AK 120000 Series
Ku Band SATCOM LNAs (input isolator option)

These high performance low noise amplifiers are designed to be antenna mounted.



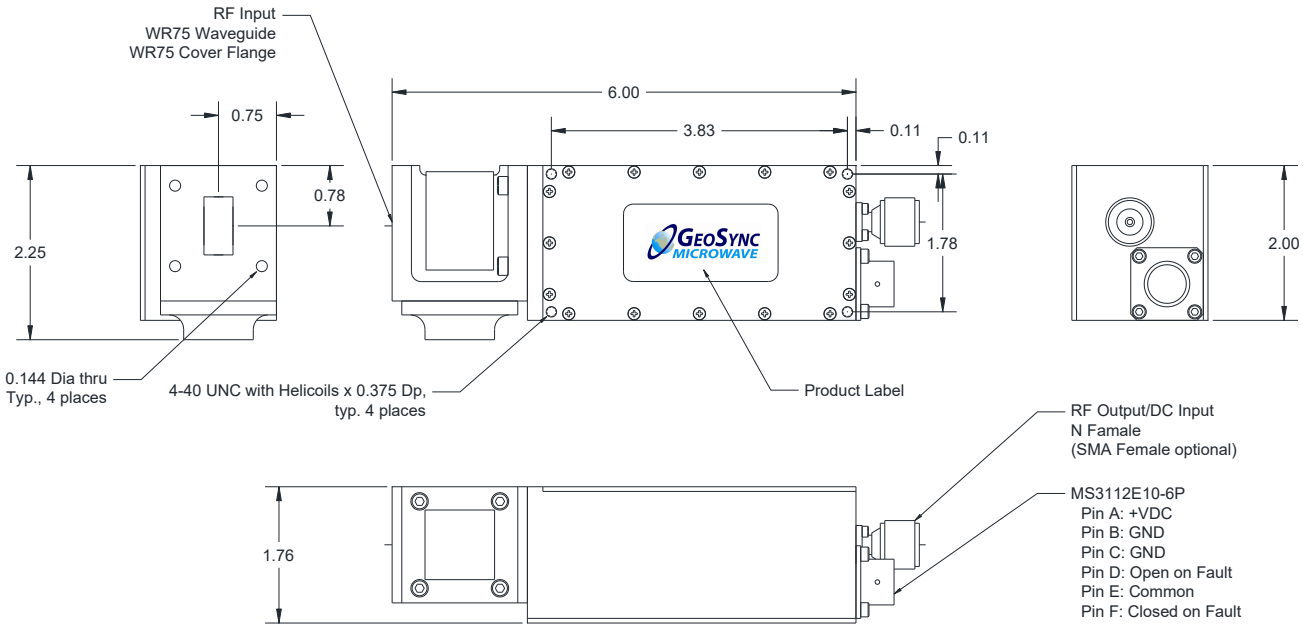
STANDARD FEATURES

- Weatherproof enclosure
- Ultra low noise performance
- Internal voltage regulation
- Wide input voltage range
- Operates from –40°C to +70°C

OPTIONS

- 40, 50, 60 dB Gain
- SMA output connector
- Higher Output P_1dB compression points
- DC Power thru RF connector

Outline: Standard Configuration



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Parameter	Notes	Limits	Units
Frequency Range	Band 01	10.95—12.75	GHz
	Band 02	10.70—12.75	GHz
	Band 03	12.7—13.7	GHz
	Band 04	10.7—13.7	GHz
Noise Temperature Selection	Bands 01, 02	60 , 65 max.	K
At 23°C case.	Band 03, 04	75 max.	K
Gain	40, 50 dB min. optional	60 min., 64 typ.	dB
Gain Flatness	Full Band, Band 01	+/- 1.0	dB
	Full Band, Band 02	+/- 1.25	dB
	Full Band, Band 03	+/- 1.5	dB
	Full Band, Band 04	+/- 2.0	dB
Gain Slope	Per 40 MHz	+/- 0.25	dB
Gain Stability vs. Time	Short Term (10 min.)	+/- 0.1	dB
(Constant Temperature)	Medium Term (24 hours)	+/- 0.2	dB
	Long Term (1 week)	+/- 0.5	dB
Gain Stability	Versus temperature	-0.06 typ.	dB/°C
VSWR	Input, Bands 01, 02	1.20 typ., 1.25 max.	:1
	Input, Band 03, 04	1.30 typ., 1.4 max.	:1
	Output, Bands 01, 02	1.25 typ., 1.50 max.	:1
	Output, Band 03, 04	1.4 typ., 1.50 max.	:1
Power Output	Standard	+10 min., +15 typ.	dBm
@ 1 dB Compression	Optional (High Power)	see options.	dBm
Third Order Output	Standard	+20 min., +25 typ.	dBm
Intercept Point	Optional (High Power)	see options.	dBm
Group Delay per 40 MHz	Linear	0.01 max.	nS/MHz
	Parabolic	0.001 max.	nS/MHz^2
	Ripple	0.1 max.	nS p-p
AM/PM Conversion	At –5 dBm output power	0.05 max.	°/dB
Maximum Input Power	Damage threshold	0 max.	dBm
Input Desens.	(13.75-14.50 GHz) Bands 01, 02 only	-30 max.	dBm
Power Requirements	Operating Voltage	+10 to +30	VDC
	Input Power (+10 dBm output)	1.9 nom.	Watts
	Input Power (+20 dBm output)	2.7 nom.	Watts
Mechanical Characteristics			
Size		See Outline on Page 1	
Weight		1.1 nom.	lbs.
Connectors	RF Input	WR75 WG (WR75 Cover Flange)	
	RF Output	Type N Female	
	Power/Alarm	MS3112E10-6P (mate supplied)	
Pressure Test		5 min.	Psi
Environmental			
Operating Temperature		-40 to +70	°C
Humidity	with condensation	100	%

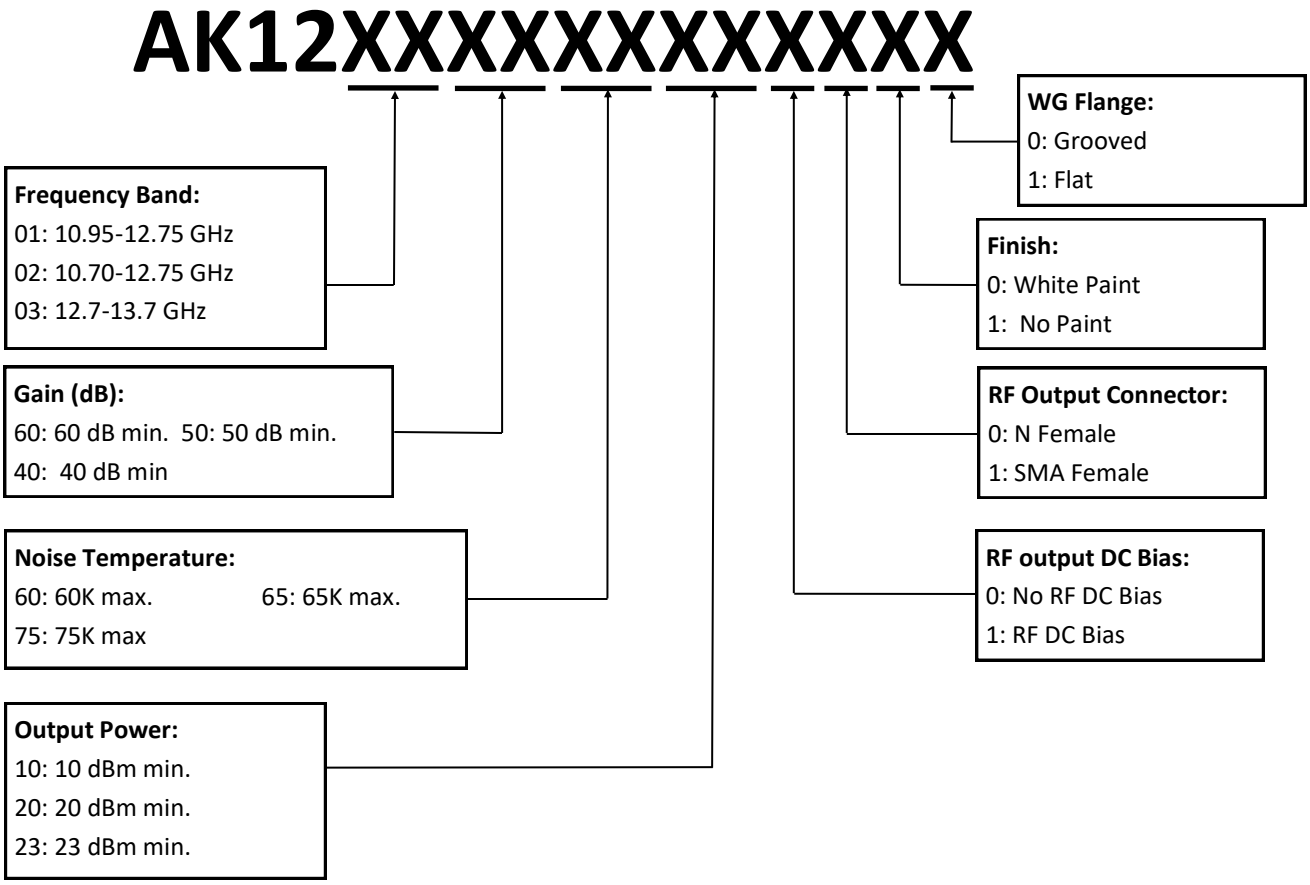
User is responsible for sealing all connectors with appropriate weatherproofing materials. Failure to seal connectors will void warranty for any damage that might occur.

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Part Number Configurator:



Part Number Example:

AK12016065100000

Freq: 10.95-12.75 GHz

Gain: 60 dB

Noise Temperature: 65K

Output Power: +10 dBm

Finish: White Paint

RF Output Connector: N-Type Female

No RF DC Bias

Grooved WG flange

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