

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

STANDARD FEATURES

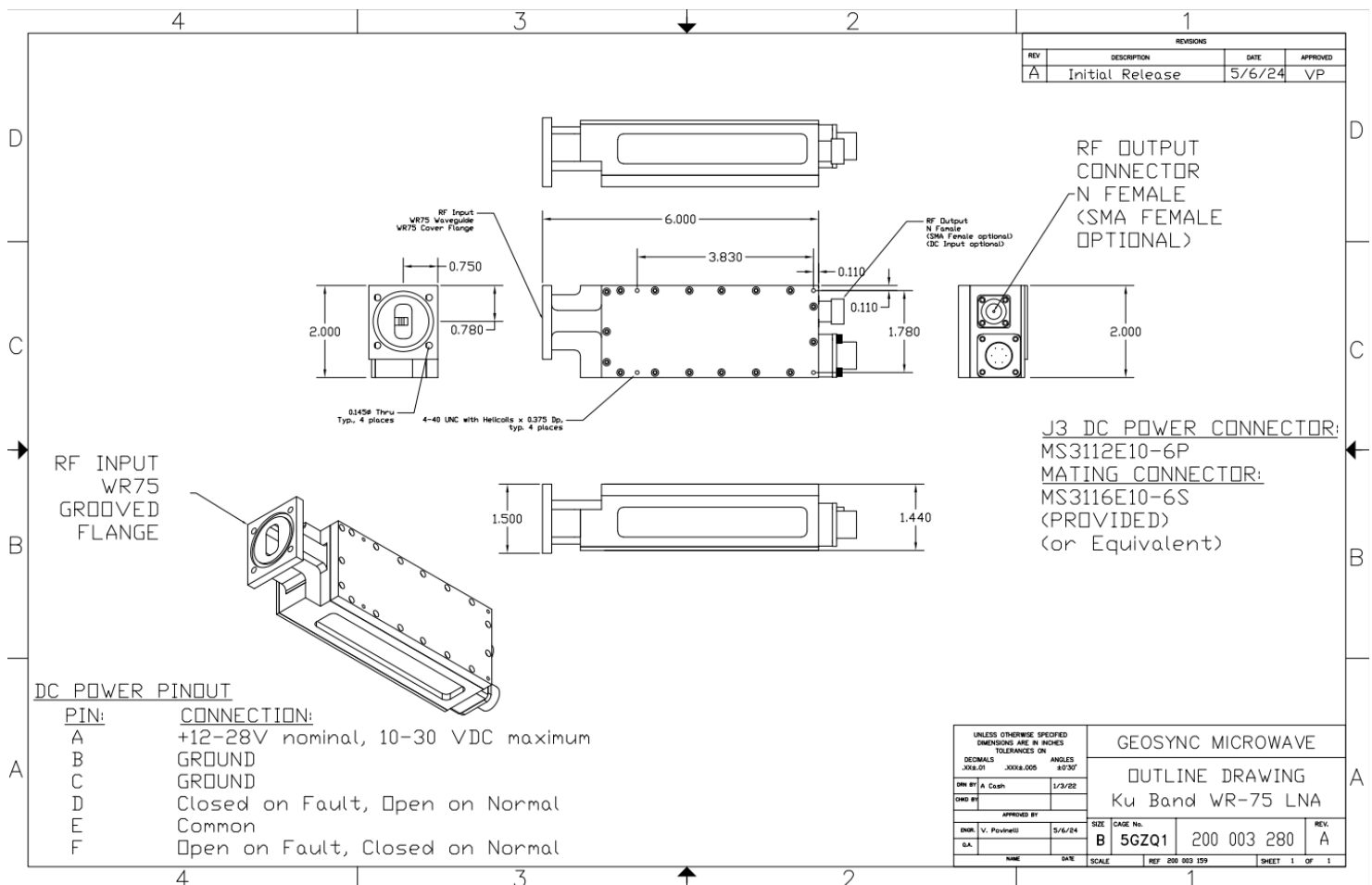
- Weatherproof enclosure
- Ultra low noise performance
- Internal voltage regulation
- Wide input voltage range
- Operates from -40°C to $+70^{\circ}\text{C}$
- Drop-in replacement for AK120000 series

OPTIONS

- 40, 50, 60 dB Gain
- SMA output connector
- Higher Output $P_{1\text{dB}}$ compression points
- RF output / DC input bias



Outline: Standard Configuration



AKU-00 Series

Ku Band SATCOM LNAs

Parameter	Notes	Limits	Units
Frequency Range	Band 01 Band 02 Band 03 Band 04	10.95—12.75 10.70—12.75 10.7—13.0 12.7—13.7	GHz GHz GHz GHz
Noise Temperature Selection	At 23°C case.	60 max.	K
Gain	40, 50 dB min. optional	60 min., 64 typ.	dB
Gain Flatness	Full Band, Band 01, 02, 04 Full Band, Band 03	+/- 1.0 +/- 1.25	dB dB
Gain Slope	Per 40 MHz	+/- 0.25	dB
Gain Stability vs. Time (Constant Temperature)	Short Term (10 min.) Medium Term (24 hours) Long Term (1 week)	+/- 0.1 +/- 0.2 +/- 0.5	dB dB dB
Gain Stability	Versus temperature	-0.06 typ.	dB/°C
VSWR	Input Output	1.20 typ., 1.25 max. 1.25 typ., 1.50 max.	:1 :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 Parabolic Ripple	0.01 max. 0.001 max. 0.1 max.	nS/MHz nS/MHz ² nS p-p
AM/PM Conversion	At -5 dBm output power	0.05 max.	°/dB
Maximum Input Power	Damage threshold Input Desens. (13.75-14.50 GHz)	0 max. -30 max.	dBm dBm
Power Requirements	Operating Voltage Input Power (+10 dBm output) Input Power (+23 dBm output)	+10 to +30 1.9 nom. 2.7 nom.	VDC Watts Watts
Mechanical Characteristics			
Size		See Outline on Page 1	
Weight		1.1 nom.	lbs.
Connectors	RF Input RF Output Power/Alarm	WR75 UG-Cover/Groove Type N Female MS3112E10-6P (or equivalent)	
Pressure Test		2 min.	Psi
Environmental			
Operating Temperature		-40 to +70	°C
Humidity	with condensation	100	%

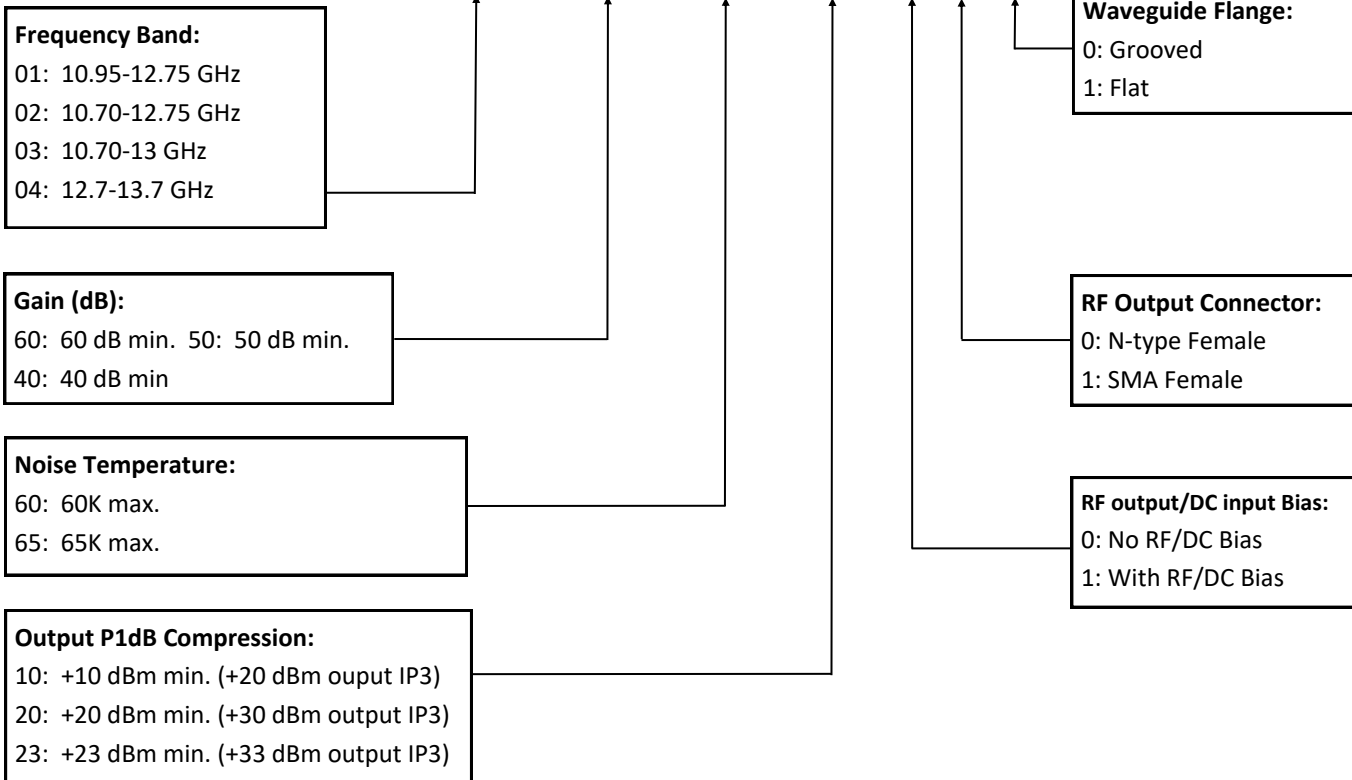
User is responsible for sealing all connectors with appropriate weatherproofing materials. Failure to seal connectors will void warranty for any damage that might occur.

AKU-00 Series

Ku Band SATCOM LNAs

Part Number Configurator:

AKU-XX-XXXXXXXXXX



Part Number Example:

AKU-02-606020100

10.70-12.75 GHz

60 dB Gain

60K Noise temperature

+20 dBm output P1dB

RF output/DC input bias

N-Type Female RF output connector

Grooved waveguide flange