

## STANDARD FEATURES

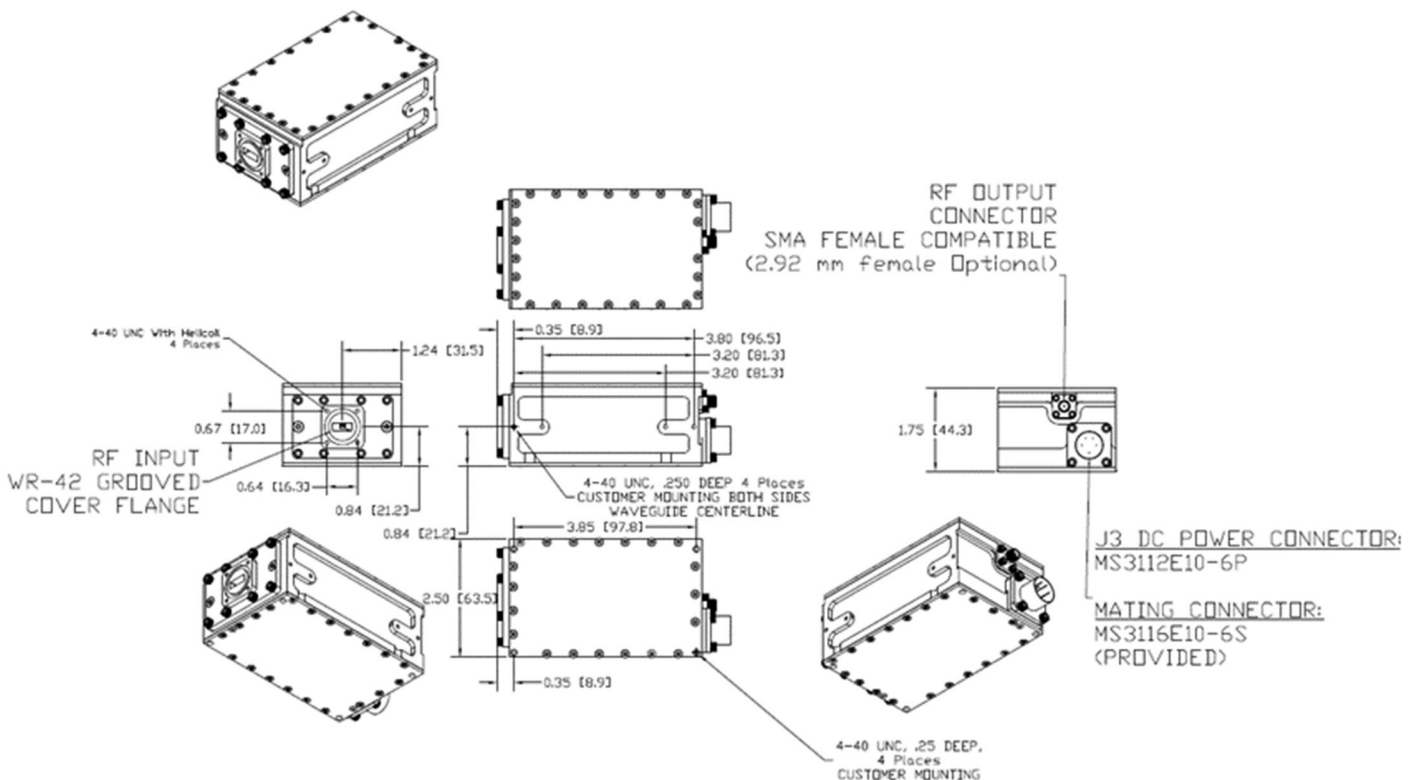
- Noise temperature 101K (1.3 dB max)
- Weatherproof enclosure
- Ultra low noise performance
- Internal voltage regulation
- Wide input voltage range
- Operates from  $-40^{\circ}\text{C}$  to  $+70^{\circ}\text{C}$

## OPTIONS

- Gain
- Frequency bands (wideband)
- Higher output power and IP3
- Input WG interface grooved or flat



## Outline: Standard Configuration



# AKA-17 Series

## Ka Band SATCOM LNAs

Parameter	Notes	Limits	Units
Frequency Range	Standard	17.7—21.2	GHz
	Optional (wideband)	17.2—21.2; 17.7—22.0	GHz
Noise Temperature	At 23°C case.	101 max. (1.3 dB)	K
Noise Figure	(wideband)	120 max. (1.5 dB)	K
Gain	60, 50 dB optional	60 min., 63 typ.	dB
Gain Flatness	Full Band, Band 01	+/- 1.5 max	dB
Gain Slope	Per 40 MHz	+/- 0.25	dB
Gain Stability vs. Time (Constant Temperature)	Short Term (10 min.)	+/- 0.1	dB
	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	1.30 typ., 1.40 max.	:1
	Output	1.30 typ., 1.50 max.	:1
Power Output	Standard	+10 min., +12 typ.	dBm
	@ 1 dB Compression	Optional (High Power)	20 min
Third Order Output	Standard	+20 min., +22 typ.	dBm
	Intercept Point	Optional (High Power)	25 min
Group Delay per 40 MHz	Linear	0.01 max.	nS/MHz
	Parabolic	0.001 max.	nS/MHz <sup>2</sup>
	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
DC Power Requirements	Operating Voltage	+10 to +30	VDC
	DC Power consumption	2.85 nom.	Watts
	+15V Current	190	mA
<b>Mechanical Characteristics</b>			
Size		See Outline on Page 1	
Weight		1.1 nom.	lbs.
Connectors	RF Input RF Output Power/Alarm	WR42 WG (WR42 Cover Flange) Airline 2.92mm, SMA compatible MS3112E10-6P (mate supplied)	
Pressure Test		5 min.	Psi
<b>Environmental</b>			
Operating Temperature		-40 to +70	°C
Humidity	with condensation	100	%

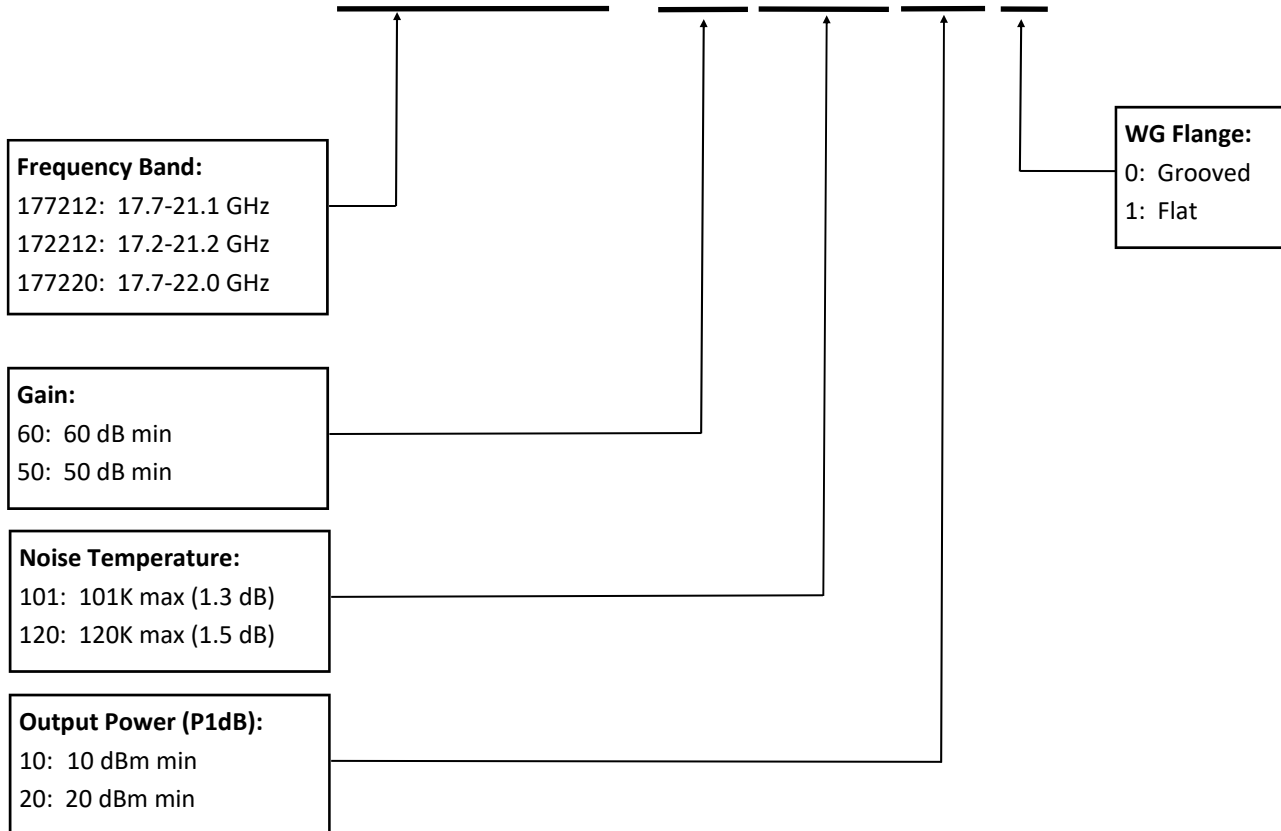
*User is responsible for sealing all connectors with appropriate weatherproofing materials. Failure to seal connectors will void warranty for any damage that might occur.*

# AKA-17 Series

Ka Band SATCOM LNAs

Part Number Configurator:

## AKA-177212-60101100



Part Number Example:

## AKA-177212-60101100

Freq: 17.7-21.2 GHz

Gain: 60 dB

Noise Temperature: 101K

Output Power: +10 dBm

Grooved WG flange