



# TeleMUX 100™

Digital Transport Solution for Telemetry

## SPECIFICATIONS

High-Speed Aggregate Interface			
TYPE	RATE	SIGNAL TYPE	LINE CODING FRAMING
DS-3	44.736 MBPS	Bi-polar 75 ohms Unbal	B3ZS M or C bit parity
E3	34.368 MBPS	Bi-polar 75 ohms Unbal	HDB3 G.751
NRZ	2.688 MBPS to 22.368 MBPS	RS-422/423, TTL NRZ HSSI or V.35	HDLC Clock/Data

## CHANNEL MODULES

### 7235-01 UNIVERSAL DIGITAL DATA INTERFACE MODULE

- All telemetry, data, video in PCM formats
- Selectable RS-422/423, HSSI, TTL or V.35
- Data rates from 0 to 30.0 MBPS
- Clock recovery from input data signal
- Coherent receive clock and data signals
- Built-in BERT
- Software controlled loop backs

### 7235-02 BI-POLAR T-1/E-1 INTERFACE MODULE

- Bi-polar North American T1/DS-1 or CEPT E1 software selectable
- Meets ANSI T1.403 and CEPT G. 703 specifications
- Line code software programmable
- Built-in BERT
- Software controlled loop backs

### 7235-03 ETHERNET LAN/WAN INTERFACE MODULES

- LAN universal twisted pair 10BaseT ethernet interface
- Full remote ethernet bridge compatible with IEEE 802.3 standards
- WAN side data bandwidths is software programmable and can be optimized for maximum throughput and minimum data
- Enhance tinygram compression increase data throughput
- Built-in router functionality, learns the MAC address on the near LAN and only forwards those destined for the remote LAN
- Supports both half duplex 10 Mbps and full 20 Mbps UTP operational modes



Quintron Systems, Inc., Sunrise Sierra Products  
2105 S. Blosser Road, Santa Maria, California 93458

Phone: (805) 928-4343  
Fax: (805) 928-5775

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www.quintron.com  
Email: qsi@quintron.com





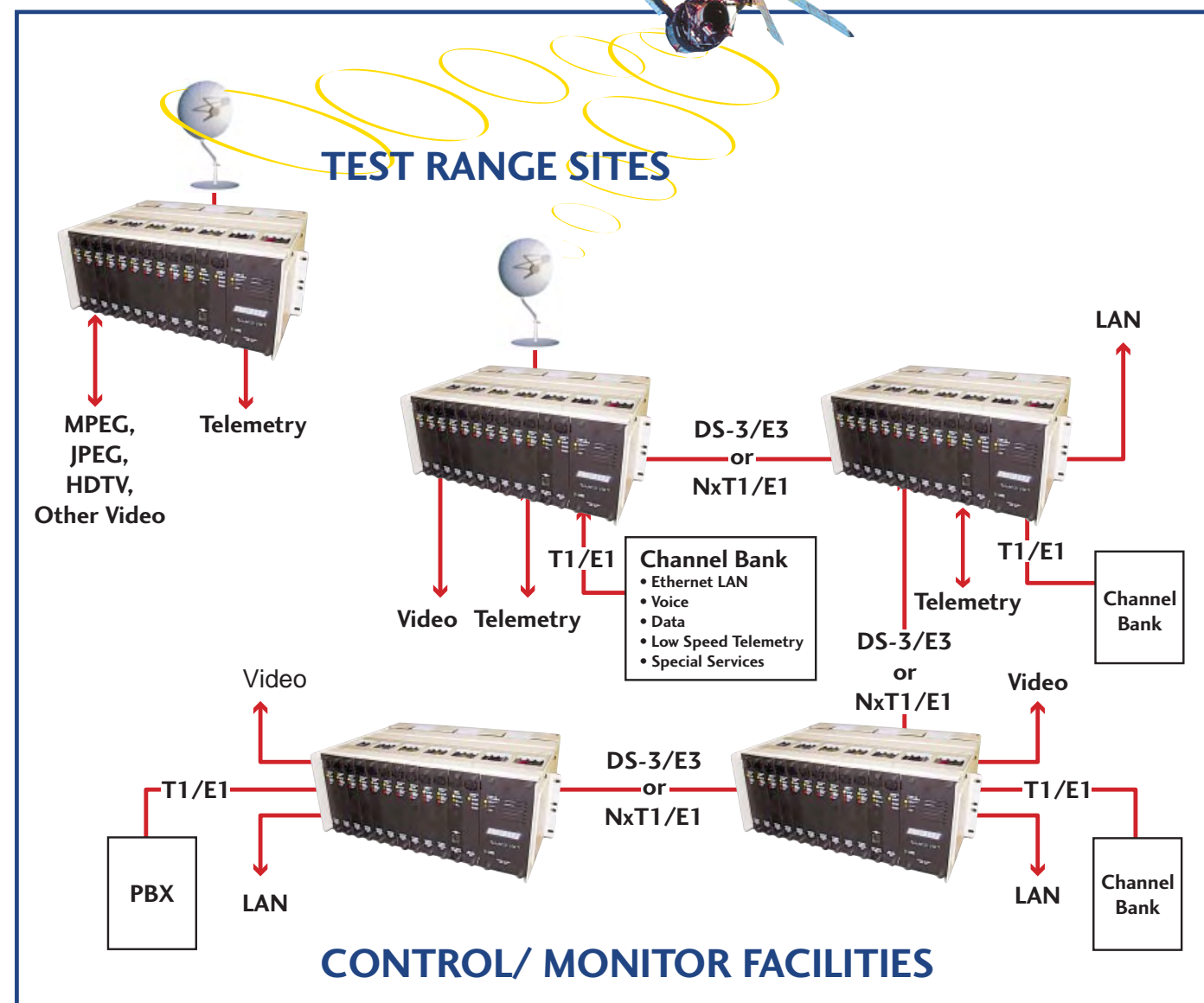
# TeleMUX 100™

The Digital Transport Solution for Telemetry:



## SYSTEM FEATURES

- NRZ (NxT1/E1) or E3/DS-3 line interface unit (LIU)
- Inverse multiplexing using N x T1 or E1
- Channel rates from 0 to 30.0 MBPS
- Data format transparent
- Clock recovery from input data
- Auto-rate detection
- Supports digital video, telemetry, data and Ethernet
- Exceeds IRIG 106-96, +/- 0.05% stability requirements
- Built-in BERT on a per channel basis
- Software control high-speed and per channel loop backs
- Interactive menu driven software
- User selectable interfaces (RS-422/423, TTL, HSSI, Ethernet, DS-1/E1)



## SYSTEM OVERVIEW

The TeleMUX 100™ is a software-controlled broadband Multiplexer designed specifically for the demanding data needs mandated for telemetry and range networks. The TeleMUX 100™ operates over N x T1/E1 or with E3/DS-3 networks. A ten-slot back plane provides flexibility and capacity for servicing the large number of services and data types required in complex telemetry networks. The channel modules employ an agile clock recovery circuitry providing the capability to recover clock from the input data signal eliminating the need for external 'bit synchronizers', thus reducing the overall cost and complexity of telemetry systems. Any mixture of electrical signals and services are supported, e.g. digital video, Ethernet, telemetry and non-telemetry data signals.

## BENEFITS

- Replacement of the LIU enables upgrading system from NRZ to E3/DS-3
- User programmable channel data rates from 11.4 Kbps to 30.0 Mbps
- Clock recovery from input data signal: No 'bit sync' required for input signal
- Coherent receive data and clock signals: Allows direct interface to 'decom' or receiver unit
- Automatically tracks signals that are divisible by 2<sup>n</sup> the primary rate. Useful where rate changes by halves as in instance where the telemetry rate changes due to flight characteristics
- High Speed loopbacks and per channel loopbacks and per channel BERT facilitates troubleshooting
- NRZ, Bipolar, DS-1/E1, 10BaseT signals accepted