

Satellite Transceiver (TR)

Ka-Band 6 / 10W



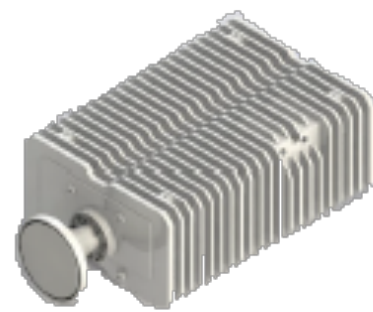
◆ Company Overview

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.

- Transceiver integrates 1XBUC, 1xLNB and an OMT (rejection filters)
- Block upconverter (BUC)
- 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



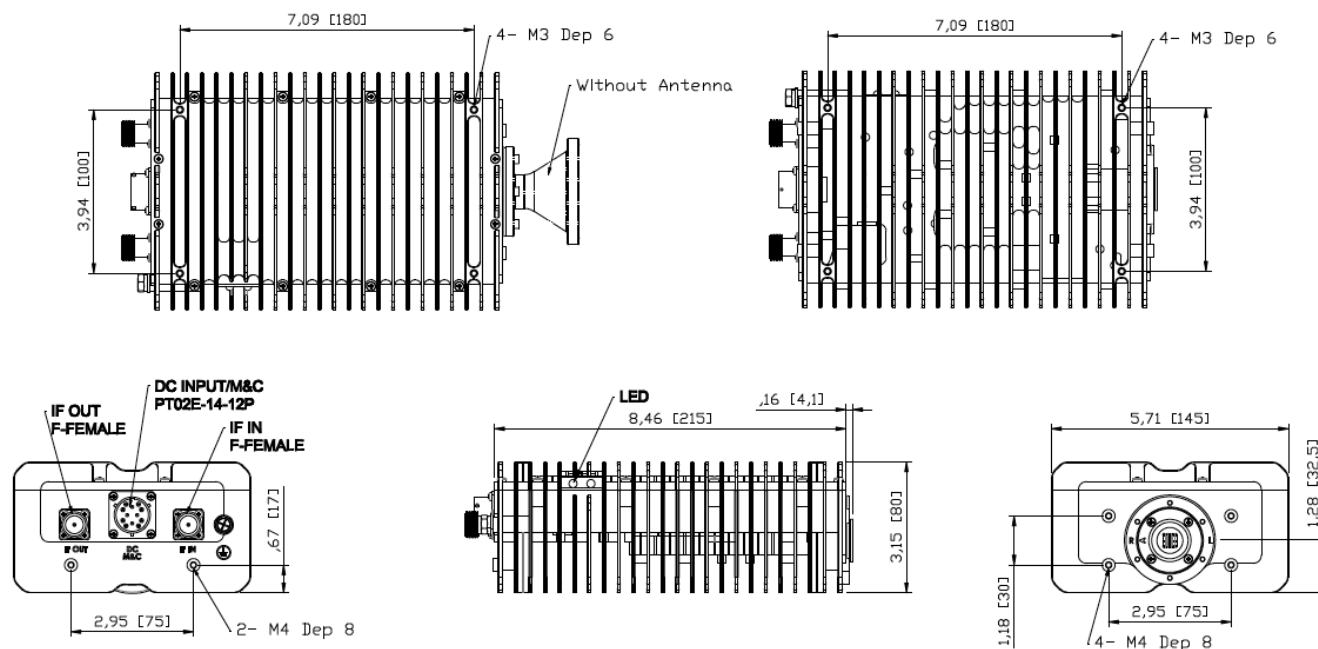
◆ Product Features

- | | <u>6W</u> | <u>10W</u> |
|---|-----------------|-----------------|
| • Variable power consumption | 60W @38dBm | 80W @40dBm |
| • Compact and light weight | 3.3 lbs / 1.5kg | 6.6 lbs / 3.0kg |
| • Single-, dual-, tri-band options (27.5-31GHz) | | |
| • Band selection from remote interface (SNMP) | | |
| • IFL input power or option for separate DC connector | | |
| • Low phase noise (exceeds IESS308/309) | | |
| • Rugged design for extreme environments (-40 to +60°C) | | |

◆ Typical VSAT Applications

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

◆ Mechanical Diagram – Dual Band (Unit: inch (mm))



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SPECIFICATIONS

◆ Tx Specifications (BUC)

Tx 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)	6W	10W
Rated/Saturated	38	40
PLin¹	36	38
PLin²	35	37
PLin³	34	36
IMD3 (@3dB from rated power)	-25dBc	
Small Signal Gain	6W	10W
	65	70
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	20dB (Step: 0.1 dB)	
Phase Noise	-63dBc/Hz max.@100Hz -73dBc/Hz max.@1KHz -83dBc/Hz max.@10KHz -93dBc/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)

◆ Rx Specifications (LNB)

Rx Frequency	19.2-20.2 & 20.2-21.2 GHz 18.2-19.2 & 19.2-20.2 GHz 17.7-18.7 18.45-19.45 & & 19.2-20.2 GHz
Output Frequency	950-1950 MHz
Noise Figure	1.8 dB (including OMT/filters)
Reference Signal	External Ref: 10 MHz +/- 5 dBm Internal Ref: +/- 1ppm (optional)
Gain	60 dB typ, 55 dB min
Gain Flatness	4 dB p-p / 1000 MHz max
Gain Stability	4 dB max
Phase Noise	-63 dBc/Hz @ 100 Hz -73 dBc/Hz @ 1 KHz -83 dBc/Hz @ 10 KHz -93 dBc/Hz @ 100 KHz

◆ Power Supply

Input Pwr	+18 to +56 vDC	
Pwr Consumption	6W	10W
@ PLin ¹ Output	55W	75W
@ Rated Output	70W	90W

◆ Interfaces

RF Output Conn	WR28-G (Grooved)
RF Output VSWR	Tx = 1.25:1, Rx = 2:1
IF Input Connector	N-Type or F-Type
IF Input VSWR	1.5:1
Power Connector	ACS02E10SL-4P
M&C Connector	PT02E-12-14P RS485, RS232 & Ethernet
Alarm Indicators	LED

◆ Part Number / Ordering Information

R G U C - A a b b c d e f g	
A: Ka-Band	e: Rx Frequency Band
a: Tx Frequency Band	1 = 17.2-18.2 GHz
1 = 29-30 GHz	2 = 18.2-19.2 GHz
2 = 29.5-30 GHz	3 = 19.2-20.2 GHz
3 = 30-31 GHz	4 = 20.2-21.2 GHz
4 = 29-30 GHz & 30-31 GHz	5 = 21.2-21.7 GHz
A = 27.5-28.5 GHz	6 = 18.2-20.2 & 19.2-20.2 GHz
B = 28.25-29.25 GHz	7 = 19.2-20.2 & 20.2-21.2 GHz
C = 27.5-30 GHz	8 = 17.70-18.70 GHz
D = 28-31 GHz	9 = 18.45-19.45 GHz
bb: Output Power	T = Triband (3, 8, & 9)
06 = 6W	f: Rx Ref Signal Type
10 = 10W	E = 10 MHz external ref
c: Input power	I = 10 MHz internal ref
F = VDC via IFL	g: Polarization Mode
M = VDC via M&C	1 = Tx: RHCP, Rx: LHCP (fixed)
d: Tx Ref Signal Type	2 = Tx: LHCP, Rx: RHCP (fixed)
1 = 10 MHz external ref	3 = Tx: RHCP, Rx: RHCP (fixed)
2 = 10 MHz internal ref	4 = Tx: LHCP, Rx: LHCP (fixed)

◆ Physical Parameters

Size (inches)	8.47*5.71*3.15
(mm)	215*145*80
Weight (lbs)	0.77
(kg)	1.7
Operating Temp	-40 to +60oC
Humidity	0-100% (condensing)
Altitude	0-40,000 feet ASL

◆ Contact Information

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