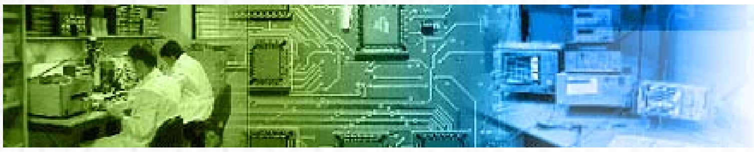

ACORDE TECHNOLOGIES

Ka-BAND Low Noise Block (LNB)

Ed.01

ACLNB-Ka-17.7-21.2GHz **Custom Design** **04/03/09**

DESCRIPTION

ACLNB-Ka series have been designed to meet the more restrictive specifications for Ka Band communication systems. The equipment has a typical gain of 55 dB with a Noise Figure less than 2.2 dB with low weight and dimensions. ACLNB-Ka series have been tested and calibrated between -20ºC and +55ºC, so they assure very good gain stability with temperature.

RECEPTOR SPECIFICATIONS

Input RF frequency	17.7-21.2 GHz
Input Ka Band VSWR	< 2.5 :1
Output IF frequency	950-1825 MHz
Output L Band VSWR	< 1.8:1
Gain	55 dB min
Gain flatness	± 0.75 dB over 40 MHz ± 1.5 dB over 500 MHz
Gain stability (24 Hours)	≤ 0.5 dB
Gain variation over temperature	± 1.5 dB over the whole range
Noise figure @ 25ºC	≤ 2.2 dB (190ºK)
Output power @ P1dB	> +5 dBm
Spurious in Band	< -60 dBc @ Pout=0dBm
DC input voltage	+18 to +36 VDC (multiplexed at output L-Band Connector)
Operating temperature	-20 to +55ºC

LOCAL OSCILLATOR

Oscillator frequency (RF window selected by software)	16.750 GHz (for RF window 17.700-18.575 GHz) 17.625 GHz (for RF window 18.575-19.450 GHz) 18.500 GHz (for RF window 19.450-20.325 GHz) 19.375 GHz (for RF window 20.325-21.200 GHz)
Output phase noise (IESS-308/309):	
100 Hz	-60 dBc/Hz
1 KHz	-70 dBc/Hz
10 KHz	-80 dBc/Hz
100 KHz	-90 dBc/Hz
External frequency reference	10 MHz (at output L-Band Connector)
Reference input level	0 dBm ± 3 dB
Minimum external reference to compliant typical phase noise (IESS-308/309):	
100 Hz	-135 dBc/Hz
1 KHz	-145 dBc/Hz
10 KHz	-155 dBc/Hz

MECHANICAL SPECIFICATIONS

Interfaces	RX output (L-Band+DC+Ext. Ref.):	Type N(F) 50 Ω
	RX input (Ka-Band):	WR42 grooved
	M&C:	MS3112E8-4S
Dimensions (L x W x H)	210 x 95 x 60 mm	
Weight	1.9 Kg	

ACORDE • CDTUC, Avda. de los Castros s/n • 39005 Santander • Spain
Phone: +34 942 20 09 23 • Fax: +34 942 29 04 04
Web: www.acorde.com