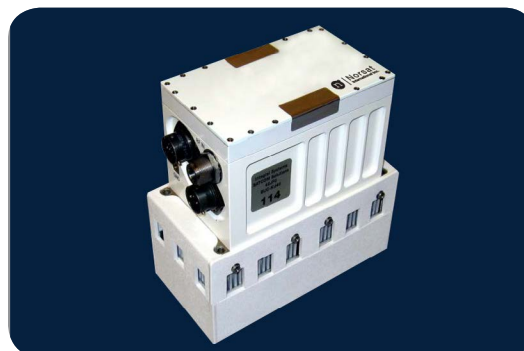




## BUC

### KU-BAND 40W

### BUC-ATOMKU040



#### 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: 265W @ 40W 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
- Optional internal power supply
- 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 40W BUC-ATOMKU040

## RF SPECIFICATIONS

<b>Power Output (P1dB)</b>	40W
<b>Noise Figure</b>	15 dB
<b>Phase noise</b>	-72 dBc/Hz at 1 KHz -82 dBc/Hz at 10 KHz -92 dBc/Hz at 100 kHz -102 dBc/Hz at 1 MHz
<b>Fwd Monitor (15 dB Range)</b>	± 0.25 dB
<b>Conversion gain</b>	65 dB
<b>Gain Variation over Frequency band</b>	6 dB max
<b>Gain variation over any 40 MHz</b>	2 dB max
<b>Gain variation over temperature</b>	3 dB max
<b>Spurious</b>	-55 dBc
<b>AM/PM Conversion @2dB below rated power</b>	2.5°/dB
<b>2nd Harmonic @ 3dB below rated power</b>	-45 dBc

## INTERFACES

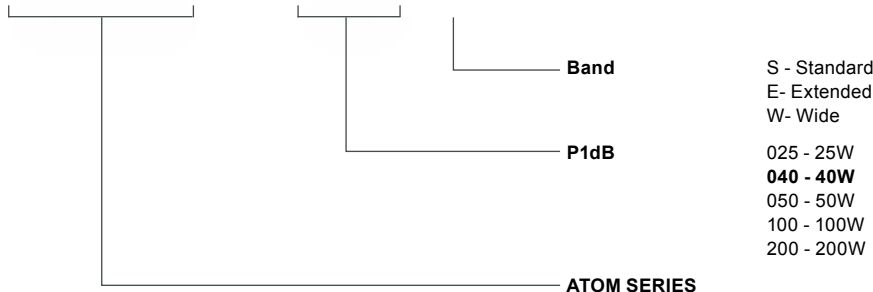
<b>Input VSRW</b>	1.5:1
<b>Output VSRW</b>	2.0:1
<b>RF Input connector</b>	N-Type
<b>RF Output connector</b>	WR-75

## MONITOR & CONTROL

<b>Discrete Mute Control Voltage ranges</b>	
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	
<b>Thermal shutdown control threshold</b>	+85°C
<b>Temperature Monitor Accuracy</b>	± 3°C
<b>Monitor/Control Connector</b>	MIL-26482 Series 1 receptacle Shell size 12, 10 pins

## HOW TO ORDER

# BUC-ATOMKU040-S



## ENVIRONMENTAL & PHYSICAL

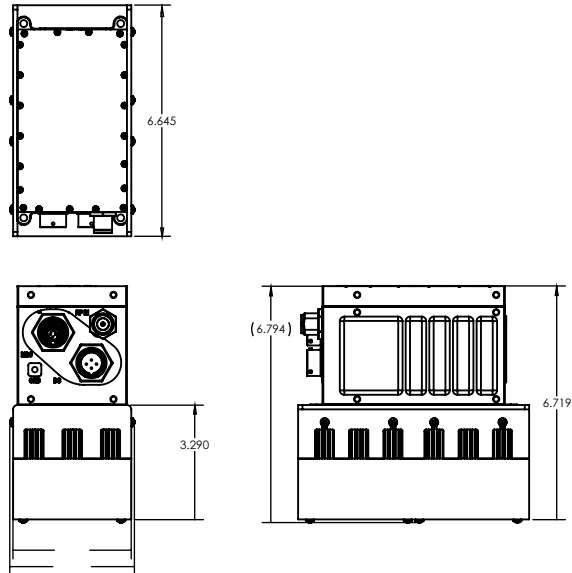
<b>Operating Temperature</b>	baseplate internal temp. in component configuration ambient air in fan-cooled configuration	-40 to +70°C (-40° to +158° F) -40 to +60°C (-40° to +140° F)
<b>Storage Temperature</b>		-54 to +105°C (-65° to +221° F)
<b>Outline dimensions</b>	with integrated power supply With supply & fan cooling	133.4 L x 80.0 W x 95.3H mm (5.25" x 3.15" x 3.75") 168.9 L x 86.4 W x 170.7 H mm (6.65" x 3.4" x 6.72")
<b>Weight</b>	With integrated power supply With supply & fan cooling	1.77 kg (3.9 lbs) 2.45 kg (5.4 lbs)

## POWER

<b>Input power with integrated power supply</b>	20 - 56 VDC
<b>Power Consumption with cooling fans</b>	<ul style="list-style-type: none"> <li>• 305W @ Psat</li> <li>• 265W @ P1dB</li> <li>• 235W @ 3dB backoff from P1dB</li> <li>• 210W @ Quiescent (no signal input)</li> <li>• 25W muted</li> </ul>
<b>Power Connector</b>	MIL-26482 Series 1 receptacle Shell size 12, 4 pins

## MECHANICAL DIAGRAM

Measurements in inches



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