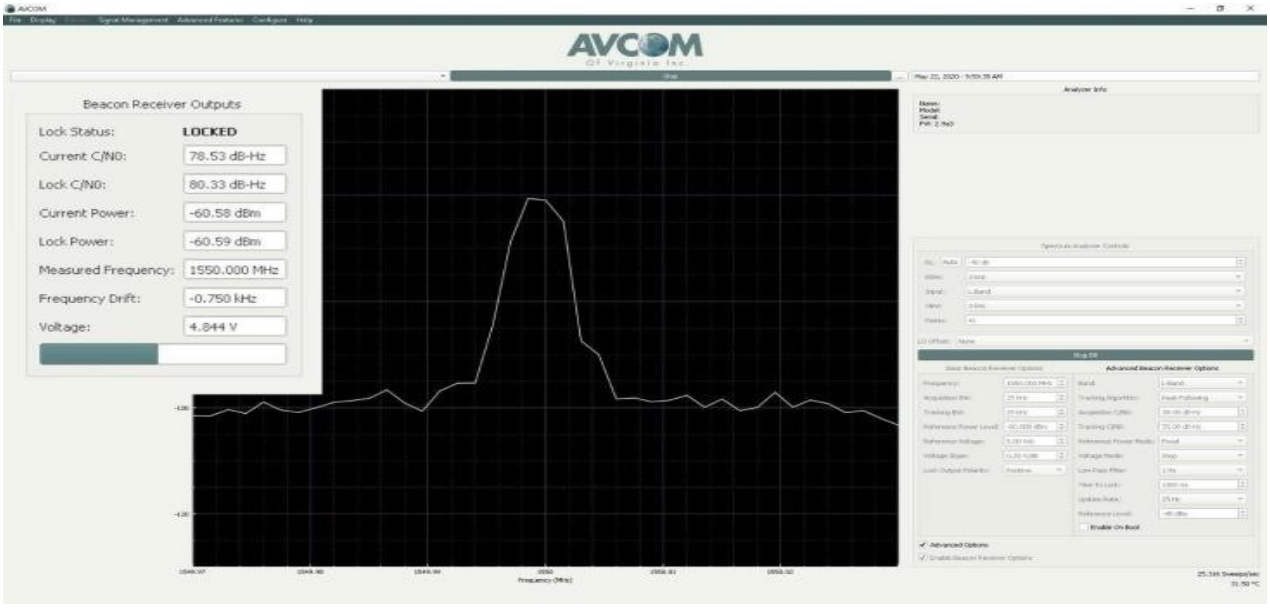
AVCOM Of Virginia Inc.
7729 Pocoshock Way
N Chesterfield, VA 23235
804-794-2500

BR-MOD-1-9-A-1S

Embedded L-Band Single Input Beacon Receiver Module

- Track L-Band CW Beacon Carrier; BPSK Carrier
- CEPT-Carrier-Edge-Power-Track for DVB Carrier
- For Integration in On-The-Move Applications
- Monitoring & Control (M&C) via Ethernet with EVO-GUI
- Comprehensive API for Easy Integration
- Extended Temperature Range
- Low SWaP (Size, Weight, and Power)

The BR-MOD-1-9 is a full SDR satellite beacon receiver designed on a completely new platform to meet today's system challenges. It is a robust and reliable product featuring many capabilities to provide rugged and reliable operation in embedded application. A CW satellite beacon carrier can be acquired quickly and tracked in On-the-Move, as well as in fixed-site applications. It provides a voltage output from 0 to 10 VDC proportional with the input L-band signal. In addition, the receiver can lock on and track BPSK-type carrier signals AND is uniquely capable of locking on and tracking a DVB- like carriers utilizing an exclusive Avcom-only Carrier- Edge-Power-Tracking (CEPT) function. Avcom's EVO-GUI software is included and provides a full- featured set of tools for robust operations for any application. Avcom provides API protocol documentation and support for developing POSIX-C compliant APIs for your application.



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BR-MOD-1-9-A-1S - TECHNICAL SPECIFICATIONS DATA

PARAMETER	PERFORMANCE
INPUT CONNECTORS:	SMA, 50 Ohm
INPUT FREQUENCY RANGE:	930 to 2175MHz
TUNING STEP SIZE:	1kHz
INPUT LEVEL RANGE:	-10 to -100 dBm
MAXIMUM INPUT POWER LEVEL:	- 10 dBm max
DETECTION BANDWIDTH:	10 to 750 kHz
TRACKING BANDWIDTH:	10 to 150 kHz
DETECTED LEVEL FILTERING:	Low-Pass, User-Select: 0.25 Hz, 0.5 Hz, 1.0 Hz, 2.0 Hz, 3.0 Hz
SEARCH/TRACK RATE:	**User-Selectable: 10 Hz, 25Hz**
ACQUISITION TIME:	<1 second typical
ADJUSTABLE DELAY BEFORE LOCK:	0 to 5000 milliseconds
ACQUISITION/TRACKING LEVEL:	Minimum C/No, 39 dB-Hz
BEACON/CARRIER TYPE:	CW, BPSK (No Demod), CEPT(Carrier-Edge-Power-Track) on DVB (No Demod)
M & C	
ETHERNET:	10/100; Magnetics on-board, 4-pin Molex
IP ADDRESS:	DHCP or Static
INCLUDED CONTROL APPLICATION:	Avcom GUI (Windows)
APPLICATION PROGRAMMING INTERFACE (API):	POSIX-compliant 'C' Pre-built Libraries for Windows and Linux x86 Source code available
PROTOCOL:	**High-reliability closed-loop with error checking**
RECEIVER OUTPUT VIA PHYSICAL OUTPUTS:	Yes
RECEIVER OUTPUT VIA M&C INTERFACE:	Yes

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BR-MOD-1-9-A-1S Technical Specification

RECEIVER OUTPUTS	
CONNECTOR:	6-pin Molex
ANALOG SIGNAL STRENGTH INDICATOR OUTPUT:	0 to 10 VDC, 25 mA
ANALOG SLOPE:	0.1 to 3.0 Volts/dB
ANALOG SLOPE POLARITY:	Positive or Negative
ANALOG OUTPUT FILTERING:	Low-Pass, 0.5 Hz, fixed.
DIGITAL LOCK INDICATOR OUTPUT:	0 – 3.3 VDC
DIGITAL LOCK INDICATOR OUTPUT POLARITY:	Adjustable (H=LOCK or L=LOCK)
POWER	
CONNECTOR:	2-pin Molex
POWER SUPPLY:	15 - 24 VDC; < 3 W
PHYSICAL	
DIMENSIONS:	3 in. x 3.5 in. x 1.057 in.
WEIGHT:	8 oz; 200g
ENVIRONMENTAL	
OPERATING TEMPERATURE:	-40˚C to 70˚C
STORAGE TEMPERATURE:	-40˚C to 85˚C
HUMIDITY:	0 to 95%, non-condensing
OPERATING ALTITUDE:	40,000 ft; 12,000 m

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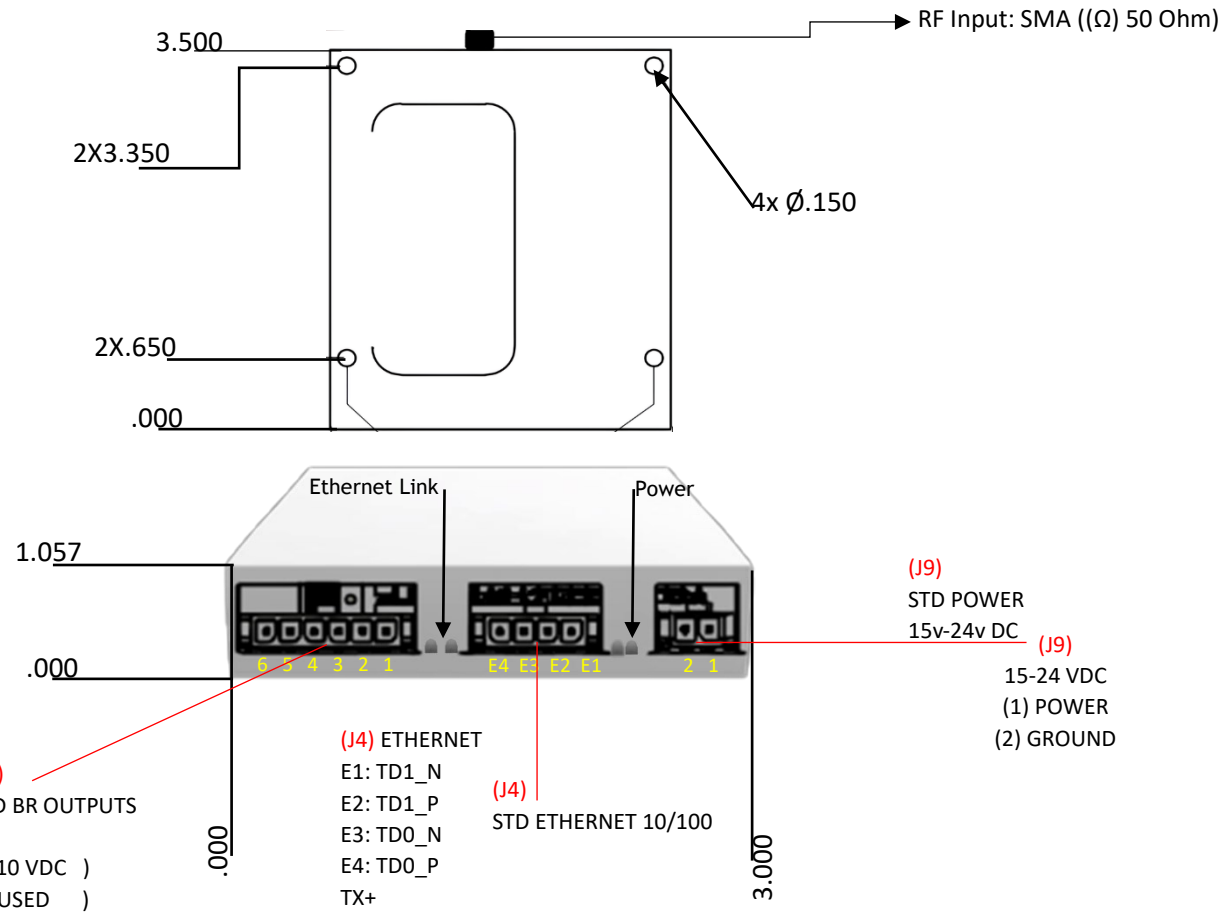
BR-MOD-1-9-A-1S Technical Specification Continued

PHYSICAL DIMENSIONS, CONNECTOR DESIGNATIONS AND USER DATA



(J8) STD BR OUTPUTS
(1) I/O GROUND
(2) DC ANALOG OUT (0 – 10 VDC)
(3) AUX DIO 2 (UNUSED)
(4) AUX DIO 1 (BR RUN INDICATOR)
(5) AUX DIO 0 (BR DIGITAL LOCK OUT)
(6) 3.3VDC OUT (REF ONLY 10 mA MAX)

HEADER DEFINITION (MATING CONNECTOR)
J9: POWER (Molex: 43645 - 0200)
J8: BR & AUX (Molex: 43645 - 0600)
J4: ETHERNET (Molex: 43645 - 0400)
Crimp Pin (Molex: 043030 - 0002)

A Dual-Input version of this product is also available: BR-MOD-1-9-A-2S.

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