

2109HSCN

2000 Single Band Ku-Band PLL LNB (0.9 dB)

Frequency: C: 10.95 - 11.70 GHz

L.O. Stability: +/- 10 kHz

Output Connector: N: 50 Ohm



KEY SPECIFICATIONS

Band	Ku-Band
Duty Cycle	50% ± 10%
Input Frequency Band 1	10.95 - 11.70 GHz
LO Frequency 1	10.00 GHz
LO Stability	±10 kHz
LO Type	PLL
Noise Figure Max	1.0 dB
Noise Figure Typ	0.9 dB
Number Of Onboard Los	Single-Band
Output Frequency Band 1	950 - 1700 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

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

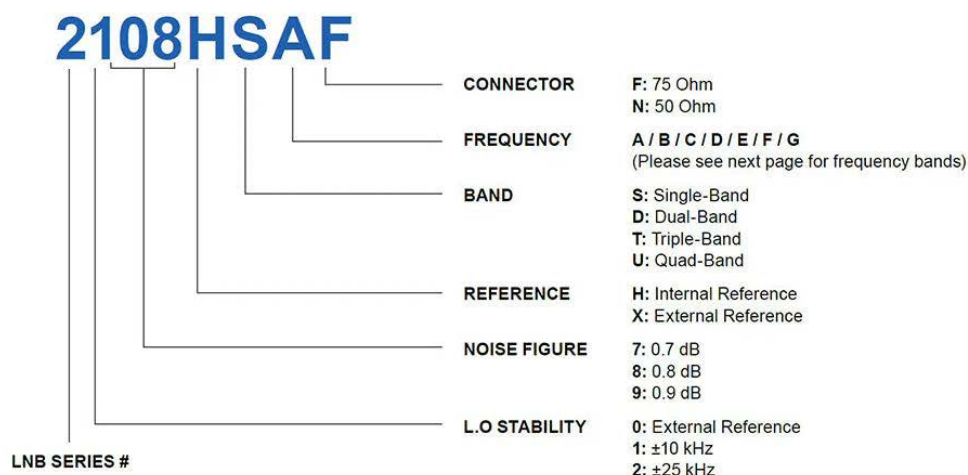
PHYSICAL SPECIFICATIONS

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

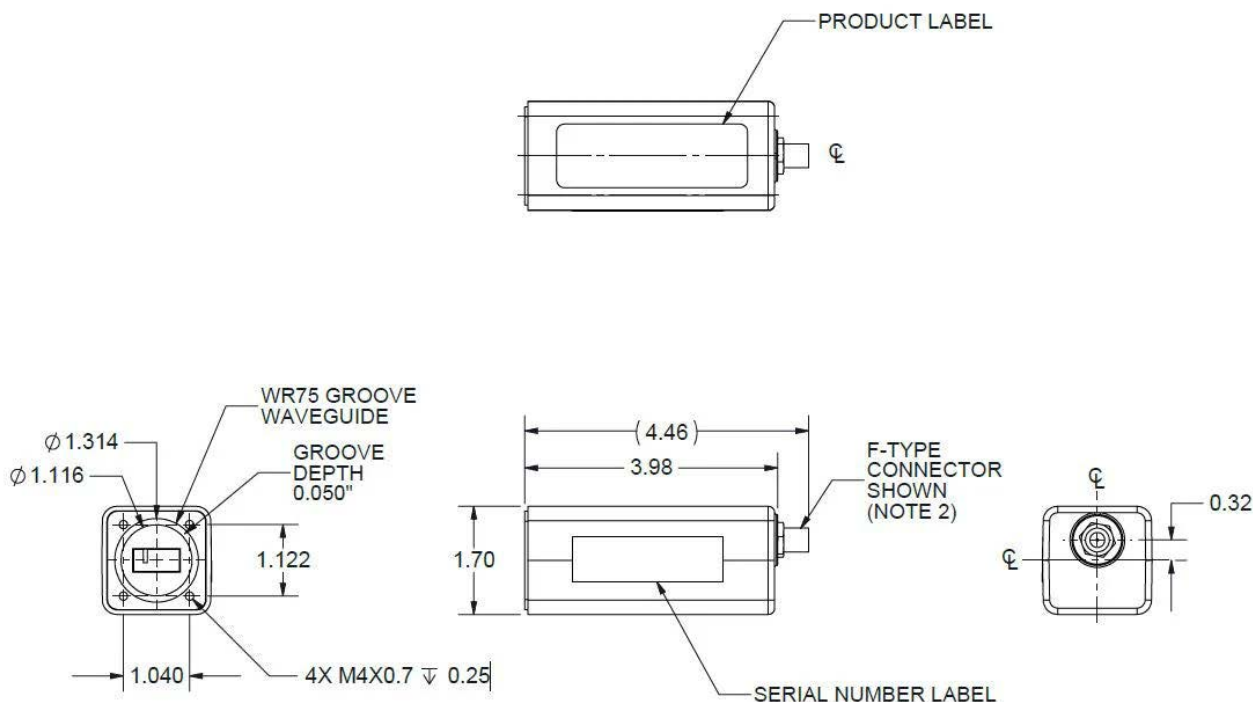
LOGISTICS SPECIFICATIONS

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
B	12.25 - 12.75	11.3	950 - 1450 MHz			Band 2	11.70 - 12.75	10.75	950 - 2000 MHz
C	10.95 - 11.70	10	950 - 1700 MHz		B	Band 1	10.70 - 11.70	9.75	950 - 1950 MHz
D	10.70-11.80	9.75	950 - 2050 MHz			Band 2	11.70 - 12.75	10.75	950 - 2000 MHz
Triple Band					C	Band 1	10.95 - 11.70	10	950 - 1700 MHz
Band	RF freq (GHz)	L.O freq (GHz)	Output freq	Voltage/Tone		Band 2	11.70 - 12.75	10.75	950 - 2000 MHz
A	Band 1	10.95 - 11.70	10	950 - 1700 MHz	D	Band 1	10.70 - 11.70	9.75	950 - 1950 MHz
	Band 2	11.70 - 12.20	10.75	950 - 1450 MHz		Band 2	11.70 - 12.75	10.75	950 - 2000 MHz
	B	Band 3	12.20 - 12.75	11.25	950 - 1500 MHz	A	Band 1	10.95 - 11.70	10
Band 1		10.95 - 11.70	10	950 - 1700 MHz	Band 2		12.25 - 12.75	11.3	950 - 1450 MHz
C		Band 2	11.70 - 12.25	10.75	950 - 1500 MHz	B	Band 1	10.70 - 11.70	9.75
	Band 3	12.25 - 12.75	11.3	950 - 1450 MHz	Band 2		11.70 - 12.75	10.6	1100 - 2150 MHz
	D	Band 1	10.70 - 11.70	9.75	950 - 1950 MHz	Quad Band			
Band 2		11.70 - 12.20	10.75	950 - 1450 MHz	Band	RF freq (GHz)	L.O freq (GHz)	Output freq	Voltage/Tone
Band 3		12.20 - 12.75	11.25	950 - 1500 MHz	A	Band 1	10.70 - 11.20	9.75	950 - 1450 MHz
E	Band 1	10.70 - 11.70	9.75	950 - 1950 MHz		Band 2	11.20 - 11.70	10.25	950 - 1450 MHz
	Band 2	11.70 - 12.25	10.75	950 - 1500 MHz		Band 3	11.70 - 12.25	10.75	950 - 1500 MHz
	Band 3	12.25 - 12.75	11.3	950 - 1450 MHz		Band 4	12.25 - 12.75	11.3	950 - 1450 MHz
F	Band 1	10.95 - 11.70	10	950 - 1700 MHz	B	Band 1	10.70 - 10.95	9.75	950 - 1200 MHz
	Band 2	11.55 - 12.25	10.6	950 - 1650 MHz		Band 2	10.95 - 11.70	10	950 - 1700 MHz
	Band 3	12.20 - 12.70	11.25	950 - 1450 MHz		Band 3	11.70 - 12.25	10.75	950 - 1500 MHz
G	Band 1	10.70 - 11.80	9.75	950 - 2050 MHz		C	Band 4	12.25 - 12.75	11.3
	Band 2	10.95 - 12.10	10	950 - 2100 MHz	Band 1		10.70 - 11.20	9.75	950 - 1450 MHz
	Band 3	11.70 - 12.75	10.75	950 - 2000 MHz	Band 2		11.20 - 11.70	10.25	950 - 1450 MHz
H	Band 1	10.70 - 11.70	9.75	950 - 1950 MHz	D		Band 3	11.70 - 12.20	10.75
	Band 2	11.70 - 12.70	10.75	950 - 1950 MHz		Band 4	12.20 - 12.75	11.25	950 - 1500 MHz
	Band 3	12.25 - 12.75	11.3	950 - 1450 MHz		Band 1	10.95 - 11.45	10	950 - 1450 MHz
I	Band 1	10.70 - 11.70	9.75	950 - 1950 MHz		E	Band 2	11.45 - 11.95	10.5
	Band 2	11.70 - 12.70	10.75	950 - 1950 MHz	Band 3		11.70 - 12.20	10.75	950 - 1450 MHz
	Band 3	12.25 - 12.75	11.3	950 - 1450 MHz	Band 4		12.20 - 12.75	11.25	950 - 1500 MHz
J	Band 1	10.70 - 11.70	9.75	950 - 1950 MHz	F		Band 1	10.95 - 11.45	10
	Band 2	11.70 - 12.70	10.75	950 - 1950 MHz		Band 2	11.45 - 11.95	10.5	950 - 1450 MHz
	Band 3	12.25 - 12.75	11.3	950 - 1450 MHz		Band 3	11.70 - 12.20	10.75	950 - 1450 MHz
K	Band 1	10.70 - 11.70	9.75	950 - 1950 MHz		G	Band 4	12.20 - 12.75	11.25
	Band 2	11.70 - 12.70	10.75	950 - 1950 MHz	Band 1		10.95 - 11.45	10	950 - 1450 MHz
	Band 3	12.25 - 12.75	11.3	950 - 1450 MHz	Band 2		11.45 - 11.95	10.5	950 - 1450 MHz
L	Band 1	10.70 - 11.70	9.75	950 - 1950 MHz	H		Band 3	11.70 - 12.20	10.75
	Band 2	11.70 - 12.70	10.75	950 - 1950 MHz		Band 4	12.20 - 12.75	11.25	950 - 1500 MHz
	Band 3	12.25 - 12.75	11.3	950 - 1450 MHz		Band 1	10.95 - 11.45	10	950 - 1450 MHz
M	Band 1	10.70 - 11.70	9.75	950 - 1950 MHz		I	Band 2	11.45 - 11.95	10.5
	Band 2	11.70 - 12.70	10.75	950 - 1950 MHz	Band 3		11.70 - 12.20	10.75	950 - 1450 MHz
	Band 3	12.25 - 12.75	11.3	950 - 1450 MHz	Band 4		12.20 - 12.75	11.25	950 - 1500 MHz
N	Band 1	10.70 - 11.70	9.75	950 - 1950 MHz	J		Band 1	10.95 - 11.45	10
	Band 2	11.70 - 12.70	10.75	950 - 1950 MHz		Band 2	11.45 - 11.95	10.5	950 - 1450 MHz
	Band 3	12.25 - 12.75	11.3	950 - 1450 MHz		Band 3	11.70 - 12.20	10.75	950 - 1450 MHz
O	Band 1	10.70 - 11.70	9.75	950 - 1950 MHz		K	Band 4	12.20 - 12.75	11.25
	Band 2	11.70 - 12.70	10.75	950 - 1950 MHz	Band 1		10.95 - 11.45	10	950 - 1450 MHz
	Band 3	12.25 - 12.75	11.3	950 - 1450 MHz	Band 2		11.45 - 11.95	10.5	950 - 1450 MHz
P	Band 1	10.70 - 11.70	9.75	950 - 1950 MHz	L		Band 3	11.70 - 12.20	10.75
	Band 2	11.70 - 12.70	10.75	950 - 1950 MHz		Band 4	12.20 - 12.75	11.25	950 - 1500 MHz
	Band 3	12.25 - 12.75	11.3	950 - 1450 MHz		Band 1	10.95 - 11.45	10	950 - 1450 MHz
Q	Band 1	10.70 - 11.70	9.75	950 - 1950 MHz		M	Band 2	11.45 - 11.95	10.5
	Band 2	11.70 - 12.70	10.75	950 - 1950 MHz	Band 3		11.70 - 12.20	10.75	950 - 1450 MHz
	Band 3	12.25 - 12.75	11.3	950 - 1450 MHz	Band 4		12.20 - 12.75	11.25	950 - 1500 MHz
R	Band 1	10.70 - 11.70	9.75	950 - 1950 MHz	N		Band 1	10.95 - 11.45	10
	Band 2	11.70 - 12.70	10.75	950 - 1950 MHz		Band 2	11.45 - 11.95	10.5	950 - 1450 MHz
	Band 3	12.25 - 12.75	11.3	950 - 1450 MHz		Band 3	11.70 - 12.20	10.75	950 - 1450 MHz
S	Band 1	10.70 - 11.70	9.75	950 - 1950 MHz		O	Band 4	12.20 - 12.75	11.25
	Band 2	11.70 - 12.70	10.75	950 - 1950 MHz	Band 1		10.95 - 11.45	10	950 - 1450 MHz
	Band 3	12.25 - 12.75	11.3	950 - 1450 MHz	Band 2		11.45 - 11.95	10.5	950 - 1450 MHz
T	Band 1	10.70 - 11.70	9.75	950 - 1950 MHz	P		Band 3	11.70 - 12.20	10.75
	Band 2	11.70 - 12.70	10.75	950 - 1950 MHz		Band 4	12.20 - 12.75	11.25	950 - 1500 MHz
	Band 3	12.25 - 12.75	11.3	950 - 1450 MHz		Band 1	10.95 - 11.45	10	950 - 1450 MHz
U	Band 1	10.70 - 11.70	9.75	950 - 1950 MHz		Q	Band 2	11.45 - 11.95	10.5
	Band 2	11.70 - 12.70	10.75	950 - 1950 MHz	Band 3		11.70 - 12.20	10.75	950 - 1450 MHz
	Band 3	12.25 - 12.75	11.3	950 - 1450 MHz	Band 4		12.20 - 12.75	11.25	950 - 1500 MHz
V	Band 1	10.70 - 11.70	9.75	950 - 1950 MHz	R		Band 1	10.95 - 11.45	10
	Band 2	11.70 - 12.70	10.75	950 - 1950 MHz		Band 2	11.45 - 11.95	10.5	950 - 1450 MHz
	Band 3	12.25 - 12.75	11.3	950 - 1450 MHz		Band 3	11.70 - 12.20	10.75	950 - 1450 MHz
W	Band 1	10.70 - 11.70	9.75	950 - 1950 MHz		S	Band 4	12.20 - 12.75	11.25
	Band 2	11.70 - 12.70	10.75	950 - 1950 MHz	Band 1		10.95 - 11.45	10	950 - 1450 MHz
	Band 3	12.25 - 12.75	11.3	950 - 1450 MHz	Band 2		11.45 - 11.95	10.5	950 - 1450 MHz
X	Band 1	10.70 - 11.70	9.75	950 - 1950 MHz	T		Band 3	11.70 - 12.20	10.75
	Band 2	11.70 - 12.70	10.75	950 - 1950 MHz		Band 4	12.20 - 12.75	11.25	950 - 1500 MHz
	Band 3	12.25 - 12.75	11.3	950 - 1450 MHz		Band 1	10.95 - 11.45	10	950 - 1450 MHz
Y	Band 1	10.70 - 11.70	9.75	950 - 1950 MHz		U	Band 2	11.45 - 11.95	10.5
	Band 2	11.70 - 12.70	10.75	950 - 1950 MHz	Band 3		11.70 - 12.20	10.75	950 - 1450 MHz
	Band 3	12.25 - 12.75	11.3	950 - 1450 MHz	Band 4		12.20 - 12.75	11.25	950 - 1500 MHz
Z	Band 1	10.70 - 11.70	9.75	950 - 1950 MHz	V		Band 1	10.95 - 11.45	10
	Band 2	11.70 - 12.70	10.75	950 - 1950 MHz		Band 2	11.45 - 11.95	10.5	950 - 1450 MHz
	Band 3	12.25 - 12.75	11.3	950 - 1450 MHz		Band 3	11.70 - 12.20	10.75	950 - 1450 MHz
AA	Band 1	10.70 - 11.70	9.75	950 - 1950 MHz		W	Band 4	12.20 - 12.75	11.25
	Band 2	11.70 - 12.70	10.75	950 - 1950 MHz	Band 1		10.95 - 11.45	10	950 - 1450 MHz
	Band 3	12.25 - 12.75	11.3	950 - 1450 MHz	Band 2		11.45 - 11.95	10.5	950 - 1450 MHz
AB	Band 1	10.70 - 11.70	9.75	950 - 1950 MHz	X		Band 3	11.70 - 12.20	10.75
	Band 2	11.70 - 12.70	10.75	950 - 1950 MHz		Band 4	12.20 - 12.75	11.25	950 - 1500 MHz
	Band 3	12.25 - 12.75	11.3	950 - 1450 MHz		Band 1	10.95 - 11.45	10	950 - 1450 MHz
AC	Band 1	10.70 - 11.70	9.75	950 - 1950 MHz		Y	Band 2	11.45 - 11.95	10.5
	Band 2	11.70 - 12.70	10.75	950 - 1950 MHz	Band 3		11.70 - 12.20	10.75	950 - 1450 MHz
	Band 3	12.25 - 12.75	11.3	950 - 1450 MHz	Band 4		12.20 - 12.75	11.25	950 - 1500 MHz
AD	Band 1	10.70 - 11.70	9.75	950 - 1950 MHz	Z		Band 1	10.95 - 11.45	10
	Band 2	11.70 - 12.70	10.75	950 - 1950 MHz		Band 2	11.45 - 11.95	10.5	950 - 1450 MHz
	Band 3	12.25 - 12.75	11.3	950 - 1450 MHz		Band 3	11.70 - 12.20	10.75	950 - 1450 MHz
AE	Band 1	10.70 - 11.70	9.75	950 - 1950 MHz		AA	Band 4	12.20 - 12.75	11.25
	Band 2	11.70 - 12.70	10.75	950 - 1950 MHz	Band 1		10.95 - 11.45	10	950 - 1450 MHz
	Band 3	12.25 - 12.75	11.3	950 - 1450 MHz	Band 2		11.45 - 11.95	10.5	950 - 1450 MHz
AF	Band 1	10.70 - 11.70	9.75	950 - 1950 MHz	AB		Band 3	11.70 - 12.20	10.75
	Band 2	11.70 - 12.70	10.75	950 - 1950 MHz		Band 4	12.20 - 12.75	11.25	950 - 1500 MHz
	Band 3	12.25 - 12.75	11.3	950 - 1450 MHz		Band 1	10.95 - 11.45	10	950 - 1450 MHz
AG	Band 1	10.70 - 11.70	9.75	950 - 1950 MHz		AC	Band 2	11.45 - 11.95	10.5
	Band 2	11.70 - 12.70	10.75	950 - 1950 MHz	Band 3		11.70 - 12.20	10.75	950 - 1450 MHz
	Band 3	12.25 - 12.75	11.3	950 - 1450 MHz	Band 4		12.20 - 12.75	11.25	950 - 1500 MHz
AH	Band 1	10.70 - 11.70	9.75	950 - 1950 MHz	AD		Band 1	10.95 - 11.45	10
	Band 2	11.70 - 12.70	10.75	950 - 1950 MHz		Band 2	11.45 - 11.95	10.5	950 - 1450 MHz
	Band 3	12.25 - 12.75	11.3	950 - 1450 MHz		Band 3	11.70 - 12.20	10.75	950 - 1450 MHz
AI	Band 1	10.70 - 11.70	9.75	950 - 1950 MHz		AE	Band 4	12.20 - 12.75	11.25
	Band 2	11.70 - 12.70	10.75	950 - 1950 MHz	Band 1		10.95 - 11.45	10	950 - 1450 MHz
	Band 3	12.25 - 12.75	11.3	950 - 1450 MHz	Band 2		11.45 - 11.95	10.5	950 - 1450 MHz
AJ	Band 1	10.70 - 11.70	9.75	950 - 1950 MHz	AF		Band 3	11.70 - 12.20	10.75
	Band 2	11.70 - 12.70	10.75	950 - 1950 MHz		Band 4	12.20 - 12.75	11.25	950 - 1500 MHz
	Band 3	12.25 - 12.75	11.3	950 - 1450 MHz		Band 1	10.95 - 11.45	10	950 - 1450 MHz
AK	Band 1	10.70 - 11.70	9.75	950 - 1950 MHz		AG	Band 2	11.45 - 11.95	10.5
	Band 2	11.70 - 12.70	10.75	950 - 1950 MHz	Band 3		11.70 - 12.20	10.75	950 - 1450 MHz
	Band 3	12.25 - 12.75	11.3	950 - 1450 MHz	Band 4		12.20 - 12.75	11.25	950 - 1500 MHz
AL	Band 1	10.70 - 11.70							