

## **Feature Enhancements for 882EA Release 2.25.2 - vxWorks: 20.1887602**

The following features have been added in the Release 2.25.2.

- Added R and M fields to PacketRx image.
- Added VIC details to PacketTx and PacketRx.
- Added IFGX:RPTU and IFAX:RPTU commands which generate PacketTx and PacketRx reports respectively.
- Added Golden Frame capture feature which uses PDAX:GFCA, PDAX:GFCL, and PDAX:GFCU commands.
- Added GraysMHL test image which is used for MHL Sink Compliance Test.
- Modified CEC ping commands (CECn:PING and CECn:PING?) so that they work even if CEC ITE option is not enabled.
- Added HPDG command to set HPD high or low.

The following anomalies have been corrected in the Release 2.25.2.

- Fixed CEC buffer size issue.
- Fixed some CEC Compliance Test 9.3-x test automation issues.
- Fixed incorrect test step description in CEC Compliance Test 11.2.14-2.
- Fixed the issue where 882 doesn't broadcast in CEC Compliance Test 11.2.17-5.
- Various HDCP Compliance Test fixes.
- Fixed the issue where 882 sets Ainfo incorrectly.
- Fixed the issue where 882 fails the source DUT incorrectly with "R0" was read within 100 ms after writing Aksv" message in HDCP Compliance Test.
- Fixed the issue where the reference EDID doesn't get loaded properly in VESA E-EDID Verification Test.
- Fixed the problem that occurs when switching from HDMI Deep Color mode to DVI.
- Fixed the issue where X3DM command doesn't work with Cubes3D and 3DXTalk test images.

### **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).

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### Software Table

The Release 2.25.2 is comprised of the following software components.

<b>Software Component</b>	<b>Version</b>	<b>Change Status</b>
Boot Rom	01.04.11	no change
vxWorks	20.1887602	new with 2.25.2
Gateway 1	405C,17,2152010	no change
Gateway 2	450A,3,12312008	no change

Gateway 3	450B,13,4202010	no change
Java JRE required	1.5.06	no change

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## Auto Upgrade Instructions

Now you can use Quantum Data's new AutoUpdate utility to upgrade your generator firmware and gateway. The AutoUpdate utility automates the process of upgrading firmware. It guides the user through the upgrade 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)

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## 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, or 2.25.0. 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

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, or 2.25.0, upgrade your generator using the procedures below:

1. Download the 2.25.2 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 2.25.2 version of the vxWorks file by entering the following command:

```
verf?
```

```
20.1887602, 01.04.11
```

4. Verify that the vxWorks file is: 20.1887602.
5. Verify that the BootRom version is: 01.04.11.
6. Verify that the generator is running the current 2.25.2 version of the gateway files by entering the following command:

```
verg?
```

```
405C,17,2152010:450A,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
  - o dtshdma-48kHz-VBR-71ch-HDMI\_HBR.ba.pcm
  - o 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**