

## UHF Solid State Power Amplifier

Model: US 22/40/100LNM

### Product Features

- Constant Gain
- Military Approved Design
- SATCOM DAMA Application
- Rugged Construction
- Wide Operating Temperature Range



### Description and Application

Unique Broadband Systems Ltd. manufactures a complete line of UHF SATCOM DAMA SSPA Solid State UHF power amplifiers.

The US 22/40/100LNM is designed to be used in conjunction with multi-band radios operating in the frequency range of 240 MHz to 270 MHz.

The UHF SATCOM DAMA SSPA is ruggedized in it's construction to permit operation at elevations from sea level to 18,000 feet over a wide temperature range.

A unique feature of this amplifier is it's Solid-State switching circuit that serves several functions:

- protective power reduction in the event of excessive operating conditions
- response to transmitter keying and transmit blanking

### Product Specifications

<b>Frequency Range</b>	240 MHz - 270 MHz - Receive 290 MHz - 320 MHz - Transmit
<b>RF Output</b>	100 Watts
<b>RF Input Range</b>	0.5 - 10 Watts
<b>Modulation</b>	QPSK
<b>Insertion Loss in By-pass</b>	1.5 dB max.
<b>Insertion Loss</b>	1.0 dB max.
<b>Harmonics</b>	-30 dBc
<b>Spurious</b>	-80 dBc
<b>AM Distortion</b>	10% max.
<b>FM Rejection at LNA input</b>	40dB min.
<b>VSWR</b>	2.0:1 - Input 2.5:1 - Output
<b>Output Load VSWR</b>	Protected to Infinity
<b>Input Power</b>	28 VDC
<b>Power Consumption</b>	392 Watts max.
<b>Output Noise Floor</b>	-140 dBm/Hz
<b>Turn-On Time(receive to Transmit)</b>	5 msec max. (1 ms typical)
<b>LNA</b>	Integrated
<b>LNA Gain</b>	min. 20 dB
<b>Noise</b>	3.0 dB max.
<b>Dimensions</b>	11" x 6" x 3.125"
<b>Weight</b>	8 lbs
<b>Temperature Range</b>	- 40 ° C to 55 ° C

(specifications are subject to change without notice)

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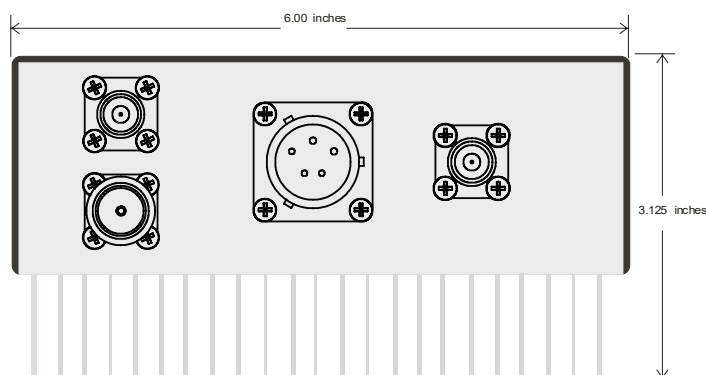
## Connectors

Connector	Pin#	Pin Designation	Function
J1 POWER and CONTROL MS3112E14-5P	A	+ 28 VDC	OPERATING POWER
	B	NEGATIVE RETURN, GROUNDED	
	C	TRANSMIT BLANKING	5V = Tx
	D	TRANSMIT / RECEIVE	0V = Tx
	E	BYPASS	BYPASS WHEN GROUNDED

Connector	Type	Function	Impedance
J2	TNC COAXIAL	RF INPUT	50 OHM

Connector	Type	Function	Impedance
J3	N COAXIAL	RF OUTPUT	50 OHM

Connector	Type	Function	Impedance
J4	4-pin	4 alarms	



**ATTENTION:** When not in use J2 should be terminated with a 50 Ohm terminator

## Mounting Information

