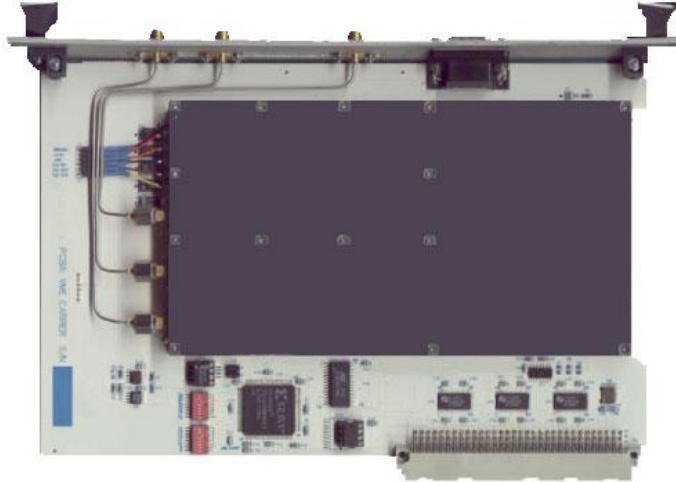


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LS-25-V Single Band FM VME Receiver Data Sheet

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 provided
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)