

KU-BAND EXTERNAL REFERENCE PLL LNB

MODEL PLV814xER

ELECTRICAL SPECIFICATIONS

Rev. B

No	Item	Specification				Remarks
	SPC Model Number	PLV814AER	PLV814BER	PLV814CER	PLV814DER	
-1	RF Input Frequency	11.70 to 12.20 GHz	12.25 to 12.75 GHz	10.95 to 11.70 GHz	12.20 to 12.70 GHz	
-2	IF Output Frequency	950 to 1450 MHz	950 to 1450 MHz	950 to 1700 MHz	950 to 1450 MHz	
-3	Local Frequency	10.75 GHz	11.30 GHz	10.00 GHz	11.25 GHz	
-4	Local Frequency Stability	Phase locked to external reference.				
-5	Requirement for External Reference	Supplied through the center conductor of IF cable. [Frequency] 10MHz (sine wave) [Input Level] 0 to -10dBm @75 Ω at IF output [Phase Noise] -134dBc/Hz max. @100Hz -144dBc/Hz max. @1KHz -154dBc/Hz max. @10KHz -154dBc/Hz max. @100KHz				
-6	Local Phase Noise	-65dBc/Hz max. @100Hz -75 dBc/Hz max. @1kHz -85 dBc/Hz max. @10kHz -95 dBc/Hz max. @100kHz -105 dBc/Hz max. @1MHz				
-7	Local Oscillator Leakage	-60 dBm max. @ Waveguide input.				
-8	Noise Figure	1.3 dB max. @+25°C				
-9	Gain	55 to 70 dB @ Over frequency & temperature				
-10	Gain Ripple	1dBp-p max per 27 MHz segment across the operating frequency band @+25°C				
-11	Input VSWR	2.5: 1typical (w/o isolator)				
-12	Output VSWR	2.0:1 typical @ 75 Ω				
-13	Image Rejection	45 dB min.				
-14	1 dB Gain Compression Point	+0 dBm min.				
-15	Spurious in Rx Band	-124dBm max. @Waveguide input excluding Rx out ±1 MHz. Measure at RF Input power -85dBm				
-16	RF Input Stability	Conditionally stable (No oscillation) Source input VSWR < 3.0:1 at any phase angle. (w/o isolator)				
-17	Input Voltage	+15 to +24 V @ Supplied through center conductor of the IF cable.				
-18	Current	500 mA max.				
-19	Intercept Point	+10 dBm min.				
-20	IF Output Stability	No oscillation when IF output is shorten at any phase angle or it's electrical equivalent conditions of termination.				

MECHANICAL SPECIFICATIONS

No	Item	Specification	Remarks
-1	Input Interface	WR-75, Waterproof - Mated with matching flange and O-ring	
-2	Output Interface	F-Type, 75 Ω, female, Waterproof Fit center conductor 0.028 to 0.045 "dia.	
-3	Size	150(L) mm x 70(W) mm x 40(H) mm max.	
-4	Weight	approx. 500 g	
-5	Paint/Color	White: Munsell N9.5 semi-gloss	
-6	Label	SPC Label unless other specified	

ENVIRONMENTAL SPECIFICATIONS

The unit will be sealed and will meet the best commercial environmental specifications for exposure to precipitation, water, sand, salt, dust and sun, etc.

No	Item	Specification	Remarks
-1	Operating Temperature	-40°C to +60°C	
-2	Storage Temperature	-40°C to +80°C	
-3	Thermal Gradient	-40°C/Hour	
-4	Relative Humidity	Up to 100%, condensation and frost	
-5	Vibration	5G (f: 50Hz, T: 5min, Direction: X,Y,Z)	
-6	Shock	15G (Direction: X,Y,Z)	
-7	Altitude	Up to 10,000 feet @Operating	