

Block Up-Converter (BUC)

Ka-Band 20W



◆ Company Overview

RevGo designs and manufactures satellite earth station RF from low to high 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

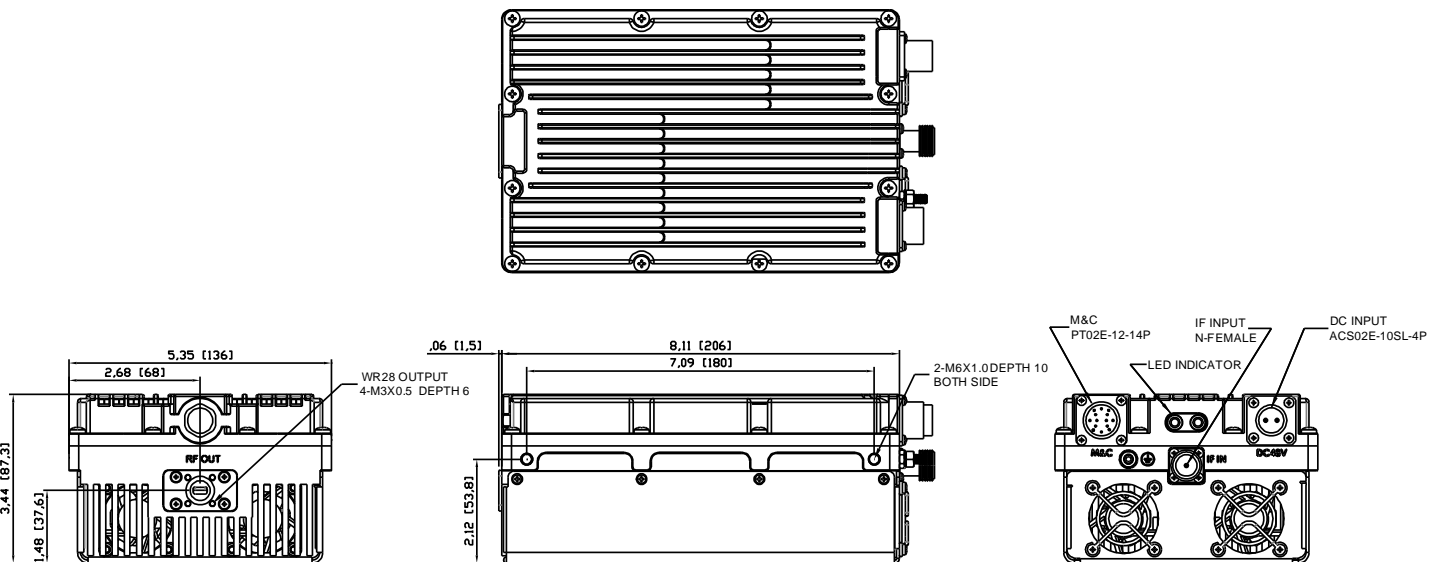
◆ Reliability

- 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

- Variable power consumption 180 W (@43dBm) 135 W (@40dBm)
- Compact and light weight 7.3 lbs / 3.3 kg
- Software selectable sub-band (single-,dual-band)
- Low phase noise (exceeds IESS308/309)
- Rugged design for extreme environments (-40 to +60°C)
- M&C with Real-time clock, Web interface, SNMP V2C

◆ Mechanical Diagram (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 (Available in many band options)
IF Frequency	950-1950 MHz 950-1450 MHz 1000-2000 MHz
External Ref	10 MHz, 0 ± 5 dBm
Output Power	20W BUC
Prated / Psat	43 dBm / 43 dBm min.
PLin¹	42 dBm
PLin²	41 dBm
PLin	40 dBm
IMD3 (3dB from rated)	-25 dBc max.
Small Signal Gain	70 dB
Gain Variation	1 dB p-p / 36 MHz 3 dB p-p / 500 MHz 4 dB p-p / 1000 MHz
Gain stability	3 dB p-p
Gain Adjustment	20 dB (50-70 dB, Step: 0.1 dB)
Phase Noise	-63 dBc / Hz @ 100 Hz -73 dBc / Hz @ 1 KHz -83 dBc / Hz @ 10 KHz -93 dBc / Hz @ 100 KHz
Output Spurious	-55 dBc

Notes:

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

Power Supply

Input Power	+36 to +72 VDC
Power Consumption	
@ P _{Lin} Output	135W
@ Rated Output	180W typ.

Interfaces

RF Output Connector	WR28-G (Grooved)		
RF Output VSWR	1.25:1		
IF Connector	N-Type Female		
IF Input VSWR	1.5:1		
Power Connector	ACS02E10SL-4P		
M&C Connector	PT06E-12-14P		
Alarm Status Indicator	LED(Green)	LED(Yellow)	
	Normal	ON	OFF
	PLL Alarm	OFF	ON

Physical Parameters

Size	(inches)	8.1*5.3*3.4
	(mm)	206*136*88
Weight	(lbs)	7.3 lbs
	(kg)	3.3 kg
Operating Temperature	-40 to +60°C	
Humidity	0-100% (condensing)	
Altitude	0-15,000 feet ASL	

Part Number / Ordering Information

RGUC-Aa020-48REN-A0	
a: Frequency Range	4 = 29-30 & 30-31 GHz
1 = 29-30 GHz	5 = 27.652-28.388 GHz
2 = 29.5-30 GHz	6 = 28.172-29.071 GHz
3 = 30-31 GHz	7 = 27.652-29.071 GHz

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