

# **2009XUDN**

# 2000 Quad-Band Ku-Band PLL LNB (0.9 dB)

Frequency: D: 10.95 - 11.70 GHz | 11.70 - 12.25 GHz | 12.25 - 12.75 GHz | 10.70 - 11.70 GHz

**L.O. Stability:** External Reference **Output Connector:** N: 50 Ohm







# **KEY SPECIFICATIONS**

Band	Ku-Band
Input Frequency Band 1	10.95 - 11.70 GHz
Input Frequency Band 2	11.70 - 12.25 GHz
Input Frequency Band 3	12.25 - 12.75 GHz
Input Frequency Band 4	10.70 - 11.70 GHz
LO Frequency 1	10.00 GHz
LO Frequency 2	10.75 GHz
LO Frequency 3	11.30 GHz
LO Frequency 4	9.75 GHz
LO Stability	Ext Ref
LO Type	PLL
Noise Figure Max	1.0 dB
Noise Figure Typ	0.9 dB
Number Of Onboard Los	Quad-Band
Output Frequency Band 1	950 - 1700 MHz
Output Frequency Band 2	950 - 1500 MHz
Output Frequency Band 3	950 - 1450 MHz
Output Frequency Band 4	950 - 1950 MHz
Tone Frequency	22 kHz ± 4 kHz

#### **RF SPECIFICATIONS**

Control Signal 1 13V / No Tone
Control Signal 2 13V / 22kHz Tone





Control Signal 3 18V / No Tone

Control Signal 4 18V / 22kHz Tone

Conversion Gain Max 65 dB

**Conversion Gain Min** 55 dB

Conversion Gain Typ 60 dB

**Gain Flatness (over Full Band)**  $\leq$  6 dB p-p

**Input VSWR** 2.3 : 1 max.

Output P1db + 5 dBm min.

Output VSWR 2.2 : 1 max.

Phase Noise 0.1khz Offset Max Depends on External Reference

## **ELECTRICAL SPECIFICATIONS**

Current Consumption 350 mA max

Power Requirements +12 to +24V DC

#### **INTERFACE SPECIFICATIONS**

IF Connector N-Connector

RF Input Connector WR-75 waveguide grooved

#### **ENVIRONMENTAL SPECIFICATIONS**

**Humidity** 0 - 95%

IP Rating IP 66

Temperature Operational  $-40^{\circ}\text{C to } +70^{\circ}\text{C}$ Temperature Storage  $-50 \text{ to } +80^{\circ}\text{C}$ 

#### PHYSICAL SPECIFICATIONS

Product Height1.70 inProduct Length4.46 inProduct Weight0.255 kg

**Product Width** 1.72 in

#### LOGISTICS SPECIFICATIONS

HS Code Country of Origin Ex Works ECCN Number Unit Package

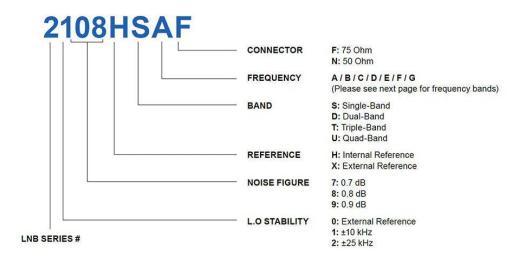
Made in Canada Richmond, BC, Canada EAR99 135 x 68 x 48 mm |

0.335 kg

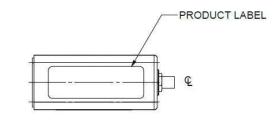
#### **HOW TO ORDER**

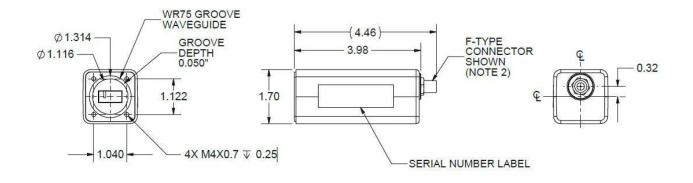






#### **MECHANICAL DIAGRAMS**







#### **FREQUENCY BANDS**

	Single Band					Dual Band					
Band	RF	freq (GHz)	L.O freq (GHz)	Output freq		Band	RF freq (GHz)		L.O freq (GHz)	Output freq	Voltage/Tone
A		1.7 - 12.20	10.75		- 1450 MHz		Band 1	10.95 - 11.70	10	950 - 1700 MHz	13 V
B C	12.25 - 12.75 10.95 - 11.70		11.3 10	950 - 1450 MHz 950 - 1700 MHz		A					
D	10.70-11.80		9.75	950 - 2050 MHz			Band 2	11.70 - 12.75	10.75	950 - 2000 MHz	18 V
	Triple Band			Band 1	10.70 - 11.70	9.75	950 - 1950 MHz	13 V			
Band	RF	freq (GHz)	L.O freq (GHz)	Output freq	Voltage/Tone	В	Dana 1	10.10 11.10	0.10	1000 11112	
	Band 1	10.95 - 11.70	10	950 - 1700 MHz	13 V		Band 2	11.70 - 12.75	10.75	950 - 2000 MHz	18 V
A	Band 2	11.70 - 12.20	10.75	950 - 1450 MHz	13 V / 22 kHz	С	Band 1	10.95 - 11.70	10	950 - 1700 MHz	13 V
	Band 3	12.20 - 12.75	11.25	950 - 1500 MHz	18 V		Band 2	12.25 - 12.75	11.3	950 - 1450 MHz	18 V
	Band 1	10.95 - 11.70	10	950 - 1700 MHz	13 V	D	Band 1	10.70 - 11.70	9.75	950 - 1950 MHz	13 V
В	Band 2	11.70 - 12.25	10.75	950 - 1500 MHz	13 V / 22 kHz		Danu I	10.70 - 11.70	5.13	930 - 1930 WH12	15 4
	Band 3	12.25 - 12.75	11.3	950 - 1450 MHz	18 V		Band 2	11.70 - 12.75	10.6	1100 - 2150 MHz	18 V
	Dallu 3	12.25 - 12.75	11.3	930 - 1430 MHZ	10 V				Quad Band		
	Band 1	10.70 - 11.70	9.75	950 - 1950 MHz	13 V	Band	RF	freq (GHz)	L.O freq (GHz)	Output freq	Voltage/Tone
С	Band 2	11.70 - 12.20	10.75	950 - 1450 MHz	13 V / 22 kHz	A	Band 1	10.70 - 11.20	9.75	950 - 1450 MHz	13 V
	Band 3	12.20 - 12.75	11.25	950 - 1500 MHz	18 V		Band 2	11.20 - 11.70	10.25	950 - 1450 MHz	13 V / 22 kHz
	Band 1	10.70 - 11.70	9.75	950 - 1950 MHz	13 V		Band 3	11.70 - 12.25	10.75	950 - 1500 MHz	18 V
D	Band 2	11.70 - 12.25	10.75	950-1500 MHz	13 V / 22 kHz		Band 4	12.25 - 12.75	11.3	950 - 1450 MHz	18 V / 22kHz
	Band 3	12.25 - 12.75	11.3	950-1450 MHz	18 V	В	Band 1	10.70 - 10.95	9.75	950 - 1200 MHz	13 V
	Dallu 3	12.25 - 12.75	11.3	950-1450 WHZ	10 V		Band 2	10.95 - 11.70	10	950 - 1700 MHz	13 V / 22 kHz
	Band 1	10.95 - 11.70	10	950 - 1700 MHz	13 V		Band 3	11.70 - 12.25	10.75	950 - 1500 MHz	18 V
E	Band 2	11.55 - 12.25	10.6	950 - 1650 MHz	13 V / 22 kHz		Band 4	12.25 - 12.75	11.3	950 - 1450 MHz	18 V / 22kHz
	Band 3	12.20 - 12.70	11.25	950 - 1450 MHz	18 V	С	Band 1	10.70 - 11.20	9.75	950 - 1450 MHz	13 V
	Band 1	10.70 - 11.80	9.75	950 - 2050 MHz	13 V		Band 2	11.20 - 11.70	10.25	950 - 1450 MHz	13 V / 22 kHz
F	Band 2	10.95 - 12.10	10	950 - 2100 MHz	13 V / 22 kHz		Band 3	11.70 - 12.20	10.75	950 - 1450 MHz	18 V
	Band 3	11.70 - 12.75	10.75	950 - 2000 MHz	18 V		Band 4	12.20 - 12.75	11.25	950 - 1500 MHz	18 V / 22kHz
	Band 1	10.70 - 11.70	9.75	950 - 1950 MHz	13 V	D	Band 1	10.95 - 11.45	10	950 - 1450 MHz	13 V
G	Band 2	11.70 - 12.70	10.75	950 - 1950 MHz	13 V / 22 kHz		Band 2	11.45 - 11.95	10.5	950 - 1450 MHz	13 V / 22 kHz
G	Danu 2	11.70 - 12.70	10.75	900 - 1900 MM2			Band 3	11.70 - 12.20	10.75	950 - 1450 MHz	18 V
	Band 3	12.25 - 12.75	11.3	950 - 1450 MHz	18 V		Band 4	12.20 - 12.75	11.25	950 - 1500 MHz	18 V / 22kHz





Tel 718.799.0084

Email sales@esatcom.com