Innovative Communication

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SSPA

KU-BAND 40W
ATOMSKU040

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

ATOMSKU040SX

Options flags

Band
S - Standard
E - Extended
B - Selectable Band: Custom from 12.25 to 18.0 GHz

KU: Ku-Band

P1dB
025 - 25W
040 - 40W
050 - 50W
100 - 100W

ATOM SERIES

B: BUC
S: SSPA
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
---|---|---|---|---|---|---
*For Wideband units, specifications are only guaranteed for one band.

**Rated Power Output (P1dB)**
- 35W
- 40W
- 40W
- 35W
- 30W
- 20W

**Noise Figure in-band**
- 18 dB
- 18 dB
- 18 dB
- 18 dB
- 18 dB
- 18 dB

**Fwd Monitor (15 dB Range) @ CF**
- ± 1.0 dB
- ± 1.0 dB
- ± 1.0 dB
- ± 1.0 dB
- ± 1.0 dB
- ± 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
- 7 dB max p-p
- 7 dB max p-p
- 10 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
- 3 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
- 3 dB max p-p
- 3 dB max p-p
- 3 dB max p-p
- 3 dB max p-p
- 3 dB max p-p

**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
- 1.5:1
- 1.5:1

**Output VSWR**
- 2.0:1
- 2.0:1
- 2.0:1
- 2.0:1
- 2.0:1
- 2.0:1

**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

**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

**POWER**

**Input voltage**
- 20 – 56 VDC

**Power Consumption with fans**
- 295W @ Psat
- 227W @ 3dB backoff from P1dB
- 205W @ Quiescent (no signal input)
- 25W muted

**Power Connector**
- MIL-26482 Series 1 receptacle
- Shell size 12, 4 pins

*Optional AC Power Supply

**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)