



# 2208HSBF

## 2000 Single Band Ku-Band PLL LNB (0.8 dB)

Frequency: B: 12.25 - 12.75 GHz

L.O. Stability: +/- 25 kHz

Output Connector: F: 75 Ohm



### KEY SPECIFICATIONS

Band	Ku-Band
Duty Cycle	50% ± 10%
Input Frequency Band 1	12.25 - 12.75 GHz
LO Frequency 1	11.30 GHz
LO Stability	±25 kHz
LO Type	PLL
Noise Figure Max	0.9 dB
Noise Figure Typ	0.8 dB
Number Of Onboard Los	Single-Band
Output Frequency Band 1	950 - 1450 MHz

### RF SPECIFICATIONS

Conversion Gain Max	65 dB
Conversion Gain Min	55 dB
Conversion Gain Typ	60 dB
Gain Flatness (over Full Band)	≤ 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	-65 dBc/Hz
Phase Noise 1khz Offset Max	-75 dBc/Hz
Phase Noise 10khz Offset Max	-80 dBc/Hz
Phase Noise 100khz Offset Max	-93 dBc/Hz



## ELECTRICAL SPECIFICATIONS

**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°C to +70°C  
**Temperature Storage** -50 to +80°C

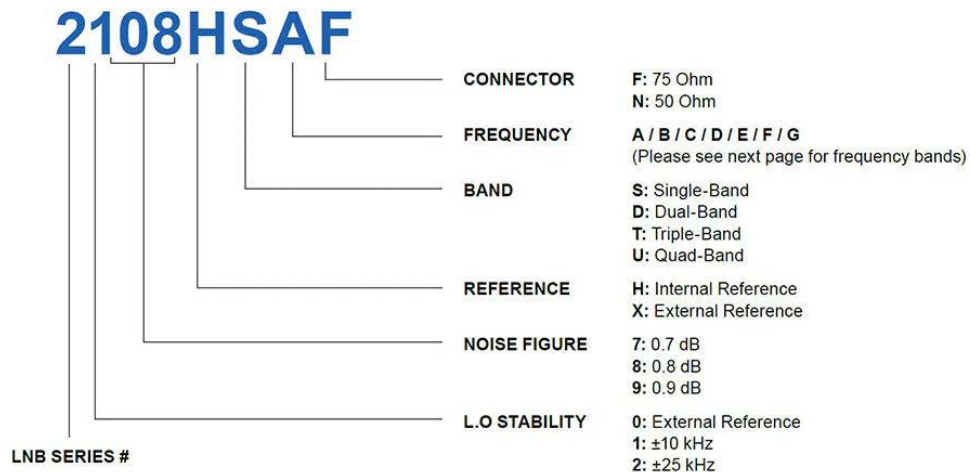
## PHYSICAL SPECIFICATIONS

**Product Height** 1.70 in  
**Product Length** 4.46 in  
**Product Weight** 0.255 kg  
**Product Width** 1.72 in

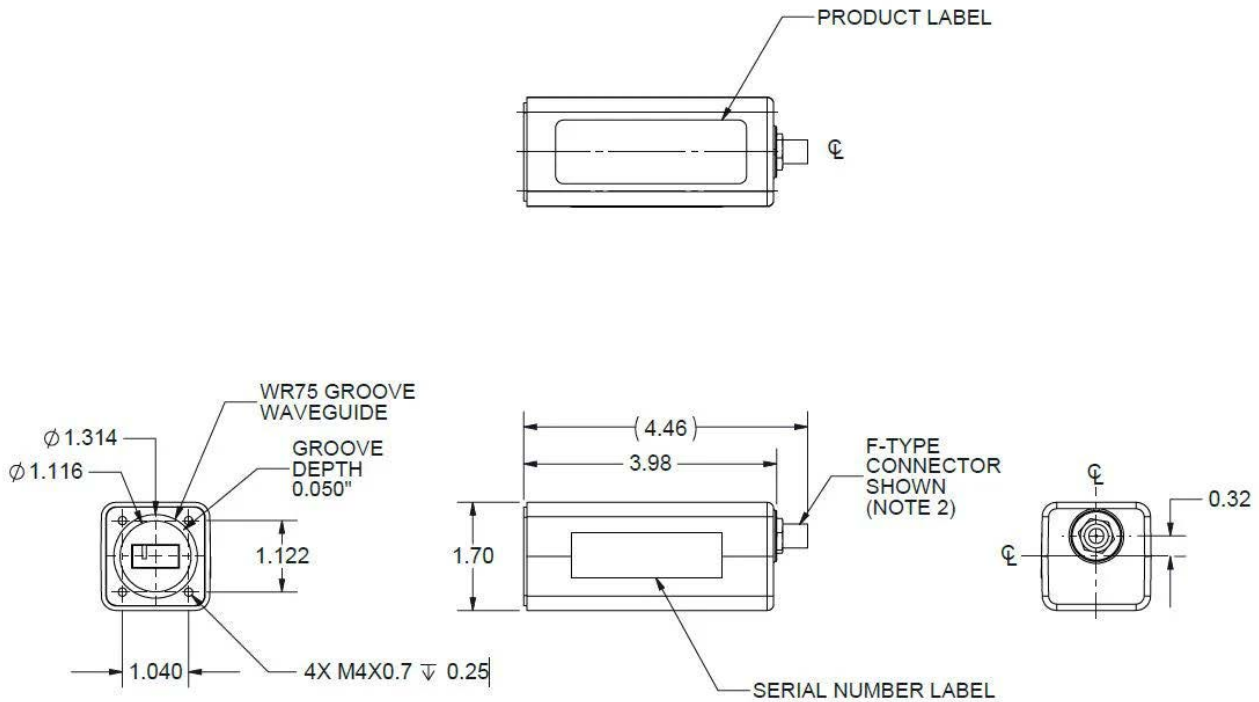
## LOGISTICS SPECIFICATIONS

HS Code	Country of Origin	Ex Works	ECCN Number	Unit Package
8517690000	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	11.7 - 12.20	10.75	950 - 1450 MHz		A	Band 1	10.95 - 11.70	10	950 - 1700 MHz	13 V	
B	12.25 - 12.75	11.3	950 - 1450 MHz			Band 2	11.70 - 12.75	10.75	950 - 2000 MHz	18 V	
C	10.95 - 11.70	10	950 - 1700 MHz		B	Band 1	10.70 - 11.70	9.75	950 - 1950 MHz	13 V	
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					C	Band 1	10.95 - 11.70	10	950 - 1700 MHz	13 V	
Band	RF freq (GHz)	L.O freq (GHz)	Output freq	Voltage/Tone		Band 2	12.25 - 12.75	11.3	950 - 1500 MHz	18 V	
A	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
	Band 2	11.70 - 12.20	10.75	950 - 1450 MHz	13 V / 22 kHz		Band 2	11.70 - 12.75	10.6	1100 - 2150 MHz	18 V
	Band 3	12.20 - 12.75	11.25	950 - 1500 MHz	18 V	Quad Band					
B	Band 1	10.95 - 11.70	10	950 - 1700 MHz	13 V	Band	RF freq (GHz)	L.O freq (GHz)	Output freq	Voltage/Tone	
	Band 2	11.70 - 12.25	10.75	950 - 1500 MHz	13 V / 22 kHz	A	Band 1	10.70 - 11.20	9.75	950 - 1450 MHz	13 V
	Band 3	12.25 - 12.75	11.3	950 - 1450 MHz	18 V		Band 2	11.20 - 11.70	10.25	950 - 1450 MHz	13 V / 22 kHz
C	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
	Band 2	11.70 - 12.20	10.75	950 - 1450 MHz	13 V / 22 kHz		Band 4	12.25 - 12.75	11.3	950 - 1450 MHz	18 V / 22kHz
	Band 3	12.20 - 12.75	11.25	950 - 1500 MHz	18 V	B	Band 1	10.70 - 10.95	9.75	950 - 1200 MHz	13 V
D	Band 1	10.70 - 11.70	9.75	950 - 1950 MHz	13 V		Band 2	10.95 - 11.70	10	950 - 1700 MHz	13 V / 22 kHz
	Band 2	11.70 - 12.25	10.75	950 - 1500 MHz	13 V / 22 kHz		Band 3	11.70 - 12.25	10.75	950 - 1500 MHz	18 V
	Band 3	12.25 - 12.75	11.3	950 - 1450 MHz	18 V		Band 4	12.25 - 12.75	11.3	950 - 1450 MHz	18 V / 22kHz
E	Band 1	10.95 - 11.70	10	950 - 1700 MHz	13 V	C	Band 1	10.70 - 11.20	9.75	950 - 1450 MHz	13 V
	Band 2	11.55 - 12.25	10.6	950 - 1650 MHz	13 V / 22 kHz		Band 2	11.20 - 11.70	10.25	950 - 1450 MHz	13 V / 22 kHz
	Band 3	12.20 - 12.70	11.25	950 - 1450 MHz	18 V		Band 3	11.70 - 12.20	10.75	950 - 1450 MHz	18 V
F	Band 1	10.70 - 11.80	9.75	950 - 2050 MHz	13 V		Band 4	12.20 - 12.75	11.25	950 - 1500 MHz	18 V / 22kHz
	Band 2	10.95 - 12.10	10	950 - 2100 MHz	13 V / 22 kHz	D	Band 1	10.95 - 11.45	10	950 - 1450 MHz	13 V
	Band 3	11.70 - 12.75	10.75	950 - 2000 MHz	18 V		Band 2	11.45 - 11.95	10.5	950 - 1450 MHz	13 V / 22 kHz
G	Band 1	10.70 - 11.70	9.75	950 - 1950 MHz	13 V		Band 3	11.70 - 12.20	10.75	950 - 1450 MHz	18 V
	Band 2	11.70 - 12.70	10.75	950 - 1950 MHz	13 V / 22 kHz		Band 4	12.20 - 12.75	11.25	950 - 1500 MHz	18 V / 22kHz
	Band 3	12.25 - 12.75	11.3	950 - 1450 MHz	18 V						