

# Satellite Transceiver

## Ka-Band TR 3W



### ◆ 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
- 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

### ◆ Typical VSAT Applications

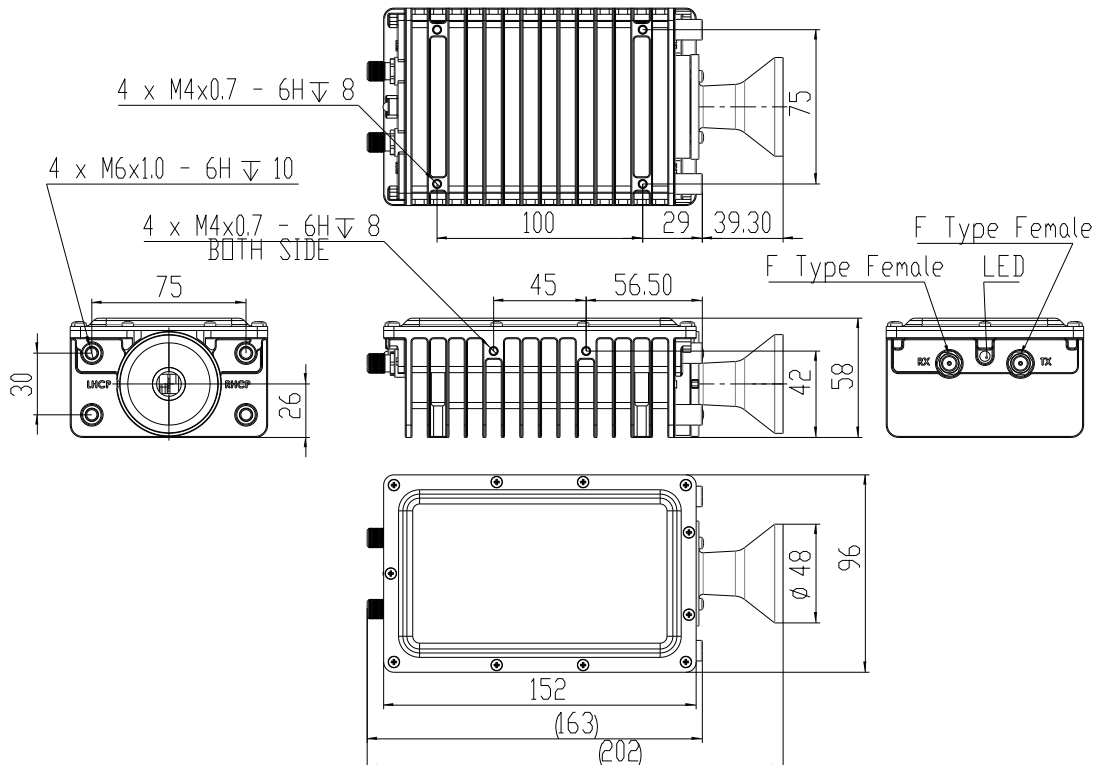
- Maritime
- 5G Backhaul
- Terminals
  - Portable
  - Transportable

### ◆ Product Features

#### 3W TR

- Variable power consumption 30W @34dBm
- Compact and light weight 163\*96\*58 mm 1.2 kg
- IFL input power
- Rugged design for extreme environments (-40 to +55°C)

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



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### SPECIFICATIONS

#### ◆ Tx Specifications (BUC)

<b>Tx RF Frequency</b>	29.50-30.00 GHz,	29.00-30.00 GHz
<b>IF Frequency</b>	950-1450 MHz,	1400-2400 MHz
<b>LO Frequency</b>	28.55 GHz	27.60 GHz
<b>Ref Signal Type</b>	10 MHz external ref	
<b>External Reference</b>	10 MHz, 0±5 dBm	
<b>Output Power</b>	<b>3W</b>	
<b>Rated/Saturated</b>	34.5 dBm	
<b>Small Signal Gain</b>	55±4 dB	
<b>Gain Flatness</b>	1 dB p-p max./36MHz	
	3 dB p-p max./500MHz	
<b>Gain stability</b>	3 dB p-p	
<b>Phase Noise</b>	2.0°max. (RMS 100Hz to 1MHz)	
<b>Output Spurious</b>	-50 dBc max.	

#### ◆ Rx Specifications (LNB)

<b>Rx Frequency</b>	18.20-19.20 & 19.20-20.20 GHz
	19.20-20.20 & 20.20-21.20 GHz
<b>Output Frequency</b>	950-1950 MHz
<b>LO Frequency</b>	17.25 GHz & 18.25 GHz
<small>*Switched voltage(+13/18VDC)*</small>	<small>by</small> 18.25 GHz & 19.25 GHz (optional)
<b>LO Stability</b>	Internal Ref: ±3 ppm max.
<b>Noise Figure</b>	1.8 dB
<b>P-1dB</b>	0 dB min.
<b>Gain</b>	55 ± 4 dB min.
<b>Gain Flatness</b>	1 dB p-p / 36 MHz max.
	5 dB p-p / 1000 MHz max.
<b>Image Rejection</b>	30 dBc
<b>Phase Noise</b>	1.8° max. (RMS 1KHz to 1MHz)

#### ◆ TX Power Supply

<b>Input Pwr</b>	+ 13 to +36 VDC
<b>Pwr Consumption</b>	30W typ.

#### ◆ RX Power Supply

<b>Input Pwr</b>	+12 to +24 VDC
<b>Supply current</b>	150 mA typ.
<b>Pwr Consumption</b>	4 W

#### ◆ Physical Parameters

<b>Size (inches)</b>	6.41*3.77*2.28
<b>(mm)</b>	163*96*58
<b>Weight (lbs)</b>	3.08
<b>(kg)</b>	1.2 (Including feed)

<b>Operating Temp</b>	-40 to +55 °C
<b>Humidity</b>	0-100% (condensing)
<b>Altitude</b>	0-10,000 feet ASL
<b>Alarm Indicators</b>	LED *1
<b>protection</b>	IP67

#### ◆ Interfaces

<b>Polarization</b>	Circular
<b>TX Connector</b>	F-Type (75 Ω)
<b>RX Connector</b>	F-Type (75 Ω)

#### ◆ Alarm

<b>Normal</b>	Green on
<b>TX PLL unlock</b>	Red Flash
<b>RX PLL unlock</b>	Green Flash
<b>Abnormal</b>	Red on

#### ◆ Part Number / Ordering Information

RGTR-A<sub>a</sub>03-bA03-TXLF-C0

##### **a:** Tx Frequency

1= 29.00-30.00 GHz  
2= 29.50-30.00 GHz

##### **b:** Rx Frequency

4= 20.20-21.20 GHz  
6= 18.20-20.20 GHz  
7= 19.20-21.20 GHz

#### ◆ Contact Information

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