



Norsat  
International Inc.

Innovative Communication Solutions

# BUC

## KU-BAND 100W

### ATOMBKU100



#### 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.

*Another innovative communication solution from Norsat.*

#### 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

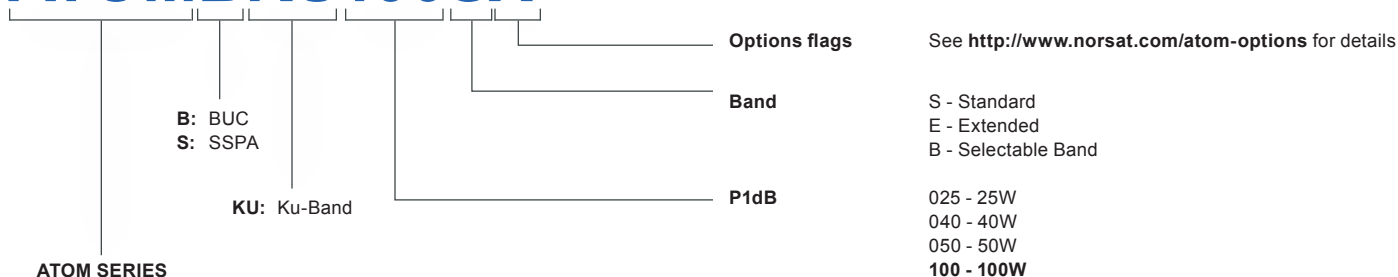
**The following items are standard:** White paint, N-Type input connector, WR-75 waveguide output, Fan cooling, DC Power.

**Available options include:** Baseplate Cooling, EMI/EMC Filter, Surge+Protect Filter, Fast Switching, 3 Phase AC, SMA Input Connector, WR-62 Waveguide Output, Adjustable Group Delay

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

#### HOW TO ORDER

## ATOMBKU100SX



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# KU-BAND 100W BUC-ATOMBKU100

## RF SPECIFICATIONS

Power Output (P1dB)	100W
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	1.5 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	-50 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	297 L x 135 W 169 H mm (11.7 x 5.3 x 6.4" )
Weight	6.9 kg (15.3 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-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	540W @Psat 480W @ P1dB 415W @ 3dB backoff from P1dB 375W @ Quiescent (no signal input) 60W muted
Power Connector	MIL-26482 Series 1 receptacle Shell size 12, 4 pins

## MECHANICAL DIAGRAM

