IQ Probe

Frame Relay Monitoring Probe

Product Features

- Real-time measurement of throughput, bandwidth utilization, bursting, congestion, and network delay on each PVC
- Bandwidth utilization by protocol and top talkers
- End-to-end network round trip delay measurements for network optimization
- N-Form™ provides a web-based, cost-effective, easy-to-use management platform
- True non-intrusive in-band transmission of statistics
- Embedded SNMP and Telnet through SLIP/PPP port or Ethernet interface
- Optional Dial Backup to avoid service interruption
- Standard DTE/DCE interface support for X.21, V.35, EIA-232, and EIA-530
- Easy configuration from Front Panel, SNMP, Telnet or VT 100
- Standard 5 year warranty

ADTRAN's industry-leading and award-winning product family continues to provide more flexibility with the addition of the IQ Probe. The IQ Probe is a monitoring device placed between a router and a DSU/CSU. The unit provides comprehensive Frame Relay monitoring independent of the physical connection to the network and is derived from the established ADTRAN DSU IQ® and TSU IQ™.

Real-time measurements of Frame Relay metrics are stored in the IQ Probe. These metrics include statistics on throughput and utilization per port and PVC, availability, utilization by protocol, top talkers, lost frames and PVC state, excess bursting above CIR, network congestion (FECN, BECN, and DE), and end-to-end delay on any or all PVCs. This data is crucial for pinpointing specific traffic demands and problem sources in the network, for analyzing traffic patterns, and for general maintenance and troubleshooting of the Frame Relay circuit.

The statistics are stored in the IQ Probe in a standard ASN.1 format making the statistics available to any SNMP management platform or trend analysis package. ADTRAN offers N-Form, a powerful proactive network management software suite. Modular in design, N-Form combines the features of a complete SNMP management platform, with a network trend analysis tool, in an easy-to-use, web-based, low cost package.

The IQ Probe supports multiple ways to access the collected performance data. This management flexibility accommodates both the service provider and the end user in any type of network configuration. Options include simple VT 100 connection, front panel, management access through inband dedicated or shared PVCs, SLIP/PPP or ethernet, and combination management. Combination management allows for simultaneous and independent management by the service provider and the end user.

The IQ family provides automatic dial backup upon interruption of Frame Relay services. The IQ Probe monitors both the physical link and the Frame Relay signal to determine if an interruption has occurred. Once detected, the unit automatically initiates a dial-up call around the Frame Relay network. A host IQ unit initiates and accepts calls to and from IQ units at remote sites. Once connected, the host unit merges backup traffic with the primary traffic until being received from unaffected remote sites. The router or Frame Relay device connected to the IQ Probe still receives all data as Frame Relay traffic over the primary connection, allowing a virtually transparent transition. Once the failed condition has been cleared and the Frame Relay interruption is over, the IQ unit automatically restores traffic to the primary link.

Additional features such as an easy-to-use front panel interface and modular option cards combined with the quality, service and support that ADTRAN is known for makes the IQ Probe the obvious choice for Frame Relay monitoring. The IQ series also includes the DSU IQ, TSU IQ, and the Nx IQ module for the TSU multiplexer family.

IQ Probe

Frame Relay Monitoring Probe

Product Specifications

Operating Modes

- 100 DLCIs supported
- Frame Relay utilizing EIA-232, V.35, EIA-530, and X.21 interface

Frame Relay Statistics

- PVC Statistics
- PVC state
- Frames/bytes Tx/Rx
- Frames with BECN/FECN/DE/CR
- Max/Min/Avg frame size
- Throughput/bandwidth utilization
- Lost frames/sequence check
- Max/Min/Avg end-to-end delay
- Burst rate
- Congested seconds

Port Statistics

- CRC and abort frames
- Non-octet aligned frames
- Frames/bytes Tx/Rx
- Max/Min/Avg frame size
- % utilization by port speed
- Frame size violations

LMI Statistics

- LMI state
- Polls in, responses in, timeouts
- Polling type
- Full status polls/response
- Polls with protocol error
- Link integrity frames

Alarms

- Frame relay link state change
- DLCI state change

Layer 3 Statistics

- Monitor protocols on port and pvc
- Protocols supported: IP/IPX, ARP, SNA, other
- Top Talkers

DTE Interface

- Frame Relay 56 kbps to 2.048 Mbps sync
- DB-25 for EIA-530 and RS-232, or adapter cables for V.35 and X.21

Configuration

- Front Panel
- Local and Remote VT100 terminal via the control port
- Remote configuration via frame relay network connection
- TELNET and SNMP

Control Port/SLIP/PPP Interface

- Electrical: EIA-232
- Physical: Female 8 pin modular (female)
- Data rates: Async 2.4 to 38.4 kbps

Diagnostics

- IP Ping mode
- PVC testing and round trip delay

SNMP/TELNET

- Integrated SLIP/PPP (async) port
- 10BaseT Ethernet interface
- MRB II RFC 1315 compliant
- ADTRAN Enterprise MIB for frame monitoring and control

Agency Approvals

- FCC Part 15, Class A
- UL 1950 3rd edition

Environment

- Operating Temperature: 0° to 50° C, (32° to 122° F)
- Storage Temperature: –20° to 70° C, (–4° to 158° F)
- Relative Humidity: Up to 95%, non-condensing

Physical

- Dimensions: 10.4" D, 8.0" W, 2.4" H
- Weight: 4.5 lbs
- Power: 90-240 VAC 50-60Hz, 7 W

Product Includes

- 7.5' IEC power cord

Ordering Information

Equipment	Part #
IQ Probe	1200214L1
V.34 DBU card	1204002L1
SW56 DBU card	1204001L1
BRI DBU card	1204004L1
PRI DBU card	1204008L1
EXT DBU card	1204006L1
V.35 adapter cable (M-M)	1200289L1
V.25 adapter cable (M-F)	1200289L1
X.21 adapter cable (M-F)	1200292L1

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