

Real-time telemetry data quality awareness—up to six simultaneous IRIG 218-20 streams.

Overview

DQQL provides telemetry operators and engineers with immediate visibility into data quality, synchronization status, and link health—without post-processing or specialized analysis tools. The system monitors up to six IRIG 218-20 TMoIP streams, extracting and displaying DQM values alongside real-time BEP trends.

Strip-chart displays of BEP trends can help identify and track signals using Receiver DQM information *prior* to Receiver bit-sync acquisition.

Optional DQE de-framing and re-broadcast allows support of legacy telemetry instruments & software tools that do not support DQM/DQE.

Applications

- Situational awareness of range telemetry links
- Real-time telemetry quality monitoring during missions
- Pre-mission checkout and verification
- DQM monitoring and cross-stream comparison
- BEP trend monitoring using real-time strip chart displays
- Rapid troubleshooting and fault isolation
- Ease the transition to expanded TMoIP range infrastructure
- Suitable for fixed and mobile receive stations, data processing centers, and telemetry laboratories.
- Optional metrics logging for review and analysis

RM-7112 Data Quality Quick Look (DQQL) Indicators, Measurements, and Controls

Indicators	Measurements	Controls
DQE Framed	Data Quality Metric (as BEP)	IP Address (DQQL)
Data Active	Payload Length	Host IP Address (per channel)
Data Sync	DQE Packet Count	Host IP Port (per channel)
Sync Loss (latching indicator)	DQE Packet Error Count	Gap (treatment of missing packets)

OPTION—Integrated BERT Functions

Adds PRN-based BER test and receiver characterization to the DQQL platform, enabling one chassis for both operational monitoring and precision engineering test.

OPTION—Logging

Select one or more input data streams for logging at a configurable rate. Log entries include timestamp, stream identifier, average BEP, optional average BER, DQM status, synchronization status, and alarm events recorded during the measurement interval.

OPTION—DQE De-Encapsulation and Re-broadcast

Select one input Data Quality Encapsulated (DQE) stream for de-framing and re-broadcast as a non-DQE payload stream. Supports monitoring, analysis, or recording of telemetry data streams by non-DQE instruments or software tools.

Operational Benefits

- Faster detection of degraded telemetry conditions
- Reduced troubleshooting and checkout time
- Simplified data quality assessment
- Single display replaces multiple monitoring tools
- Supports proactive maintenance through simplified testing and recording

Physical & Interface

- 2U 19-inch rackmount chassis with configurable display
- One 1Gb Ethernet for IRIG 218-20 port
- One 1Gb Ethernet remote access and monitoring port
- Browser-based operator interface—no client software
- Range room, mobile, and laboratory deployment
- Optional NTP time synchronization for time-tagged logging

