

# LUMISTAR

## LS-84-R2 2U Rack Mount Data Unit

### Data Sheet

The Lumistar LS-84-R2 2U Rack Mount Data Unit offers a low cost, high performance, COTS telemetry ground station solution integrating receivers, bit synchronizers, and multifunction decoms or other Lumistar products in a single 2U high rack mount chassis.



This design incorporates a butterfly backplane with a Single Board Computer (SBC) on one side and PCI slots on the other side allowing 3 PCI slots for system integration using any of the Lumistar PCI boards.

Lumistar also offers the LS-84-R1 1U Rack Mount Data Unit for Applications that do not require as many PCI boards, and the LS-84-R4 4U Rack Mount Data Unit for applications that require more PCI boards. The optional 1U Keyboard Display is shown.



These receivers are bundled with setup, control, and monitoring software with spectral and oscilloscope display (optional). Please refer to the individual data sheets for performance of the Lumistar board products used in this unit.

### Lumistar PCI Components for LS-84-R2:

The following products can be installed in the LS-84-R2 resulting in an extremely sophisticated telemetry data monitoring system in a 2U 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-32-R Multi-mode IF Receiver With 23 IF Bandwidths, 16 Video Filters, bit sync and decom optional

#### ARTM Receiver

- LS-25-D2 Multi-band Down Converter with LS-58-M Multi-mode Demodulator (for ARTM Tier 0, Tier I, and Tier II)

#### Diversity Combiner

- LS-33 Dual IF Receiver with Pre&Post-D Diversity Combiner and Multi-mode Demod with bit sync and decom optional

#### 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 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-R2 Rack Mount Data Unit

## Data Sheet

### SPECIFICATIONS:

Please refer to the individual data sheets for performance specifications of the Lumistar board products that can be used the LS-84-R2.

### Computer Specifications:

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

- Butterfly Backplane with 3 PCI Slots and Pentium 4 SBC capability
- Pentium 4 SBC with LAN and USB 2.0
- Intel Pentium 4 CPU: 3.0GHz with 1MB cache and 800MHz Front Side Bus
- CPU fan for Pentium processor
- Multiple fans for board cooling
- AGP video card with 128MB video memory
- Memory: 2GB RAM
- Power Supply: 400 watt, Auto switch 110/220
- HDD: 200 GB
- DVDRW
- USB
- Windows XP

### 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 24" D x 3.5" H                          |
| Weight       | 40 Lbs (18 Kg) approx, depends on configuration |
| Power Supply | 115/230 V, 50/60 Hz Auto-sensing                |

### Optional Features:

|                     |        |
|---------------------|--------|
| Remote Control      | TCP/IP |
| Rack Mount Slides   |        |
| 1U Keyboard/Display |        |