

## Network Data Selector with Engineering Unit Processor



### Applications

- Airborne network-based data acquisition systems
- Data conversion/translation
- Real-time data processing and display

### Features

- Network data selector with built-in serial data output of selected network data parameters and real-time Engineering Unit Processing
- Provides 100/1000BASE-T network port with IEEE 1588 time synch support
- Incoming network data for selection
- Provides selected serial data in packetized form back to the network for on-board data recording
- Selected network data is encoded into programmable serial output with a programmable rate of up to 20 Mbps
- Performs data processing in real-time including engineering unit conversion and derived functions
- Processed data can be sent back to the network or visualized as graphical widgets on a connected VGA/SVGA/XGA/SXGA video display

### Description

The nGWY-2000EU Network Data Selector with Engineering Unit Processor selects parameters or words from user-specified network data packets while the packets are in transit over the data acquisition network to the recorder and formats an IRIG Chapter 4 PCM stream for output to a telemetry transmitter, encryptor or other PCM device. Selected parameters can also be internally routed to the iEUP-500 slice where user programmed mathematical equations and engineering unit conversions are performed in real-time with resulting parameters available to send back to the network or be visualized as graphical widgets on a video display.

The nGWY-2000EU connects to the networked acquisition system and searches for a pre-programmed set of incoming multicast addresses and selects packets from those addresses that match the specified primary or secondary keywords.

Selected parameters or words from each matched packet are placed in a customer-predefined IRIG Chapter 4 PCM format and during this placement process, the nGWY unit performs timing adjustments to the packets to realign the parameters for synchronous updates to the outgoing PCM frames.

The nGWY-2000EU operates at up to 20 Mbps and can be used with a PCM transmitter to provide Safety Of Flight (SOF) functionality for an airborne networked data acquisition system.

The nGWY-2000EU can be configured to loopback a second copy of the PCM data as packetized frames. These IP frames are multicast over the acquisition network through the Gigabit Ethernet (GbE) interface as an input data source. These packets can be monitored as real-time data in the aircraft or recorded by the network recorder for later analysis.

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### nGWY-2000EU Datasheet

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