



## ATOMBKA050M1B

### ATOM 50W Ka-Band BUC

**Band:** Military: 30.0 - 31.0 GHz

**Cooling and M&C:** 1B: Internal Fan + RS-485 & Ethernet

**Optional Add-Ons:** No Add-on

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.

REACH



### KEY SPECIFICATIONS

Band	Ka-Band
Band Type	M: Military
Input Frequency Band 1	1.0 - 2.0 GHz
LO Frequency 1	29.00 GHz
Output Frequency Band 1	30.00 - 31.00 GHz
Output Power Rated	50W

### RF SPECIFICATIONS

Gain Flatness (40mhz)	≤ 1.0 dB p-p
Gain Flatness (over Full Band)	≤ 4.0 dB p-p
Gain Flatness (over Temperature)	≤ 3.0 dB p-p
Input VSWR	2.5 : 1 max.
Linear Gain	60 dB typ., 55 dB min., 65 dB max.
Linear Power Plin	44 dBm min.
Noise Power Density	-65 dBm/Hz in Tx, -156 dBm/Hz in Rx
Output Power Psat	47 dBm min.
Output Spurious In Band	≤ -55 dBc
Output Spurious Out Of Band P1db	≤ -60 dBc
Output VSWR	1.9 : 1 max.
Phase Noise 0.1khz Offset Max	-62 dBc/Hz
Phase Noise 1khz Offset Max	-76 dBc/Hz
Phase Noise 10khz Offset Max	-86 dBc/Hz
Phase Noise 100khz Offset Max	-96 dBc/Hz



Phase Noise 1000khz Offset Max -102 dBc/Hz

### ELECTRICAL SPECIFICATIONS

Maximum Current 20 VDC 29.0A max.  
Power Connector MIL-26482 Series 1 receptacle, Shell Size 12, 4 Pins, 58-533723-04P  
Power Consumption Psat 580 W max.  
Power Requirements +20 to +56V DC

### INTERFACE SPECIFICATIONS

IF Connector N-Connector Female  
RF Output Connector WR-28 waveguide grooved

### M and C SPECIFICATIONS

Mute Control Fully configurable, (mute enable: high: 3.0 - 5.0 V or low: 0.0 - 0.8 V, mute default: enabled or disabled)  
M And C Connector MIL-26482 Series 1 receptacle, Shell Size 12, 10 Pins, 58-533723-10P  
M And C Interface RS-485 & Ethernet

### ENVIRONMENTAL SPECIFICATIONS

Humidity 100% condensing  
IP Rating IP 65  
Temperature Operational -40°C to +60°C  
Temperature Storage -54 to +71°C  
Thermal Shutdown Temperature 90°C (Accuracy  $\pm$  3°C)

### PHYSICAL SPECIFICATIONS

Cooling 1: Internal Fan  
Enclosed Accessories Screws, Gasket, M&C Connector, Power Connector  
Product Height 120 mm  
Product Length 300 mm  
Product Weight 3.2 kg  
Product Width 140 mm

### ACCESSORIES

Optional Configuration Add Ons No Add-on  
Optional M And C Cable 10m CABLEM+C-AT10  
Optional Power Supply PS600-AT1-(NA/UK/EU/IEC/CN/AU)

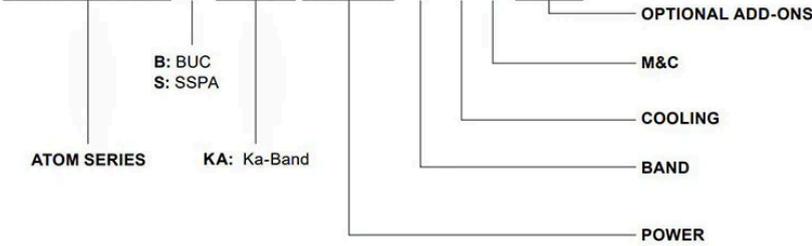
### LOGISTICS SPECIFICATIONS

HS Code	Country of Origin	Ex Works	ECCN Number	Unit Package
8517690000	Made in Canada	Richmond, BC, Canada	EAR99	



## HOW TO ORDER

### ATOMBKA025M1CFP



**BLANK:** No Add-on  
**F:** EMI/EMC Filter  
**P:** Surge Protection  
**FP:** EMI/EMC Filter & Surge Protection  
**C:** RS-485 & RS-232  
**B:** RS-485 & Ethernet  
**1:** Internal Fan  
**2:** External Baseplate  
**M:** Military  
**C:** Commercial  
**D:** Dual Band  
**025:** 25W  
**050:** 50W

## MECHANICAL DIAGRAMS

