



Technical News

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Revised :

Issued : March 15, 2022

Subject: Software Release [V2.50]

Issue No.HDCM22-008-TN

Target Models / Destination

Model Name	Dest
HDCU4300	SYS

Model Name	Dest
HDCU4300	SYL

Model Name	Dest

Model Name	Dest

【Description】

The update version of HDCU4300 is released. (V2.40→V2.50)

Upgrade it as necessary.

Also, when upgrading the version, upgrade the Firmware and each substrate PLD by following the steps bellow, and upgrade the peripheral equipment by the information of the related technical memo.

■ Related Technical Memo

- HDCM18-066 (Part Replacement to support HKCU-4001)
- HDCM19-032 (HDCU4300 Replacement of rear fan bracket)
- HDCM21-056 (MSU-1000/1500 Software Release (MAIN V3.80))
- HDCM21-054 (MSU-3000/3500 Software Release [V1.30])
- HDCM21-055 (RCP-1500/1501/1530 Software Release (MAIN V3.80))
- HDCM21-053 (RCP-3500/3501 Software Release [V1.30])

[While using HKCU-4001]

- HDCM22-007 (Software Release [HDCU4300-ST2110 (LSM)
Device Settings Plug-in, V1.2.0])

■ Recommended software version of the Peripheral equipment and the related technical memo

Tech No.	Peripheral Equipment	Version	Technical Memo
HDCM22-002	HDC4300	V1.90	Software Release [V1.90]
HDCM22-003	HDC-P43	V1.90	Software Release [V1.90]
HDCM21-056	MSU-1000/1500	V3.80	Software Release (MAIN V3.80)
HDCM21-054	MSU-3000/3500	V1.30	Software Release [V1.30]
HDCM21-055	RCP-1500/1501/1530	V3.80	Software Release (MAIN V3.80)
HDCM21-057	RCP-3100	V1.31	Software Release [V1.31]
HDCM21-053	RCP-3500/3501	V1.30	Software Release [V1.30]
IPTM21-013	PWS-110NM1/100NM1	V3.0.3	Software Release [IP Live System Manager V3.0.3]

【Applicable Model】

Model/Destination	Serial Number
HDCU4300 SY3	0030001~
HDCU4300 SYL	0010001~

【Change Point】

<New Function>

1. Added Format (When HKCU-4001 is installed)
Supported IP input and output bellow.
IP OUT
3840x2160/29.97P/6G, 3840x2160/29.97PsF/SQD/1.5G, 1080/29.97PsF
3840x2160/25P/6G, 3840x2160/25PsF/SQD/1.5G, 1080/25PsF
3840x2160/24P/6G, 3840x2160/24PsF/SQD/1.5G, 1080/24PsF
3840x2160/23.98P/6G, 3840x2160/23.98PsF/SQD/1.5G, 1080/23.98PsF
IP Return
1080/29.97PsF, 1080/25PsF, 1080/24PsF, 1080/23.98PsF
2. Supports SR Live Meta of IP output (When HKCU-4001 is installed)
As same as SDI about SR Live Meta information.
3. Added function to show HDR Target White in the menu
Show HDR Target White (Brightness value when white of 100 nit brightness in SDR is converted to HDR)
 - Added HDR Target White in CCU menu
 - Added 26 HDR White Target in SR Live Metadata

4. Supports S-Gamut3/S-Gamut3.Cine

When HDR mode is set to CINEMA, the color space S-Gamut3/S-Gamut3.Cine can be set. The controllable items of the PAINT item when CINEMA is set are as follows.

There are differences in functions from the HDC3000/HDC5000 series due to differences in hardware.

	Display on the panel	Reflection in SDR output	Reflection in CINEMA output
Gain	YES		
White	YES		
Color Temp	YES		
Detail	YES	YES	NO
4K Detail	YES	YES	NO
HD Detail	YES	YES	NO
Skin Detail	YES	YES	NO
Saturation	YES	YES	NO
Matrix	YES	YES	NO
OHB Matrix	YES	YES	NO
Low Key Saturation	YES	YES	NO
Knee	YES	YES	NO
Auto Knee	YES	YES	NO
Knee Saturation	YES	YES	NO
Black Gamma	YES	YES	NO
Gamma	YES	YES	NO
(SDR)User Gamma	YES	YES	NO
White Clip	YES	YES	NO
Black	YES	YES	NO
Flare	YES		
V Mod Saw	YES		
Black Shading	YES		
White Shading	YES		
SDR GAIN	YES(0.0dB fixed display)	YES	NO
HDR Black Offset	NO	NO	NO
HDR Knee	NO	NO	NO
HDR White Clip	NO	NO	NO
HDR Black Clip	NO	NO	NO
HDR Black Compression	NO	NO	NO
HDR User Gamma	NO	NO	NO
Tone control	NO	NO	NO
HDR Target White	NO	NO	NO

5. Supports HDR User Gamma

Added the function to reflect the HDR User Gamma Table created by the RAW Viewer application. The operation is performed from MSU (MSU-300 series, MSU-1000 series) and RCP (RCP-3000 series, RCP-1000 series). Refer to HDCM21-054 of MSU-3000, MSU-3500 for the usage.

6. Added function to set HDR Black Compression in Menu

The setting to sink the low brightness area for HDR output.

7. Supports CCU Assignment

Supported CCU assignment function. Refer to HDCM21-054 of MSU-3000, MSU-3500 for the usage.

【Attention】

When Changing BT.2020 Color Mode to Wide-F/Wide-BC, change HDR Mode to except Cinema, and change Slot1-1 to 1080 or 4K format before use.

<Error Correction>

1. Fixed the bug that false positives Cable Length
2. Fixed the bug that two vertical lines are appeared in 4K Color Bar of 23.98P/PsF or 29.97P/PsF from V2.31 or later
3. Fixed the bug that does not work when HLG Live, HLG_BT2100 is specified for OETF in V2.40
4. Fixed the bug that make it impossible to acquire Meta information of ST2110
When using HDCU4300 V2.50, *the related equipment must also be the version describe in this technical memo. If this is not done, the ST2110 Meta information output from the HDCU4300 cannot be acquired by the connected device.

*Related Equipment : NXLK-IP50Y, NXLK-IP51Y : V3.0 or later

PWS-4500 ,PWSK-4504,PWSK-4505,PWSK-4506F,PWSK-4501,PWSK-4508,PWSK-4509 :
V2.82 or later

XKS-C8111,XKS-C8166,XKS-C9111,XKS-C9121 : V1.61 or later

<Related Equipment technical memo information>

- IPTM21-013 (PWS-110NM1/100NM1 V3.0.3
Software Release [IP Live System Manager V3.0.3])
- LSPN21-013 (NXLK-IP50Y, NXLK-IP51Y Software Release (V2.30→V3.00))
- PWVM21-011 (PWS-4500, PWSK-4504, PWSK-4505, PWSK-4506F, PWSK-4501,
PWSK-4508, PWSK-4509 Software Release [V2.82])
- SWEM21-011 (XKS-C8111, XKS-C8166, XKS-C9111,XKS-C9121
Software Release (V1.60→V1.61))

【Preparation】

<Software File>

File name : hdcu4300_v2.50.zip

※ Contact Sony representative to obtain the software files.

The following files can be obtained by unzipped hdcu4300_v2.50.zip.

Zip Name		Package Name	File Type
hdcu4300_v2.50_allpackage.zip	hdcu4300_v2.50.zip	hdcu4300_app.pkg	Software File
		hdcu4300_os.pkg	Software File
		hdcu4300_vif.pkg	PLD File
		hdcu4300_4kpost.pkg	PLD File
		hdcu4300_sdp.pkg	PLD File
		hdcu4300_4001net1.pkg	PLD File
		hdcu4300_4001net2.pkg	PLD File
		hdcu4300_updater.pkg	Software File
		hdcu4300_sy.pkg	PLD File
		hdcu4300_tx.pkg	PLD File
		hdcu4300_dec_hdc4300.pkg	PLD File
		hdcu4300_dpr.pkg	PLD File
		hdcu4300_dpr_hco.pkg	PLD File
		hdcu4300_dpr_sub.pkg	PLD File
		hdcu4300_mif.pkg	PLD File
		hdcu4300_net.pkg	PLD File

<Others>

USB flash drive, 1 piece

【Upgrading Procedure】

Use USB flash drive for upgrading.

To upgrade to this version, place all the above packages on the USB flash drive and be sure to follow *forced upgrade* procedure.

Read SERVICE MANUAL 1-10 for detailed instructions.

【Attention】 If upgrade individual packages from the service menu, the following symptoms may occur.

- The menu is not displayed.
- NET1 / NET2 FPGA version of HKCU-4001 is not displayed.

Even in this case, it will be restored to the correct state by forced upgrade.

【Confirmation after Upgrade】

Display CCU MENU - <DIAGNOSIS> - <VERSION1> (D03) page and <VERSION2>(D04) page, and confirm the upgraded software and PLD version are as shown in the table below.

Table 1. Version after upgrade

Item	Version
APPLICATION	V2.50
OS	V2.13
UPDATER	V1.10
MIF	V2.20
VIF	V2.31
TX	V3.20
SY	V1.01
4K-POST	V1.63
SDP	V2.22
DEC(HDC4300)	V1.10
DPR(NORMAL)	V1.11
DPR(HCO)	V2.00
DPR(Sub)	V1.10 *1
NET	V1.03 *2
NMI LSI	V2.1.1 08 *2
NET1	V2.25 *3
NET2	V2.29 *3

*1 When DPR-392 board is installed

*2 When HKCU-IP43F is installed

*3 When HKCU-4001 is installed

【Attention when downgrading】

If downgrade from V2.50 or latter to V2.31 or V2.40, the user settings will be initialized.

【Supplement】

There is the following restriction when combined with CNU-700.

When the CCU Format is 4K and the 4K DTL in the Detail selection of the panel is not selected, there are the items in the DATA page of the CNU-700 that does not reflect the camera adjustment value.

KNEE, APT, DTL LEVEL, DTL LIMITER, DTL CRISP