

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

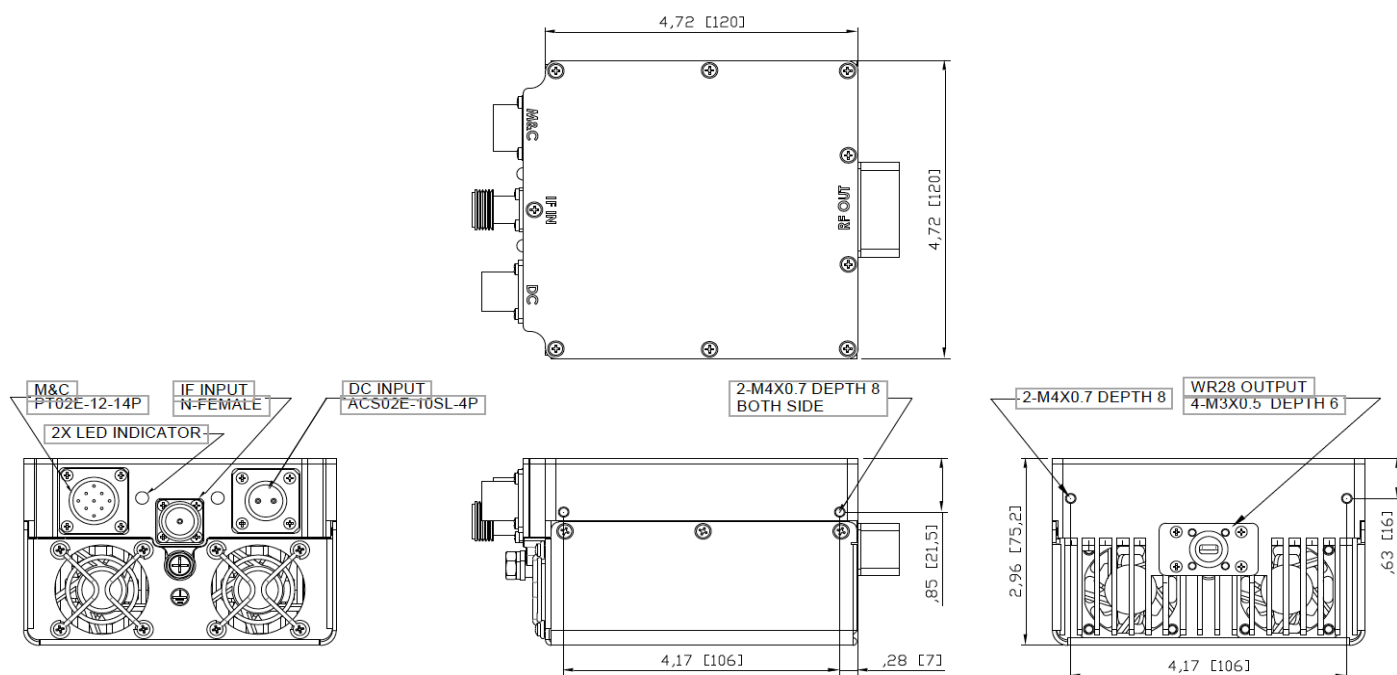
◆ Reliability

- 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

RF Frequency	27.5-31 GHz 29.5-30GHz
IF Frequency	950-1950MHz 950-1450MHz 1000-2000MHz
External Reference	10MHz, 0±5dBm
Output Power (dBm)	
Rated/Saturated	6W 10W
PLin¹	38.5 dBm 40 dBm
PLin²	37 39
PLin³	36 38
	35 37
IMD3 (@3dB from rated power)	-25dBc
Small Signal Gain	65 dB
Gain Variation	1dB p-p max./36MHz 3dB p-p max. /500MHz 4dB p-p max./1000MHz
Gain stability	3dB p-p
Gain Adjustment Range	15 dB (Step: 0.1 dB)
Phase Noise	-60dBc/Hz max.@100Hz -75dBc/Hz max.@1KHz -85dBc/Hz max.@10KHz -95dBc/Hz max.@100KHz
Output Spurious	-55dBc max.

Notes:

- PLin¹:** -26 dBc regrowth, 1.5 SR (commercial satellite)
- PLin²:** -30 dBc regrowth, 1.0 SR (MIL-STD-188-164B, one-carrier)
- PLin³:** <-25 dBc IMD3 (MIL-STD-188-164B, two-carrier)

◆ Power Supply

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

◆ Interfaces

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

◆ Physical Parameters

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

◆ Part Number / Ordering Information

RGUC - A <u>a</u> <u>b</u> b - DCRE - C	
A: Ka-band	
<u>a</u>: Frequency Bands	<u>bb</u>: Output Power
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	

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