Correlating Best Source Selector
MODEL 2267C

KEY FEATURES

Auto Correlation & Diversity Combining BSS Performance gain over 5 db.

16 Input Channels & 6 Group Outputs (Data/ Clock and/or Ethernet-IRIG 218-10 & 20). Higher input, channel counts are supported.

16 Decapsulated outputs to support recording of raw data inputs.

Seamless Stream Switching Supports Encrypted & Clear Data.

Selection Criteria/Modes; Data Quality, Bit-by-Bit, Majority Vote, Weighted MV, Frame Pattern Analysis, Mixed Mode.

Data Quality Sources: GDP Bit Synchronizer, GDP Receiver, 3rd Party Receivers with RCC DQM/ DQE (IRIG-106 Std).

Ethernet Control Virtual Interface Control Software.
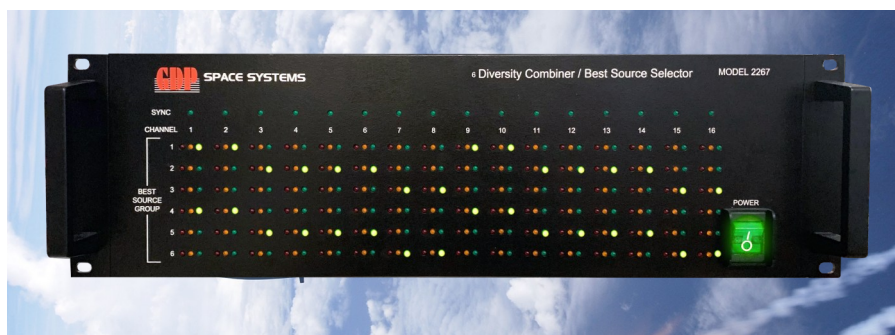
GDP TRMS-RMS Compatibility.

Real-time LED Front Panel Display.

GENERAL DESCRIPTION

The GDP Model 2267C Correlating/Diversity Combining Best Source Selector is an advanced, next generation implementation of best source selection that is based on signal/data quality. Each unit accepts up to sixteen input data streams, as data and clock or Ethernet packets, each assignable to one of six BSS output groups. Ethernet IRIG 218-2010 and 2020 formats are supported. An optimized FPGA-based state machine design delivers performance that is unmatched in the industry supporting all input and output data streams simultaneously at rates up to 40 Mbps. Larger applications with higher Input/Output counts can be supported by adding additional boxes.

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 or clear. The unit accepts encapsulated data from GDP Encapsulating Bit Synchronizers (such as the Model 2265EC), Telemetry Receivers (Model 4426 & 4455), and 3rd party devices supporting RCC DQE/DQM. For maximum flexibility and the ability to support any application, modes that do use the frame sync pattern for quality are also supported.

The unit supports a variety of BSS algorithms, including bit-by-bit Weighted Majority Voting for both encrypted and unencrypted data. The selected best source data is produced seamlessly at the bit level (true bit-by-bit BSS). The Best Source output technique is so efficient that individual good bits are substituted for bits in error resulting in performance gains of over 5dB. The unit is also supported by our TRMS-RMS (Range Management Software suite).
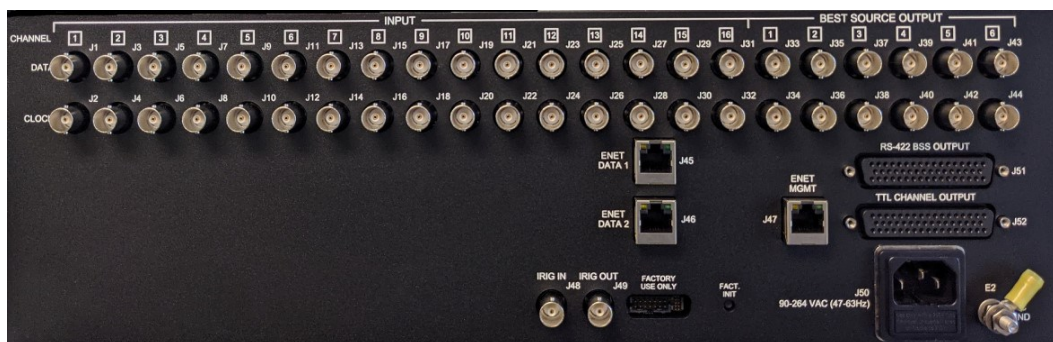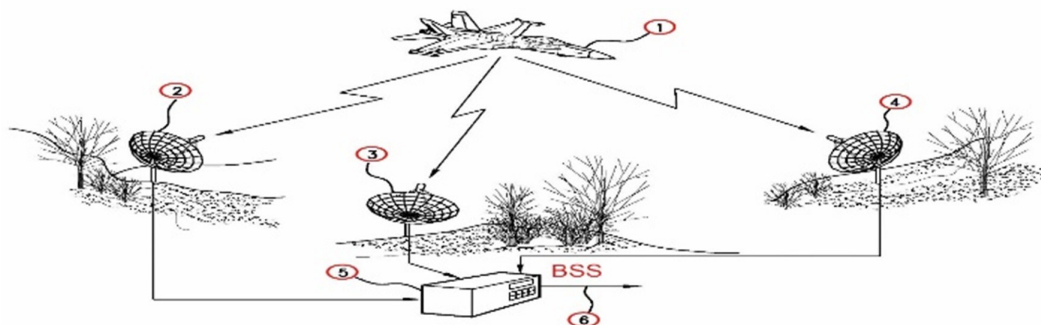

RELATED PRODUCTS

Receiver	Encapsulation Bit Sync	Gateway	Ethernet Recorder

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MODEL 2267C

TECHNICAL SPECIFICATIONS

Box Certifications:	CE Mark Certified
Input:	Channels 16 Input Streams, Data / Clock and/or Ethernet (Expandable)
Decapsulation Output:	16 Streams Data / Clock for digital raw data recording (One for each Input Stream)
Best Source Output Groups:	6 BSS Groups Outputs
Output Selection Criteria:	Signal Quality, Pattern Lock, Majority Vote, Weighted Majority Vote, Best Source
Channels Per Group:	2 to 16 Channels per Group
Delay / Latency Compensation:	Programmable delay window
Data Correlation:	Automatic FPGA State Machine Source Correlation (Encrypted or Clear Data)
Data Switching:	Seamless switch on bit boundaries
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:	0C to 40C (Extended range available)
	90 VAC to 264 VAC, 47 Hz to 63 Hz Auto Sensing, 175 Watts

Modes :

GDP DQE/DQM:	Decapsulates data and quality information from MD2265EC Bit Sync Encapsulation Unit or MD4426 or MD4455 Receiver 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 from both GDP and other 3rd party devices.
Digital Signal Quality:	Bit-by-Bit Decisions, Frame Pattern Synchronization

Recognizing that no standard product fits every mission, Delta Telemetry Systems is ready to deliver tailored solutions for your unique application requirements.

Specifications subject to change without notice.