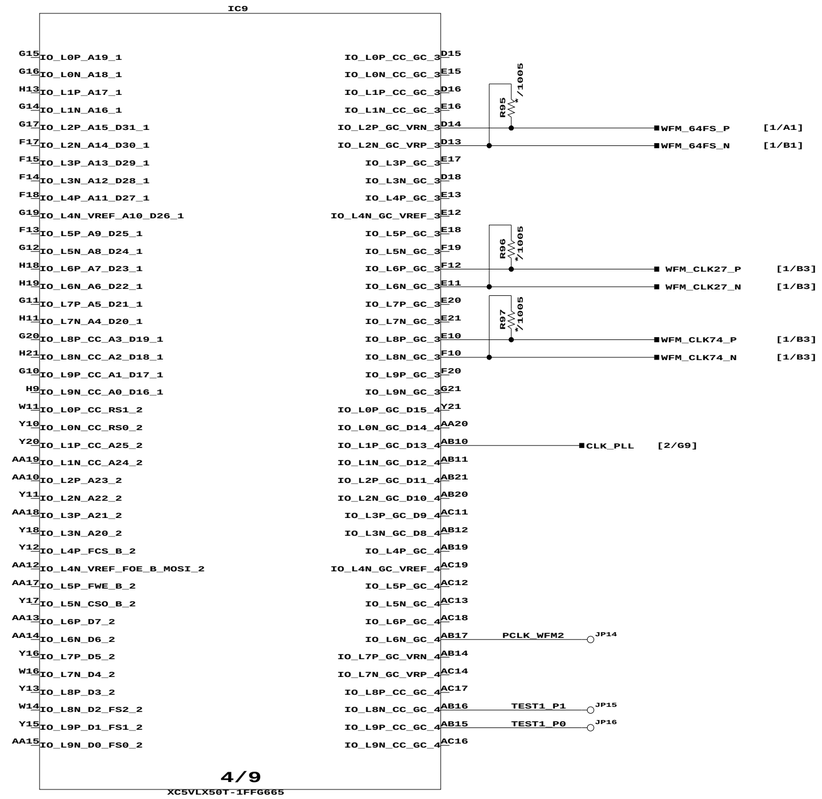
PLL

1st Edition OSD (U)(E)

Ikegami	Approved by	Checked by	2011.02.23 SHIMAYA
F_NAME:			3G CCU
P_LIST:			TITLE: VIDEO OUT_3G SCHEMATIC DIAGRAM (2/9)
PCB_No:			
NOTE: P :10 -12, N :10 -9, U :10 -6, M :10 -3, K :10 +3, MEG:10 +6	Drawn by: SHIMAYA 2010/11/14		WORK No.
	Designed by: SHIAMYA 2010/11/14		DWG.No. C3-100889-2
			REV. 1

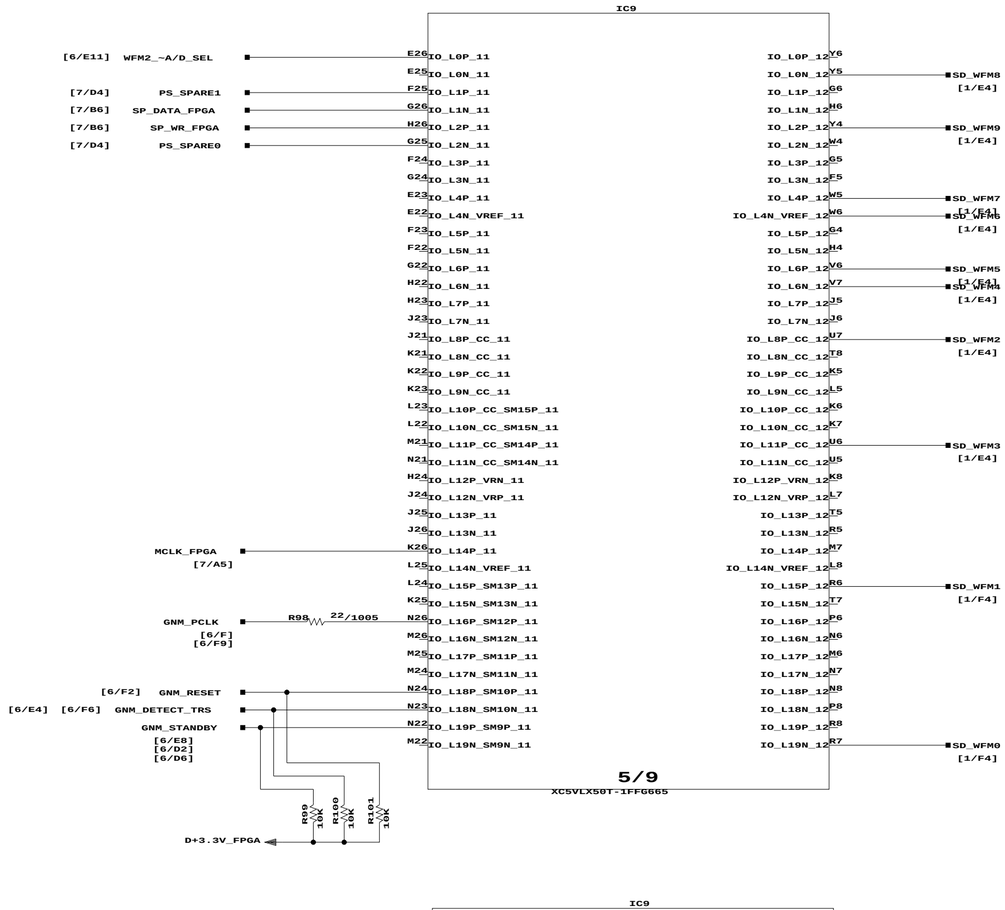


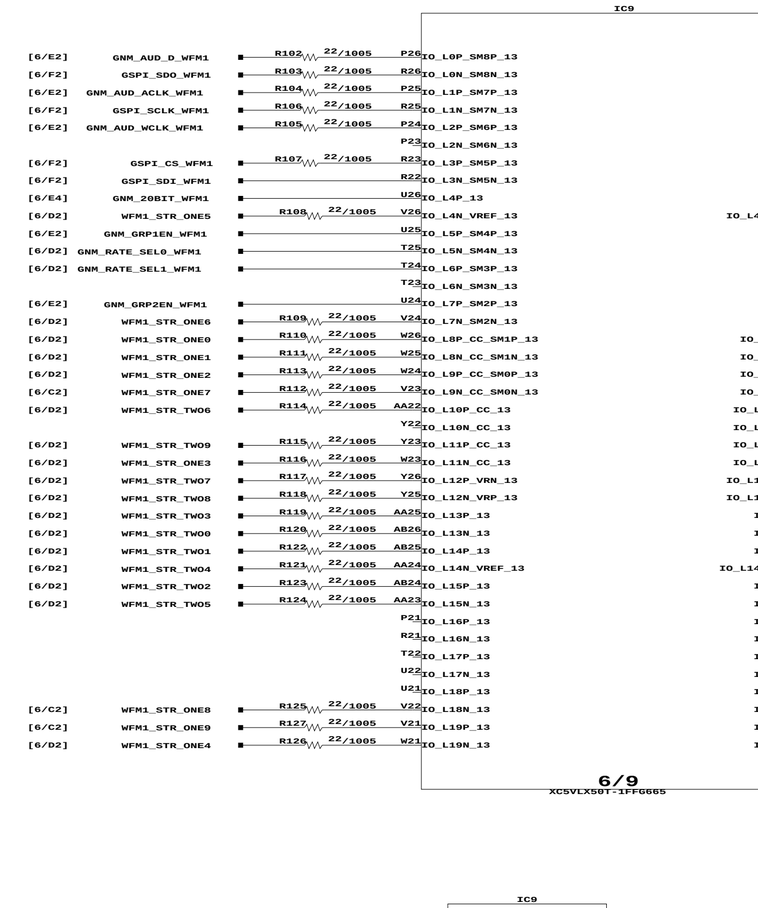


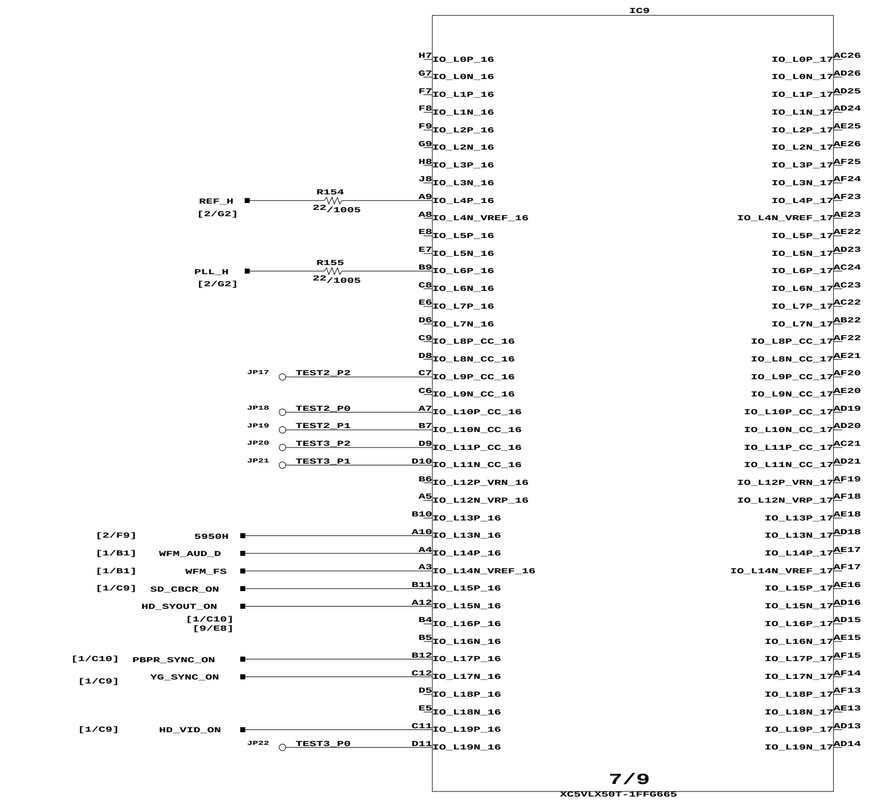


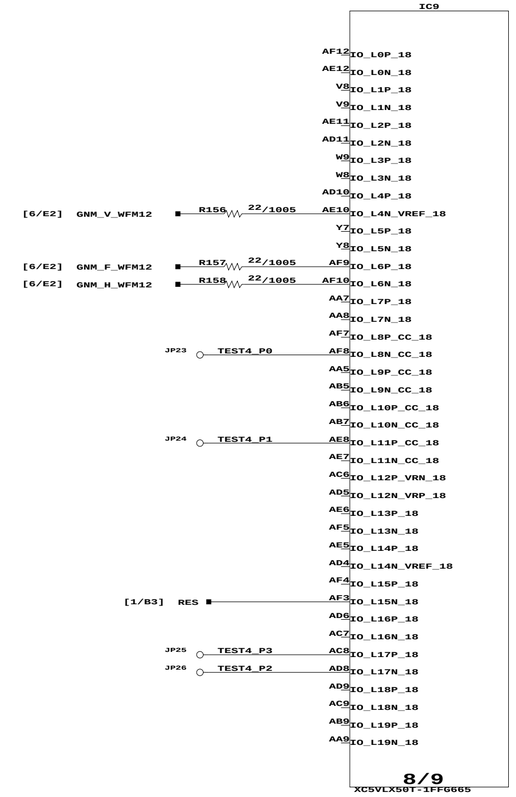
1st Edition OSD (U)(E)

Ikegami	Approved by	Checked by	2011.02.23 SHIMAYA
F_NAME:			3G CCU
P_LIST: PP-100116			TITLE
PCB_No: PE------			VIDEO OUT_3G (3/9)
NOTE	Drawn by		SCHEMATIC DIAGRAM
P :10 -12 M :10 -3	SHIMAYA 2010/11/14		WORK No. / DWG.No. C3-100889-3 / REV. 1
N :10 -9 K :10 +3	Designed by		
U :10 -6 MEG:10 +6	SHIMAYA 2010/11/14		

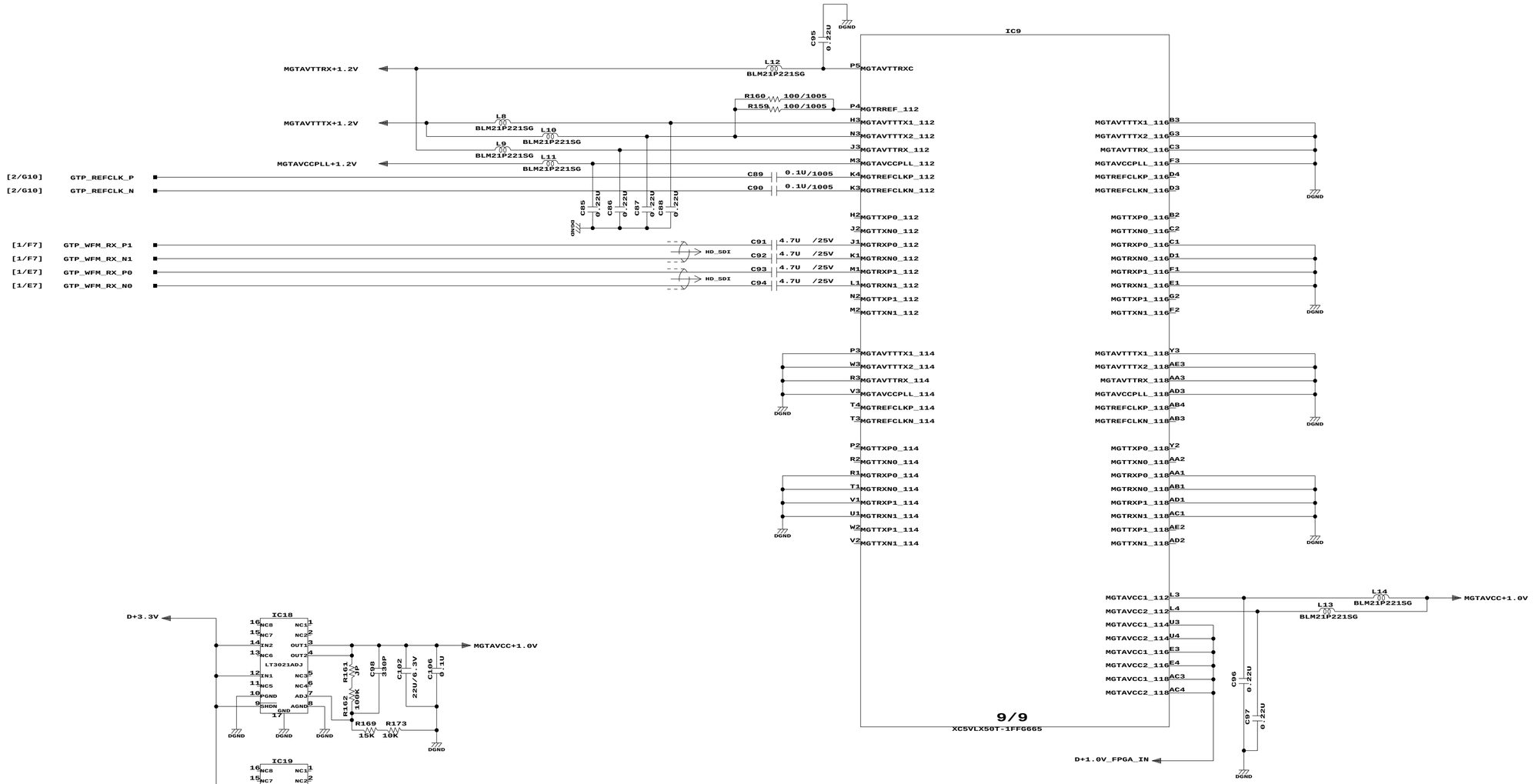


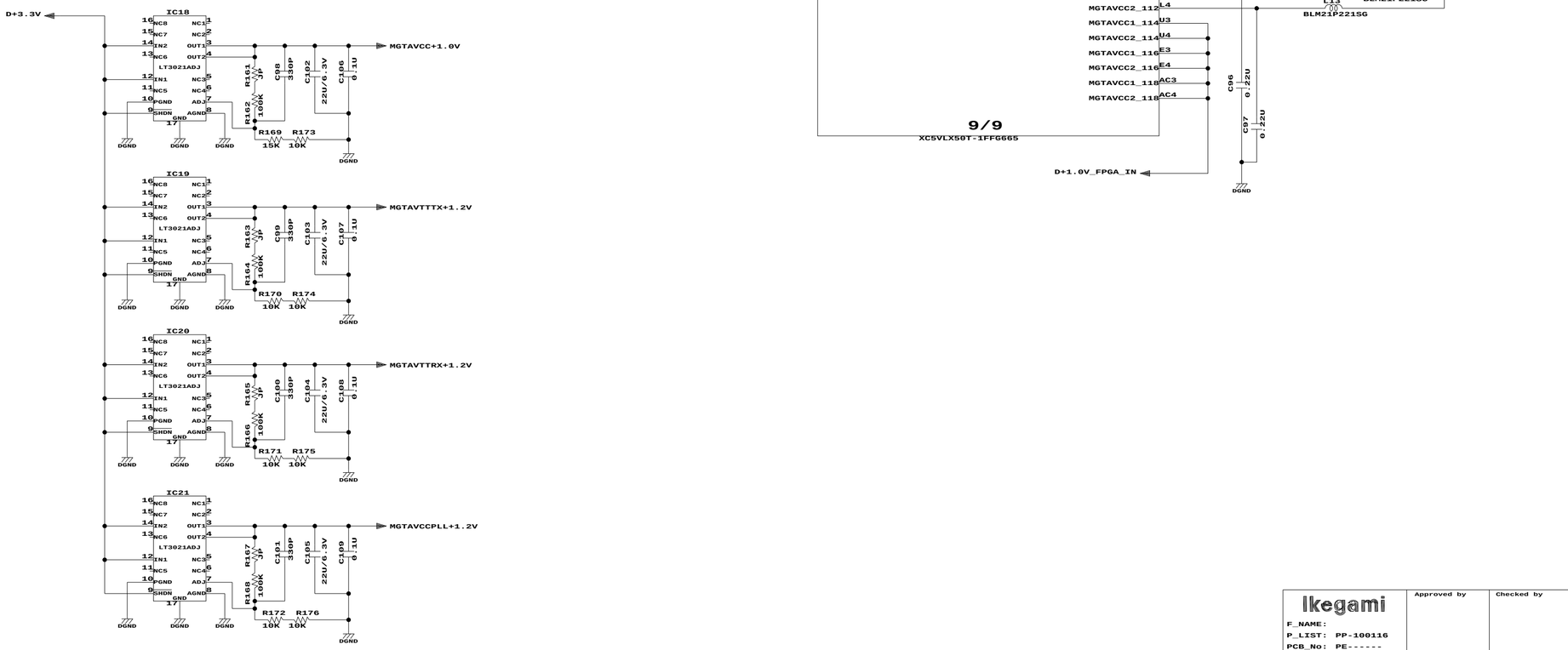




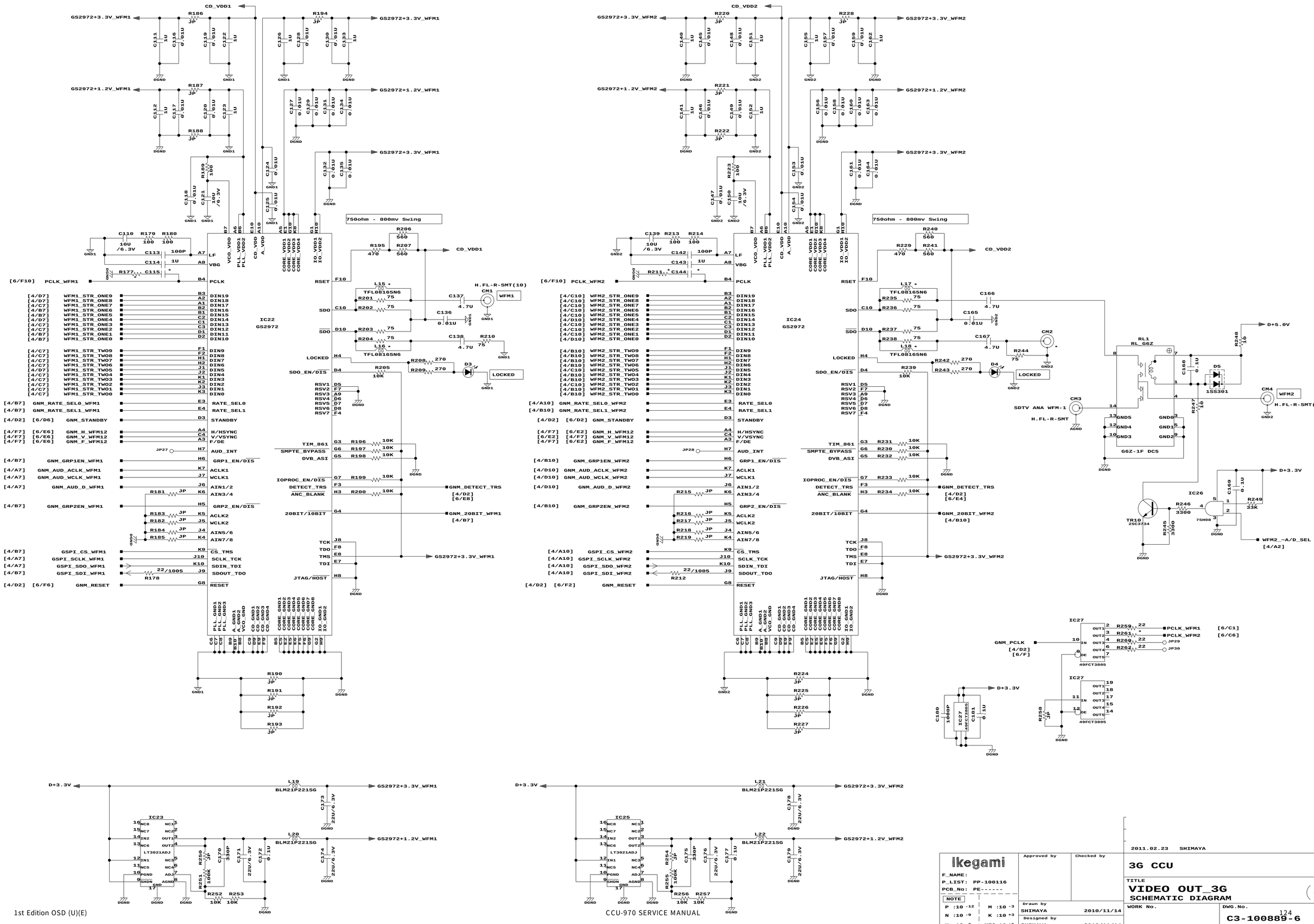


Ikegami	Approved by	Checked by	2011.02.23 SHIMAYA
F_NAME:			3G CCU
P_LIST: PP-100116			TITLE: VIDEO OUT_3G SCHEMATIC DIAGRAM (4/9)
PCB_No: PE------			
NOTE: P :10 -12, N :10 -9, U :10 -6, M :10 -3, K :10 +3, MEG:10 +6	Drawn by SHIMAYA 2010/11/14		WORK No. / DWG.No. C3-100889-4 / REV. 1
	Designed by SHIMAYA 2010/11/14		

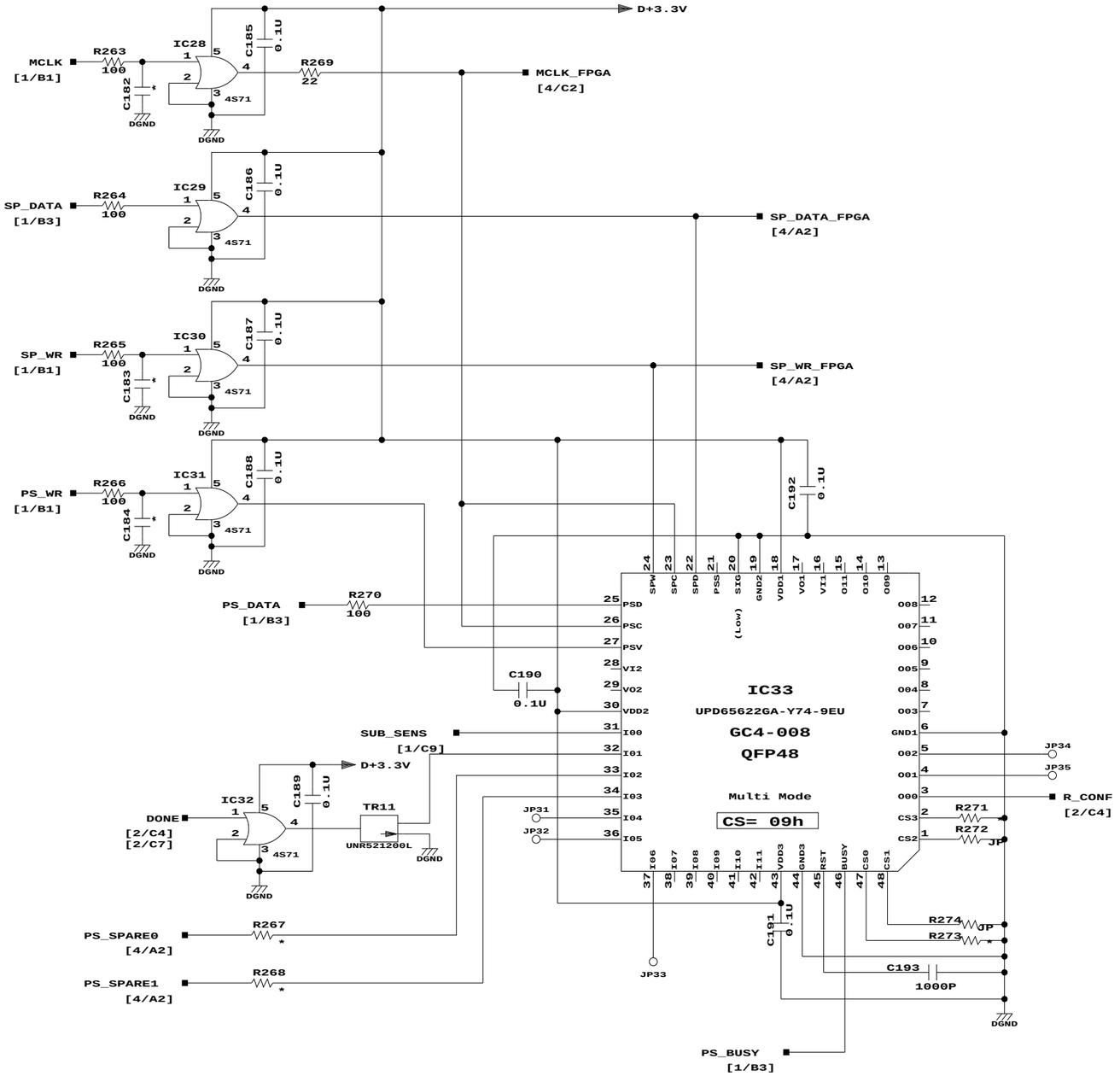




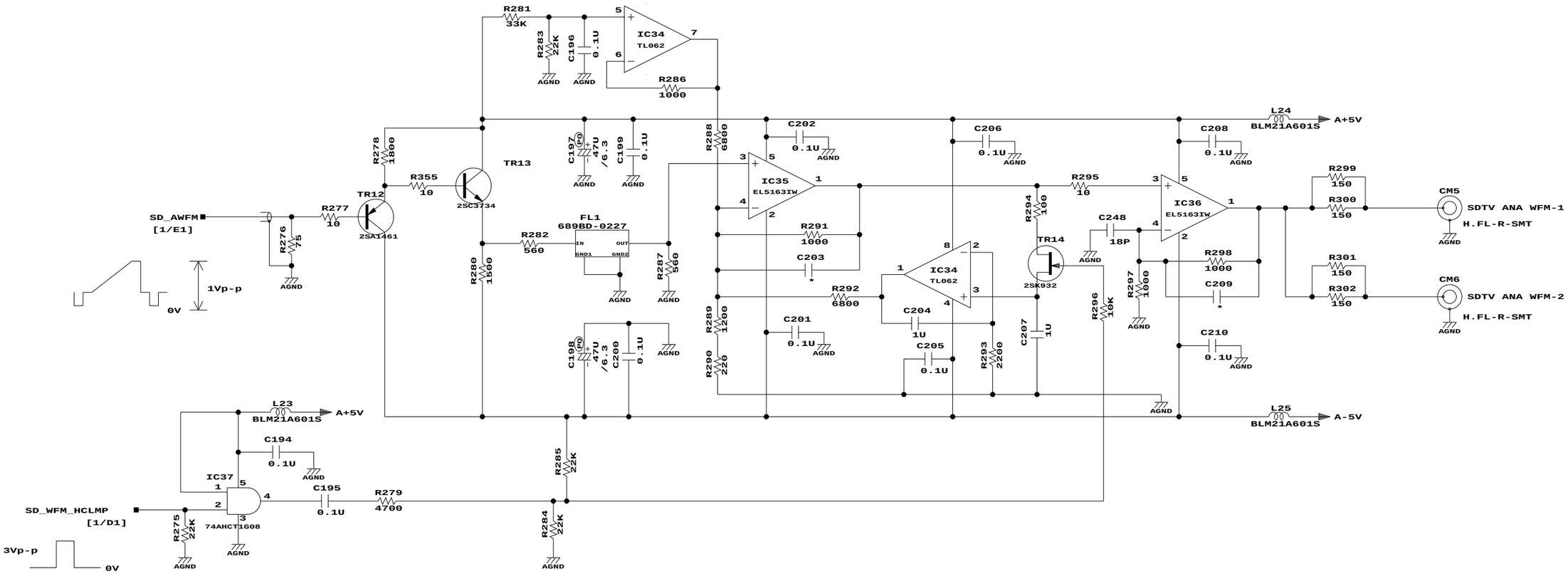
Ikegami	Approved by	Checked by	2011.02.23 SHIMAYA
F_NAME:			3G CCU
P_LIST: PP-100116			TITLE
PCB_No: PE------			VIDEO OUT_3G
NOTE	Drawn by		SCHEMATIC DIAGRAM (5/9)
P :10 -12 M :10 -3	SHIMAYA 2010/11/14		WORK No. / DWG.No. C3-100889-5 / REV. 1
N :10 -9 K :10 +3	Designed by		
U :10 -6 MEG:10 +6	SHIMAYA 2010/11/14		



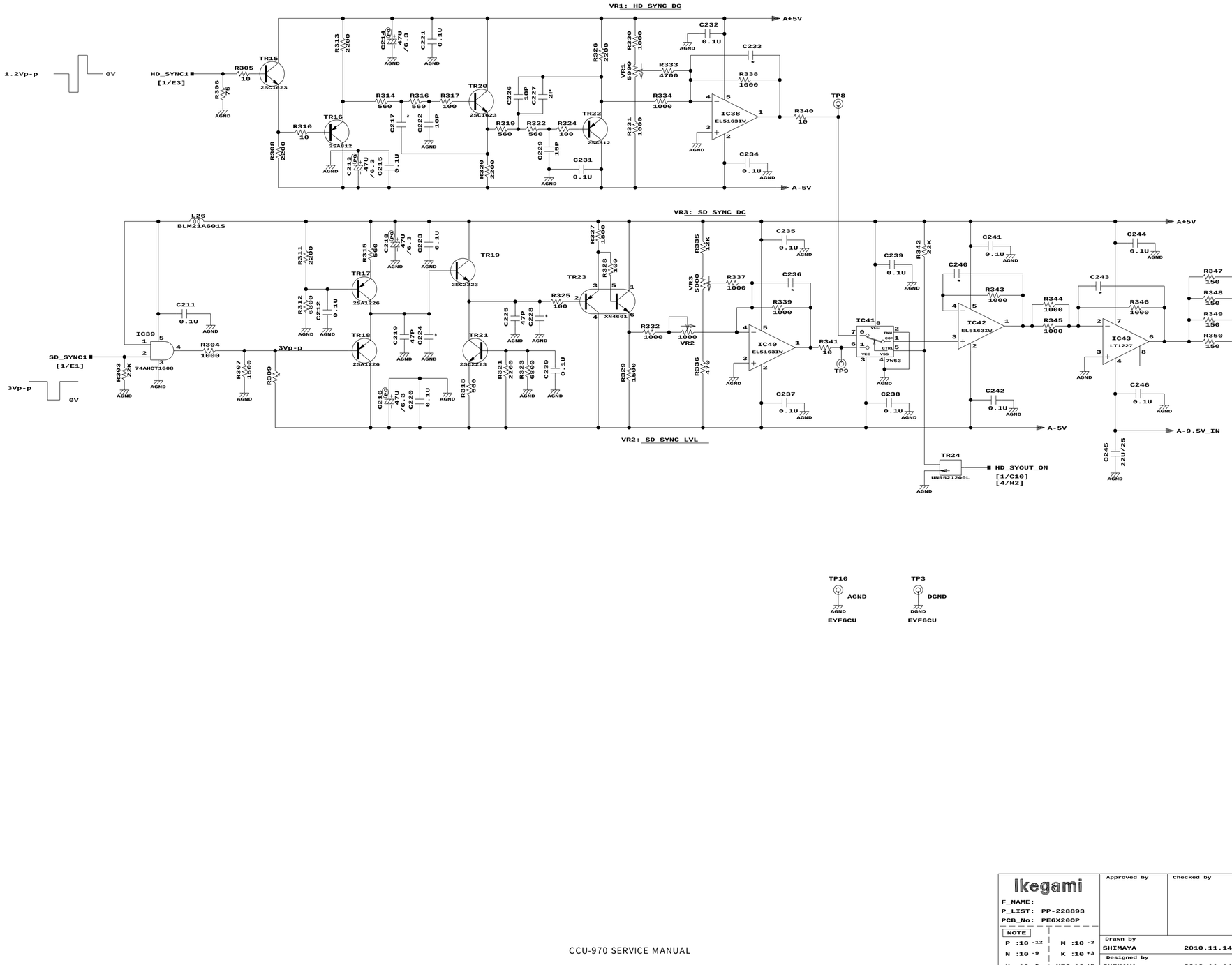
Ikegami	Approved by	Checked by	2011.02.23 SHIMAYA
F_NAME:			3G CCU
P_LIST: PP-100116			TITLE
PCB_No: PE------			VIDEO OUT_3G
NOTE			SCHEMATIC DIAGRAM (6/9)
P :10 -12 M :10 -3	Drawn by SHIMAYA 2010/11/14		WORK No. DWG.No. C3-100889-6 REV. 1
N :10 -9 K :10 +3	Designed by SHIMAYA 2010/11/14		
U :10 -6 MEG:10 +6			



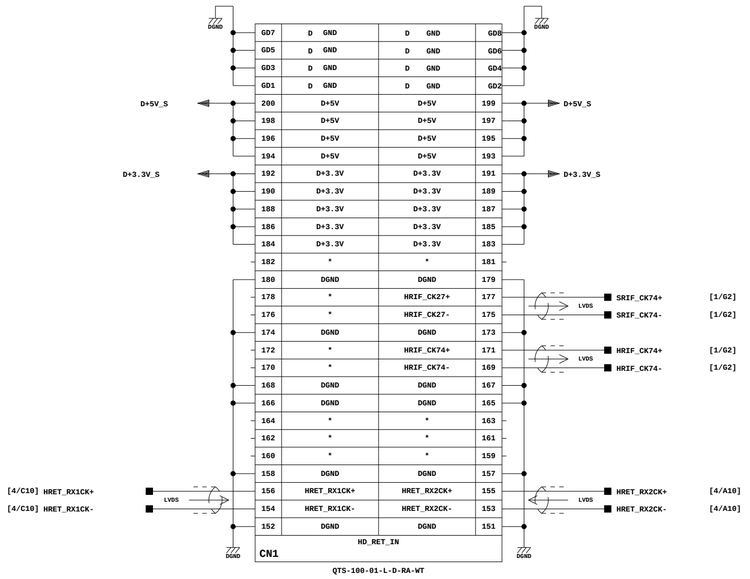
Ikegami	Approved by	Checked by	2011.02.23 SHIMAYA
F_NAME:			3G CCU
P_LIST: PP-228892			TITLE
PCB_No: PE75010P			VIDEO OUT_3G (7/9)
NOTE	Drawn by		SCHEMATIC
P :10 -12 M :10 -3	SHIMAYA 2010.11.14		WORK No. / DWG.No. C3-100889-7 / REV. 1
N :10 -9 K :10 +3	Designed by		
U :10 -6 MEG:10 +6	SHIMAYA 2010.11.14		

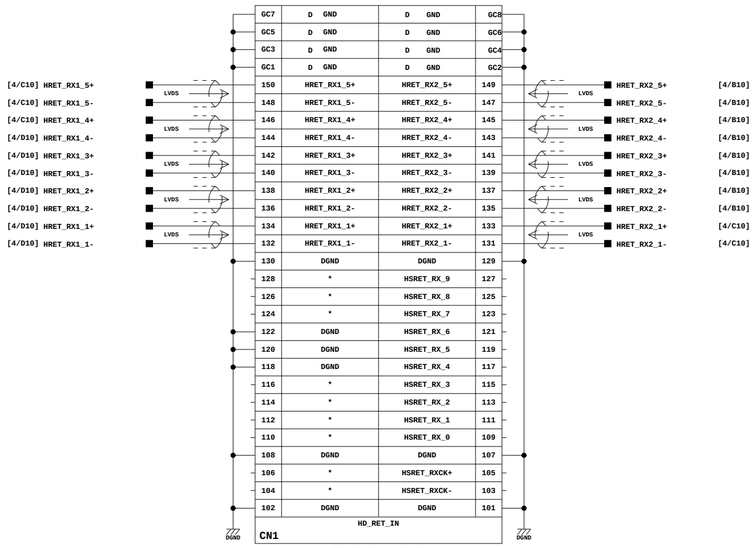


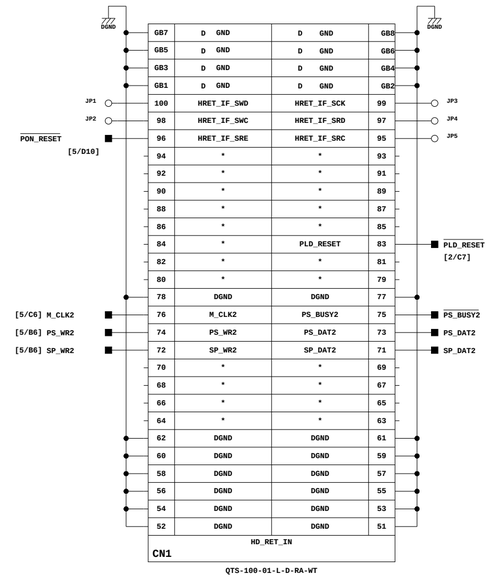
Ikegami	Approved by	Checked by	2011.02.23 SHIMAYA	CCU 3G
F_NAME:				TITLE: VIDEO OUT_3G SCHEMATIC (8/9)
P_LIST: PP-228892				
PCB_No: PE75010P				
NOTE	Drawn by SHIMAYA 2010.11.14		WORK No.	DWG.No. C3-100889-8
P :10 -12 M :10 -3	Designed by SHIMAYA 2010.11.14			REV. 1
N :10 -9 K :10 +3				
U :10 -6 MEG:10 +6				

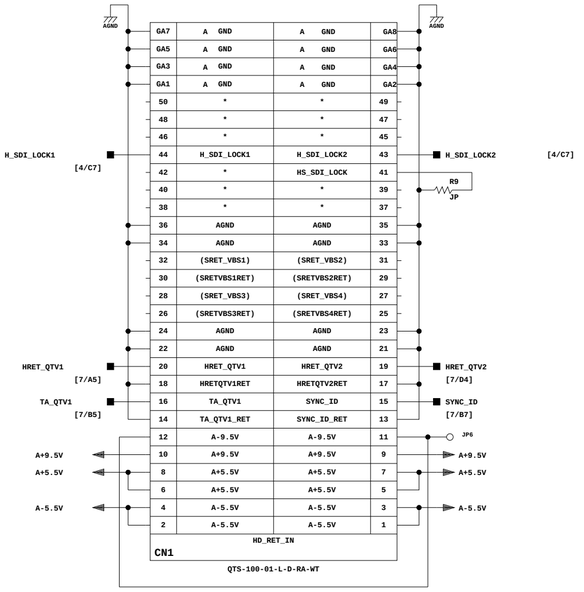


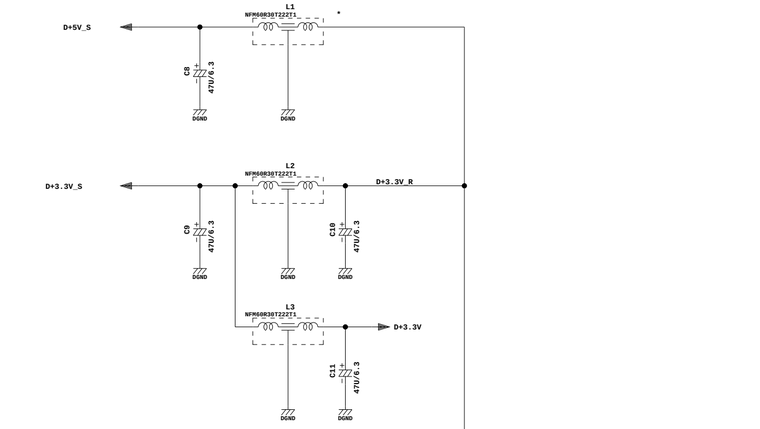
Ikegami	Approved by	Checked by	2011.02.23 SHIMAYA
F_NAME:			CCU-3G
P_LIST: PP-228893			TITLE: VIDEO OUT_3G SCHEMATIC (9/9)
PCB_No: PE6X20OP			
NOTE: P :10 -12, N :10 -9, U :10 -6, M :10 -3, K :10 +3, MEG:10 +6	Drawn by SHIMAYA 2010.11.14		WORK No. / DWG.No. C3-100889-9 / REV. 1
	Designed by SHIMAYA 2010.11.14		

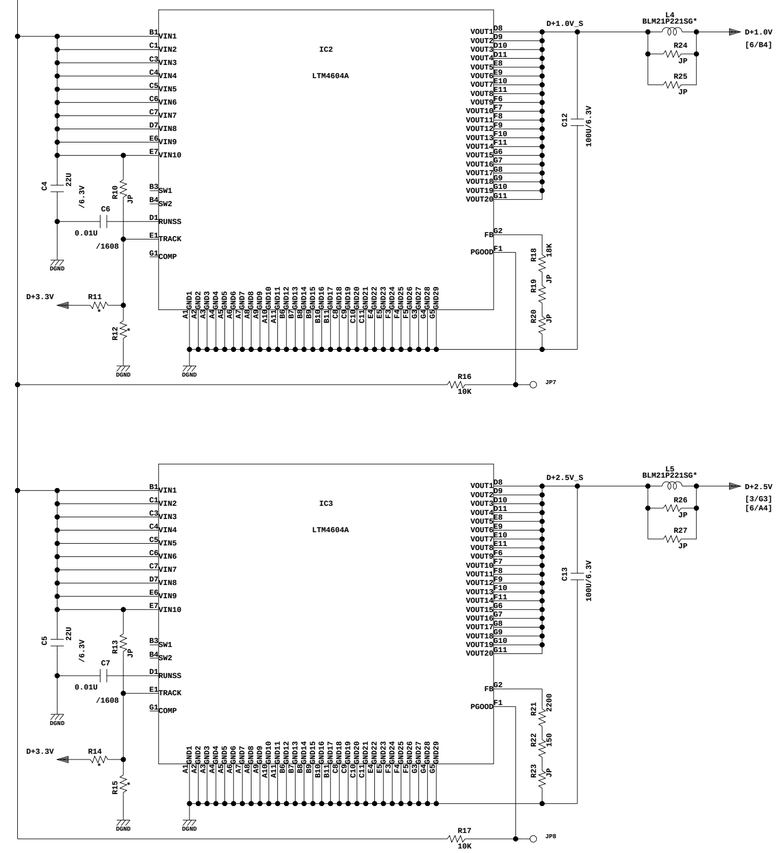


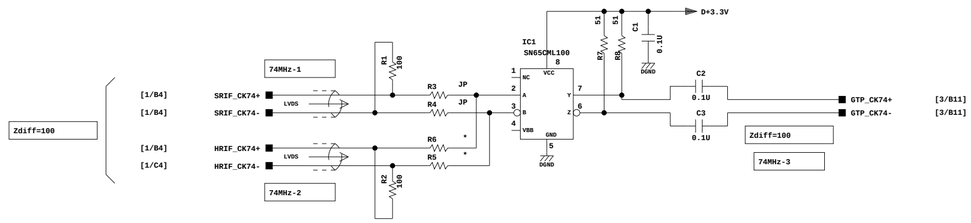




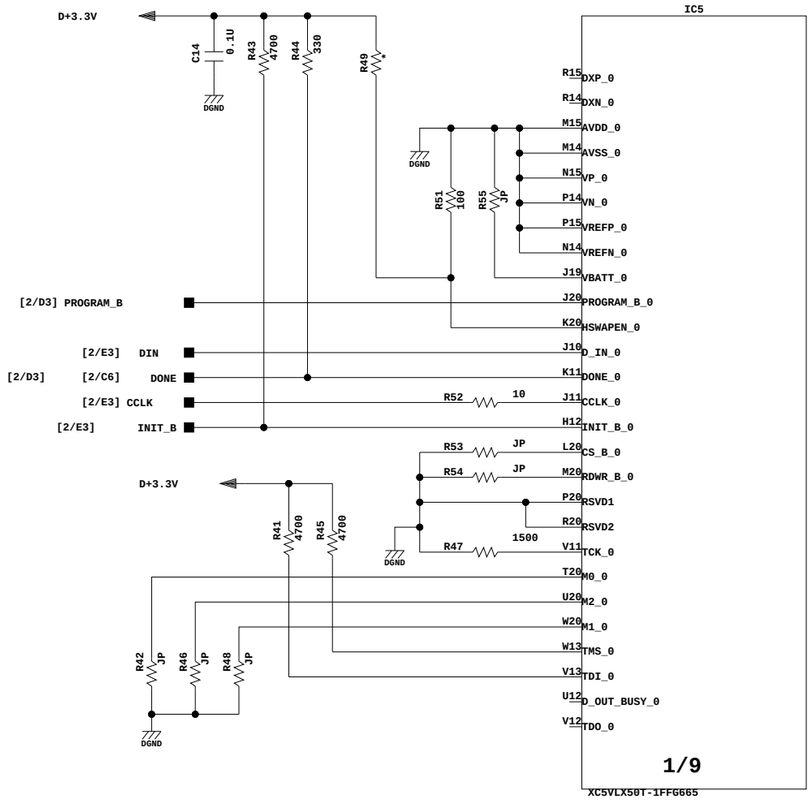


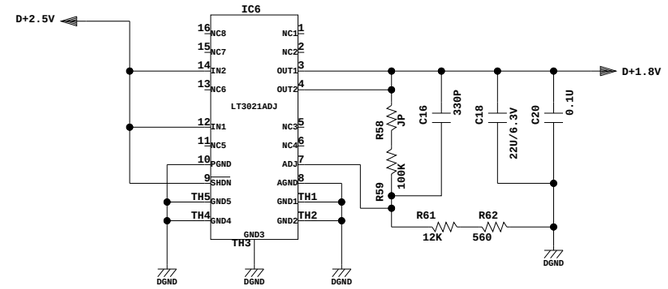


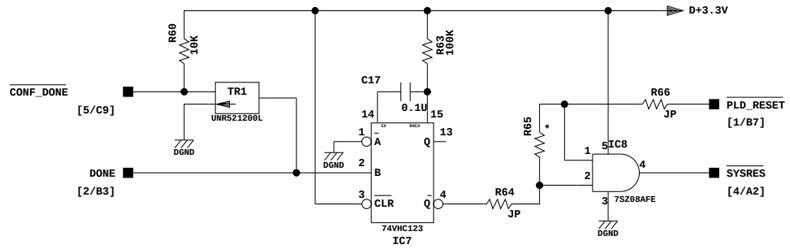


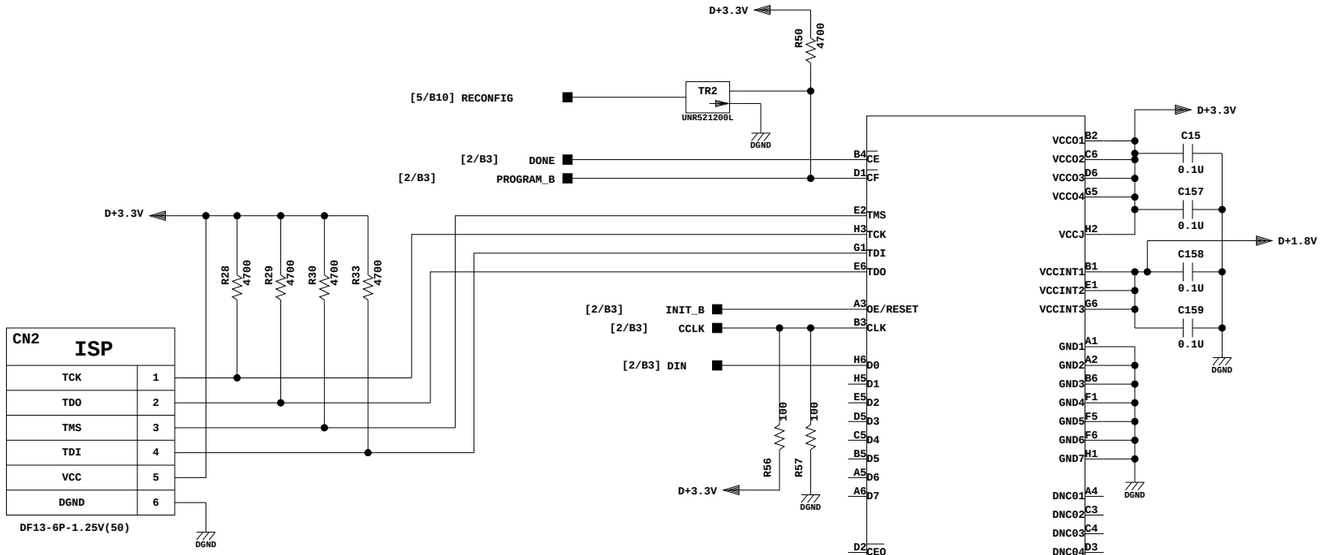


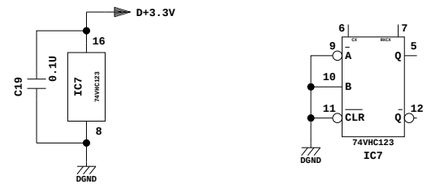
⚠1 変更なし 2011.02.17 N.TAMAI			
Ikegami	Approved by	Checked by	3G-CCU
F_NAME: HRET_IN_3G_R1			TITLE
P_LIST: PP-100104			HD RET IN-3G
PCB_No: PE0922AJ			SCHEMATIC DIAGRAM (1/7)
NOTE	Drawn by		WORK No.
P :10 -12 M :10 -3	N.TAMAI 2010.11.02		DWG.No. C3-100631-01
N :10 -9 K :10 +3	Designed by		REV. 1
U :10 -6 MEG:10 +6	N.TAMAI 2010.11.02		128











1	変更なし	2011.02.17	N.TAMAI

Ikegami

F_NAME: HRET_IN_3G_R1
P_LIST:
PCB_No:

NOTE
P :10 -12 M :10 -3
N :10 -9 K :10 +3
U :10 -6 MEG:10 +6

Approved by	Checked by

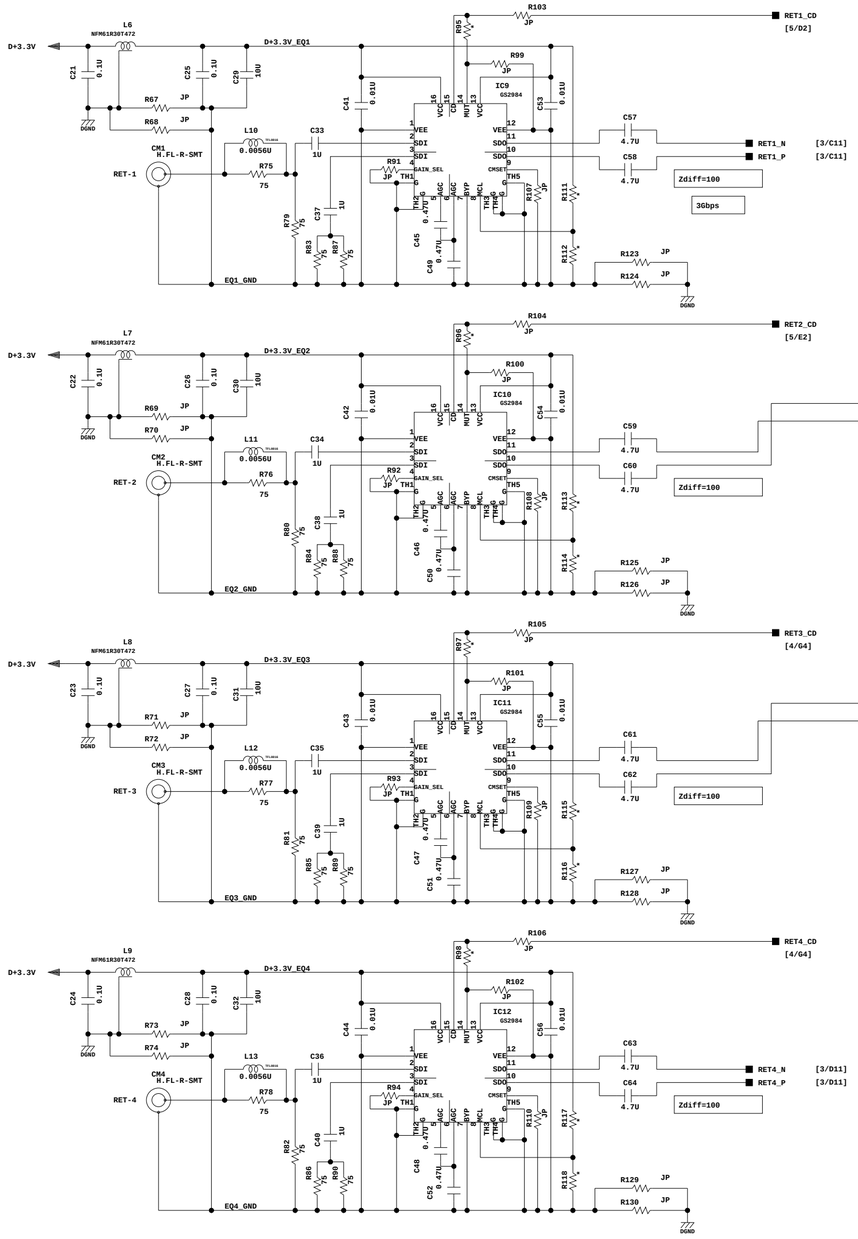
Drawn by		Designed by	
N.TAMAI	2010.11.02	N.TAMAI	2010.11.02

3G-CCU

TITLE
HD RET IN-3G
SCHEMATIC DIAGRAM

2/7

WORK No.	DWG.No.	REV.
	C3-100631-02	1

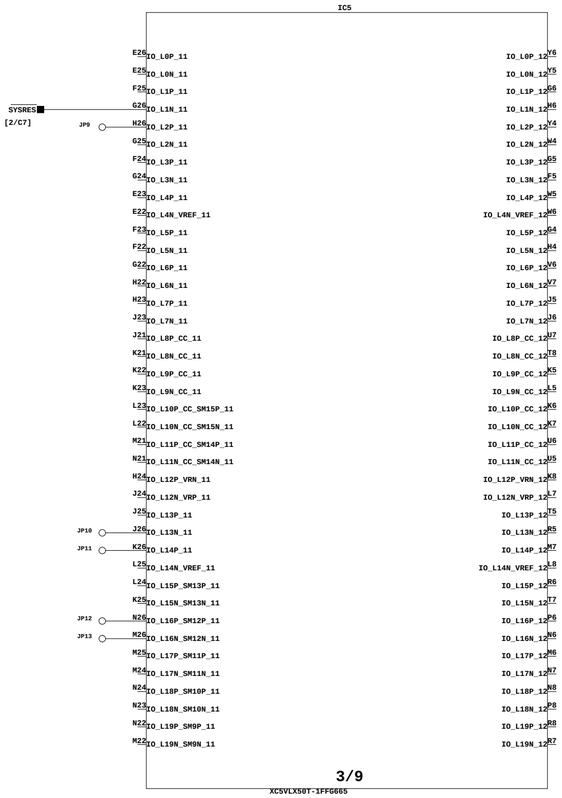


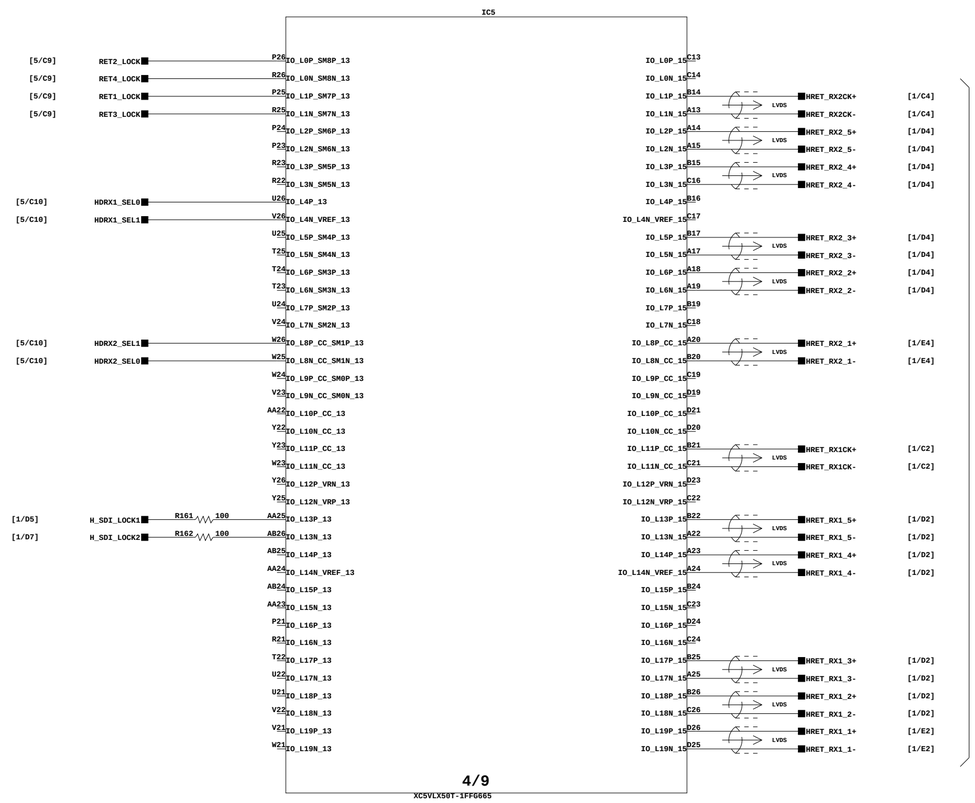
1st Edition OSD (U)(E)

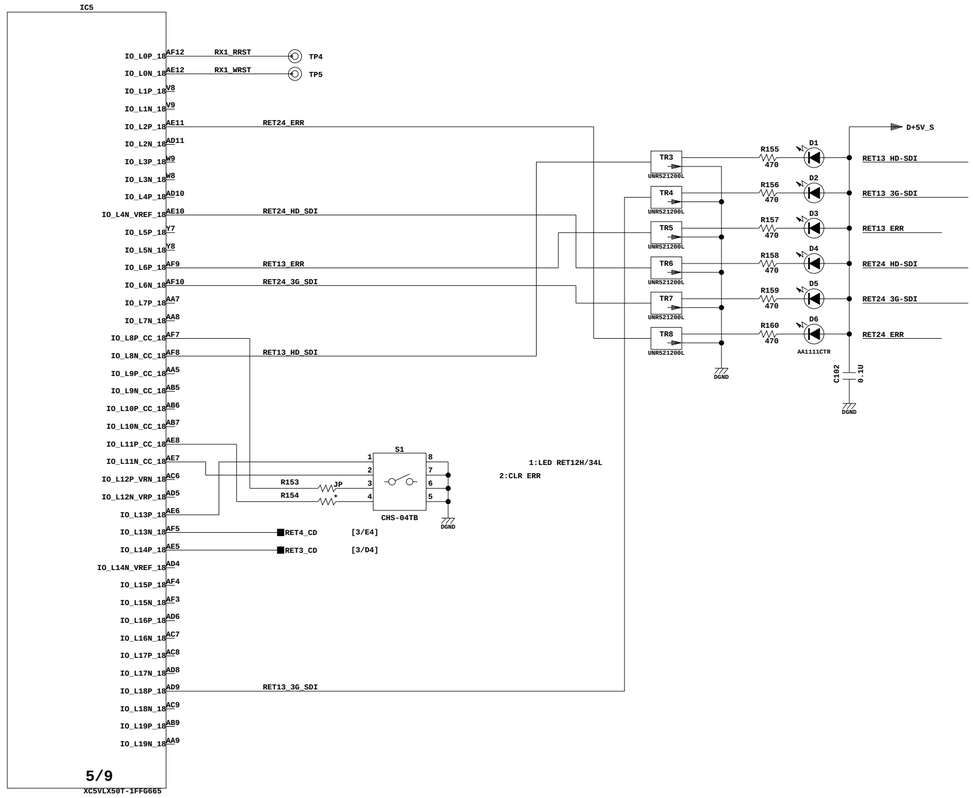
CCU-970 SERVICE MANUAL

IC5,9-16

⚠1 変更なし 2011.02.17 N.TAMAI			
Ikegami	Approved by	Checked by	3G-CCU
F_NAME: HRET_IN_3G_R1			TITLE: HD RET IN-3G SCHEMATIC
P_LIST:			3/7
PCB_No:			
NOTE	Drawn by N.TAMAI 2010.11.02		WORK No.
P :10 -12 N :10 -9 U :10 -6	M :10 -3 K :10 +3 MEG:10 +6	Designed by N.TAMAI 2010.11.02	DWG.No. 130 C3-100631-03 REV. 1



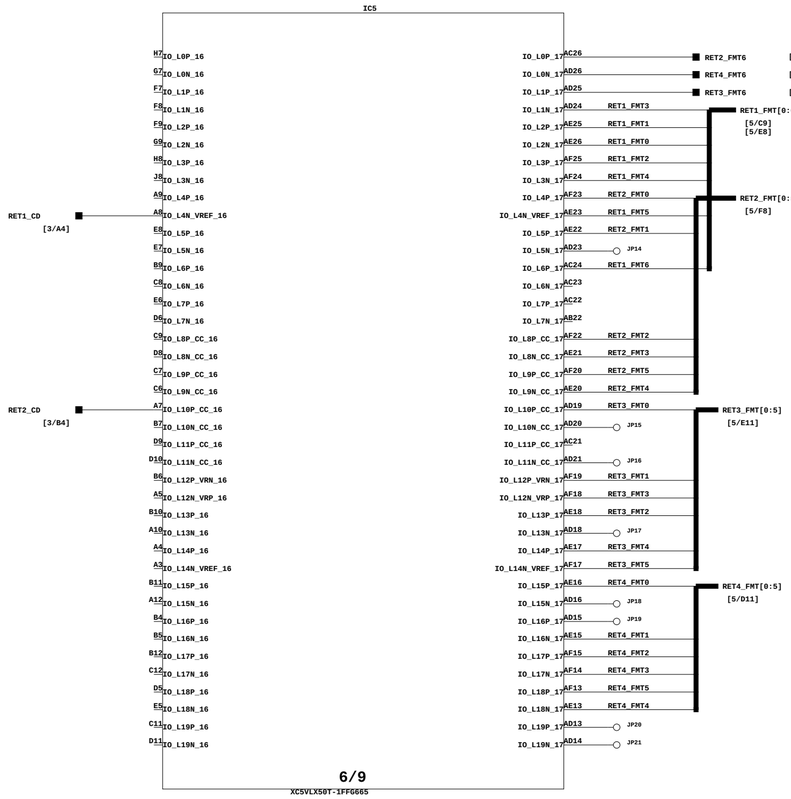


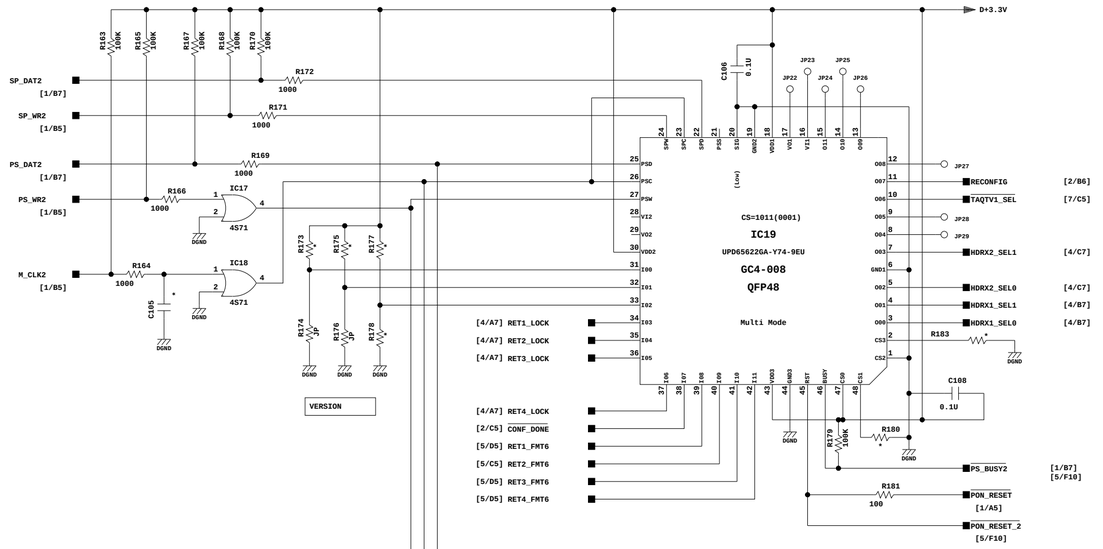


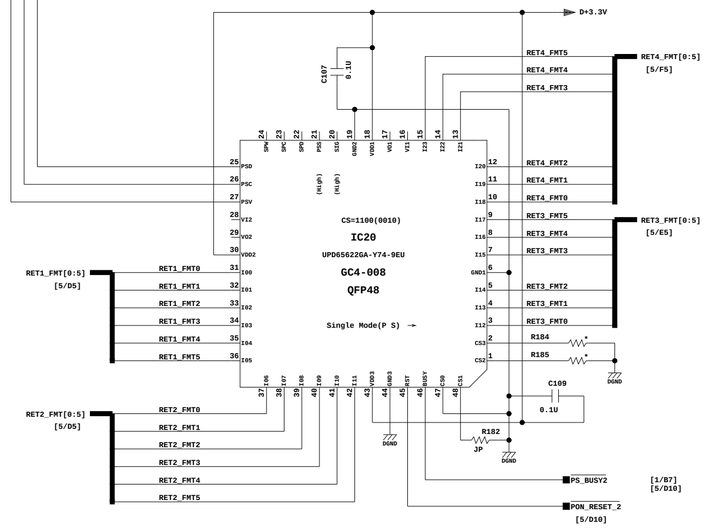
Ikegami	Approved by	Checked by	3G-CCU
F_NAME: HRET_IN_3G_R1			TITLE: HD RET IN-3G SCHEMATIC DIAGRAM 4/7
P_LIST:	Drawn by N.TAMAI 2010.11.02		WORK No. / DWG.No. C3-100631-04 / REV. 1
PCB_No:	Designed by N.TAMAI 2010.11.02		

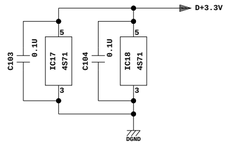
NOTE
P :10 -12 M :10 -3
N :10 -9 K :10 +3
U :10 -6 MEG:10 +6

△1 変更なし 2011.02.17 N.TAMAI



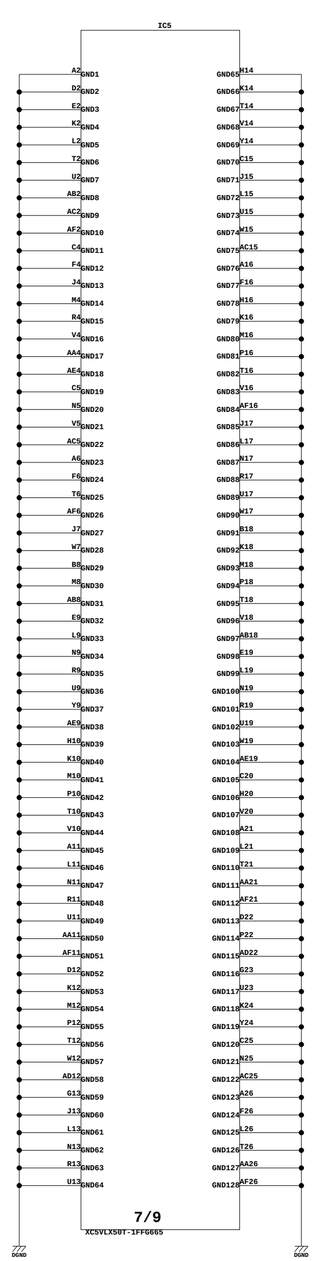


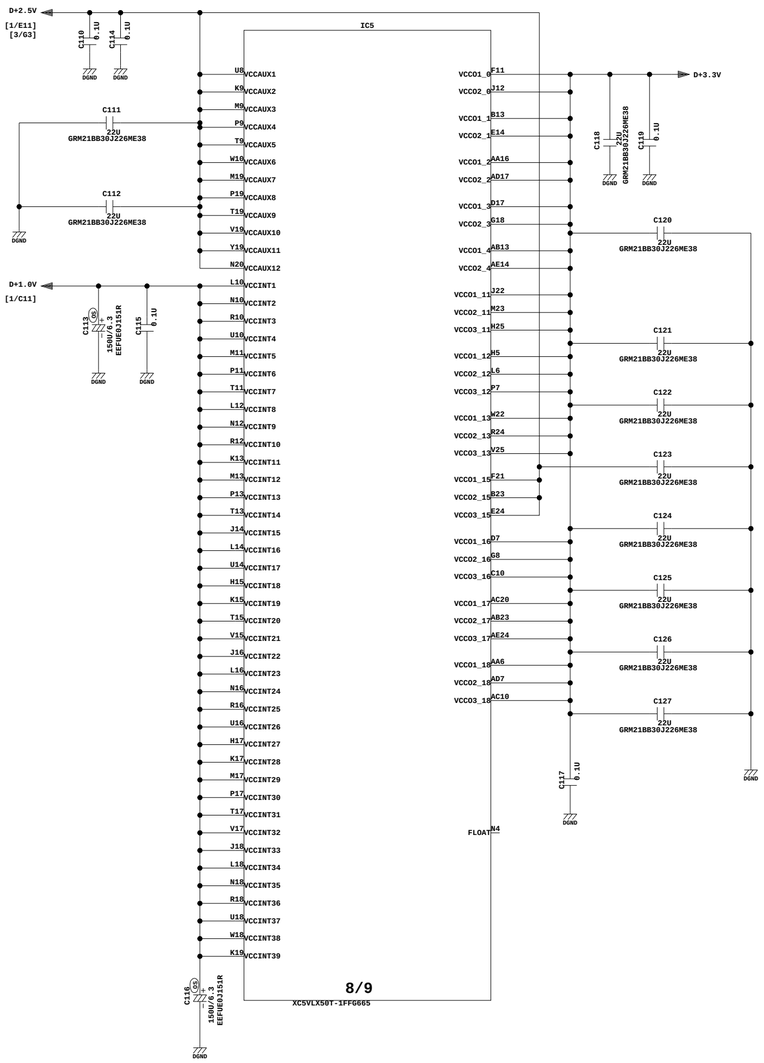


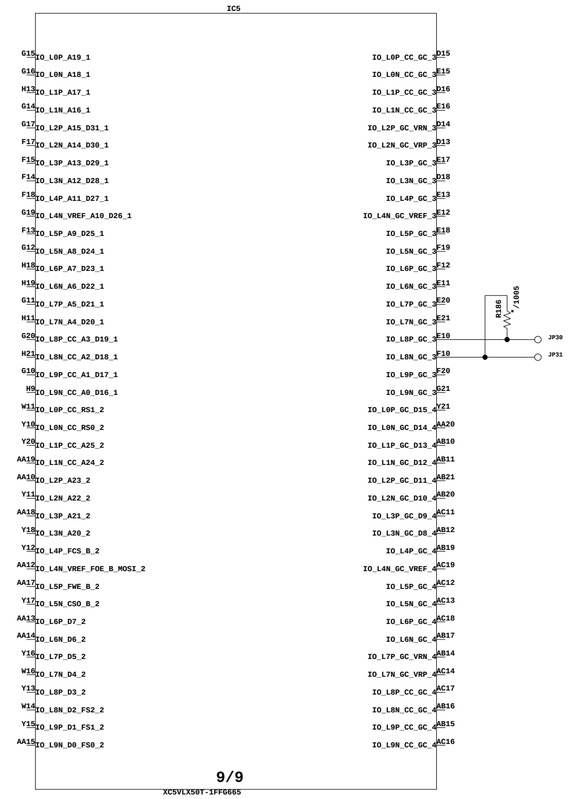


IC5,17-20

Ikegami	Approved by	Checked by	1 定数変更 2011.02.17 N.TAMAI
F_NAME: HRET_IN_3G_R1			3G-CCU
P_LIST:			TITLE
PCB_No:			HD RET IN-3G
NOTE	Drawn by		SCHEMATIC (5/7)
P :10 -12 M :10 -3	N.TAMAI 2010.11.02		WORK No. DWG.No. 132 REV.
N :10 -9 K :10 +3	Designed by		C3-100631-05 1
U :10 -6 MEG:10 +6	N.TAMAI 2010.11.02		



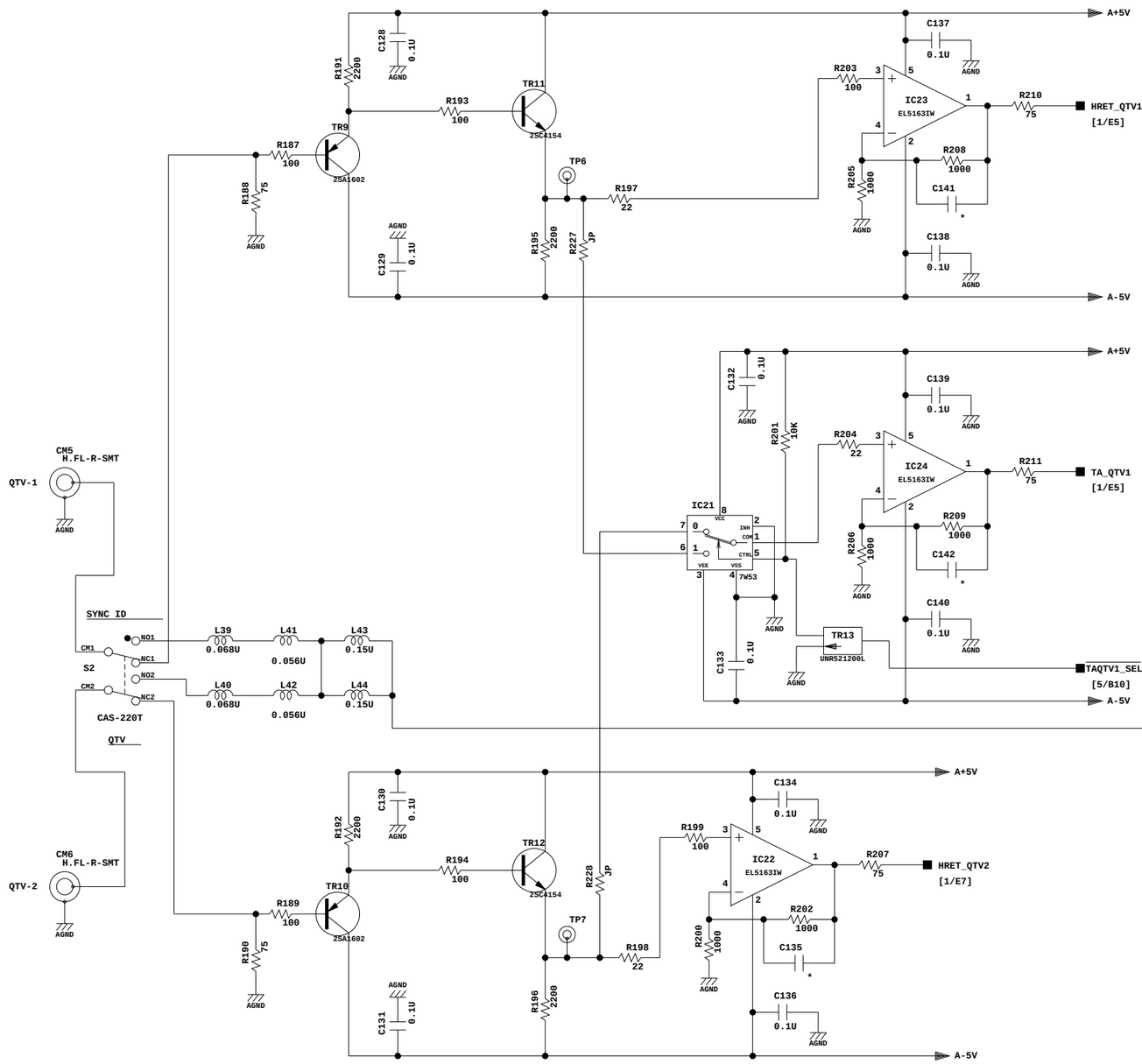




IC5

Ikegami	Approved by	Checked by	3G-CCU
F_NAME: HRET_IN_3G_R1			TITLE: HD RET IN-3G SCHEMATIC DIAGRAM (6/7)
P_LIST:	Drawn by N.TAMAI 2010.11.02		WORK No.
PCB_No:	Designed by N.TAMAI 2010.11.02		DWG.No. C3-100631-06
NOTE P :10 -12, N :10 -9, U :10 -6, M :10 -3, K :10 +3, MEG:10 +6			REV. 1

△1 変更なし 2011.02.17 N.TAMAI



F_NAME:	HRET_IN_3G_R1
P_LIST:	
PCB_No:	

NOTE

P :10 -12 | M :10 -3
N :10 -9 | K :10 +3
U :10 -6 | MEG:10 +6

Approved by | Checked by

Drawn by: N.TAMAI 2010.11.02
Designed by: N.TAMAI 2010.11.02

1 変更なし 2011.02.17 N.TAMAI

3G-CCU

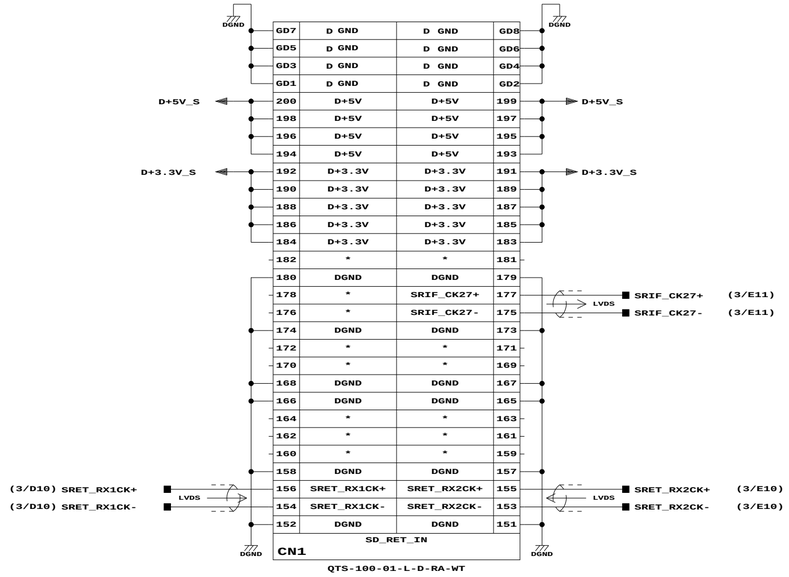
TITLE
HD RET IN-3G
SCHEMATIC

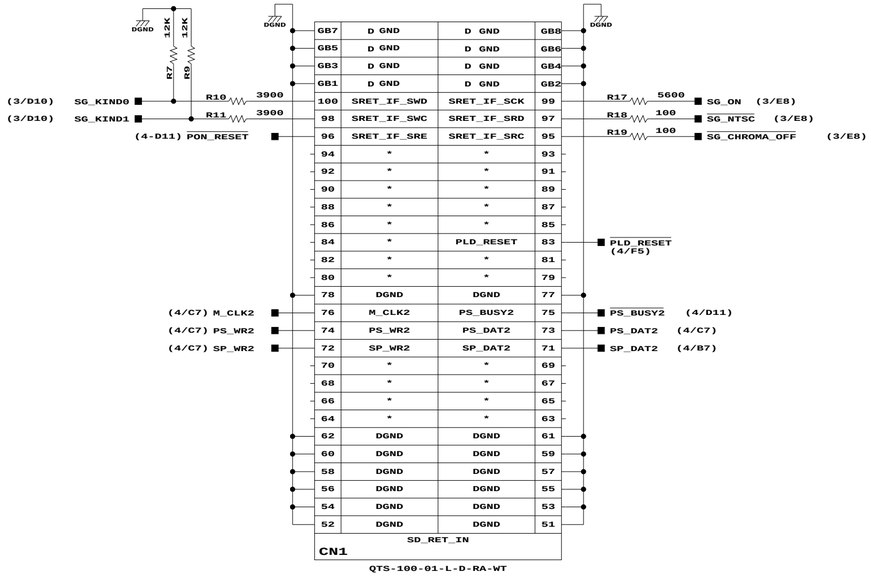
7/7

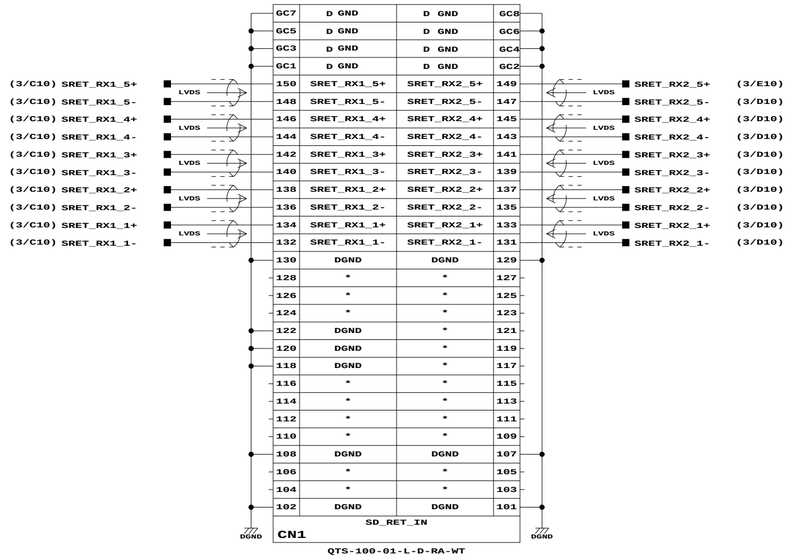
WORK No.

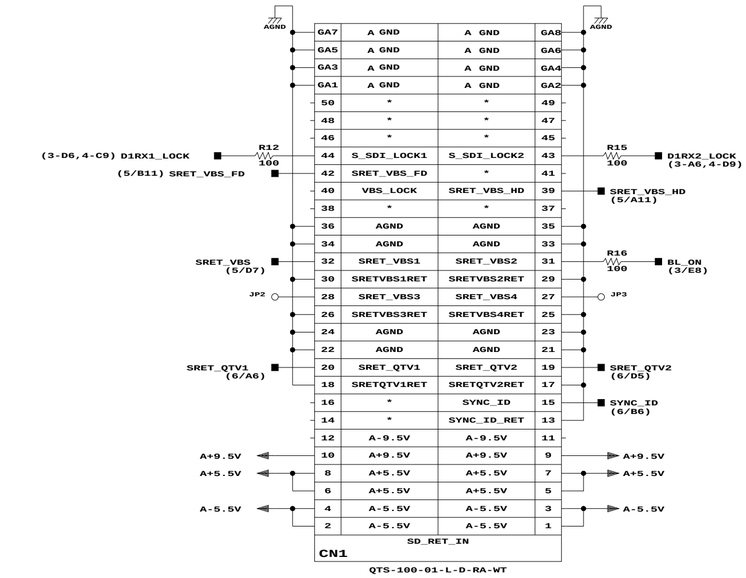
DWG.No. 134 C3-100631-07

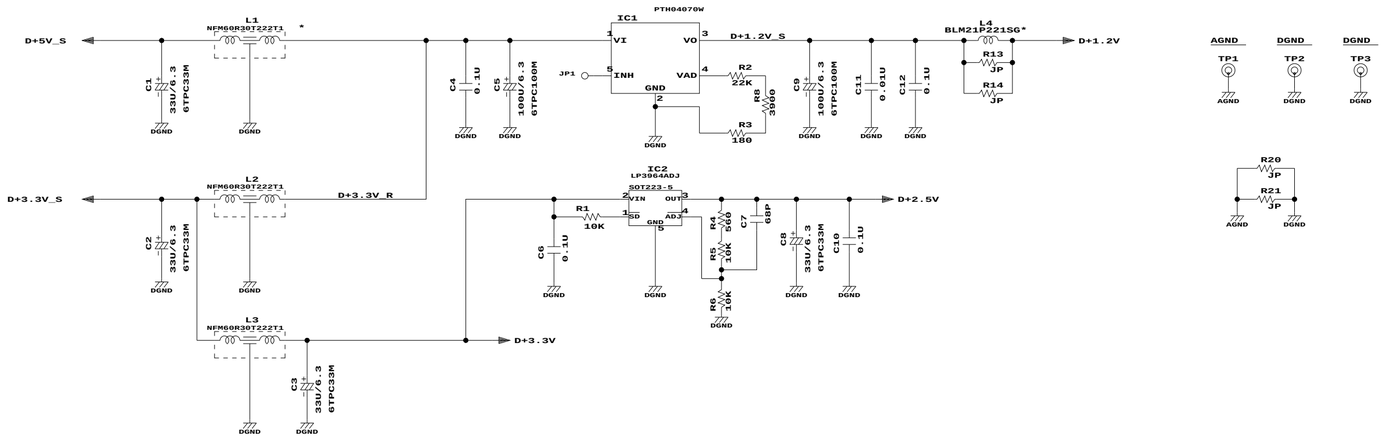
REV. 1











2	2/6page	2007.07.25	N.Tamai
1	3/6page	2006.12.19	Y.Wakabayashi

Ikegami

F_NAME: SRET_IN_REV2
P_LIST: PP-228730
PCB_No: PE6Z440P

NOTE
P :10 -12 | M :10 -3
N :10 -9 | K :10 +3
U :10 -6 | MEG:10 +6

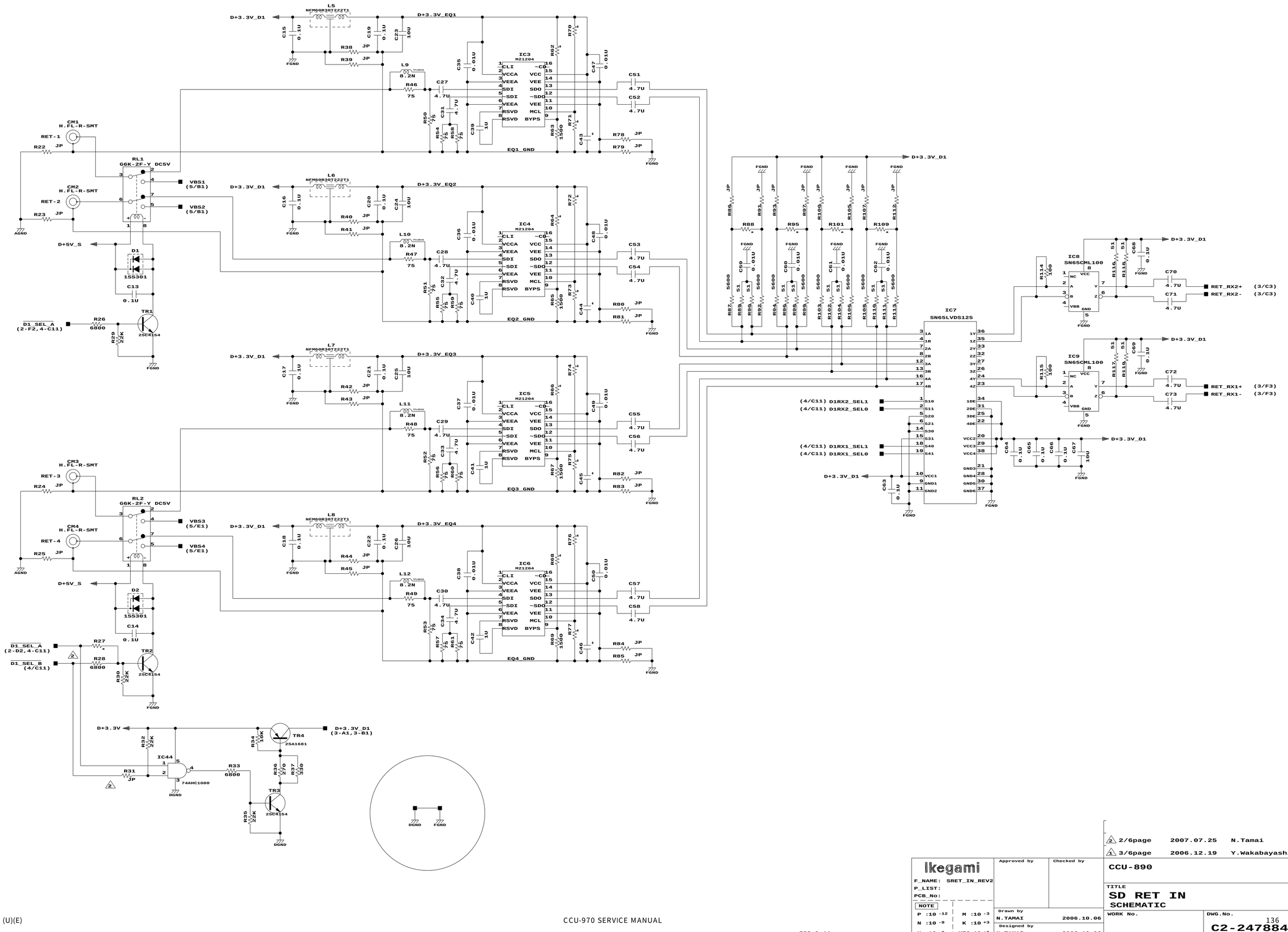
Approved by | Checked by

Drawn by N.TAMAI 2006.10.06
Designed by N.TAMAI 2006.10.06

CCU-890

TITLE
SD RET IN
SCHEMATIC DIAGRAM
(1/6)

WORK No. | DWG.No. C2-247883 | REV. 2



2	2/6page	2007.07.25	N.Tamai
1	3/6page	2006.12.19	Y.Wakabayashi

Ikegami

F_NAME: SRET_IN_REV2
P_LIST:
PCB_No:

NOTE

P :10 -12 | M :10 -3
N :10 -9 | K :10 +3
U :10 -6 | MEG:10 +6

Approved by | Checked by

Drawn by N.TAMAI 2006.10.06

Designed by N.TAMAI 2006.10.06

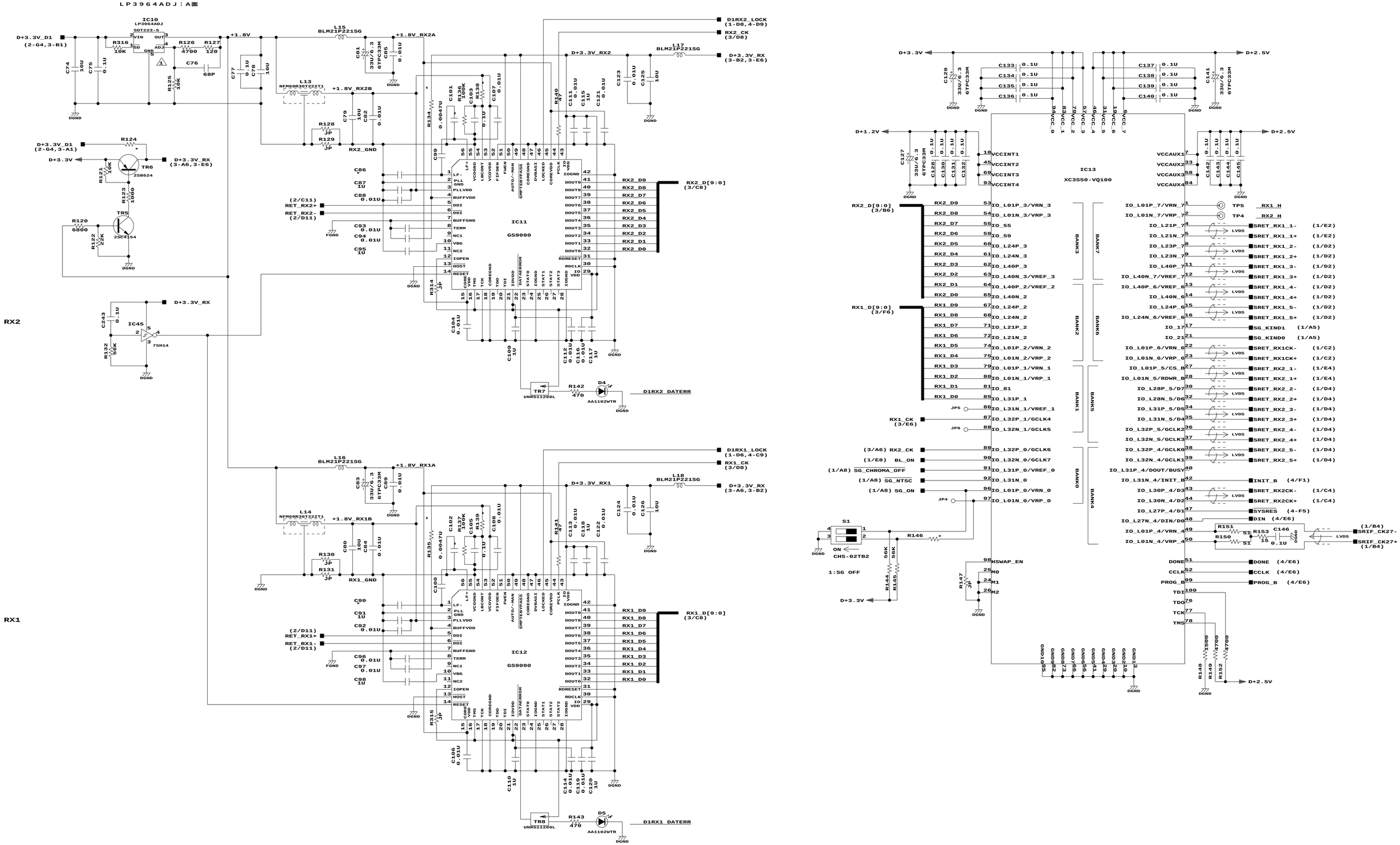
CCU-890

TITLE
SD RET IN
SCHEMATIC
(2/6)

WORK No.

DWG.No. 136 C2-247884

REV. 2



Lost No. D3

IC10-13

2/6page	2007.07.25	N.Tamai	
3/6page	2006.12.19	Y.Wakabayashi	

Ikegami

F_NAME: SRET_IN_REV2
P_LIST:
PCB_No:

NOTE
P :10 -12 M :10 -3
N :10 -9 K :10 +3
U :10 -6 MEG:10 +6

Approved by | Checked by

Drawn by N.TAMAI 2006.10.06
Designed by N.TAMAI 2006.10.06

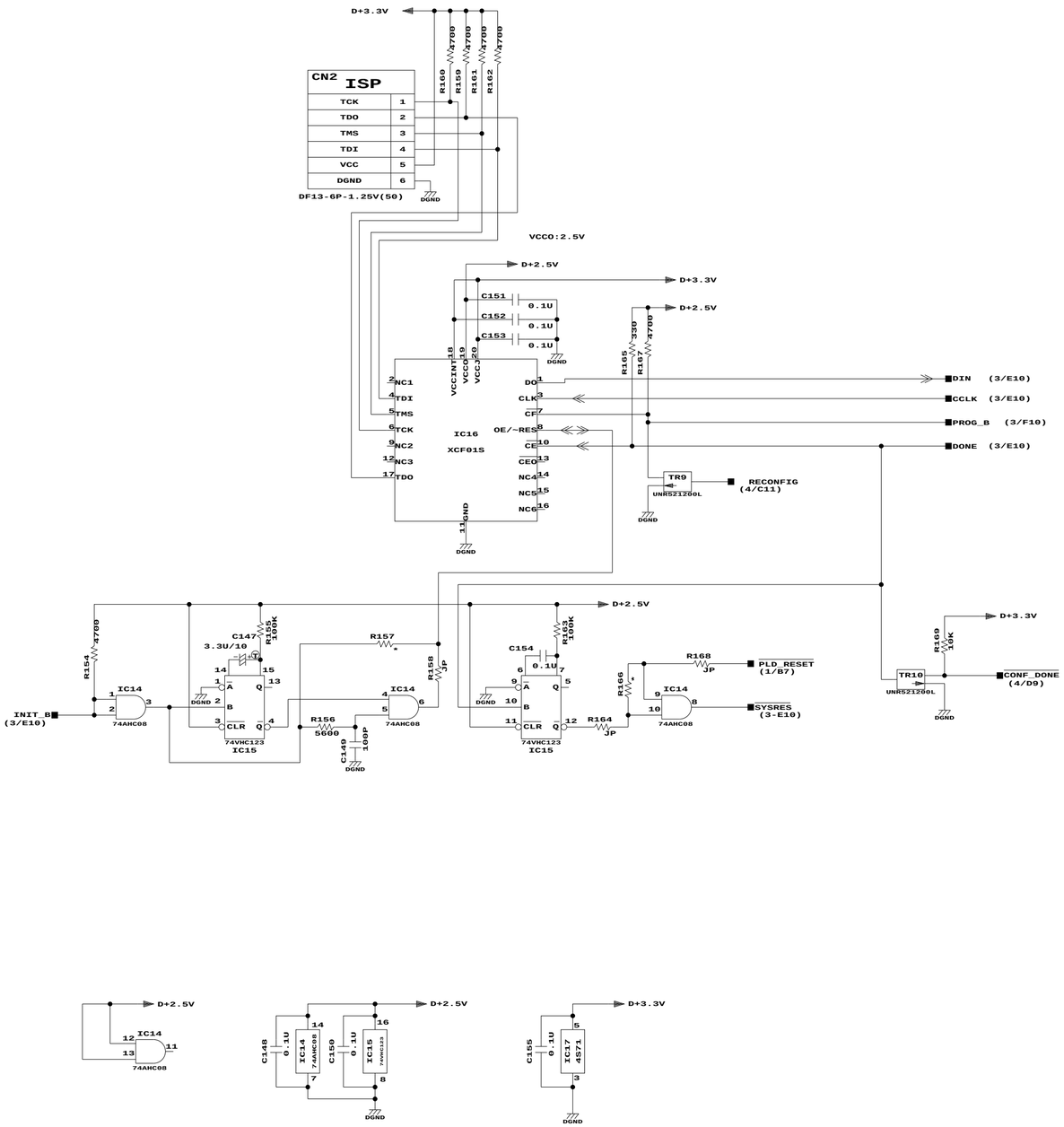
CCU-890

TITLE
SD RET IN
SCHEMATIC
(3/6)

WORK No.

DWG.No. C2-247885

REV. 2



IC14-18

2	2/6page	2007.07.25 N.Tamai
1	3/6page	2006.12.19 Y.Wakabayashi

Ikegami

F_NAME: SRET_IN_REV2
P_LIST:
PCB_No:

NOTE

P :10 -12 M :10 -3
N :10 -9 K :10 +3
U :10 -6 MEG:10 +6

Approved by | Checked by

Drawn by N.TAMAI 2006.10.06
Designed by N.TAMAI 2006.10.06

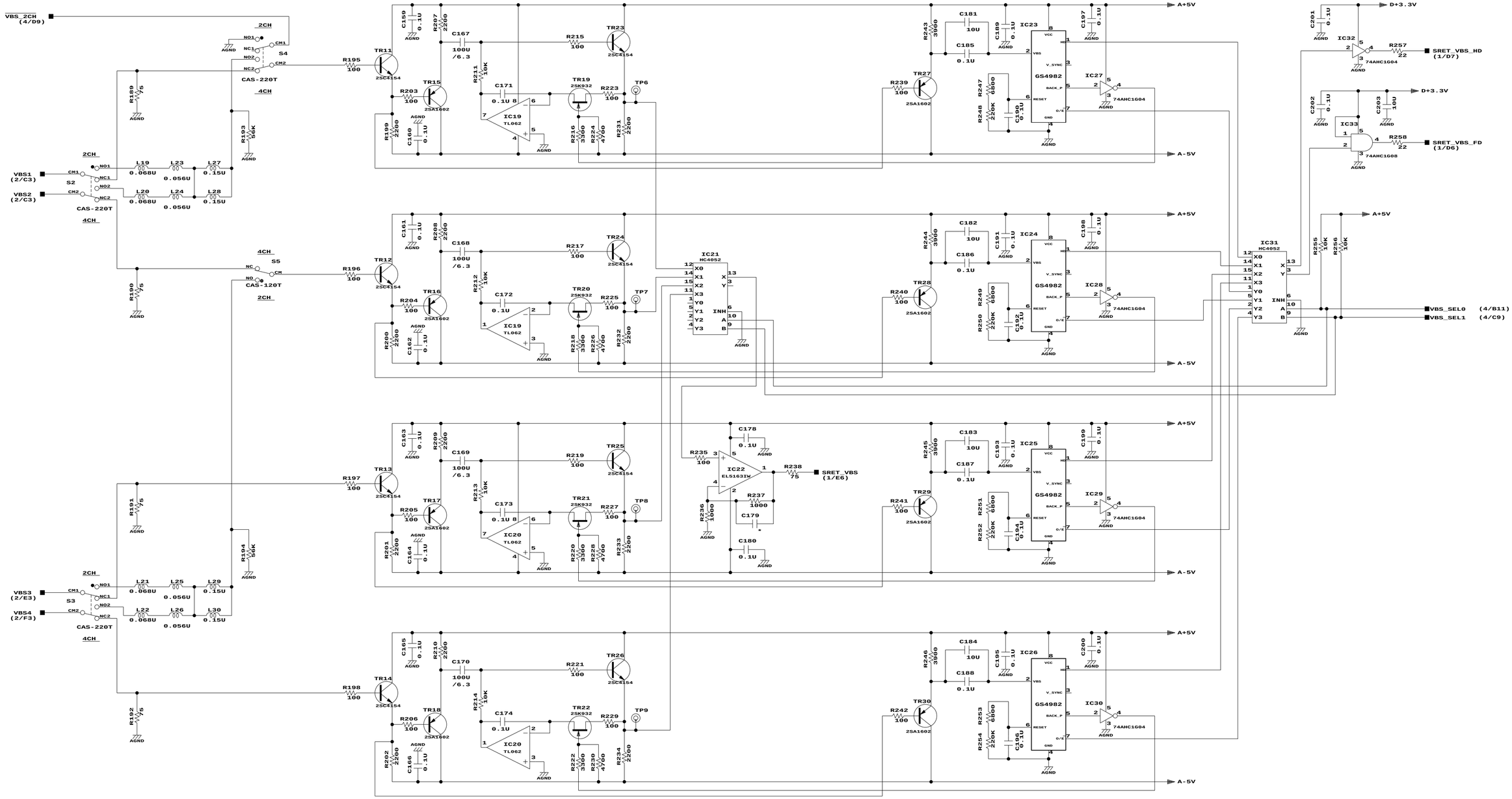
CCU-890

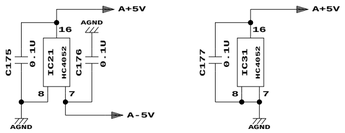
TITLE
SD RET IN
SCHEMATIC
(4/6)

WORK No.

DwG.No. C2-247886

REV. 2





2	2/6page	2007.07.25	N.Tamai
1	3/6page	2006.12.19	Y.Wakabayashi

Ikegami

F_NAME: SRET_IN_REV2
P_LIST:
PCB_No:

NOTE

P :10 -12 M :10 -3
N :10 -9 K :10 +3
U :10 -6 MEG:10 +6

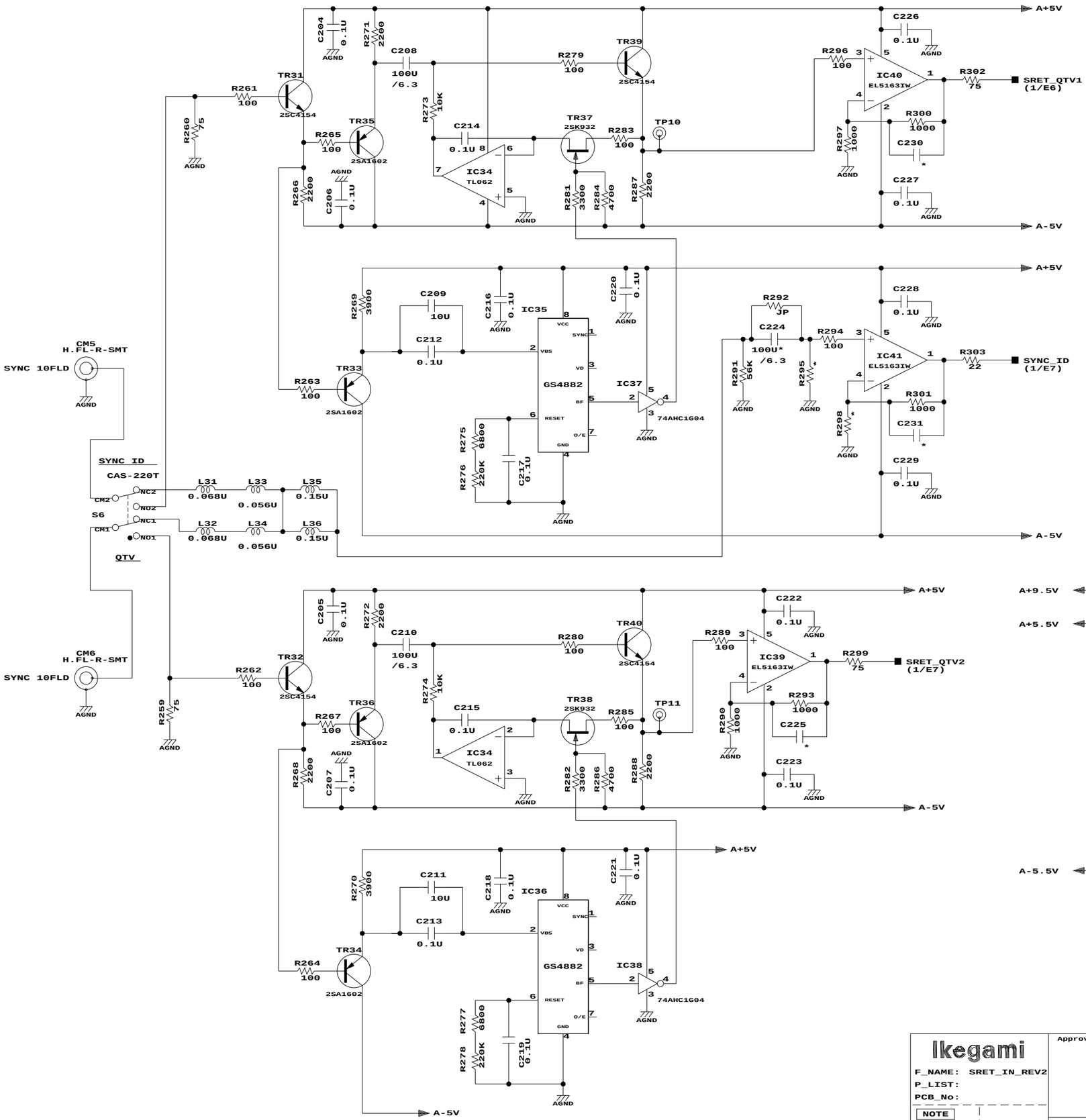
Approved by | Checked by

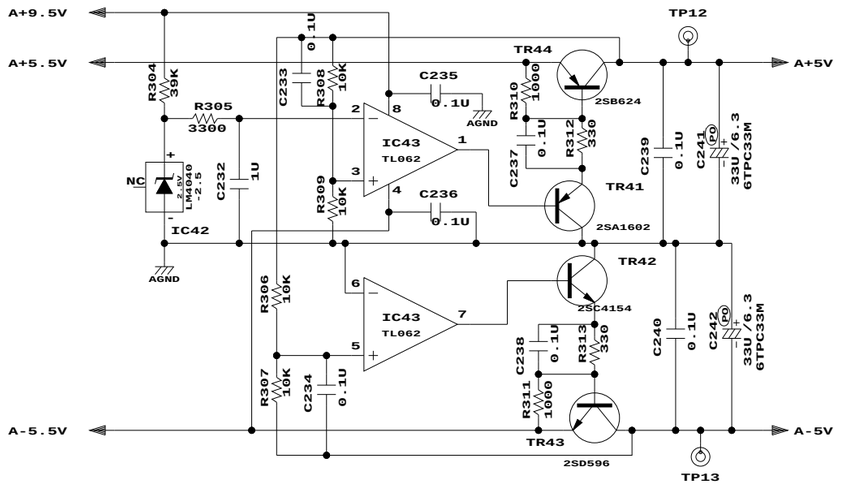
Drawn by N.TAMAI 2006.10.06
Designed by N.TAMAI 2006.10.06

CCU-890

TITLE
SD RET IN
SCHEMATIC
(5/6)

WORK No. | DWG.No. C2-247887 | REV. 2





2	2/6page	2007.07.25	N.Tamai
1	3/6page	2006.12.19	Y.Wakabayashi

Ikegami

F_NAME: SRET_IN_REV2
P_LIST:
PCB_No:

NOTE

P :10 -12 | M :10 -3
N :10 -9 | K :10 +3
U :10 -6 | MEG:10 +6

Approved by	Checked by

Drawn by N.TAMAI 2006.10.06
Designed by N.TAMAI 2006.10.06

CCU-890

TITLE
SD RET IN
SCHEMATIC
(6/6)

WORK No.

DWG.No. C3-247888

REV. 2

CCU POWER I/F-A

FRONT FUSE BOARD

F1: 50T 100H (AC100-117V)
50T 050H (AC200-240V)

F1 MAIN 10A

(CN1) BSP-VH

CN1 AC IN: AC(H) 1, AC(C) 2, SHIELD 3 — ZUG2210-11 — I/O LOCK: CM-251

MAIN POWER S1 — ABA-207-1

CN3 VHR-5N

CN5 NVR-04

(CN1) AC IN: SHIELD 1, AC IN (C) 3, AC IN (H) 4 — B04P-NV

TB1 T-375

FRONT SW BOARD

(CN2) PS HP ON: A1 ~PS_HP ON, B1 GND, A2, B2 — LY20-4P-DT1-P1 — CN6 LY10-DC4
A1 PS_HP_ON (CN101-26); B1 F_SW_GND (CN101-27)

(CN1) FRONT SW: A1 +12V IN, B1 GND, A2 SSR(+), B2 SSR(-), A3 REM P_CNT(+), B3 REM P_CNT(-), A4 HP_SW ON-OFF, B4, A5 GND, B5 — LY20-10P-DT1-P1 — CN7 LY10-DC10

IC1 AQJ410V

CN9 DF3-2S-2C

(CN2) FRONT SW: +12V 1, GND 2 — DF3-2P-2DSA

CN10 NVR-02

(CN3) SSR: AC OUT 1, AC IN 2 — B02P-NV

CCU POWER I/F-A

(CN6) 100V-117V: 1 L2 (H), 2 *, 3 L1 (H), 4 *, 5 L2 (C), 6 *, 7 L1 (C), 8 *, 9 FG — B9P-VH

(CN7) 200V-234V: 1 L2 (H), 2 *, 3 L1 (H), 4 *, 5 L2 (C), 6 *, 7 L1 (C), 8 *, 9 FG — B9P-VH

(CN8) 100/110/117V: 1 L2 (H), 3 L1 (H) — B2P-3-VH

(CN9) DUMMY-1: 1 L2 (H), 3 L1 (H) — B2P-3-VH

(CN10) DUMMY-2: 1 L2 (H), 3 L1 (H) — B2P-3-VH

CN38 VHR-9N

T1 ST-206259-1

YEL (287V), ORA (259V), BLE (234V), BRW (212V)

CN39 5196-04

(CN2) 5277-04A

F2-5: 218 005 MXP
F2 5A, F3 5A, F4 5A, F5 5A

(CN3) 5273-04A

CN40 5195-04 — CN41 5195-04

(CN12) TRANS-2(HIGH): AC287V 1, AC259V 2, AC234V 3, AC212V 4 — 5274-04A

(CN13) TRANS-2(LOW): AC27.5V 1, - 2, AC 0V 3 — 5274-03A

CN42 5195-03

CN61 VHR-2N

(CN14) TRANS-2(LOW): AC14V_H 1, AC14V_C 2 — B2P-VH

GRY, GRY, ORA, BLE, RED, BLK, WHT, BIO, YEL/GRN, GRN

CN201 VHR-3N — CN202 VHR-3N — CN203 VHR-3N

(CN15) OPT AC OUT: 1 OPT FG, 2 OPT 220V(H), 3 OPT 220V(C) — 5286-03A

(CN16) TRI AC OUT: 1 TRI FG, 2 TRI 220V(H), 3 TRI 220V(C) — 5286-03A

(CN17) LAMP: 1 AC(H), 2 AC(C) — 5282-02A

CN43 5198-03 — C_FG (CN102-5); C_AC_H (CN102-18); C_AC_C (CN102-20)

CN44 5198-03 — T_FG (CN103-15); T_AC_H (CN103-11); T_AC_C (CN103-13)

CN45 5197-02 — HEAD POWER — NL1 — LMH-7F AC110V-W

(CN18) PWR CONT: A1 FUSE NG+, B1 FUSE NG-, A2 PWR TAP1, B2 PWR TAP2, A3 PWR TAP3, B3 PWR TAP4, A4 RL DRIVE, B4 TRI RL ON, A5 OUT DRV, B5, A6 V DET, B6, A7 AC14V_H, B7 AC14V_C — LY20-14P-DT1-P1E — CN46 LY10-DC14

A1 FUSE_NG+ (CN101-35); B1 FUSE_NG- (CN101-36); A2 PWR_TAP1 (CN101-18); B2 PWR_TAP2 (CN101-19); A3 PWR_TAP3 (CN101-20); B3 PWR_TAP4 (CN101-21); A4 RL_DRV (CN101-3); B4 TRI_RL_ON (CN101-4); A5 OUT_DRV (CN101-5); A6 V_DET (CN101-2); A7 AC14V_H (CN101-1); B7 AC14V_C (CN101-34)

CN101 CONTROL — D02F-50S-FOR (D02-50P-FOR)

(CN46-A7)	AC14V_H	1
(CN46-A6)	V_DET	2
(CN46-A4)	RL_DRIVE	3
(CN46-B4)	TRI_RL_ON	4
(CN46-A5)	OUT_DRV	5
(CN48-1)	LED_+12V	6
(CN48-6)	CBL_NORM	7
(CN48-7)	CBL_OPEN	8
(CN48-B)	CBL_SHORT	9
(CN36-A1)	TRI_PWR_ON	10
		11
	INC C-PS	12
	GND	13
(CN47-A5)	R_TALLY	14
(CN47-B5)	G_TALLY	15
(CN47-A7)	PANEL_+12V	16
(CN47-B7)	PANEL_+12V_GND	17
(CN46-A2)	PWR_TAP1	18
(CN46-B2)	PWR_TAP2	19
(CN46-A3)	PWR_TAP3	20
(CN46-B3)	PWR_TAP4	21
		22
(CN48-12)	LED_GND	23
(CN48-9)	FAN_IND	24
		25
(CN6-A1)	PS_HP_ON	26
(CN6-B1)	F_SW_GND	27
		28
(CN47-B6)	TRI_IND_ON	29
(CN47-A4)	CALL	30
(CN47-B3)	O/T_SEL	31
		32
		33
(CN46-B7)	AC14V_C	34
(CN46-A1)	FUSE_NG+	35
(CN46-B1)	FUSE_NG-	36
		37
		38
(CN48-2)	OPT_ALM_R	39
(CN48-3)	OPT_ALM_Y	40
(CN48-4)	OPT_ALM_G2	41
(CN48-5)	OPT_ALM_G1	42
		43
	INC PS-C_S	44
	INC PS-C_H	45
	INC PS-C_C	46
(CN47-A3)	INC_COM/PRIV	47
(CN47-A6)	QTV_TX/RX	48
(CN47-A8)	-5.5V	49
(CN47-B8)	-5.5V_GND	50

FRONT PANEL (STD/TRI)

CN1 INCOM JACK: TALK(C) 1, TALK(H) 2, SHIELD 3, LISTEN_S 4, LISTEN 5 — DF13-5P-1.25V(50)

(CN1) — PS INCOM CN — DF13-5S-1.25C(50)

(CN2) FRONT PANEL — LY20-18P-DT1-P1 — CN47 LY10-DC18

A1 INC PS-C_H, B1 INC PS-C_C, A2 INC C-PS, B2 GND, A3 INC COM/PRIV (CN101-47), B3 OPT/TRI SEL (CN101-31), A4 CALL (CN101-30), B4 INC PS-C_S, A5 R TALLY (CN101-14), B5 G TALLY (CN101-15), A6 QTV TX/RX (CN101-48), B6 TRI IND ON (CN101-29), A7 +12V, B7 +12V_GND, A8 -5.5V, B8 -5.5V_GND, A9, B9

FRONT LED BOARD

(CN1) FRONT LED — DF13-12P-1.25V(50) — CN48 DF13-12S-1.25C(50)

1	+12V	(CN101-6)
2	OPT C ALMR	(CN101-39)
3	OPT C ALMY	(CN101-40)
4	OPT C ALMG2	(CN101-41)
5	OPT C ALMG1	(CN101-42)
6	CABLE NORMAL	(CN101-7)
7	CABLE OPEN	(CN101-8)
8	CABLE SHORT	(CN101-9)
9	FAN ALARM	(CN101-24)
10		
11		
12	GND	(CN101-23)

PS1 PBA150F-12-JN

CN13 5199-04 — (CN1) AC IN: FG 1, AC(L) 2, - 3, AC(N) 4 — 5289-4A

(CN2) DC OUT: 1 +12V, 2 +12V, 3 +12V, 4 +12V_RET, 5 +12V_RET, 6 +12V_RET — 5277-6A — CN14 5196-06

C_+12V (CN102-23,24); C_+12V_GND (CN102-22,38)

CN15 VHR-2N — (CN1) +12V IN: +12V 1, +12V GND 2 — B2PS-VH

PS2 PBA75F-3R3-JRN

CN16 5199-04 — (CN1) AC IN: FG 1, AC(L) 2, - 3, AC(N) 4 — 5289-4A

(CN2) DC OUT: 1 +3.3V, 2 +3.3V, 3 +3.3V, 4 +3.3V_RET, 5 +3.3V_RET, 6 +3.3V_RET — 5277-6A — CN17 5196-06

C_D+3.3V (CN102-6,25); C_D+3.3V_GND (CN102-7,8)

CN49 NM48-2P — CN50 NEP2-48-1P — CN51 NEP2-48-1P
C_D+3.3V_A (CN102-26); C_D+3.3V_B (CN102-39)

CN52 NM48-2P — CN53 NEP2-48-1P — CN54 NEP2-48-1P
C_D+3.3V_GND_A (CN102-40); C_D+3.3V_GND_B (CN102-41)

(CN3) B2B-XH-A — XHP-2 — CN18 — DF13-6S-1.25C

2 RC-, 1 RC+, REMOTE

CN19 — (CN2) DC CONT — DF13-6P-1.25V(50)

+3.3V_REM-, +3.3V_REM+, +5V_REM-, +5V_REM+

PS3 PBA75F-5-JRN

CN20 5199-04 — (CN1) AC IN: FG 1, AC(L) 2, - 3, AC(N) 4 — 5289-4A

(CN2) DC OUT: 1 +5V, 2 +5V, 3 +5V, 4 +5V_RET, 5 +5V_RET, 6 +5V_RET — 5277-6A — CN21 5196-06

C_D+5V (CN102-9,27); C_D+5V_GND (CN102-10,11)

CN55 NM48-2P — CN56 NEP2-48-1P — CN57 NEP2-48-1P
C_D+5V_A (CN102-28); C_D+5V_B (CN102-42)

CN58 NM48-2P — CN59 NEP2-48-1P — CN60 NEP2-48-1P
C_D+5V_GND_A (CN102-43); C_D+5V_GND_B (CN102-44)

(CN3) B2B-XH-A — XHP-2 — CN22

2 RC-, 1 RC+, REMOTE

CN11 VHR-8N — (CN4) AC/DC UNIT-1: AC_H OUT 1, AC_H OUT 2, * 3, AC_C OUT 4, AC_C OUT 5, * 6, FG 7, FG 8 — B8P-VH

CN12 VHR-8N — (CN5) AC/DC UNIT-2: AC_H OUT 1, AC_H OUT 2, * 3, AC_C OUT 4, AC_C OUT 5, * 6, FG 7, FG 8 — B8P-VH

CCU REG

(CN7) I/F PWR: A1 +12V OUT, B1 +12V_GND, A2 -9.5V OUT, B2 -9.5V_GND, A3, B3 — LY20-6P-DLT1-P1 — CN34 LY10-DC6

CN35 LY10-DC6 — (CN19) I/F PWR: +12V A1, +12V_GND B1, -9.5V A2, -9.5V_GND B2, A3, B3 — LY20-6P-DT1-P1

(CN6) CCU DC PWR: A1 TRI PWR ON, B1 FAN ALM OUT, A2 (C_+12V), B2 (C_+12V), A3 (C_+12V_GND), B3 (C_+12V_GND), A4 C_A+9.5V, B4 C_A+9.5V, A5 C_A+9.5V_GND, B5 C_A+9.5V_GND, A6 C_A-9.5V, B6 C_A-9.5V, A7 C_A-9.5V_GND, B7 C_A-9.5V_GND, A8 C_A+5.5V, B8 C_A+5.5V, A9 C_A+5.5V_GND, B9 C_A+5.5V_GND, A10 C_A-5.5V, B10 C_A-5.5V, A11 C_A-5.5V_GND, B11 C_A-5.5V_GND — LY20-22P-DLT1-P1 — CN36 LY10-DC22

TRI_PWR_ON (CN101-10)

(CN8) TRI DC PWR: A1 T_A+9.6V_GND, B1 T_A+9.6V_GND, A2 T_A+9.6V, B2 T_A+9.6V, A3 T_A-5.4V_GND, B3 T_A-5.4V_GND, A4 T_A-5.4V, B4 T_A-5.4V, A5 T_A+5.4V_GND, B5 T_A+5.4V_GND, A6 T_A+5.4V, B6 T_A+5.4V, A7 T_D+1.8V_GND, B7 T_D+1.8V_GND, A8 T_D+1.8V, B8 T_D+1.8V, A9 T_D+3.3V_GND, B9 T_D+3.3V_GND, A10 T_D+3.3V, B10 T_D+3.3V, A11 T_D+5V_GND, B11 T_D+5V_GND, A12 T_D+5V, B12 T_D+5V, A13 T_+12V_GND, B13 T_+12V_GND, A14 T_+12V, B14 T_+12V — LY20-28P-DLT1-P1 — CN37 LY10-DC28

CN103 TRI POWER — DD2F-29S-FOR (DD2-29P-FOR)

1	-
2	-
3	-
4	-
5	-
6	T_A+9.6V_GND
7	T_A-5.4V_GND
8	T_A+5.4V GND
9	T_A+9.6V
10	T_A-5.4V
11	T_AC220V(H)
12	-
13	T_AC220V(C)
14	-
15	T_FG
16	T_A+5.4V GND
17	T_D+3.3V_GND
18	T_A+5.4V
19	T_A+5.4V
20	-
21	-
22	-
23	-
24	-
25	T_D+5V_GND
26	T_+12V_GND
27	T_D+3.3V
28	T_D+5V
29	T_+12V

T_AC_H (CN44-2); T_AC_C (CN44-3); T_FG (CN44-1)

CN102 CCU POWER — DDU-50S-FOR (DDUF-50P-FOR)

1	-
2	-
3	-
4	-
5	C_FG
6	C_D+3.3V
7	C_D+3.3V_GND
8	C_D+3.3V_GND
9	C_D+5V
10	C_D+5V_GND
11	C_D+5V_GND
12	C_A+9.5V
13	C_A-9.5V
14	C_A-9.5V
15	C_A+5.5V
16	C_A-5.5V
17	C_A-5.5V
18	C_AC220V(H)
19	-
20	C_AC220V(C)
21	-
22	C_+12V_GND
23	C_+12V
24	C_+12V
25	C_D+3.3V
26	C_D+3.3V
27	C_D+5V
28	C_D+5V
29	C_A+9.5V
30	C_A+9.5V_GND
31	C_A+5.5V
32	C_A+5.5V_GND
33	FAN ALARM
34	-
35	-
36	-
37	-
38	C_+12V_GND
39	C_D+3.3V
40	C_D+3.3V_GND
41	C_D+3.3V_GND
42	C_D+5V
43	C_D+5V_GND
44	C_D+5V_GND
45	C_A+9.5V_GND
46	C_A-9.5V_GND
47	C_A-5.5V_GND
48	C_A-5.5V_GND
49	C_A-5.5V_GND
50	C_A-5.5V_GND

C_FG (CN43-1); C_D+3.3V (CN17-1,2); C_D+3.3V_GND (CN17-4,5); C_D+5V (CN21-1,2); C_D+5V_GND (CN21-4,5); C_AC_H (CN43-2); C_AC_C (CN43-3); C_+12V_GND (CN14-5,6); C_+12V (CN14-2,3); C_D+3.3V_A (CN50); C_D+5V_A (CN56); C_D+3.3V_B (CN51); C_D+3.3V_GND_A (CN52); C_D+3.3V_GND_B (CN54); C_D+5V_B (CN57); C_D+5V_GND_A (CN59); C_D+5V_GND_B (CN60)

(CN3) FAN1 — DF13-3P-1.25V(50) — CN28 DF13-3S-1.25C — DF3-3S-2C — CN27 — DF3-3EP-2C — CN26

FAN1 +12V, FAN1 ALM, FAN1 RET

MF1 POWER BOX REAR — 109P0912H4D01 Guard : 109-099C

(CN4) FAN2 — DF13-3P-1.25V(50) — CN31 DF13-3S-1.25C — DF3-3S-2C — CN30 — DF3-3EP-2C — CN29

FAN2 +12V, FAN2 ALM, FAN2 RET

MF2 POWER BOX SIDE-1 — 109P0412H7D01

MF3 POWER BOX SIDE-2 — 109P0412H7D01

CN23 — DF3-3EP-2C — CN24 — DF3-3S-1.25C — CN25

(CN5) FAN3 — DF13-3P-1.25V(50)

FAN3 +12V, FAN3 ALM, FAN3 RET

1st Edition OSD (U)(E)

2007.12.13	T.KUROKAWA
2007.6.11	T.KUROKAWA
2007.1.29	T.KUROKAWA

Ikegami

Approved by | Checked by

F_NAME:
P_LIST:
PCB_No:

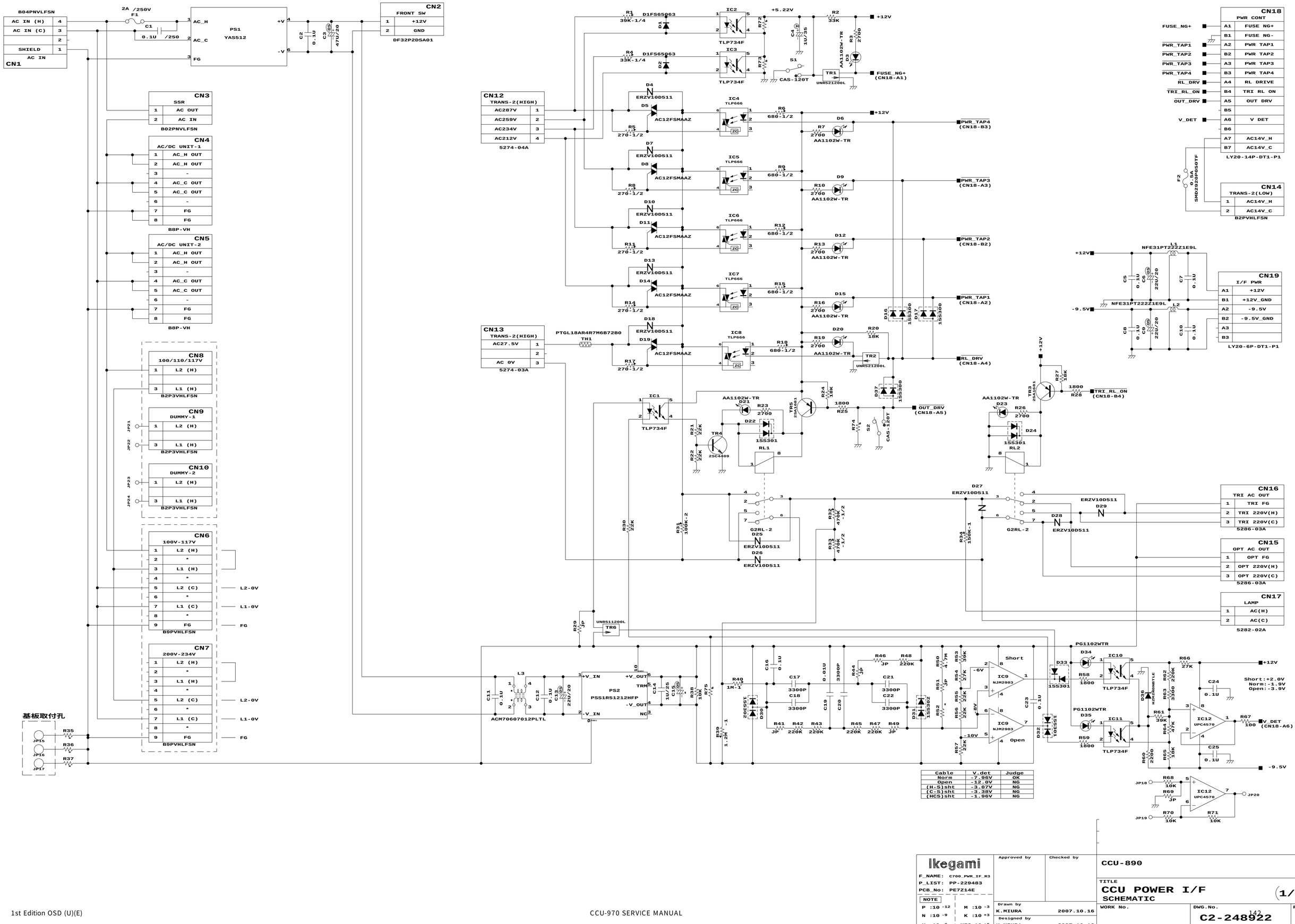
NOTE
P :10^-12 M :10^-3
N :10^-9 K :10^3
U :10^-6 MEG:10^6

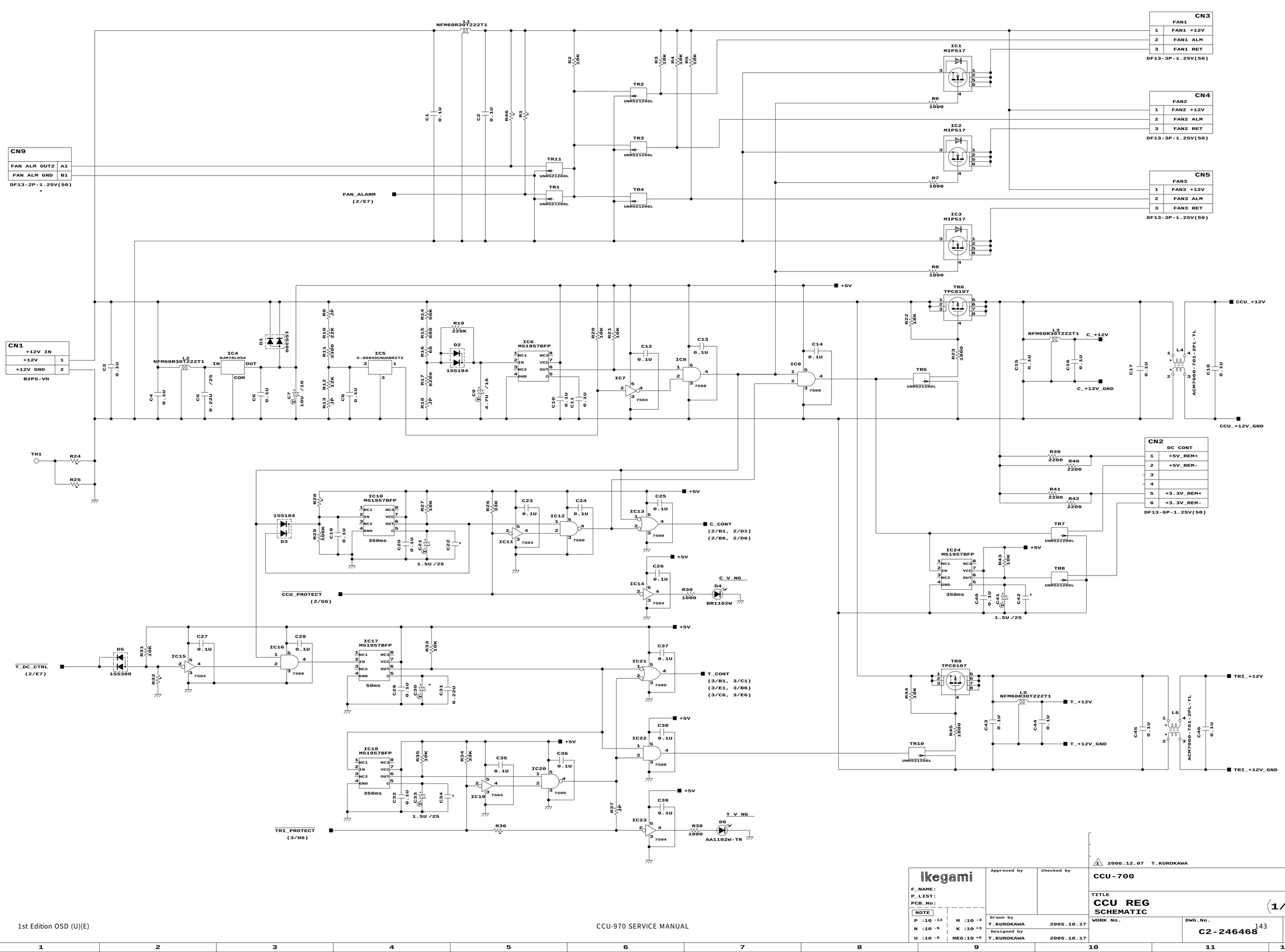
Drawn by T.KUROKAWA 2006.1.18
Designed by T.KUROKAWA 2006.1.18

CCU-890

TITLE
CCU POWER GENERAL(J/U) SCHEMATIC (1/1)

WORK No. | DWG.No. C1-2464661 | REV. 3


B04PNVLFSN
AC IN (H) 4
AC IN (C) 3
2
SHIELD 1
AC IN
CN1
2A /250V
F1
C1
0.1U /250
PS1
YAS512
AC_H
AC_C
FG
+V
-V
C2 0.1U
C3 47U/20
CN2
FRONT SW
1 +12V
2 GND
DF32P2DSA01
CN3
SSR
1 AC OUT
2 AC IN
B02PNVLFSN
CN4
AC/DC UNIT-1
1 AC_H OUT
2 AC_H OUT
3 -
4 AC_C OUT
5 AC_C OUT
6 -
7 FG
8 FG
B8P-VH
CN5
AC/DC UNIT-2
1 AC_H OUT
2 AC_H OUT
3 -
4 AC_C OUT
5 AC_C OUT
6 -
7 FG
8 FG
B8P-VH
CN8
100/110/117V
1 L2 (H)
3 L1 (H)
B2P3VHLFSN
CN9
DUMMY-1
1 L2 (H)
3 L1 (H)
B2P3VHLFSN
JP21
JP22
CN10
DUMMY-2
1 L2 (H)
3 L1 (H)
B2P3VHLFSN
JP23
JP24
CN6
100V-117V
1 L2 (H)
3 L1 (H)
5 L2 (C)
7 L1 (C)
9 FG
B9PVHLFSN
L2-0V
L1-0V
FG
CN7
200V-234V
1 L2 (H)
3 L1 (H)
5 L2 (C)
7 L1 (C)
9 FG
B9PVHLFSN
L2-0V
L1-0V
FG
基板取付孔
JP15
JP16
JP17
R35
R36
R37
CN12
TRANS-2(HIGH)
AC287V 1
AC259V 2
AC234V 3
AC212V 4
5274-04A
CN13
TRANS-2(HIGH)
AC27.5V 1
2
AC 0V 3
5274-03A
PTGL18AR4R7M6B72B0
TH1
ACM7060T012PLTL
L3
C11 0.1U
C12
C13 0.1U
PS2
PSS1R51212HFP
+V_IN
-V_IN
+V_OUT
TRM
-V_OUT
NC
C14 10/25
C15 47U/20
R38 10K
R75
R39 1.2M -1
R40 1M-1
R29 JP
UNR511200L
TR6
D1 D1FS65063
R1 39K-1/4
R4 33K-1/4
D4 ERZV10D511
D5 AC12FSMAAZ
R5 270-1/2
D7 ERZV10D511
D8 AC12FSMAAZ
R8 270-1/2
D10 ERZV10D511
D11 AC12FSMAAZ
R11 270-1/2
D13 ERZV10D511
D14 AC12FSMAAZ
R14 270-1/2
D18 ERZV10D511
D19 AC12FSMAAZ
R17 270-1/2
IC1 TLP734F
R21 22K
R22 22K
TR4 2SC4409
IC2 TLP734F
IC3 TLP734F
R72
R73
S1 CAS-120T
C4 1U/35
R2 33K
R3 2700
AA1102W-TR
D3
TR1 UNR521200L
+5.22V
+12V
FUSE_NG+ (CN18-A1)
IC4 TLP666
IC5 TLP666
IC6 TLP666
IC7 TLP666
IC8 TLP666
R6 680-1/2
R9 680-1/2
R12 680-1/2
R15 680-1/2
R18 680-1/2
ZC
R7 2700
R10 2700
R13 2700
R16 2700
R19 2700
D6
D9
D12
D15
D20
AA1102W-TR
PWR_TAP4 (CN18-B3)
PWR_TAP3 (CN18-A3)
PWR_TAP2 (CN18-B2)
PWR_TAP1 (CN18-A2)
R20 18K
TR2 UNR521200L
RL_DRV (CN18-A4)
D16 1SS300
D17 1SS300
D37 1SS300
R24 18K
TR5 2SA1691
R25 1800
R74
S2 CAS-120T
OUT_DRV (CN18-A5)
D21 AA1102W-TR
R23 2700
D22
1SS301
RL1
R30 22K
R31 100K-2
R32 470K-1/2
R33 470K-1/2
G2RL-2
D25 ERZV10D511
D26 ERZV10D511
D27 ERZV10D511
D28 ERZV10D511
D29 ERZV10D511
R34 100K-1
D23 AA1102W-TR
R26 2700
D24
1SS301
RL2
R27 10K
TR3 2SA1691
R28 1800
TRI_RL_ON (CN18-B4)
CN18
PWR CONT
A1 FUSE NG+
B1 FUSE NG-
A2 PWR TAP1
B2 PWR TAP2
A3 PWR TAP3
B3 PWR TAP4
A4 RL DRIVE
B4 TRI RL ON
A5 OUT DRV
B5
A6 V DET
B6
A7 AC14V_H
B7 AC14V_C
LY20-14P-DT1-P1
F2 0.5A SMD2920P050TF
CN14
TRANS-2(LOW)
1 AC14V_H
2 AC14V_C
B2PVHLFSN
CN19
I/F PWR
A1 +12V
B1 +12V_GND
A2 -9.5V
B2 -9.5V_GND
A3
B3
LY20-6P-DT1-P1
L1 NFE31PT222Z1E9L
L2 NFE31PT222Z1E9L
C5 0.1U
C6 22U/20
C7 0.1U
C8 0.1U
C9 22U/20
C10 0.1U
CN16
TRI AC OUT
1 TRI FG
2 TRI 220V(H)
3 TRI 220V(C)
5286-03A
CN15
OPT AC OUT
1 OPT FG
2 OPT 220V(H)
3 OPT 220V(C)
5286-03A
CN17
LAMP
1 AC(H)
2 AC(C)
5282-02A
C16 0.1U
C17 3300P
C18 3300P
C19 0.01U
C20 3300P
C21 3300P
C22 3300P
C23 0.1U
R41 JP
R42 220K
R43 220K
R44 JP
R45 220K
R46 JP
R47 220K
R48 220K
R49 JP
R50 4.7M
R51 JP
R52 *
R53 39K
R54 27K
R55 22K
R56 22K
R57 22K
IC9 NJM2903
Short
Open
-6V
-10V
D30 1SS302
D31 1SS302
D32 1SS301
D33 1SS301
PG1102WTR
D34
D35
IC10 TLP734F
IC11 TLP734F
R58 1800
R59 1800
R66 27K
R62 220K
R63 3300
R64 47K
R65 10K
R60 2200
R61 39K
D36 HZM5.6NBTLE
IC12 UPC4570
C24 0.1U
C25 0.1U
R67 100
R68 10K
R69 JP
R70 10K
R71 10K
JP18
JP19
JP20
+12V
-9.5V
V_DET (CN18-A6)
Short:+2.0V
Norm:-1.9V
Open:-3.9V
Cable | V.det | Judge
Norm | -7.96V | OK
Open | -12.0V | NG
(H-S)sht | -3.07V | NG
(C-S)sht | -3.38V | NG
(HCS)sht | -1.96V | NG
Ikegami
F_NAME: C700_PWR_IF_R3
P_LIST: PP-229483
PCB_No: PE7Z14E
NOTE
P :10 -12
N :10 -9
U :10 -6
M :10 -3
K :10 +3
MEG:10 +6
Approved by
Checked by
Drawn by K.MIURA 2007.10.16
Designed by K.MIURA 2007.10.16
CCU-890
TITLE
CCU POWER I/F
SCHEMATIC
(1/1)
WORK No.
DWG.No. C2-248922
REV. *



Ikegami	Approved by / Checked by
F_NAME:	
P_LIST:	
PCB_No:	
NOTE	
P :10 -12 / M :10 -3	Drawn by T.KUROKAWA 2005.10.17
N :10 -9 / K :10 +3	Designed by T.KUROKAWA 2005.10.17
U :10 -6 / MEG:10 +6	

⚠1 2006.12.07 T.KUROKAWA

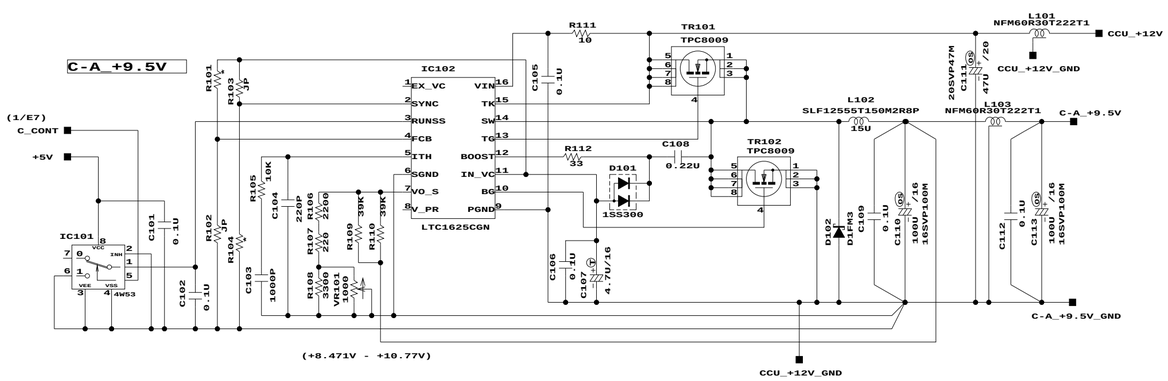
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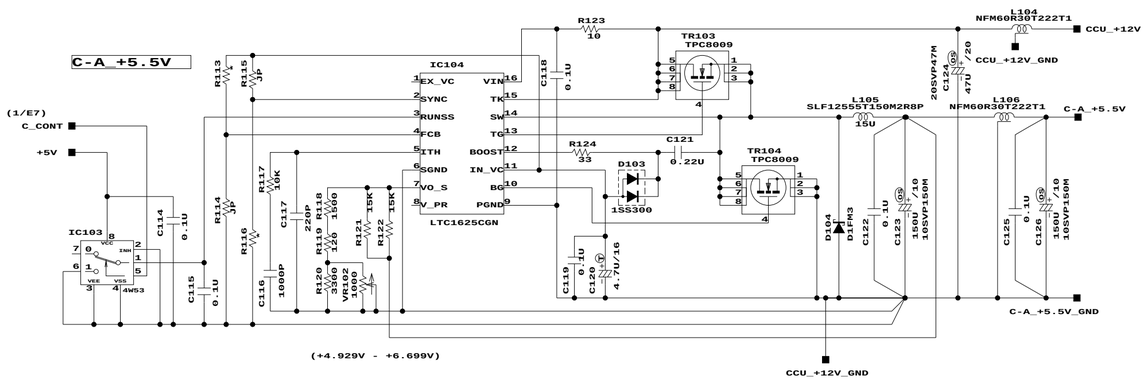
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CCU REG
SCHEMATIC
(1/3)

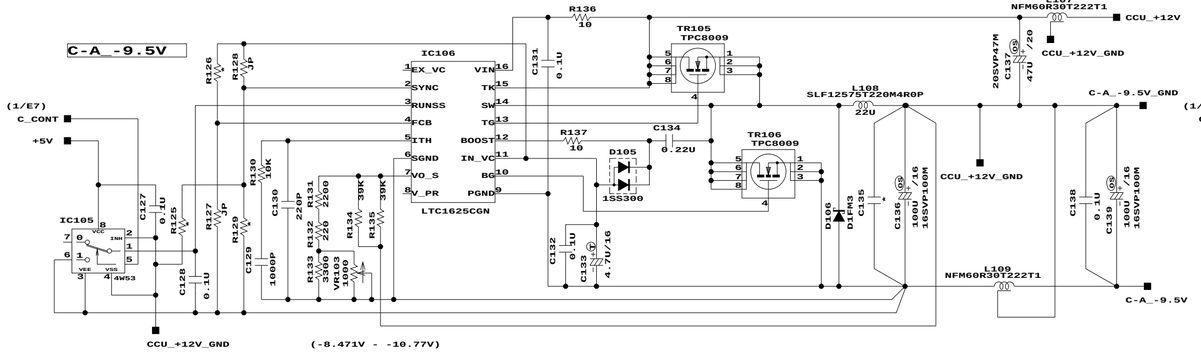
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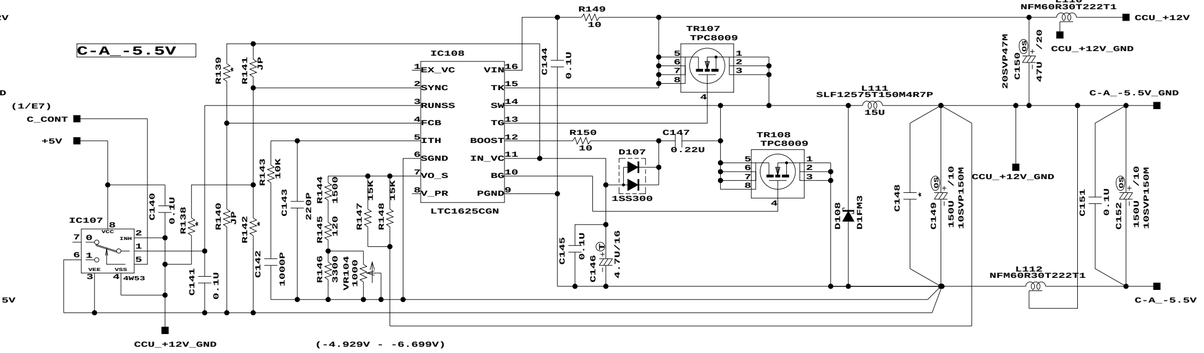
DWG.No. C2-246468

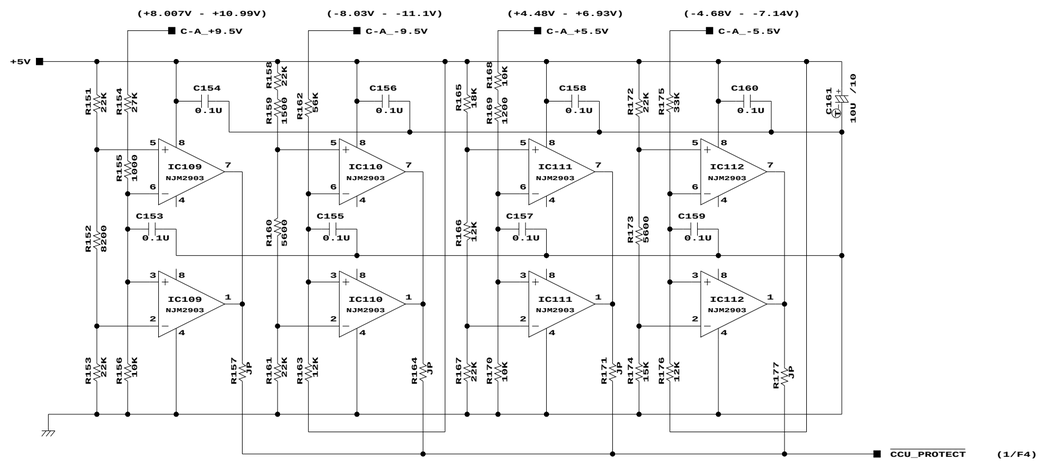
REV. 1

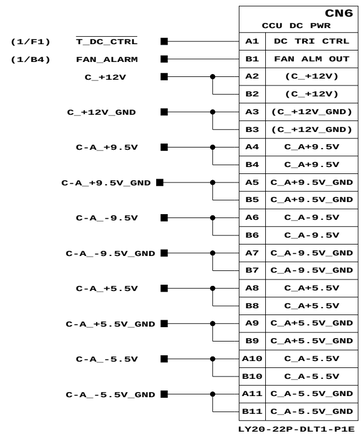


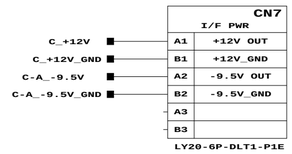












Ikegami	Approved by	Checked by
F_NAME:		
P_LIST:		
PCB_No:		
NOTE	Drawn by T.KUROKAWA 2005.10.17	
P :10 -12, M :10 -3, N :10 -9, K :10 +3, U :10 -6, MEG:10 +6	Designed by T.KUROKAWA 2005.10.17	

△1 2006.12.07 T.KUROKAWA

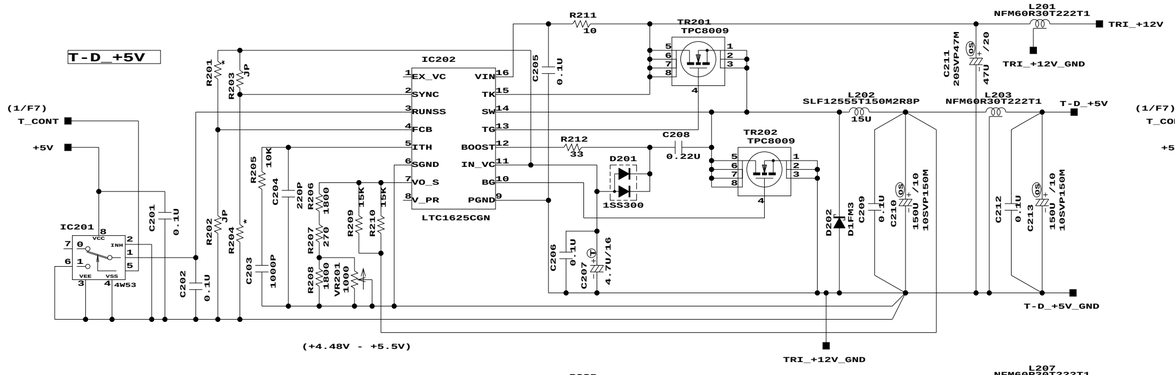
CCU-700

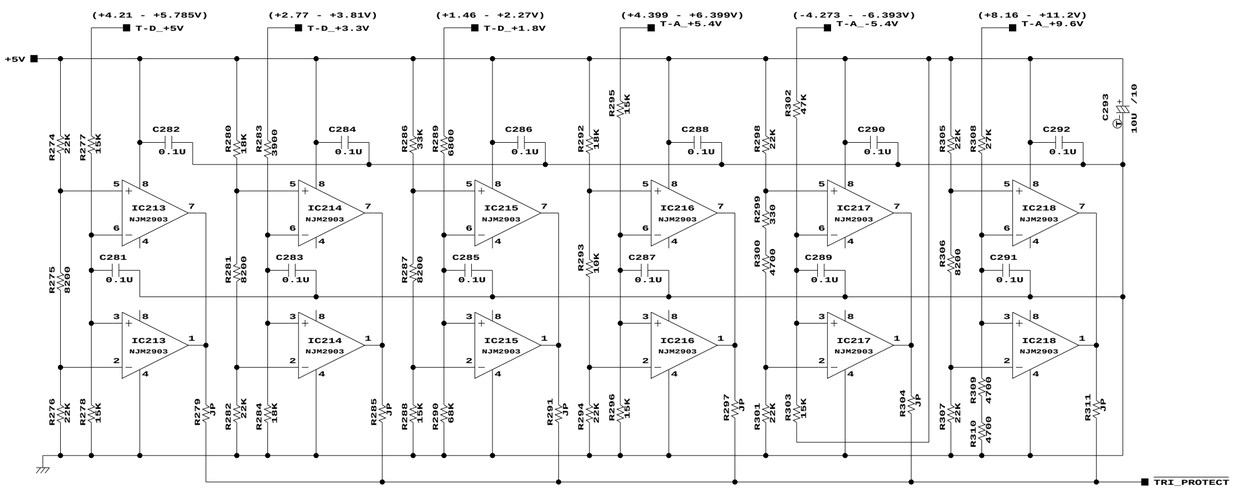
TITLE: CCU REG SCHEMATIC (2/3)

WORK No.

DWG.No. C2-246469 144

REV. 1



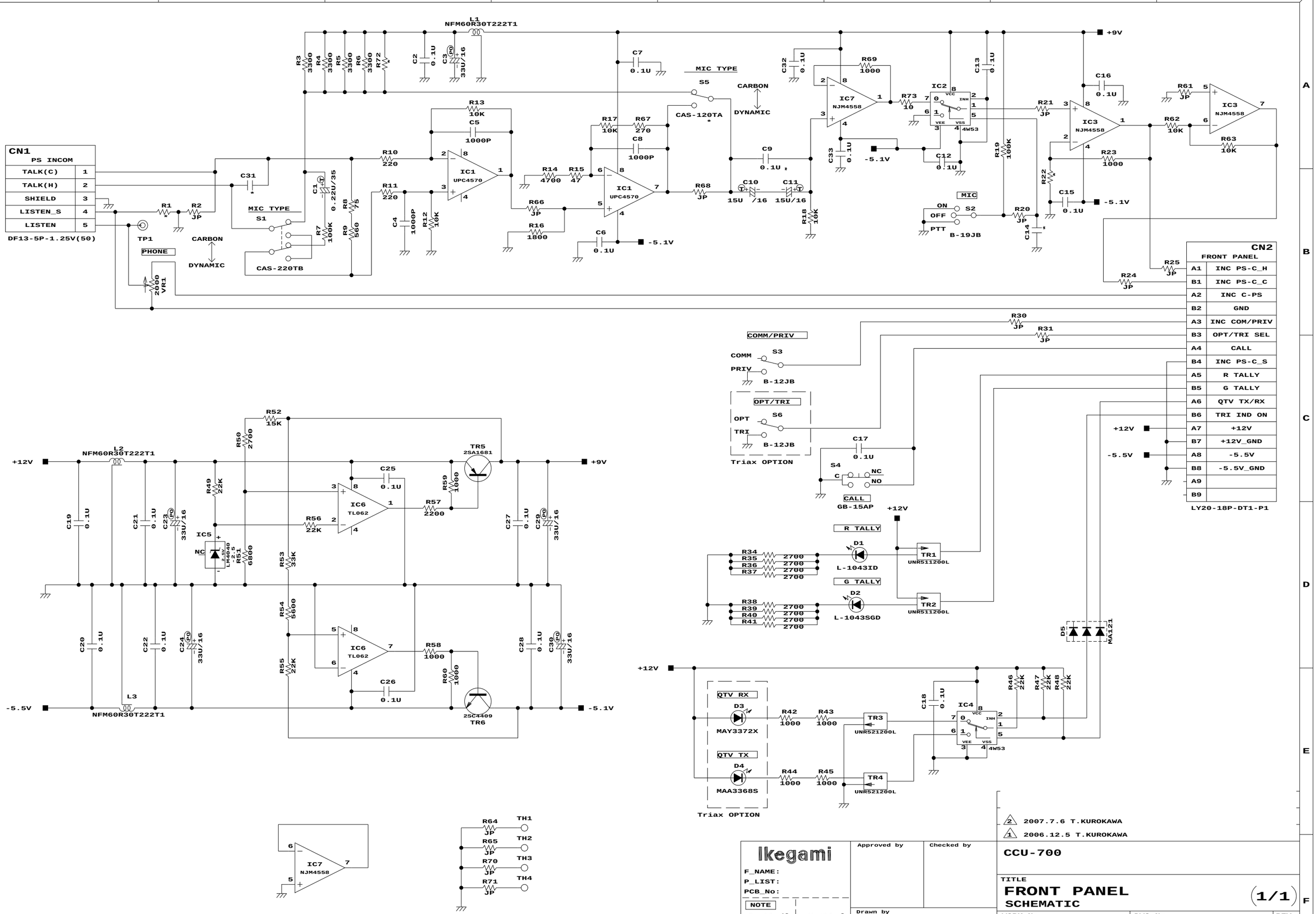


CN8 TRI DC PWR		
T-A_+9.6V_GND	A1	T_A+9.6V_GND
	B1	T_A+9.6V_GND
T-A_+9.6V	A2	T_A+9.6V
	B2	T_A+9.6V
T-A_-5.4V_GND	A3	T_A-5.4V_GND
	B3	T_A-5.4V_GND
T-A_-5.4V	A4	T_A-5.4V
	B4	T_A-5.4V
T-A_+5.4V_GND	A5	T_A+5.4V_GND
	B5	T_A+5.4V_GND
T-A_+5.4V	A6	T_A+5.4V
	B6	T_A+5.4V
T-D_+1.8V_GND	A7	T_D+1.8V_GND
	B7	T_D+1.8V_GND
T-D_+1.8V	A8	T_D+1.8V
	B8	T_D+1.8V
T-D_+3.3V_GND	A9	T_D+3.3V_GND
	B9	T_D+3.3V_GND
T-D_+3.3V	A10	T_D+3.3V
	B10	T_D+3.3V
T-D_+5V_GND	A11	T_D+5V_GND
	B11	T_D+5V_GND
T-D_+5V	A12	T_D+5V
	B12	T_D+5V
T_+12V_GND	A13	T_+12V_GND
	B13	T_+12V_GND
T_+12V	A14	T_+12V
	B14	T_+12V

LY20-28P-DLT1-P1E

Ikegami	Approved by	Checked by	CCU-700
F_NAME:			TITLE: CCU REG SCHEMATIC (3/3)
P_LIST:			
PCB_NO:			
NOTE: P :10 -12, N :10 -9, U :10 -6, M :10 -3, K :10 +3, MEG:10 +6	Drawn by T.KUROKAWA 2005.10.17		WORK No. / DWG.No. C2-246470 / REV. 1
	Designed by T.KUROKAWA 2005.10.17		

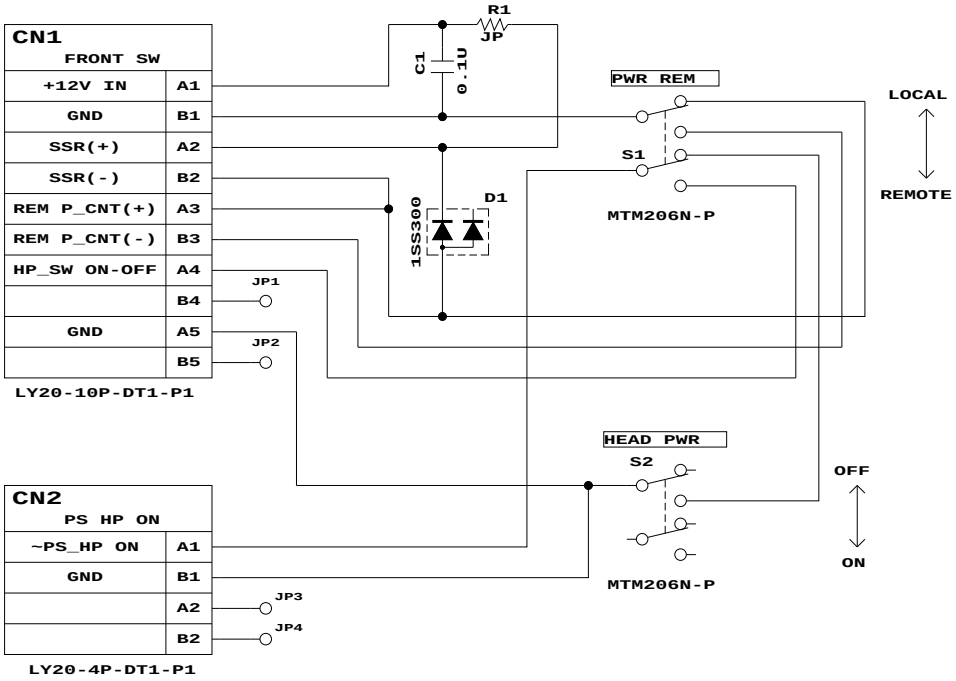
△1 2006.12.07 T.KUROKAWA



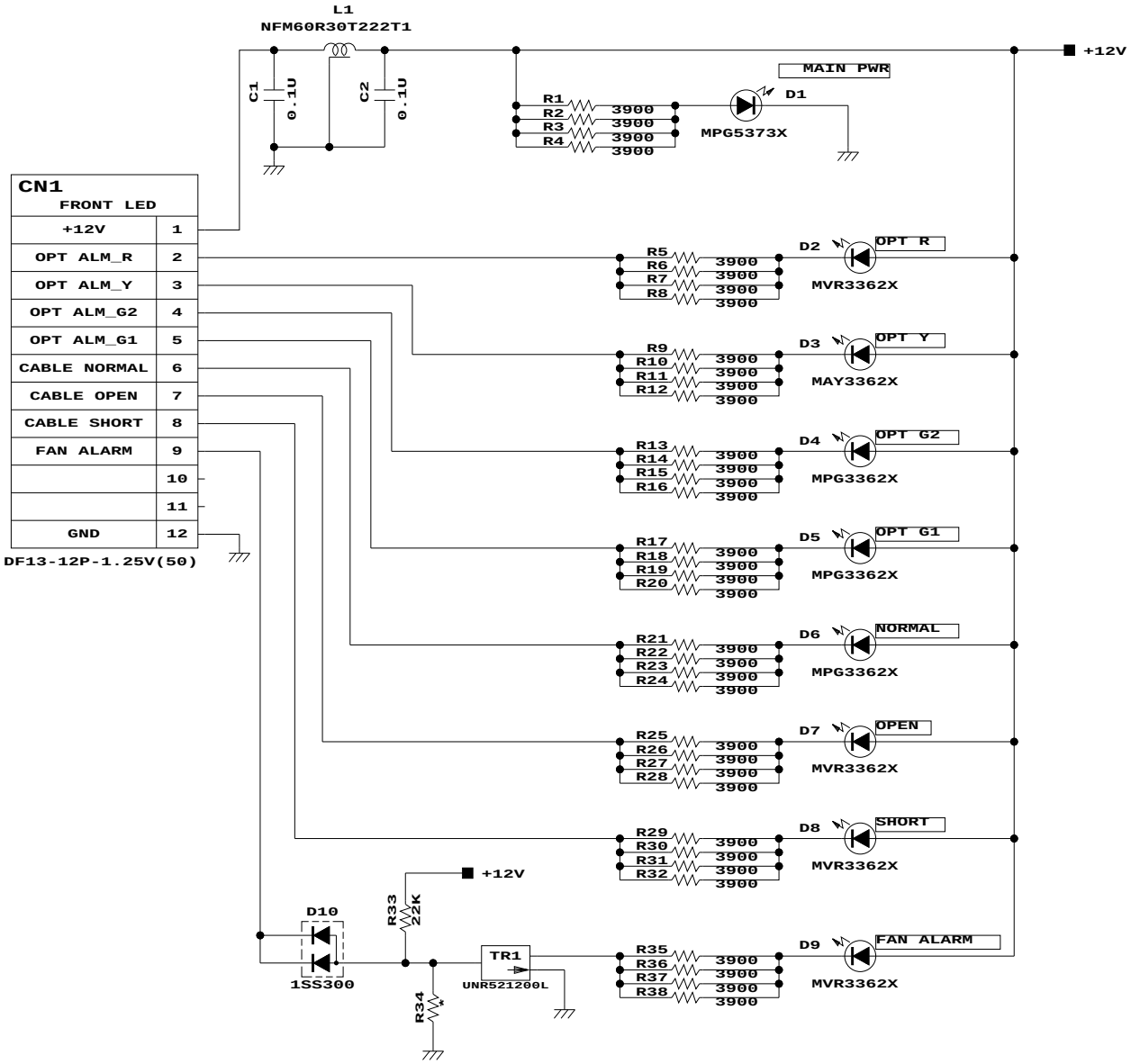
2 2007.7.6 T.KUROKAWA

1 2006.12.5 T.KUROKAWA

Ikegami	Approved by	Checked by	CCU-700
F_NAME: P_LIST: PCB_No:			TITLE: FRONT PANEL SCHEMATIC (1/1)
NOTE: P :10 -12, N :10 -9, U :10 -6, M :10 -3, K :10 +3, MEG:10 +6	Drawn by T.KUROKAWA 2005.11.16	Designed by T.KUROKAWA 2005.11.16	WORK No. / DWG.No. C3-246474 / REV. 2

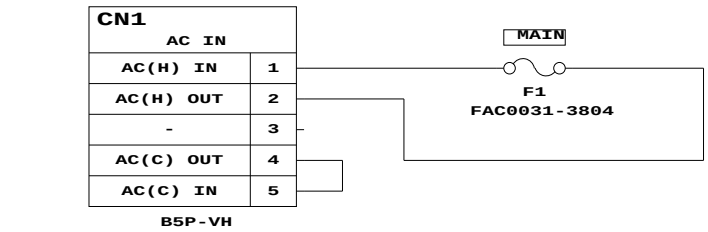


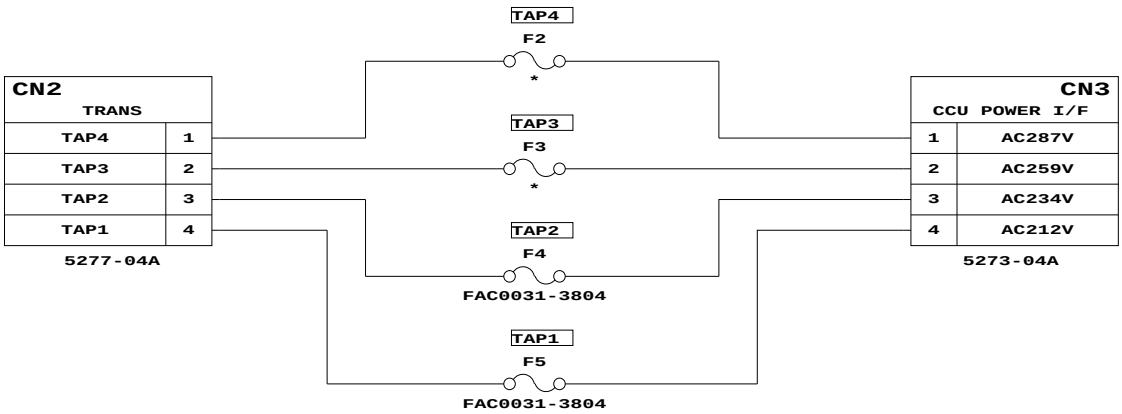
Ikegami	Approved by	Checked by	1 2007.11.08 T.KUROKAWA
F_NAME:			CCU-890
P_LIST:			TITLE
PCB_No:			FRONT SW BOARD SCHEMATIC (1/1)
NOTE P :10 -12 M :10 -3 N :10 -9 K :10 +3 U :10 -6 MEG:10 +6	Drawn by T.KUROKAWA 2005.10.10 Designed by T.KUROKAWA 2005.10.10		WORK No. / DWG.No. C4-246471 / REV. 1



1 2007.1.20 T.KUROKAWA

Ikegami F_NAME: P_LIST: PCB_No:	Approved by	Checked by	CCU-700
NOTE P :10 -12 M :10 -3 N :10 -9 K :10 +3 U :10 -6 MEG:10 +6	Drawn by T.KUROKAWA 2005.10.18 Designed by T.KUROKAWA 2005.10.18		TITLE FRONT LED BOARD SCHEMATIC (1/1) WORK No. DWG.No. C4-246472 REV.





Ikegami	Approved by / Checked by	CCU-890
F_NAME: P_LIST: PCB_No: PE7705E		TITLE: FRONT FUSE BOARD-A SCHEMATIC (1/1)
NOTE: P :10 -12, M :10 -3, N :10 -9, K :10 +3, U :10 -6, MEG:10 +6	Drawn by T.KUROKAWA 2007.11.20 / Designed by T.KUROKAWA 2007.11.20	WORK No. / DWG.No. C4-248997 / REV. -

CCU-970 Camera Control Unit

SERVICE MANUAL

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