

# Block Up-Converter (BUC)

## Ku-Band 8/10/16/20W



### ◆ 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



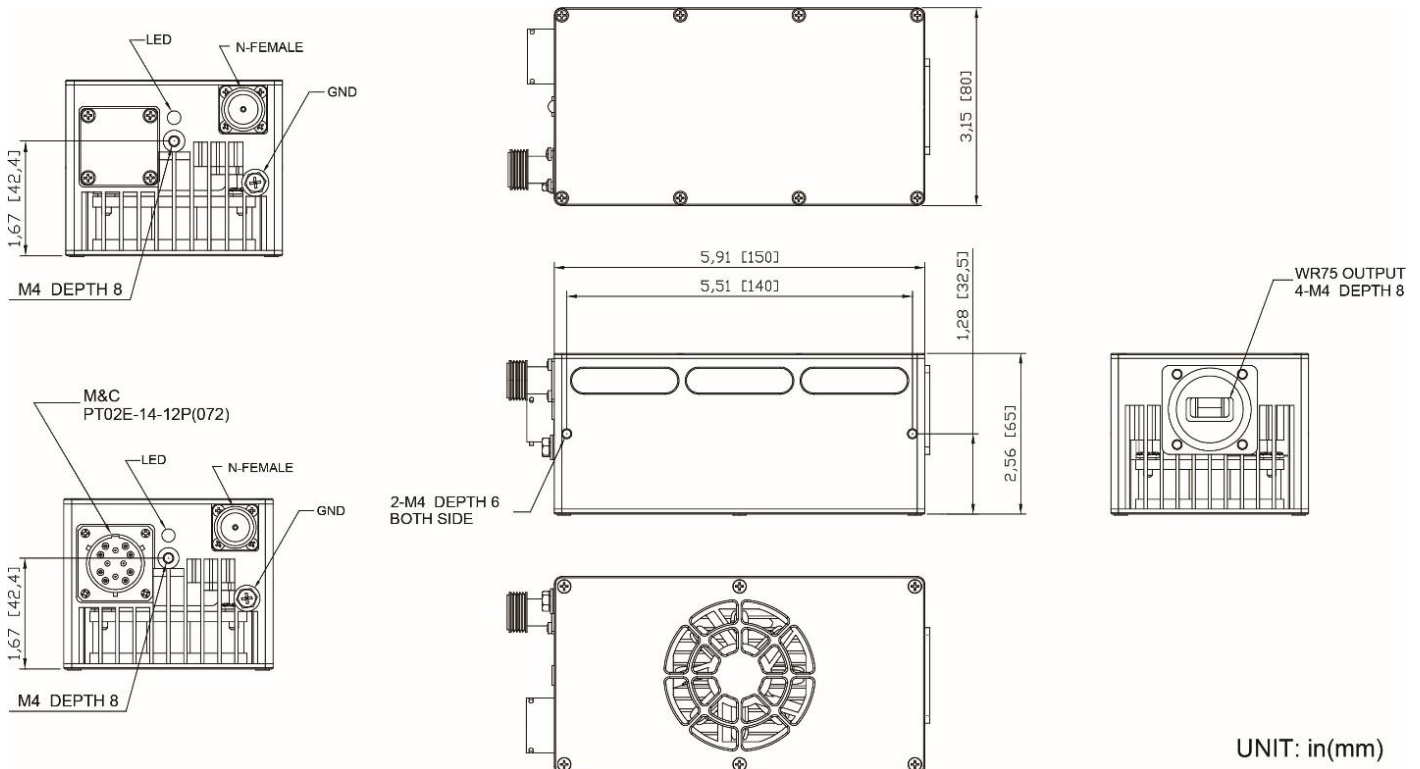
### ◆ Product Features

- Variable power consumption **40W @39dBm** **55W @40dBm** **70W @42dBm** **90W @43dBm**
- Compact and light weight 2.2lbs / 1.0kg
- IFL input power or separate DC connector
- 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))



UNIT: in(mm)

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### SPECIFICATIONS

#### ◆ RF Specifications

RF Frequency	<b>Standard</b>	<b>Extended</b>		
	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>8W</b> <b>BUC</b>	<b>10W</b> <b>BUC</b>	<b>16W</b> <b>BUC</b>	<b>20W</b> <b>BUC</b>
Prated (dBm)	39	40	42	43
PLin <sup>1</sup> (dBm)	38	39	41	42
PLin <sup>2</sup> (dBm)	37	38	40	41
PLin (dBm)	36	37	39	40
IMD3 (3dB from rated)	-25dBc			
Small Signal Gain	<b>8W</b> <b>BUC</b>	<b>10W</b> <b>BUC</b>	<b>16W</b> <b>BUC</b>	<b>20W</b> <b>BUC</b>
No M&C (fixed)	65	65	70	70
With M&C (1dB steps)	50-65	50-65	50-70	50-70
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	-55dBc			

#### 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	+18 to +56 VDC			
Power Consumption	<b>8W</b> <b>BUC</b>	<b>10W</b> <b>BUC</b>	<b>16W</b> <b>BUC</b>	<b>20W</b> <b>BUC</b>
@ Prated Output	40 W	55W	70 W	90W

#### ◆ Interfaces

RF Output Connector	WR75-G (Grooved)
IF Connector	N-Type Female or F-Type Female
IF Input VSWR	1.5:1
Power connector	IFL or MS Connector (optional)
Via IFL	N-Type or F-Type
Via MS Connector	4 Pin from PT02E-14-12P(072)
M&C connector	(optional)
M&C not available	Null
M&C available	8 Pin from PT02E-14-12P(072)
LED Alarm Indicator	Green = normal
	Red on = PLL alarm
	Red flashing = Temp alarm

#### ◆ Physical Parameters

Size (inches)	5.9*3.15*2.56
(mm)	150*80*65
Weight (lbs)	2.2
(kg)	1.0
Operating Temperature	-40 to +60°C
Humidity	0-100% (condensing)
Altitude	0-10,000 feet ASL

#### ◆ Part Number / Ordering Information

<b>RGUC-U<b>abbb</b>-<b>cccd</b>- C0</b>	
<b>a:</b> Frequency Range	<b>bbb:</b> Output Power
1 = 14.0-14.5 GHz	008 = 8W
2 = 13.75-14.5 GHz	010 = 10W
<b>cc:</b> Input Power and M&C	016 = 16W
DC4E = Power Via MS Connector	020 = 20W
DCNA = Power Via IFL (M&C not available)	<b>d:</b> IF Connector
DX4E = Power Via IFL (M&C available)	N = N-Type Female
	F = F-Type Female

#### ◆ Contact Information

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