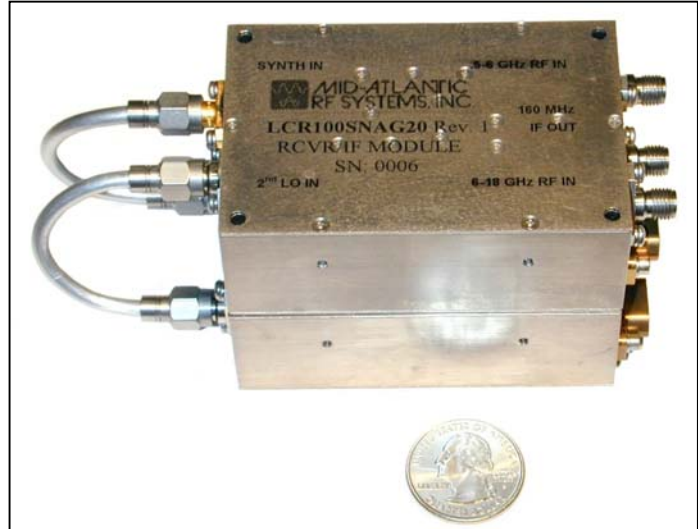


LCR100 Tuner / Receiver

Applications:

- ELINT Systems
- Surveillance Systems
- Test Equipment
- Laboratory Equipment



Overview

The LCR100 series of tuners/receivers provide a low cost solution for an assortment of military and commercial applications. The double conversion superhetrodyne receiver with integral synthesizer can be configured with a 160 MHz IF output with a 100 MHz bandwidth or a 1 GHz IF output with a 500 MHz bandwidth. The small, lightweight tuner/receiver covers the frequency range from 0.5 to 18 GHz, with a tuning step size of 1 MHz. Modular packaging permits a variety of physical layout options. The LCR100 circuitry is contained in two 2" x 3" x 1" modules. RF input and IF output functions are completely contained in one module. The 1st and 2nd LO functions in a second module. Multi-channel receiver configurations can be constructed easily with a common LO module and multiple RF/IF modules.

A ruggedized package option is available to meet more stringent environmental requirements.

Electrical Specifications:

Input Frequency Range:	0.5 to 18 GHz
Linear IF Output Frequency:	160 MHz or 1 GHz
IF Output Bandwidth:	100 MHz for 160 MHz IF 500 MHz for 1 GHz IF
Noise Figure:	20 dB (nom.)
Gain:	20 / 40 dB
Internal Reference:	10 MHz
Tune Step Size:	1 MHz
Tuning Speed:	10 msec
Phase Noise:	-100 dBc/Hz @ 1 MHz
Control Interface:	Serial Peripheral Interface (SPI)
Supply Voltages:	+5V, +15V, +24V, -5V
Power Consumption:	Low Band 7.35W, High Band 6.50W
Maximum Input Power:	CW +20 dBm, Pulse +47 dBm (1 us, 0.1% DC)

Mechanical Specifications:

Dimensions:	2.0" x 3.0" x 2.0" (12 cu. in.)
Weight:	12 oz.