

Service Manual

3922 496 31431
Version: 10.04.04

LDK 8080
Camera Head HD



grass valley

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Declaration of Conformity

We, Grass Valley Nederland B.V., Kapittelweg 10, 4827 HG Breda, The Netherlands declare under our sole responsibility that this product is in compliance with the following standards:

- EN60950-1 : Safety
- EN55103-1 : EMC (Emission)
- EN55103-2 : EMC (Immunity)

following the provisions of:

- a. low voltage directive 2006/95/EC
- b. EMC directive 2004/108/EC.

FCC Class A Statement

This product generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause interference to radio communications.

It has been tested and found to comply with the limits for a class A computing device pursuant to Subpart J of part 15 of FCC rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment.

Operation of this product in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

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Safety Summary

This information is intended as a guide for trained and qualified personnel who are aware of the dangers involved in handling potentially hazardous electrical/electronic equipment. It is not intended to contain a complete list of all safety precautions which should be observed by personnel in using this or other electronic equipment.

The installation, maintenance and service of this equipment involves risks both to personnel and equipment and must be performed only by qualified personnel exercising due care.

Personnel engaged in the installation, operation, maintenance or servicing of this equipment are urged to become familiar with First Aid theory and practices.

During installation and operation of this equipment, local building safety and fire protection standards must be observed.

Before connecting the equipment to the power supply of the installation, the proper functioning of the protective earth lead of the installation needs to be verified.

Whenever it is likely that safe operation is impaired, the apparatus must be made inoperative and secured against any unintended operation. The appropriate servicing authority must then be informed. For example, safety is likely to be impaired if the apparatus fails to perform the intended function or shows visible damage.

CAUTION

Double pole/neutral fusing

To prevent risk of overheating, ventilate the product correctly.

Connect the product only to a power source with the specified voltage rating.

Only connect a Triax cable from the LDK 6 camera family to an LDK 6 CPU. Never connect it to any other base station.

Never connect the Triax cable from a camera to a CPU of a different family; never connect the LDK family to the TTV family.

Do not allow system ground currents to exceed 1.5A in the outer shield of the triax cable or 0.2A in other cable shields.

It is strictly prohibited to short circuit the inner and outer shields of a triax cable used to connect a camera to a base station.

Cautions and Warnings

When performing service, be sure to read and comply with the warning and caution notices appearing in the manuals. Warnings indicate danger that requires correct procedures or practices to prevent death or injury to personnel. Cautions indicate procedures or practices that should be followed to prevent damage or destruction to equipment or property.

WARNING

THE CURRENT AND VOLTAGES PRESENT IN THIS EQUIPMENT ARE DANGEROUS. ALL PERSONNEL MUST AT ALL TIMES FOLLOW THE SAFETY REGULATIONS.

ALWAYS DISCONNECT POWER BEFORE REMOVING COVERS OR PANELS.

ALWAYS DISCHARGE HIGH VOLTAGE POINTS BEFORE SERVICING.

NEVER MAKE INTERNAL ADJUSTMENTS, PERFORM MAINTENANCE OR SERVICE WHEN ALONE OR WHEN FATIGUED.

IN CASE OF AN EMERGENCY ENSURE THAT THE POWER IS DISCONNECTED.

ANY INTERRUPTION OF THE PROTECTION CONDUCTOR INSIDE OR OUTSIDE THE APPARATUS, OR DISCONNECTION OF THE PROTECTIVE EARTH TERMINAL, IS LIKELY TO MAKE THE APPARATUS DANGEROUS. INTENTIONAL INTERRUPTION IS PROHIBITED.

FOR SAFETY REASONS THE CPU MUST BE MOUNTED IN A 19-inch RACK WHICH HAS SAFETY COVERS ACCORDING TO IEC65.

WHEN TWO CPUs ARE MOUNTED ABOVE EACH OTHER THE MINIMUM DISTANCE BETWEEN THEM MUST BE 50MM OR THE RACK MUST BE FORCE-AIR COOLED.

USE ONLY FUSES OF THE TYPE AND RATING SPECIFIED.

Symbol	Colour	Explanation
	Red	High voltage terminal at which a voltage, with respect to an other terminal, exists or may be adjusted to 1000V or more.
	Yellow/Black	Live part.
	Yellow/Black	This marking indicates that the operator must refer to an explanation in the Instruction Manual, or that a specific component must be replaced by the component specified in the documentation for safety reasons.
	White/Black	Protective earth (ground) terminal.

Cathode ray tubes

Components marked  on the circuit diagram are critical for safety and include those specified to comply with X-ray emission standards for units using cathode ray tubes and those specified for compliance with various regulations regarding spurious radiation emission.

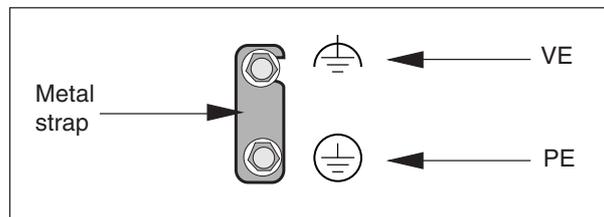
When servicing units that use cathode ray tubes (CRTs), the cathode ray tubes themselves, the high voltage circuits and related circuits are specifically chosen so that they comply with recognized codes pertaining to X-ray emission.

Consequently, when servicing, replace the cathode ray tubes and other parts with specified parts only. Do not attempt to modify these circuits as any unauthorized modification can increase the high voltage value and cause X-ray emission from the cathode ray tube.

Handle the cathode ray tube only when wearing shatterproof goggles and after discharging the high voltage completely.

Earthing

The rear of a CPU has two separate screw terminals for protective earth  (PE) and video earth  (VE).



These are normally connected by a metal strap. The protective earth terminal is internally connected to the protective earth conductor of the power cable. If required, the central earth connection wire of the studio can be connected to terminal PE.

In normal circumstances the connection between the protective earth and the video earth should not be broken.

The metal strap may be removed only if the studio (or OB van) is equipped with separate protective and video earth systems. Under these circumstances the video earth terminal must be connected to the central functional earth potential (video earth) of the studio. This earth potential should have functional protective and noiseless earth (FPE) qualities as stated in the VDE regulation 0800/part2. A low impedance interconnection of both earth conductors must be provided at the central studio earthing point.

WARNING

THE UNIT MUST ALWAYS BE CONNECTED TO PROTECTIVE EARTH.

Mains Lead Wiring for UK Users

The wires in the mains lead are coloured in accordance with the following code:

GREEN AND YELLOW	-	EARTH
BLUE	-	NEUTRAL
BROWN	-	LIVE

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:

- The wire coloured GREEN AND YELLOW must be connected to the terminal on the plug marked with the letter E or by the safety earth symbol  or coloured GREEN or GREEN AND YELLOW.
- The wire coloured BROWN must be connected to the terminal marked with the letter L or coloured RED.
- The wire coloured BLUE must be connected to the terminal marked with the letter N or coloured BLACK.

Ensure that your equipment is connected correctly - if you are in any doubt consult a qualified electrician.

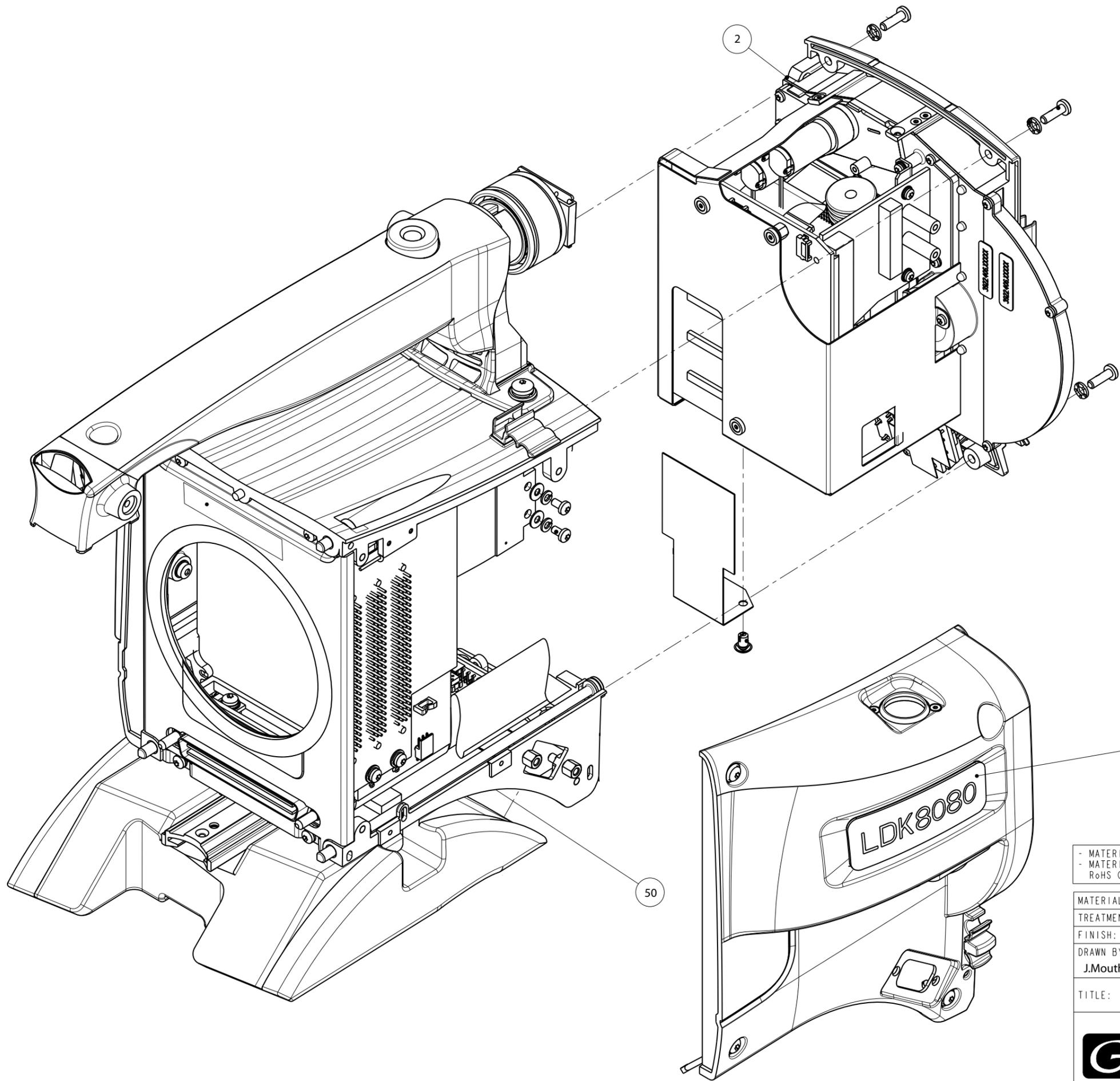
3922 496 31431 Service Manual Camera Head LDK 8080

TAB	Part 12NC	Drawing	Description
1	8926 808 00001 8926 808 00001	8926 808 09901 8926 808 00001	LDK8080 HD CAMERA HEAD BLOCKDIAGRAM
2	3922 407 57441 3922 407 54871	3922 407 57441 3922 407 54871	GNDLS CAMERA HEAD CMOS FRONTMODULE LDK CMOS
3	3922 407 54881	3922 407 54881	OPTICAL MODULE CMOS
4	3922 406 53531	3922 406 53531	FRONT SWITCH PANEL
5	3922 407 56191	3922 407 56191	CAMERA HEAD BASIC CMOS
6	3922 406 54371	3922 406 54371	SYNC MONITORING DIGITAL BOARD
7	3922 406 54991	3922 406 54991	DATA CAMERA BOARD
8	3922 406 54321	3922 406 54321	MOTHER BOARD CAMERA HDTV
9	3922 407 56481 3922 406 53671	3922 407 56481 3922 406 53671	HEAD COVER LEFT ASSY LEFT SWITCH PANEL
10	3922 407 56181 3922 406 53101 3922 406 54781	3922 407 56181 3922 406 53101 3922 406 54781	HEAD COVER RIGHT ASSY CMOS CONNECTOR BOARD RIGHT COVER DVP BOARD CMOS
11	3922 407 22224	3922 407 22224	SHOULDERPAD ASSY
12	3922 407 33621	3922 407 33621	HANDGRIP ASSY

8926 808 00001;2 LDK8080 HD CAMERAHEAD

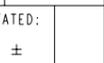
Ref	Description	Part 12nc	Service part
2	GNDLS CAMERA HEAD CMOS		
7	COOLING LOGO COVER LDK8080	3922 407 57131	Yes

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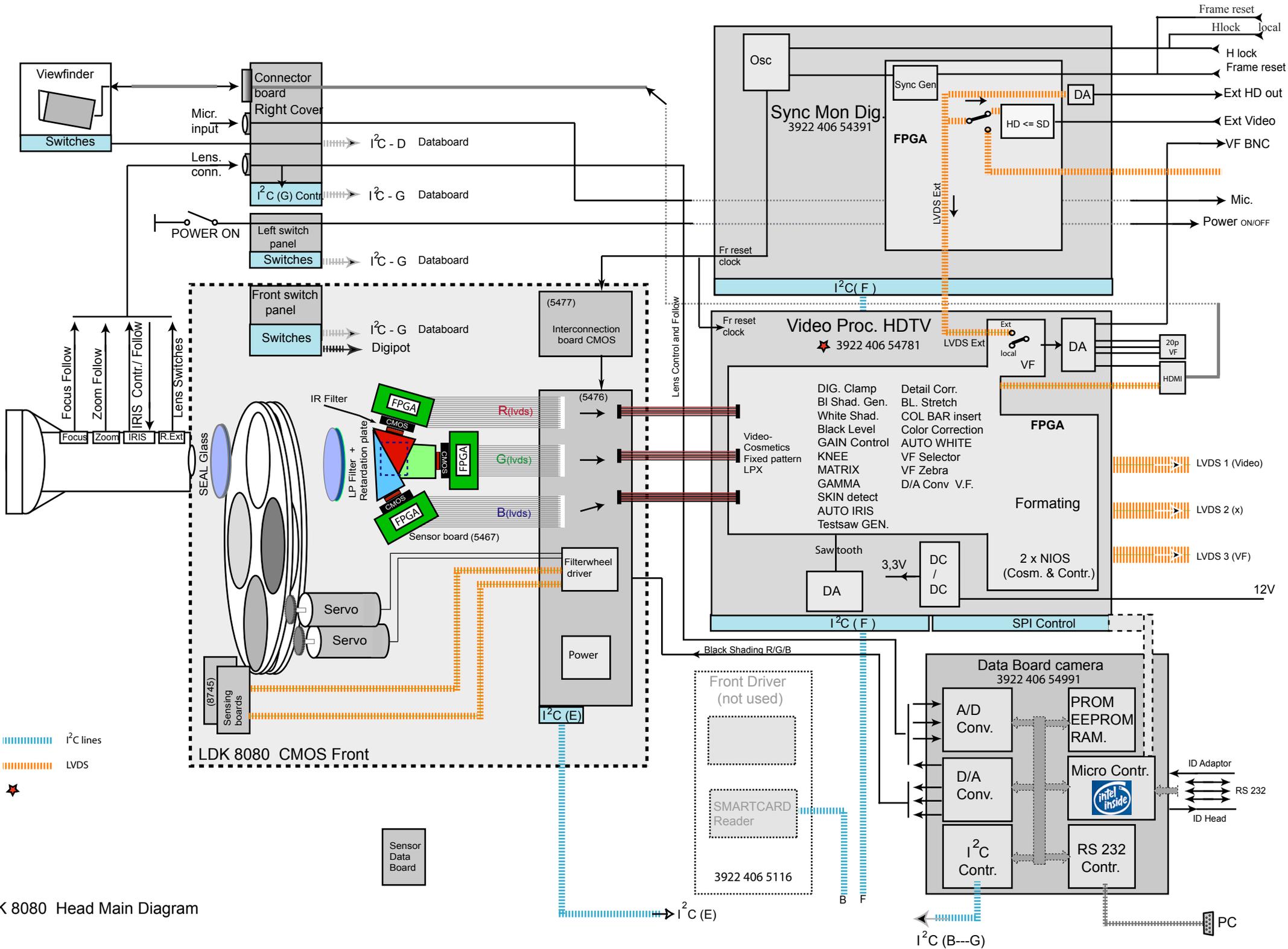


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Rev	Name	Date
1		

MATERIAL:	SEE PARTLIST					SCALE
TREATMENT:	-					1:1
FINISH:					UNIT
DRAWN BY:	DATE:	GENERAL ROUGHNESS:	TOLERANCES UNLESS OTHERWISE STATED:			mm
J.Mouthaan	2009-12-02	Ra 3.2 µm	DIMENSION: ±	ANGLE: ±		
TITLE:	LDK8080 HD CAMERAHEAD					
		DOCUMENT NUMBER		FORMAT	SHEET	
		8926 808 0990		A2	1/1	
		RELEASE LEVEL:		110-01		



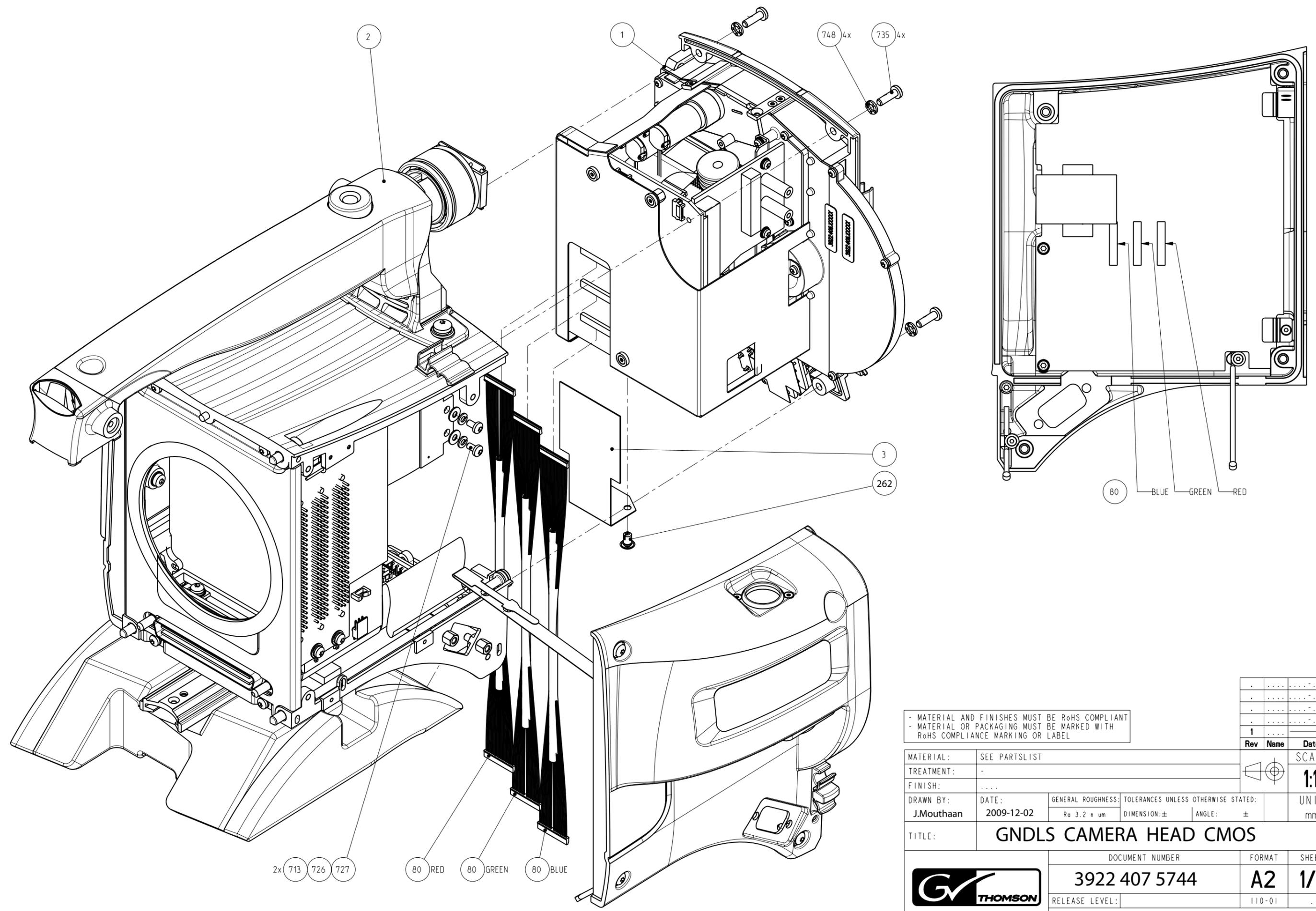


LDK 8080 Head Main Diagram

3922 407 57441;1 GNDLS CAMERA HEAD CMOS

Ref	Description	Part 12nc	Service part
1	FRONT MODULE LDK CMOS		
2	CAMERA HEAD BASIC CMOS		
3	TWISTED PAIR COVER	3922 405 06221	Yes
80	TYCO 20P TWISTED 200MM	3922 407 47001	Yes
90	PACKAGE LDK3000 CAM HEAD	3922 407 56621	Yes
262	RIVET		
713	PAN SCR STL ST M2,5x6		
726	WASH STL ST 2,7X6,5		
727	SPR WASH STL ST 2,6X5,1		
735	PAN SCR STL ST M3X10		
748	EARTH WASH STL ST A4 3,2X6		

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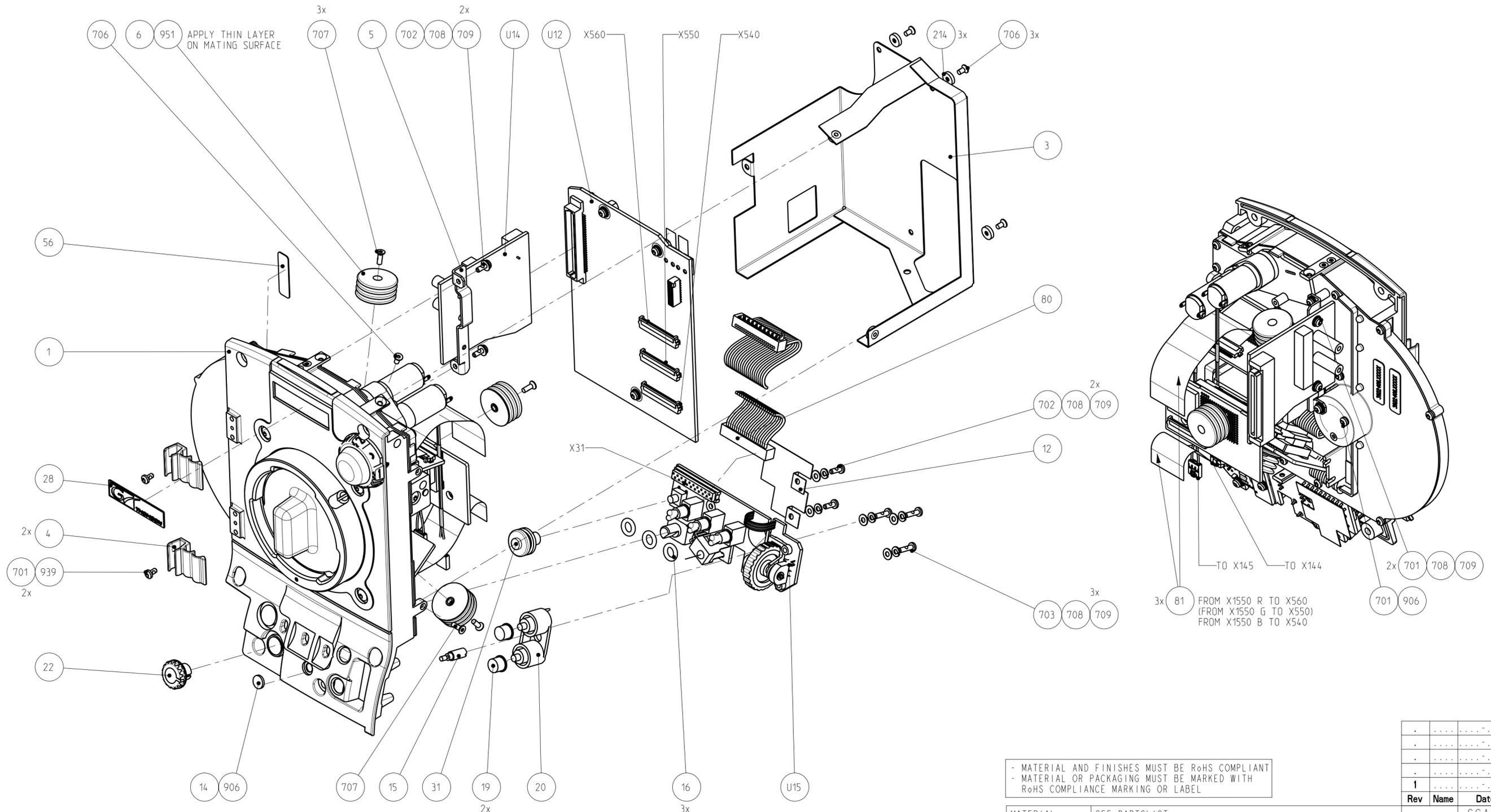
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			UNIT	
			mm	
TITLE: GNDLS CAMERA HEAD CMOS				
MATERIAL:		SEE PARTSLIST		
TREATMENT:		-		
FINISH:			
DRAWN BY:	DATE:	GENERAL ROUGHNESS:	TOLERANCES UNLESS OTHERWISE STATED:	
J.Mouthaan	2009-12-02	Ra 3.2 µm	DIMENSION: ±	ANGLE: ±
DOCUMENT NUMBER		FORMAT	SHEET	
3922 407 5744		A2	1/1	
RELEASE LEVEL:		110-01		



3922 407 54871;4 FRONT MODULE LDK CMOS

Ref	Description	Part 12nc	Service part
1	OPTICAL MODULE LDK CMOS		
3	FRONT PCB BRACKET ASSY		
4	CABLECLAMP	3922 400 10041	Yes
5	PCB MOUNT		
6	COOLING STUB HEAD		
12	INSULATING FOIL		
14	IR FILTER LDK100		
15	SPACER		
16	O-RING 4.47x1.78 COMPOUND VITO		
19	PUSH KNOB		
20	RUBBER KNOB		
22	AUDIO LEVEL KNOB	3922 400 08513	Yes
27	CONTINUOUS GROMMET STRIP		
28	WORDMARK GRASS VALLEY 35MM		
31	SWITCHRUBBER	3922 400 09931	Yes
56	PRODUCT ID STICKER MECHANIC		
80	FLATCABLE FRONT		
81	SUMITOMO FLEX 40P L=80MM 30V		
214	CSK WASHER STL ST M2		
701	PAN SCR STL ST M2x4		
702	PAN SCR STL ST M2X6		
703	PAN SCR STL ST M2X8		
706	CSK SCR STL ST M2x4		
707	CSK SCR STL ST M2x6		
708	WASH STL ST 2,2X5		
709	SPR WASH STL ST 2,1X4.4		
906	RUBBER GLUE SYNTHETIC NBR 042		
939	SCREW LOCK 222		
951	HEAT SINK COMPOUND		
U12	FILTERWHEEL BOARD CMOS		
U14	INTERCONNECTIONBOARD CMOS		
U15	FRONT SWITCH PANEL	3922 406 53531	Yes

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Rev	Name	Date
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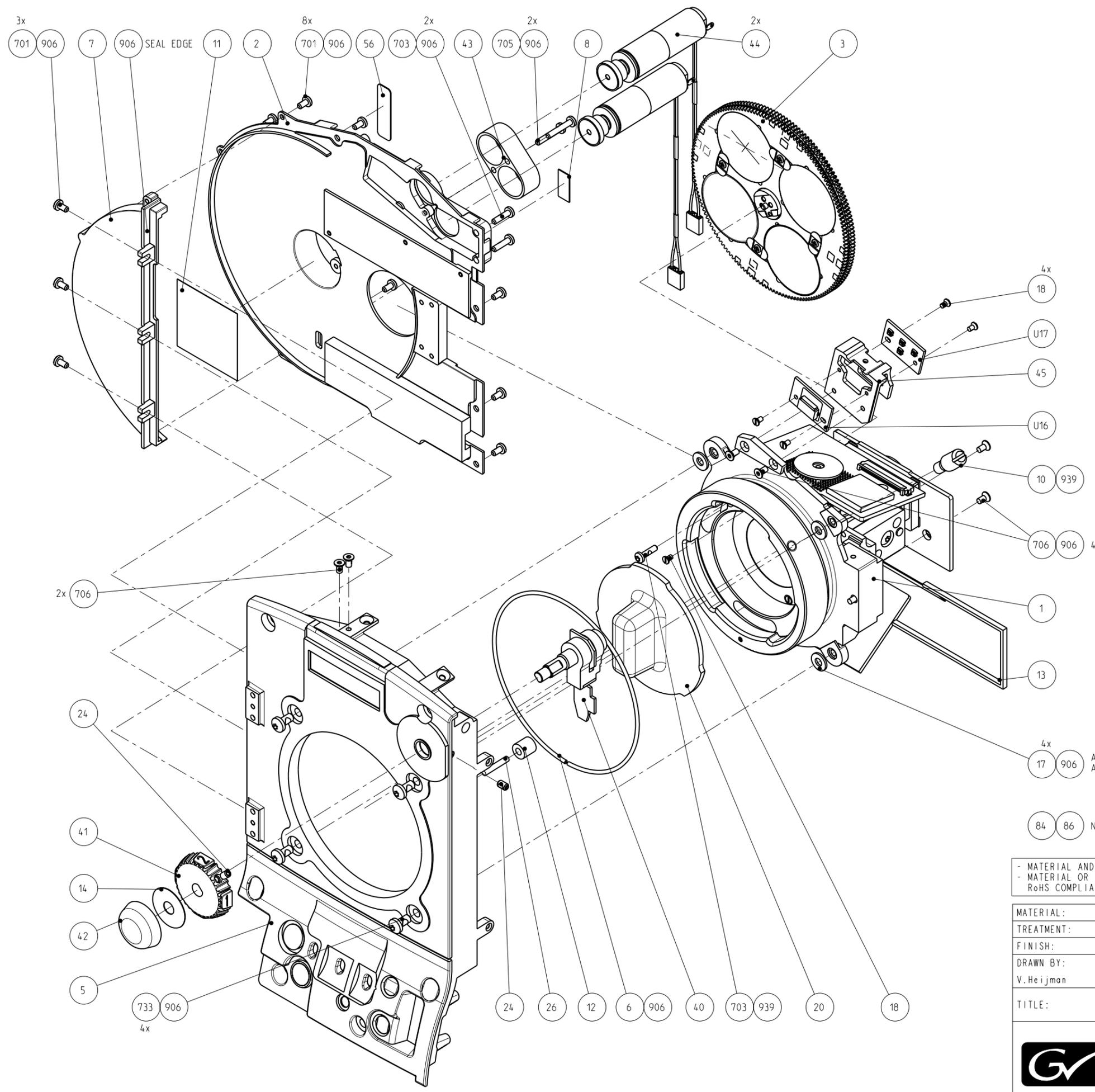
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FINISH:			UNIT mm
DRAWN BY:	DATE:	GENERAL ROUGHNESS:	TOLERANCES UNLESS OTHERWISE STATED:	
V.Heijman	2009-04-20	Ra 3.2 µm	DIMENSION:±0,2 ANGLE: ±1°	
TITLE: FRONT MODULE LDK3000				
DOCUMENT NUMBER		FORMAT	SHEET	
3922 407 5487		A2	1/1	
RELEASE LEVEL:		110-01		



3922 407 54881;3 OPTICAL MODULE LDK CMOS

Ref	Description	Part 12nc	Service part
1	LENSPLATE ASSY CMOS		
2	MOTORPLATE ASSY		
3	LDK CMOS FILTERWHEEL ASSY		
5	FRONTPLATE NEXT		
6	HOLLOW SEALINGSTRIP 1.35-0.4		
7	COVER SEGMENT		
8	SHUTTER WINDOW		
10	BAJONETRING HANDLE	3922 404 17414	Yes
11	STICKER		
12	DISTANCE BUSH AL 2.7X4X6		
13	SEALING STRIP		
14	TAPE DISC	3922 405 02681	Yes
17	PLAIN WASHER AL 7X3.2X0.8		
18	CSK SCR STL ST M1,6X3		
20	DUSTCAP	3922 400 07891	Yes
24	SET SCR STL ST A4-70 M2.5X5	2522 043 18226	Yes
26	DOWEL h6 STL A2 2x12		
40	FILTERWHEEL SELECT SWITCH		
41	KNOB ND FILTER	3922 400 09761	Yes
42	CAP	3922 405 02601	Yes
43	MOTORHOLDER		
44	ASSY FILTERWHEEL MOTOR		
45	SENSINGBOARD BRACKET		
56	PRODUCT ID STICKER MECHANIC		
84	FLEX 10P L=100MM		
86	FLEX 10P L=130MM		
701	PAN SCR STL ST M2x4		
703	PAN SCR STL ST M2X8		
705	PAN SCR STL ST M2X12		
706	CSK SCR STL ST M2x4		
708	WASH STL ST 2,2X5		
733	PAN SCR STL ST M3X6		
906	RUBBER GLUE SYNTHETIC NBR 042		
938	HEAT RESISTANT RETAINER 648		
939	SCREW LOCK 222		
952	LOCTITE 2701		
U16	SENSINGBOARD		
U17	SENSINGBOARD		

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4x 17 906 ADD 906 ON OUTER RIM AFTER PLACEMENT OF 17

84 86 NOT VISIBLE

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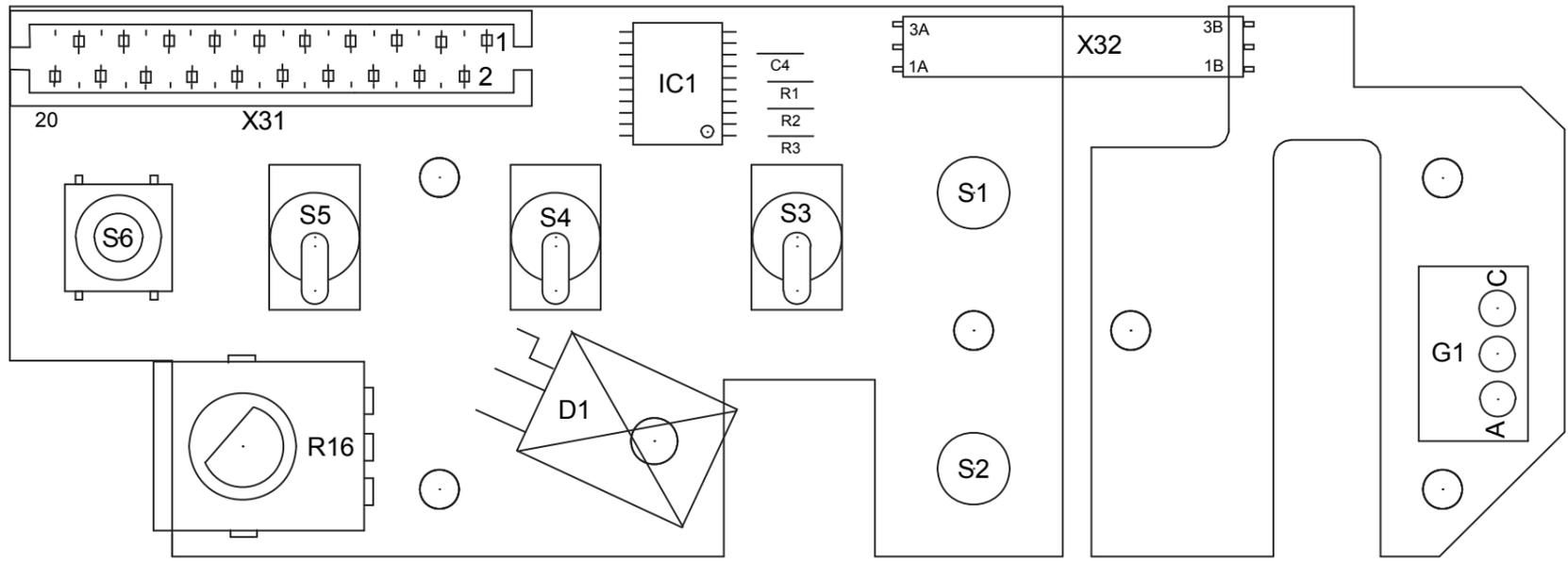
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TREATMENT:			mm	
FINISH:			mm	
DRAWN BY: V.Heijman	DATE: 2009-03-31	GENERAL ROUGHNESS: Ra 3.2 n um	TOLERANCES UNLESS OTHERWISE STATED: DIMENSION: ±0,2	ANGLE: ±1°
TITLE: OPTICAL MODULE LDK CMOS			DOCUMENT NUMBER	FORMAT SHEET
			3922 407 5488	A2 1/1
RELEASE LEVEL:			110-01	



3922 406 53531;4 FRONT SWITCH PANEL

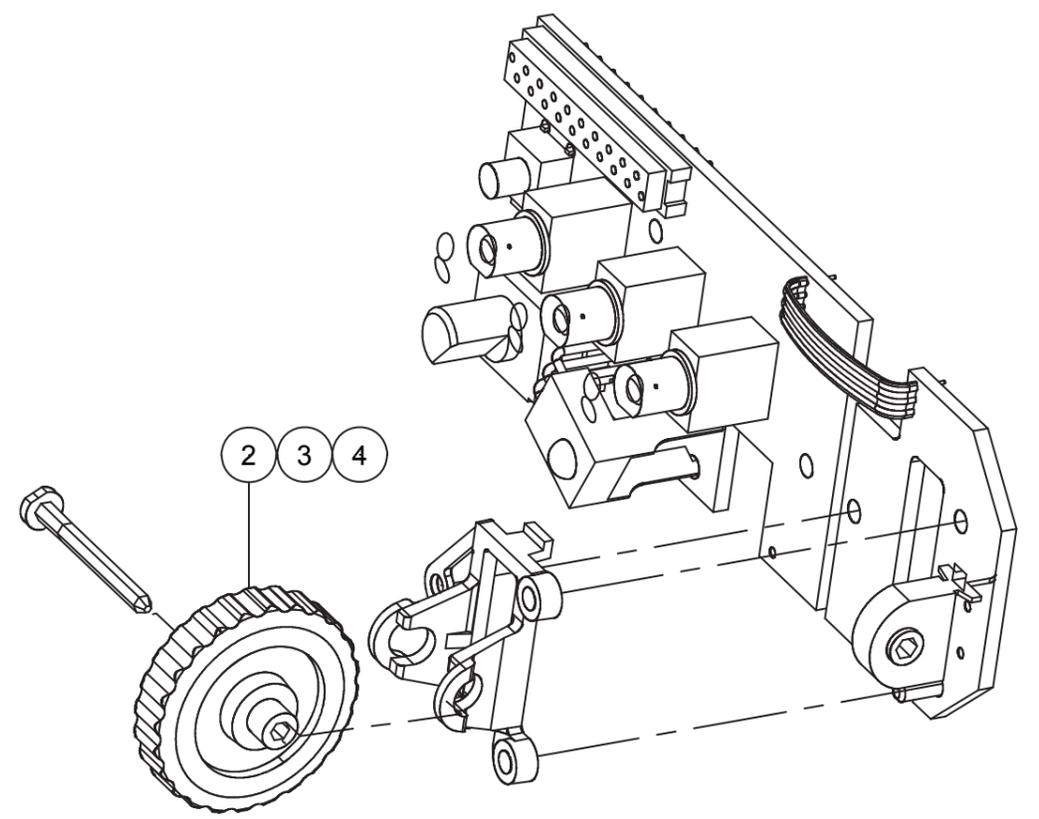
Ref	Description	Part 12nc	Spare part
No spare parts available, only complete board			

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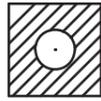


ATTENTION: THE ROTARY SWITCH MUST BY FLAT ON THE PCB
DURING WAVE SOLDERING

ASSEMBLY LAYER TOP

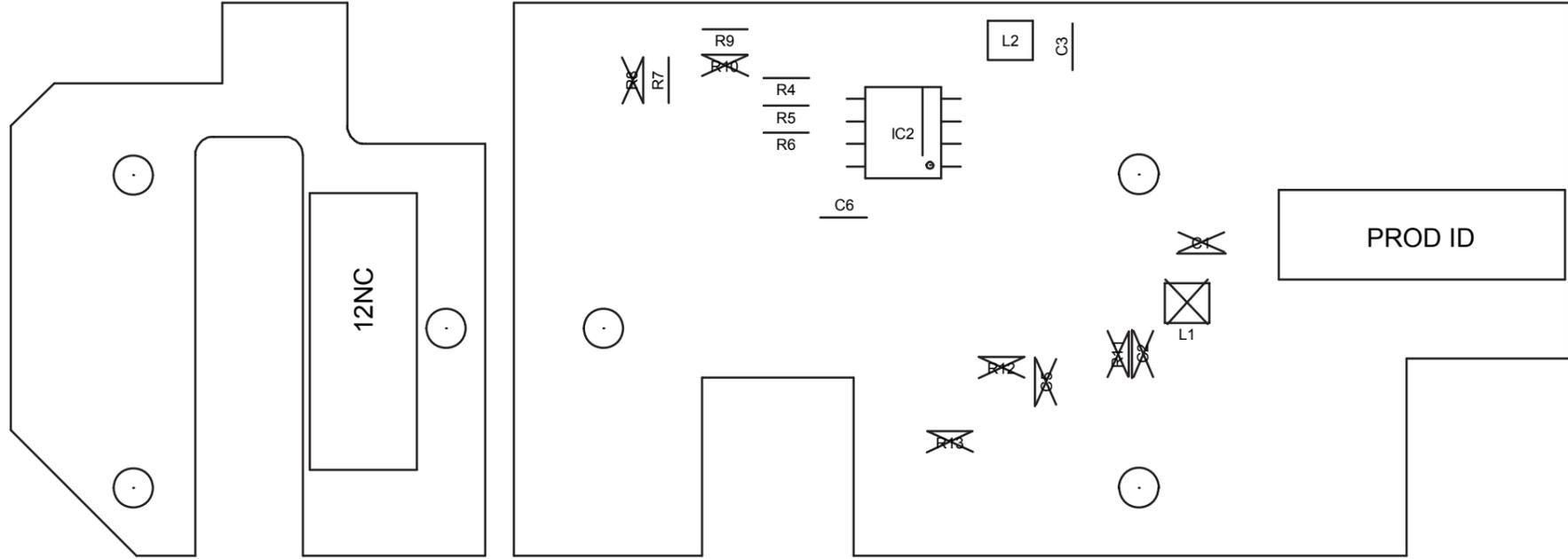


COMPONENTS MARKED WITH A CROSS ARE NOT MOUNTED	
STATUS: 03	
ASS. 12NC: 3922 406 53530	
ASS. NAME: FRONT SWITCH PANEL	
PCB. 12NC: 3922 411 53532	
ASSEMBLY TOP	CURR. DATE: 09-02-23
SCALE 1.5: 1	PREV. DATE: 08-04-14
P.VISSERS	ORG. DATE: 06-06-21
H VERMEULEN	SHEET : 110-1
GRASS VALLEY NEDERLAND B.V. - BREDA	



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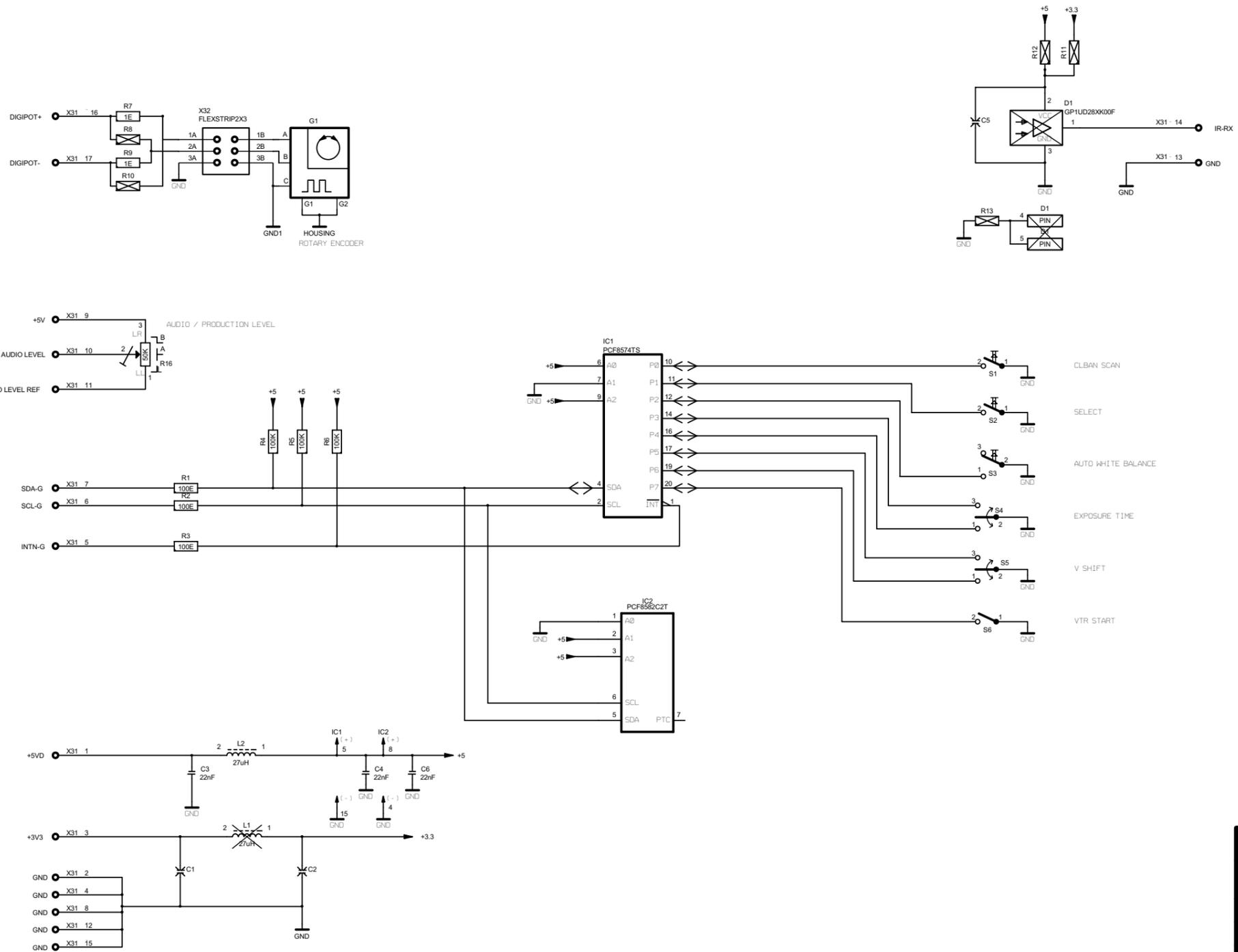
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ASSEMBLY LAYER BOTTOM

COMPONENTS MARKED WITH A CROSS ARE NOT MOUNTED		
STATUS: 03		
ASS. 12NC: 3922 406 53530		
ASS. NAME: FRONT SWITCH PANEL		
PCB. 12NC: 3922 411 53532		
ASSEMBLY BOTTOM	CURR. DATE: 09-02-23	
SCALE 1.5: 1	PREV. DATE: 08-04-14	
P.VISSERS	ORG. DATE: 06-06-21	
H VERMEULEN	SHEET :	110-2
GRASS VALLEY NEDERLAND B.V. - BREDA		

GRASS VALLEY

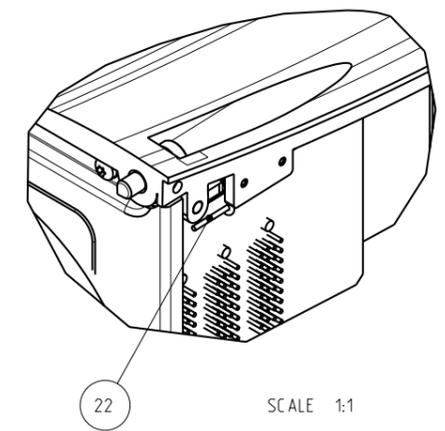
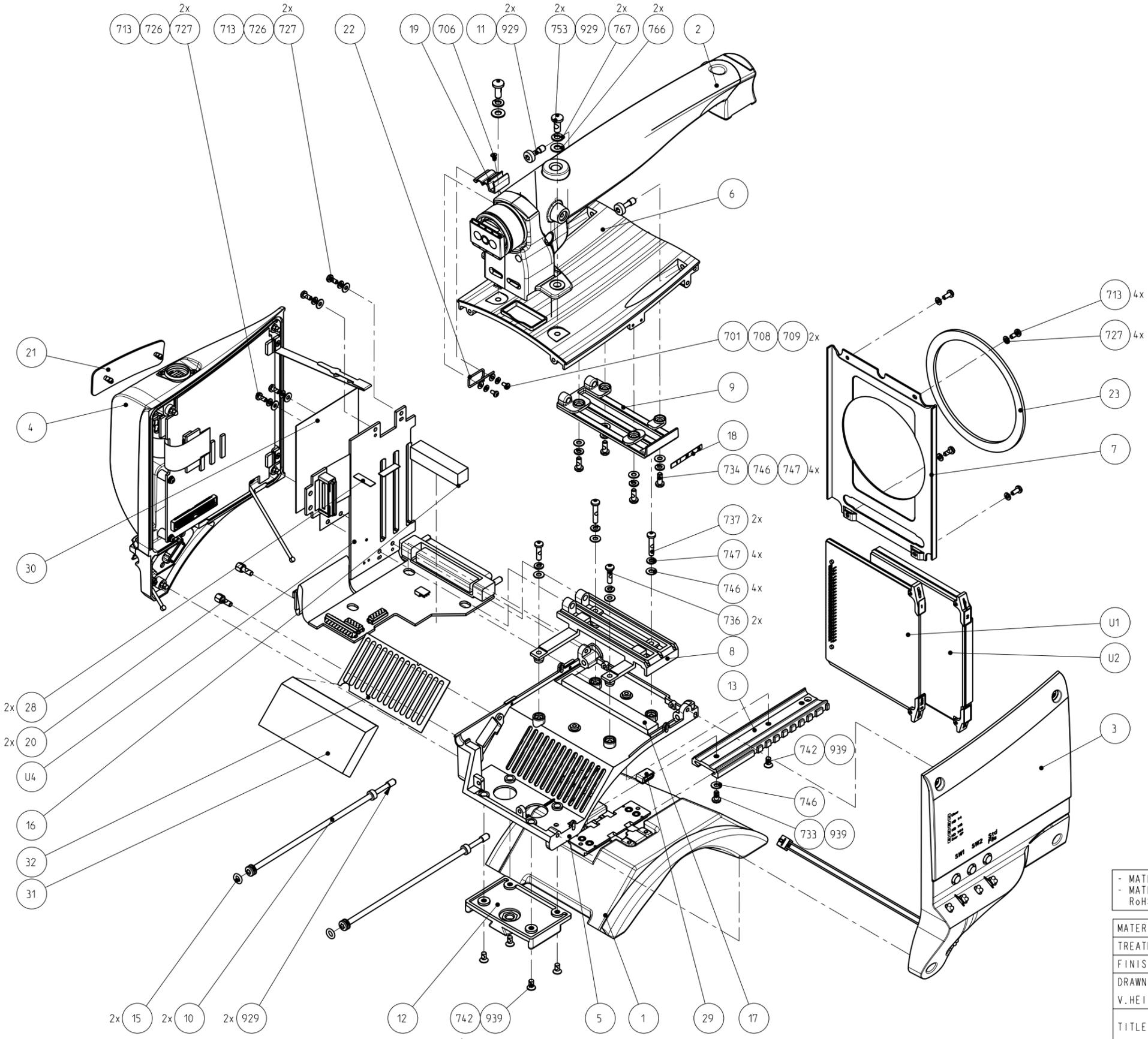


COMPONENTS MARKED WITH A CROSS ARE NOT MOUNTED	
ASS.NO : 3922 406 53530	
ASS.NAME : FRONT SWITCH PANEL	
STATUS : 03	
PCB NO. : 3922 411 53532	
SHEET NAME : SHEET NAME	
P. VISSERS	CURR. DATE :2009-02-23
CIRCUIT DIAGRAM	PREV. DATE: 2008-04-14
1	SHEET 130 - 1
ORG. DATE : 2006-06-21	
GRASS VALLEY NEDERLAND B.V. - BREDA	

3922 407 56191;5 CAMERA HEAD BASIC CMOS

Ref	Description	Part 12nc	Service part
1	SHOULDERPAD ASSY	3922 407 22224	Yes
2	HANDGRIP ASSY	3922 407 33621	Yes
3	HEAD COVER LEFT ASSY	3922 407 56481	Yes
4	HEAD COVER RIGHT CMOS ASSY	3922 407 56181	Yes
5	BOTTOM 8300		
6	TOP 8300		
8	PRINTRAIL BOTTOM		
9	PRINTRAIL TOP		
10	DOCKSCREW M4		
11	DOCKSCREW M4X14		
12	V-BLOCK	3922 402 03752	Yes
13	SUPPORT GUIDE		
14	SET OF ADD.SUPPL.LDK3000		
15	O-RING 4.1x1.6 VITON		
16	PRESSURE STRIP 44 MM		
17	CELRUBBER ZK/CR FEST 10X4MM		
18	CAMERA LABEL		
19	CABLECLAMP	3922 400 10041	Yes
20	HEX LOCK SCREW		
21	COOLING LOGO COVER 3000	3922 407 56201	Yes
22	PULL RELIEF SPRING		
23	DOCKING FAN FOAM		
28	INSULATING PLATE		
29	CLAMP TMC-6		
30	INSULATION PLATE MTHR BRD		
31	FRONT AIR INTAKE FILTER	3922 406 05822	Yes
32	FRONT AIR INTAKE TAPE	3922 405 05832	Yes
80	WIRE ASSY CAMERA HEAD		
701	PAN SCR STL ST M2x4		
706	CSK SCR STL ST M2x4		
708	WASH STL ST 2,2X5		
709	SPR WASH STL ST 2,1X4.4		
713	PAN SCR STL ST M2,5x6		
726	WASH STL ST 2,7X6,5		
727	SPR WASH STL ST 2,6X5,1		
733	PAN SCR STL ST M3X6		
734	PAN SCR STL ST M3X8		
736	PAN SCR STL ST M3X12		
737	PAN SCR STL ST M3X16		
742	CSK SCR STL ST M3X6		
746	WASH STL ST 3,2X7		
747	SPR WASH STL ST 3,1X5,7		
753	PAN SCR STL ST M4X10		
766	WASH STL ST 3,2X7		
767	SPR WASH STL ST 4,1X7,1		
906	RUBBER GLUE SYNTHETIC NBR 042		
929	GREASE FS 1292		
939	SCREW LOCK 222		
950	LOCTITE 480		
U1	SYNC. MON. DIG. BRD	3922 406 54371	Yes
U2	DATA CAMERA BOARD	3922 406 54991	Yes
U4	MOTHERBOARD CAM HDTV	3922 406 54321	Yes

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SCALE 1:1

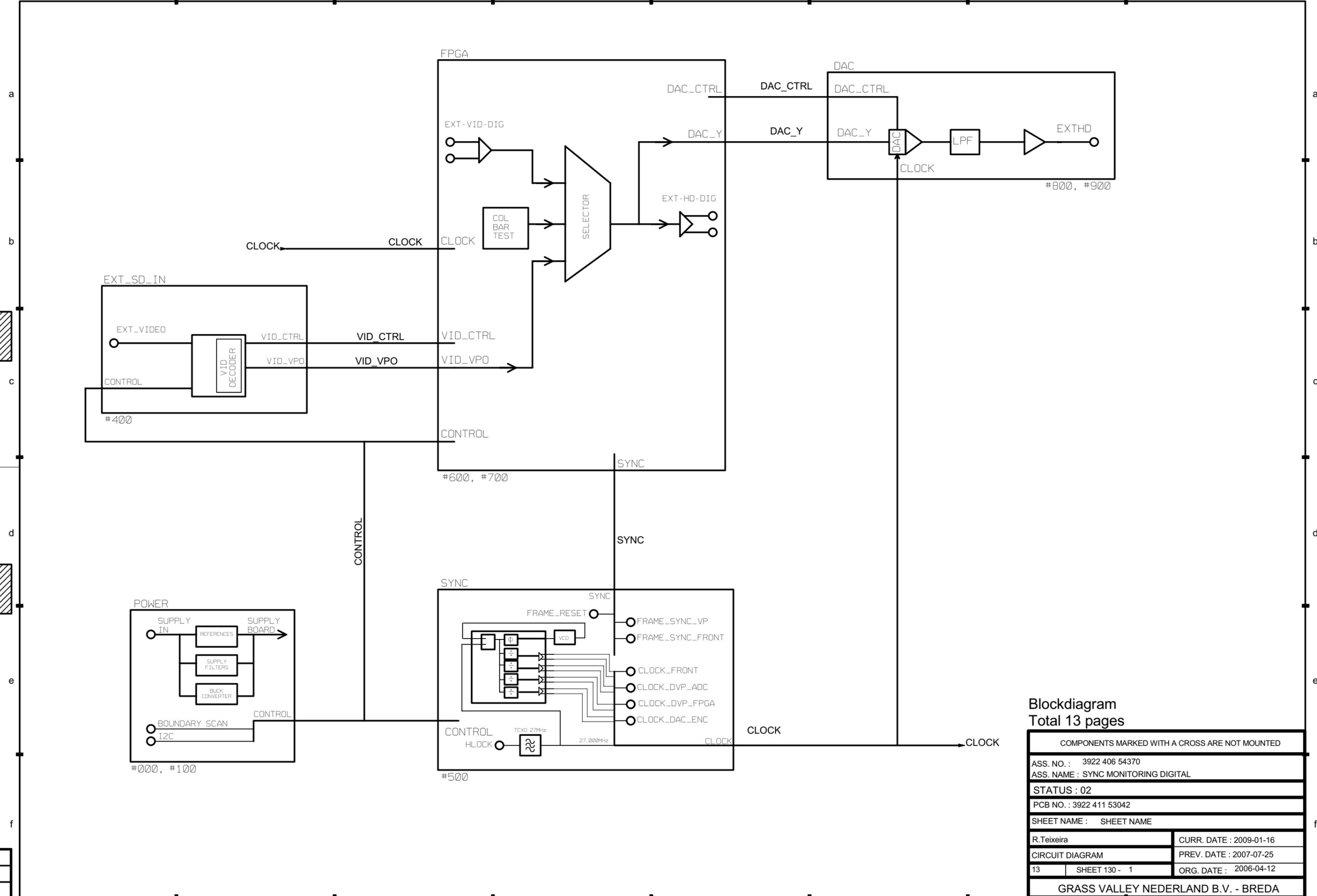
14 80 NOT VISIBLE
 950 TO BE APPLIED ON HELICOILS WHEN NECESSARY MIN. DRYING TIME 30 MINS.

- MATERIAL AND FINISHES MUST BE RoHS COMPLIANT
 - MATERIAL OR PACKAGING MUST BE MARKED WITH RoHS COMPLIANCE MARKING OR LABEL

Rev	Name	Date	SCALE	
1			1:2	
			UNIT	
			mm	
TITLE: CAMERA HEAD BASIC CMOS				
MATERIAL: SEE PARTLIST			DOCUMENT NUMBER	FORMAT
TREATMENT:			3922 407 5619	A2
FINISH:			RELEASE LEVEL:	1/1
DRAWN BY: V. HEIJMAN	DATE: 2009-02-09	GENERAL ROUGHNESS: Ra 3.2 µm	TOLERANCES UNLESS OTHERWISE STATED: DIMENSION: ±0,2	ANGLE: ±1°
DOCUMENT NUMBER			FORMAT	SHEET
3922 407 5619			A2	1/1
RELEASE LEVEL:			110-01	

3922 406 54371;4 SYNC. MON. DIG. BRD

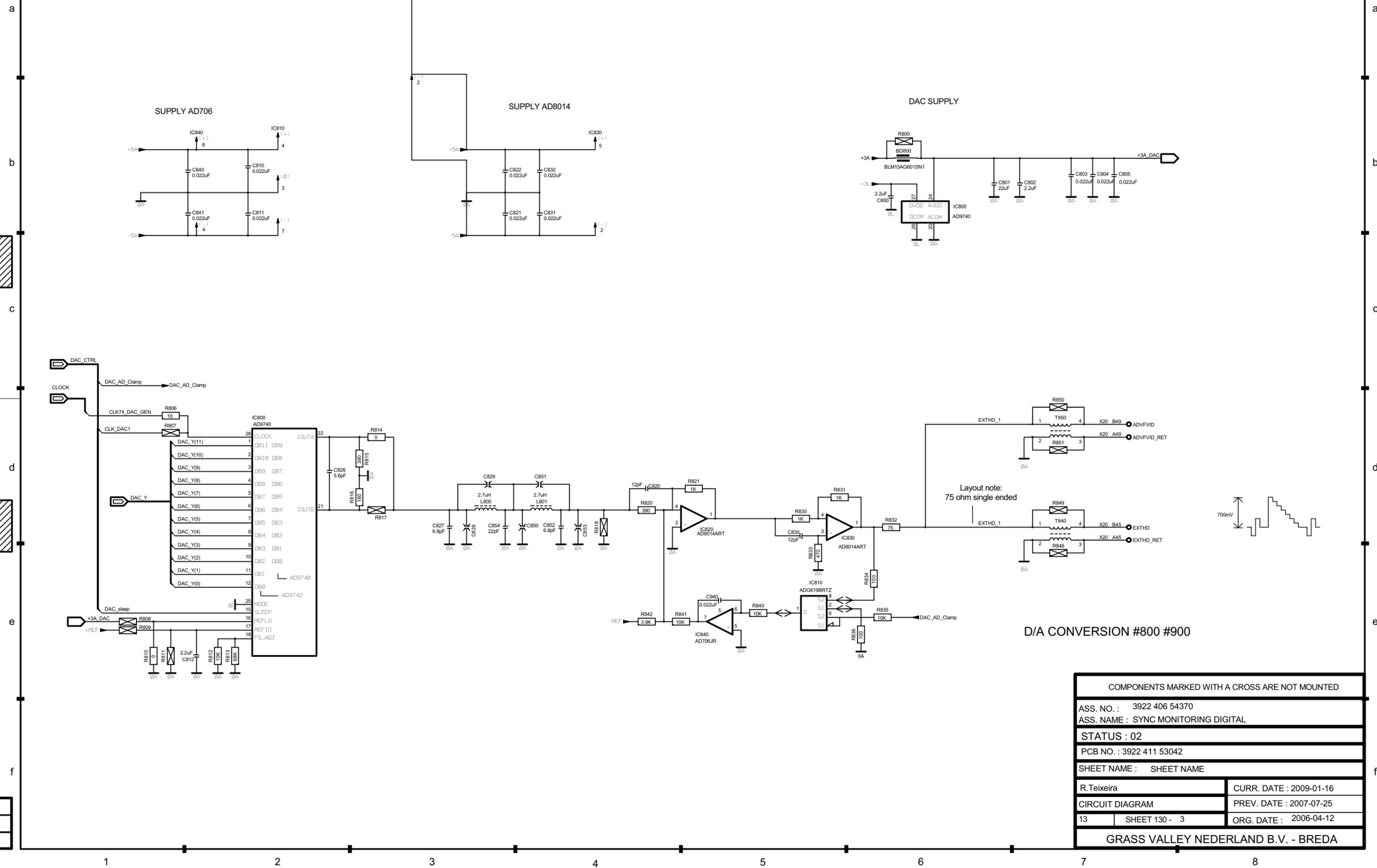
Ref	Description	Part 12nc	Service part
	No spare components available		



Blockdiagram
Total 13 pages

COMPONENTS MARKED WITH A CROSS ARE NOT MOUNTED	
ASS. NO. : 3922 406 54370	
ASS. NAME : SYNC MONITORING DIGITAL	
STATUS : 02	
PCB NO. : 3922 411 53042	
SHEET NAME : SHEET NAME	
R.Teixeira	CURR. DATE : 2009-01-16
CIRCUIT DIAGRAM	PREV. DATE : 2007-07-25
13	SHEET 130 - 1
ORG. DATE : 2006-04-12	
GRASS VALLEY NEDERLAND B.V. - BREDA	

1 2 3 4 5 6 7 8

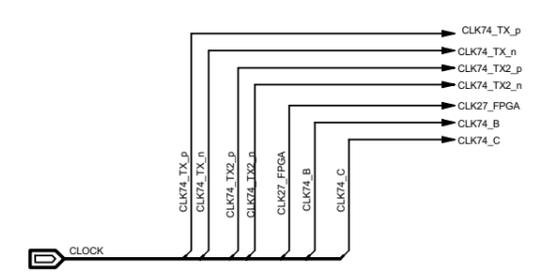
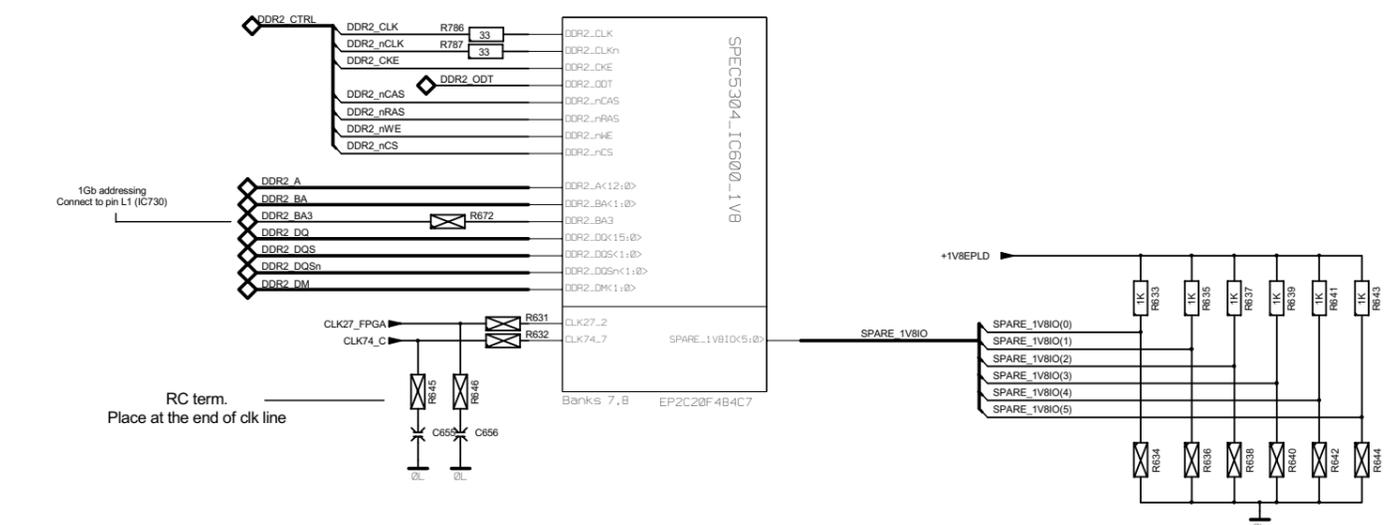
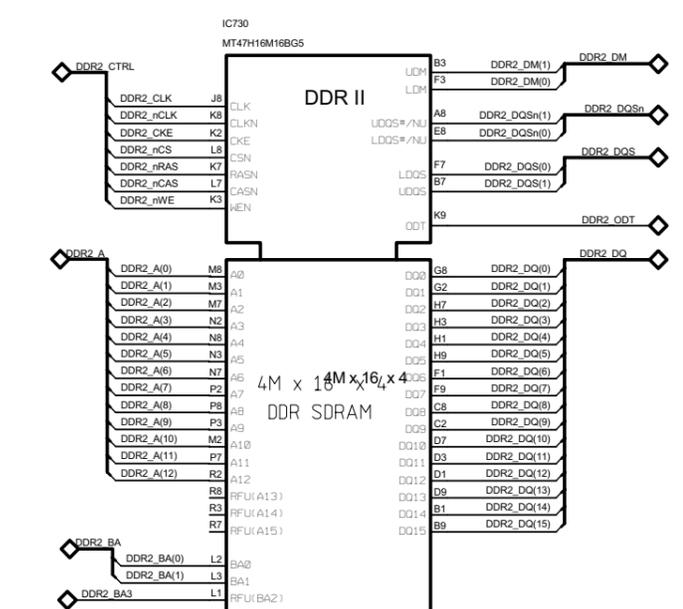
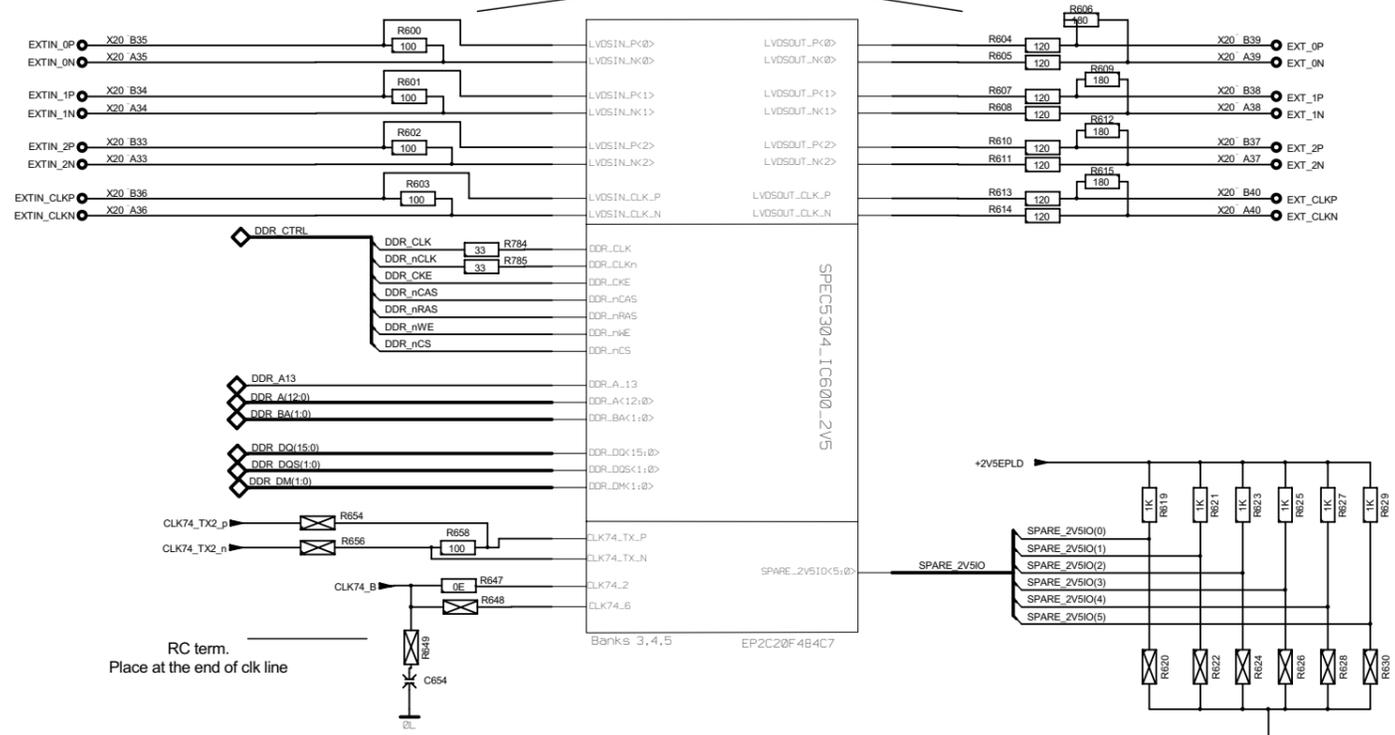
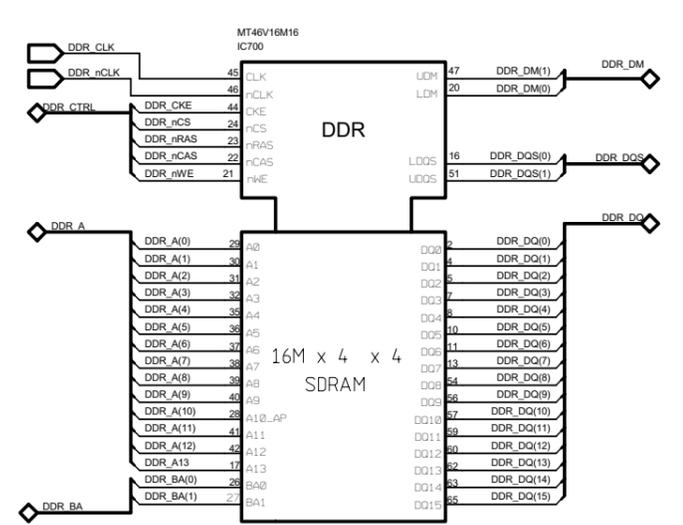


D/A CONVERSION #800 #900

COMPONENTS MARKED WITH A CROSS ARE NOT MOUNTED	
ASS. NO. : 3922 406 54370	
ASS. NAME : SYNC MONITORING DIGITAL	
STATUS : 02	
PCB NO. : 3922 411 53042	
SHEET NAME : SHEET NAME	
R.Teixeira	CURR. DATE : 2009-01-16
CIRCUIT DIAGRAM	PREV. DATE : 2007-07-25
13	SHEET 130 - 3
ORG. DATE : 2006-04-12	
GRASS VALLEY NEDERLAND B.V. - BREDA	

1 2 3 4 5 6 7 8

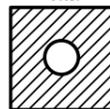
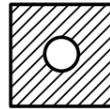
GRASS VALLEY



FPGA #600, #700

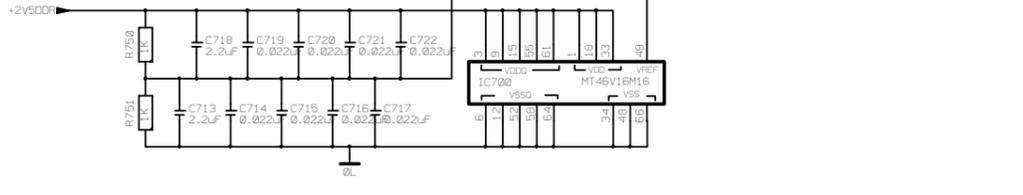
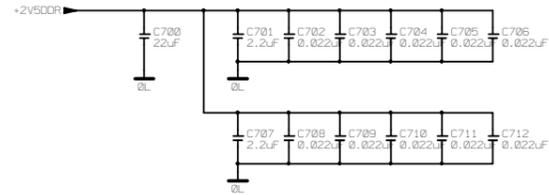
COMPONENTS MARKED WITH A CROSS ARE NOT MOUNTED	
ASS. NO. : 3922 406 54370	
ASS. NAME : SYNC MONITORING DIGITAL	
STATUS : 02	
PCB NO. : 3922 411 53042	
SHEET NAME : SHEET NAME	
R.Teixeira	CURR. DATE : 2009-01-16
CIRCUIT DIAGRAM	PREV. DATE : 2007-07-25
13	SHEET 130 - 4
ORG. DATE : 2006-04-12	
GRASS VALLEY NEDERLAND B.V. - BREDA	

GRASS VALLEY

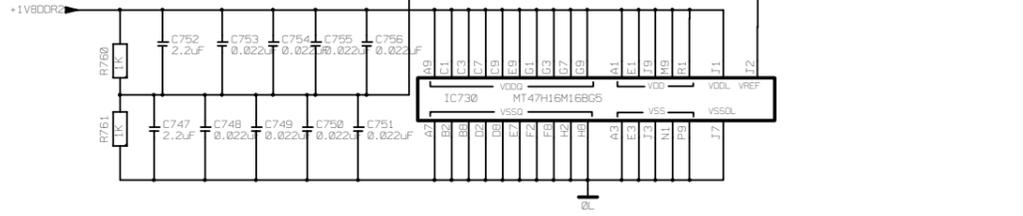
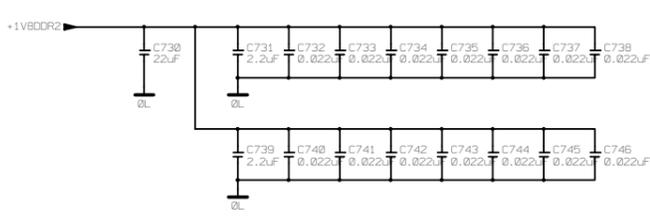


1 2 3 4 5 6 7 8

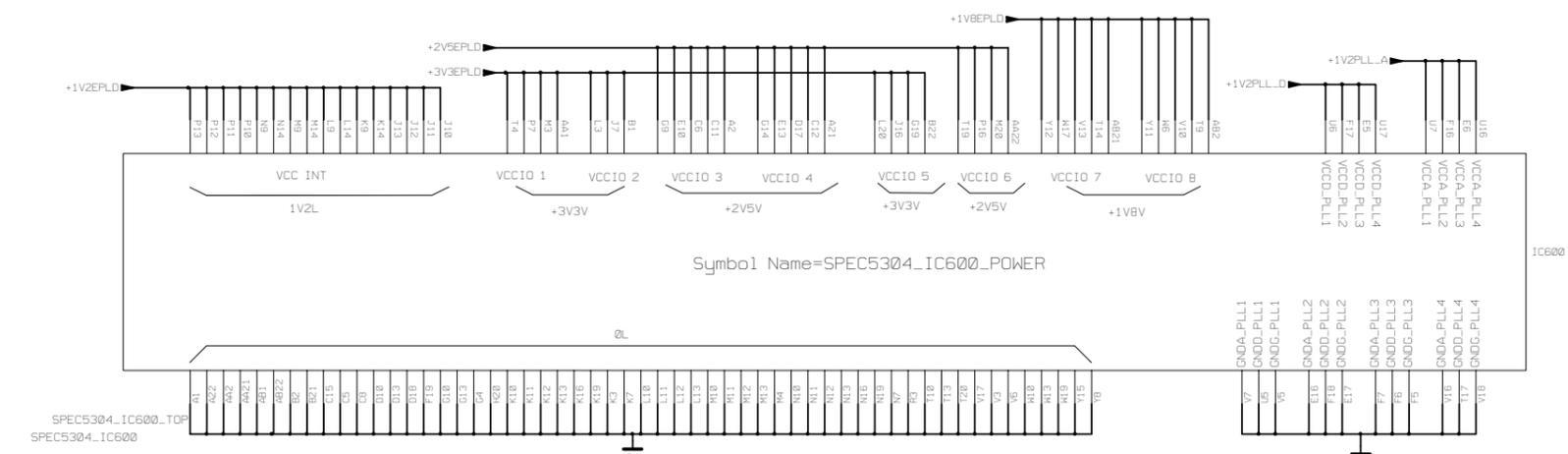
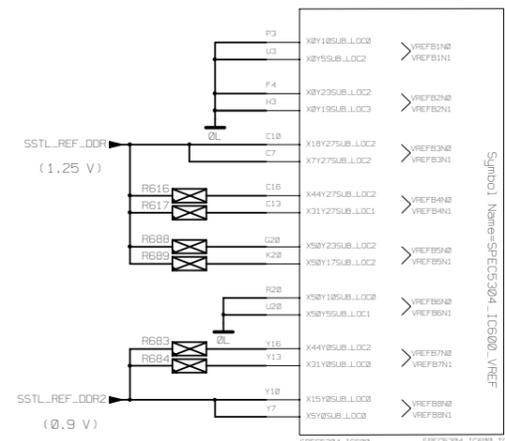
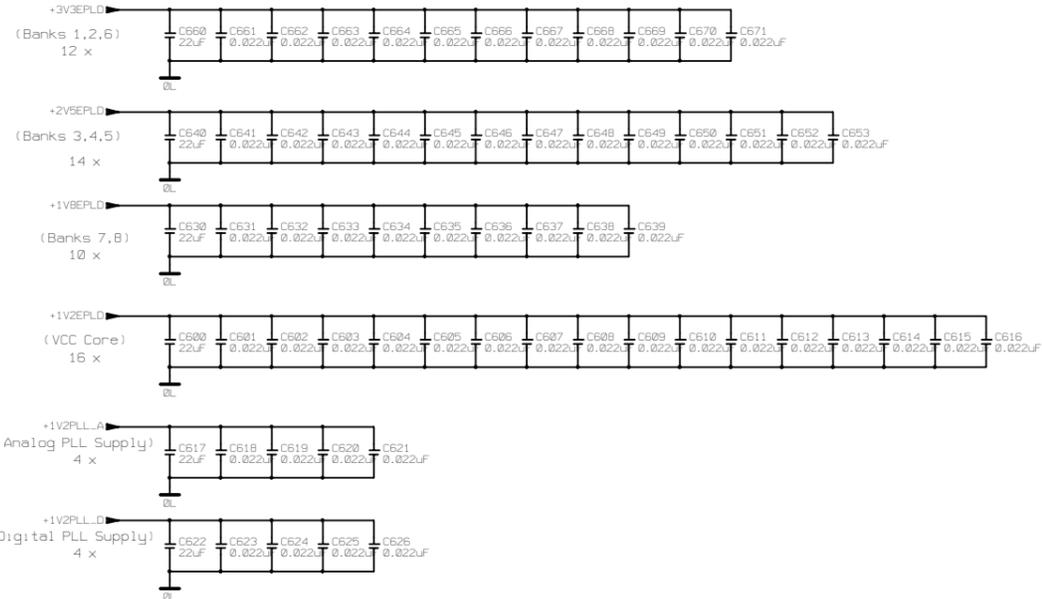
DDR SDRAM POWER



DDR2 SDRAM POWER



FPGA POWER



EPLD #600, #700

COMPONENTS MARKED WITH A CROSS ARE NOT MOUNTED	
ASS. NO. :	3922 406 54370
ASS. NAME :	SYNC MONITORING DIGITAL
STATUS :	02
PCB NO. :	3922 411 53042
SHEET NAME :	SHEET NAME
R.Teixeira	CURR. DATE : 2009-01-16
CIRCUIT DIAGRAM	PREV. DATE : 2007-07-25
13	SHEET 130 - 5
	ORG. DATE : 2006-04-12
GRASS VALLEY NEDERLAND B.V. - BREDA	

1 2 3 4 5 6 7 8

a

b

c

d

e

f

a

b

c

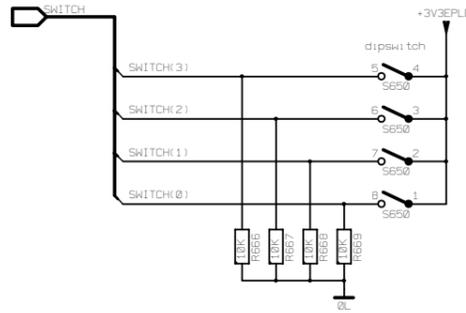
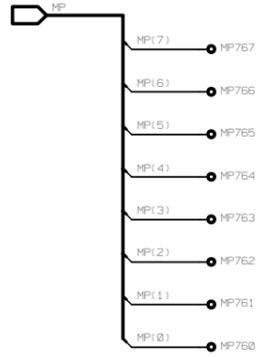
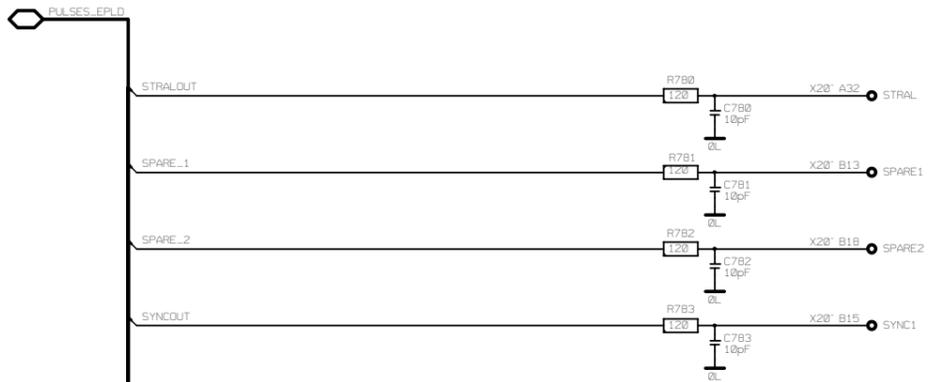
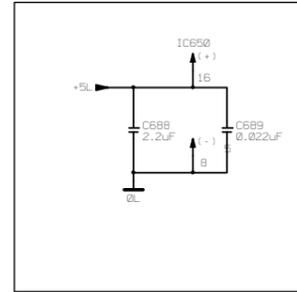
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e

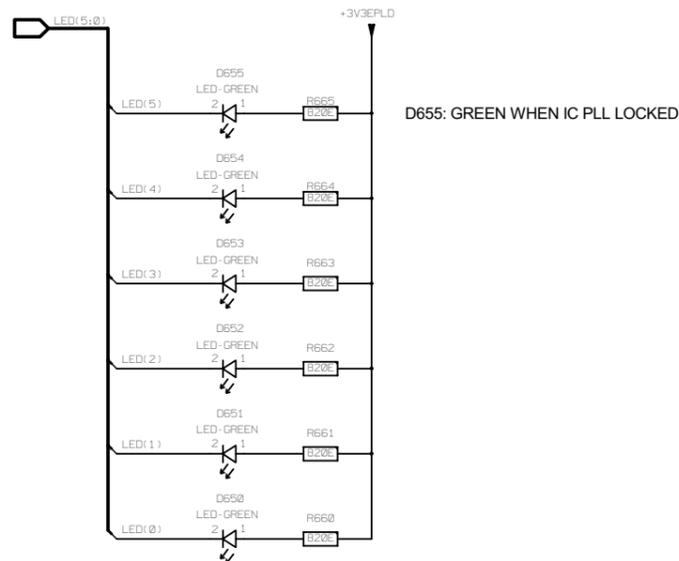
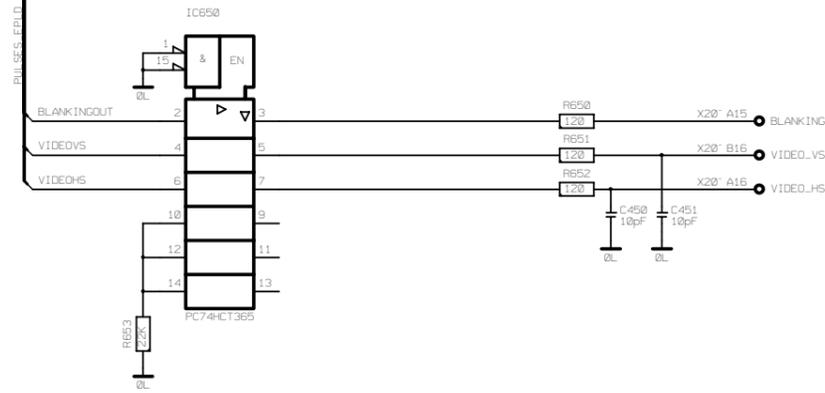
f

GRASS VALLEY

MISCELLANEOUS



SWITCH	ON	OFF
3	N.U	N.U
2	TEST MODE	NO TEST
1	FREEZE DDR	NO FREEZE
0	C. BAR	SAWTOOTH

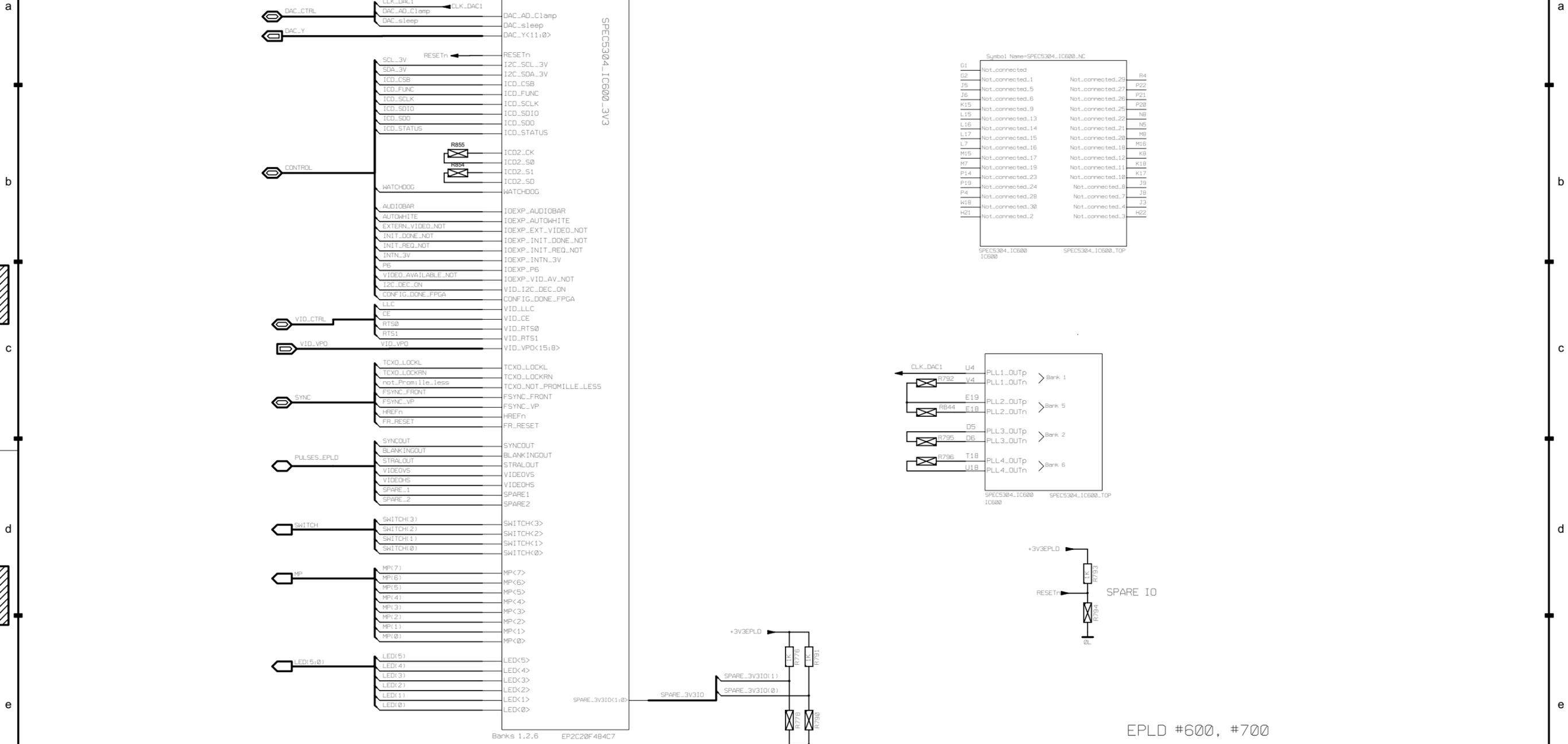


EPLD #600, #700

COMPONENTS MARKED WITH A CROSS ARE NOT MOUNTED	
ASS. NO. : 3922 406 54370	
ASS. NAME : SYNC MONITORING DIGITAL	
STATUS : 02	
PCB NO. : 3922 411 53042	
SHEET NAME : SHEET NAME	
R.Teixeira	CURR. DATE : 2009-01-16
CIRCUIT DIAGRAM	PREV. DATE : 2007-07-25
13	SHEET 130 - 6
ORG. DATE : 2006-04-12	
GRASS VALLEY NEDERLAND B.V. - BREDA	

GRASS VALLEY

1 2 3 4 5 6 7 8



COMPONENTS MARKED WITH A CROSS ARE NOT MOUNTED	
ASS. NO. : 3922 406 54370	
ASS. NAME : SYNC MONITORING DIGITAL	
STATUS : 02	
PCB NO. : 3922 411 53042	
SHEET NAME : SHEET NAME	
R.Teixeira	CURR. DATE : 2009-01-16
CIRCUIT DIAGRAM	PREV. DATE : 2007-07-25
13	SHEET 130 - 8
ORG. DATE : 2006-04-12	
GRASS VALLEY NEDERLAND B.V. - BREDA	

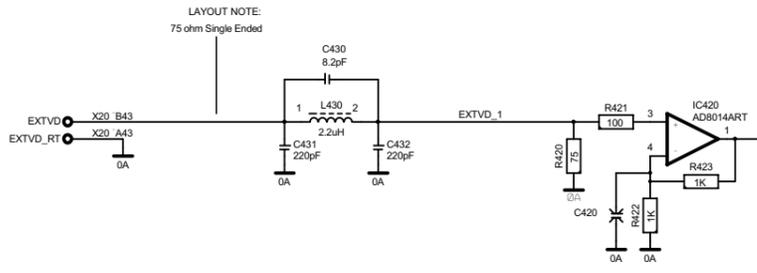
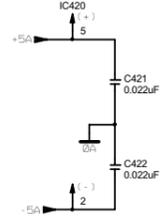
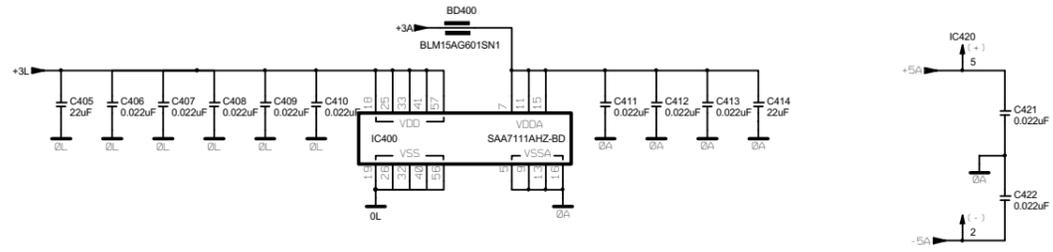
1 2 3 4 5 6 7 8

GRASS VALLEY

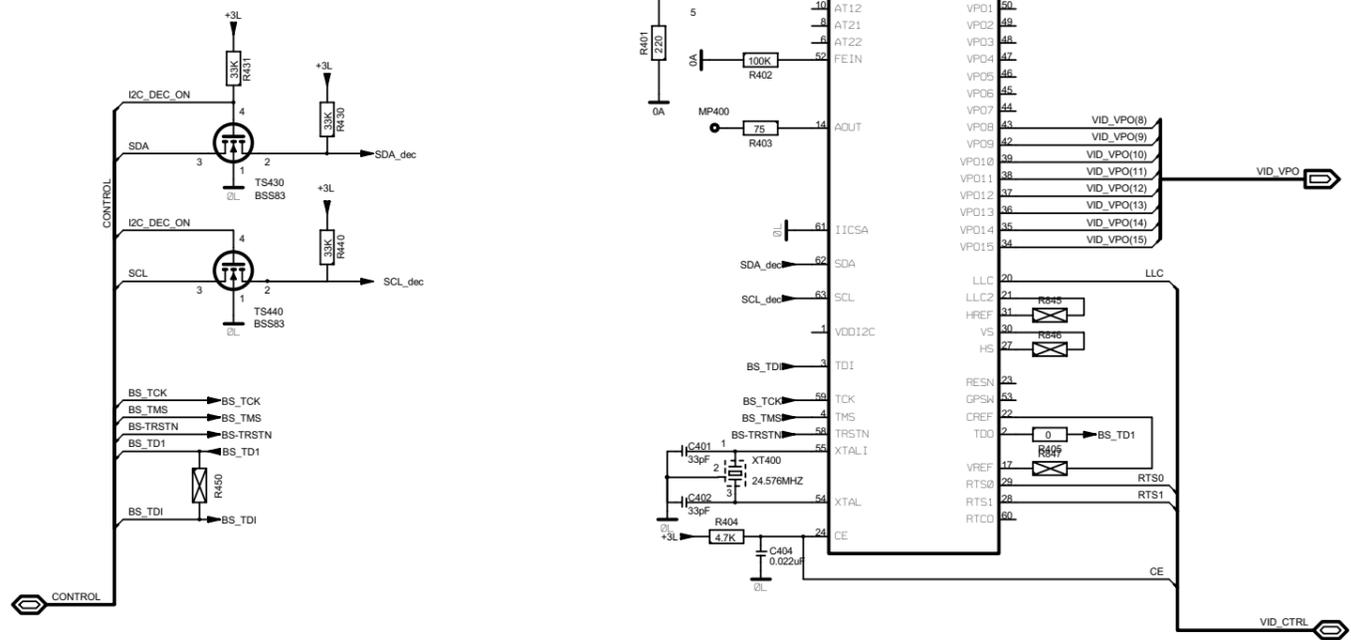
1 2 3 4 5 6 7 8

a
b
c
d
e
f

a
b
c
d
e
f



VID. DECODER

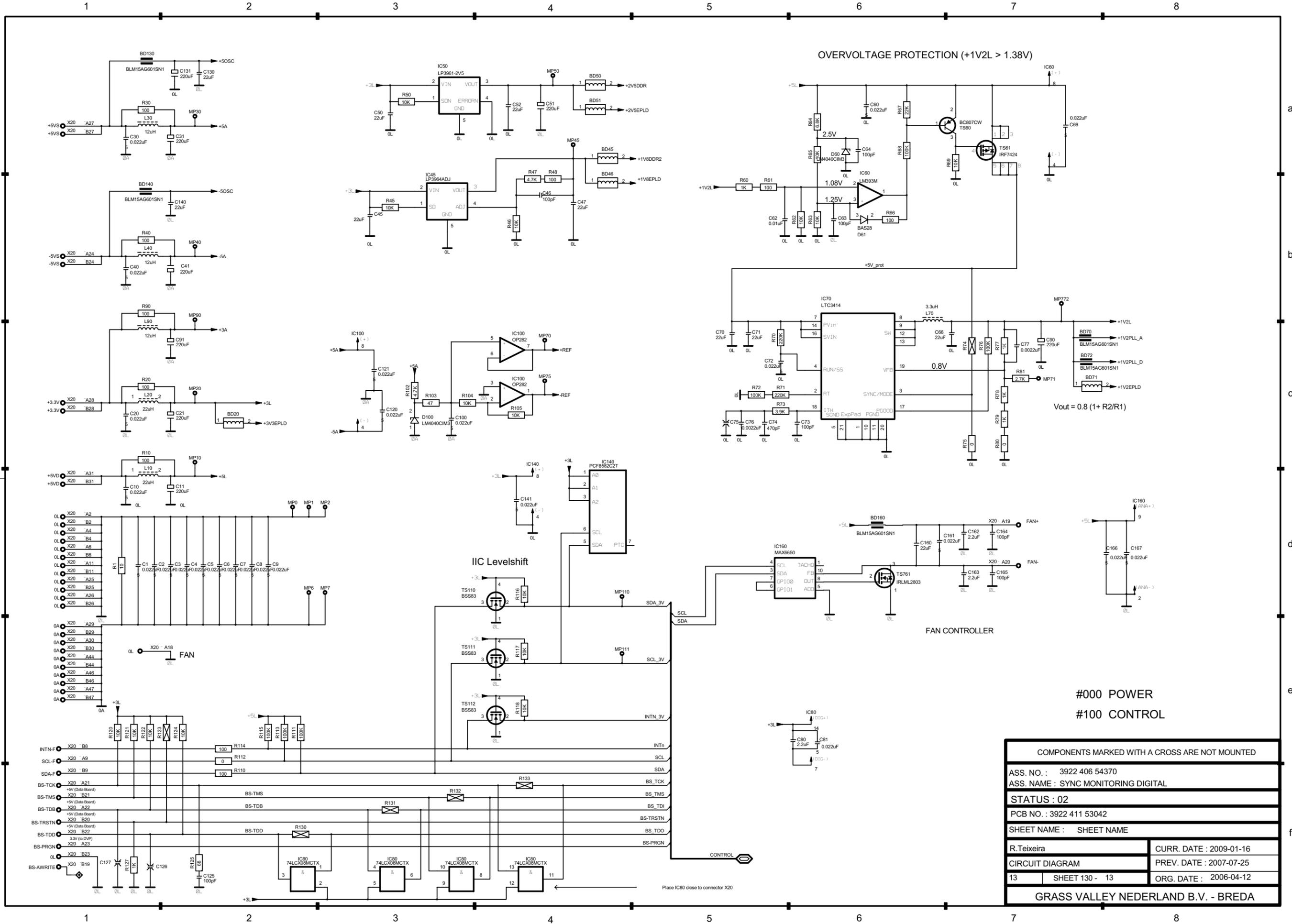
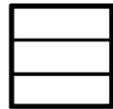
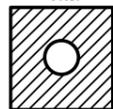
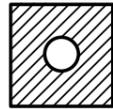


EXTERNAL SDTV INPUT #400

COMPONENTS MARKED WITH A CROSS ARE NOT MOUNTED	
ASS. NO. : 3922 406 54370	
ASS. NAME : SYNC MONITORING DIGITAL	
STATUS : 02	
PCB NO. : 3922 411 53042	
SHEET NAME : SHEET NAME	
R.Teixeira	CURR. DATE : 2009-01-16
CIRCUIT DIAGRAM	PREV. DATE : 2007-07-25
13	SHEET 130 - 12
ORG. DATE : 2006-04-12	
GRASS VALLEY NEDERLAND B.V. - BREDA	

1 2 3 4 5 6 7 8





#000 POWER
#100 CONTROL

COMPONENTS MARKED WITH A CROSS ARE NOT MOUNTED	
ASS. NO. : 3922 406 54370	
ASS. NAME : SYNC MONITORING DIGITAL	
STATUS : 02	
PCB NO. : 3922 411 53042	
SHEET NAME : SHEET NAME	
R.Teixeira	CURR. DATE : 2009-01-16
CIRCUIT DIAGRAM	PREV. DATE : 2007-07-25
13	SHEET 130 - 13
ORG. DATE : 2006-04-12	
GRASS VALLEY NEDERLAND B.V. - BREDA	

3922 406 54991;1 DATA CAMERA BOARD

Ref	Description	Part 12nc	Service part
	No spareparts available		

1

2

3

4

5

6

7

8

A

B

C

D

E

F

A

B

C

D

E

F

53

466

2x

54

2x 316

2x 260

X602

X603

12NC

PROD ID

SW501

D502
D501
D503
D504
D505

IC506

IC501

IC502

IC504

IC505

IC508

IC503

IC402

IC401

C404

IC405

IC404

IC406

IC403

B1

MP607

L603

MP605

C615

L605

C614

L604

MP606

C616

L601

MP602

MP604

C617

L602

MP601

IC202

IC204

IC201

C108

C107

C106

C105

C104

C103

C102

C101

C100

C99

C98

C97

C96

C95

C94

C93

C92

C91

C90

C89

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C25

C24

C23

C22

C21

C20

C19

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C12

C11

C10

C9

C8

C7

C6

C5

C4

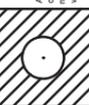
C3

C2

C1

ASSEMBLY LAYER TOP

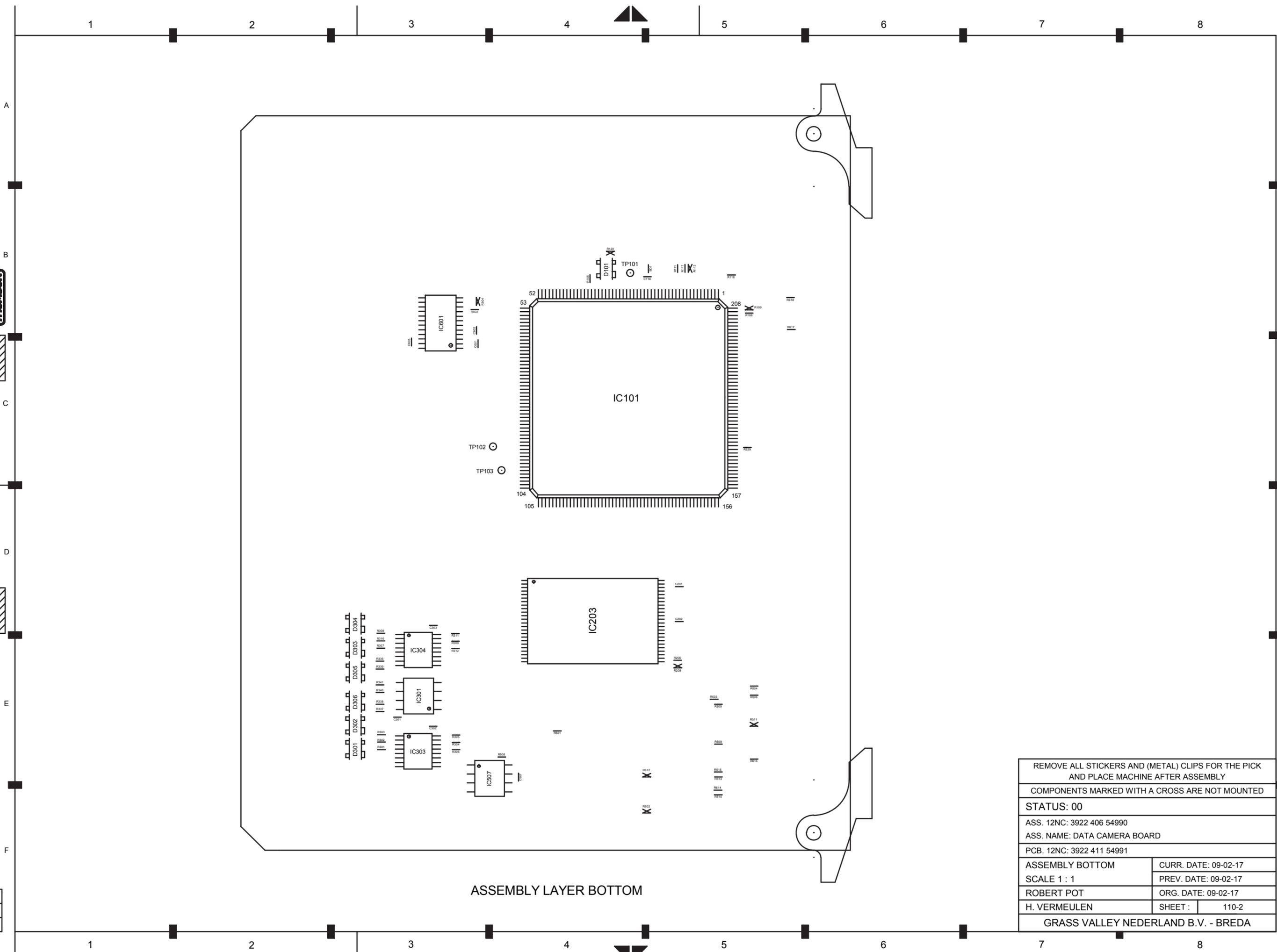
REMOVE ALL STICKERS AND (METAL) CLIPS FOR THE PICK AND PLACE MACHINE AFTER ASSEMBLY	
COMPONENTS MARKED WITH A CROSS ARE NOT MOUNTED	
STATUS: 00	
ASS. 12NC: 3922 406 54990	
ASS. NAME: DATA CAMERA BOARD	
PCB. 12NC: 3922 411 54991	
ASSEMBLY TOP	CURR. DATE: 09-02-17
SCALE 1 : 1	PREV. DATE: 09-02-17
ROBERT POT	ORG. DATE: 09-02-17
H. VERMEULEN	SHEET : 110-1
GRASS VALLEY NEDERLAND B.V. - BREDA	





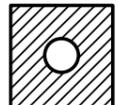
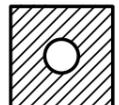
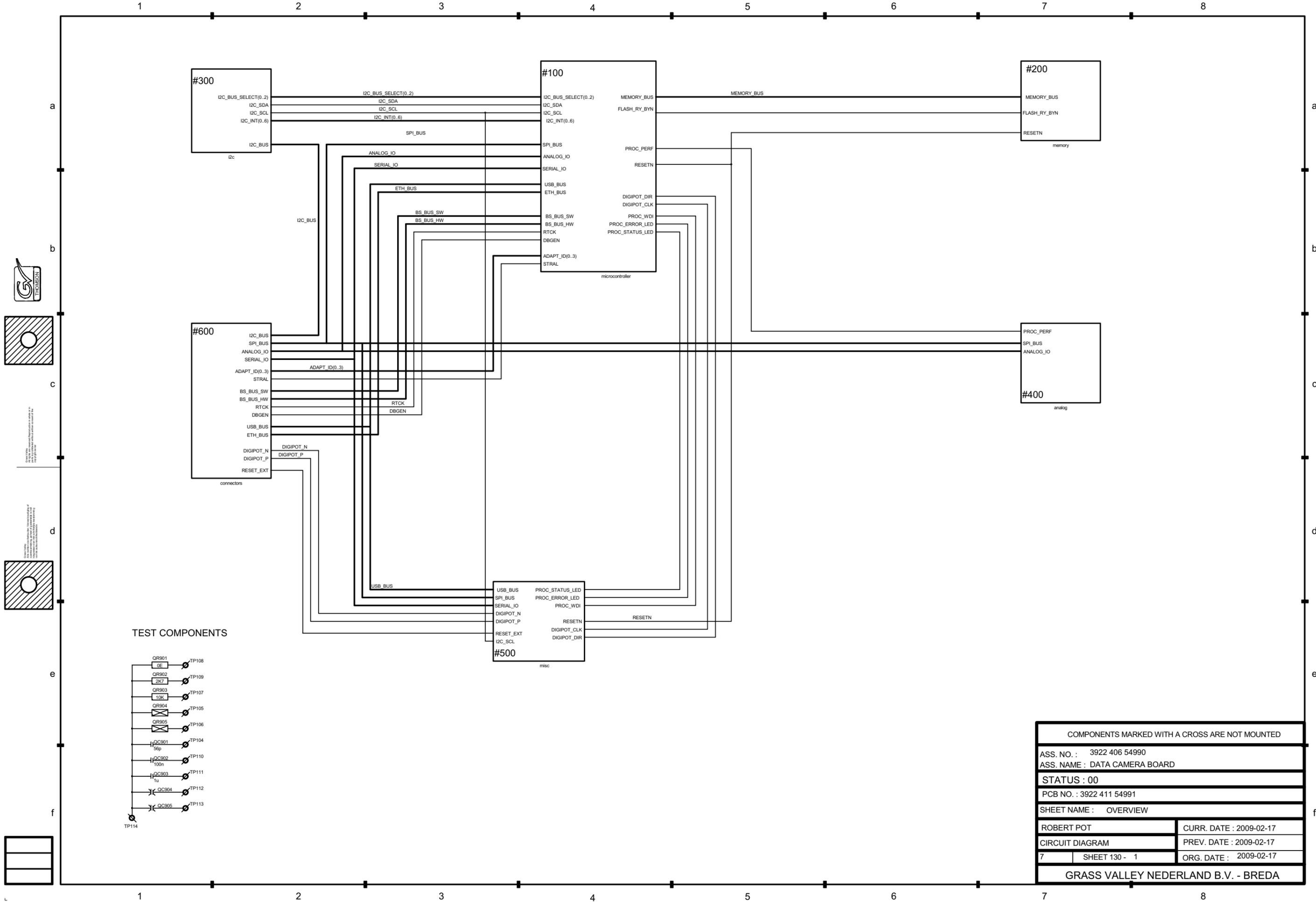
GRASS VALLEY
 Alle rechten voorbehouden. Vervolvoeding
 of opnamemaking, geheel of gedeeltelijk, is
 strafbaar. Het verspreiden van afbeeldingen
 van de afbeeldingstechniek.

GRASS VALLEY
 Alle rechten voorbehouden. Vervolvoeding
 of opnamemaking, geheel of gedeeltelijk, is
 strafbaar. Het verspreiden van afbeeldingen
 van de afbeeldingstechniek.

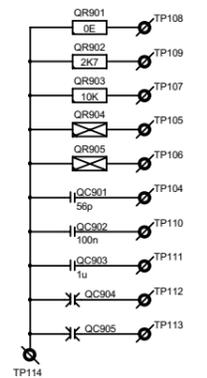


ASSEMBLY LAYER BOTTOM

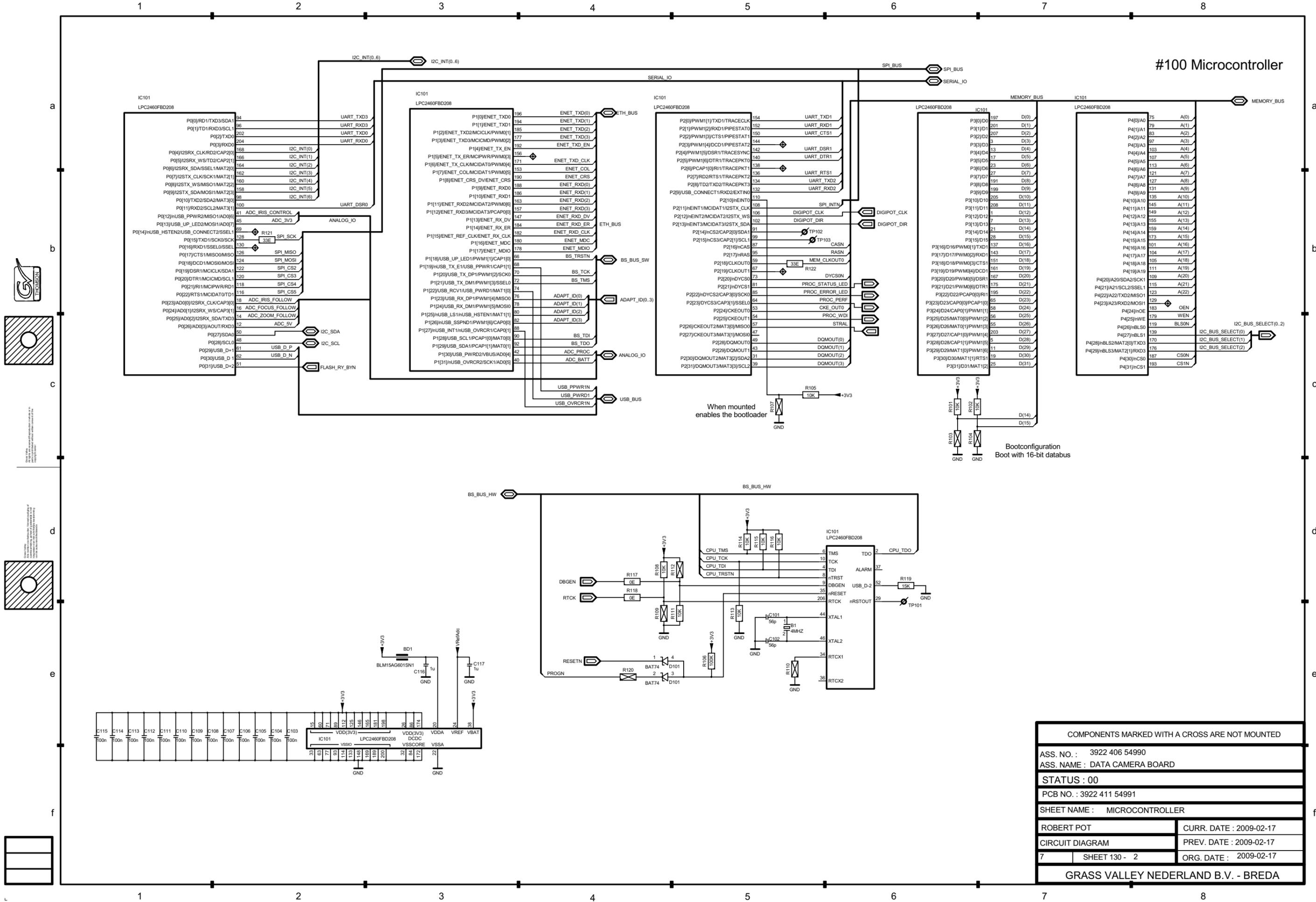
REMOVE ALL STICKERS AND (METAL) CLIPS FOR THE PICK AND PLACE MACHINE AFTER ASSEMBLY	
COMPONENTS MARKED WITH A CROSS ARE NOT MOUNTED	
STATUS: 00	
ASS. 12NC: 3922 406 54990	
ASS. NAME: DATA CAMERA BOARD	
PCB. 12NC: 3922 411 54991	
ASSEMBLY BOTTOM	CURR. DATE: 09-02-17
SCALE 1 : 1	PREV. DATE: 09-02-17
ROBERT POT	ORG. DATE: 09-02-17
H. VERMEULEN	SHEET : 110-2
GRASS VALLEY NEDERLAND B.V. - BREDA	



TEST COMPONENTS



COMPONENTS MARKED WITH A CROSS ARE NOT MOUNTED	
ASS. NO. : 3922 406 54990	
ASS. NAME : DATA CAMERA BOARD	
STATUS : 00	
PCB NO. : 3922 411 54991	
SHEET NAME : OVERVIEW	
ROBERT POT	CURR. DATE : 2009-02-17
CIRCUIT DIAGRAM	PREV. DATE : 2009-02-17
7	SHEET 130 - 1
ORG. DATE : 2009-02-17	
GRASS VALLEY NEDERLAND B.V. - BREDA	

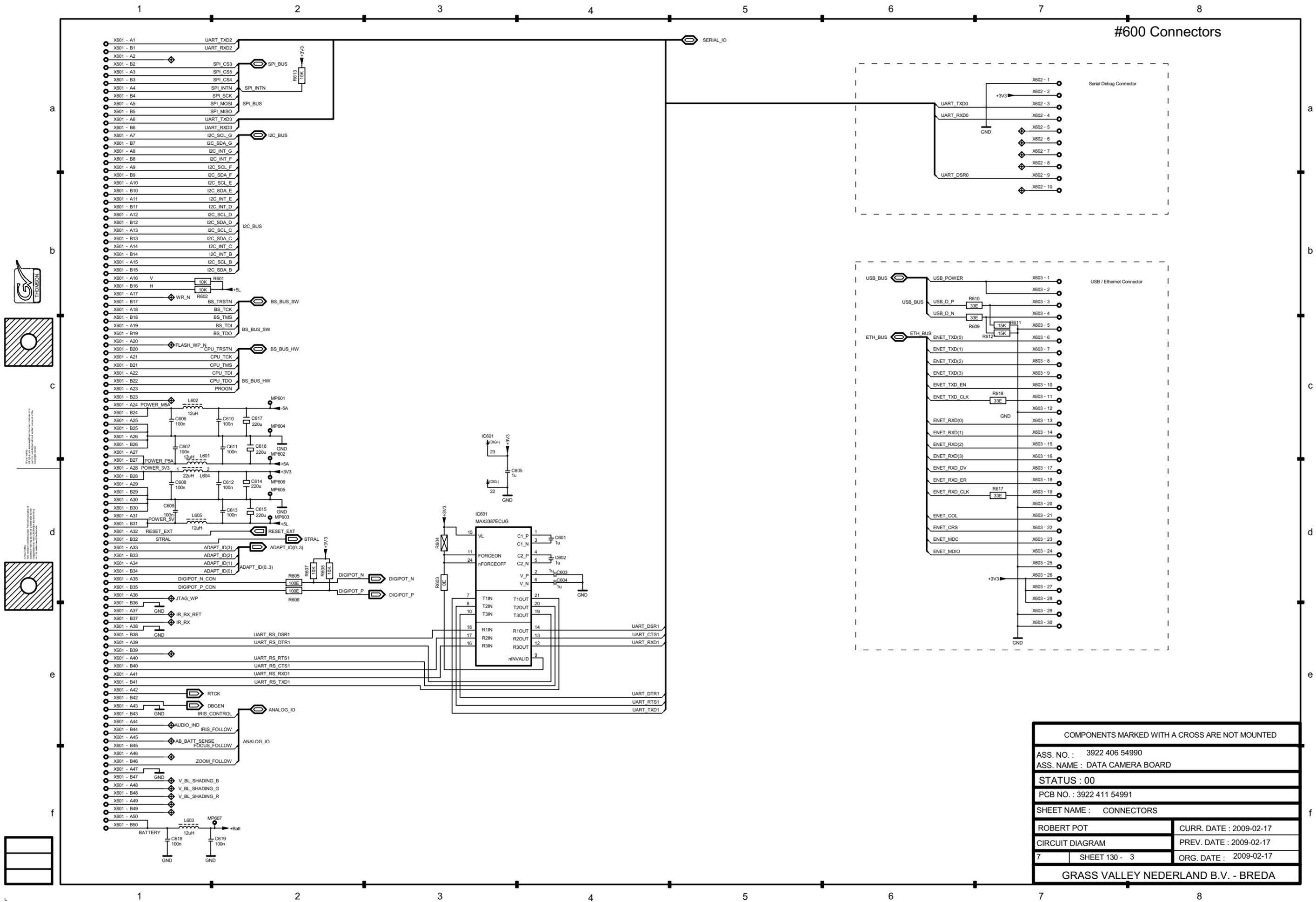


#100 Microcontroller

When mounted enables the bootloader

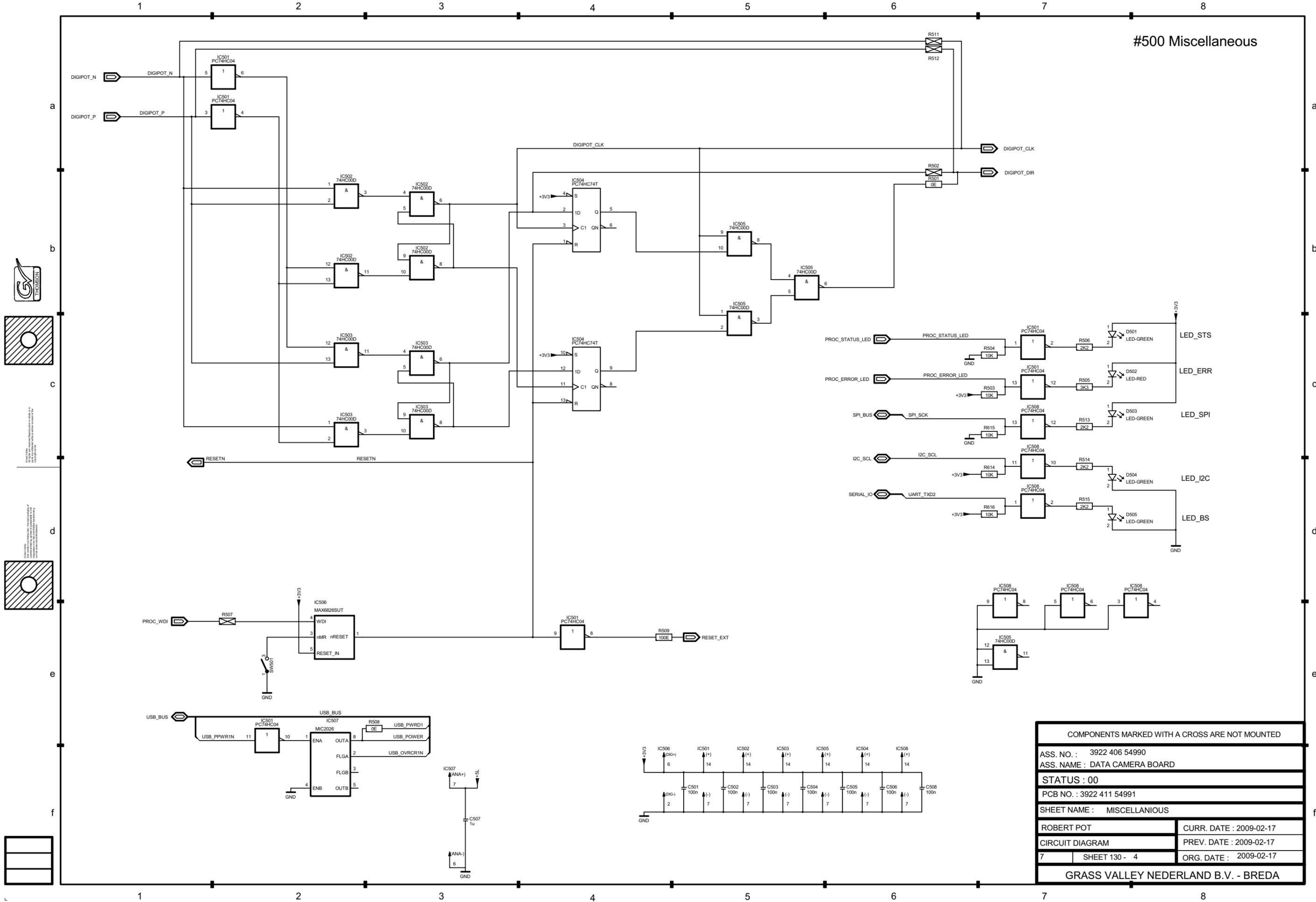
Bootconfiguration
Boot with 16-bit databus

COMPONENTS MARKED WITH A CROSS ARE NOT MOUNTED	
ASS. NO. : 3922 406 54990	
ASS. NAME : DATA CAMERA BOARD	
STATUS : 00	
PCB NO. : 3922 411 54991	
SHEET NAME : MICROCONTROLLER	
ROBERT POT	CURR. DATE : 2009-02-17
CIRCUIT DIAGRAM	PREV. DATE : 2009-02-17
7	SHEET 130 - 2
ORG. DATE : 2009-02-17	
GRASS VALLEY NEDERLAND B.V. - BREDA	

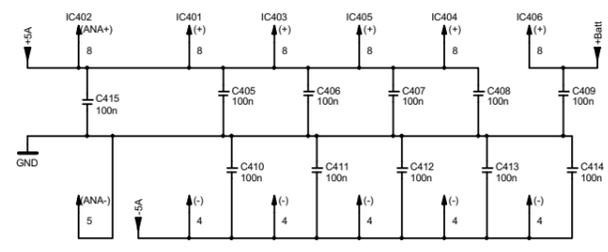
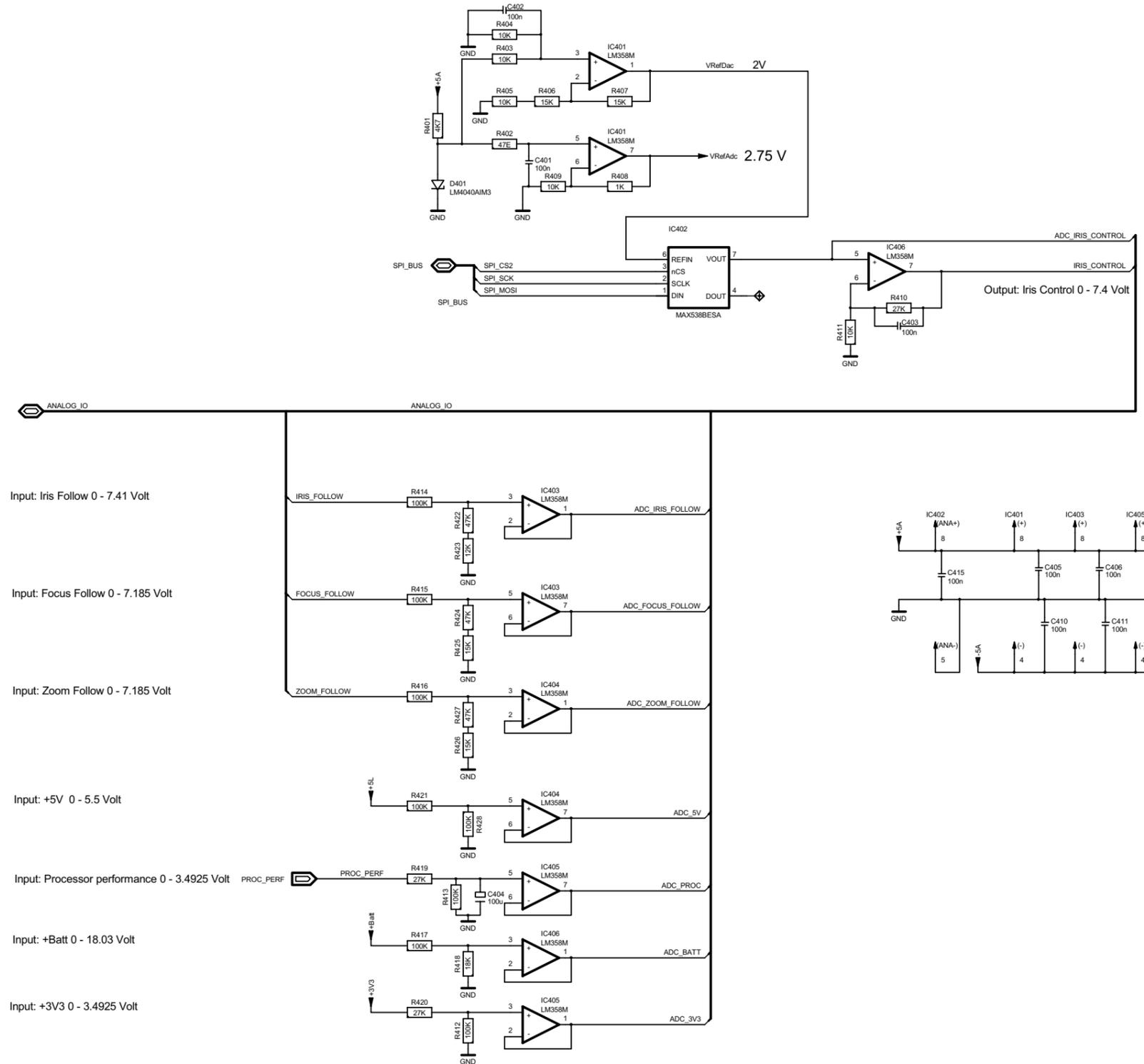


COMPONENTS MARKED WITH A CROSS ARE NOT MOUNTED	
ASS. NO. : 3922 406 54990	
ASS. NAME : DATA CAMERA BOARD	
STATUS : 00	
PCB NO. : 3922 411 54991	
SHEET NAME : CONNECTORS	
ROBERT POT	CURR. DATE : 2009-02-17
CIRCUIT DIAGRAM	PREV. DATE : 2009-02-17
7	SHEET 130 - 3
ORG. DATE : 2009-02-17	
GRASS VALLEY NEDERLAND B.V. - BREDA	

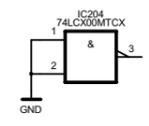
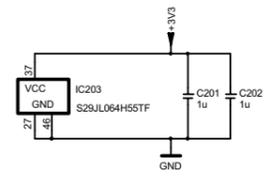
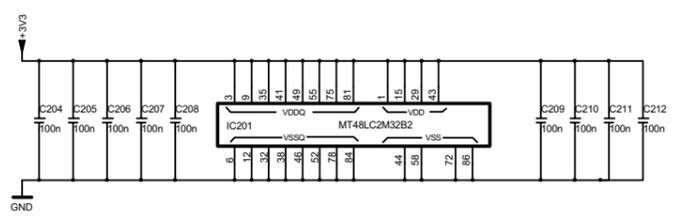
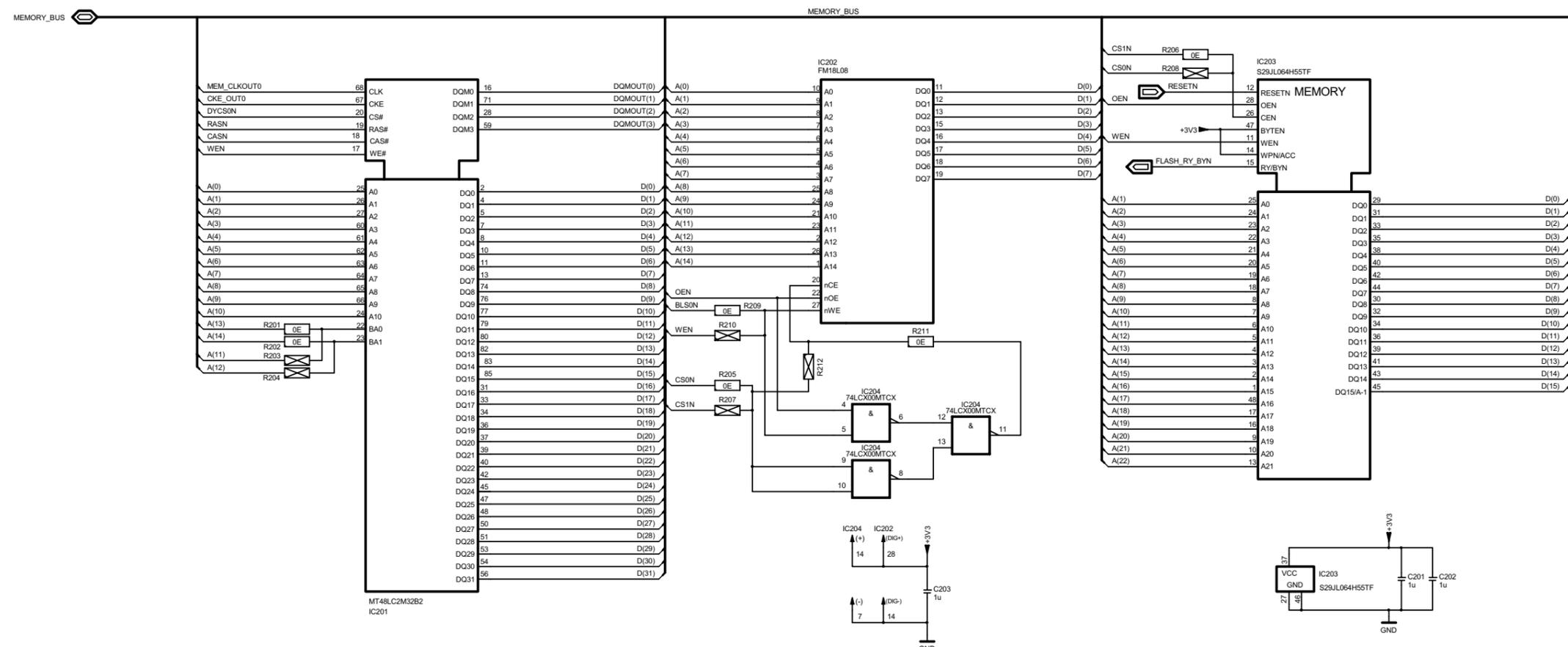
#500 Miscellaneous



#400 Analog



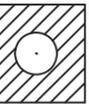
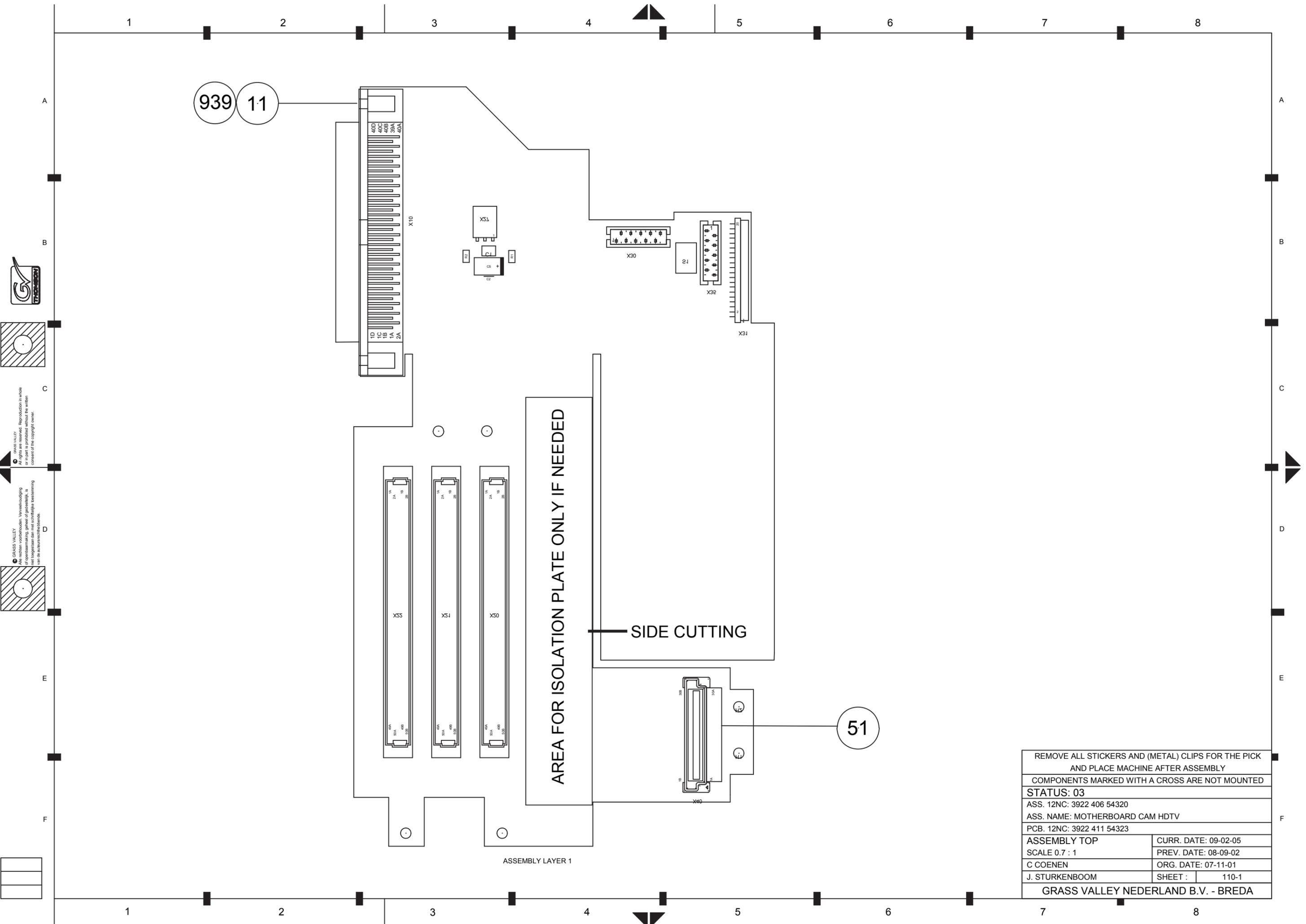
COMPONENTS MARKED WITH A CROSS ARE NOT MOUNTED	
ASS. NO. : 3922 406 54990	
ASS. NAME : DATA CAMERA BOARD	
STATUS : 00	
PCB NO. : 3922 411 54991	
SHEET NAME : ANALOG IO	
ROBERT POT	CURR. DATE : 2009-02-17
CIRCUIT DIAGRAM	PREV. DATE : 2009-02-17
7	SHEET 130 - 6
ORG. DATE : 2009-02-17	
GRASS VALLEY NEDERLAND B.V. - BREDA	



COMPONENTS MARKED WITH A CROSS ARE NOT MOUNTED	
ASS. NO. : 3922 406 54990	
ASS. NAME : DATA CAMERA BOARD	
STATUS : 00	
PCB NO. : 3922 411 54991	
SHEET NAME : MEMORY	
ROBERT POT	CURR. DATE : 2009-02-17
CIRCUIT DIAGRAM	PREV. DATE : 2009-02-17
7	SHEET 130 - 7
ORG. DATE : 2009-02-17	
GRASS VALLEY NEDERLAND B.V. - BREDA	

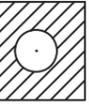
3922 406 54321;4 MOTHERBOARD CAM HDTV

Ref	Description	Part 12nc	Service part
R1	FUSE PTC 1206L025 0.25A 15V	3922 205 00082	Yes
R2	FUSE PTC 1206L025 0.25A 15V	3922 205 00082	Yes
S1	SMD050 OVERCURRE. PROT. A33 60V	2122 662 00093	Yes



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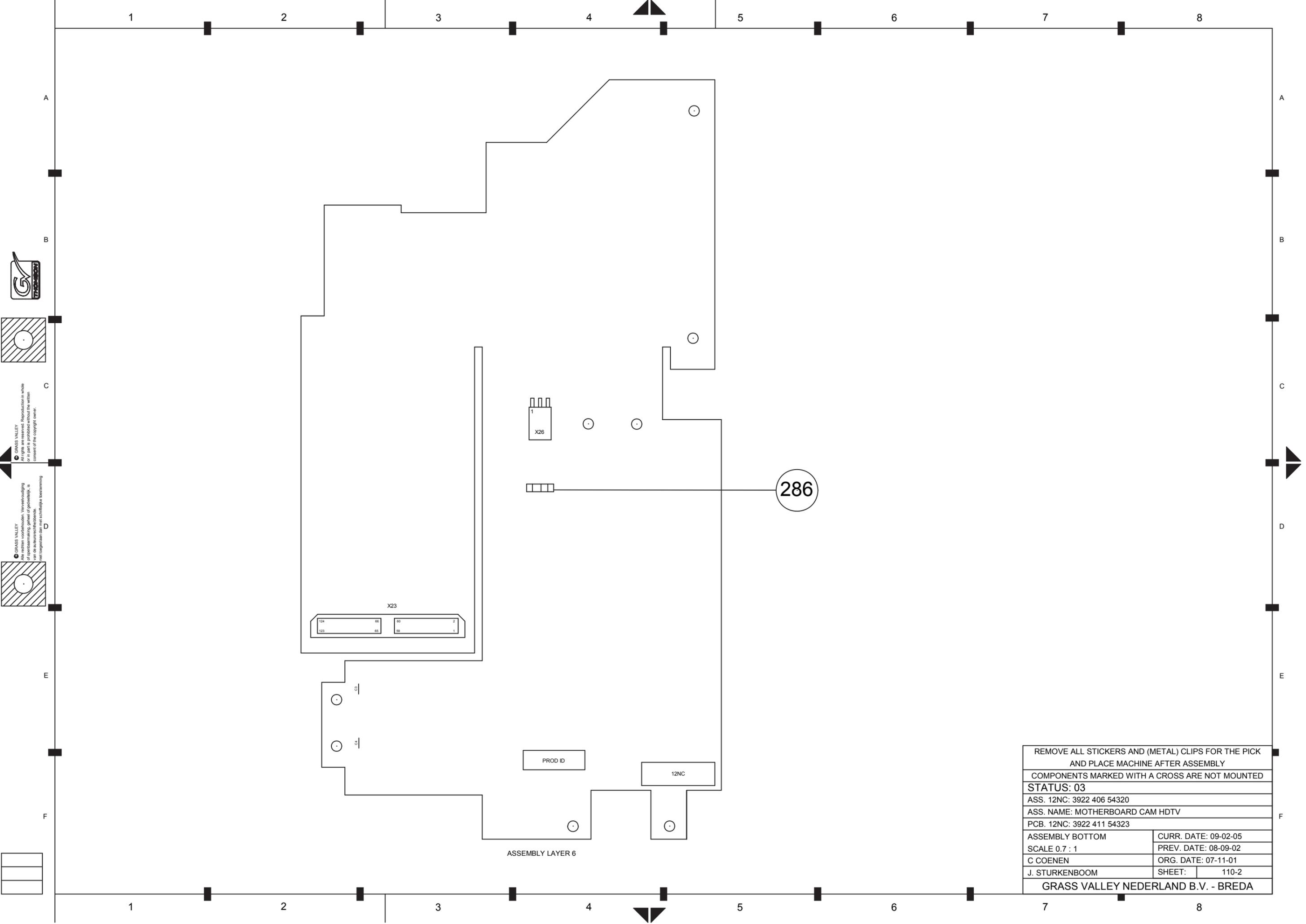


AREA FOR ISOLATION PLATE ONLY IF NEEDED

SIDE CUTTING

ASSEMBLY LAYER 1

REMOVE ALL STICKERS AND (METAL) CLIPS FOR THE PICK AND PLACE MACHINE AFTER ASSEMBLY	
COMPONENTS MARKED WITH A CROSS ARE NOT MOUNTED	
STATUS: 03	
ASS. 12NC: 3922 406 54320	
ASS. NAME: MOTHERBOARD CAM HDTV	
PCB. 12NC: 3922 411 54323	
ASSEMBLY TOP	CURR. DATE: 09-02-05
SCALE 0.7 : 1	PREV. DATE: 08-09-02
C COENEN	ORG. DATE: 07-11-01
J. STURKENBOOM	SHEET : 110-1
GRASS VALLEY NEDERLAND B.V. - BREDA	

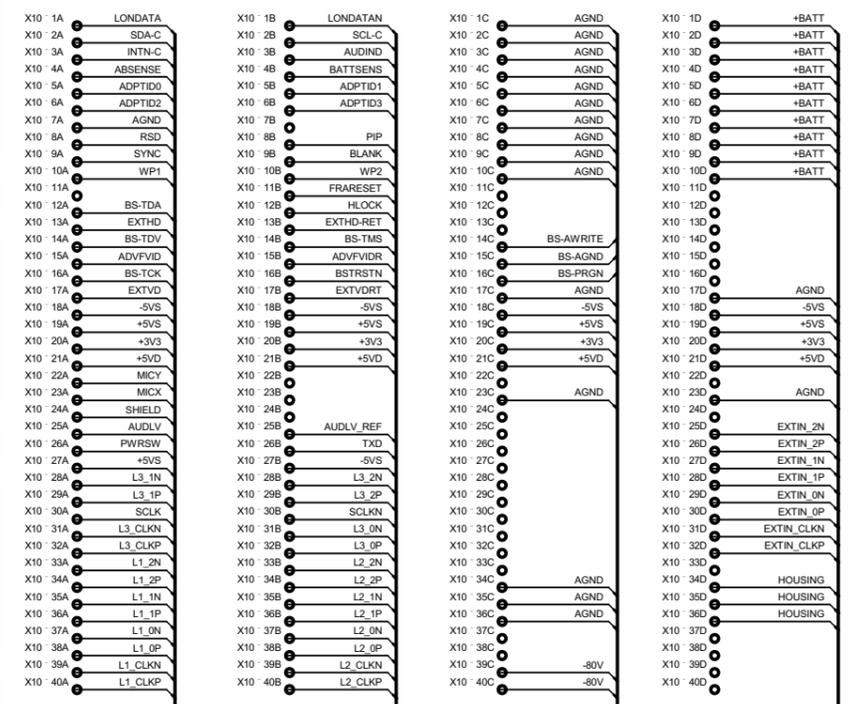


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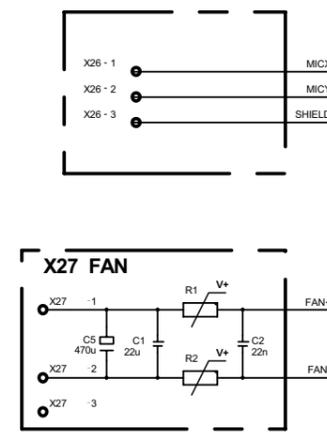
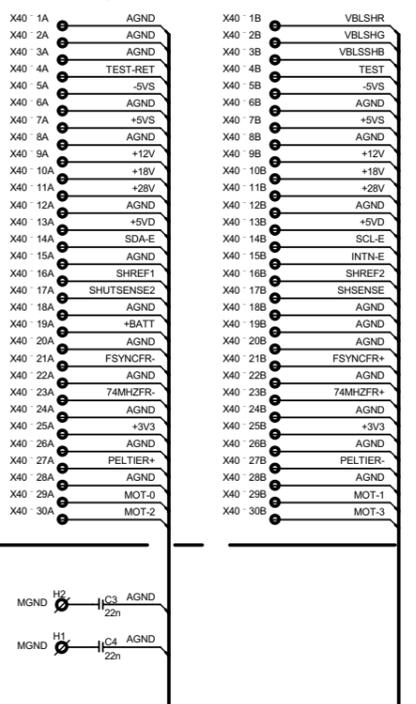
GRASS VALLEY
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 niet toegestaan dan met schriftelijke toestemming
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REMOVE ALL STICKERS AND (METAL) CLIPS FOR THE PICK AND PLACE MACHINE AFTER ASSEMBLY	
COMPONENTS MARKED WITH A CROSS ARE NOT MOUNTED	
STATUS: 03	
ASS. 12NC: 3922 406 54320	
ASS. NAME: MOTHERBOARD CAM HDTV	
PCB. 12NC: 3922 411 54323	
ASSEMBLY BOTTOM	CURR. DATE: 09-02-05
SCALE 0.7 : 1	PREV. DATE: 08-09-02
C COENEN	ORG. DATE: 07-11-01
J. STURKENBOOM	SHEET: 110-2
GRASS VALLEY NEDERLAND B.V. - BREDA	

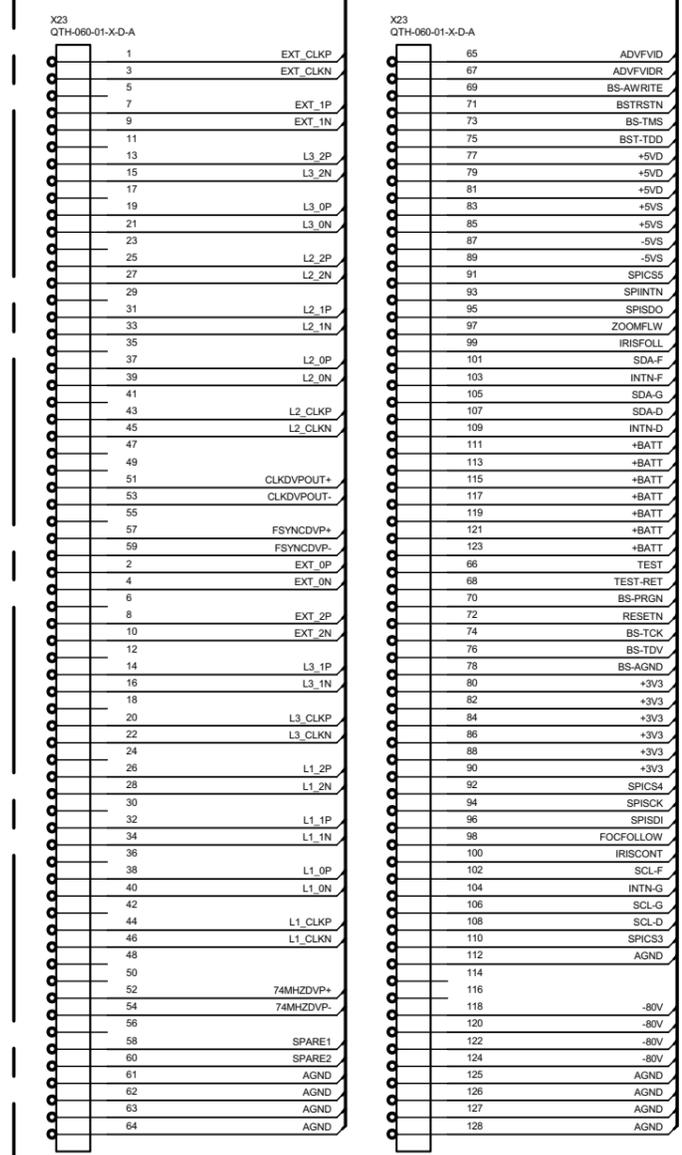
X10 DOCKING CONN.



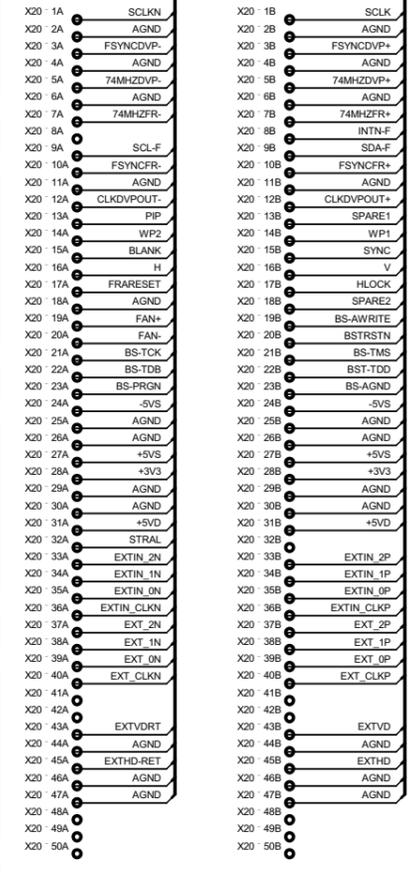
X40 FRONT



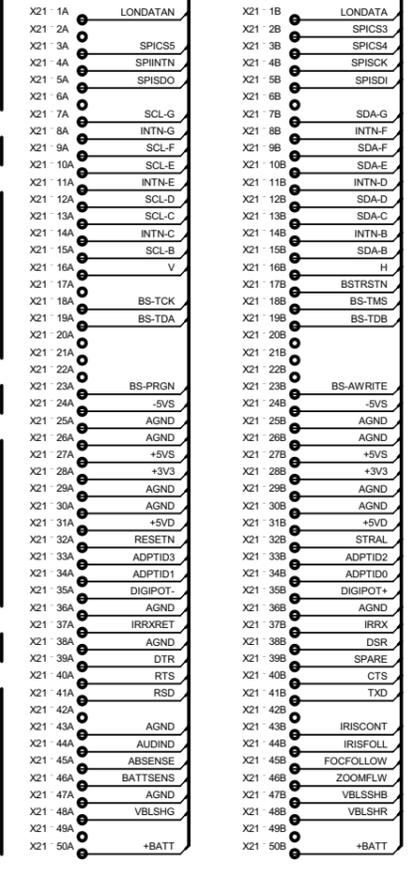
X23 DVP



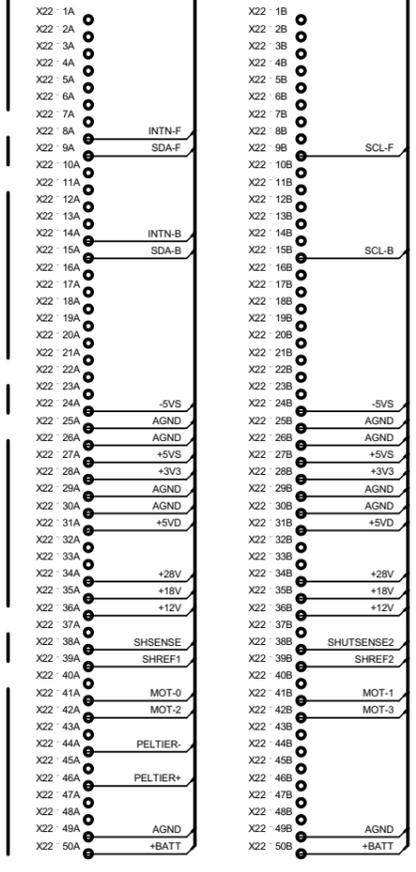
X20 SYNC MON



X21 DATABRD



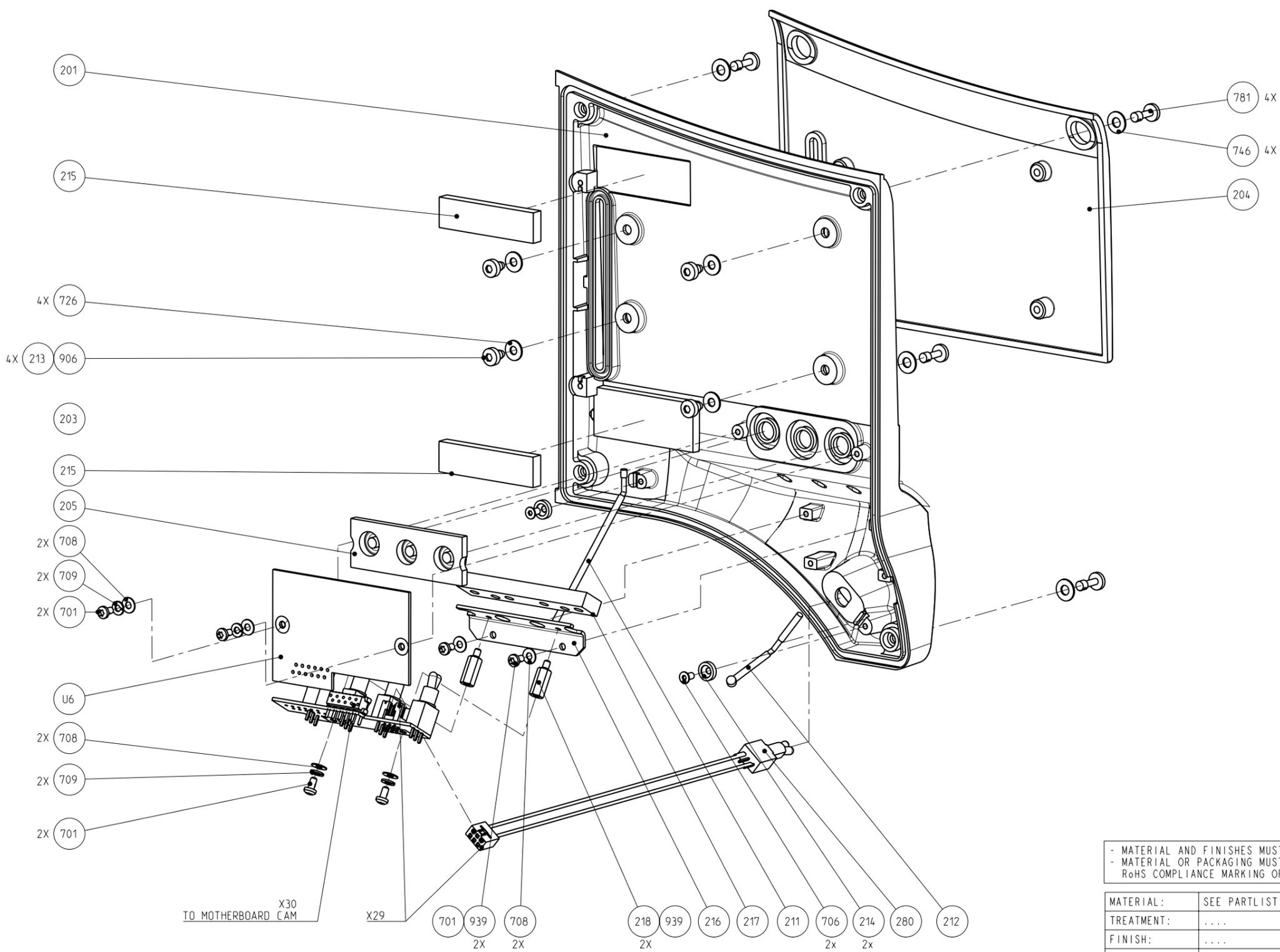
X22 FRONT DRIVER



3922 407 56481;1 HEAD COVER LEFT ASSY

Ref	Description	Part 12nc	Service part
201	HEAD COVER LEFT PAINTED		
204	HEAD PADDING NS PAINTED		
205	SWITCH PAD		
211	COVER HINGE LONG		
212	COVER HINGE SHORT		
213	PAN TAP SCR F ST T8 2,9X4,5		
214	CSK WASHER STL ST M2		
215	CELRUBBER ZK/CR FEST 10X2MM		
216	BRACKET TOGGLE SWITCHES		
217	SEAL 4 TOGGLE SWITCHES		
218	DIST. PIECE M2X9.1		
280	POWER SWITCH ASSY	3922 407 26063	Yes
701	PAN SCR STL ST M2x4		
706	CSK SCR STL ST M2x4		
708	WASH STL ST 2,2X5		
709	SPR WASH STL ST 2,1X4.4		
726	WASH STL ST 2,7X6,5		
746	WASH STL ST 3,2X7		
781	PAN CAP SCR STL.ST M3x10		
906	RUBBER GLUE SYNTHETIC NBR 042		
939	SCREW LOCK 222		
U6	LEFT SWITCH PANEL	3922 406 53671	Yes

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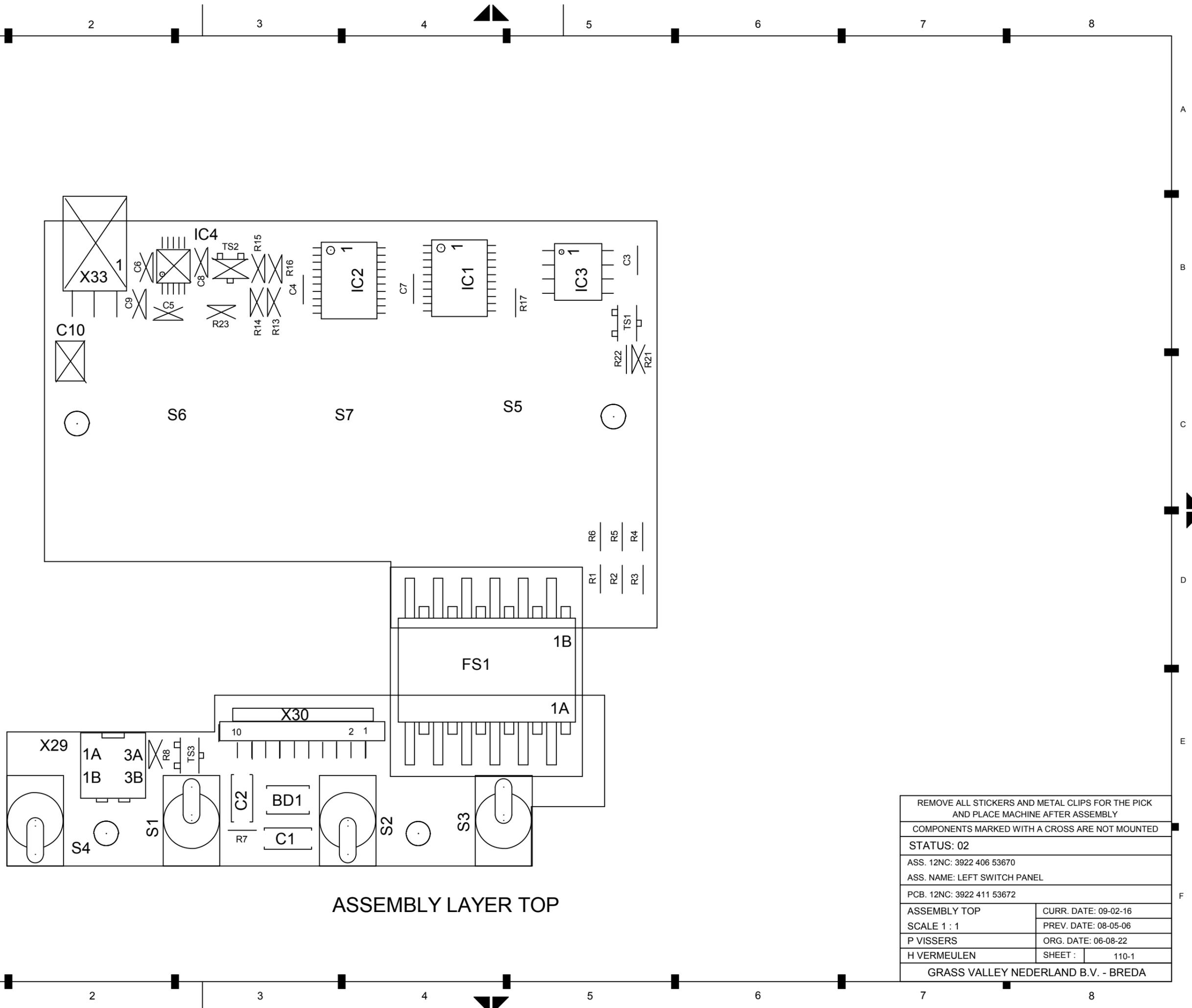
- MATERIAL AND FINISHES MUST BE RoHS COMPLIANT
 - MATERIAL OR PACKAGING MUST BE MARKED WITH RoHS COMPLIANCE MARKING OR LABEL

Rev	Name	Date	SCALE	
			1:1	
			UNIT	
			mm	
MATERIAL: SEE PARTLIST			TITLE: HEAD COVER LEFT ASSY	
TREATMENT:			DOCUMENT NUMBER	FORMAT SHEET
FINISH:			3922 407 5648	A2 1/1
DRAWN BY: V. HEIJMAN	DATE: 2009-03-24	GENERAL ROUGHNESS: Ra 3.2 µm	TOLERANCES UNLESS OTHERWISE STATED: DIMENSION: ±0.2	ANGLE: ±1°
RELEASE LEVEL:			110-01	



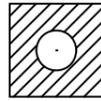
3922 406 53671;2 LEFT SWITCH PANEL

Ref	Description	Part 12nc	Spare part
	No spare parts available, only complete board		



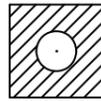
ASSEMBLY LAYER TOP

REMOVE ALL STICKERS AND METAL CLIPS FOR THE PICK AND PLACE MACHINE AFTER ASSEMBLY	
COMPONENTS MARKED WITH A CROSS ARE NOT MOUNTED	
STATUS: 02	
ASS. 12NC: 3922 406 53670	
ASS. NAME: LEFT SWITCH PANEL	
PCB. 12NC: 3922 411 53672	
ASSEMBLY TOP	CURR. DATE: 09-02-16
SCALE 1 : 1	PREV. DATE: 08-05-06
P VISSERS	ORG. DATE: 06-08-22
H VERMEULEN	SHEET : 110-1
GRASS VALLEY NEDERLAND B.V. - BREDA	



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1

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4

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C

D

E

F

A

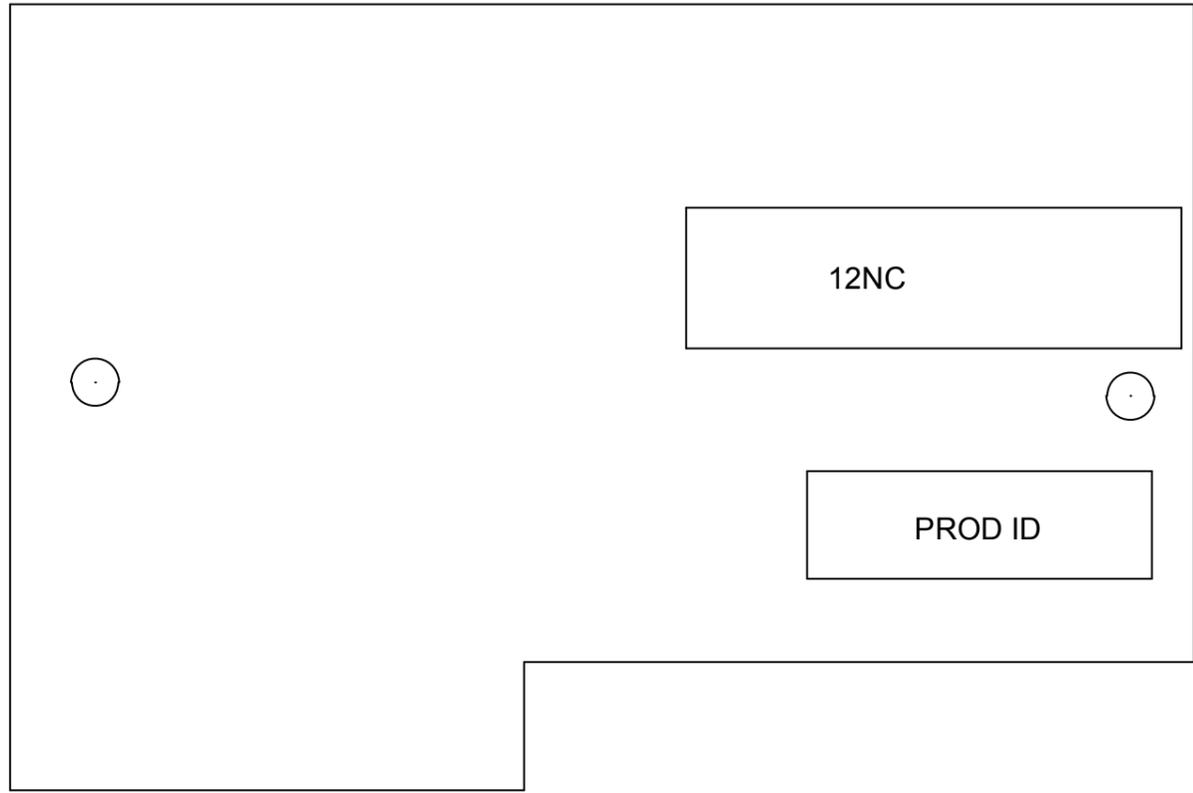
B

C

D

E

F



ASSEMBLY LAYER BOTTOM

REMOVE ALL STICKERS AND METAL CLIPS FOR THE PICK AND PLACE MACHINE AFTER ASSEMBLY	
COMPONENTS MARKED WITH A CROSS ARE NOT MOUNTED	
STATUS: 02	
ASS. 12NC: 3922 406 53670	
ASS. NAME: LEFT SWITCH PANEL	
PCB. 12NC: 3922 411 53672	
ASSEMBLY BOTTOM	CURR. DATE: 09-02-16
SCALE 1 : 1	PREV. DATE: 08-05-06
P VISSERS	ORG. DATE: 06-08-22
H VERMEULEN	SHEET : 110-2
GRASS VALLEY NEDERLAND B.V. - BREDA	

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3

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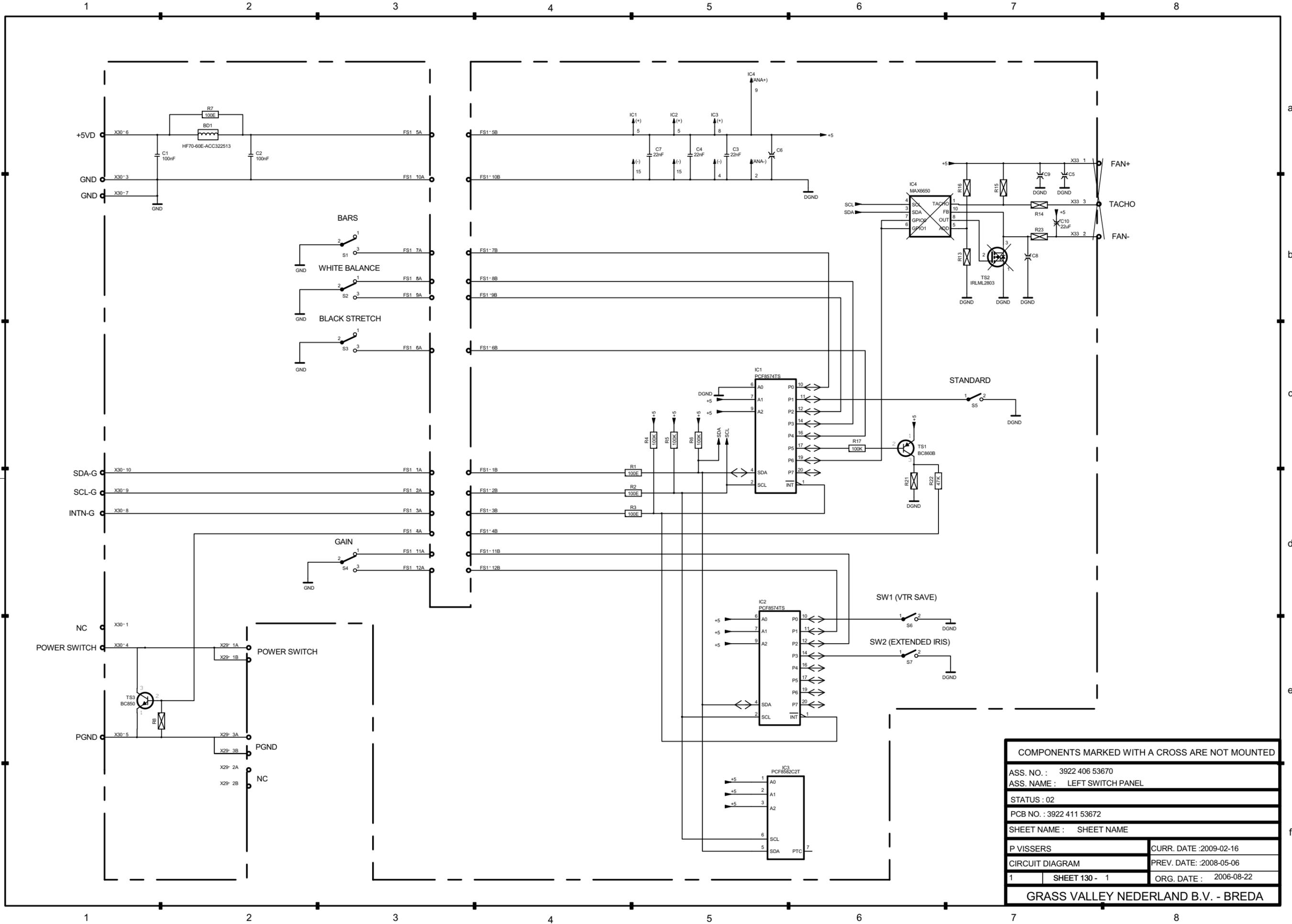
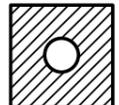
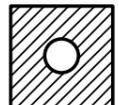
5

6

7

8

GRASS VALLEY



COMPONENTS MARKED WITH A CROSS ARE NOT MOUNTED	
ASS. NO. : 3922 406 53670	
ASS. NAME : LEFT SWITCH PANEL	
STATUS : 02	
PCB NO. : 3922 411 53672	
SHEET NAME : SHEET NAME	
P VISSERS	CURR. DATE :2009-02-16
CIRCUIT DIAGRAM	PREV. DATE :2008-05-06
1	SHEET 130 - 1
	ORG. DATE : 2006-08-22
GRASS VALLEY NEDERLAND B.V. - BREDA	

3922 407 56181;2 HEAD COVER RIGHT CMOS ASSY

Ref	Description	Part 12nc	Service part
101	COVER RIGHT PAINTED		
102	COOLING LOGO MACHINED		
103	SEALING VF-CONNECTOR		
105	FPGA COOLING		
106	PULL RELIEF STRAP		
107	CABLECLAMP	3922 400 10051	Yes
108	RAINCOVER RS232	3922 400 09031	Yes
112	GAP PAD FPGA .060 INCH		
113	GAP PAD		
114	COOLINGSTRIP ASSY		
116	COOLING LOGO SEALING		
117	CLAMP TMC-6		
180	NTRIK MIC CABLE ASSY	3922 407 50382	Yes
211	COVER HINGE LONG		
212	COVER HINGE SHORT		
214	CSK WASHER STL ST M2		
701	PAN SCR STL ST M2x4		
702	PAN SCR STL ST M2X6		
706	CSK SCR STL ST M2x4		
707	CSK SCR STL ST M2x6		
708	WASH STL ST 2,2X5		
709	SPR WASH STL ST 2,1X4.4		
722	CSK SCR STL ST M2,5x6		
733	PAN SCR STL ST M3X4		
741	CSK SCR STL ST M3X4		
742	CSK SCR STL ST M3X6		
746	WASH STL ST 3,2X7		
747	SPR WASH STL ST 3,1X5,7		
781	PAN CAP SCR STL.ST M3x10		
782	PAN CAP SCR STL.ST M3x12		
939	SCREW LOCK 222		
951	HEAT SINK COMPOUND		
U1	CONN.BRD RIGHT COVER	3922 406 53101	Yes
U2	DVP BOARD CMOS	3922 406 54781	Yes

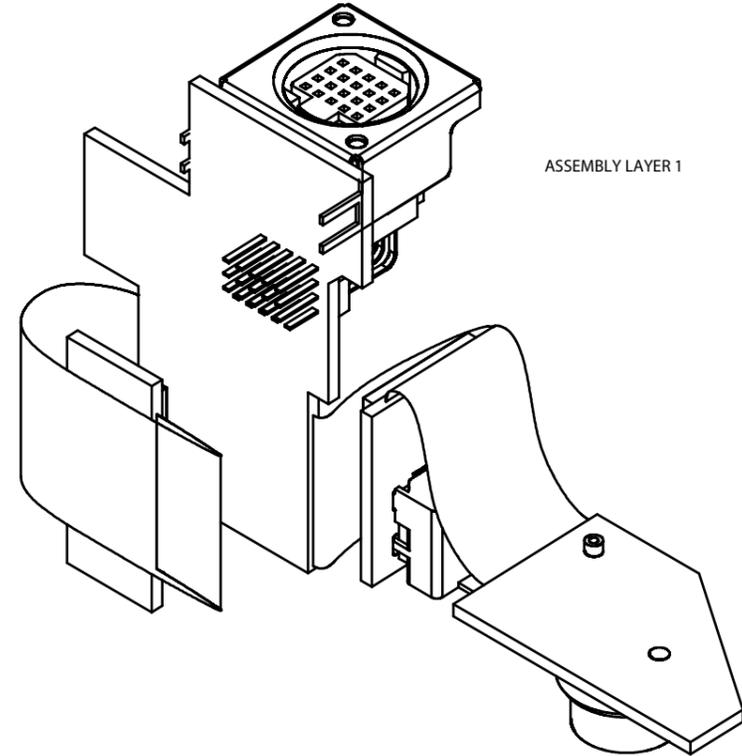
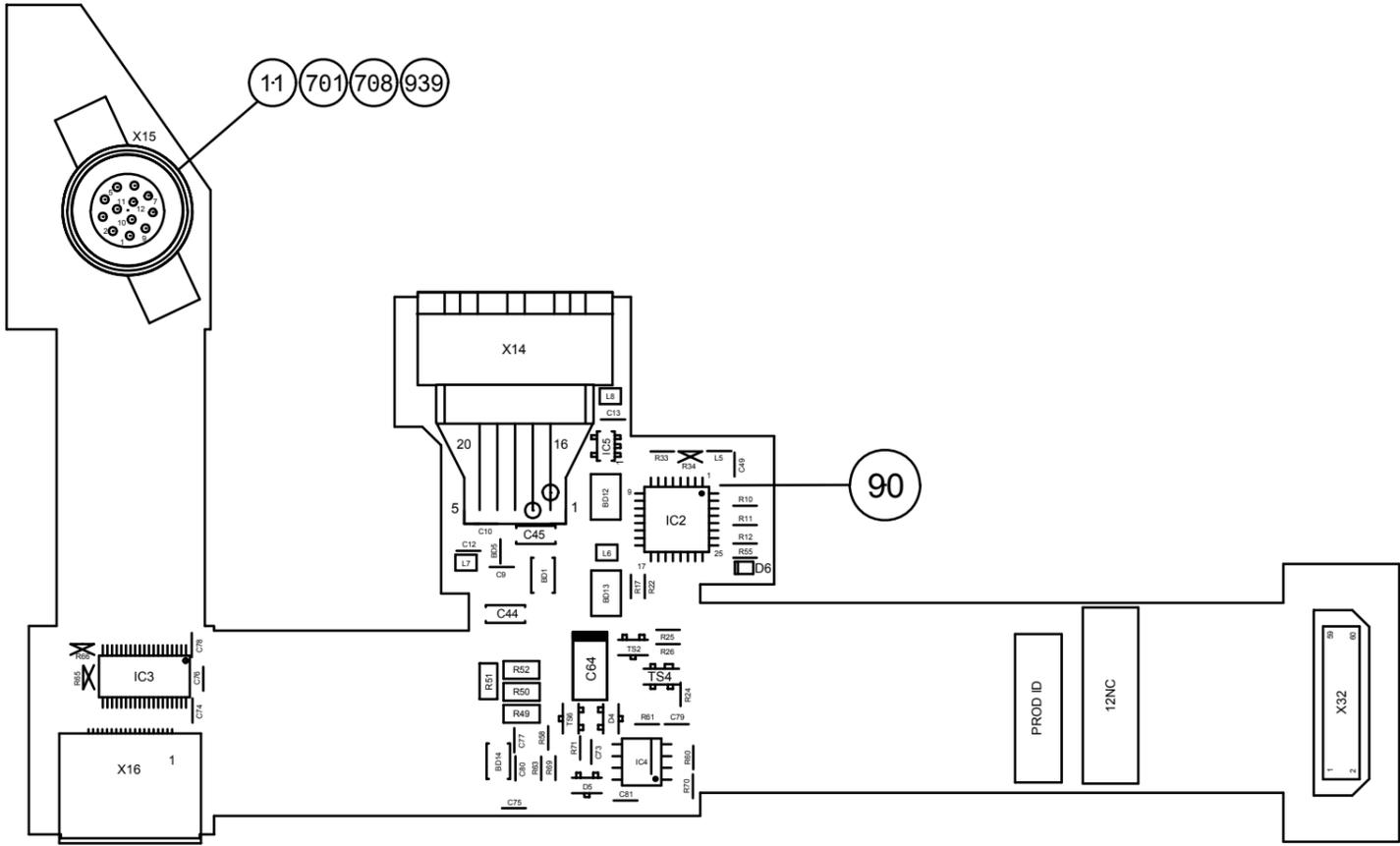
3922 406 53101;7 CONN.BRD RIGHT COVER

Ref	Description	Part 12nc	Spare part
No spare parts available, only complete board			

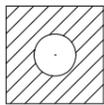


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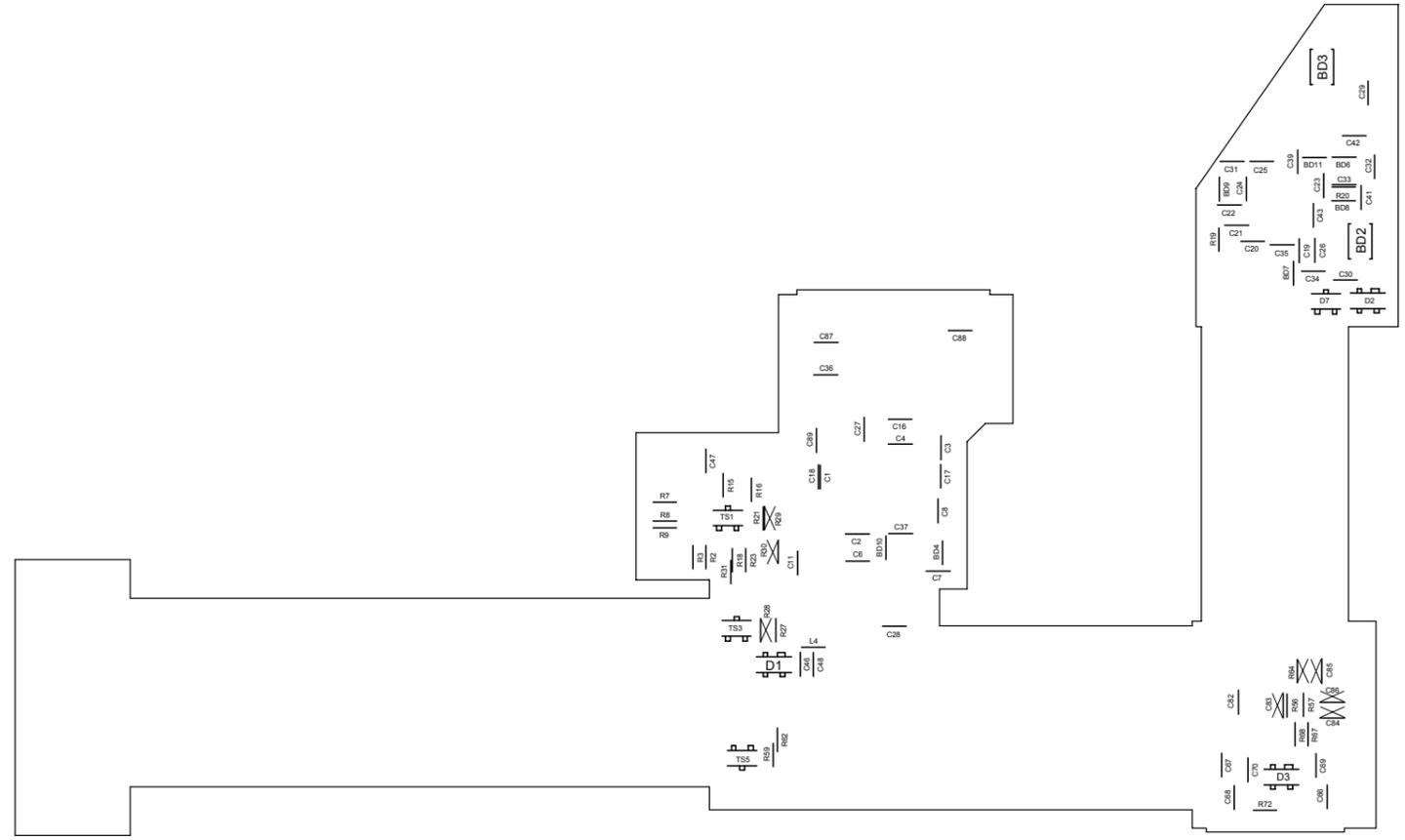
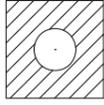


COMPONENTS MARKED WITH A CROSS ARE NOT MOUNTED	
STATUS: 04	
ASS. 12NC: 3922 406 53100	
ASS. NAME: CONN.BRD RIGHT COVER	
PCB. 12NC: 3922 411 53102	
ASSEMBLY TOP	CURR. DATE: 2008-11-12
SCALE 1 : 1	PREV. DATE: 2007-10-16
P. VISSERS	ORG. DATE: 2006-02-23
H VERMEULEN	SHEET : 110-1
GRASS VALLEY NEDERLAND B.V. - BREDA	



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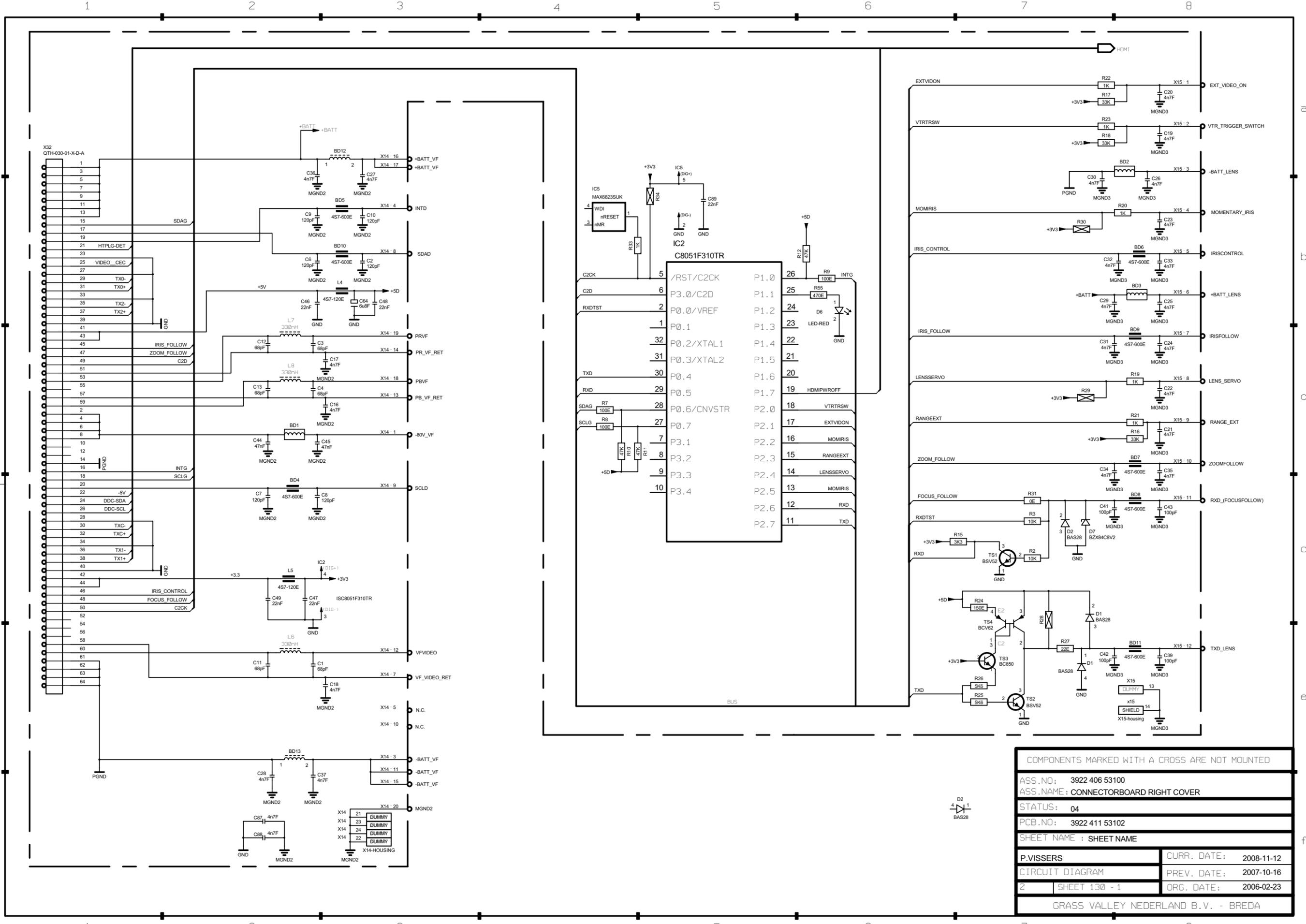
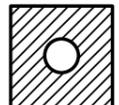
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ASSEMBLY LAYER 6

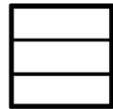
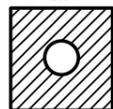
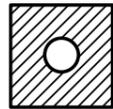
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STATUS: 04	
ASS. 12NC: 3922 406 53100	
ASS. NAME: CONN.BRD RIGHT COVER	
PCB. 12NC: 3922 411 53102	
ASSEMBLY BOTTOM	CURR. DATE: 2008-11-12
SCALE 1 : 1	PREV. DATE: 2007-10-16
P. VISSERS	ORG. DATE: 2006-02-23
H VERMEULEN	SHEET : 110-2
GRASS VALLEY NEDERLAND B.V. - BREDA	

GRASS VALLEY

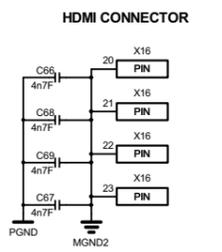
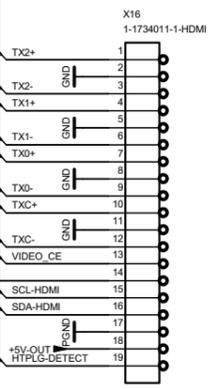
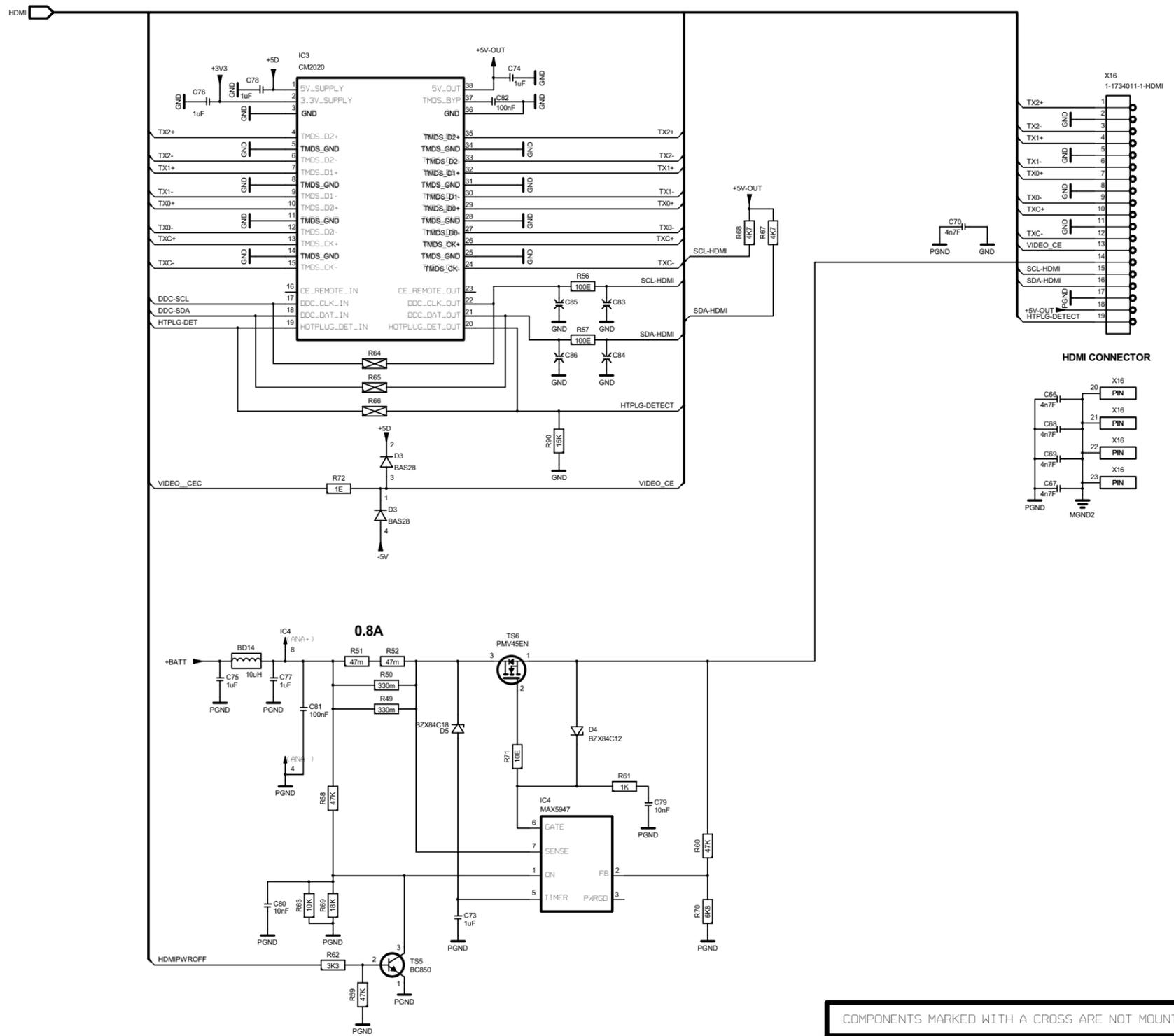


COMPONENTS MARKED WITH A CROSS ARE NOT MOUNTED	
ASS.ND: 3922 406 53100	
ASS.NAME: CONNECTORBOARD RIGHT COVER	
STATUS: 04	
PCB.NO: 3922 411 53102	
SHEET NAME : SHEET NAME	
P.VISSERS	CURR. DATE: 2008-11-12
CIRCUIT DIAGRAM	PREV. DATE: 2007-10-16
2	SHEET 130 - 1
ORG. DATE: 2006-02-23	
GRASS VALLEY NEDERLAND B.V. - BREDA	

GRASS VALLEY



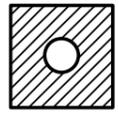
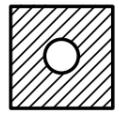
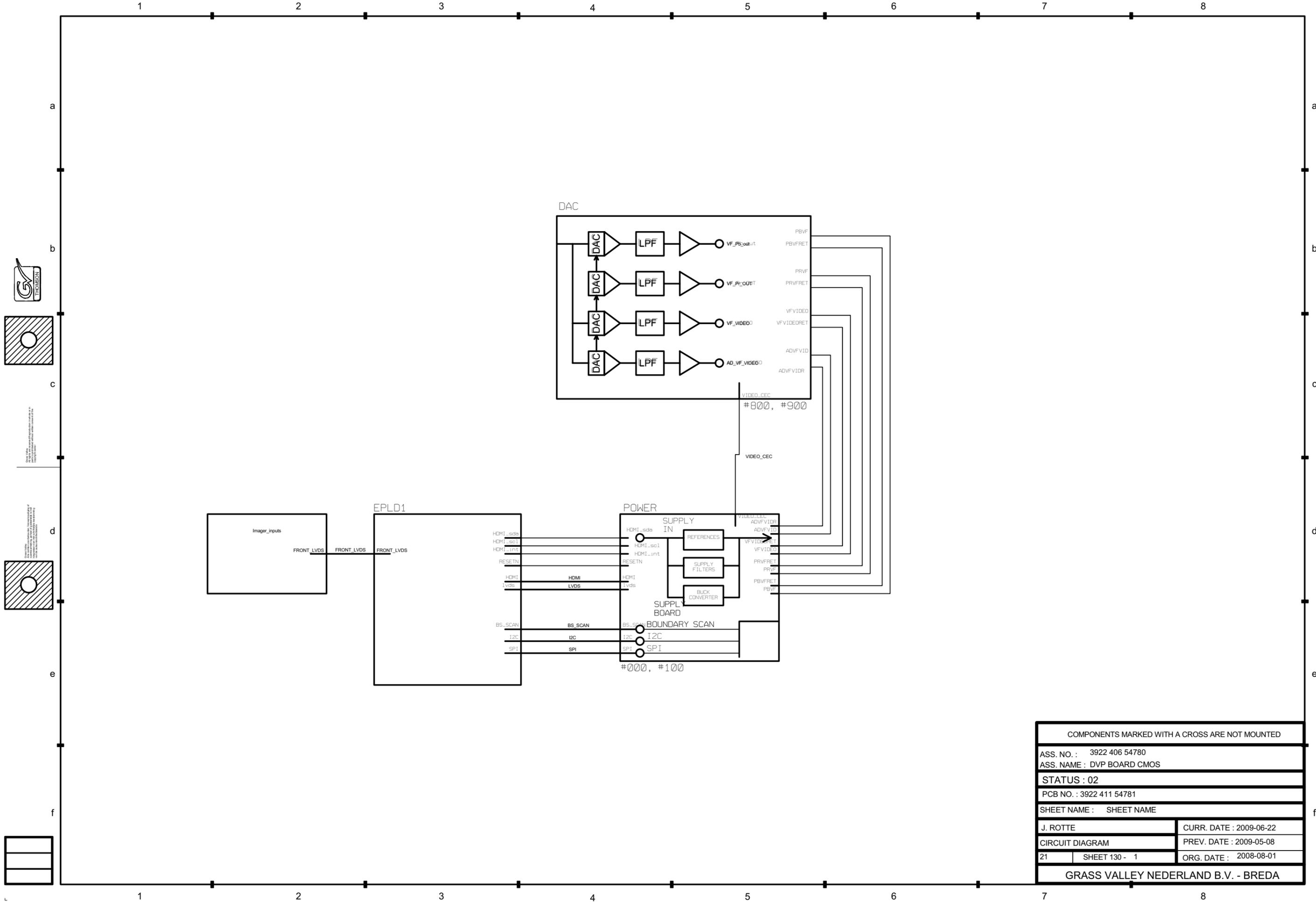
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COMPONENTS MARKED WITH A CROSS ARE NOT MOUNTED	
ASS.ND:	3922 406 53100
ASS.NAME:	CONNECTORBOARD RIGHT COVER
STATUS:	04
PCB.ND:	3922 411 53102
SHEET NAME : SHEET NAME	
P.VISSERS	CURR. DATE: 2008-11-12
CIRCUIT DIAGRAM	PREV. DATE: 2007-10-16
2	SHEET 130 - 2
	ORG. DATE: 2006-02-23
GRASS VALLEY NEDERLAND B.V. - BREDA	

3922 406 54781;4 DVP BOARD CMOS

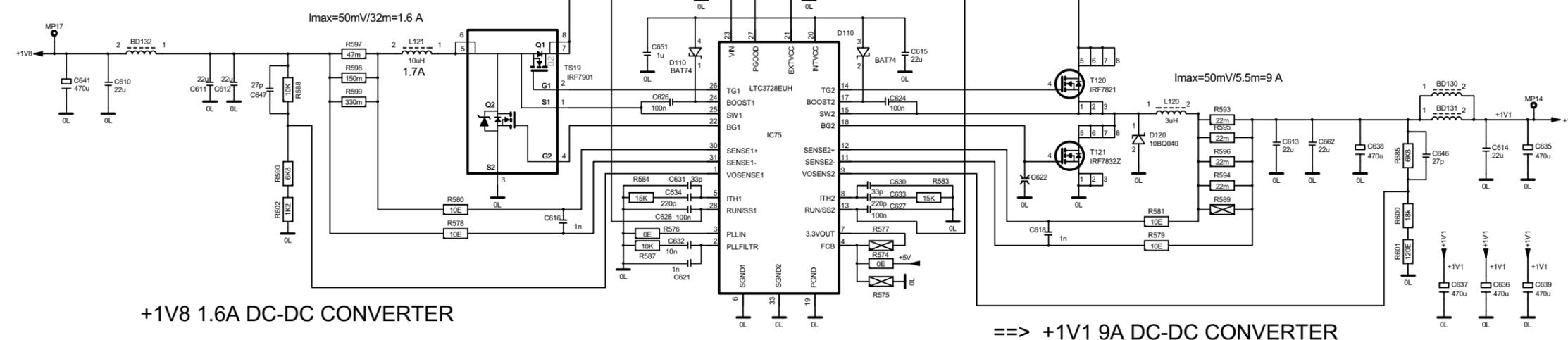
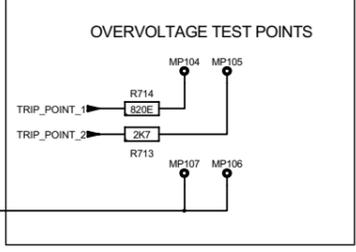
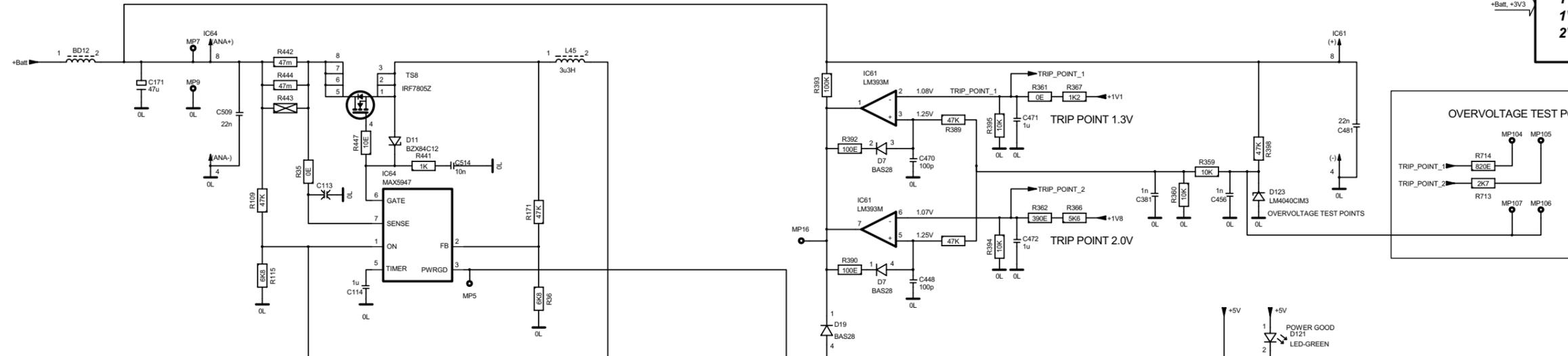
Ref	Description	Part 12nc	Service part
	No spareparts available		



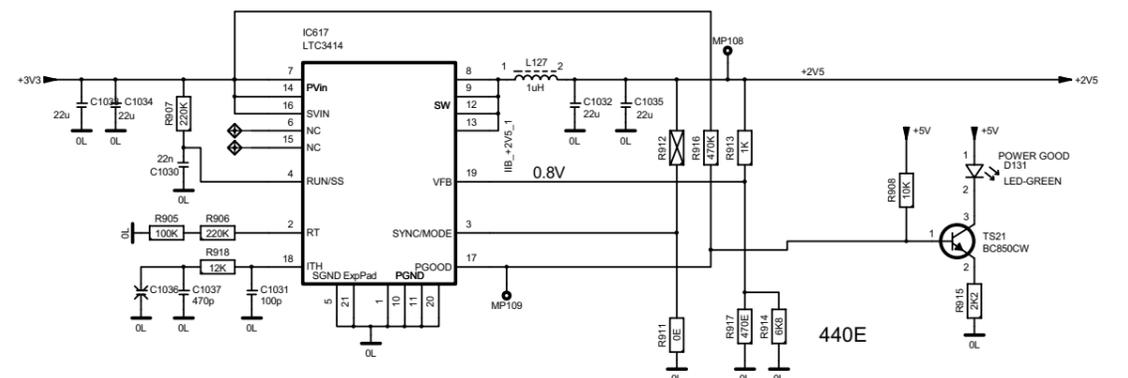
COMPONENTS MARKED WITH A CROSS ARE NOT MOUNTED	
ASS. NO. : 3922 406 54780	
ASS. NAME : DVP BOARD CMOS	
STATUS : 02	
PCB NO. : 3922 411 54781	
SHEET NAME : SHEET NAME	
J. ROTTE	CURR. DATE : 2009-06-22
CIRCUIT DIAGRAM	PREV. DATE : 2009-05-08
21	SHEET 130 - 1
ORG. DATE : 2008-08-01	
GRASS VALLEY NEDERLAND B.V. - BREDA	

Local Powers

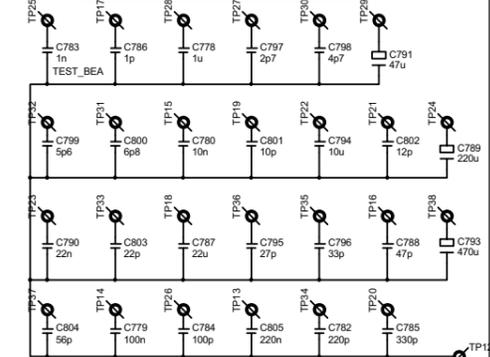
- +1V1
- +1V8
- +2V5
- GND



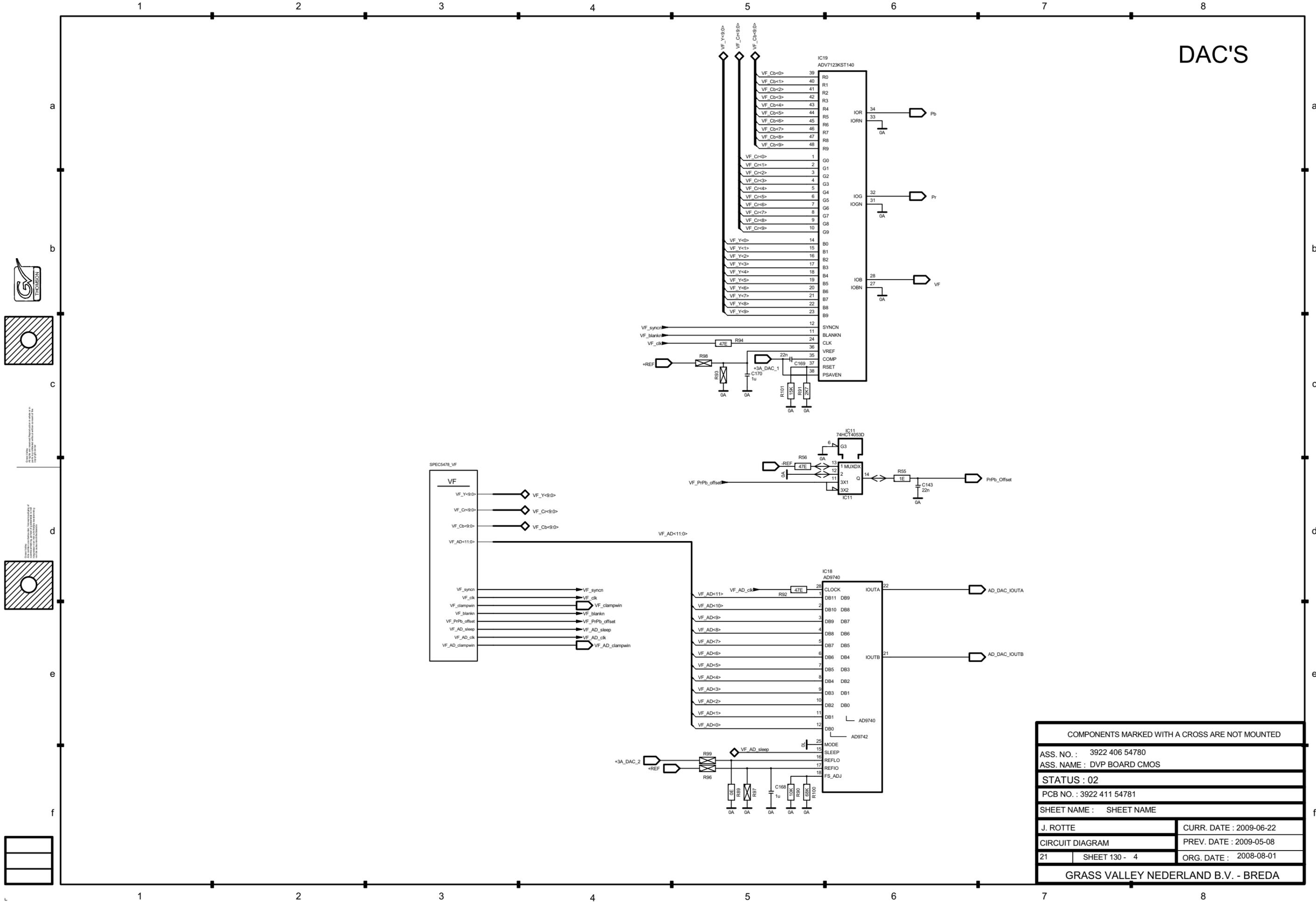
+2V5 GENERATION VOLTAGE



BENCH MARK TEST CAPACITORS

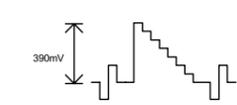
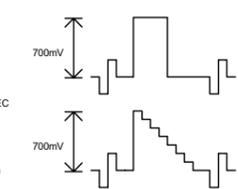
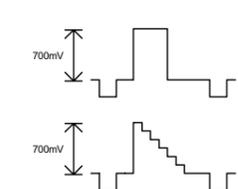
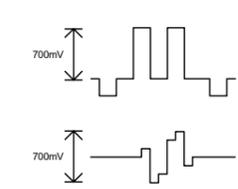
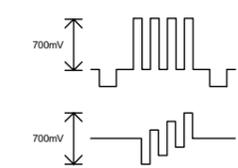


COMPONENTS MARKED WITH A CROSS ARE NOT MOUNTED	
ASS. NO. : 3922 406 54780	
ASS. NAME : DVP BOARD CMOS	
STATUS : 02	
PCB NO. : 3922 411 54781	
SHEET NAME : SHEET NAME	
J. ROTTE	CURR. DATE : 2009-06-22
CIRCUIT DIAGRAM	PREV. DATE : 2009-05-08
21	SHEET 130 - 2
ORG. DATE : 2008-08-01	
GRASS VALLEY NEDERLAND B.V. - BREDA	



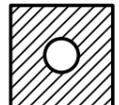
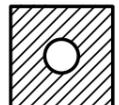
COMPONENTS MARKED WITH A CROSS ARE NOT MOUNTED	
ASS. NO. : 3922 406 54780	
ASS. NAME : DVP BOARD CMOS	
STATUS : 02	
PCB NO. : 3922 411 54781	
SHEET NAME : SHEET NAME	
J. ROTTE	CURR. DATE : 2009-06-22
CIRCUIT DIAGRAM	PREV. DATE : 2009-05-08
21	SHEET 130 - 4
ORG. DATE : 2008-08-01	
GRASS VALLEY NEDERLAND B.V. - BREDA	

DAC'S



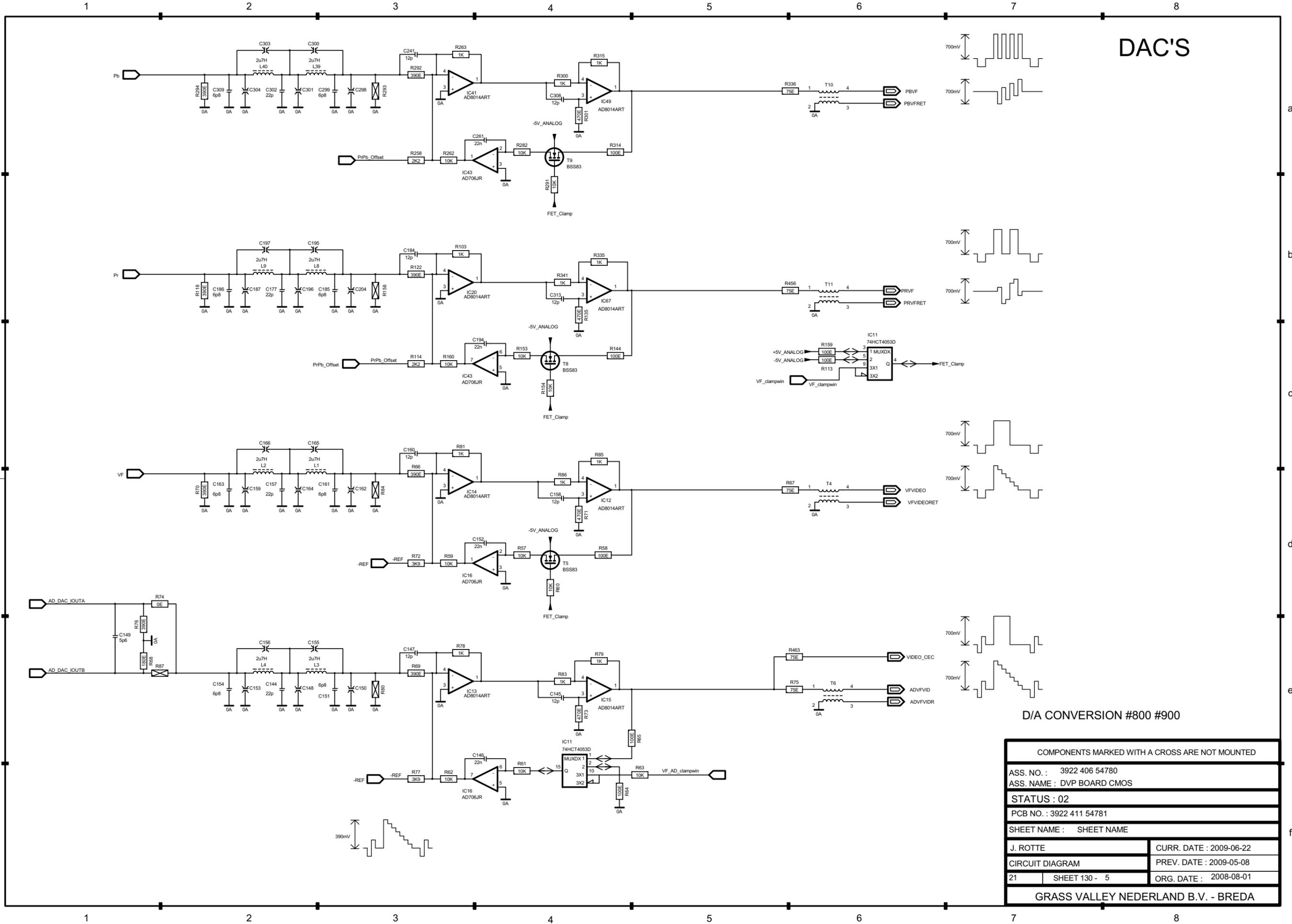
D/A CONVERSION #800 #900

COMPONENTS MARKED WITH A CROSS ARE NOT MOUNTED	
ASS. NO. : 3922 406 54780	
ASS. NAME : DVP BOARD CMOS	
STATUS : 02	
PCB NO. : 3922 411 54781	
SHEET NAME : SHEET NAME	
J. ROTTE	CURR. DATE : 2009-06-22
CIRCUIT DIAGRAM	PREV. DATE : 2009-05-08
21	SHEET 130 - 5
ORG. DATE : 2008-08-01	
GRASS VALLEY NEDERLAND B.V. - BREDA	

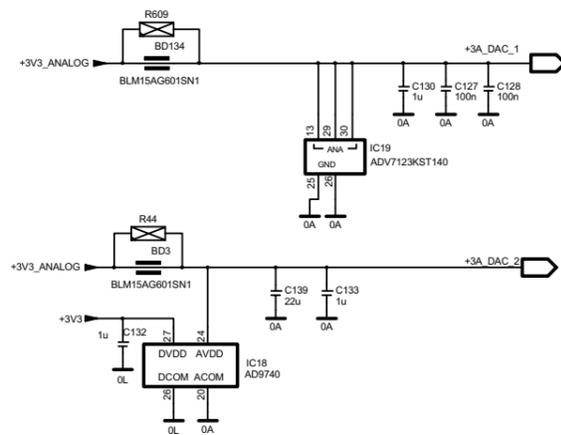
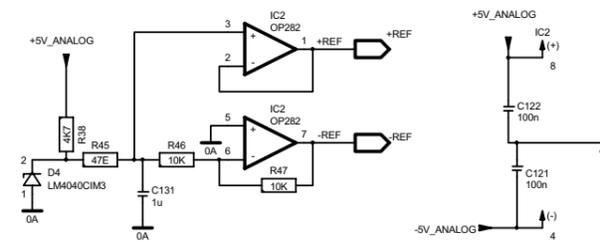
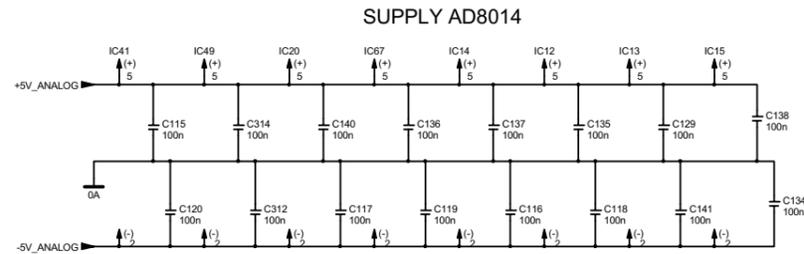
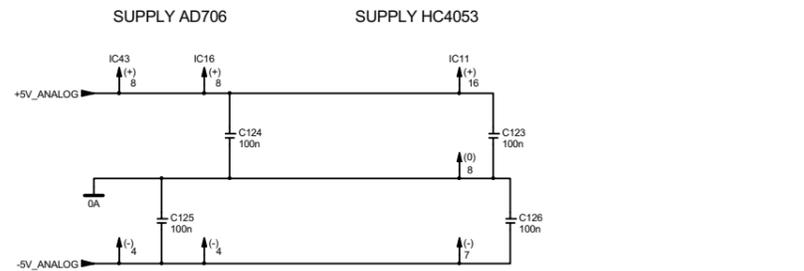


100% of the components are RoHS compliant.
 100% of the components are REACH compliant.
 100% of the components are Halogen free.
 100% of the components are Lead free.

100% of the components are RoHS compliant.
 100% of the components are REACH compliant.
 100% of the components are Halogen free.
 100% of the components are Lead free.



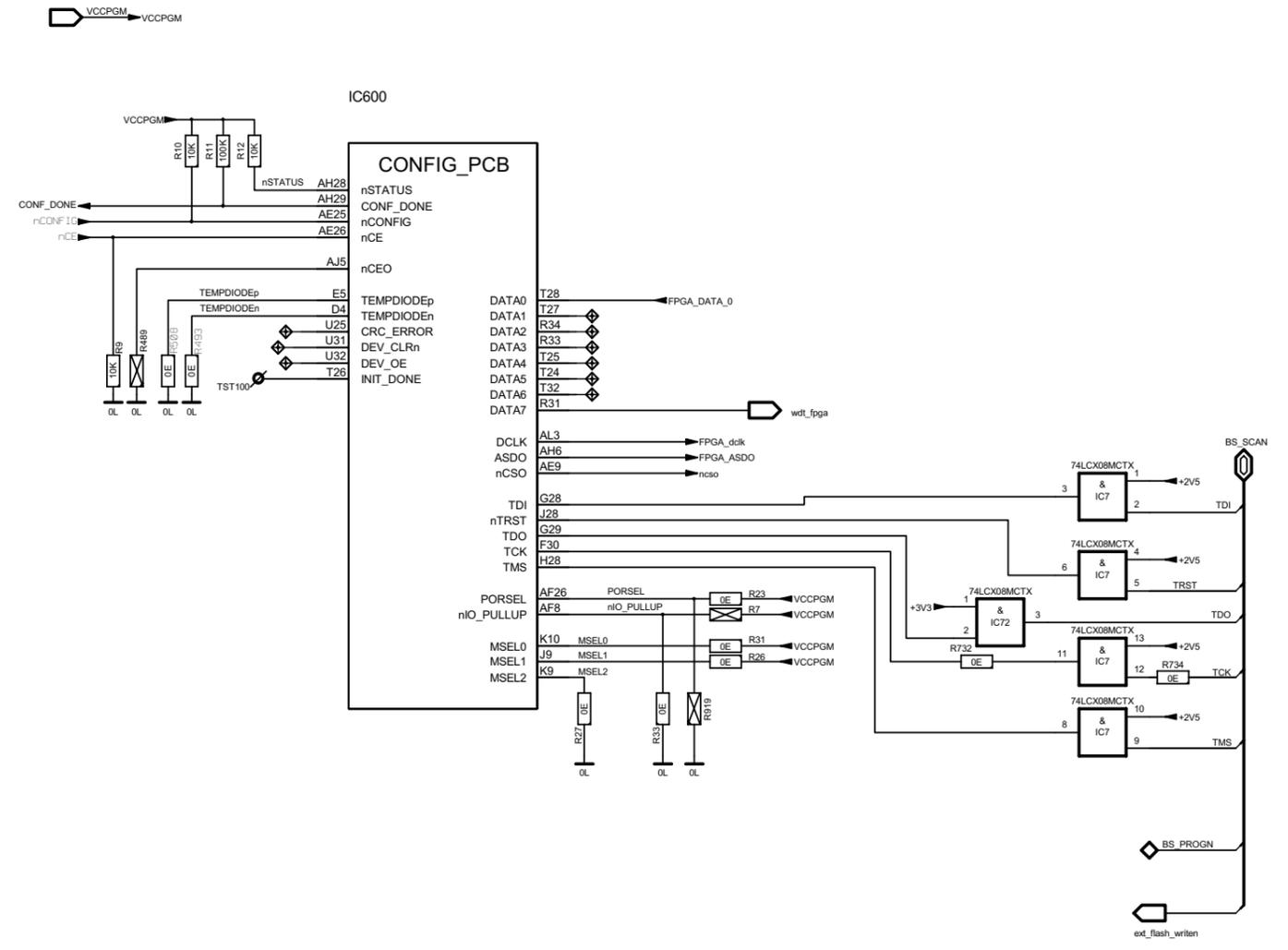
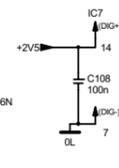
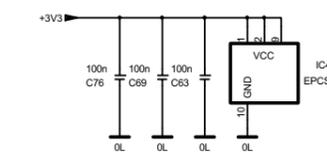
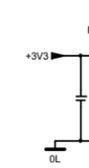
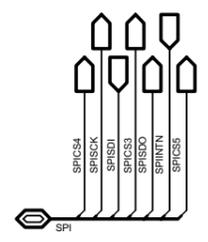
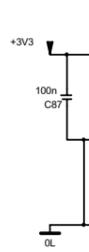
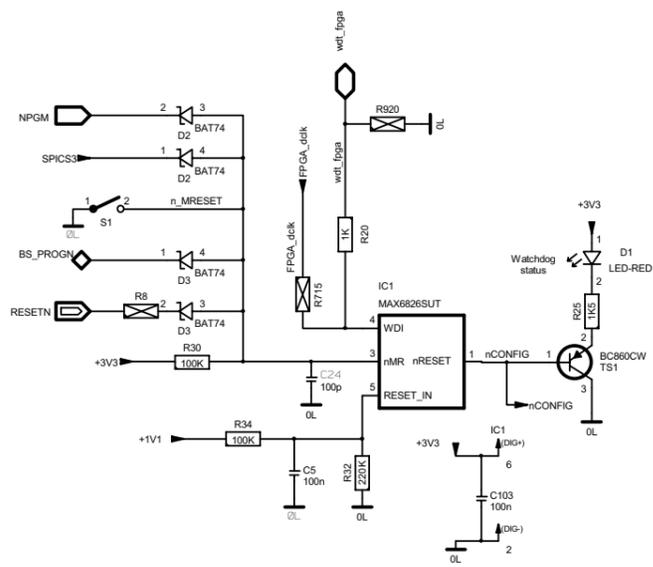
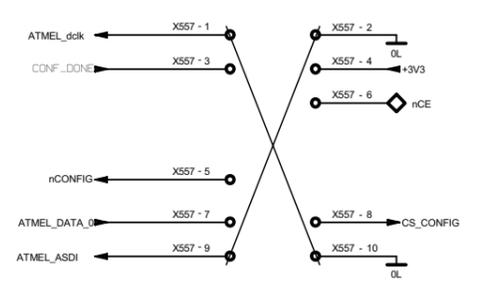
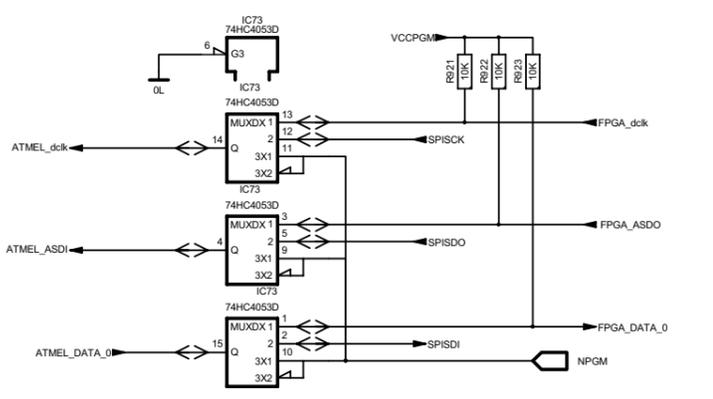
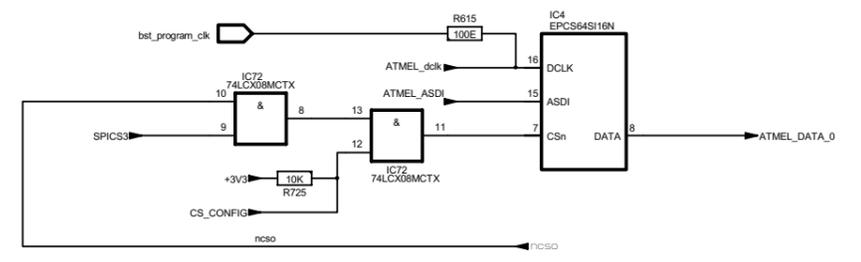
POWER SUPPLY DAC'S



COMPONENTS MARKED WITH A CROSS ARE NOT MOUNTED	
ASS. NO. : 3922 406 54780	
ASS. NAME : DVP BOARD CMOS	
STATUS : 02	
PCB NO. : 3922 411 54781	
SHEET NAME : SHEET NAME	
J. ROTTE	CURR. DATE : 2009-06-22
CIRCUIT DIAGRAM	PREV. DATE : 2009-05-08
21	SHEET 130 - 6
ORG. DATE : 2008-08-01	
GRASS VALLEY NEDERLAND B.V. - BREDA	

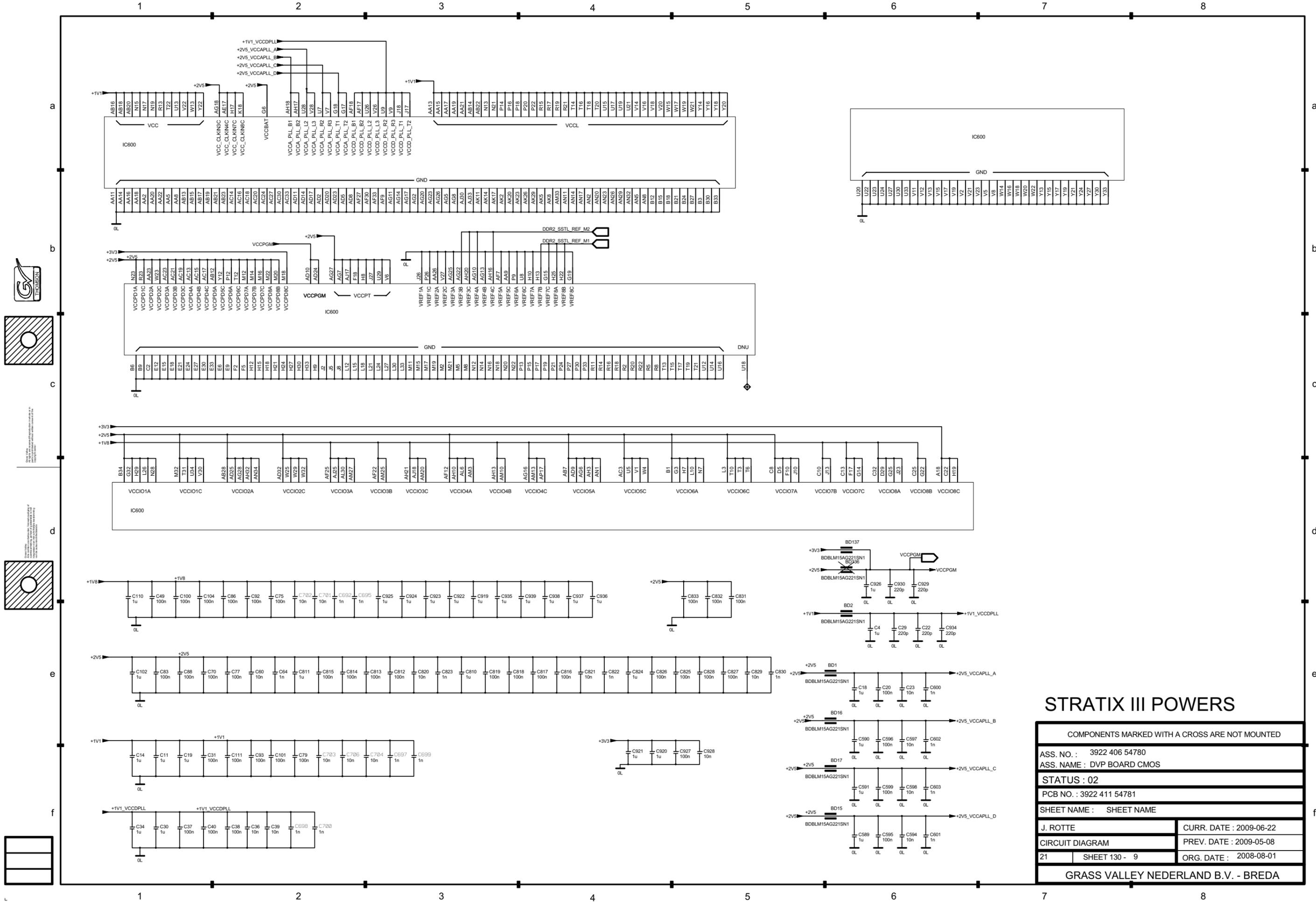
a
b
c
d
e
f

a
b
c
d
e
f



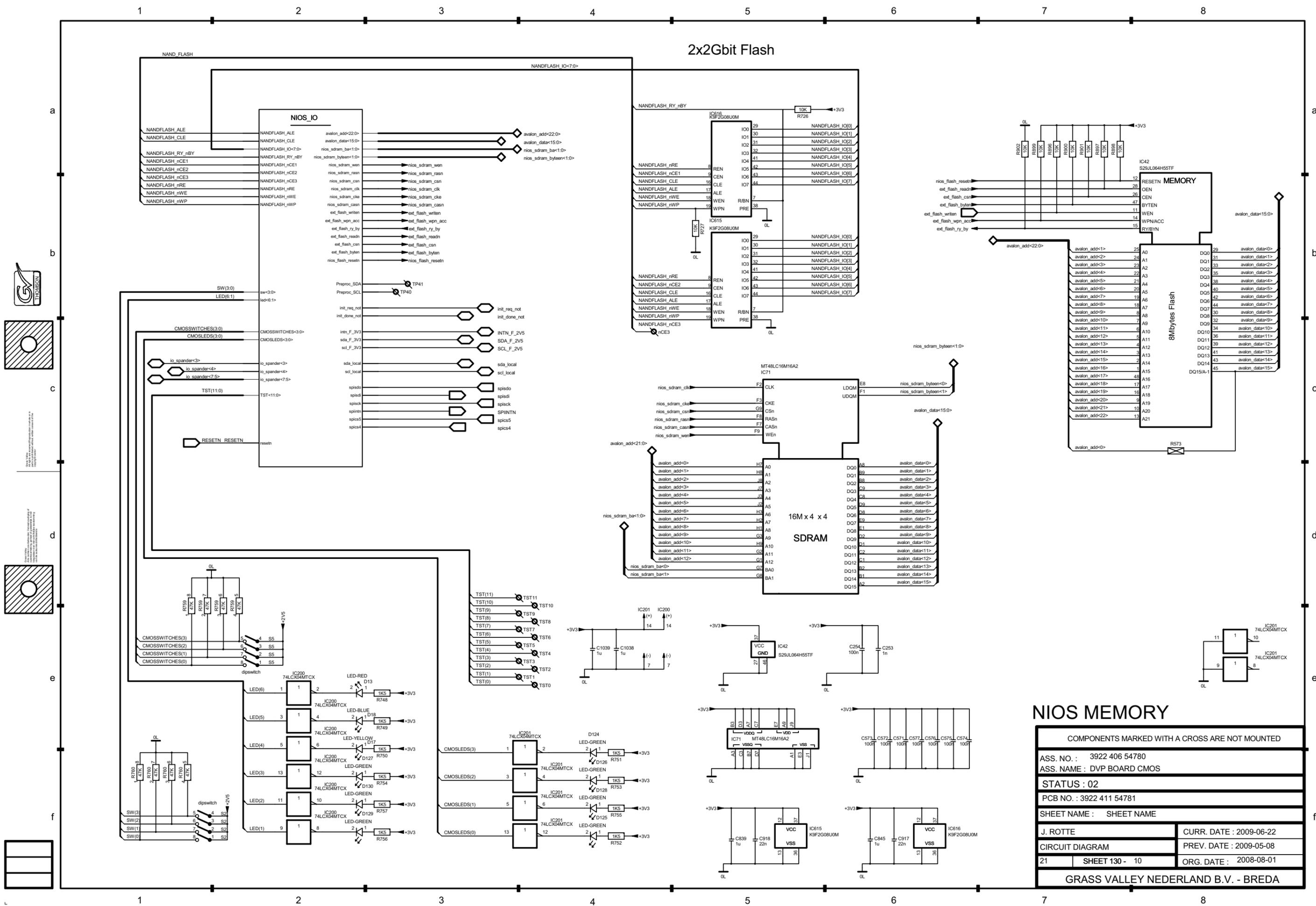
STRATIX III CONFIG

COMPONENTS MARKED WITH A CROSS ARE NOT MOUNTED	
ASS. NO. : 3922 406 54780	
ASS. NAME : DVP BOARD CMOS	
STATUS : 02	
PCB NO. : 3922 411 54781	
SHEET NAME : SHEET NAME	
J. ROTTE	CURR. DATE : 2009-06-22
CIRCUIT DIAGRAM	PREV. DATE : 2009-05-08
21	SHEET 130 - 8
ORG. DATE : 2008-08-01	
GRASS VALLEY NEDERLAND B.V. - BREDA	



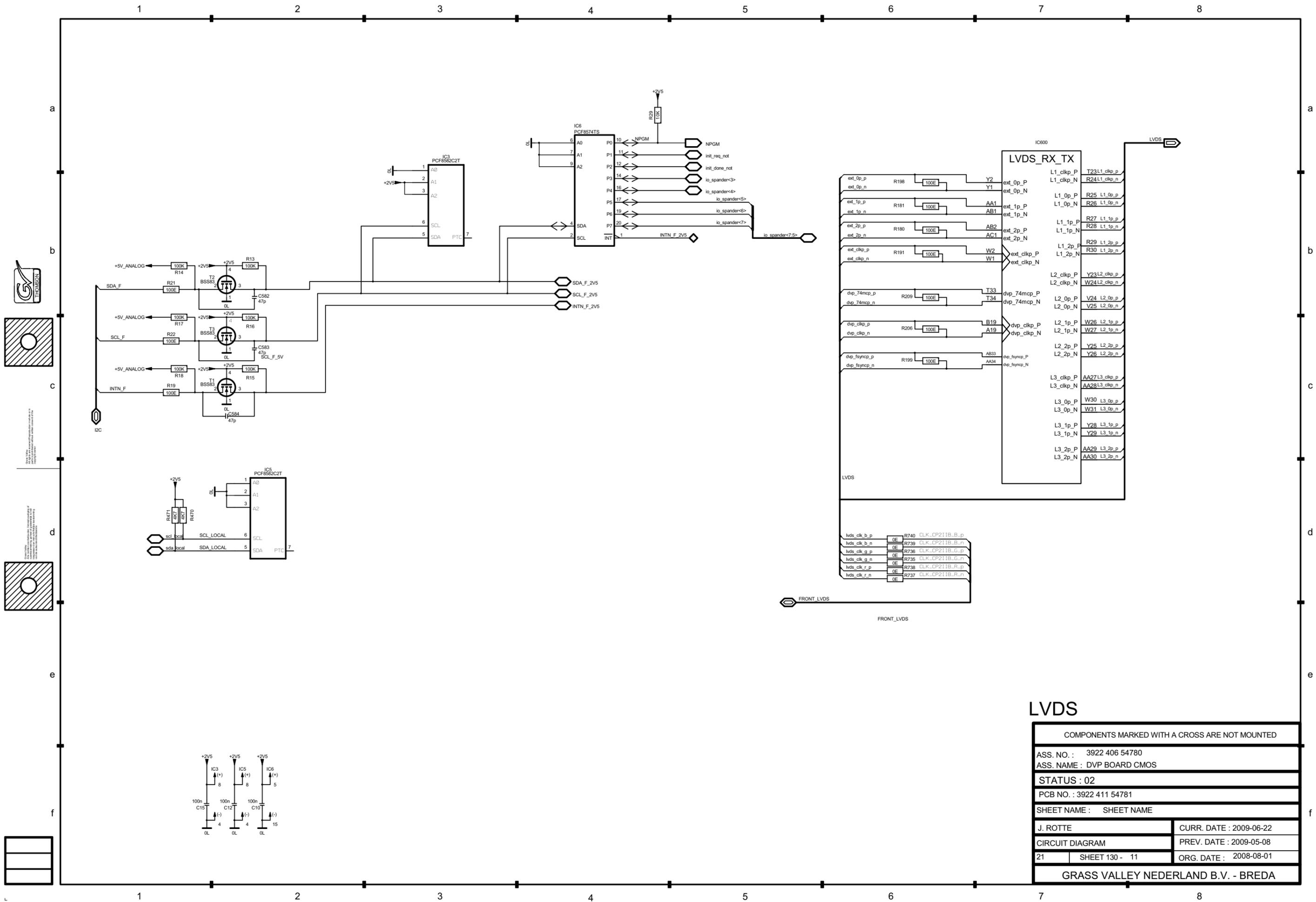
STRATIX III POWERS

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ASS. NAME : DVP BOARD CMOS	
STATUS : 02	
PCB NO. : 3922 411 54781	
SHEET NAME : SHEET NAME	
J. ROTTE	CURR. DATE : 2009-06-22
CIRCUIT DIAGRAM	PREV. DATE : 2009-05-08
21	SHEET 130 - 9
ORG. DATE : 2008-08-01	
GRASS VALLEY NEDERLAND B.V. - BREDA	



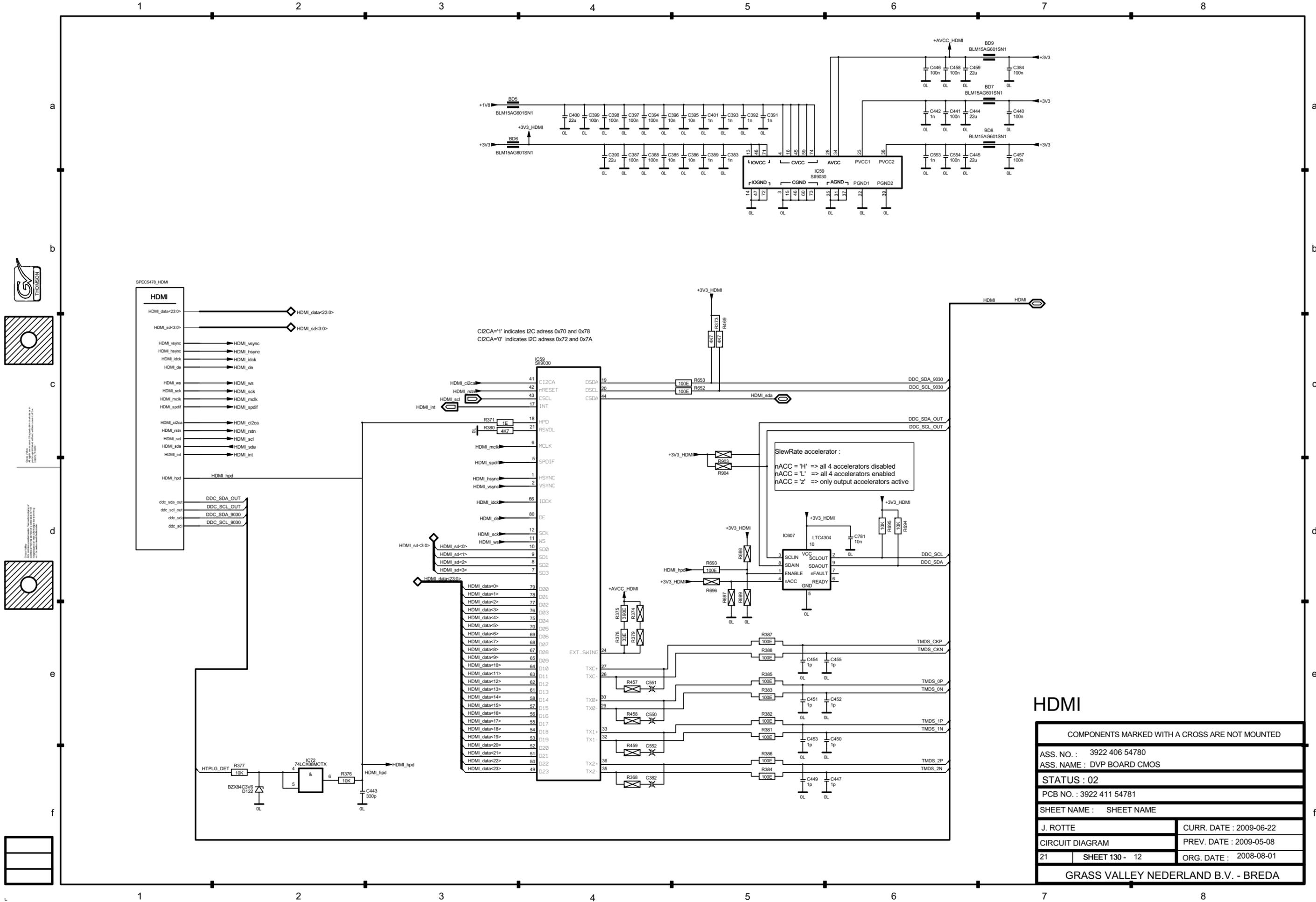
NIOS MEMORY

COMPONENTS MARKED WITH A CROSS ARE NOT MOUNTED	
ASS. NO. : 3922 406 54780	
ASS. NAME : DVP BOARD CMOS	
STATUS : 02	
PCB NO. : 3922 411 54781	
SHEET NAME : SHEET NAME	
J. ROTTE	CURR. DATE : 2009-06-22
CIRCUIT DIAGRAM	PREV. DATE : 2009-05-08
21	SHEET 130 - 10
GRASS VALLEY NEDERLAND B.V. - BREDA	



LVDS

COMPONENTS MARKED WITH A CROSS ARE NOT MOUNTED	
ASS. NO. : 3922 406 54780	
ASS. NAME : DVP BOARD CMOS	
STATUS : 02	
PCB NO. : 3922 411 54781	
SHEET NAME : SHEET NAME	
J. ROTTE	CURR. DATE : 2009-06-22
CIRCUIT DIAGRAM	PREV. DATE : 2009-05-08
21	SHEET 130 - 11
ORG. DATE : 2008-08-01	
GRASS VALLEY NEDERLAND B.V. - BREDA	



SPEC5478_HDMI

HDMI	
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HDMI_sd<3:0>	HDMI_sd<3:0>
HDMI_vsync	HDMI_vsync
HDMI_hsync	HDMI_hsync
HDMI_lock	HDMI_lock
HDMI_de	HDMI_de
HDMI_ws	HDMI_ws
HDMI_sck	HDMI_sck
HDMI_mclk	HDMI_mclk
HDMI_spdif	HDMI_spdif
HDMI_c2ca	HDMI_c2ca
HDMI_rstn	HDMI_rstn
HDMI_scl	HDMI_scl
HDMI_sda	HDMI_sda
HDMI_int	HDMI_int
HDMI_hpd	HDMI_hpd
ddc_sda_out	DDC_SDA_OUT
ddc_scl_out	DDC_SCL_OUT
ddc_sda_9030	DDC_SDA_9030
ddc_scl_9030	DDC_SCL_9030

C12CA='1' indicates I2C address 0x70 and 0x78
 C12CA='0' indicates I2C address 0x72 and 0x7A

SlewRate accelerator :
 nACC = 'H' => all 4 accelerators disabled
 nACC = 'L' => all 4 accelerators enabled
 nACC = 'Z' => only output accelerators active

HDMI

COMPONENTS MARKED WITH A CROSS ARE NOT MOUNTED	
ASS. NO. : 3922 406 54780	
ASS. NAME : DVP BOARD CMOS	
STATUS : 02	
PCB NO. : 3922 411 54781	
SHEET NAME : SHEET NAME	
J. ROTTE	CURR. DATE : 2009-06-22
CIRCUIT DIAGRAM	PREV. DATE : 2009-05-08
21	SHEET 130 - 12
ORG. DATE : 2008-08-01	
GRASS VALLEY NEDERLAND B.V. - BREDA	

1 2 3 4 5 6 7 8

a

b

c

d

e

f

a

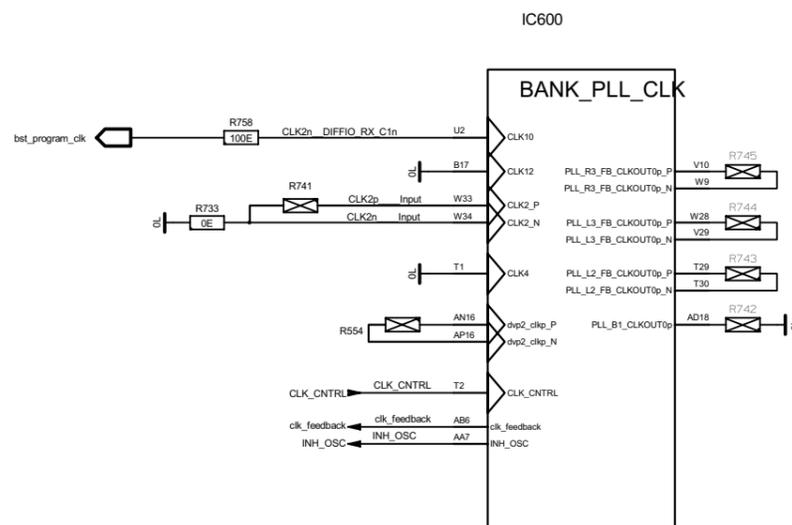
b

c

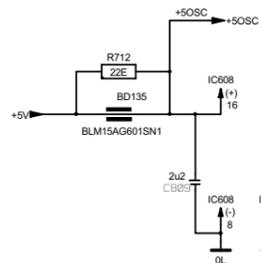
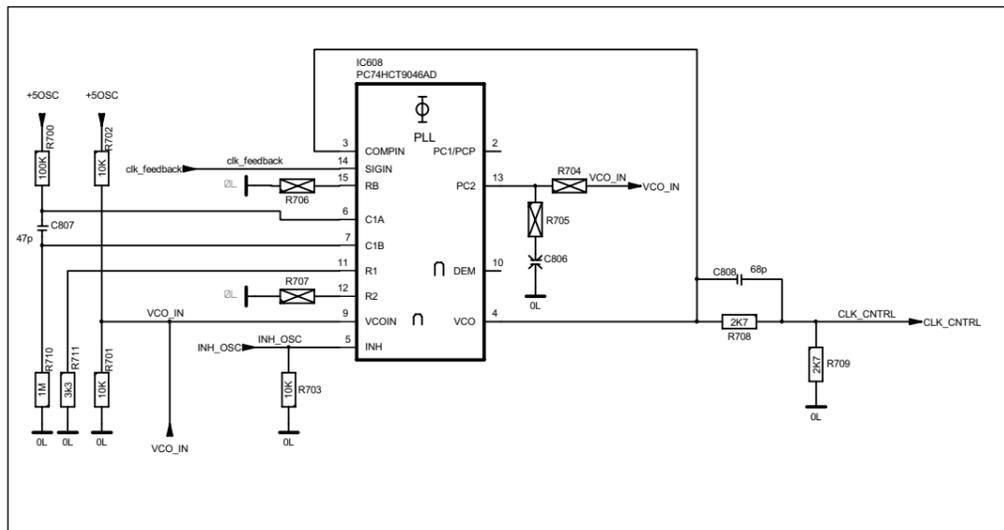
d

e

f



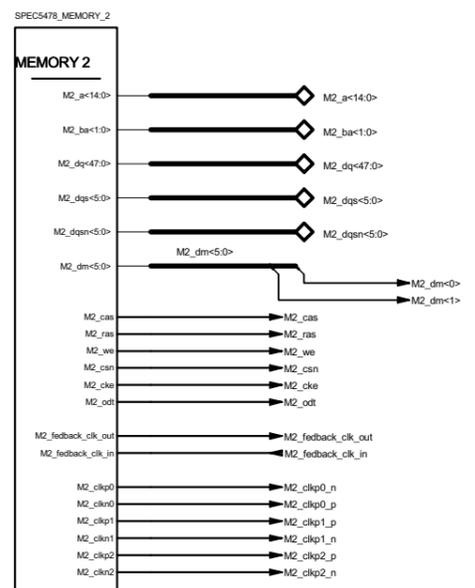
OSCILLATOR FOR CONTROL



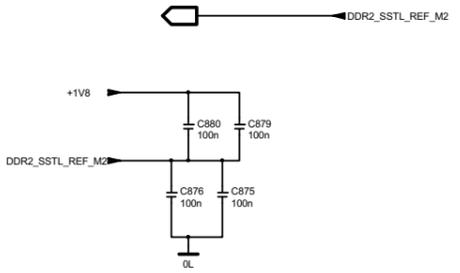
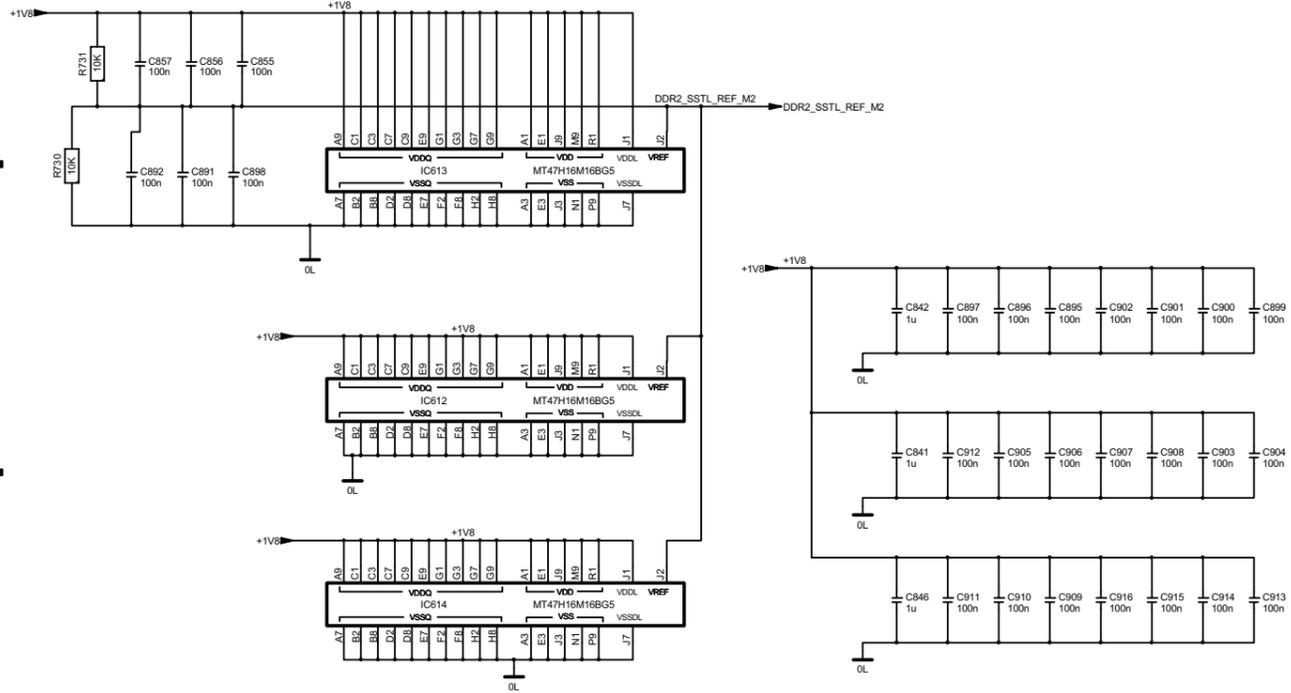
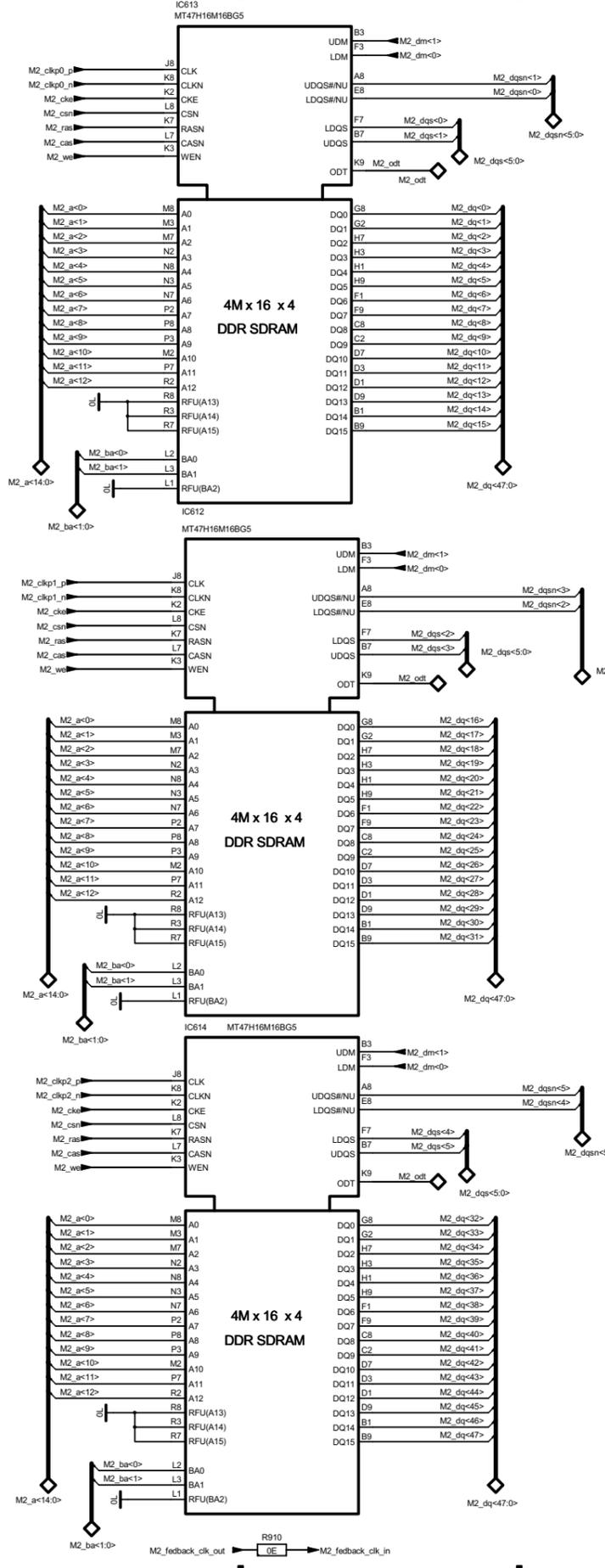
CLOCKS

COMPONENTS MARKED WITH A CROSS ARE NOT MOUNTED	
ASS. NO. : 3922 406 54780	
ASS. NAME : DVP BOARD CMOS	
STATUS : 02	
PCB NO. : 3922 411 54781	
SHEET NAME : SHEET NAME	
J. ROTTE	CURR. DATE : 2009-06-22
CIRCUIT DIAGRAM	PREV. DATE : 2009-05-08
21	SHEET 130 - 13
ORG. DATE : 2008-08-01	
GRASS VALLEY NEDERLAND B.V. - BREDA	

1 2 3 4 5 6 7 8

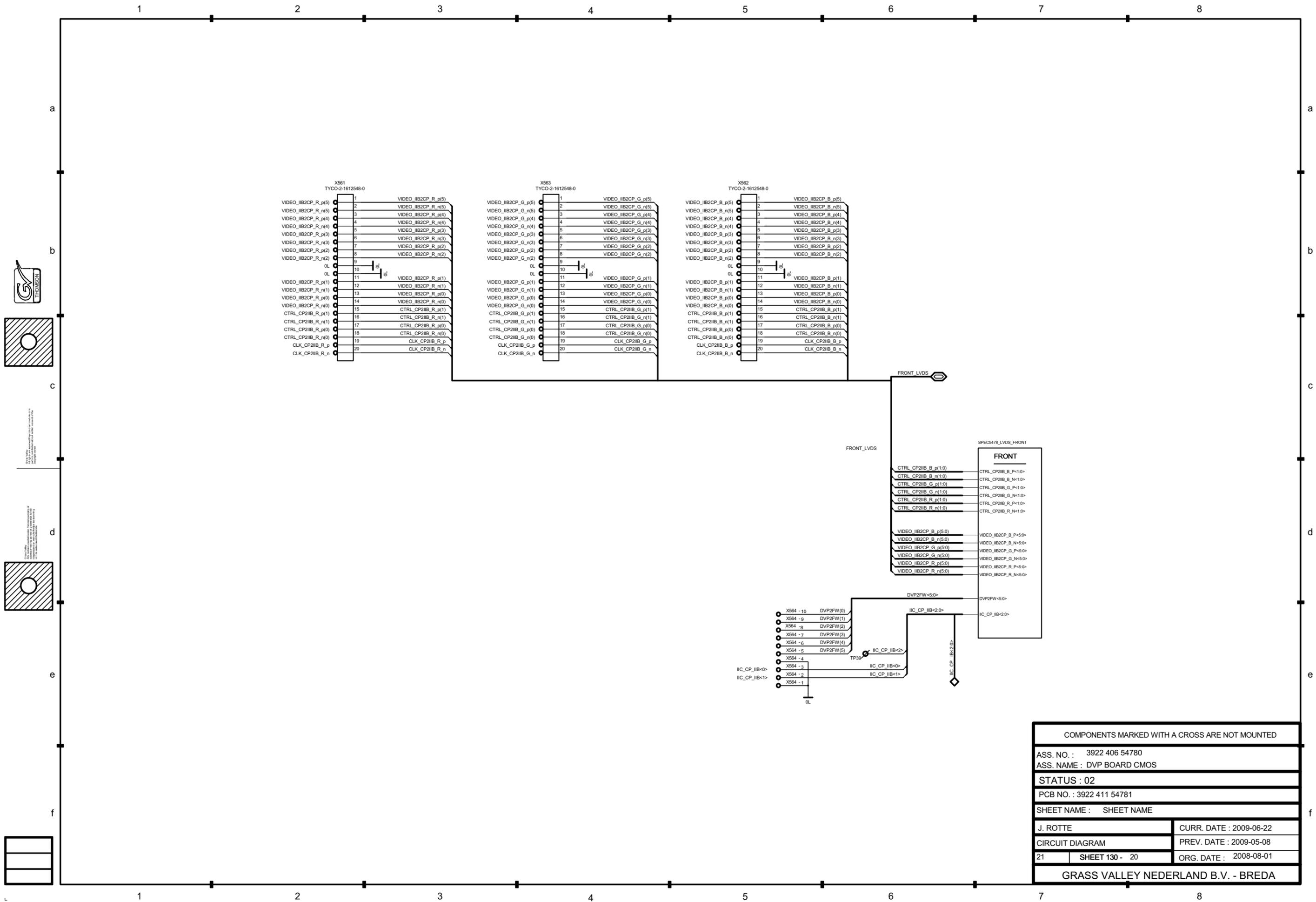


DDR2 M2



DDR2 MEMORY

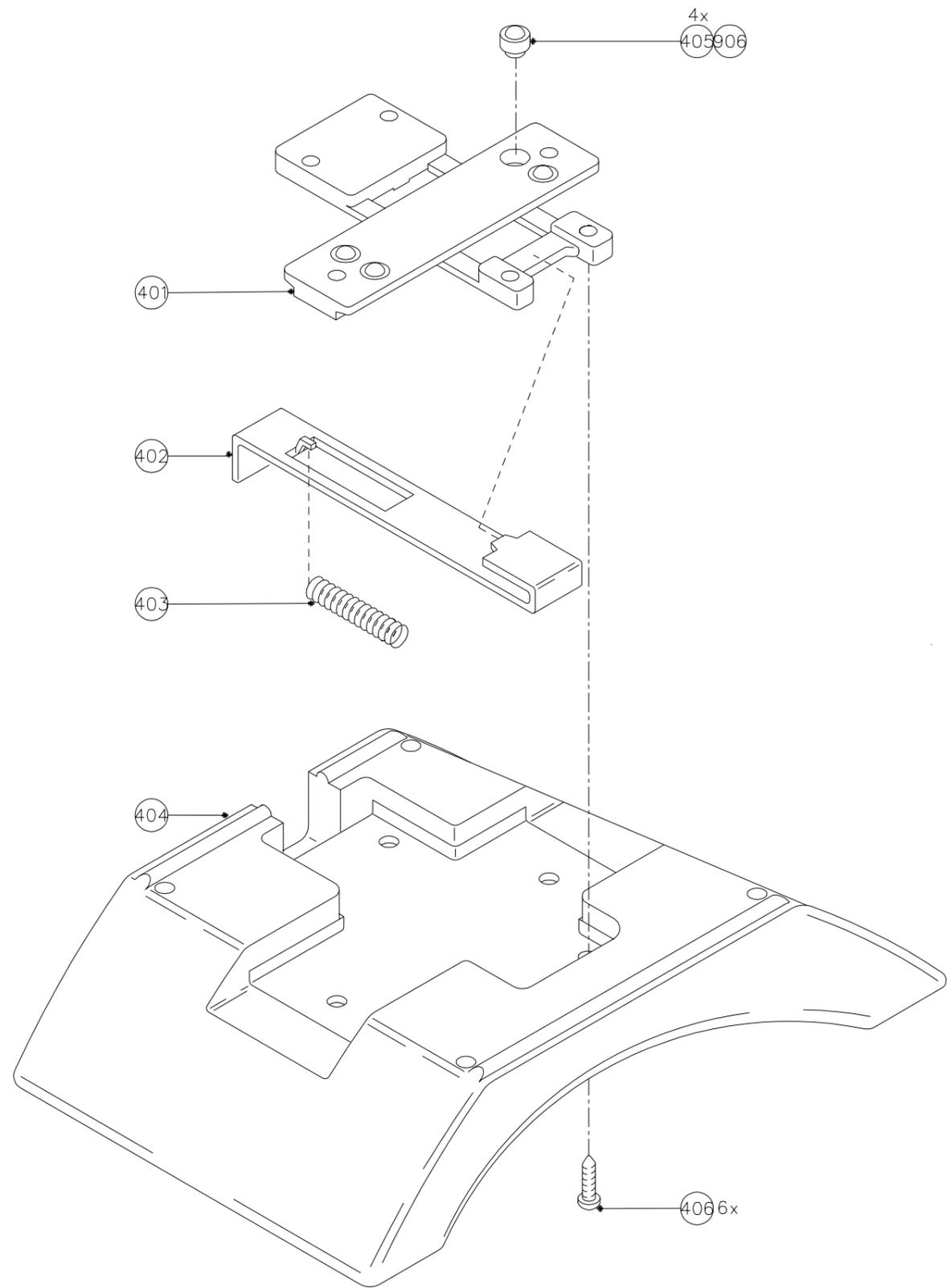
COMPONENTS MARKED WITH A CROSS ARE NOT MOUNTED	
ASS. NO. : 3922 406 54780	
ASS. NAME : DVP BOARD CMOS	
STATUS : 02	
PCB NO. : 3922 411 54781	
SHEET NAME : SHEET NAME	
J. ROTTE	CURR. DATE : 2009-06-22
CIRCUIT DIAGRAM	PREV. DATE : 2009-05-08
21	SHEET 130 - 15
ORG. DATE : 2008-08-01	
GRASS VALLEY NEDERLAND B.V. - BREDA	



COMPONENTS MARKED WITH A CROSS ARE NOT MOUNTED	
ASS. NO. : 3922 406 54780	
ASS. NAME : DVP BOARD CMOS	
STATUS : 02	
PCB NO. : 3922 411 54781	
SHEET NAME : SHEET NAME	
J. ROTTE	CURR. DATE : 2009-06-22
CIRCUIT DIAGRAM	PREV. DATE : 2009-05-08
21	SHEET 130 - 20
ORG. DATE : 2008-08-01	
GRASS VALLEY NEDERLAND B.V. - BREDA	

3922 407 22224;1 SHOULDERPAD ASSY

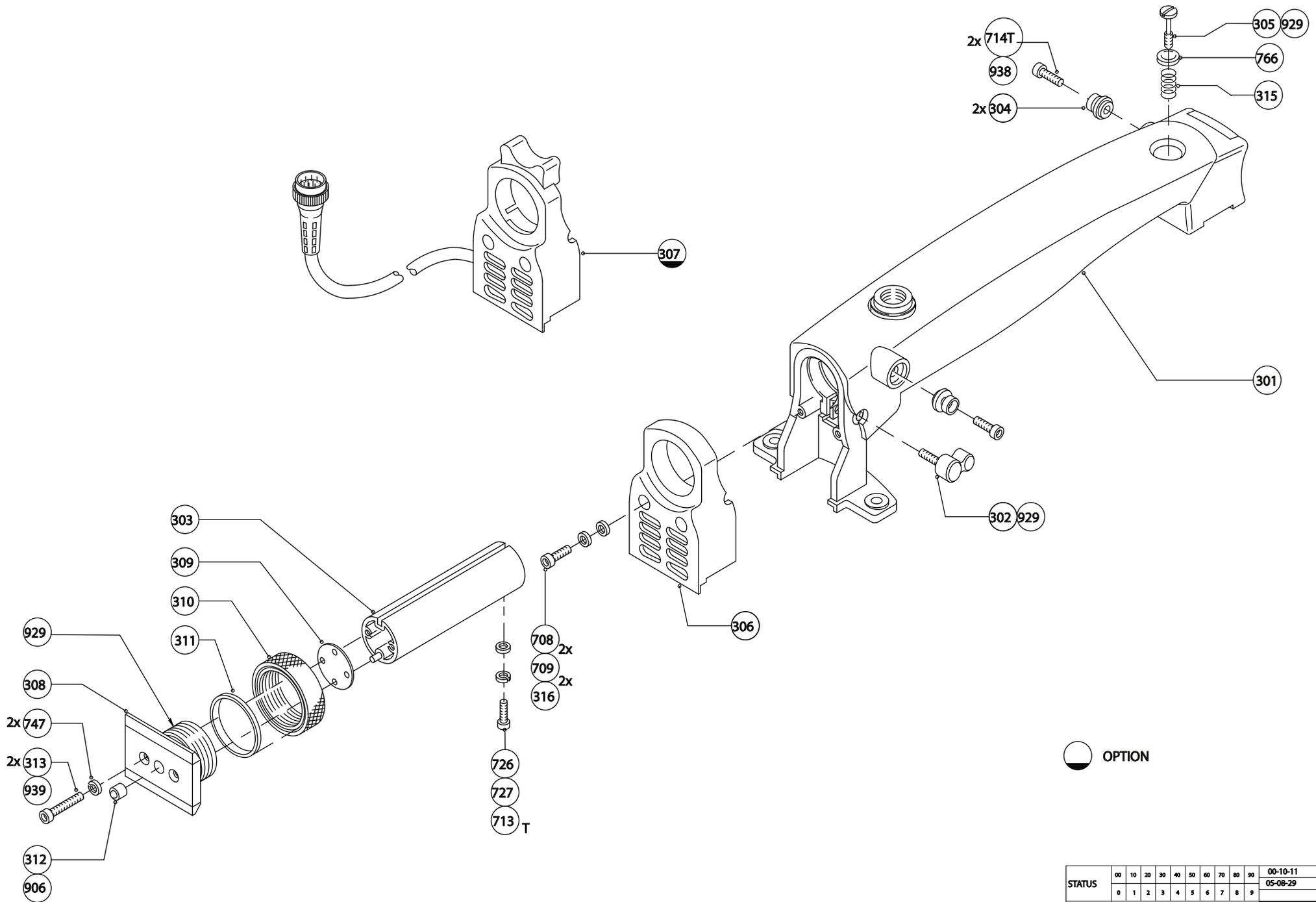
Ref	Description	Part 12nc	Service part
	No spare parts available		



STATUS	00	10	20	30	40	50	60	70	80	90	98-01-21		
	0	1	2	3	4	5	6	7	8	9	01-11-23		
SHOULDERPAD ASSY											3922 407 22220		
MICROFILM □													
NAME: P de Greeuw EH PROPERTY OF: THOMSON MULTIMEDIA Broadcast Solutions BREDA - THE NETHERLANDS											1 SH/SH 110-1	DATE: 96-11-13	A3

3922 407 33621;10 HANDGRIP ASSY

Ref	Description	Part 12nc	Service part
301	HANDGRIP ASSY	3922 407 25345	Yes
302	CLAMPBOLT	3922 407 25553	Yes
303	VF PIPE LDK100	3922 407 32581	Yes
304	BUSH	3922 404 20073	Yes
305	PANHEAD CAPTIVE SCREW M4X30	3922 080 02961	Yes
306	ZOOM COVER HDTV	3922 407 33451	Yes
307A	ZOOMCONTROL LDK100/120 FOR CAN	8926 611 32601	No
307B	ZOOMCONTRL LDK100/120 FOR FUJI	8926 611 33601	No
307C	ZOOMCONTRL LDK100/120 FOR ANG	8926 611 31601	No
308	VF-SCREW-LONG-ASSY	3922 407 24011	Yes
309	DISC	3922 404 21211	Yes
310	VF-NUT-LONG	3922 404 22991	Yes
311	VF-RING	3922 401 47881	Yes
312	SPRING LOADED BALL BUSH	2622 890 12077	Yes
313	TORX SCREW M3X25	3922 407 29221	Yes
315	COMPRESSION SPRING	2622 115 02227	Yes
316	TORX SCREW M2X16	3922 407 29211	Yes
708	WASH STL ST 2,2X5	2522 600 27151	Yes
709	SPR WASH STL ST 2,1X4.4	2522 613 12001	Yes
713T	PAN SCR STL ST M2,5x6	2522 201 08017	Yes
714T	PAN SCR STL ST M2,5X8	2522 201 08018	Yes
726	WASH STL ST 2,7X6,5	2522 600 27137	Yes
727	SPR WASH STL ST 2,6X5,1	2522 613 12063	Yes
747	SPR WASH STL ST 3,1X5,7	2522 613 12005	Yes
766	WASH STL ST 4,3X9	2522 600 27026	Yes



STATUS	00	10	20	30	40	50	60	70	80	90	00-10-11	
	0	1	2	3	4	5	6	7	8	9	05-08-29	
HAND GRIP ASSY											3922 407 33620	
MICROFILM												
NAME: A v d P A S	SUPERVISOR:		1 SH		SH 110 - 1		DATE: 29-05-00		A3			
BY: PROPERTY OF: PHILIPS DIGITAL VIDEO SYSTEMS BV	- BREDA - THE NETHERLANDS											

Declaration of Conformity

We, Grass Valley Nederland B.V., Kapittelweg 10, 4827 HG Breda, The Netherlands declare under our sole responsibility that this product is in compliance with the following standards:

- EN60950-1 : Safety
- EN55103-1 : EMC (Emission)
- EN55103-2 : EMC (Immunity)

following the provisions of:

- a. low voltage directive 2006/95/EC
- b. EMC directive 2004/108/EC.

FCC Class A Statement

This product generates, uses, and can radiate radio frequency energy and if not installed and used in accordance with the instructions, may cause interference to radio communications.

It has been tested and found to comply with the limits for a class A computing device pursuant to Subpart J of part 15 of FCC rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment.

Operation of this product in a residential area is likely to cause interference in which case the user at his own expense will be required to take whatever measures may be required to correct the interference.

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