



BUC

KU-BAND 25W

BUC-ATOMKU025



NORSAT ATOM SERIES BUCS

Norsat microwave products are renowned for their high quality, excellent reliability, and innovation. The ATOM series of block upconverters (BUC) are the smallest, lightest, and most energy efficient transmitters available today. ATOM series BUCs 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.

AVAILABLE CONFIGURATIONS

Transmit Frequency

Standard band	14.0 to 14.5 GHz
Extended band	13.75 to 14.5 GHz

Input Frequency

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

KEY FEATURES

- Up to 90% smaller than equivalent BUCs
- Up to 85% lighter than competing products
- Ultra efficient, consuming up to 60% less power than similar units: 144W @ 25W P1dB RF out with cooling fans
- Integrated L-Band to Ku-Band Upconverter plus Power Amplifier
- Forward Power Monitor
- Gain vs. Temp. compensation
- Integrated heat-pipe baseplate
- Fully environmentally sealed
- Excellent performance over entire 13.0-17.5 GHz band (peak performance at 13.75-15.0 GHz)

✓ Smallest size

✓ Lightest weight

✓ Highest efficiency



KU-BAND 25W BUC-ATOMKU025

RF SPECIFICATIONS

Power Output (P1dB)	25W
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)	± 0.25 dB
Conversion gain	65 dB min
Gain variation over Frequency band	6 dB max
Gain variation over any 40 MHz	2 dB max
Gain variation over temperature	3 dB max
Spurious @ rated power	-55 dBc
AM/PM Conversion @2dB below power	2.5°/dB rated
2nd Harmonic @ 3dB below rated power	-45 dBc

INTERFACES

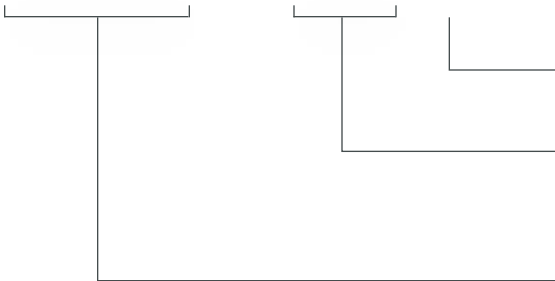
Input VSRW	1.5:1
Output VSRW	2.0:1
RF Input connector	N-Type
RF Output connector	WR-75

MONITOR & CONTROL

Discrete Mute Control Voltage ranges	0 - 0.8 V 3.0 - 5.0 V
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

HOW TO ORDER

BUC-ATOMKU025-S



Band	S - Standard E - Extended W - Wide
P1dB	025 - 25W 040 - 40W 050 - 50W 100 - 100W 200 - 200W
ATOM SERIES	

ENVIRONMENTAL & PHYSICAL

Operating Temperature	baseplate internal temp. in component configuration ambient air in fan-cooled configuration	-40 to +70°C (-40° to +158° F) -40 to +60°C (-40° to +140° F)
Storage Temperature		-54 to +105°C (-65° to +221° F)
Outline dimensions	with integrated power supply With supply & fan cooling	133.4 L x 80.0 W x 82.6 H mm (5.25" x 3.15" x 3.25") 168.9 L x 86.4 W x 157.7 H mm (6.65" x 3.4" x 6.21")
Weight	With integrated power supply With supply & fan cooling	1.58 kg (3.50 lbs) 2.27 kg (5.0 lbs)

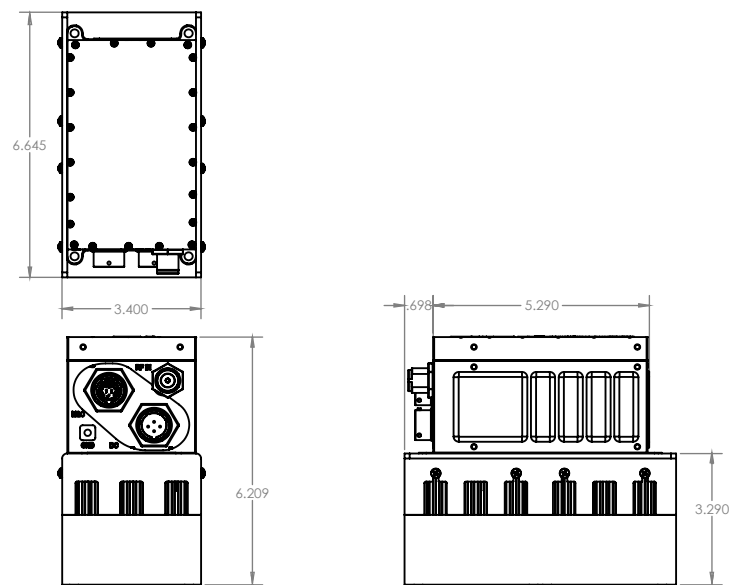
POWER

Input power with integrated power supply	20 - 56 VDC
Power Consumption with cooling fans	<ul style="list-style-type: none"> • 165W @ Psat • 144W @ P1dB • 126W @ 3dB backoff from P1dB • 115W @ Quiescent (no signal input) • 20W muted
Power Connector	MIL-26482 Series 1 receptacle Shell size 12, 4 pins

Optional AC Power

MECHANICAL DIAGRAM

Measurements in inches



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