/Inritsu

Deploying and Troubleshooting Mobile Fronthaul

MT1100A
Network Master Flex

Operators are supporting the explosive spread of smartphones and tablets by increasing the bandwidth of mobile communications networks, in turn driving a complete change in mobile communications systems, typified by adoption of Centralized-Radio Access Networks (C-RAN). Using C-RAN, the mobile fronthaul is configured from centralized Base Band Units (BBU) and multiple Remote Radio Head (RRH) units connected via general-purpose interfaces, such as the Common Public Radio Interface (CPRI) or Open Base Station Architecture Initiative (OBSAI). Support from CPRI interface rate option 1 (614.4 Mbit/s) to option 8 (10.1376 Gbit/s) ensures testing of all current and future requirements. Combining the testing at any rate and the ability to exercise the BBU or RRH up to the Passive link state (as per the latest CPRI standard) or in pass-through mode allows a complete solution for detailed installation and maintenance testing. Checking for and inserting of Layer 2 Alarms and Errors to the BBU or RRH ensures the engineer is able to complete advance fault finding and evaluate the root cause of any issue. Using the MT1100A connected to a Video Inspection Probe (VIP) to check the fiber end face confirms quality practices are being followed and removes a key point of turn up failure.

The all-in-one MT1100A supports all the latest communications network technologies.
Selecting and installing up to two modules from a range of three module options supports all-in-one R&D, manufacturing, installation and maintenance tests of network and transport equipment operating at bit rates from 1.5 Mbps to 100 Gbps. The large, 12.1-inch color LCD touch panel with easy-to-use GUI plus remote operation of a full range of test functions over an Internet connection greatly improves test efficiency and helps cut costs.


Network Master Flex

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Key Platform Benefits and Features:

- All-in-one transport tester
  - Supports testing from 1.5 Mbps to 100 Gbps
  - OTN, Ethernet, CPRI/OBSAI, Fibre Channel, SDH/SONET and PDH/DSn
- OTN testing with Ethernet, CPRI, Fibre Channel, SDH/SONET client signals
- Easy and intuitive GUI
- Up to 4 ports at all rates
- Electrical interfaces of CAUI, XLAUI using optional extenders
- WLAN*/*Bluetooth**/LAN connectivity
- PDF, CSV and XML report generation for documenting test results
- Remote operation using VNC or dedicated GUI operation software via Ethernet, WLAN
- Remote control (scripting, via Ethernet, WLAN, GPIB)
- Portable design for maximum portability
- Modular platform ensuring maximum return on investment

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Key CPRI/OBSAI Benefits and Features:

- CPRI/OBSAI L1 Test
  - Supported bit rates
    CPRI: 614.4, 1228.8, 2457.6, 3072.0, 4915.2, 6144.0, 9830.4, 10137.6 Mbps
    OBSAI: 768, 1536, 3072.0, 6144.0 Mbps
  - Clocks: Internal, External (10 MHz), GPS
  - Level measurement (dBm)
  - Bit rate (bps) and deviation (ppm) measurement
  - Alarm/Error detection (Signal Loss, PSL, Pattern Error)
  - Unframed BER measurement
- CPRI L2 Test
  - Link status monitoring
  - Alarm/Error detection (Signal Loss, LOS, LOF, R-LOS, R-LOF, RAI, SDI, Reset, PSL, LCV, INVSH, Pattern Error)
  - Framed BER measurement
  - RTD Measurement (min, avg, max)
- Pass-through monitoring
- CPRI over OTN
  - OTN Alarm/Error detection
  - L1 Unframed BER measurement using CPRI client signals
- Fiber end face inspection using VIP

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∗: Available for certified countries and regions including USA, Canada, Japan and all EU countries.
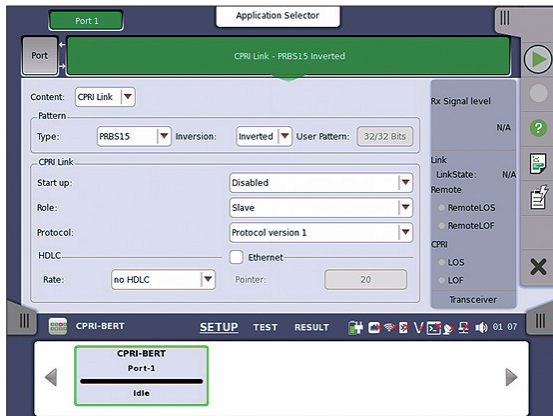
Setting CPRI Test Pattern

Color-Coded Test Pass/Fail Results

Test Modules:

- 10G Multirate Module MU110010A
  Up to 2 ports: 1.5 Mbps to 10 Gbps (SFP/SFP+, RJ45, BNC, RJ48, Bantam)

∗: Supports CPRI/OBSAI bit rates and CPRI over OTN

- 100G Multirate Module MU110011A
  Single port: 40 Gbps (CFP) or 100 Gbps (CFP)
  Up to 2 ports: 10 Mbps to 40 Gbps (QSFP+, SFP/SFP+, RJ45)

∗: Supports CPRI/OBSAI bit rates and CPRI over OTN

- 40/100G Module CFP2 MU110012A
  Up to 2 ports: 40 Gbps to 100 Gbps (CFP2, CXP, QSFP+)

∗: Supports CPRI over OTN

**G0306A
Video Inspection Probe**

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ANRITSU CORPORATION
http://www.anritsu.com

5-1-1 Onna, Atsugi-shi, Kanagawa 243-8555, Japan
Phone: +81-46-223-1111   Fax: +81-46-296-1238