

LUMISTAR

LS-84-R1 1U Rack Mount Data Unit

Data Sheet

The Lumistar LS-84-R1 1U Rack Mount Data Unit offers a low cost, high performance COTS telemetry ground station solution integrating receivers, bit synchronizers, and multifunction decoms in a single 1U high rack mount chassis. This design incorporates a butterfly backplane with a Single Board Computer (SBC) on one side and 2 PCI slots on the other allowing a system to be created using any of the Lumistar products.



Lumistar also offers the LS-84-R2 2U Rack Mount Data Unit and the LS-84-R4 Rack Mount Data Unit for applications that require more PCI boards. The optional 1U Keyboard Display is shown.



Lumistar PCI Components for the LS-84-R1:

The following products can be installed in the LS-84-R1 resulting in an extremely sophisticated telemetry data monitoring system in a 1U rack mount system.

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 With bit sync outputs

ARTM Receiver

- LS-25-D2 Multi-band Down Converter with LS-35-R Multi-mode Demodulator (for ARTM Tier 0, Tier I, and Tier II)

Diversity Combiners

- LS-35-R Dual IF Receiver with Pre&Post-D Diversity Combiner and Multi-mode Demod with bit sync outputs

Spectral and Oscilloscope Display

- LS-22-SE Spectral and Oscilloscope Display - up to 3 channels

Bit Synchronizers:

- LS-40-DB Bit Synchronizer Daughterboard
- Bit Synchronizer outputs in all digital multi-mode demodulators

Multi-function Decoms:

- LS-50-D PCI Multi-function Single Stream PCM Decom
- LS-55-DD PCI Multi-function Dual Stream Decom

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-70-D Command Data Simulator

LS-24-R1 Rack Mount Data Unit

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SPECIFICATIONS:

Please refer to the individual data sheets for performance specifications of the Lumistar board products that can be used the LS-84-R1.

Computer Specifications:

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

- Butterfly Passive Backplane
- LAN
- I7 based CPU with 1333 MHz Front Side Bus
- CPU fan for processor cooling
- Multiple fans for board cooling
- Memory 4GB DDR3 RAM (minimum)
- Power Supply: 250watt, Auto-sensing 110/220 V, 50/60 Hz
- HDD: 500 GB minimum
- DVD/RW
- USB 2.0
- Windows 7 32 or 64 bit OS

Environmental:

Operating Temperature	0° to +50° 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 21" D x 1.75" H
Weight	20 Lbs (9 Kg) typical
Power Supply	115 V/230 V, 50/60 Hz Auto-sensing

Optional Features:

Rack Mount Slides
1U Keyboard/Display

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