

# Block Up-Converter (BUC)

## DBS-Band 20 / 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:

- Block upconverter (BUC)
- Low noise block (LNB)
- Transceiver (Tx/Rx/OMT/filters)
- C-, Ku-, DBS-, Ka-bands
- 2 to 300W output power

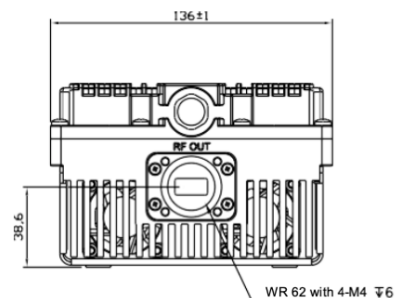
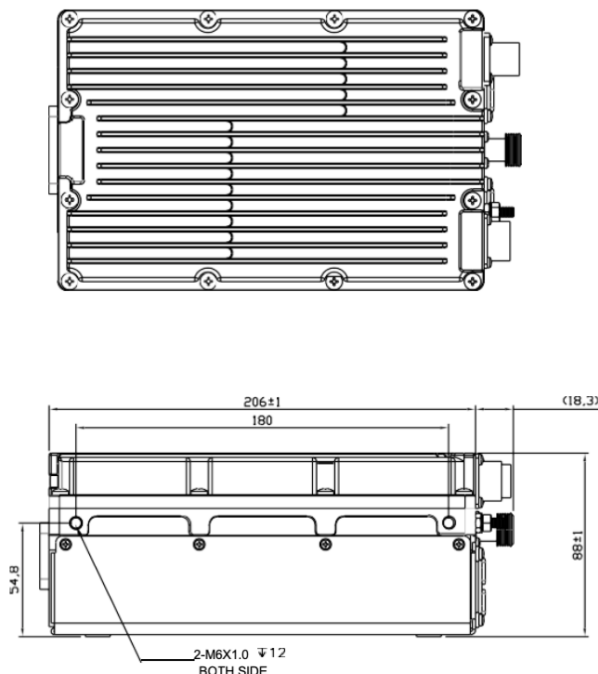
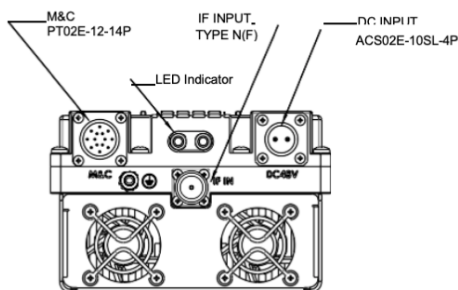
### ◆ Reliability

- 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

	<u>20W</u>	<u>40W</u>
• Variable power consumption	100W @43dBm	180W @46dBm
• Compact and light weight	7.3lbs / 3.3kg	7.7 lbs / 3.5kg
• Low phase noise (exceeds IESS308/309)		
• Rugged design for extreme environments (-40 to +60°C)		

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



### ◆ Typical VSAT Applications

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

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### SPECIFICATIONS

#### ◆ RF Specifications

	<u>Standard</u>	<u>Extended</u>
RF Frequency	17.3-18.0GHz	18.1-18.4GHz
IF Frequency	950-1750MHz	1150-1450MHz
Local Frequency	16.35 GHz	16.95 GHz
External Ref	10MHz, 0±5dBm	
<b>Output Power</b>	<b>20W</b>	<b>40W</b>
Rated/Saturated	43dBm	46dBm
PLin <sup>1</sup>	42dBm	45dBm
PLin <sup>2</sup>	41dBm	44dBm
PLin <sup>3</sup>	40dBm	43dBm
IMD3 (3dB from rated)	-25dBc	
Small Signal Gain	70dB	
Gain Variation	0.25dB p-p/1MHz 3dB p-p/300MHz 4dB p-p/800MHz	
Gain stability	3dB p-p	
Gain Adjustment	20dB (Step: 0.5dB)	
Phase Noise	-62dBc/Hz@100Hz -72dBc/Hz@1KHz -82dBc/Hz@10KHz -92dBc/Hz@100KHz	
Output Spurious	-55dBc	

#### 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

Input Power	+36 to +72 vDC	
<b>Power Consumption</b>	<b>20W</b>	<b>40W</b>
@ Rated Output	100W	180W
@ PLin <sup>1</sup> Output	80W	160W

#### ◆ Interfaces

RF Output Connector	WR62-G (Grooved)
RF Output VSWR	1.25:1
IF Input Connector	N-Type Female
IF Input VSWR	1.5:1
Power Supply Connector	ACS02E-10SL-4P
M&C Connector	PT02E-12-14P RS485, RS232 & Eth
Alarm Status Indicator	Yellow LED = PLL Unlock

#### ◆ Physical Parameters

<b>Size</b>	(inches)	8.11*5.35*3.47
	(mm)	206*136*88
<b>Weight</b>	(lbs)	<b>20W</b> 7.2
	(kg)	<b>40W</b> 7.7
		3.3
		3.5
<b>Operating Temperature</b>		-40 to +60°C
<b>Humidity</b>		0-100% (condensing)
<b>Altitude</b>		0-10,000 feet ASL

#### ◆ Part Number / Ordering Information

R G U C - D <u>a</u> <u>b</u> <u>b</u> - 4 8 R E	
D: DBS-band	
<b>a: Frequency Bands</b>	<b>bb: Output Power</b>
1 = 17.3-18.1GHz	20 = 20W
2 = 18.1-18.4GHz	40 = 40W

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