

Wireless Network Solutions

Motorola PTP xx800 Release Note System Release PTP 800-03-00

Version 3.0

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1 INTRODUCTION

This document provides information for the Motorola PTP 800 Series System Release PTP 800-03-00.

Operating in the L6, U6, 7, 8, 11, 13, 15, 18, 23, 26 and 38 GHz radio frequency bands, the Motorola Point-to-Point (PTP) 800 Series Licensed Ethernet Microwave solutions are designed for Ethernet bridging over licensed point to point microwave links. PTP 800 provides link capacity from 10 Mbps to 368 Mbps full duplex with configurable ETSI and ANSI channel bandwidths from 7 to 56 MHz. With upgradeable link capacity limits from 10 Mbps to full capacity via software key, the system offers exceptional cost efficiency and scalability.

With the addition of PTP 800 to the point-to-point portfolio, Motorola continues to provide our partners and customers the latest in wireless and broadband innovation and leadership while offering a broad range of mobile and broadband solutions, a full complement of support services and far-reaching global presence.

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2 PTP 800 FREQUENCY VARIANTS

This release of software supports the following variants:

VARIANT	REGION	FREQUENCY COVERAGE
PTP L6800	ETSI, IC, FCC	5.925 – 6.425 GHz
PTP U6800	ETSI	6.425 – 7.100 GHz
PTP 07800	ETSI	7.125 – 7.900 GHz
PTP 08800	ETSI	7.725 – 8.500 GHz
PTP 11800	ETSI, IC, FCC	10.70 – 11.70 GHz
PTP 13800	ETSI	12.75 – 13.25 GHz
PTP 15800	ETSI	14.40 – 15.35 GHz
PTP 18800	ETSI, IC, FCC	17.70 – 19.70 GHz
PTP 23800	ETSI, IC, FCC	21.20 – 23.60 GHz
PTP 26800	ETSI, FCC	24.25 – 26.50 GHz
PTP 38800	ETSI, IC, FCC	37.00 – 40.00 GHz

3 NEW FEATURES/CHANGES IN PTP 800-03-00

3.1 1+1 Hot Standby

This system release supports monitored hot standby protection in a PTP 800 link. The 1+1 hot standby configuration consists of two CMUs and two ODUs at each end of the link.

The 1+1 hot standby support shared antenna configuration or separate (redundant) antenna configuration.

In each pair of neighbor CMU/ODUs, one is configured as the primary and the other is configured as the secondary. The primary CMU is connected to a neighboring secondary CMU using the protection interface. The protection interface shares the same physical socket as the Out-of-band management port, which allows the CMUs to communicate faults to each other. In case of In-band configuration, a protection cable will connect the primary and secondary CMUs. In case of Out-of-band configuration, a 1+1 Out-of-band split box is required to connect two CMUs.



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In each pair of neighboring CMU/ODUs, one CMU/ODU is assigned the active state and the other is assigned the inactive state. At each end, only one CMU/ODU is active at any one time and the neighbor CMU/ODU will be inactive. As a default, the primary CMU/ODU is active.

A protection switch occurs automatically when a fault is detected in the active CMU/ODU. A protection switch may occur on one end independently of the other end. A protection switch can be triggered by management action too, such as software upgrade or unit replacement.

The Ethernet switch forms an important part of the 1+1 hot standby solution. The data port (and sometimes management ports) of neighboring CMUs are connected to the Ethernet switch. The hot standby configuration provides protection against any single hardware failure in the PTP link. The link is not protected against faults in the external Ethernet switch.

Hot standby switching typically completes within 50 ms, and always completes in less than 250 ms.

3.2 Enhancement of Fast Ethernet Shutdown

The fast Ethernet shutdown feature was introduced in PTP 800 02-00 release, which briefly disconnects the Data and management Ethernet ports at each end of the wireless link within 50 ms, to alert the connected network equipment that one or both directions of the wireless link have been lost.

The enhancement in this release adds support for the relaying of an Ethernet physical layer disconnect alert received at the data port or management port to the remote CMU. Within 50 ms of receive the alert, the remote CMU will briefly disconnect the Ethernet physical layer to alert the connected network equipment that the Ethernet layer is down.

This relay behaviour is always disabled for a 1+1 hot standby configuration. The relay of Ethernet alerts is useful in a network with mesh or ring topology, where the relay alerts can trigger the network equipment to activate an alternative route, such as equipment using Rapid Spanning Tree Protocol (RSTP) or ITU G.8032 (Ring Protection Protocol).

3.3 Extended Modulation Modes at 6 GHz and 11 GHz for FCC/IC

In this system release, the CMU application software supports operation with fixed and adaptive modulation modes down to QPSK at 6 GHz and 11 GHz bands, in FCC and Canada regulations.



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4 FIXES IN PTP 800-03-00

4.1 Installation Wizard Alignment Step Resets Counters

In earlier system releases, the Installation Wizard resets system counters automatically in the alignment step. This could be a disadvantage if the wizard is used to make a small configuration change in an installed link.

This issue has been fixed in System Release 800-03-00. In 800-03-00, this behavior has been changed so that users must explicitly reset system counters using the control in the Statistics or Detailed Counters pages of the web-based interface.

4.2 Predicted EIRP Incorrectly Displayed in Step 4 of Installation Wizard

In earlier releases, the EIRP is sometimes displayed incorrectly in Step 4 of the Installation Wizard.

The issue has been fixed in System Release 800-03-00.

4.3 Slow Response to Power Setting with ATPC Enabled

In earlier release, the system responds to changes in maximum transmit power in 1dB for every 8 seconds. In a rapid RF fading condition, the link may be lost/dropped.

The issue has been fixed in System Release 800-03-00. The response has changed to 1dB every 2 seconds in this release.

4.4 ARP Announcements Do Not Respond to Changes in Configuration of the IP Interface

ARP announcements (also known as Gratuitous ARP) are generated by the IP interface of the CMU management agent and triggered by reboot and some configuration changes. In earlier releases, the fields in the ARP packet did not change to reflect modified configuration of the IP interface until the CMU was rebooted.

The issue has been fixed in System Release 800-03-00. In this release, the ARP announcement packets always match the current configuration of the IP interface.

4.5 ODU Fault Alarms in Default Configuration

In system releases from 800-02-00 to 800-02-04, the CMU reports a “Modem LO Failure” fault in the default configuration. This condition arises because the modem is not generating an IF signal. The alarm clears when the CMU is configured with valid radio license details.

The issue has been fixed in System Release 800-03-00. In this release, we have changed the default configuration to ensure that the modem always generates an IF signal and alarm does not occur.



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4.6 Management Frames Not Counted in SNMP ifInUcastPkts and ifOutUcastPkts at the Wireless Port

In earlier releases, the standard SNMP objects ifInUcastPkts and ifOutUcastPkts do not increment for management frames received or transmitted at the wireless interface.

The issue has been fixed in System Release 800-03-00.

5 KNOWN ISSUES IN PTP 800-03-00

5.1 Fiber-Y Configuration for 1+1 Hot Standby

The fiber-Y configuration for 1 + 1 hot standby is not available in System Release 800-03-00. The configuration will be supported in System Release 800-04-00.



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