



Features

- Covers full, extended, L-band frequency range
- Works with, and locates inside, the INTRAC 105, 205, 305, 505 and 605
- Beacon frequency is set from INTRAC front panel or via INTRAC M&C port
- Power is supplied from the host INTRAC
- Minimum input level -80dBm
- Lock lost output
- Rapid Lock time ($<1\text{s}$)
- AFC range $\pm 80\text{kHz}$

Overview

The IBR-L7 is designed to be fitted integral to the INTRAC range of antenna controllers, it is tuned to the nominal down converted L-Band beacon signal by the INTRAC. The frequency may be set from the INTRAC front panel or from a remote control terminal.

The receiver is a high performance FFT based unit that searches a range 80kHz either side of the nominal frequency for the largest signal in a 3kHz resolution bandwidth. It continuously measures the level of that signal and passes it to the INTRAC unit as an analogue voltage. Lock time is under 1 second.

The INTRAC, in conjunction with the IBR-L7, uses sophisticated measuring techniques to track the satellite using the beacon level information. The IBR-L7 unit is digitally controlled using advanced algorithms which ensure that the receiver locks rapidly and reliably onto the main beacon.

The unit can be used to replace the earlier IBR-L5 in INTRAC controllers.

IBR-L 7 Satellite Beacon Receiver



SPECIFICATIONS

Input frequency range	920MHz to 2150MHz
Max input level	-45dBm
Input level dynamic range	35dB
Max total input power	-10dBm (-25dBm within 50MHz of beacon frequency)
Required C/No for signal acquisition and tracking	>40dBHz
RF input impedance	50 ohms
Search range	± 80kHz
Beacon level output	1v to 5v
Lock lost output	uncommitted c/o relay contacts, logic signal to INTRAC
Lock time	<1s for signal with C/No > 40dBHz

PHYSICAL

Temperature Range	0 to 40°C - Operating -20°C to +70°C - Non Operating (storage)
Humidity	10% to 90% RH non condensing - Operating 0% to 99% RH non condensing - Non Operating (storage)

STANDARDS

Designed to Meet

EN55022 and EN50082-1 (EUROPE)
FCC Part 15, Subpart B Class A (USA)

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