

Heritage Receiver/Downconverter Line Up

Ku-band RCVR (Dual Conversion)



Main Characteristics

- o Ku/Ku-band Dual Conversion RCVR consists of an RF Section, a Local Oscillator and a DC/DC Converter.
- o RF Section converts the 14GHz input signals to the downlink frequency of 12GHz using Local Oscillator frequency of 9.8GHz and 7.5GHz.
 1st Conversion: 13.75 to 14.5GHz → 3.95 to 4.7GHz (LO1 = 8.7425GHz)
 2nd Conversion: 3.95 to 4.75GHz → 11.45 to 12.2GHz (LO2 = 6.994GHz)
- o Low Noise Figure: less than 2.1dB
- o Wideband: 750MHz
- o High Frequency Stability: less than +/-3.0ppm
- o Light Weight: 1.3kg nom.

Specification Table

Parameter	UNIT	Typical Performance	
RF FREQ	GHz	13.75 to 14.5	
IF FREQ	GHz	11.45 to 12.2	
LO FREQ	GHz	9.8GHz(1st LO) 7.5GHz(2nd LO)	
Usable Bandwidth	MHz	750	
Gain	dB	60 min	
Gain Flatness	dBp-p	0.8dBp-p/750MHz	
NF	dB	2.1max	
ICP (C/3IM)	dBm	+33	
In-Band Spurious	dBc	-55	
Out of Band Spurious	dBc	-30	
Frequency Stability	ppm	Setting	+/-0.2
		Over QT	+/-0.2
		Over Life	+/-3.0
Phase Noise	dBc/Hz	10Hz	-55 max
		100Hz	-75 max
		1KHz	-95 max
		10KHz	-100 max
		100KHz	-100 max
		1MHz	-120 max
		10MHz	-135 max
Power Consumption	W	21 max. (Using OCXO)	
Dimension	mm	195 × 168 × 66	
Mass	kg	1.35 max	
Temperature Range	°C	-10 to +65	