

882EA Release 2.27.1 - vxWorks: 20.1888001

The following features have been added in the Release 2.27.1.

- Added GraysMHL test image.
- Added SSBFull test image.
- Support for HDCP CTS 1.2 errata to allow HDCP 2.2 sink/repeater devices to pass HDCP CTS 1.2 testing. There is a new PCP parameter called HDCP2 Supported.
- Added 3DBoxes, 3DClrRmp, and 3DXTalk2 test images.
- Added Extended Colorimetry parsing even when not valid.
- HDMI VSIF is now always output (even when 3D is off) for improved compatibility.

The following anomalies have been corrected in the Release 2.27.1.

- Improved XML file loading for better compatibility with 780, 980, and Java apps.
- Fixes crash on ARAT modify screen.
- EDID Compliance Test fixes.
- Fixes crash when new CEA-861-F VICs exist in the EDID when EDID formats/reporting are used.
- 8-bit bitmaps work in Deep Color modes now.
- Fixes CEC "Set Stream Path" response issue (also affects some compliance tests).
- Fixed InfoFrame colorimetry issues relating to full range.
- Changed EDID range limits from 59-61Hz to 49-61Hz for European customers.
- Fixes 4:2:2 ViewPix.
- HDCP Compliance Test fixes.
- CEC Compliance Test fixes.

HDCP Compliance Test notes (only applicable to 882EA with HDCP Compliance Test option)

Applicable to all tests

- try running the tests in batch mode by using the front panel interface
- if there is a problem, try running the tests one by one via the command line (see the repeater AB test procedure below as an example and refer to the [user guide](#))

- the test reports will be saved in /card0/library/reports if there is a PCMCIA card inserted in the 882EA (/tffs0/library/reports/ if no PCMCIA is inserted)
- Optionally use CPTX:DRPT 1 command to enable I2C logging in reports
use CPTX:DRPT 0 command to disable I2C logging
use CPTX:DRPT? query to check setting of I2C logging state

Applicable to the sink tests

- you can monitor the transactions on Tx port 1 using the ACA

Applicable to the source tests

- you can monitor the transactions if you have another 882C/882CA/882E/882EA and a TPA-MP-4R or TPA-ACA-3R
- connect the output of the source device to TPA's port 1, the input 1 of 882EA (test equipment) to TPA's port 2, and output 1 of a different 882C/882CA/882E/882EA (ACA monitoring device) to TPA's port 3
- use the ACA on the 882C/882CA/882E/882EA that is not the test equipment to monitor the transactions on Tx port 1

Applicable to the repeater AB tests

- use a separate source device and connect it to the upstream port of the repeater
- use the 882EA's Rx 1 port as the sink device and connect it to the downstream port of the repeater via the EST
- you can monitor either downstream or upstream transactions (not both at the same time) if you have another 882C/882CA/882E/882EA and a TPA-MP-4R or TPA-ACA-3R
- in order to monitor the downstream transactions, connect the downstream of the repeater device to TPA's port 1, the input 1 of 882EA (test equipment) to TPA's

port 2, and output 1 of a different 882C/882CA/882E/882EA (ACA monitoring device) to TPA's port 3

- in order to monitor the upstream transactions, connect the output of the source device to TPA's port 1, the upstream of the repeater device to TPA's port 2, and output 1 of a different 882C/882CA/882E/882EA (ACA monitoring device) to TPA's port 3
- use the ACA on the 882C/882CA/882E/882EA that is not the test equipment to monitor the transactions on Tx port 1

Applicable to the repeater C tests

- connect the 882EA's Tx 1 port to the upstream port of the repeater via the EST
- connect the 882EA's Rx 1 port to the downstream port of the repeater via the EST
- make sure HdcpProd image is not selected on the 882EA before running the tests
- you can monitor the downstream transactions on Rx port 1 using the ACA
- you can monitor the upstream transactions on Tx port 1 using the ACA

Sink test procedure via the command line interface

```
CPTX:DUTT 0 // set up for sink test
CPTX:CPTR 16 // configure 2C-1 test
CPTX:CPTU // start the test
// save the test report to the PC and rename it
```

// repeat above steps for test numbers 17 and 18

CPTX:CPTR 19 // configure 2C-4 test
CPTX:CPTU // start the test
// save the test report to the PC and rename it

Source test procedure via the command line interface

CPTX:DUTT 1 // set up for source test
CPTX:CPTR 1 // configure 1A-01 test
CPTX:CPTU // start the test
// save the test report to the PC and rename it

// repeat above steps for test numbers 2 to 14

CPTX:CPTR 15 // configure 1B_06 test
CPTX:CPTU // start the test
// save the test report to the PC and rename it

Repeater AB test procedure via the command line interface

CPTX:DUTT 3 // set up for repeater AB test
CPTX:CPTR 20 // configure 3A-01 test
CPTX:CPTU // start the test
// save the test report to the PC and rename it

// repeat above steps for test numbers 21 to 28

CPTX:CPTR 29 // configure 3B-05 test
CPTX:CPTU // start the test
// save the test report to the PC and rename it

Repeater C test procedure via the command line interface

CPTX:DUTT 2 // set up for repeater C test
CPTX:CPTR 30 // configure 3C1-01 test
CPTX:CPTU // start the test
// save the test report to the PC and rename it

// repeat above steps for test numbers 31 to 44

CPTX:CPTR 45 // configure 3C2-09 test

```
CPTX:CPTU // start the test
// save the test report to the PC and rename it
```

Note: The release files can only be applied to the 882EA HDMI generator (not the 882CA/882C/881C, 882D/881D, 882E/881E, or 882E-DP/881E-DP generators).

Software Table

The Release 2.27.1 is comprised of the following software components.

Software Component	Version	Change Status
Boot Rom	01.04.11	no change
vxWorks	20.1888001	new with 2.27.1
Gateway 1	405C,25,9182014	new with 2.27.1
Gateway 2	450A,3,12312008	no change
Gateway 3	450B,13,4202010	no change
Java JRE required	1.5.06	no change

Auto Upgrade Instructions

You can use Quantum Data's AutoUpdate utility to upgrade your 881/882 firmware and gateway. The AutoUpdate utility automates the process of upgrading to the current release. It guides the user through the update process, checking the Quantum Data website for the latest version and installing all files in the correct location on the generator.

Read the [AutoUpdate Instructions](#).
[Download AutoUpdate Version 1.1.4 for 880 series](#) (includes instructions)

Manual Upgrade Instructions

You can upgrade your generator using the procedures in the Users Guide. Please note that you will have to verify that your current generator is operating with Release 2.10.0, 2.10.2, 2.10.5, 2.11.0, 2.12.0, 2.13.1, 2.15.0, 2.16.3, 2.16.4, 2.17.6, 2.18.1,

2.19.0, 2.19.2, 2.20.0, 2.21.0, 2.22.0, 2.23.0, 2.24.1, 2.25.0, 2.25.2, or 2.26.0. To verify that your current generator is operating with one of these releases, enter the following command:

verf?

Release 2.10.0 should return the following information:
20.1884600, 01.04.11

Release 2.10.2 should return the following information:
20.1884602, 01.04.11

Release 2.10.5 should return the following information:
20.1884605, 01.04.11

Release 2.11.0 should return the following information:
20.1884800, 01.04.11

Release 2.12.0 should return the following information:
20.1885000, 01.04.11

Release 2.13.1 should return the following information:
20.1885201, 01.04.11

Release 2.15.0 should return the following information:
20.1885600, 01.04.11

Release 2.16.3 should return the following information:
20.1885803, 01.04.11

Release 2.16.4 should return the following information:
20.1885803, 01.04.11

Release 2.17.6 should return the following information:
20.1886006, 01.04.11

Release 2.18.1 should return the following information:
20.1886201, 01.04.11

Release 2.19.0 should return the following information:
20.1886400, 01.04.11

Release 2.19.2 should return the following information:
20.1886402, 01.04.11

Release 2.20.0 should return the following information:
20.1886600, 01.04.11

Release 2.21.0 should return the following information:
20.1886800, 01.04.11

Release 2.22.0 should return the following information:
20.1887000, 01.04.11

Release 2.23.0 should return the following information:
20.1887200, 01.04.11

Release 2.24.1 should return the following information:
20.1887401, 01.04.11

Release 2.25.0 should return the following information:
20.1887600, 01.04.11

Release 2.25.2 should return the following information:
20.1887602, 01.04.11

Release 2.26.0 should return the following information:
20.1887800, 01.04.11

After verifying that the generator is operating with Release 2.10.0, 2.10.2, 2.10.5, 2.11.0, 2.12.0, 2.13.1, 2.15.0, 2.16.3, 2.16.4, 2.17.6, 2.18.1, 2.19.0, 2.19.2, 2.20.0, 2.21.0, 2.22.0, 2.23.0, 2.24.1, 2.25.0, 2.25.2, or 2.26.0, upgrade your generator using the procedures below:

1. Download the 2.27.1 Zip file to your PC and unzip the file. There will be a System and a Library directory.
2. [Upgrade the generator using "Manually upgrading without using PC Card" procedure at this link.](#)
3. After power cycling the generator, verify that the generator is running the current 2.27.1 version of the vxWorks file by entering the following command:

```
verf?  
20.1888001, 01.04.11
```

4. Verify that the vxWorks file is: 20.1888001.
5. Verify that the BootRom version is: 01.04.11.
6. Verify that the generator is running the current 2.27.1 version of the gateway files by entering the following command:

verg?

405C,25,9182014:450A,3,12312008:450B,13,4202010

7. The first listing is the Lattice FPGA gateway. The next two listings are the transmitter gateway files for the DVI and the HDMI output. The gatewares are separated by colons. Verify that the transmitter gateway files are:
450A,3,12312008:450B,13,4202010.

Important note on installing Dolby/DTS compressed audio samples:

The Dolby Digital, Dolby Digital Plus, Dolby True HD, and DTS audio formats use audio samples that must be downloaded and installed separately to the Library/audio directory of the Compact Flash card:

1. Download the file [AudioSamples 2.18.1.zip](#)
2. Unzip this file to a folder in your computer
3. Using FTP Browser, browse to the card0/Library folder of the 882EA generator
4. Click on **New** under Instrument Files, and create a new directory called **audio**
5. Under Host Files, browse to the folder on your PC where you unzipped the audio sample files
6. Copy all 14 files to the new audio directory
 - o 1khz2ch-20dB_ec3.pcm
 - o 1khz51ch-20dB_ec3.pcm
 - o 1khz71ch-1frame_ec3.pcm
 - o 1khz71ch-20dB_mlp.pcm
 - o 2khz2ch-0db_ac3.pcm
 - o audio.lst
 - o DTES-ES-48kHz-1509kbps-61ch.wav.pcm
 - o dts-48kHz-1509kbps-51ch.wav.pcm
 - o dtshdhra-48kHz-3840kbps-51ch.wav.pcm
 - o dtshdhra-48kHz-5376kbps-71ch.wav.pcm
 - o dtshdhra-96kHz-5760kbps-71ch.wav.pcm
 - o dtshdma-48kHz-VBR-51ch-HDMI_HBR.ba.pcm

- dtshdma-48kHz-VBR-71ch-HDMI_HBR.ba.pcm
 - nxt2ch2s.mlp.pcm
7. Power cycle the unit.
 8. Now the Dolby audio formats are ready to use by selecting the image called **Dolby**, and the DTS audio formats are ready to use by selecting the image called **DTS**
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Other Release Notes

You can obtain Release Notes for past releases as follows:

[882EA Release 2.26.0](#)
[882EA Release 2.25.2](#)
[882EA Release 2.25.0](#)
[882EA Release 2.24.1](#)
[882EA Release 2.23.0](#)
[882EA Release 2.22.0](#)
[882EA Release 2.21.0](#)
[882EA Release 2.20.0](#)
[882EA Release 2.19.2](#)
[882EA Release 2.19.0](#)
[882EA Release 2.18.1](#)
[882EA Release 2.17.6](#)
[882EA Release 2.16.4](#)
[882EA Release 2.16.3](#)
[882EA Release 2.15.0](#)
[882EA Release 2.13.1](#)
[882EA Release 2.12.0](#)
[882EA Release 2.11.0](#)
[882EA Release 2.10.5](#)
[882EA Release 2.10.2](#)