

## Ku-Band Transceiver Module(Ground)(Extended Freq)

### GENERAL SPECIFICATIONS

DESCRIPTION	MIN	TYP	MAX	UNITS
Frequency Range, Down Link (Rx), with 1GHz bandwidth	13.5		15.0	GHz
Frequency Range, Up Link (Tx), with 200MHz bandwidth	15.0		15.5	GHz
RF Tx to RF Rx Isolation	40			dB
Power Supply	8.8	8.9	9.0	Volts
	-6.3	-6.0	-5.7	Volts
	7.7	8.0	8.3	Volts
Operation Modes	1.Power On(full output power)			
	2.Power Down(Tx power off)			
	3. Rx always at receive mode.			
Power Consumption @ High Power			150	Watt
Temperature Indication, with 5 degree resolution	-40		+100	Degree
VSWR		2.0:1		

### TRANSMISSION(Tx) SPECIFICATIONS

DESCRIPTION	MIN	TYP	MAX	UNITS
Input Power Range(Pin), Nominal P1dB **		0		dBm
Output Power at 1dB Gain Compression, over OTR **	+38.5			dBm
Output IP3 **		+43.5		dBm
Forward Tx Power Indication **	0-3V, 2V(typ) @34dBm, 0.2V/dB			
Wide Band Noise @ Tx band(measured at center freq.)			-120	dBm/Hz
Group Delay Variation, ptp within any 200MHz band		2		nsecs
AM/PM Ratio, @ 3dB Back Off		3		degree/dB
Output Power Protection @ any load VSWR		survive		
Reverse Voltage Protection		survive		

**RESCIEVER(Rx) SPECIFICATIONS**

DESCRIPTION	MIN	TYP	MAX	UNITS
Gain, over OTR **	23	24	25	dB
Noise Figure **			4.5	dB
Output IP3	+20			dBm
Output Power at 1dB Gain Compression **	+10			dBm
Group Delay Variation, ptp within any 200MHz band		2		nsecs
Maximum RF Input Power without Damage			+10	dBm

**SCC SPECIFICATIONS**

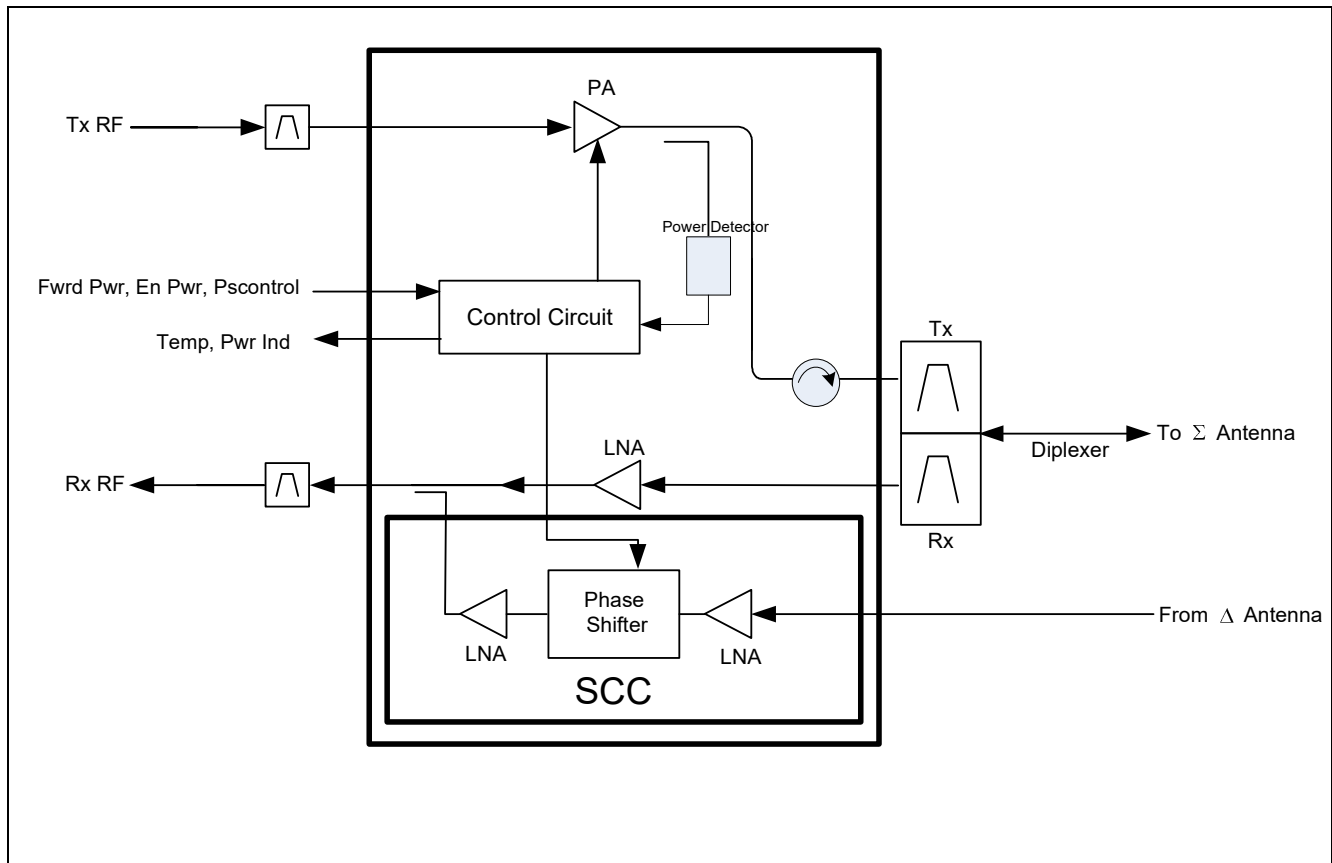
DESCRIPTION	MIN	TYP	MAX	UNITS
$\Delta$ Gain Relative to $\Sigma$ Rx, OTR **	-12.5	-11.0	-9.5	dB
$\Sigma/\Delta$ Phase Tracking, OTR **			+/-10	degree
$\Delta$ Channel Noise Figure		15.5		dB
Output IP3	+20			dBm
Output Power at 1dB Gain Compression **	+10			dBm
Phase Sifter, for phase calibration	360°in 5 bit resolution(5 bit external control LVTTLL)			
0/ $\pi$ Selector Phase Accuracy, over OTR and frequency **			+/-7	degree
0/ $\pi$ Switching Rate	500Hz $\div$ 20KHz			
0/ $\pi$ Selector Settling Time, for 5° accuracy from destination			5	microsec
Group Delay Variation, ptp within any 200MHz band		2		nsecs
Maximum RF Input Power w/o Damage			+10	dBm

**ENVIRONMENTAL SPECIFICATIONS**

DESCRIPTION	MIN	TYP	MAX	UNITS
Operation Temperature Range, base-plate temp	-40		+85	°C
Storage Temperature Range	-54		+85	°C
Vibration	11.95G @ 50-2000Hz			
Altitude	50,000 ft			

**NOTE**

The parameters marked with \*\* will be tested(with test data provided) and guaranteed. The other parameters will be guaranteed.

**BLOCK DIAGRAM**

**NOTE**

THE EXTERNAL DIPLEXER AND FILTER SHOWN ABOVE WILL BE INCLUDED.

**PRODUCT PHOTOS –**

Length : 130mm, typ

Width : 165mm, typ.

Height : 26mm, typ.



**MECHANICAL OUTLINE – (unit: mm)**