



## Technical Memo

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## Revision of Information:

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**RANK** 3**Revised :****Issued :** December 28, 2021**Subject:** Software Release [V3.01]**Revise Point(s)****Issue No.**

HDCM21-063

**Target Models / Destination**

Model Name	Dest
HDC3100	SYM
HDC3500	UCJ
HDC5500	JN4

Model Name	Dest
HDC3170	SYM
HDC5000	JN4
HDC5500	UCJ

Model Name	Dest
HDC3500	CED
HDC5500	CED

Model Name	Dest
HDC3500	CNB
HDC5500	CNB

### [Description]

The updated version of the HDC3100, HDC3170, HDC3500, HDC3500/H, HDC5500 and HDC5000 is released. (V2.80 -> V3.01)  
 Upgrade it as necessary.

Upgrade the Firmware and PLD of each board in accordance with the procedure below.  
 Upgrade the peripheral units that are connected at the same time to the following recommended software version.

### [Notes on installation]

In HDC5000, if you upgrade only the OS, the LCD on the rear panel will not be displayed.  
 If the unit does not start normally after the version upgrade, please upgrade the CAMERA APP and OS at the same time by the “Forced Version Upgrade”.  
 When downgrading the APP version, match the OS to the same version as well.

### [Recommended software versions for related equipment]

To use the functions added in V3.01, update the following peripheral devices.

- HDCU3500, HDCU5500, HDCU5000 : V1.90 or higher
- HDCU3100, HDCU3170 : V2.90 or higher
- MSU-1000, MSU-1500 : V3.80 or higher
- RCP-1500, RCP-1501, RCP-1530 : V3.80 or higher
- MSU-3000, MSU-3500 : V1.30 or higher
- RCP-3500, RCP-3501 : V1.30 or higher

Related technical memo

- HDCM21-065 (HDCU3100, HDCU3170) [V2.90]
- HDCM21-066 (HDCU3500, HDCU5500, HDCU5000) [V1.90]
- HDCM21-053 (RCP-3500, RCP-3501) [V1.30]
- HDCM21-054 (MSU-3000, MSU-3500) [V1.30]

### [Applicable Model]

Model / Description	Serial Number
HDC3100	
HDC3170	
HDC3500/H UCJ	
HDC3500/L CNB	
HDC3500/T CNB	
HDC3500/L UCJ	
HDC3500/T UCJ	
HDC5500/L CNB	
HDC5500/T CNB	
HDC5500/L JN4	
HDC5500/L UCJ	
HDC5500/T JN4	
HDC5000/T JN4	

## [Change Point]

### <New Function>

#### 1. Supports S-Gamut3/S-Gamut3.Cine color spaces (HDC3500/HDC5500/HDC5000)

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.

	Display on the panel	Reflection in SDR output	Reflection in CINEMA output
Gain	<b>Yes</b>		
White	<b>Yes</b>		
ColorTemp	<b>Yes</b>		
Detail	No	No	No
4K Detail	No	No	No
HD Detail	No	No	No
SkinDetail	No	No	No
Saturation	No	No	No
Matrix	No	No	No
OHB Matrix	No	No	No
Low Key Saturation	No	No	No
Knee	<b>Yes</b>	<b>Yes</b>	No
AutoKnee	No	No	No
Knee Saturation	<b>Yes</b>	<b>Yes</b>	No
BlackGamma	No	No	No
Gamma	<b>Yes</b>	<b>Yes</b>	No
(SDR)UserGamma	<b>Yes</b>	<b>Yes</b>	No
White Clip	No	No	No
Black	<b>Yes</b>	<b>Yes</b>	No
Flare	<b>Yes</b>		
V Mod Saw	<b>Yes</b>		
BlackShading	<b>Yes</b>		
WhiteShading	<b>Yes</b>		
SDR GAIN	<b>Yes</b> (0.0dB fixed display)	No	No
HDR BlackOffset	No	No	No
HDR Knee	No	No	No
HDR WhiteClip	No	No	No
HDR BlackClip	No	No	No
HDR BlackCompression	No	No	No
HDR UserGamma	No	No	No
HDR TargetWhite	No	No	No

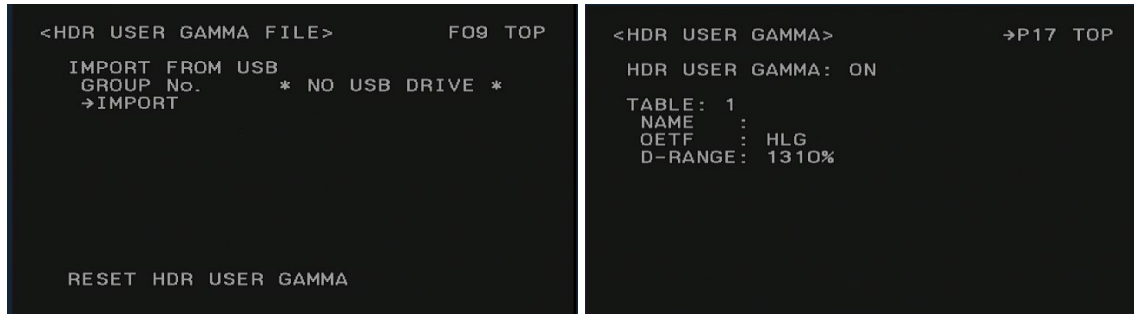
## 2. Supports HDR User Gamma (HDC3100/3170/3500/5500/5000)

Added the function to reflect the HDR User Gamma Table created by the RAW Viewer application.

Software option HZC-UG50 is required to use this function.

On the camera menu of FILE -> HDR USER GAMMA FILE, load the HDR User Gamma Table saved on the USB into the camera.

On the camera menu of PAINT -> HDR USER GAMMA, you can switch to and select the HDR User Gamma Table loaded.



FILE -> <HDR USER GAMMA FILE>

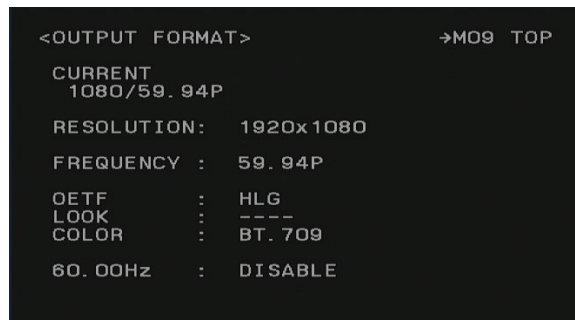
PAINT -> <HDR USER GAMMA>

## 3. Supports 60.00Hz format (HDC3100/3170/3500/5500/5000)

Supports 60.00Hz format.

When connected to a CCU, the camera format will switch automatically when the System Format is set to 60.00Hz.

In Standalone mode, you can select the 60.00Hz format by setting "60.00Hz" to ENABLE in the camera menu MAINTENANCE -> OUTPUT FORMAT.



MAINTENANCE -> <OUTPUT FORMAT>

#### 4. Supports CCU Assignment (HDC3100/3170/3500/5500/5000)

Supports CCU Assignment function.

In the "LOCAL" item and "CCU LINK" item on the MAINTENANCE -> CAMERA NUMBER page, the camera number display can be selected from "Set with camera", "Set with camera and supports CCU Assignment", or "Set with CCU and supports CCU Assignment".

LOCAL: ON -> You can always set the camera number in the camera menu.

CCU LINK: (LOCAL) is displayed.

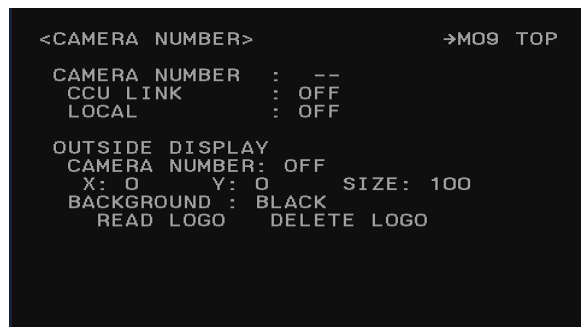
LOCAL: OFF, CCU LINK: OFF -> You can set the camera number in the camera menu.

When the CCU Assignment is enabled, the SYSCAM number set in the MSU is displayed.

LOCAL: OFF, CCU LINK: ON -> You can set the camera number in the CCU menu.

When the CCU Assignment is enabled, the SYSCAM number set in the MSU is displayed.

For the CCU Assignment function, refer to HDCM21-054 of MSU-3000, MSU-3500.



MAINTENANCE -> <CAMERA NUMBER>

#### 5. Supports Skin Detail Zoom Link in 4K format (HDC3100/3500)

Skin Detail Zoom Link function can be used even when SYSTEM FORMAT is 3840 x 2160.

#### 6. Added OPTICAL FILTER setting page (HDC3100/3170/3500/5500/5000)

Added camera menu PAINT -> OPTICAL FILER page so that ND/CC filter can be switched from the menu.

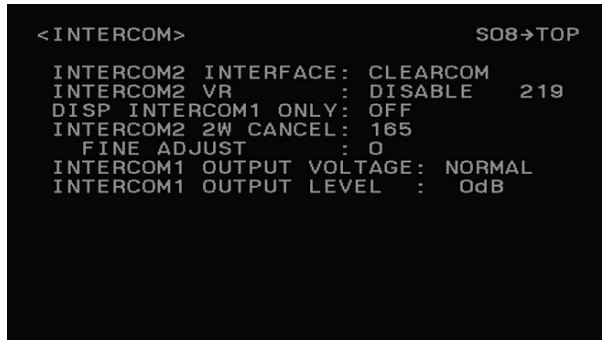
\* For HDC3100/3170, ECC will change if you change the CC filter.



## &lt;Specification change&gt;

## 1. Intercom 2wire specification change (\* Service Menu) (HDC3500/5500/5000)

Enabled to change the intercom receive level in Menu when INTERCOM VR is set to DISABLE.  
 Changed the default setting value from 255 (internal fixed setting value) to 219.



## &lt;Error Correction&gt;

## 1. Fixed interruption of UHD / HD-TRUNK video during APR execution(HDC3100/3170/3500/5500/5000)

Fixed a problem that the UHD / HD-TRUNK video is momentarily interrupted when ABB / APR is executed.

## 2. Improvement of linearity difference of imager between R / G / B Ch (HDC3100/3170/3500/5500/5000)

The symptom that the linearity of B Ch is different for R Ch and G Ch has been improved.

## 3. Fixed video sticking when switching RETURN video (HDC3100/3170/3500/5500/5000)

Fixed a problem that the video may be stuck when switching the RETURN video.

## 4. Service menu display (HDC3500/5500/5000)

Fixed the problem that the service menu of the following units could not be displayed in V2.80.

- When HDC3500 / 5500 is connected to HDLA
- HDC5000

## 5. OETF may not be reflected when connecting HDCE-TX50 (HDC5500/5000)

Fixed a problem that HDR OETF may not be reflected when connecting HDCE-TX50.

## 6. Gain goes down after APR is executed (HDC3500/5500)

Fixed a problem that Gain drops after APR is executed in V3.00.

\* Applies to HDC3500 Serial No. 12015 to 12077 and HDC5500 Serial No. 11001 to 11037 shipped at V3.00.

## 7. Iris slows down for certain lenses when setting HD 2x format (HDC3500)

Iris operation is slow for specific lenses such as Canon lens KJ20 when setting 1080/59.94i(2x), 1080/50i(2x), 720/59.94P(2x), 720/50P(2x) format with V3.00.

Fixed the problem.

\* Applies to HDC3500 Serial No. 12015-12077 shipped at V3.00.

## 【Preparation】

### <Software File>

File name : hdc3500\_v3.01.zip  
                   : hdc3500\_v3.01\_allpackage.zip

\* Obtain it from Software Download site.

\*hdc3500\_v3.01.zip: The Software/PLD File to be upgraded is placed.

\*hdc3500\_v3.01\_allpackage.zip: All Software/PLD File is placed.

The following files are obtained by extracting the above zip File.

Package Name	Type	Applicable Model									
		HDC 3100	HDC 3170	HDC 3500	HDC 3500/H	HKC-FB30	HKC-TR37	HKC-WL50	HKC-FB50	HDC 5500	HDC 5000
hdc3000_app.pkg	Software file	✓	✓	✓	✓					✓	✓
hdc3000_os.pkg	Software file	✓	✓	✓	✓					✓	✓
hdc3000_updater.pkg	Software file	✓	✓	✓	✓					✓	✓
hdc3000_sy.pkg	PLD file	✓	✓	✓	✓					✓	✓
hdc3000_dprl.pkg	PLD file	✓	✓								
hdc3000_dpr.pkg	PLD file			✓	✓					✓	✓
hdc3000_txm.pkg	PLD file			✓		✓					
hdc3000_txh.pkg	PLD file								✓	✓	✓
hdc3000_if.pkg	PLD file							✓			
hdc3000_cd1.pkg	PLD file		✓				✓				
hdc3000_cd2.pkg	PLD file		✓				✓				
E_000_001_21_20	PLD file	✓	✓	✓	✓					✓	

\*✓ : The File is upgrade target. It is in both hdc3500\_v3.01.zip and hdc3500\_v3.01\_allpackage.zip.

\*✓ : The File is not upgrade target. It is in only hdc3500\_v3.01\_allpackage.zip.

\*The LCD PLD File of HDC5000 is not placed because the version has not been upgraded.

\*The upgrade of PS PLD (E\_000\_001\_21\_20) is necessary only when the suffix -11 of SY-463 Board breaks down and changes to -13.

If use the suffix -11 of SY-463 Board, it is not necessary to upgrade. (It is OK as V1.00. There is no problem to upgrade to V2.00)

### <Others>

USB flash drive, 1 piece

## [Upgrading Procedure]

Use a USB flash drive for upgrading.

Refer to SERVICE MANUAL as for the work procedure.

## [Confirmation after Upgrading]

Confirm the version of each item in the camera menu DIAGNOSIS - <ROM VERSION>(D3) page.

### 1. HDC3100, HDC3170

CAMERA APP	<b>V3.01</b>	<b>(Changed)</b>
OS	<b>V3.02</b>	<b>(Changed)</b>
UPDATER	<b>V3.00</b>	<b>(Changed)</b>
SY	<b>V2.92</b>	<b>(Changed)</b>
DPRL	<b>V3.02</b>	<b>(Changed)</b>
PS	V2.00	
CD1	V1.10	(Only HDC3170)
CD2	<b>V1.13</b>	<b>(Changed)</b> (Only HDC3170)
TR	V1.00	(Only HDC3170)

### 2. HDC3500, {HDC3500/H + HKC-CN50 + HKC-FB30}, {HDC3500/H + HKC-CN50 + HKC-WL50}

CAMERA APP	<b>V3.01</b>	<b>(Changed)</b>
OS	<b>V3.02</b>	<b>(Changed)</b>
UPDATER	<b>V3.00</b>	<b>(Changed)</b>
SY	<b>V2.92</b>	<b>(Changed)</b>
DPR	<b>V3.02</b>	<b>(Changed)</b>
PS	V2.00	
TXM	V2.83	(Only HDC3500, HDC3500/H + HKC-FB30)
IF	V2.30	(Only installing HKC-WL50)
CD1	V1.10	(Only installing HKC-TR37)
CD2	<b>V1.13</b>	<b>(Changed)</b> (Only installing HKC-TR37)
TR	V1.00	(Only installing HKC-TR37)

### 3. HDC5500, {HDC3500/H + HKC-CN50 + HKC-FB50}, HDC5000

CAMERA APP	<b>V3.01</b>	<b>(Changed)</b>
OS	<b>V3.02</b>	<b>(Changed)</b>
UPDATER	<b>V3.00</b>	<b>(Changed)</b>
SY	<b>V2.92</b>	<b>(Changed)</b>
DPR	<b>V3.02</b>	<b>(Changed)</b>
PS(HDC5500)	V2.00	
PS(HDC5000)	V2.20	
TXH	<b>V3.01</b>	<b>(Changed)</b>
LCD	V2.22	(Only HDC5000)



## [Software History]

### 1. HDC3100, HDC3170

Version	V1.06	V1.11	V2.04	V2.06	V2.10	V2.11	V2.31
Soft Release Date	2018.10.12	2019.2.14	2019.4.26	2019.6.07	2019.7.29	2019.10.25	2020.1.24
Tech Memo No.	Initial Release	HDCM 19-005R	HDCM 19-027R	HDCM 19-042R	HDCM 19-048R	HDCM 19-072	HDCM 20-006R
CAMERA APP	V1.06	V1.11	V2.04	V2.06	V2.10	V2.11	V2.31
UPDATER	V1.00	V1.01	V1.01	V1.01	V1.01	V1.01	V2.21
OS	V1.00	V1.00	V1.00	V1.00	V1.00	V1.00	V2.32
SY	V1.01	V1.01	V2.01	V2.01	V2.11	V2.11	V2.30
DPRL	V1.04	V1.04	V2.02	V2.02	V2.12	V2.12	V2.32
CD1 (HDC3170)	V1.00	V1.10	V1.10	V1.10	V1.10	V1.10	V1.10
CD2 (HDC3170)	V1.05	V1.11	V1.11	V1.11	V1.11	V1.11	V1.11
PS	V1.00	V1.00	V2.00	V2.00	V2.00	V2.00	V2.00

Version	V2.40	V2.80	V3.01
Soft Release Date	2020.8.21	2021.4.30	2021.12.24
Tech Memo No.	HDCM 20-037R	HDCM 21-029R	HDCM 21-063
CAMERA APP	V2.40	V2.80	V3.01
UPDATER	V2.21	V2.21	V3.00
OS	V2.40	V2.80	V3.02
SY	V2.40	V2.40	V2.92
DPRL	V2.41	V2.60	V3.02
CD1 (HDC3170)	V1.10	V1.10	V1.10
CD2 (HDC3170)	V1.11	V1.11	V1.13
PS	V2.00	V2.00	V2.00

### 2. HDC3500, {HDC3500/H + HKC-TR37/FB30/FB50/WL50}

Version	V1.06	V1.11	V2.04	V2.06	V2.10	V2.11	V2.31
Soft Release Date	2018.10.12	2019.2.14	2019.4.26	2019.6.07	2019.7.29	2019.10.25	2020.1.24
Tech Memo No.	Initial Release	HDCM 19-005R	HDCM 19-027R	HDCM 19-042R	HDCM 19-048R	HDCM 19-072	HDCM 20-006R
CAMERA APP	V1.06	V1.11	V2.04	V2.06	V2.10	V2.11	V2.31
UPDATER	V1.00	V1.01	V1.01	V1.01	V1.01	V1.01	V2.21
OS	V1.00	V1.00	V1.00	V1.00	V1.00	V1.00	V2.32
SY	V1.01	V1.01	V2.01	V2.01	V2.11	V2.11	V2.30
DPR	V1.04	V1.04	V2.02	V2.02	V2.12	V2.12	V2.31
PS	V1.00	V1.00	V2.00	V2.00	V2.00	V2.00	V2.00
TXM (HDC3500, HKC-FB30)	V1.01	V1.01	V2.00	V2.00	V2.10	V2.10	V2.30
IF (HKC-WL50)		V1.10	V1.10	V1.10	V1.10	V1.10	V2.30
CD1 (HKC-TR37)	V1.00	V1.10	V1.10	V1.10	V1.10	V1.10	V1.10
CD2 (HKC-TR37)	V1.05	V1.11	V1.11	V1.11	V1.11	V1.11	V1.11

Version	V2.40	V2.60	V2.80	V3.01
Soft Release Date	2020.7.31	2020.10.30	2021.4.30	2021.12.24
Tech Memo No.	HDCM 20-037R	HDCM 20-050	HDCM 21-029R	HDCM 21-063
CAMERA APP	V2.40	V2.60	V2.80	V3.01
UPDATER	V2.21	V2.21	V2.21	V3.00
OS	V2.40	V2.40	V2.80	V3.02
SY	V2.40	V2.40	V2.40	V2.92
DPR	V2.41	V2.60	V2.60	V3.02
PS	V2.00	V2.00	V2.00	V2.00
TXM (HDC3500, HKC-FB30)	V2.40	V2.60	V2.83	V2.83
IF (HKC-WL50)	V2.30	V2.30	V2.30	V2.30
CD1 (HKC-TR37)	V1.10	V1.10	V1.10	V1.10
CD2 (HKC-TR37)	V1.11	V1.11	V1.11	V1.13

**3. HDC5500, {HDC3500/H + HKC-FB50}, HDC5000**

Version	V2.04	V2.06	V2.10	V2.11	V2.31
Soft Release Date	2019.4.26	2019.6.07	2019.7.29	2019.10.25	2020.1.24
Tech Memo No.	HDCM 19-027R	HDCM 19-042R	HDCM 19-048R	HDCM 19-072	HDCM 20-006R
CAMERA APP	V2.04	V2.06	V2.10	V2.11	V2.31
UPDATER	V1.01	V1.01	V1.01	V1.01	V2.21
OS	V1.00	V1.00	V1.00	V1.00	V2.32
SY	V2.01	V2.01	V2.11	V2.11	V2.30
DPR	V2.02	V2.02	V2.12	V2.12	V2.31
PS (HDC5500)	V2.00	V2.00	V2.00	V2.00	V2.00
PS (HDC5000)					V2.20
TXH	V2.02	V2.02	V2.12	V2.12	V2.31
LCD (HDC5000)					V2.22

Version	V2.40	V2.60	V2.80	V3.01
Soft Release Date	2020.8.21	2020.10.30	2021.4.30	2021.12.24
Tech Memo No.	HDCM 20-037R	HDCM 20-050	HDCM 21-029R	HDCM 21-063
CAMERA APP	V2.40	V2.60	V2.80	V3.01
UPDATER	V2.21	V2.21	V2.21	V3.00
OS	V2.40	V2.40	V2.80	V3.02
SY	V2.40	V2.40	V2.40	V2.92
DPR	V2.41	V2.60	V2.60	V3.02
PS (HDC5500)	V2.00	V2.00	V2.00	V2.00
PS (HDC5000)	V2.20	V2.20	V2.20	V2.20
TXH	V2.40	V2.40	V2.81	V3.01
LCD (HDC5000)	V2.22	V2.22	V2.22	V2.22