

# Block Up-Converter (BUC)

## Ku-Band 30/40W



### ◆ 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:

- Low noise block (LNB)
- C-, Ku-, DBS-, Ka-bands
- 2 to 300W 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

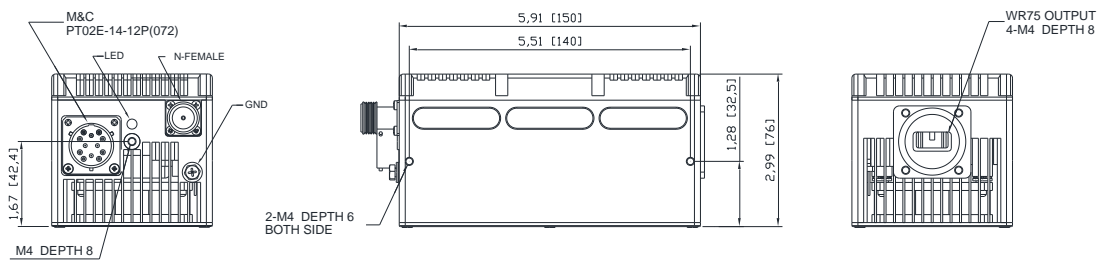
### ◆ Product Features

- |  |                                  |                                  |
|--|----------------------------------|----------------------------------|
|  | <b>30W BUC</b>                   | <b>40W BUC</b>                   |
| • Variable power consumption                                 | 135 W (@45dBm)<br>105 W (@42dBm) | 150 W (@46dBm)<br>115 W (@43dBm) |
| • Compact and light weight                                   | 2.9lbs / 1.3kg                   |                                  |
| • Operates without fan when output power set to 8W output    |                                  |                                  |
| • input power from MS connector or IFL(optional).            |                                  |                                  |
| • Low phase noise (exceeds IESS308/309)                      |                                  |                                  |
| • Stable linearity to 500 MHz bandwidth (Multi-Transponders) |                                  |                                  |
| • Rugged design for extreme environments (-40 to +60°C)      |                                  |                                  |

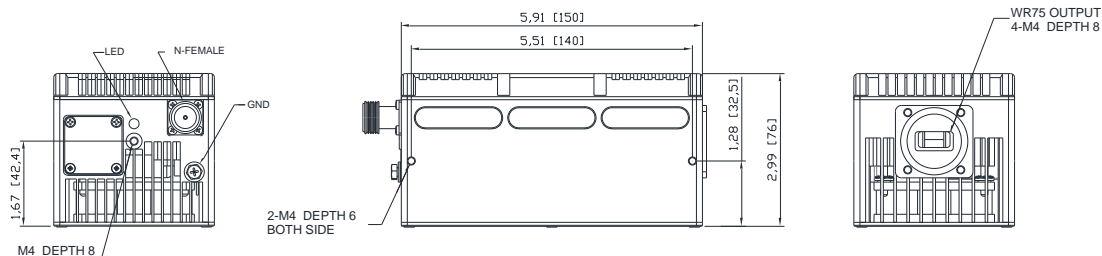
### ◆ Typical VSAT Applications

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

### ◆ Mechanical Diagram (Unit: inch [mm])



MS Connector for DC Power and M&C



IFL and No M&C

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### SPECIFICATIONS

#### RF Specifications

RF Frequency	Standard	Extended
	14-14.50 GHz	13.75-14.50 GHz
IF Frequency	950-1450 MHz	950-1700 MHz
External Ref	10 MHz, 0 ± 5 dBm	
Output Power	<b>30W BUC</b>	<b>40W BUC</b>
Saturated	45 dBm	46 dBm
PLin <sup>1</sup>	44 dBm	45 dBm
PLin <sup>2</sup>	43 dBm	44 dBm
PLin	42 dBm	43 dBm
IMD3 (@Prated-3dB)	-25dBc	
Small Signal Gain		
No M&C (fixed)	70 dB	
With M&C (1dB steps)	50-70 dB	
Gain Variation		
1 dB p-p / 36MHz		
3 dB p-p / 500MHz		
4 dB p-p / 750MHz		
Gain stability	3 dB p-p	
Phase Noise		
-60 dBc / Hz @ 100Hz		
-75 dBc / Hz @ 1KHz		
-85 dBc / Hz @ 10KHz		
-95 dBc / Hz @ 100KHz		
Output Spurious	-55 dBc	

#### Notes:

PLin<sup>1</sup>: -26 dBc regrowth, 1.5 SR

PLin<sup>2</sup>: -30 dBc regrowth, 1.0 SR (MIL-STD-188-164B, one-carrier)

PLin : <-25 dBc IMD3 (MIL-STD-188-164B, two-carrier)

#### Power Supply

Input Power	+36 to +56 VDC	
	+18 to +56 VDC (optional)	
Power Consumption	<b>30W BUC</b>	<b>40W BUC</b>
@ Psat Output	120 W	150 W
@ PLin Output	100 W	115 W

#### Interfaces

RF Output Connector	WR75-G (Grooved)	
IF Connector	N-Type Female or F-Type Female	
IF Input VSWR	1.5:1	
Power connector		
MS Connector	PT02E-14-12P(072)	
IFL (optional)	N-type or F-type (optional)	
M&C connector <small>(only for MS Connector)</small>	PT02E-14-12P(072)	
LED Alarm Indicator	ON	Flashing
Green	normal	/
Red	PLL alarm	Temp alarm

#### Physical Parameters

Size (inches)	5.9*3.15*3.0	
(mm)	150*80*76	
Weight (lbs)	2.9	
(kg)	1.3	
Operating Temperature	-40 to +60°C	
Humidity	0-100% (condensing)	
Altitude	0-10,000 feet ASL	

#### Part Number / Ordering Information

RGUC-U <b>abbb</b> - <b>ccccc</b> -C0	
<b>a</b> : Frequency Range	<b>bbb</b> : Output Power
1 = 14.0-14.5 GHz	030 =30 W
2 = 13.75-14.5 GHz	040 =40 W
<b>cccc</b> : Input Power and M&C	<b>d</b> : IF Connector
DC4E = Power by DC Power	N = N-Type Female
48NA =Power by IFL (+36 to +56 VDC)	F = F-Type Female

#### Contact Information

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