



SSPA

KU-BAND 40W

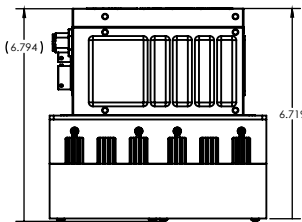
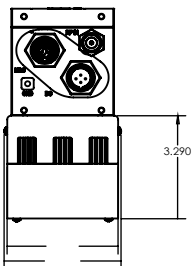
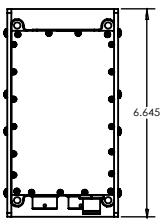
SSPA-ATOMKU040



NORSAT ATOM SERIES SSPAS

Norsat microwave products are renowned for their high quality, excellent reliability, and innovation. The ATOM series of solid state power amplifiers (SSPA) are the smallest, lightest, and most energy efficient transmitters available today. ATOM series SSPAs have been deployed globally for new and replacement applications that demand high performance transmission with a compact footprint. 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.

MECHANICAL DIAGRAM



Measurements in inches

KEY FEATURES

- Up to 90% smaller than equivalent SSPAs
- Up to 85% lighter than competing products
- Ultra efficient, consuming up to 60% less power than similar units: 232W (@40W RF out) typical
- Extremely flexible technology with versions for any frequency band from 12.6 GHz to 18.5 GHz; useful for unusual or non-standard bands
- Excellent performance over entire 13.0 - 17.5 GHz band (peak performance at 13.75-14.5 GHz)
- Forward Power Monitor
- Gain vs. Temp. compensation
- Integrated heat-pipe baseplate
- Fully environmentally sealed

✓ **Smallest size**

✓ **Lightest weight**

✓ **Highest efficiency**

KU-BAND 40W SSPA-ATOMKU040

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
Rated Power Output (P1dB)	35W	40W	40W	35W	30W	20W
Noise Figure in-band	12 dB	12 dB	12 dB	12 dB	12 dB	12 dB
F & R Monitor (15 dB Range) @ CF	± 0.25 dB	± 0.25 dB	± 0.25 dB	± 0.25 dB	± 0.25 dB	± 0.25 dB
Gain (min)	53 dB	56 dB	50 dB	46 dB	45 dB	40 dB
Gain variation over 1GHz	8 dB max	5 dB max	6 dB max	7 dB max	7 dB max	10 dB max
Gain variation over any 40 MHz	2 dB max	1.5 dB max	1.5 dB max	3 dB max	3 dB max	3 dB max
Gain variation over temperature	3 dB max	3 dB max	3 dB max	3 dB max	3 dB max	3 dB max
Gain variation over time	0.5 dB/day	0.5 dB/day	0.5 dB/day	0.5 dB/day	0.5 dB/day	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	-60 dBc	-60 dBc	-60 dBc	-60 dBc	-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	-45 dBc	-45 dBc	-45 dBc	-45 dBc	-45 dBc
3rd order IMD @ 3dB max. backoff from rated power	-25 dBc	-25 dBc	-25 dBc	-25 dBc	-25 dBc	-25 dBc

MONITOR & CONTROL

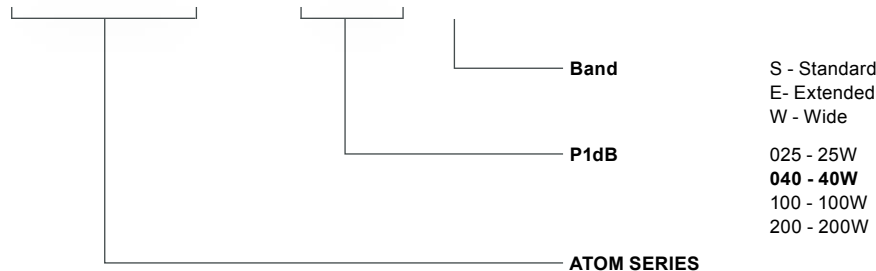
Discrete Mute Control Voltage ranges	
Low	0 -0.8 V
High	3.0 - 5.0 V
Fully programmable	
Mute enable can be high or low	
Mute default can be enabled or disabled	
Thermal shutdown control threshold	+85°C
Temperature Monitor Accuracy	± 3°C
Monitor/Control Connector	MIL-26482 Series 1 receptacle Shell size 12, 10 pins

POWER

Input power	
with 28 VDC integrated power supply	20 - 36 VDC
with 48 VDC integrated power supply	36 - 56 VDC
Power Consumption	
@ 40W out	257 Watts
@ 3dB backoff	227 Watts
Power Connector	MIL-26482 Series 1 receptacle Shell size 12, 4 pins
Optional AC Power	

HOW TO ORDER

SSPA-ATOMKU040-S



ENVIRONMENTAL & PHYSICAL

Operating Temperature in SSPA bottom surface	-40° to +70°C (-40° to +158° F)
Storage Temperature	-54° to +105°C (-65° to 221° F)
Outline dimensions	
With integrated power supply	133.4 L x 80.0 W x 82.6 H mm (5.25" x 3.15" x 3.25")
With supply and fan cooling	168.9 L x 86.4 W x 170.4 H mm (6.65" x 3.4" x 6.71")
Weight	
With integrated power supply	1.77 kg (3.9 lbs)
With supply and fan cooling	2.45 kg (5.4 lbs)
Humidity	100% condensing
RF Input connector	N-Type
RF Output connector	WR-75 (WR-62 above 15.5 GHz)



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