



## SSPA

### KU-BAND 50W

### ATOMSKU050



#### NORSAT ATOM SERIES SSPAS

Compared to equivalent products, ATOM series SSPAs are:

- Up to 68% smaller and lighter
- Up to 60% more power efficient
- More flexible with RF and configuration options

The Norsat ATOM series of solid state power amplifiers (SSPA) are among the smallest, lightest, and most energy efficient transmitters available. The high efficiency of ATOM reduces power consumption significantly, delivering considerable operational cost savings over the lifetime of the device.

Another innovative communication solution from Norsat.

#### OPTIONS

**The following items are standard:**

White paint, N-Type input connector, WR-75 waveguide output, Fan cooling, DC Power.

**Available options include:**

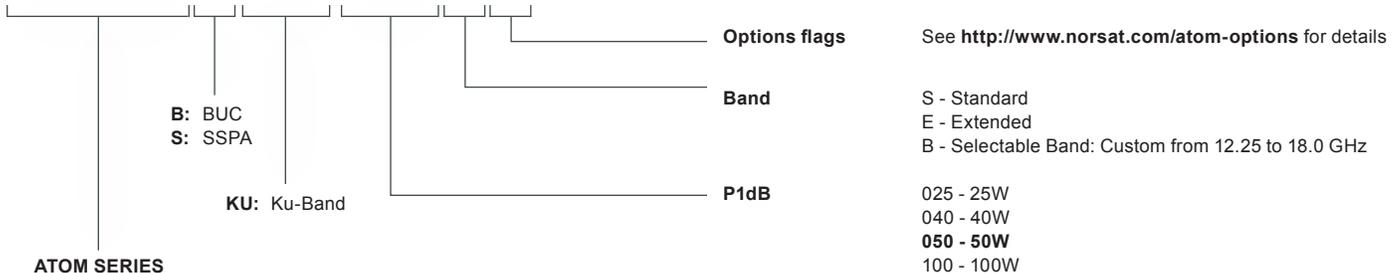
Baseplate cooling, Surge + Protect Filter, Fast switching, SMA Input Connector, WR62 Waveguide Output.

**Accessories:**

Power Supply, Bracket, Waveguides, Cables, Adaptors.

#### HOW TO ORDER

## ATOMSKU050SX



# KU-BAND 50W SSPA-ATOMSKU050

## RF SPECIFICATIONS

Frequency Band (GHz)	13.0 - 13.75	13.75-14.5	14.5 - 15.0	15.0 - 16.0	16.0 - 16.5	16.5 - 17.5
<i>*For Wideband units, specifications are only guaranteed for one band. PUB</i>						
Rated Power Output (P1dB)	40W	50W	50W	40W	35W	20W
Noise Figure in-band	18 dB					
Fwd Monitor (15 dB Range) @ CF	± 1.0 dB					
Gain (min)	50 dB	50 dB	50 dB	46 dB	45 dB	40 dB
Gain variation over operating band	8 dB max p-p	6 dB max p-p	6 dB max p-p	7 dB max p-p	7 dB max p-p	10 dB max p-p
Gain variation over any 40 MHz	2 dB max p-p	1.5 dB max p-p	1.5 dB max p-p	3 dB max p-p	3 dB max p-p	3 dB max p-p
Gain variation over temperature	3 dB max p-p					
Gain variation over time	0.5 dB/day					
Input VSWR	1.5:1	1.5:1	1.5:1	1.5:1	2.0:1	2.0:1
Output VSWR w/optional output isolator (derate power by 0.4 dBm)	2.0:1 1.4:1	2.0:1 1.4:1	2.0:1 1.4:1	2.0:1 1.4:1	2.3:1 1.4:1	2.3:1 1.4:1
Spurious	-60 dBc					
AM/PM Conversion @2dB below rated power	2.5°/dB	2.5°/dB	2.5°/dB	2.5°/dB	2.5°/dB	2.5°/dB
2nd Harmonic @ 3dB below rated power	-45 dBc					
3rd order IMD @ 3dB max. backoff from rated power	-25 dBc					

## POWER

Input voltage	20 – 56 VDC
Power Consumption with fans	340W @ Psat 300W @ P1dB 260W @ 3dB backoff from P1dB 235W @ Quiescent (no signal input) 25W muted
Power Connector	MIL-26482 Series 1 receptacle Shell size 12, 4 pins

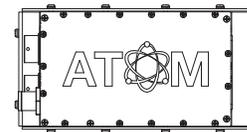
## ENVIRONMENTAL & PHYSICAL

Operating Temperature with fans	-40° to +60°C (-40° to +140° F)
Storage Temperature	-54° to + 80°C (-65° to 176° F)
Outline dimensions	170 x 86 x 170 mm (6.7 x 3.4 x 6.7")
Weight	2.4 kg (5.4 lbs)
Humidity	100% condensing

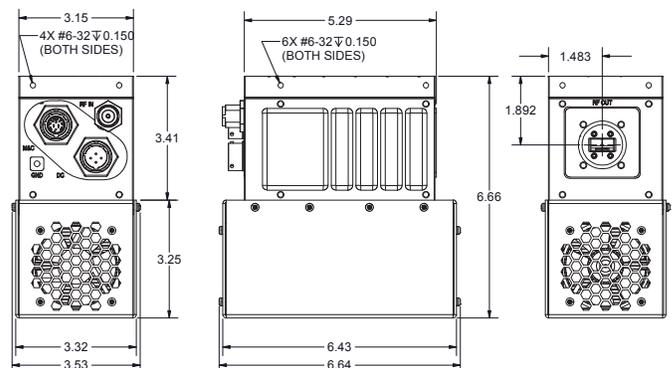
## INTERFACES

RF Input connector	N-Type
RF Output connector	WR-75 (WR-62 above 15.5 GHz)

## MECHANICAL DIAGRAM



\*Measurements in inches



## MONITOR & CONTROL

M&C Interface	RS-232 & RS-485
M&C Connector	MIL-26482 Series 1 Receptacle, Shell Size 12, 10 Pins
Mute Control	Fully configurable (mute enable: high or low, mute default: enabled or disabled)
Low	0.0 - 0.8V
High	3.0 - 5.0V
Thermal Shutdown Temperature	90°C (Accuracy ± 3°C)



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