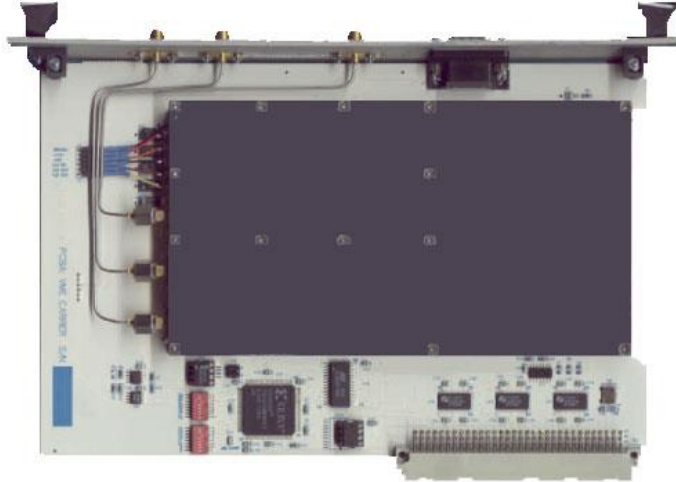


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LS-25-V Single Band FM VME Receiver Data Sheet

Description:



The Lumistar LS-25-V Receiver is a single-band, single-slot VME FM Receiver. Versions are available for P-Band, Lower L-Band, Upper L-Band, S-Band, and NATO E-Band depending on the model chosen. These wideband designs support PCM data rates up to 20 Mbps and include both an FM demodulated output for PCM data, and AM and AGC/RSSI outputs. DC coupling is employed to ensure a high quality data link with long strings of NRZ-L ones or zeroes.

Key Features:

- Single-slot VME Receiver with FM Demodulation
- Available in P, Lower L, Upper L, S, and NATO E-Bands
- AM/AGC & RSSI Outputs
- Supports data rates up to 20 Mbps
- DC coupled for NRZ PCM Data Streams
- 10 dB Noise Figure (maximum); 6dB (typical)
- 70 MHz IF Output from Down-converter with 70MHz IF input to IF Receiver
- 20 MHz Reference I/O

Applicable Models:

LS-25-VU (P-Band)
LS-25-VL (Lower L-Band)
LS-25-VU (Upper L Band)
LS-25-VS (S-Band)
LS-25-VE (NATO E-Band)

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LS-25-V Single Band FM VME Receiver

Data Sheet

Tuner:

| | |
|---------------------|---|
| Input Frequency | 2185 – 2480 MHz for E-Band Receivers 2200 – 2400 MHz for S-Band Receivers 1710 – 1850 MHz for Upper L-Band Receivers 1435 – 1540 MHz for L-Band Receivers P Other Bands Available – Consult Factory |
| Tuner Resolution | 50 KHz |
| Frequency Accuracy | 0.002% |
| Noise Figure | 10 dB (Maximum); 6 dB (Typical) |
| Maximum Input Level | +10 dBm without damage |

Demodulator Outputs:

| | |
|----------------------|---|
| Demodulation Type | FM and AM |
| Post-Detection BW | Software Selectable, 4 frequencies (specify) + bypass Optional – 12 frequencies (requires additional card) |
| Available IF Filters | 0.5, 1, 1.5, 2, 2.5, 3, 3.5, 4, 4.5, 5, 6, 7, 8, 9, 10, 12, 14, 16, 18, 20 MHz (Specify 4 over 10:1 ratio) |
| Data Output Level | 4 V p-p, 75 Ohm output impedance |
| AGC Time Constant | Selectable, 4 values (0.1, 1, 10, 100 ms) |
| AM Frequency Resp | >50 KHz at any time constant |

Additional Inputs/Outputs:

70 MHz IF Output from Down-Converter
70 MHz IF Input to IF Receiver
2nd LO Lock
AM and RSSI/AGC outputs

Bus Outputs:

Signal Strength and Peak Deviation

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:

| | |
|-----------------------|---|
| Form Factor | 6U VME Board |
| Input Connections | SMA for RF in SMA for IF in |
| Output Connector | SMA for IF out |
| Reference Connector | SMA for Ref I/O |
| Other Connector | D-Series for other I/O |
| IF Loop-back | provided |
| D-Series to BNC cable | provided |
| Current Required | 0.5 amps at +12 V (typical) 0.12 amps at -12 V (typical) |