

2109HUDF

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: +/- 10 kHz Output Connector: F: 75 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	±10 kHz
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 -125 dBc/Hz

ELECTRICAL SPECIFICATIONS

Current Consumption 350 mA max

Power Requirements +12 to +24V DC

INTERFACE SPECIFICATIONS

IF Connector F-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 Height 1.70 in

Product Length 4.46 in

Product Weight 0.255 kg

Product Width 1.72 in

LOGISTICS SPECIFICATIONS

HS Code Country of Origin Ex Works ECCN Number Unit Package

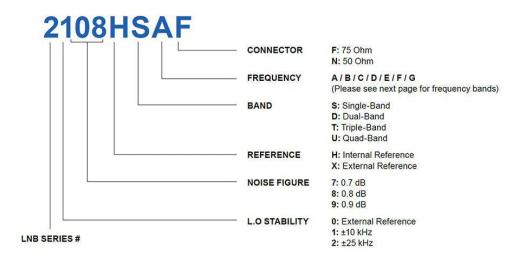
Made in Canada Richmond, BC, Canada EAR99 135 x 68 x 48 mm |

0.335 kg

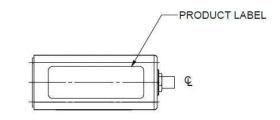
HOW TO ORDER

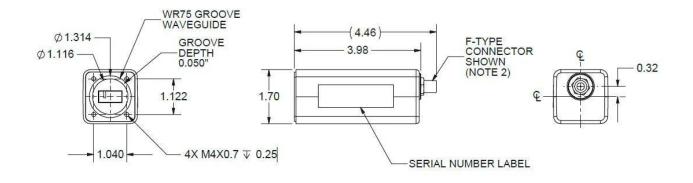






MECHANICAL DIAGRAMS







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 10.70-11.80		11.3 10		0 - 1450 MHz 0 - 1700 MHz 0 - 2050 MHz	A					
D			9.75				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	10.70 11.70	5.15	330 1330 MHZ	13 7
	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						
	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
									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
							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
							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