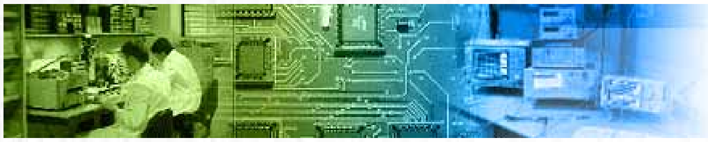

ACORDE TECHNOLOGIES

Ka-BAND Low Noise Block (LNB)

ACLNBP-Ka | **Premium Series** | **Ed.00** **17/03/10**

DESCRIPTION

ACLNBP-Ka Premium Series have been designed to meet the most restrictive specifications for Ka Band communication systems. The equipment has a typical gain of 60 dB with a Noise Figure as low as 1.3 dB typically, with low weight and dimensions. ACLNBP-Ka Premium Series have been tested between -20ºC and +55ºC, providing very good gain stability with temperature.

RECEIVER SPECIFICATIONS

Input Ka-band frequency .... 20.2 - 21.2 GHz (See options)
Input VSWR .... < 1.3:1 (max)
Input Stability .... Unconditionally stable

Output L-band frequency .... 0.95 - 2.0 GHz (See options)
Output VSWR .... < 1.5:1 (max)
Spectrum inversion .... None

Gain .... 60 dB min.
Maximum input level without damage .... 0 dBm

Gain flatness over the whole bandwidth...... ± 1.5 dB
Gain flatness over any 40 MHz............................ ± 0.5 dB
Gain variation over temperature .... ± 1.5 dB over the whole range

Noise figure @ 25°C .... 1.3 dB typ.
1.5 dB max.

Image Rejection .... ≥ 45 dB
Output power @ P1dB .... > +10 dBm
Spurious in Band .... < -65 dBc @ Pout=0dBm
Desensitization .... -30 dBm (30.0-31.0 GHz)

LOCAL OSCILLATOR

Output phase noise (IESS-308/309 – 10 dB):

- 100 Hz .... -63 dBc/Hz
- 1 KHz .... -80 dBc/Hz
- 10 KHz .... -90 dBc/Hz
- 100 KHz .... -100 dBc/Hz

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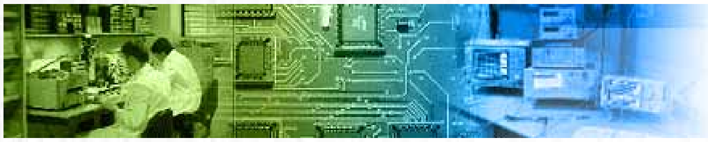

External frequency reference .... 10 MHz (at output L-Band Connector)
Reference input level .... 0 dBm ± 3 dB
Reference stability .... Slave to external reference

Minimum external reference to compliant typical phase noise (IESS-308/309 – 10 dB):
- 100 Hz .... -135 dBc/Hz
- 1 KHz .... -145 dBc/Hz
- 10 KHz .... -155 dBc/Hz

POWER SUPPLY

DC input voltage .... +9 to +15 VDC (at output L-Band Connector)
DC input current .... 400 mA typ (at output L-Band Connector)

ENVIRONMENTAL SPECIFICATIONS

Storage temperature .... -40°C to +80°C
Operating temperature .... -20°C to +55°C (see options)
Relative humidity .... up to 100%
Operating altitude .... up to 3500 m

MECHANICAL SPECIFICATIONS

Interfaces .... RX input (Ka-Band): WR42 grooved
RX output (L-Band+DC+Ext. Ref.): Type N(F) 50 Ω
Dimensions .... 120 x 60 x 40 mm
Weight .... 400 gr
Finish .... White

OPTIONS

Frequency band	L-band output	LO frequency	Model Number
20.2 to 21.2 GHz	1.0 to 2.0 GHz	19.200 GHz	ACLNBP-Ka-E2-xxx
20.2 to 21.2 GHz	0.95 to 1.95 GHz	19.250 GHz	ACLNBP-Ka-E22-xxx

LN1: .... RX output connector type SMA female 50 Ω
LN2: .... Operating temperature (-40°C to +55°C)
LNC: .... Custom Design

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