

TELEMETRY GATEWAY

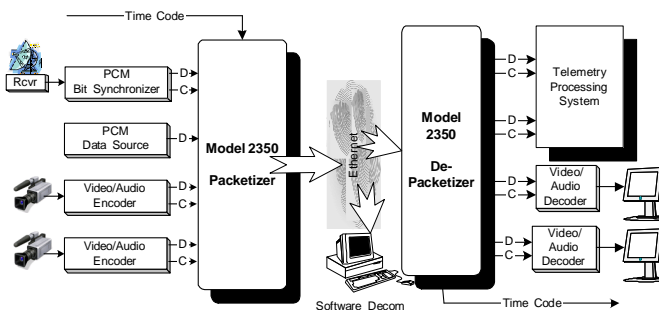
PCM / VIDEO / VOICE / ANALOG over IP

MODEL 2350 / 2351

Features

- ◆ Dual Channel PCM Module
 - ◆ TTL/RS-422 Data & Clock
 - ◆ Auto Rate Tracking
 - ◆ Up to 35 Mbps
 - ◆ Data Only Input, Bit Sync (*)
 - ◆ Frame Sync and Alignment (*)
- ◆ 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 218-07 Compatible (*)
 - ◆ IRIG STD 106 Ch 10 Compatible (*)
- ◆ Very Low Latency—Less than 10ms at all data rates
- ◆ Integrated BERT for link testing and latency analysis
- ◆ Signal Activity Indicators
- ◆ Independent Packetizer and De-Packetizer
- ◆ User Interface
 - ◆ HTTP / Web Browser
 - ◆ Command Line & SNMP (*)
- ◆ Single Channel Video Module (*)
- ◆ Quad Channel Voice Module (*)
- ◆ Quad Channel Analog Module (*)
- ◆ Best Source Selection (*)
- ◆ AES Encryption / Decryption (*)
- ◆ Redundant Power Supply (*)
- ◆ Table Top or Rack Mount Package

(*) Optional Feature



General Description

The **Model 2350 Telemetry Gateway**

provides the necessary signal processing to pass telemetry data either to or from an Ethernet network. User programmability permits the unit to function as a **Telemetry-to-Ethernet** converter (packetizer) or as an **Ethernet-to-Telemetry** converter (de-packetizer). The Model 2350 is a rack mount unit and accommodates one or two modules. The Model 2351 is a table-top unit that accommodates a single module. Modules can be mixed and matched as needed. Each channel on a module is individually configurable as either a packetizer or a de-packetizer.



2350



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The **Dual Channel PCM Module** accepts up to two (2) data streams with associated coherent clocks. PCM data is captured and packetized into Ethernet packets along with header information. Packet size and buffering can be user selected or automatically controlled to minimize latency. The remote unit receives the Ethernet packets from the network and de-packetizes the PCM data. Using the statistics provided by the packetizer, the de-packetizer reconstructs the original PCM data stream and coherent clock. Input PCM data streams may be independent in content and rate.

In a typical application, the inputs to the packetizer are received from PCM sources such as bit synchronizers connected to telemetry receivers. (Optionally, internal bit synchronizers are available.) The data is then transported over the network to a remote unit. The de-packetizer function in the remote unit reconstructs the output clock and PCM data which can be directly connected to a PCM frame synchronizer / decommutator. Alternatively, the data can be sent over the networks to a remote processing unit. Frame synchronization and packet alignment in the packetizer simplify processing by a downstream software decommutator.

Optionally, **Video, Voice, and Analog Modules** may be substituted for or combined with the **PCM Module**.



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Options

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

Analog Bit Synchronizer Input Option: This option recovers data and clock from an baseband analog input. This input would typically be from a Receiver. Uses GDP's World Class bit synchronizer technology.

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.

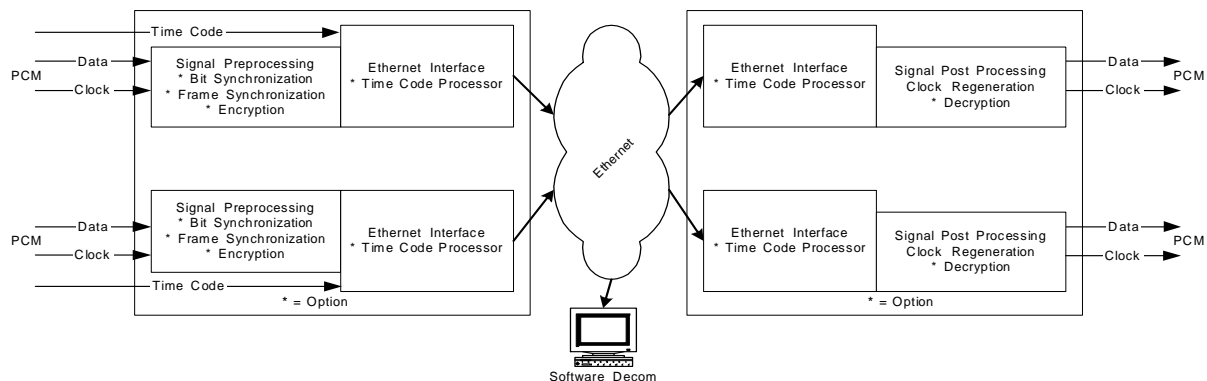
AES Encryption / Decryption Option: Using the AES algorithm provides a level of data security in the transmission path. Other algorithms are available upon request.

Video Channel Option: Single channel of full color, full resolution, full frame rate, high quality video. Video is compressed using the industry standard MPEG-2 or MPEG-4 compression algorithms. User control of compressed resolution and data rate provides control of the video quality and network bandwidth utilization.

Voice Channels Option: Up to 4 audio voice channels, 3.5 KHz or 7.0 KHz bandwidths. Line level audio inputs and outputs.

Analog Channels Option: Up to 4 analog channels. User selectable sample rate and sample size up to 35 Mbps aggregate rate. This option also includes 1 Bi-directional Asynchronous Serial Channel (RS-232/RS-422/RS-485).

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.



2-Dual Channel Model 2350 Data Link

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Ordering Information

MD2350-01	Single Module Rack Mount Unit	OP2350-41	Video Input/Output
MD2350-02	Dual Module Rack Mount Unit	OP2350-42	Quad Voice Input/Output
MD2351	Single Module Table-top Enclosure	OP2350-43	Quad Analog Input/Output
OP2350-20	Digital Clock Recovery Input	OP2350-60	IRIG Time Code Input/Output
OP2350-21	Analog Bit Synchronizer Input	OP2350-70	AES Encryption / Decryption
OP2350-30	Frame Synchronizer	OP2350-80	SFP Fiber Network Interface
OP2350-40	Dual PCM Input/Output	OP2350-90	Redundant Power Supply

Recognizing that no standard product meets all the needs of all users, GDP offers to provide units tailored to unique applications.

This data sheet is not intended to create any warranty, expressed or implied. Specifications may change without notice.