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Find the *Keysight / Agilent J2299B* at our website: *Click HERE*

WAN Interface Specifications

Unless otherwise stated, WAN interfaces provide two input ports and two output ports allowing any one of the following connection configurations to be used:

- Terminal Mode - uses one input and one output
- Bridged Monitor Mode - uses both inputs and outputs for bi-directional monitoring at test access points; a high input impedance should normally be selected
- Jack Monitor Mode – uses both inputs only for bi-directional monitoring at protected monitor points
- Through Monitor Mode (Drop and Insert Mode) - uses both inputs and outputs providing bi-directional repeater and monitoring functionality. Each receiver input is terminated. The insert mode can place test traffic like SLA, PING, LMI emulation, Traffic Generation and Simulation.

The operation of the physical interface is often critical in determining the cause of network problems. Therefore, the Advisor tracks errors at the physical layer, and it stamps the information with a 1 ms time stamp. Signal events are recorded on the display for both the line (network) side as well as the equipment (user/subscriber) side. The time of the last occurrence of a particular event is recorded as well. Events are saved in the buffer and can be logged to disk.

Line status is displayed in real time. All of the events listed in the "Physical layer alarms and statistics" section for each interface below are saved in the buffer and counted in the line status display. These events may be logged to disk. Critical parameters marked with an asterisk (*) are also displayed in large green or red boxes in the line status display for easy "at-a-glance" viewing.

T1/DS1 (1.544 Mb/s) J2298B and J2299B

General

This interface comprises a choice of two plug-in modules (J2298B and J2299B) suitable for plugging into the J2300C/D Advisor mainframe and the J2900A High Speed undercradle. The J2298B has RJ-48C connectors and the J2299B has RJ-45 connectors. These modules handle cell and frame-based technologies, i.e. ATM, Frame Relay, ISDN, HDLC, X.25, PPP, and BERT. These interfaces do not support Frame Relay CIR and SLA measurements.

Common to Inputs and Outputs:

Connectors:

J2298B: balanced 100 Ohm RJ-48C and WECO mini-Bantams
J2299B: balanced 100 Ohm RJ-45 and WECO mini-Bantams

Line Code:

ATM: B8ZS
WAN: B8ZS, AMI

Framing:

ATM:
Extended Super Frame (ESF)
WAN:
Extended Super Frame (ESF)
D4 (Super Frame) Ft and Fs, or Fs only
Fractional, any multiple of 56 kbps or 64 kbps channels
Unframed 1.544 Mbps

Cell Mapping:

Direct (normal mode, ITU-T G.804) and PLCP (obsolete mode)

Cell Scrambling:

Conforms to ITU-T I.432.1 ($x^{43} + 1$) and may be turned on or off

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Inputs:
Two ports
Interface types (and input sensitivities):
DSX-1 (+6 dB to ñ10 dB) and Network Interface (+6 dB to -36 dB)
Monitor modes:
Terminated (100 Ohm)
Bridged (High Impedance)
Monitor Jack
Physical Layer Alarms and Statistics:
Loss of Signal (LOS)
Loss of Frame (LOF)
Loss of PLCP Synchronization (LOPS)
Alarm Indication Signal (AIS)
Remote Alarm Indication (RAI)/Yellow
Bi-polar violations
Extended Super-Frame (ESF) CRC errors
Line code violation
Frame slips
Frame bit errors
Oneís density violations
Excess zeros
ATM Layer Statistics:
Average utilization in percent
Instantaneous utilization in percent
Total cells received
Idle/unassigned cells received
Busy (assigned) cells received
Header (ìHECî) errors
Capture buffer size: 28 Mbyte (approximately 400,000 cells)
Capture buffer timestamp resolution: 100 ns
Capture rate: Full line rate

Outputs:
Two ports, 100 Ohm balanced
RJ-11 handset jack (for WAN)
Interface types (and output levels):
DSX-1 (build-out selectable from 0 to 655 ft in 5 steps) and Network Interface (selectable LBO levels, 0, -7.5 dB and -15.0 dB)
Electrical:
ITU-T G.703
Clocking:
Recovered (loop), Internal, and External (using other receiver input)
Internal clock rate accuracy:
+/- 32 ppm
Traffic Generation from cell table
Transmission of bit error rate (BER) patterns in the physical layer frame payload or in the ATM cell payload:
1111, 1010, 1100, PRBS 2^{15} - 1, PRBS 2^{20} - 1, PRBS 2^{23} ñ 1
Transmission of 64-bit BER user pattern in WAN

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