



The Elital ELT-190-00141-0 Digital Beacon Receiver is the new generation receiver designed for optimize pointing and tracking of GEO satellites from earth stations.

The Elital DRB can lock onto a CW or low index modulated carrier, ensuring an high flexibility .

The DBR operate in L-band and accept a 950-2150 MHz signal with an high dynamic range from -110 to -10 dBm.

The DBR use a signal processing totally digital for obtain a fast response combined with an high accuracy.

Due to its high sensitivity, the DBR can be used on systems that do not have high antenna gain such as mobile stations.

The DBR can be used as stand alone module, supplementing with accessories such as LCD display and keypad, or coupled to the ACU able to control via RS232/RS422 or Ethernet interfaces.

## Main Features

- Fully digital signal processing
- Fast response (acquisition time < 1 sec)
- Beacon signal: CW or modulated
- Flexible control mode: LCD & keypad, RS232/RS422, Ethernet
- Flexible output: analog DC, digital, digital continuous
- High configurability (output slope, search window, reference level, ecc)
- High integrated compact design

## Options

- Secure Digital with event and level logger
- M&C software with advanced features

DBR typical specifications	
<b>RF Input</b>	
Connector	F-type
Frequency range	950—2150 MHz
Dynamic range	-110 to -10 dBm
Impedance	75 ohm
Input return loss	10 dB typical
Aggregate power level	-10 dBm max ( 1 dBcp ) @ -40 dBm ref. Level
Tuning step	10 kHz local interface, 1 kHz remote control
<b>Analog output</b>	
Voltage range	0 — 10 V DC
option	0 — 5 V DC
Slope	Logarithmic, from 1 dB/V to 7 dB/V user selectable
Impedance	33 ohm ( max current 10 mA )
Display readout	Numerical and bar indication
<b>Digital output</b>	
Type	Data stream with signal characteristics
Interface	RS232 or RS422 selectable
option	Ethernet
<b>Transfer characteristic</b>	
Equivalent Noise Bandwidth	50 Hz
Search window	25 kHz max user selectable
Acquisition time	< 1 sec.
Acquisition threshold	27 dBc/Hz typ. ( lock threshold parameter dependent )
option	Adjacent modulated channel filter ( acquisition time > 1 sec. )
<b>RF bypass</b>	
option	F-type connector, 75 ohm imp., 5 dB typ. gain
<b>Internal reference</b>	
Stability	1 ppm over -10 to 60°C
Aging	1 ppm first year

DBR general specifications	
<b>Physical</b>	
Width	204 mm
Height	35 mm
Depth	137 mm
Weight	870 g
<b>Environmental</b>	
Operating temperature	-10°C to +50°C
Storage temperature	-40°C to +70°C
Humidity	Up to 95% non condensing
<b>Power supply</b>	
Voltage	18 — 36 V DC ( 24 V DC nominal)
Power consumption	Approx. 7.4 W ( 300 mA @ 24 V )

