

LUMISTAR

LS-84-R4 “4U” Industrial Grade Rack Mount Chassis for Telemetry Receiving and Processing Systems Data Sheet

The Lumistar LS-84-R4 4U Rack Mount Unit offering a low cost, high performance, COTS telemetry ground station solution integrating Lumistar’s product line of receivers, bit synchronizers, multifunction decoms and simulators in a single “custom integrated system”. This design incorporates an i7 motherboard with high end graphics processing and a minimum of 8 PC/PCie slots for integration using any Lumistar or third-party products. Each LS-84-R4 system is fully specified at the time of order.



Lumistar also offers the LS-84-RM1 (1U) and the LS-84-2U (2U) Rack Mount Data Units for applications that do not require as many PCI cards to be installed. Other 4U systems are available with passive backplane, Single Board Computer (SBC) with up to 10 slots allowing large multi-stream systems to be created using standard Lumistar PCI boards. The optional 1U Keyboard Display is shown (LS-44-KD).

Lumistar PCI Components for LS-84-R4:

The following is a representative list of Products that can be installed in the LS-84-R4 resulting in an extremely sophisticated telemetry data monitoring system in a portable computer. Many custom design options are available, please contact Lumistar Sales.

FM Receivers:

- LS-25 Multi-band FM Receiver with up to 12 IF Bandwidths/12 Video Filters

Multi-mode Receivers (for FM, PM, BPSK, QPSK, OQPSK, SOQPSK, AQPSK):

- LS-25-D2 Multi-band Down Converter with LS-35-R Multi-mode IF Receiver Combiner / Bit Sync (decom optional)

ARTM Receiver

- LS-25-D2 Multi-band Down Converter with LS-35-R Multi-mode IF Receiver (For ARTM Tier 0, Tier I, and Tier II, BPSK/QPSK, OQPSK, AUQPSK, etc..)

Bit Synchronizers:

- LS-40-DB Bit Synchronizer Daughterboard
- Bit Synchronizer firmware option in all multi-mode demodulators

Multi-function Decoms:

- LS-50 PCI Multi-function PCM Decom or integral with Multi-mode demodulators
- Decom firmware option in multi-mode demodulators

D/A Converters:

- LS-71-P16 16-Channel or P32 32-Channel D/A Converter

Command Data Simulator with FM Modulator

- LS-70-F Command Data Simulator with FM Modulator Option
- LS-70-M Command Data Simulator with ARTM Multi-mode Modulator Option

LS-24-R4 Rack Mount Data Unit

Data Sheet

SPECIFICATIONS:

Please refer to the individual data sheets for performance specifications of the Lumistar PCI / PCIe products that can be used the LS-84-R4.

Computer Specifications:

Computer specifications are continually changing with technology improvements. A minimum standard configuration as of this date would include:

- i7 6th Gen or later processor with 1x LAN and 4x USB 2.0
- CPU fan for processor
- Multiple fans for PCI card cooling
- NVIDIA GeForce GT720 Graphics Processing Card (or similar)
- Memory 16GB DDR3 or DDR4 RAM
- Power Supply PS2 460 watt, Auto-sensing 110/220 V, 50/60 Hz
- 1X LAN (standard)
- 4X USB 2.0
- Removable HDD 1TB SATA or 500 GB SSHD (optional)
- DVD/RW
- Windows 10 (standard); WIN 7 (optional)
- Software; as required to support the components installed
- Consult Lumistar Sales for any specific processing needs

Environmental:

Operating Temperature	10° to +40° C
Non-Operating Temperature	-25° to +70° C
Operating Humidity	0 to 90% (Non-condensing)
Non-Operating Humidity	Protect from moisture and contamination

Physical:

Size	19" W x 22" D x 7" H
Weight	55 Lbs (25 Kg) typical
Power Supply	115 V/230 V, 50/60 Hz Auto-sensing

Optional Features:

Rack Mount Slides
1U Keyboard/Display (LS-44-KD)