

Model 2355-M16



NEXT GENERATION MODEL 2355-M16 TELEMETRY GATEWAY



KEY FEATURES

- 16, 12, 8, 4 channels of I/O
- Bit Rates from 5 bps to 50 Mbps
- Enhanced network error reporting
- New web browser GUI
- IRIG 218-10 and 218-20 protocols
- Backward-compatible with 2350
- Ethernet auto-detect
- SFP + Ethernet interface
- 1 Gbps /10 Gbps over Copper or Fiber
- Error rate pattern generation
- Output error insertions
- Bit error rate pattern detection
- Mouse and keyboard PORTS*
- Display port monitor output*
- PTP time*

KEY FEATURES

- UP to 16 channels of I/O
- Chapter 7 Serial-to-Ethernet (2015 & 2017)
- TRMS Compatible
- Auto rate tracking
- Low latency
- Supports 218-10 & 218-20 Protocols
- Independent Ethernet Control & Data
- RJ45 or Fiber
- Programmable latency
- IRIG time tag/transport
- Frame/byte-aligned data
- Bit sync input capable
- IRIG time tag & transport
- TTL/RS-422 Data & Clock I/O
- Raw or Frame aligned modes
- Time Input / Output / Packet Tagging
 - IRIG STD 200
 - NTP
 - IEEE-1588
- Ethernet
 - 10 /100 /1000 base-T (Standard)
 - SFP Fiber Modules
 - UDP/TCP/IP Data Protocols
 - Unicast or Multicast
 - IRIG STD 218 Compatible
 - IRIG STD 106 Ch 10/11 Compatible
 - Independent control & data ports
 - RJ45 or Fiber
- Very low latency - Less than 10ms
- Very low channel to channel skew
- Redundant power supply

GENERAL DESCRIPTION

The NEW Model MD2355-M16 is a Gateway unit that acts as a PCM to Ethernet (packetizer) or Ethernet to PCM (de-packetizer) converter utilizing our new web-based Browser GUI internal to our chassis. The MD2355-M16 is a 1U rack mount unit gateway that facilitates the transfer of data, which can originate from a variety of sources to and from a digital Ethernet network. The basic input is a digital data stream and its coherent clock. This serial data source is packetized, placed in an Ethernet, wrapper and output to a network environment. A second model MD2355-M16 or our legacy MD2350-(M02, M04, M12) can be connected to the network to receive and extract the original data from the Ethernet packets. This reconstructed data stream is output with a coherent clock at the same data rate as the original source. Each channel can be independently configured as PCM serial clock & data or Ethernet packets depending on your application. A typical application would have the inputs to the MD2355-M16 originating from a PCM source such as a Receiver with an inherent bit sync or a separate independent Receiver & bit sync configuration. Data I/O can be configured as TTL Data & Clock or RS-422 Data & Clock with each one of the sixteen channels assigned as input or output. This compact high-density transport solution will bring down the per/channel costs while increasing the system mean time between failures (MTBF).

AVAILABLE OPTIONS

Digital Input Bit Synchronizer Option: This option recovers a clock from a digital data input for those applications where a synchronous clock is not available.

Frame Synchronizer Option: Frame synchronize to the incoming PCM format. Align the start of each minor frame to the start of a network packet. This feature supports simplified software decommutation directly from the Ethernet.

IRIG 106 Chapter 10 Compatible Output Option: The module can be optionally configured to output the PCM data onto Ethernet in Chapter 10 compatible packets (Packed mode or Throughput mode). These packets can then be decommutated, processed and displayed by a variety of standard Chapter 10 compatible software packages.

Small Form Pluggable (SFP) Interface Option: Allows the user to select the appropriate fiber transceiver for the required optical reach over various fiber types. SFP modules may be provided by the user or contact GDP for module options.



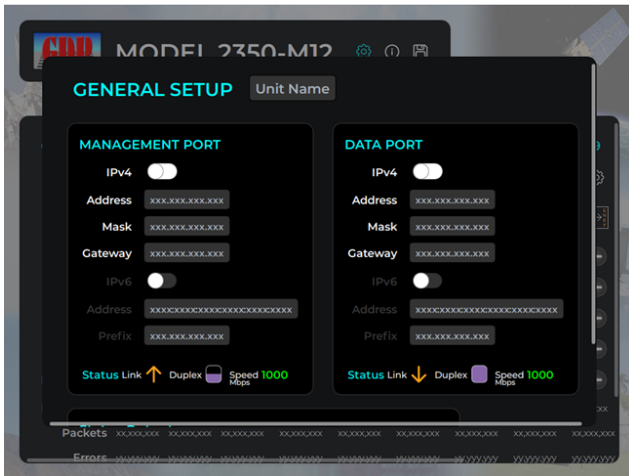
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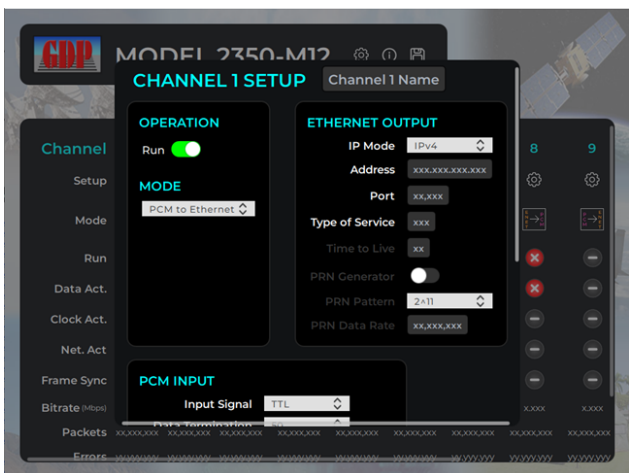
CHANNEL OVERVIEW

When power is first applied to the MD2355-M16, Channels 1 through 16 indicators blink Red until the link is established, and when the user places the channels in the RUN mode, the "RUN" indicates a check mark inside a green circle. Placing a channel in the Halt mode causes the appropriate "RUN" channel indicator to show an "x" encircled in red. Each one of the fields (Run, Data Act, Net. Act, Frame Sync) will act according depending on its status.



GENERAL SETUP

The MD2355-M16 has two independent ports, one Management and one Data for security & Network flooding protection. These can be set up using IPv4 or IPv6 modes for inputting Address, Mask & Gateway information. In addition to the Web Browser GUI, the MD2355-M16 may be controlled by means of the GDP TRMS application to addresses 'System Level' configurations that comprise a data acquisition / processing system.



CHANNEL SETUP

All PCM streams are on the same IP address & Port number, and each stream is identified by the Channel ID. By selecting any one of the sixteen Channels settings, each channel in the unit may be set to accommodate a specific signaling requirement, Serial-to-Ethernet or Ethernet-to-Serial

WHY GDP

Recognizing that no standard product can meet all the needs of all users, GDP stands ready to provide units tailored to unique applications. Over fifty years of experience, far-ranging expertise, excellent products, and outstanding support make GDP not just a telemetry system supplier, but a partner you can rely on to meet your needs.

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