



Lumistar LS-28-DRSM-P1 Series Portable Data Receiver / Combiner with Frame Sync/Decom Data Recorder, Simulation, Modulation, IRIG Time & TMoIP Multicast

A Complete Telemetry Ground Station in a Lunchbox Case!

The LS-28-DRSM Series is Designed Specifically in Support of IRIG Flight Test & Space Telemetry Ops



Lumistar's Newest & Most Compact Telemetry System Product

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LS-28-DRSM-P1 Series Features:

- **AC or Rechargeable Battery Operable w/Hot Swap**
- **IP-67 Rated “Pistol” Case**
- **Ground, Mobile, Airborne/Shipboard & Remote Ops**
- **Flexible/Extensible Firmware-Based Personalities**
- **Utilizes Lumistar’s LS-28-DRSM Technology**
 - **Telemetry Processing About the Size of a Hard Drive!**
- **Dual Channel – Five Band Receiving & Diversity Combining**
 - **RF Bands From 200 MHz to 6 GHz**
- **From Ether to Ethernet**
 - **RF to UDP TMOIP Multicast in a Single Portable Unit**
 - **Interfaces w/ Lumistar Real-Time TM Display Software (LDPS)**
 - **Compatible With IADS Real Time Display Software**
 - **Or Build Your Own Software Displays!**
- **RF to Traditional PCM Bit Sync Clock/Data**
 - **Three Independent Bit Sync Outputs**
 - **CH1/CH2 and Combined**
 - **TTL and Differential High Speed 422 Simultaneously**
- **Software Selectable Dual Channel Bit Sync Mode**
- **Multi-Mode Demod Formats Licensed**
 - **Digital & Analog PCM/FM, SOQPSK, Multi-H CPM, BPSK, QPSK, OQPSK, AUQPSK, PCM/PM, Subcarrier, NTSC & PAL, GMSK**
 - **Data rates to 60 Mbps**
- **Three 70 MHz IF Outputs**
 - **CH1/CH2 and Combined**
- **Supports Encryption/Decryption Operations**
- **LDPC in accordance with IRIG 106 (Optional)**
- **STC capable**
- **DQM/DQE capable**
- **Receiver Parameter Performance Logging Tool**
- **Automated G/T Test Tool**



Lumistar LS-28-DRSM Series Modular Data Receiver - Combiner with Frame Sync/Decom, Data Recorder & UDP Data Broadcast

- **4-5 dB Noise Figure with up to 120 dB Dynamic Range**
- **Data IF Bandwidth Resolution of 10 KHz**
 - Over 40,000 IF Bandwidth Selections
 - Bandwidth Selections <50 KHz to >40 MHz
- **+10 dBm Operational, +29 dBm Non-Damage at Start-Up**
- **Data Recording and Playback Option**
 - 64 GB per data channel x three channels
 - 18 hours per channel at 8 Mbps
- **Spectral Displays (CH1 and CH2)**
- **O-scope Displays (CH1, CH2 & COMBINED)**
- **Bit Error Rate Reader (CH 1, CH2 & COMBINED for all I&Q Channels)**
- **Simulation and PCM Test Signal Generation**
 - Excellent for Loop Back Tests using Internally Generated Data Patterns
- **70 MHz IF Modulator with internal and external data inputs**
- **70 MHz IF Modulator to RF Upconverter Option**
- **User Defined I/O Discrete Outputs**
 - Allows Creation of Dozens of Optional "User Defined" Signals (Consult Factory)
- **User Programmable AGC outputs for Track Receiver Applications**
 - Extremely Linear, High Sensitivity, +/- 5V
- **Thirty-two User Selectable Lowpass Filtered AM Outputs for Tracking**
- **No OS**
 - Control / Status over Ethernet, USB and RS-232
- **IRIG Time Code Reader and Generator Capability**
 - Used for Stamp of Ethernet Packets/Decom Data/Log Files
- **Small Size and Weight**
 - 16.5" x 13.0" x 6.8"
 - Approx. 15 pounds
 - IP 67, ATA Specification 300, Military Standard C-4150J
 - BUOYANCY: Waterproof (lid closed) / Floats in Salt Water
- **AC or Optional Battery Operation**
 - Up to 10 hour battery life w/ hot swap AC<>DC
 - 60 watts power dissipation (typical)
- **Available in Modular and Dual Channel 1U Rack Mounted Configurations**

Outline and Dimensions - with Signal I/O



(Cover Closed)





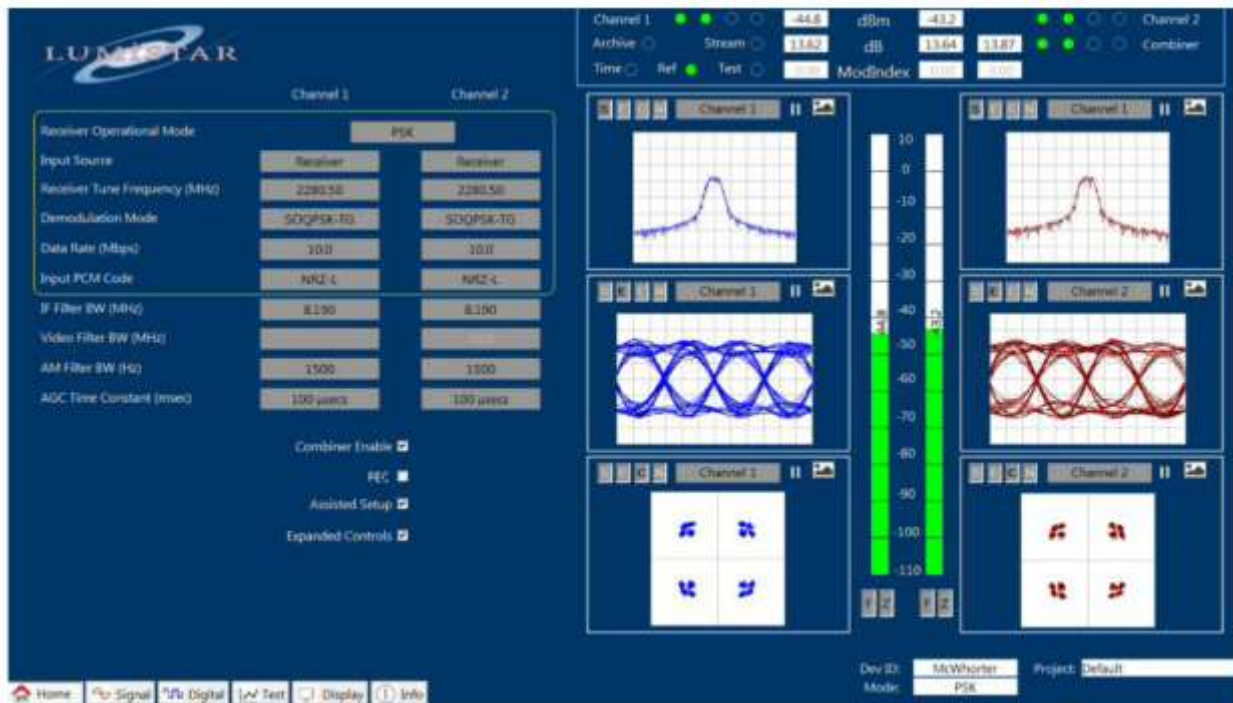
LS-28-DRSM-P1 (open cover)



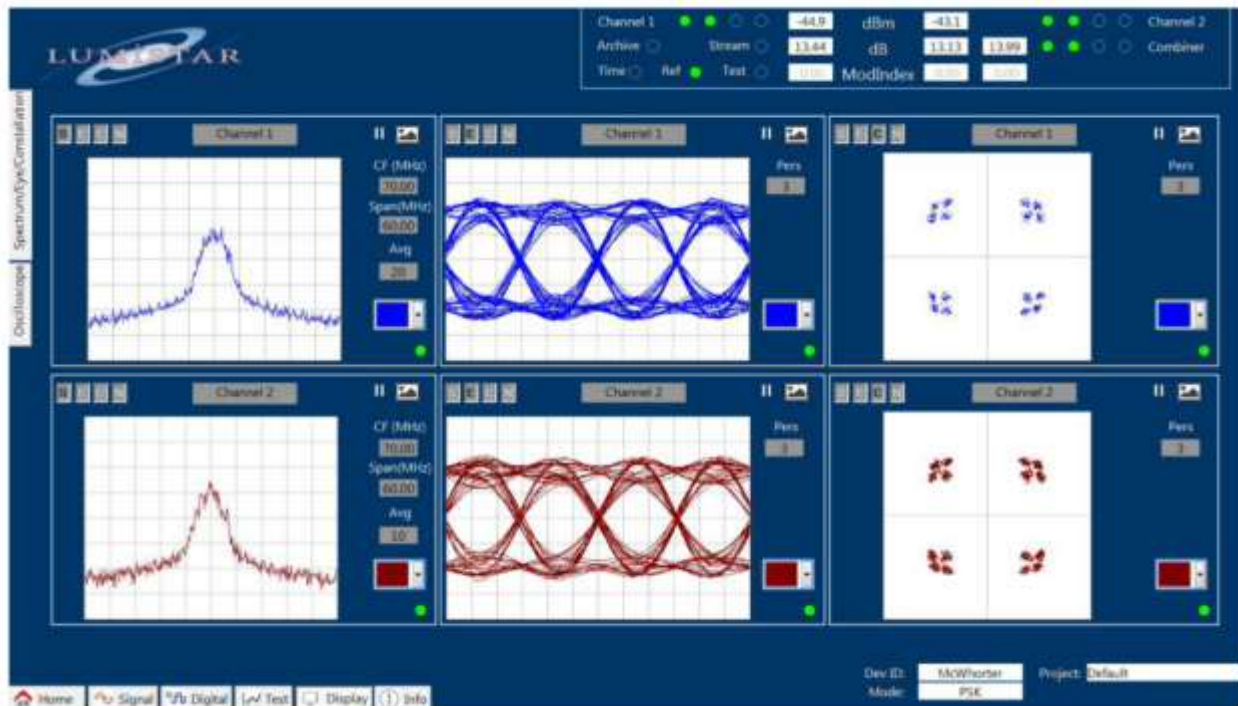
Optional Battery System with Laptop

Typical Lumistar GUI Examples

Home Page



Display Page





**For Additional Information,
Please Visit the Lumistar Website:**

User Manual for the LS-28-DRSM

http://lumi-star.com/uploads/MANUALS/LS-28-DRSM/LS-28-DRSM_UserManual.pdf

Interface Control Drawing for the LS-28-DRSM

http://lumi-star.com/uploads/MANUALS/LS-28-DRSM/LS-28-DRSM_ICD.pdf

Updated: July 2020