

1PPS Analysis

The following procedure provides instructions for analysing measurements using a running 1PPS reference. These measurements can be taken to determine whether the 1PPS service provided by a PTP slave device is accurately traceable to external reference equipment.

Topics discussed in this procedure include the following:

- [“Connecting the instrument” on page 1](#)
- [“Selecting the application” on page 2](#)

Connecting the instrument

The connections vary depending on which instrument you are using. For more information, refer to the *PDH, SONET, SDH, NextGen, and OTN Testing Manual*.

Step 1 Connect the BNC to SMA cable between the GPS receiver 1PPS output connector (“OUT B”) and the SMA reference input (“EXT REF”) on the MSAMv2 connector panel.

Step 2 Depending on the PTS Slave, do one of the following:

- If connecting to a RJ45 jack on the PTP Slave, connect the RJ45 to USB cable from the MSAM’s USB port to the RJ45 jack on the PTP Slave device under test.
- If connecting to a SMA jack on the PTP Slave, connect the USB to SMA from the MSAM’s USB port to the SMA jack on the PTP Slave device under test.
- If connecting to a BNC jack on the PTP Slave, connect the BNC to SMA cable to the SMA to USB cable, and then plug the USB connector into the MSAM’s USB port and the BNC connector into the BNC jack on the PTP Slave device under test.
- *Optional.* Connect the DB9 to USB serial cable from the Control Port on the GPS receiver to a PC.

Selecting the application

- Step 1** Using the Test Menu, select the 1PPS Analysis application.
- Step 2** Before beginning the test, verify that the GPS receiver and instrument are synchronized and ready.
- a** Verify that the appropriate LEDs on the GPS receiver are flashing or steadily on (refer to the instructions included with the GPS receiver).
 - b** Verify that the TOD Sync and 1PPS LEDs on the instrument are on.
- Step 3** Select the **Setup** soft key, and then specify set the Maximum allowable time offset on the 1PPS Analysis tab, specify whether the test is timed on the Timed Test Tab, and then set the test duration and start time parameters, if you selected Timed Test or Delayed Test.
- Step 4** Select the Return soft key to return to the Results page.
- The 1PPS Analysis test has been initiated.

Related information

Use this Quick Card in conjunction with the *T-BERD / MTS 6000A MSAM PDH, SONET, SDH, NextGen, and OTN Testing Manual* that shipped with your instrument.

Technical assistance

For the latest TAC information, go to www.jdsu.com or contact your local sales office for assistance. Contact information for regional sales headquarters is listed at the bottom of this Quick Card.

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