

Heritage Receiver/Downconverter Line Up

Ka-band RCVR



Main Characteristics

- o Ka-band RCVR consists of an RF Section and a DC/DC Converter.
- o RF Section converts the 30GHz input signals to the 20GHz output signals using external Local signal.
- o DC/DC Converter supplies the secondary voltage to the RF Section.
- o Key parameter of Ka-band RCVR is as follows;
 - Low Noise Figure: 2.6dB max. @ +60degC, EOL
 - Gain: 63dB nom.
 - C/3IM: 40dB min. (Pin = -64dBm each)
 - DC Power: 8.0W max.
- o Self gain compensation by using the Variable Gain Amp over temperature

Specification Table

Parameter	Unit	Typical Performance
RF Frequency	GHz	29.4 to 29.9
IF Frequency	GHz	19.7 to 20.2
LO Frequency	GHz	9.7
Usable Bandwidth	MHz	500
Gain	dB	63 nom.
Gain Flatness	dBp-p	0.8 max. (over operational bandwidth)
Noise Figure	dB	2.6 max. (Over AT and EOL)
C/3IM	dBc	-40 max (Pin = -64dBm each)
In-Band Spurious	dBc	-60 max.
Frequency Stability	ppm	+/-1 max. (any 15degC) +/-5 max. (Over AT & Life)
Phase Noise		
@10Hz	dBc/Hz	-40 max.
@100Hz		-70 max.
@1kHz		-90 max.
@10kHz		-100 max.
@100kHz		-105 max.
@1MHz		-115 max.
@10MHz	-130 max.	
DC Power Consumption	W	8 max.
Mass	kg	0.9 max.
Temperature Range	degC	-15 to +60 (AT), -20 to +65 (QT)