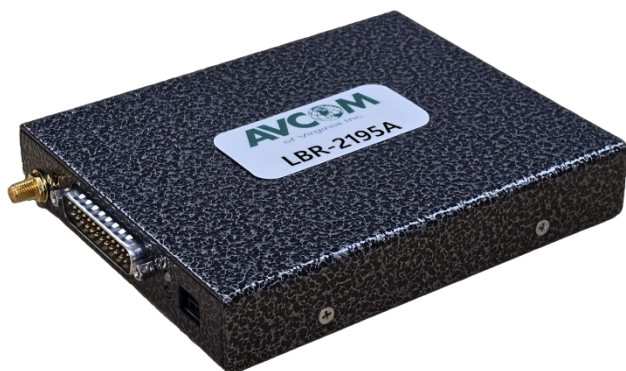




## LBR-2195A

## Embedded L-Band Beacon Receiver



- Track L-Band CW Beacon Carrier; BPSK Carrier
- Synthesized Direct conversion tuner system
- Serial text-based API interface for easy implementation with simple embedded processors
- Comprehensive API on USB for easy development
- Extended Temperature Range
- Low SWaP-C

The LBR-2195A is a software-defined radio (SDR) satellite beacon receiver that provides DC output voltage proportionate to the input RF signal level over L-Band. The receiver will remain locked on the CW carrier signal and provide the DC output voltage relative to input RF level at the tuned center frequency.

The LBR-2195A can also lock on and track BPSK -type modulated carriers signals with excellent performance. Typical Time-to-lock period is <3 seconds.

The LBR-2195A has been designed with the systems integrator in mind for satellite antenna and uplink power controller systems; the small form-factor is ideal for low-profile and restricted spaces.

## LBR-2195A - TECHNICAL SPECIFICATIONS DATA

PARAMETER	PERFORMANCE
<b>M&amp;C</b>	
CONNECTOR	DB-25 Male
COMMUNICATION TYPES	RS-232 (9600, N,8,1) (New Text based API) RS-422 (9600, N,8,1) (New Text based API) RS-232 continuous data stream out. USB (via sbs2api) (Optional/Additional Cost)
POWER CONNECTOR	2-pin Molex
POWER SUPPLY	8VDC to 33VDC, <3W
<b>PHYSICAL DIMENSIONS</b>	
Size:	Mini-CLM (5.5"L x 4.5"W x .94"H) Stacked Block (4.75"L x 4"W x 1.07"H)
WEIGHT:	TBD
<b>ENVIRONMENTAL</b>	
OPERATING TEMPERATURE	-30°C to 60°C
STORAGE TEMPERATURE	-40°C to 85°C
HUMIDITY	0 to 95%, non-condensing

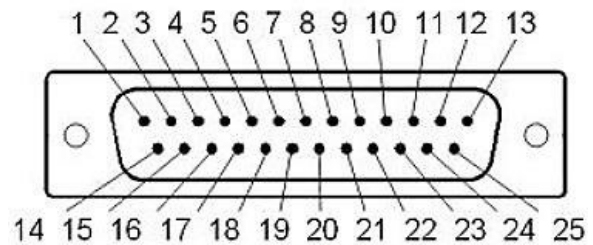
## LBR-2195A - TECHNICAL SPECIFICATIONS DATA

RF	
INPUT CONNECTOR	SMA, 50 ohms
INPUT FREQUENCY RANGE	950 to 2150 MHz
TUNING STEP SIZE	1k Hz
INPUT LEVEL RANGE:	-30 to -90 dBm
MAXIMUM INPUT POWER LEVEL	-20 dBm
DYNAMIC RANGE	40 dB
DETECTION BANDWIDTH	10 to 750 kHz
TRACKING BANDWIDTH	10 to 150 kHz
DETECTED BEACON LEVEL FILTERING	Low-Pass, User-Select: 0.25Hz, 0.5Hz, 1Hz, 2Hz, 3Hz
SEARCH/TRACK RATE	10 Hz
ACQUISITION TIME	<1 second typical
ADJUSTABLE DELAY BEFORE LOCK	0 to 5000 milliseconds
BEACON/CARRIER TYPE:	CW, BPSK (No Demod)
BEACON RECEIVER	BR Only/No SA mode
SENSITIVITY	40 dB-Hz
RECEIVER OUTPUTS	
CONNECTOR	DB-25 Male
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 POLARITY	Adjustable (H=LOCK or L=LOCK)
ALARM RELAY	Form C, NC

## LBR-2195A - Technical Specification Continued

### DB25 Male Front Panel Connector

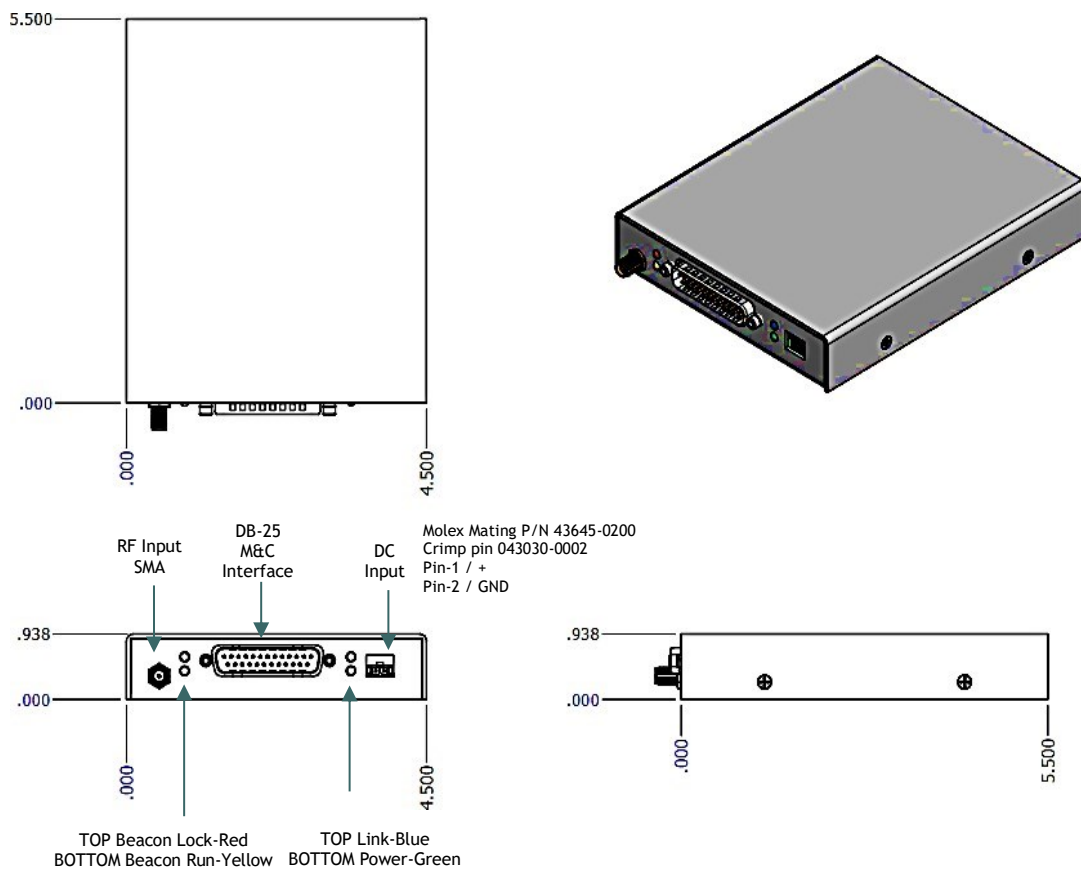
Pin	Function
1	Beacon Analog Out 0-10V
2	Beacon Run Out
3	Beacon Lock Out
4	Relay NC
5	Relay NO
6	RFU
7	RS422 TX N
8	RS422 RX N
9	Ground
10	USB P
11	Ground
12	RS232 DataStream TX
13	RS232 TX
14	Ground
15	Ground
16	Ground
17	Relay C
18	RFU
19	RFU
20	RS422 TX P
21	RS-422 RX P
22	Ground
23	USB N
24	Ground
25	RS232 RX



## LBR-2195A - Technical Specification Continued

### Physical Dimensions

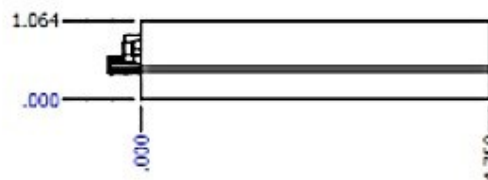
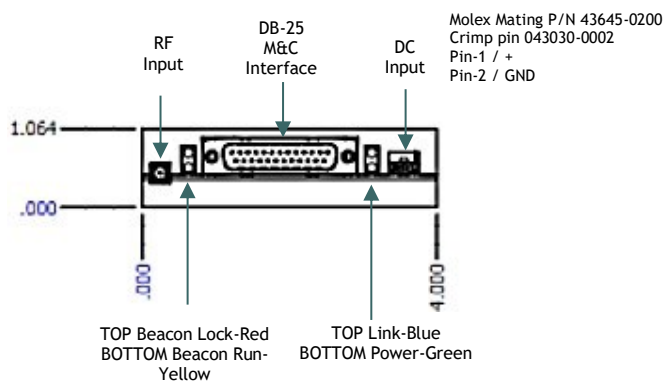
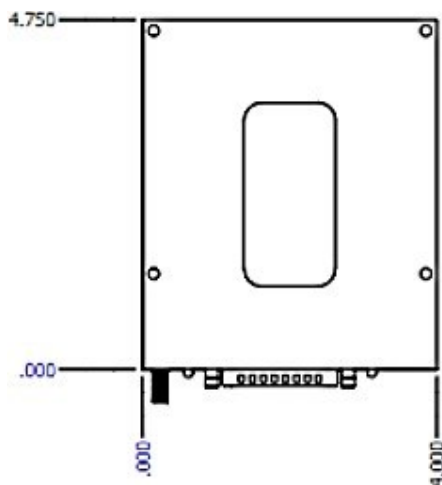
#### Mini-CLM Type



## LBR-2195A - Technical Specification Continued

### Physical Dimensions

#### Stacked Cover Type



For API Protocol, please contact Sales at 804-794-2500