



# Block Up-Converter

## Model: BUC-12G75-13G25-50-IP55

12.75-13.25GHz 50W CW, Output Power

Low power consumption, low phase noise and small size

### Features:

- IF Frequency: 950~1450MHz.
- RF Frequency: 12.75-13.25GHz.
- Saturated output power: 50W.
- External Reference Adaptive.

### Applications:

- Communication/Radar Systems
- Test Labs

### Product Overview:

The BUC-12G75-13G25-50-IP55 is a block up-converter operating in the Ku-band. It features an integrated local oscillator, with input IF frequency of 950-1450 MHz and output RF frequency of 12.75-13.25GHz. Providing up to 50W of saturated output power.



Electrical Specifications at 25°C:

| Parameter                          |             | Min   | Typ           | Max   | Units  |
|------------------------------------|-------------|-------|---------------|-------|--------|
| RF Frequency Range                 |             | 12.75 |               | 13.25 | 6      |
| LO Frequency range                 |             |       | 11.8          |       | GHz    |
| IF Frequency Range                 |             | 950   |               | 1450  | MHz    |
| Output Power                       |             | 50    |               |       | W      |
| Output P1dB                        |             |       | 47            |       | dBm    |
| Gain                               |             |       | 72            |       | dB     |
| Spurious                           | In Band     |       |               | -60   | dBc    |
|                                    | Out of Band |       |               | -50   | dBc    |
| External Reference Input Frequency |             |       | 10(sine wave) |       | MHz    |
| External Reference Input Power     |             | -5    |               | 5     | dBm    |
| Gain Flatness                      | @54MHz      |       |               | 1.5   | dB     |
|                                    | @full band  |       | 4             |       |        |
| Gain Flatness@temperature range    |             |       | 4             |       | dB     |
| Phase Noise                        | @100Hz      |       |               | -65   | dBc/Hz |
|                                    | @1KHz       |       |               | -135  |        |
|                                    | @10KHz      |       |               | -140  |        |
|                                    | @100KHz     |       |               | -95   |        |
| VSWR                               |             |       |               | 2     | :1     |
| DC Supply Voltage                  |             | 36    |               | 60    | V DC   |
| Power Consumption@Psat             |             |       |               | 390   | W      |

Mechanical Specifications:

| Parameter                | Value       | Units |
|--------------------------|-------------|-------|
| IF Connector             | N type      |       |
| Ingress Protection Grade | IP-55       |       |
| Size                     | 245*125*125 | mm    |
| Weight                   | 4           | Kg    |

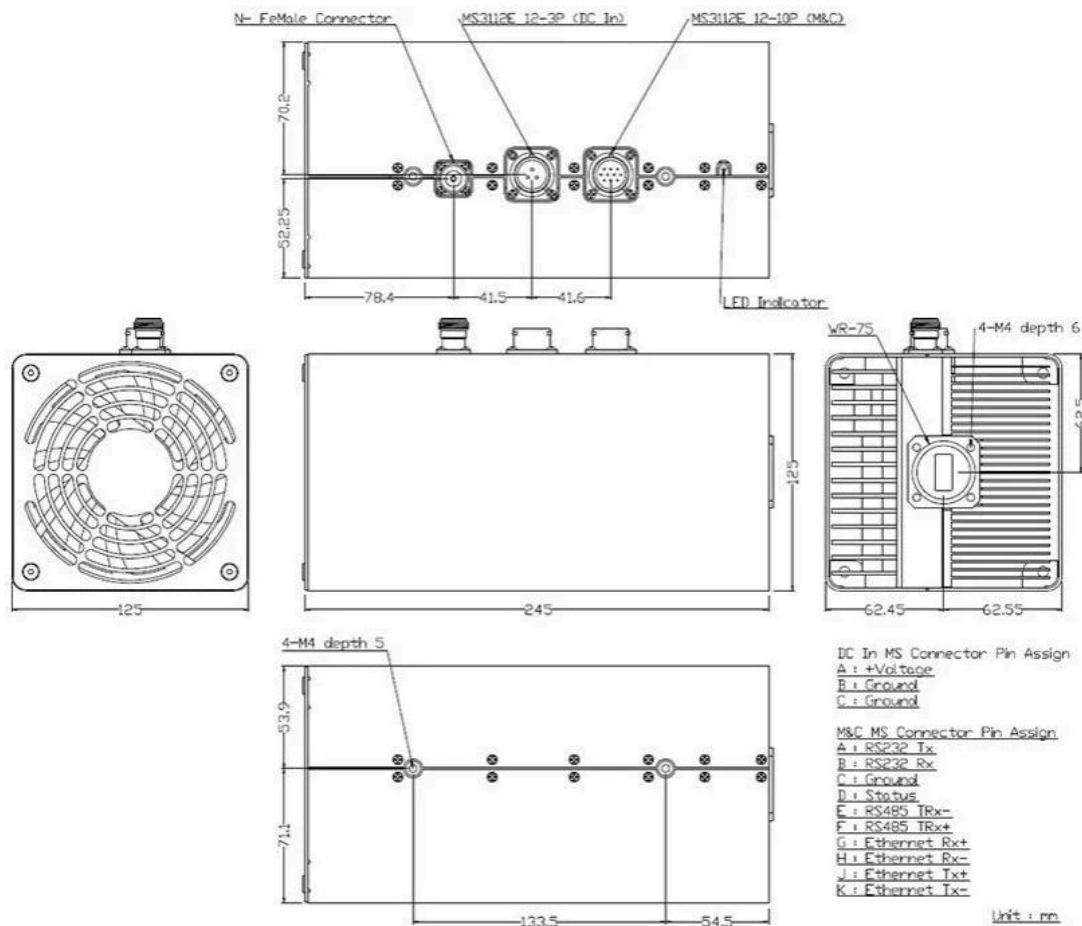


Absolute Maximum Ratings:

| Parameter             | Value                |
|-----------------------|----------------------|
| RF Input Power        | +5 dBm               |
| ESD sensitivity (Hbm) | Class 0, passed 150V |

Outline Drawing:

Unit:mm; Tolerance:±0.1mm



Ordering Information:

| Base Number             | Description                                                                                                        |
|-------------------------|--------------------------------------------------------------------------------------------------------------------|
| BUC-12G75-13G25-50-IP55 | Block Up-Converter, IF frequency range:950-1450MHz;<br>RF output frequency range: 12.75-13.25GHz; 50W output power |