Model 2267C

DIVERSITY COMBINER / BEST SOURCE SELECTOR

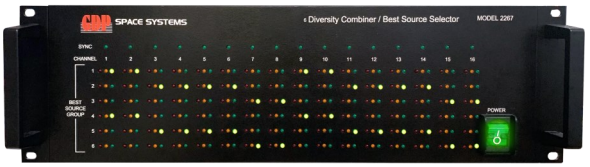
DELTA TELEMETRY SYSTEMS

DATA ACQUISITION

KEY FEATURES

- Auto Correlation / Diversity Combining of Received Data Streams
- Performance Gain Over 5 dB
- Supports Encrypted or Clear Data Streams
- 16 Input Channels & 4 or 6 Group Outputs per chassis
  - Data & Clock Inputs/Outputs & Ethernet Data Inputs/ Outputs
- 16 Decapsulated Data/Clock Outputs
- Independent Ethernet Control & Ethernet Data Ports IRIG-218-2010 & 2020 TMoIP Support
- Bit Rates: Up to 40 Mbps (Supports 40Mbps simultaneous operation on all 16 Inputs and Group outputs)
- Input streams auto-correlated
- Supports Encapsulated Data Input
- Data Quality Source
  - GDP 2265EC Bit Synchronizer
  - GDP 4426 Receiver
  - RCC DQM/DQE (IRIG-106 Standard)
- Best Source Criteria
  - Data Quality
  - Bit-by-Bit /Majority Vote/Weighted MV
  - Frame Pattern Analysis
  - Mixed Mode support
- Down-stream devices receive the highest quality data. Downstream Frame synchronizers maintain lock.
- Seamless Output Stream Switching on bit boundaries
- Input De-randomizer/ Output Randomizer
- Remote Control via
  - Ethernet
- 5.25-inch High Chassis
- Includes Virtual Interface Control Software
- Computable with GDP TRMS-RMS (Telemetry Range Management System) Software that supports mission based data routing through multiple BSS boxes & Gateways with detailed post mission Report Generation and extensive logging capability.
- Real-time Front Panel LED display illustrating for all 16 Input Channels & 6 Group Outputs; Current Best Source, Correlation, Lock

GENERAL DESCRIPTION



The GDP Model 2267C Correlating/ Diversity Combining Best Source Selector accepts up to sixteen input data streams.

Each input channel may be from digital data & clock or from Ethernet input packets. Each channel is independently assigned to one of up to six Best Source output processing groups.

The optimized FPGA Based State machine digital design affords the highest performance characteristics. The unit accepts input streams to 40 Mbps (operates with Stream inputs and Group outputs all at 40Mbps simultaneously).

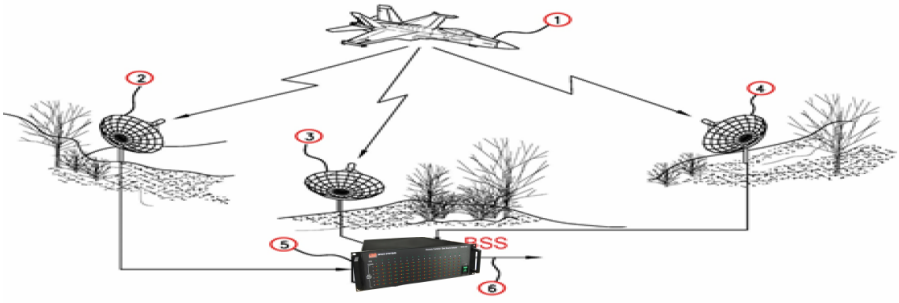
The standard IRIG randomizer/derandomizer for both forward and reverse sequences is provided. The input data streams may be Encapsulated data as produced by GDP Encapsulating Bit Synchronizers such as the model 2265EC Bit Synchronizer, model 4426 Telemetry Receiver, and devices that provide the RCC DQE/ DQM encapsulation technique or pattern detector modes.

Best Source Selection of Non-Encrypted and Encrypted Data is based on Signal Quality as well as bit-by-bit Weighted Majority Voting. The Best Source output is not only the Best Stream Source; but, also the best Bit Source.

The GDP Space Best Source Selector is an advanced, next generation implementation of best source selection based on signal/ data quality. Since signal quality is used in the primary decision making process, the unit does not need to see a frame synchronization pattern; therefore, the data can be encrypted. Remotely located GDP Receivers and/or Bit Synchronizer Encapsulators or 3rd party systems that support RCC DQE/DQM provide signal quality information within the Encapsulated data stream, which is used in the best source decision process. Modes that do use the frame sync pattern for quality are also supported. The GDP BSS also supports multiple different modes in the same group. The selected best source data is produced seamlessly at the bit level. The Best Source construction technique is so efficient that individual good bits are substituted for bits in error.

As long as good bits exist in the applied sources, downstream frame / format synchronizers remain in lock.

Over 5 dB performance improvement is realizable.



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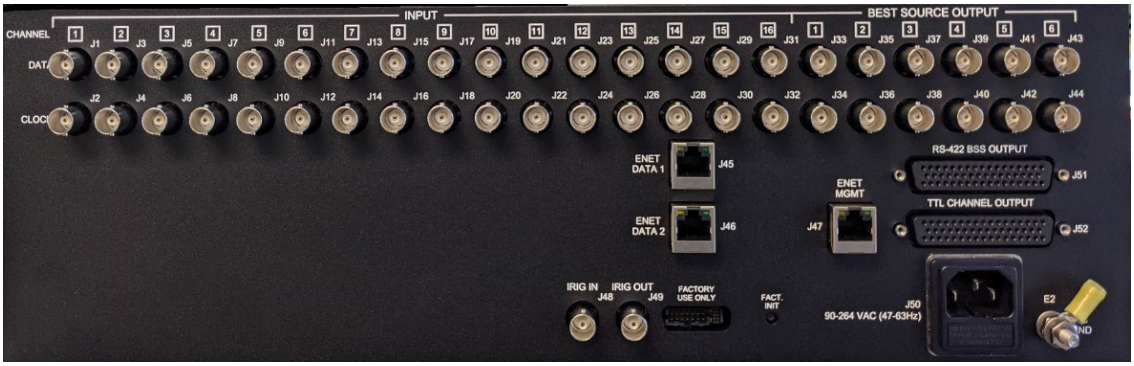
DATA ACQUISITION

Model 2267C

DIVERSITY COMBINER / BEST SOURCE SELECTOR

SPECIFICATIONS

• Input	Channels 16 Input Streams, Data / Clock and Ethernet
• Decapsulation Output	16 Streams Data / Clock (One for each Input Stream)
• Best Source Output Groups	4 Best Source Groups (6 BSS Groups Optional)
• Output Selection Criteria	Signal Quality, Pattern Lock, Majority Vote, Weighted Majority Vote
• Channels Per Group	2 to 16 Channels per Group
• Delay / Latency Compensation	Programmable Maximum Source Latency
• Data Correlation	Automatic Source Correlation (Encrypted or Clear Data)
• Data Switching	Seamless switch on bit boundaries
• Modes	
– GDP DQE/DQM	Decapsulates data and quality information from MD2265EC or MD4426 remote encapsulation units. This is a higher performance bit -by-bit quality. Processes short-term and long-term data quality information per GDP specification #680-2265EC-04.
– RCC DQM/DQE	Decapsulates & Processes Data and Quality information from remote sources per RCC DQE/DQM IRIG-106 STD.
– Digital Signal Quality	Bit-by-Bit Decisions, Frame Pattern Synchronization
• Control Software/GUI	GDP Stand-alone GUI and GDP TRMS-RMS Multi-Box/Multi Gateway System control & Status software with Extensive Logging and Post Mission Report Generation
• Size/Weight	5.25" X 22" X 19"/ 25 Lbs
• Environment	10°C to 45°C (Extended range available)
	90 VAC to 264 VAC, 47 Hz to 63 Hz Auto Sensing



ORDERING INFORMATION

BASIC UNIT MODEL NUMBERS:

MD2267C-M16-G4	16 Channels, 40Mbps, Four BSS Groups
MD2267C-M16-G6	16 Channels, 40Mbps, Six BSS Groups
MD2267C-M16-G4-EN 1	6 Ch, 40Mbps, Four BSS Groups, Enet I/O
MD2267C-M16-G6-EN	16 Ch, 40Mbps, Six BSS Groups, Enet I/O

All Above Configurations include 16 Data & Clock Decapsulated Outputs (One for each input channel).

OPTIONS:

OP2267-40	Add 2 additional BSS Group Outputs (6 Total).. Included with all –G6 Versions
OP2267-45	Ethernet Input/Output Supporting RCC DQE/DQM (22 Channels 16 In and 6 Out). Included in –EN versions
OP2267-46	RCC DQE/DQM (For Data/Clock Only boxes without the –EN option that want RCC DQE/DQM). NET DATA I/O). Included in –EN versions

**Recognizing that no standard product can meet all the needs of all users, GDP stands ready to provide units tailored to unique applications.*

** The statements in this data sheet are not intended to create any warranty, expressed or implied. Specifications are subject to change without notice.*

Inquire today to learn more .

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