



Aprisa XE Software Release Notes

7.2.0

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1. Introduction

Introduction	<p>The previous Aprisa XE software version 7.1.4 was released for general use on the 3rd May 2006.</p> <p>This release of Aprisa XE software version 7.2.0 was released for general use on the 8th June 2006.</p> <p>Previously, the Aprisa XE supported framed and unframed E1 but only unframed T1. Framed T1 has now been implemented in the Aprisa XE.</p>
Framed T1	<p>This Aprisa XE software version 7.2.0 beta was released specifically for the initial customer evaluation of framed T1.</p> <p>It will be deployed in the final 900 MHz product (200 kHz channel spacing).</p> <p>The existing QJET interface card provides the hardware functionality required to deliver T1.</p>
4RF Support	<p>Prior to upgrading Aprisa XE terminals with this software, please contact 4RF Customer Support at support@4rf.com to obtain the upgrade files and upgrade process.</p>

2. Upgrade Process

Partial Upgrade Process

When performing a TFTP upgrade with this software, terminals that are currently running software version prior to 7.0.6, may require a two stage upgrade process.

Run a TFTP upgrade on the terminal with the **7_2_0p** file. This will perform a partial upgrade which will delete unnecessary image files that might be taking up space in the Image Table (which could prevent a normal upgrade).

Reboot the terminal.

Run a TFTP upgrade on the terminal with the **7_2_0** file. This will perform a full upgrade.

Reboot the terminal again.

3. Functionality Changes

3.1. QJET T1 Interface

Introduction

The following functionality changes have been implemented in the Aprisa XE to support framed T1.

Line Codes

The Aprisa XE QJET interface provides T1 line codes of:

- B8ZS
 - AMI
-

Framing

The Aprisa XE QJET interface provides T1 frame formats of:

- 12 Super-Frame (no CRC)
 - 24 Frame Extended Super-Frame with CRC
-

Short haul applications

The Aprisa XE QJET interface provides 'TX Waveform Shaping' (not 'TX LBO') as the interface is only required for short haul applications.

DTE device

As a DTE device, the Aprisa XE QJET T1 interface does not include the Channel Service Unit (CSU).

3.2. Cross Connections

Cross Connections

In this beta release, only complete timeslots, including the inherent robbed signalling bit, can be cross connected.

The beta release of framed T1 provides interworking between T1 interfaces for point to point and drop and insert configurations.

Compatible Interfaces

The following table shows the legacy and the new T1 framed compatible interfaces.

Interworking between framed T1 and FXO / FXS / E&M will be considered for a later release (marked with an **F**).

(No A law to μ law conversion or vice versa is implied in this compatible interface table)

	Ethernet (management)	Ethernet (user)	E1 Unframed	T1 Unframed	E1 Framed PCM 31	E1 Framed PCM 30	T1 Framed SF	T1 Framed ESF	4 Wire voice only	4 Wire with E&M	V.24 with signalling	2 wire FXO	2 wire FXS	HSS data	HSS signalling
Ethernet (management)	✓														
Ethernet (user)		✓													
E1 Unframed			✓												
T1 Unframed				✓											
E1 Framed PCM 31					✓	✓	✗	✗	✓		✓			✓	✓
E1 Framed PCM 30					✓	✓	✗	✗	✓	✓	✓	✓	✓	✓	✓
T1 Framed SF					✗	✗	✓	✓	F	F	F	F	F	F	F
T1 Framed ESF					✗	✗	✓	✓	F	F	F	F	F	F	F
4 Wire voice only					✓	✓	F	F	F						
4 Wire with E&M						✓	F	F		✓		✓	✓		
V.24 with signalling					✓	✓	F	F			✓				
2 wire FXO						✓	F	F		✓			✓		
2 wire FXS						✓	F	F		✓		✓			
HSS data					✓	✓	F	F						✓	
HSS signalling					✓	✓	F	F							✓

F Future development

✗ Not supported

Data Link bit

In this beta release, Data Link (DL) bit cross connection is not supported but will be considered for a later release

Local cross connections

In this beta release, local cross connections (drop and insert) between T1 ports is not supported but will be supported in the final release

TS24 cross connections

In this beta release, cross connections on TS24 do not work but will be corrected in the final release

4. Released Files

Releases Files

The following is a list of files released for Aprisa XE software version 7.2.0.

The beta release for the QJET interface card FPGA image file (C-fpga_E5-0-6-FF.img) only supports T1.

The QJET interface card FPGA image file for E1 support is C-fpga_E5-0-6-4.img.

The final release FPGA image file will include support for both E1 and T1.

File Name	File Type	File Function
Rel_7_2_0.cfg	Setup File	Top Level Setup File - use when upgrading from 7.1.4 or later
release_7_2_0p.cfg	Setup File	Partial Upgrade - use first when running earlier than 7.0.6
release_7_2_0.cfg	Setup File	Full Upgrade - use when upgrading from 7.0.6 or earlier
F_7_2_0.cfg	Setup File	Firmware Config - use when upgrading from 7.1.4 or later
M_7_2_0.cfg	Setup File	Modem Config - use when upgrading from 7.1.4 or later
S_7_2_0.cfg	Setup File	Software Config - use when upgrading from 7.1.4 or later
C-fpga_E1-0-7-0.img	Image File	Motherboard 1 image file
C-fpga_E2-0-4-0.img	Image File	Motherboard 2 image file
C-fpga_E5-0-6-4.img	Image File	QJET image file - use for E1 interface
C-fpga_E5-0-6-FF.img	Image File	QJET image file - use for T1 interface
C-fpga_E7-1-3-3.img	Image File	Q4EM image file
C-fpga_E7-2-3-3.img	Image File	Q4EM image file
C-fpga_E8-1-4-0.img	Image File	DFXO image file
C-fpga_E8-2-4-0.img	Image File	DFXO image file
C-fpga_E9-0-4-0.img	Image File	DFXS image file
C-fpga_E9-1-4-0.img	Image File	DFXS image file
C-fpga_EA-0-5-1.img	Image File	Modem image file
C-fpga_EB-0-1-0.img	Image File	QV24 image file
C-fpga_EC-0-1-3.img	Image File	HSS image file
C-fpga_EC-1-1-6.img	Image File	HSS image file
C-CC-B-7_1_1.srec	Software File	Bootloader
C-CC-F-7_2_0.img	Software File	Flash File System
C-CC-K-6_0_0.img	Software File	Linux Kernel
C-CC-R-7_2_0.img	Software File	Root File System
C-crossconnect_7_2_0.cfg	Upgrade File	Cross Connect upgrade file
modem_7_1_5.cfg	Upgrade File	Modem Upgrade file - standard ETSI version
modem_ETSI_7_2_252.cfg	Upgrade File	Modem Upgrade file - beta ETSI version for 14 MHz system
modem_FCC_7_2_beta.cfg	Upgrade File	Modem Upgrade file - beta FCC version
XE_300_400_synth.cfg	Upgrade File	Synthesizer Upgrade file for 300, 400 MHz frequency bands
XE_700_800_900_synth.cfg	Upgrade File	Synthesizer Upgrade file for 700, 800, 900 MHz frequency bands
XE_1400_synth.cfg	Upgrade File	Synthesizer Upgrade file for 1400 MHz frequency band
XE_2000_2500_synth.cfg	Upgrade File	Synthesizer Upgrade file for 2000, 2500 MHz frequency bands
C-crossconnect_7_2_0.jar	Java Application	Cross Connect - used when running 7.1.4 or later
crossconnect_7_2_0.jar	Java Application	Cross Connect - used when running 7.0.6 or earlier
C-ccapp_exe_7_2_0.jar	Java Application	Cross Connect (stand alone application)

5. Backward Compatibility Issues

Hardware Variants

Any hardware variant of Aprisa XE terminal can be upgraded with this software.

Link Software

Aprisa XE radio links with different software versions can exist in the same network however, both terminals of an individual link must be running the same software version.

6. Recommendations

Feedback Requested

Beta customers are requested to provide feedback on the operation and use of the software as experienced during their test.

This feedback should be sent via eMail to doug.connor@4rf.com.

End