



# BUC

## ELEMENT SERIES

### KU-BAND 16W

### BUC-ELMTKU016



### NORSAT ELEMENT SERIES BUCS

Norsat Satellite Communication solutions are renowned for their high quality, reliability, and innovation. The Ku ELEMENT series offers small size and weight with a variety of frequency options that make it ideal for VSAT applications.

Stock units are available in standard and extended Ku-Band frequencies. Special order units are available in a wide variety of additional frequencies from 10.38 – 10.55GHz up to 17.7 -18.1 GHz.

### FREQUENCY BANDS

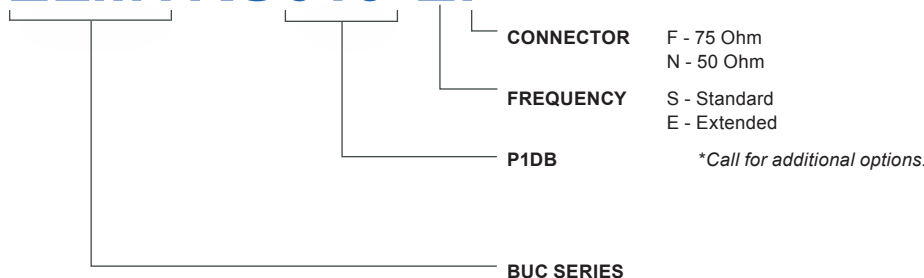
|                               |                 |                  |
|-------------------------------|-----------------|------------------|
| <b>Model</b>                  | BUC-ELMTKU016-S | BUC-ELMTKU016-E  |
| <b>Output frequency (Mhz)</b> | 14.0 – 14.5 GHz | 13.75 – 14.5 GHz |
| <b>L.O. frequency (GHz)</b>   | 13.05 GHz       | 12.80 GHz        |
| <b>Input frequency (GHz)</b>  | 950 – 1450 MHz  | 950 – 1700 MHz   |

### KEY FEATURES

- Small size, ideal for feed mounting
- 18 frequency options
- RoHS Compliant

### HOW TO ORDER

## BUC-ELMTKU016-EF



# KU-BAND 16W BUC-ELMTKU016

## RF SPECIFICATIONS

|  |  |
|--|--|
| <b>Output Power (P1dB)</b>   | 42 dBm min   |
| <b>External Reference</b>  | 10MHz  |
| <b>Reference Power Level</b>   | -5 dBm to +5dBm  |
| <b>Phase Noise (SSB)</b>   | -65 dBc/Hz at 100Hz<br>-75 dBc/Hz at 1kHz<br>-85 dBc/Hz at 10kHz<br>-95 dBc/Hz at 100kHz |
| <b>Linear gain</b>   | 70 dB  |
| <b>Gain control</b>  | 15 dB in 0.5 dB steps  |
| <b>Gain flatness</b>   | < 4.0 dB pp over full band<br>< 2.0 dB pp over any 54MHz band                            |
| <b>Gain variation over temperature</b>   | < 4.0 dB p-p over operating range  |
| <b>Gain variation over 24hrs</b>   | +/-0.5 dB max at constant temp   |
| <b>Intermodulation</b><br>with 2 equal carriers at 3dB total power backoff from rated power                        | -25 dBc  |
| <b>Spectral Regrowth (typical)</b><br>at 2db below rated output power at 1.0x symbol rate offset for OQPSK or QPSK | -26 dBc  |
| <b>AM/PM Conversion</b><br>(up to 2 dB below rated Output Power)   | 2 deg/dB   |
| <b>Max Input Power without damage</b>  | 13 dBm   |
| <b>Output Spurious -In Band</b>  | -60 dBc  |
| <b>-Out Band</b>   | -50 dBc  |
| <b>Noise power density</b>   | -90 dBm/Hz in Tx<br>-156 dBm/Hz in Rx  |

## INTERFACES

|                         |                  |
|-------------------------|------------------|
| <b>Input VSWR</b>       | 2.0 : 1          |
| <b>Output VSWR</b>      | 2.0 : 1          |
| <b>Input Connector</b>  | N: 50 Ω, F: 75 Ω |
| <b>Output Connector</b> | WR-75            |

## ENVIRONMENTAL & PHYSICAL

|                                  |                                |
|----------------------------------|--------------------------------|
| <b>Temperature (operational)</b> | -40 C to +55 C                 |
| <b>Humidity (operational)</b>    | 0 – 100% condensing            |
| <b>Dimensions (L x W x H)</b>    | 160 x 116 x 90mm               |
| <b>Weight</b>                    | 2.1 kg                         |
| <b>Enclosed Accessories</b>      | O-Ring (1 pc)<br>Screws (4 pc) |

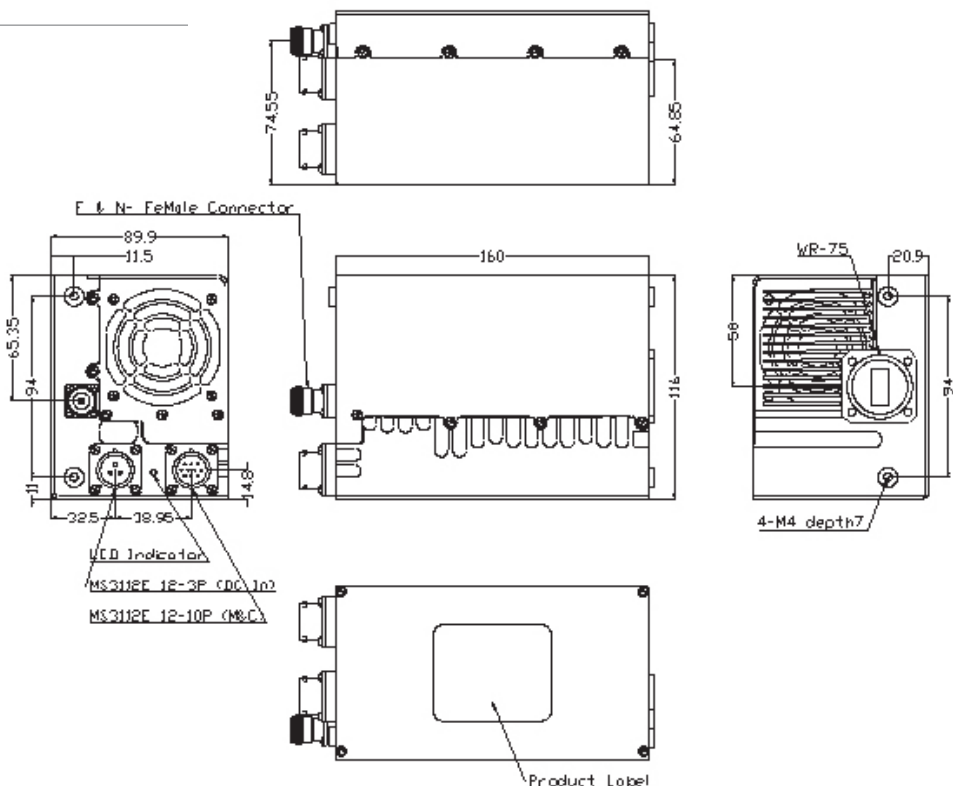
## POWER

|                           |                 |
|---------------------------|-----------------|
| <b>Power requirements</b> | +36 to +60 VDC  |
| <b>Power Consumption</b>  | 160W max        |
| <b>Power Connector</b>    | MS3112E 12-3P   |
| <b>M+C Connector</b>      | MS3112E -12-10P |

## M + C

|                 |   |
|-----------------|---|
| <b>Protocol</b> | Ethernet                                    |
| <b>Control</b>  | Mute, Gain                                  |
| <b>Monitor</b>  | Mute, Temp, PLL Lock,<br>Output power, Gain |

## MECHANICAL DIAGRAM



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