

# Block Up-Converter (BUC)

## Ka-Band 6 / 10W



### ◆ Company Overview

RevGo designs and manufactures satellite earth station RF from low to medium power. RevGo was founded in 2002 with its headquarters in the Washington DC corridor. RevGo's broad VSAT product line is produced to stringent quality standards using an ISO9001:2015 quality system.

- Block upconverter (BUC)
- Low noise block (LNB)
- C-, Ku-, DBS-, Ka-bands
- 2 to 200W output power

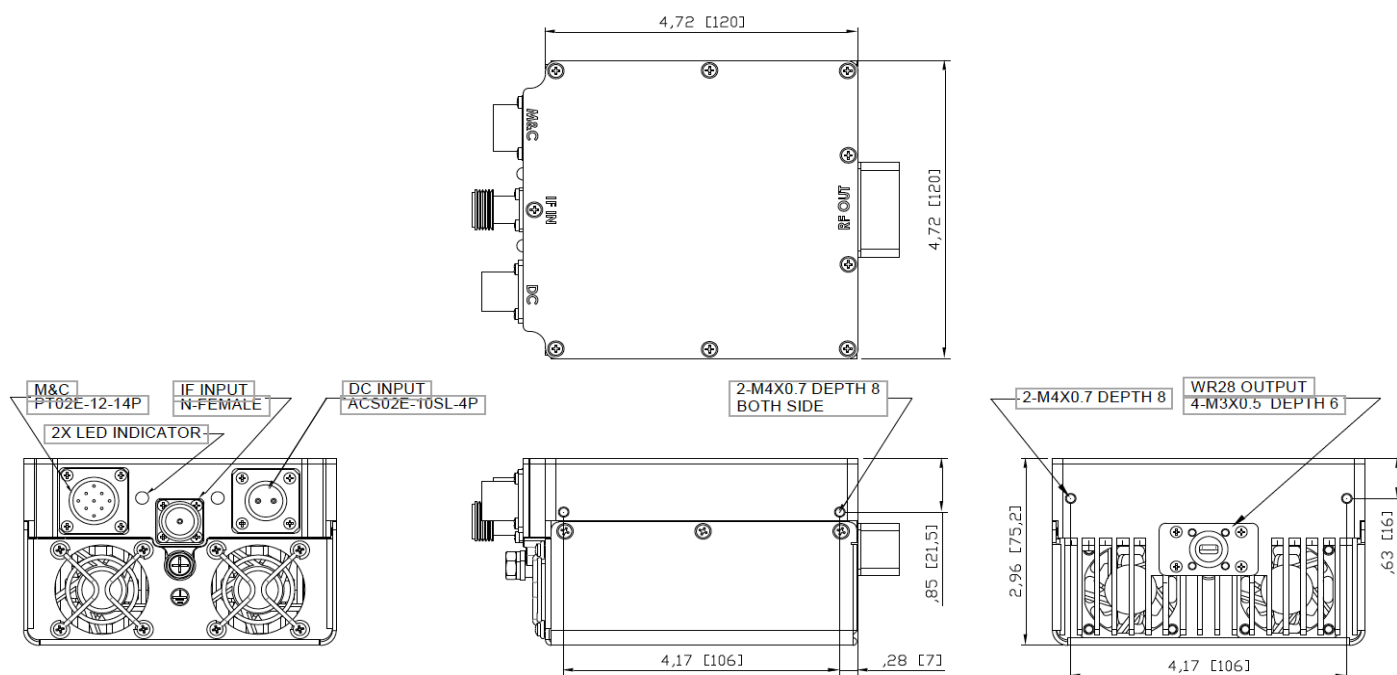
### ◆ Reliability

- Highly integrated RF technologies (RFIC and GaN)
- Designed for high volume production
- Linearity optimized for high order modulation and high data rate
- Strict quality control processes resulting in <0.25% field failure rates

### ◆ Product Features

- |   | <u>6W</u>       | <u>10W</u>      |
|---|-----------------|-----------------|
| • High linear output power                              | 37 dBm          | 39 dBm          |
| • Variable power consumption                            | 60W @38dBm      | 70W @40dBm      |
| • Compact and light weight                              | 3.3 lbs / 1.5kg | 3.3 lbs / 1.5kg |
| • Single-, dual-, tri-band options (27.5-31GHz)         |                 |                 |
| • Band selection from remote interface (SNMP)           |                 |                 |
| • Low phase noise (exceeds IESS308/309)                 |                 |                 |
| • Rugged design for extreme environments (-40 to +60°C) |                 |                 |

### ◆ Mechanical Diagram – Dual Band (Unit: inch (mm))



### ◆ Typical VSAT Applications

- Maritime
- 5G Backhaul
- SNG Vehicle
- Terminals
  - Fixed
  - Portable
  - Transportable

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### SPECIFICATIONS

#### ◆ RF Specifications

<b>RF Frequency</b>	27.5-31 GHz 29.5-30GHz
<b>IF Frequency</b>	950-1950MHz 950-1450MHz 1000-2000MHz
<b>External Reference</b>	10MHz, 0±5dBm
<b>Output Power (dBm)</b>	
<b>Rated/Saturated</b>	<b>6W</b> <b>10W</b>
<b>PLin<sup>1</sup></b>	38.5 dBm              40 dBm
<b>PLin<sup>2</sup></b>	37                        39
<b>PLin<sup>3</sup></b>	36                        38
	35                        37
<b>IMD3 (@3dB from rated power)</b>	-25dBc
<b>Small Signal Gain</b>	65 dB
<b>Gain Variation</b>	1dB p-p max./36MHz 3dB p-p max. /500MHz 4dB p-p max./1000MHz
<b>Gain stability</b>	3dB p-p
<b>Gain Adjustment Range</b>	15 dB (Step: 0.1 dB)
<b>Phase Noise</b>	-60dBc/Hz max.@100Hz -75dBc/Hz max.@1KHz -85dBc/Hz max.@10KHz -95dBc/Hz max.@100KHz
<b>Output Spurious</b>	-55dBc max.

**Notes:**

- PLin<sup>1</sup>:** -26 dBc regrowth, 1.5 SR (commercial satellite)
- PLin<sup>2</sup>:** -30 dBc regrowth, 1.0 SR (MIL-STD-188-164B, one-carrier)
- PLin<sup>3</sup>:** -25 dBc IMD3 (MIL-STD-188-164B, two-carrier)

#### ◆ Power Supply

<b>Input Power</b>	+18 to +56 VDC	
<b>Power Consumption</b>	<b>6W</b>	<b>10W</b>
@ PLin <sup>1</sup> Output	45W	55W
@ Rated Output	60W	70W

#### ◆ Interfaces

<b>RF Output Connector</b>	WR28-G (Grooved)
<b>RF Output VSWR</b>	1:3:1
<b>IF Input Connector</b>	N-Type
<b>IF Input VSWR</b>	2:1
<b>Power Connector</b>	ACS02E10SL-4P
<b>M&amp;C Connector</b>	PT02E-12-14P RS485, RS232 & Ethernet
<b>LED Alarm Indicator</b>	Red on = PLL alarm Red flashing = high temp

#### ◆ Physical Parameters

		<u>Dual-Band</u>
<b>Size</b>	(inches) (mm)	4.7*4.7*3.0 120*120*75
<b>Weight</b>	(lbs) (kg)	3.3 1.5
<b>Operating Temperature</b>		-40 to +60°C
<b>Humidity</b>		0-100% (condensing)
<b>Altitude</b>		0-40,000 feet ASL

#### ◆ Part Number / Ordering Information

<b>RGUC - A <u>a</u> <u>b</u> b - DCRE - C</b>	
A: Ka-band	
<b><u>a</u>: Frequency Bands</b>	<b><u>bb</u>: Output Power</b>
1 = 29-30 GHz	06 = 6W
2 = 29.5-30 GHz	10 = 10W
3 = 30-31 GHz	
4 = Band 1 & Band 3	
5 = 27.652-28.388 GHz	
6 = 28.172-29.071 GHz	
7 = Band 5 & Band 6	