



BUC

KU-BAND 50W

ATOMBKU050



NORSAT ATOM SERIES BUCS

Compared to equivalent products, ATOM series BUCs 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 block upconverters (BUC) 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.

RF CONFIGURATIONS

Transmit Frequency

Standard band	14.0 to 14.5 GHz
LO Frequency	13.05 GHz
Extended band	13.75 to 14.5 GHz
LO Frequency	12.8 GHz
Selectable band *Custom within range	12.25 to 18.0 GHz

Input Frequency

Standard band	950 to 1450 MHz
Extended band	950 to 1700 MHz

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, WR-62 Waveguide Output.

Accessories: Power Supply, Bracket, Waveguides, Cables, Adaptors.

HOW TO ORDER

ATOMBKU050SX



KU-BAND 50W BUC-ATOMBKU050

RF SPECIFICATIONS

Power Output (P1dB)	50W
Noise Figure	15 dB
Phase Noise	-72 dBc/Hz at 1 KHz -82 dBc/Hz at 10 KHz -92 dBc/Hz at 100 kHz -102 dBc/Hz at 1 MHz
Fwd Monitor (15 dB Range) @ CF	± 1.0 dB
Conversion Gain	60 dB min
Gain Variation over operating band	6 dB max p-p
Gain Variation over any 40 MHz	2 dB max p-p
Gain Variation over temperature	3 dB max p-p
Input VSWR	2.0:1
Output VSWR	2.0:1
Spurious @ rated power	-55 dBc
AM/PM Conversion @2dB below	2.5°/dB rated power
2nd Harmonic @ 3dB below rated power	-45 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 170mm (6.7 x 3.4 x 6.7")
Weight	2.4kg (5.4 lbs)
Enclosed Accessories	Screws, gasket, M&C mating connector, power mating connector

INTERFACES

RF Input Connector	N-Type
RF Output Connector	WR-75 (WR-62 above 15 GHz)

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)

POWER

Input Voltage	20 - 56 VDC
Power Consumption with fans	350W @ Psat 310W @ P1dB 270W @ 3dB backoff from P1dB 240W @ Quiescent (no signal input) 25W muted
Power Connector	MIL-26482 Series 1 receptacle Shell size 12, 4 pins

MECHANICAL DIAGRAM

