

Application Note

Procedure to update the firmware (U20) on DT-1920-HDMI-EDPT board(USB-HDMI)

Application Note:Procedure to update
the firmware (U20)
on DT-1920-HDMI-EDPT
board.Version: 1.00Date: 24-Jan-2020



Revision History

Date	Rev No.	Page	Summary
20 Sept 2018	1.00	All	First issued
23 Jan 2020	1.10	7 All	 Update HK Office address Change the product name from DD- 1920-HDMI-EDPT to DT-1920-HDMI- EDPT

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Software and hardware setup

(This firmware upgrade procedure is same as SVX-4096.)

The "RTDTool.exe" is an upgrade program for DT-1920-HDMI-EDPT. It can be run under Windows XP/Vista/7/10 platform. Please contact your local office to get the program.

Before upgrading the firmware on the DT-1920-HDMI-EDPT, make sure you have the following items ready:

1. PC with Windows (XP/Vista/7/10) installed

- 2. External programmable board (USB writer) from Digital View
- 3. USB cable
- 4. HDMI cable (Micro HDMI to Standard HDMI)
- 5. Firmware files

Step 1.1 : Connect the HDMI cable to the External programmable board (USB writer) and DT-1920-HDMI-EDPT. Use a USB cable to link the PC and the External programming board. See the diagram below:



Step 1.2 : On PC, run the "RTDTool.exe" firmware upgrade program.



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For first time running the RTD Customer Tool" program, please install USB driver by choosing "Communication Option" -> press "Install" button in Driver section as described in the picture below.

RTD Customer Too	V3.5								
Option Debug message Communication Option									
Access method: Realt	eKUSB - A Scaler RTD2185 - Stop Run Reset								
^ ISP	Bank Path Last modified time: 2019/03/11 11:57:56	CRC Len	Refresh						
MCL MouReg	0 C:\Users\user\Desktop\1\RL6432_Project_DD-1920-HDMI-EDPT V1.02.00_French+Spanish *	32 65536	<u> </u>						
incurvey	1 C:\Users\user\Desktop\1\RL6432_Project_DD-1920-HDMI-EDPT V1.02.00_French+Spanish(19	22 65536	3						
Stiffer AuxSniffer	2 Realtek USB Adjust Option	E8 65536	3						
CTS CTS	3 d I2C Speed Driver h(19	63 65536	3						
DPCD DPCD		6E 65536	3						
E DP TX DPTxCtrl	HandShake Setting	A1 65536	<u> </u>						
Elach Elach		C9 65536	<u> </u>						
riash riash	> ⁷ 200000us								
GPIO			-						
Gamma Gamma									
	OK Cancel		S.						
HS Delay									
Last	ISP Type		27						
Line LastLine	● 1 To 1 ◎ 1 To 4	Ž							
· · · · ·									
O	USB: 💑								
		_							
	2. Press 'Install' button								
1. Select 'Communication									
Option'									

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2 Firmware Upgrade procedure

Step 2.1 : Run the "RTDTool.exe" program.

Step 2.2 : Main window display will be shown as below :



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Points to be noted :

- The DT-1920-HDMI-EDPT must be powered on during programming. •
- ٠ Make sure the USB driver is ready to use in the PC. If not, try to unplug the USB connector and connect it again.
- All check boxes of bank 0- bank 7 must be selected ٠

Step 2.3 : After pressing "Start" button, firmware is begin to upgrade.

RTD Customer Tool ition Debug mess	IV3.5 Communication Option
ess method: Realte	tekUSB Scaler: RTD2185 Stop Run Reset
	Bank Path Last modified time: 2019/03/11 11:57:56 CBC Len Refreeb.
ISP	0 ♥ Cillisers/user/Deskton/1/RI 6432 Project DD-1920-HDMI-EDPT V1.02.00 French+Spanish ▼ 32 65536
MCU McuReg	1 √ C:\Users\user\Desktop\1\RL6432_Project_DD-1920-HDMI-EDPT V1.02.00_French+Spanish(19) 22 65536
Sniffer AuxSniffer	2 C:Users\userDesktop\1\RL6432_Project_DD-1920-HDMI-EDPT V1.02.00_French+Spanish(19) E8 65536
CTS CTS	3 C:\Users\user\Desktop\1\RL6432_Project_DD-1920-HDMI-EDPT V1.02.00_French+Spanish(19 63 65536
DPCD DPCD	4 🗹 C:\Users\user\Desktop\1\RL6432_Project_DD-1920-HDMI-EDPT V1.02.00_French+Spanish(19 6E 65536
DETVOH	5 🖉 🛛 FW Update Progress 🛛 💽 19 A1 65536
	6 🗸
Flash Flash	» 7 🗆 16%
GPIO	
Gamma Gamma	Current flash is MX25L32XX Function
HERP HDCP	Bank 6 erase successfully. Auto Erase
HS Delay	Write code to bank o successfully
TTC 12C	
Last	ISP Type
LastLine	© 1 10 1 0 1 10 4
4 III >	
JOK	US8: 40
cess method: Real	altekUSB Scaler: RTD2185 Stop Run Reset
1 SP	Bank Path Last modified time: 2019/03/11 11:57:56 CRC Len Refrest
MCU McuReg	C/Users/user/Desktop/1/RL6432_Project_DD-1920-HDMI-EDPT V1.02.00_French+Spanish 32 000300
Sniffer AuxSniffer	C.U.SersiusenDesktop/14L0432_110jed_DD-1920+10MinLD11111.22.00_11end1-0panish(19) 22 05550
CTS. CTS	3 √ C\Users\user\Deskton1\\Deskton1
	4 V C1Usersluser/Desktop/1/RL6432_Project_DD-1920-HDMI-EDPT V1.02.00_French+Specieb(19) 6E 65536
DPCD DPCD	5 / FW Update Progress
E DPTx DPTxCtrl	6 🗹
Flash Flash	83%
Common State	
GPIO	
GPIO	
GPIO Gamma Gamma HDCP	Bank 3 erase successfully. Function Write code to bank 3 successfully
GPIO Gamma Gamma HDCP Bad	Bank 2 erase successfully.
GPIO Gamma Gamma HDCP Solowy HS Delay	Bank 3 erase successfully Write code to bank 3 successfully Bank 2 erase successfully Write code to bank 2 successfully
GPIO Gamma Gamma HDCP HS Delay	Bank 3 erase successfully Write code to bank 3 successfully Bank 2 erase successfully Write code to bank 1 erase successfully Bank 1 erase successfully Write code to bank 1 successfully Bank 1 erase succe
GPIO Gamma Gamma HDCP HS Delay IIC Last Last Last Last	Bank 2 erase successfully Bank 2 erase successfully Bank 2 erase successfully Write code to bank 3 successfully Bank 1 erase successfully Bank 2 erase successfully Bank 1 erase successfully Bank 2 erase
GPIO Gamma Gamma HDCP HS Delay I2C Last LastLine Line	Bank 0 erase successfully Bank 0 erase successfully
GPIO Gamma HDCP HS Delay IZC Last LastLine C IIII	Bank 0 erase successfully Bank 0 erase successfully USB:
GPIO Gamma Gamma HDCP HS Delay IS LastLine LastLine	Bank 0 erase successfully Bank 0 erase successfully USB:
GPIO Gamma Gamma HDCP HS Delay Last LastLine Line LastLine Cor	Bank 0 erase successfully Bank 0 erase successfully USB:
GPIO Gamma Gamma HDCP HS Delay Last Last Line Last Line Cox	Bank 3 erase successfully Bank 2 erase successfully Bank 2 erase successfully Bank 1 erase successfully Write code to bank 1 successfully Bank 0 erase successfully USB:

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Step 2.4 : When the firmware upgrade is completed, will see "O.K." displayed on the screen.



It will report 'FAIL' if the firmware programming is failed (e.g : USB connection has problem).

RTD Customer Tool V3.5								
Access method: Realt	ItekUSB Scaler: RTD2185 Key Stop Run Reset							
^ @	Bank Path Last modified time: 2019/03/11 11:57:56 C	CRC Len	Refresh					
ADDR.	0 🖉 C:\Users\user\Desktop\1\RL6432_Project_DD-1920-HDMI-EDPT V1.02.00_French+Spanish 🔻	32 65536						
MCUReg	1 C:\Users\user\Desktop\1\RL6432_Project_DD-1920-HDMI-EDPT V1.02.00_French+Spanish(19)	22 65536						
Sniffer AuxSniffer	2 C:\Users\user\Desktop\1\RL6432_Project_DD-1920-HDMI-EDPT V1.02.00_French+Spanish(19)	E8 65536						
CTS CTS	3 🖉 C:\Users\user\Desktop\1\RL6432_Project_DD-1920-HDMI-EDPT V1.02.00_French+Spanish(19)	63 65536						
DPCD DPCD	4 C:\Users\user\Desktop\1\RL6432_Project_DD-1920-HDMI-EDPT V1.02.00_French+Spanish(19)	6E 65536						
	5 C:\Users\user\Desktop\1\RL6432_Project_DD-1920-HDMI-EDPT V1.02.00_French+Spanish(19)	A1 65536						
	6 C:\Users\user\Desktop\1\RL6432_Project_DD-1920-HDMI-EDPT V1.02.00_French+Spanish(19)	C9 65536						
Flash	▶ 7 □							
GPIO	Big Bin CheckSum(0x): 0337 FA86		-					
Gamma	Trying into ISP mode							
HDCP	Enter ISP mode fail: Error code:0x800. O Erase		3					
HS Delay)					
	(FAII							
Last	ISP Type	-						
Line LastLine		2	2					
< +								
О К	USB: 💫							

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