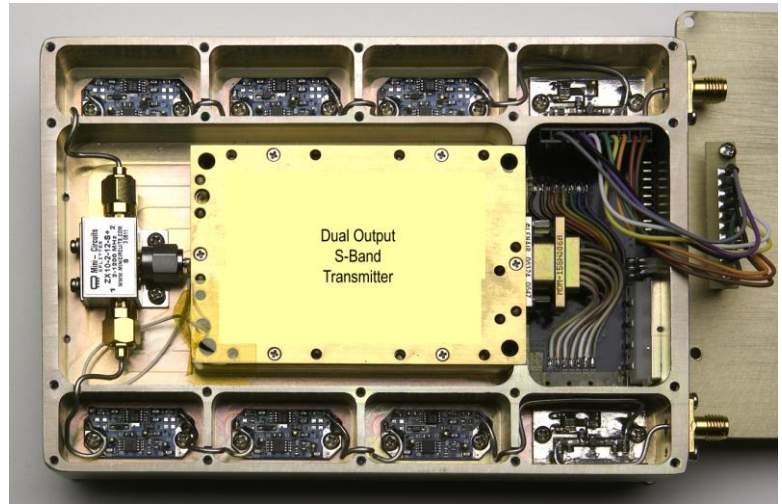


# LUMISTAR

## LS-14-M RF Transmitter for FM, SOQPSK, & CPM Modulator Data Sheet

### Description:

The Lumistar LS-14-M RF Transmitter with FM, SOQPSK, & CPM Modulation allows for complex PCM data generated by the LS-70-S Dynamic Data Simulator to be output as an RF signal. The LS-14-M comes in a mechanical housing the size of a computer drive bay, requires power from a standard Molex connectors and has a serial connection to the LS-70 via a ribbon cable for the PCM data to be output along with control and status of the board. The RF signal from the transmitter feed a three stage GaAs FET attenuator for rapidly changing the RF signal strength and with minimal added noise or phase distortion. The LS-14-M can have either one or two outputs.



The LS-14-M output is measured and calibrated. The calibration information is stored in the memory of the LS-70-S. The two components working together form an excellent test device for TM equipment from the antenna through the receiver, bit synchronizer and frame sync to playback of archived data.

### Key Features:

- ARTM Tier 0 (PCM/FM), ARTM Tier 1 (SOQPSK), or ARTM Tier II (Multi-h CPM) modulations
- Connectors to LS-70-S dynamic data simulator allowing complex PCM data stream generation and playback
- RF output can vary from -60 to +10 dBm
- Can have either one or two output RF Outputs
- Part Numbers: LS-14-MS S-Band 2200.5 – 2395.5 MHz; LS-14-ML Lower L Band 1435.5 – 1534.5 MHz; LS-14-MU Upper L Band 1750.5 – 1850.5 MHz

### SPECIFICATIONS:

#### RF Modulator:

Modulation Types	ARTM Tier 0 (PCM/FM) ARTM Tier 1 (SOQPSK-TG) ARTM Tier 2 (Multi-h CPM)
Frequency Range	S-Band (2200-2395 MHz) L-Band (1435-1535 MHz) Upper L (1710-1850 MHz) Other bands – consult factory
Transmitter Deviation	Automatic
Pre-modulation Filter	Automatic
RF Output Level	-60 dB to +10 dB
Frequency Accuracy	± 0.03%

#### Environmental Characteristics:

Operating Temperature	0° to +50° C
Non-Operating Temp	-25° to +70° C
Operating Humidity	0 to 90% (Non-condensing)
Non-Operating Humidity	Protect from moisture and contamination

#### Physical:

Dimensions:	5.785" D x 4.0" W x 1.25" H (5.25" hard drive compatible)
Inputs/Outputs	RF on SMA Female; Molex 4 pin D for power Serial cable to LS-70

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*Specifications are subject to change. Please verify the latest specifications at time of order.*

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