

LUMISTAR

LS-84-EC “Economy Chassis” Telemetry System

Data Sheet

The Lumistar LS-84-EC “Economy Chassis” Telemetry System offers a low cost, high performance COTS solution for a portable quick look ground/remote/airborne station. The



unit has a built-in computer running Windows 10 (WIN 7 option) for stand-alone control or can be controlled remotely over TCP/IP. Using Lumistar’s PCI-based or modular line of telemetry products, a complete telemetry ground station can be configured in a very small space. Functions such as RF reception, demodulation, bit synchronization, simulation, frame sync, decom, data archive and real-time display can all be handled in this unit. Data can be archived on an internal solid state drive or external serial ATA or USB 2.0 drive. A laptop using a network connection provides remote control and access to real-time displays. The I/O connections from individual PCI cards are hardwired internally within the chassis, thus allowing a bulkhead mount configuration on the rear panel of the chassis.

Lumistar products such as the LS-28-DRSM/LS-68-M Modular Systems, or PCI products such as LS-25 FM Receivers or LS-25-D2/LS-27-D3 Down Converters, LS-35 Multi-mode IF Receiver, LS-40 Bit Synchronizers, LS-50 Multi-function PCM Decommutators, LS-71 DAC, & LS-70 Series Dynamic Telemetry Simulators / Modulators can be installed in this rugged high quality chassis. Using the appropriate Lumistar setup, control, and monitoring software on the local computer (or via network connection for remote control), an alternative to the often expensive, proprietary architecture products of other suppliers.

Key Features:

- High Quality Rugged Aluminum Chassis
- Up to four PCI cards or two Modular components can be installed in the chassis
- Secure internal bracing for PCI cards
- Ground, remote or airborne applications
- Half-size SBC based on i7 based CPU with 1333 MHz FSB
- 1 TB removable HD with locking enclosure (standard)
 - Optional removable solid state hard drive (up to 500 GByte)
- 4” fan provides over 100 CFM of cooling to the TM components and power supply
- 120-240 VAC power supply to provide DC voltages to PCI cards and modules
- Front panel is easily custom configurable to match installed Lumistar card set
 - BNC, N, SMA, RG-45, PS2, USB, VGA, PS2, multi-pin D-connections
- +28 VDC option for airborne applications is available upon request

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GENERAL SPECIFICATIONS:

The following products are typically installed in the LS-84-EC resulting in an extremely sophisticated telemetry data monitoring system in a small Rugged Economy Chassis computer.

PCI / PCIe Products:

<https://lumi-star.com/uploads/LS-25-P2.pdf>
<https://lumi-star.com/uploads/LS-25-D2.pdf>
<https://lumi-star.com/uploads/LS-27-D3.pdf>
<https://lumi-star.com/uploads/LS-35-R.pdf>
<https://lumi-star.com/uploads/LS-40-DB.pdf>
<https://lumi-star.com/uploads/LS-40-DB.pdf>
<https://lumi-star.com/uploads/LS-45-DB.pdf>
<https://lumi-star.com/uploads/LS-50-D.pdf>
<https://lumi-star.com/uploads/LS-50-E.pdf>
<https://lumi-star.com/uploads/LS-55-DD.pdf>
<https://lumi-star.com/uploads/LS-55-EE.pdf>
<https://lumi-star.com/uploads/LS-70-S.pdf>
<https://lumi-star.com/uploads/LS-70-F.pdf>
<https://lumi-star.com/uploads/LS-77-SS.pdf>

Modular Products:

https://lumi-star.com/uploads/LS-28-DRSM_overviewBrief.pdf
https://lumi-star.com/uploads/LS-68-M_HighLevelOverviewBrief.pdf

Computer Specifications:

The Economy Chassis comes standard with a current i7 based CPU processor running Windows 10 OS (Win 7 32 or 64 bit OS optional), 16 GB of DDR3 RAM with removable dual 1 TB SATA hard drive (or dual 500 GB SSHD), with four USB 2.0 connections. The unit can be configured to add an external USB hard drive. VGA (1), RJ-45 (1) connections are also standard (HDMI optional). Dozens of specific I/O configuration are dependent upon component selection and customer needs. Lumistar will work directly with the customer to provide a specific suggested I/O configuration. Typical connectors include N-female or SMA-female (RF) and up to 20 BNC-F (for IF, AGC, AM, video demod, data, clock, modulation input/output, etc.... signals). High density multi-pin connections are available and standard. Custom I/O configurations are available. Please consult Lumistar to define custom configurations. Third party cards are acceptable.

Note: Computing specifications subject to change, please consult factory at time of order

Physical Specifications:

- Size: 8” (Height) x 6” (Width) x 17” (Depth)
- Weight: approx. 12 lbs. empty
 - up to 17 pounds with PCI or modular components installed
- Material: Anodized Aluminum