



Beacon Receiver

BRV-xxx-y-zz-C

◆ Temix's Beacon Receiver is designed to track and measure pilots or beacons of all known commercial satellites. It is particularly suited to track satellite beacons in earth stations using large antenna requiring

good boresight alignment and stable uplink power. Temix's tracking receiver has input at L-band, usually 950MHz to 1,950MHz optionally in other bands on request.



The L-band signals are downconverted by a synthesized downconverter, in 10kHz steps, followed by a noncoherent detection module, optionally with a coherent detector DSP based.

Functional

Input Frequency	L Band (950 to 1950 MHz), C Band (wide), X, Ku
Step Size	10 KHz, others on request.
Amplitude Response	+/- 0.05 dB over 100 KHz +/- 1.3 dB full band
Frequency Stability	Better than 1 KHz (@ 0 to 50°C), others on request.
Input Dinamic Range	-95 dBm to -55 dBm, Option -105 dBm
Input Impedance	50 Ohm, Option 75 Ohm
Input Return Loss	Better than 15dB
Noise Figure	Better than 15dB
Amplitude Detection	Non Coherent - Option Coherent Detection DSP based.
C/N Threshold*	4 dB for acquisition 1 dB for carrer lock (Only Opt. ABRL.OPT.04)
Amplitude Stability	0.05dB @25° C after warm-up (30 minutes)
Detection Bandwidth	+/- 80 KHz standard, other on request.
Acquisition Bandwidth*	+/- 25 KHz (Only coherent detection Opt. ABRL.OPT.04).

Main Features

- Designed to track and measure pilots or beacons of commercial satellites

- Input Frequency
L Band (950 to 1950 MHz)
C Band (wide), X, Ku

- Particularly suited to track satellite beacons in earth stations using large antennas

*The Information included in this data sheet may be changed without advise. rev_01/17

◆ TEMIX Communication Engineering

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DC Interface	0 to 10 Vcc, other on request.
Tracking Slope	0,5 V/dB
Tracking Linearity	0,25 dB
Impedance	1 KOhm
Slope	200 mV/dB +/-5%
External Reference	Option 10MHz
Interface	
RF Input	SMA female, Option N female
DC Output	DB9 Connector
External Reference	Option BNC/f
Alarm	Dry contact NO or NC on DB9 connector
Remote Control	Option RS232, RS485 or TCP/IP with SNMP agents.
Primary Power Requirements	
Voltage	80 to 270 Vca +/- 20%, 40 to 60 Hz
Power Consumption	80W max
Physical	
Mechanics	1 Unit standard rack 19" - 2 Kg
Environmental	
Operating Temperature	0°C to 50°C with 80% Humidity

* Standard value, others depending by bandwidth selected, only with ABRL.OPT.04 option.

Option - Reference

ABRL.OPT.01	Integrated C Band Converter
ABRL.OPT.02	Integrated X Band Converter
ABRL.OPT.03x	Integrated Ku Band Converter (Extention L for Low-Ku or H for High-Ku)
ABRL.OPT.04	Choerent detection with programable acquisition band
ABRL.OPT.05	Remote control via RS232/RS485
ABRL.OPT.06	Remote control via TCP/IP with SNMP agents

Legenda

Step Size

xxx = 001 1KHz
 xxx = 010 10KHz
 xxx = 100 125kHz
 xxx = 101 1MHz

Input Frequency

y = L L-Band
 y = C C-Band
 y = X X-Band
 y = U Ku-Band

Filter

zz = 80 +/-80KHz
 zz = 50 +/-50KHz
 zz = 35 +/-35KHz

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