UHF Solid State Power Amplifier

Model: US 225/400/100SNC-A

Product Features

- *Constant Output Power*
- *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 225/400/100SNC-A 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

Frequency Range	240 MHz - 270 MHz - Receive 290 MHz - 320 MHz - Transmit
RF Output	100 Watts
RF Input Range	2-10 Watts
Modulation	QPSK
Insertion Loss in By-pass	1.5 dB max.
Insertion Loss	1.0 dB max.
Harmonics	-30 dBc
Spurious	-80 dBc
AM Distortion	10% max.
FM Rejection at LNA input	40dB min.
VSWR	2.0:1 - Input 2.5:1 - Output
Output Load VSWR	Protected to Infinity
Input Power	28 VDC
Power Consumption	392 Watts max.
Output Noise Floor	-140 dBm/Hz
Turn-On Time(receive to Transmit)	5 msec max. (1 ms typical)
LNA	Integrated
LNA Gain	Bypass, 10, 20 dB
Noise	3.5 dB max.
Dimensions	11" x 6" x 3.125"
Weight	8 lbs
Temperature Range	- 40 ° C to 55 ° C

(specifications are subject to change without notice)

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UBS
Unique Broadband Systems
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Connectors

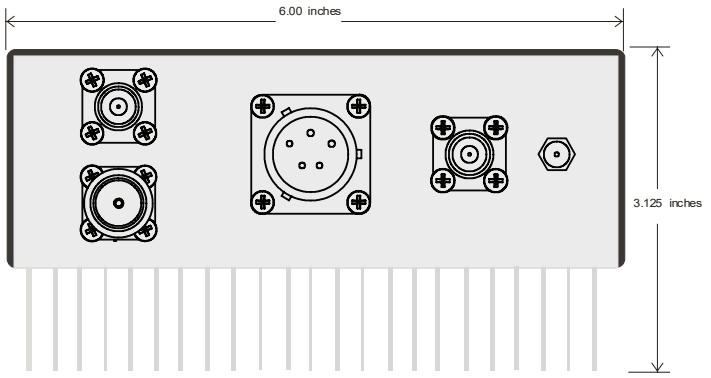
Connector	Pin#	Pin Designation	Function
J1 POWER and CONTROL MS3112E14-5P	A	+ 28 VDC	OPERATING POWER
	B	NEGATIVE RETURN, GROUNDED	
	C	TRANSMIT BLANKING	TRANSMIT and RECEIVE: Open or Grounded. Applying voltage above 6V (6-12V) ensures unit will not operate in Transmit mode.
	D	TRANSMIT / RECEIVE	TRANSMIT WHEN GROUNDED RECEIVE WHEN OPEN
	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	TNC COAXIAL	LNA OUTPUT	50 OHM

Switch	Function
S1 LNA GAIN CONTROL	10 dB
	20 dB
	By pass



ATTENTION: When not in use J2 or J4 should be terminated with a 50 Ohm terminator

Mounting Information