B150 Series
70MHz Tracking Receiver

INPUT SPECIFICATION		Options
1. Input Range:	70MHz ± 200kHz	
2. Input connector:	N-type	
3. Impedance:	50Ω	75Ω [*]
4. Input return loss:	15dB typical	
5. Nominal beacon input level:	-30dBm	
6. Maximum beacon input level:	-20dBm	
7. Maximum aggregate power level:	0dBm	

OUTPUT SPECIFICATION		
8. Range:	±10V DC	0V to 10V DC [*]
9. Scale:	Logarithmic	
10. Connector:	BNC (also interface connector)	
11. Impedance:	0Ω (ideal voltage source, maximum current 5mA)	
12. Adjustment range:	Output adjustable to 0V for input power levels from -20dBm to -60dBm	
13. Display:	16-character alphanumeric LCD	
dB mode:	-199.9 to +199.9	
Volts mode:	-9.99 to +9.99	

TRANSFER CHARACTERISTICS		
14. In/out characteristic:	Log conformal	
15. In/out voltage slope:	2dB/V	0.5 to 4dB/V [*]
16. Post-detection time constant:	100ms	10ms to 10s [*]
17. DC voltage adjust:	To 0V for -20dBm to -60dBm	
18. Level meter adjust	To ±199.9 for -20dBm to -60dBm	
19. Step size:	10kHz	
20. Automatic search:	±200kHz	±75kHz to ±1MHz [*]

TRACKING PARAMETERS		
21. PLL noise bandwidth:	300Hz or 2kHz (check model table)	
22. Threshold for reacquisition of lock:	<35dBHz or 43dBHz (check model table)	
23. Average search time:	<1s for PLL B/W of 2kHz	
	<90s for PLL B/W of 300Hz	

MISCELLANEOUS		
24. Power supply:	115V/230V ±10%	
	50/60Hz ±10%, 30VA	
25. Mechanical:	1U 19" frame, 400mm	
26. Temperature: Operating:	0° to 50°C	
Storage:	-40° to 85°C	
27. Relative humidity: Operating:	0 to 90%	
Storage:	0 to 95%	
28. Summary alarm:	NO and NC dry relay contacts via rear mounted connector	
29. Summary alarm indication:	Through front panel LED and remote interface	
30. Remote control:	Via RS232/RS485 serial interface	
	Control: beacon frequency	
	Monitor: beacon frequency, output voltage alarm status	

(*) These parameters are not field adjustable. To be specified at time of order.

MODEL TABLE

Input band	PLL 300Hz, threshold <35dBHz [1]	PLL 2kHz, threshold <43dBHz [2]	PLL 2kHz, BPSK option threshold <43dBHz [3]
70MHz ± 200kHz	B150	B155	B155A

[1] Models recommended for antenna and propagation experiments.
[2] Models recommended for antenna tracking.
[3] Models for antenna tracking of NATO / Skynet / DSCS military beacons.

Design and manufacture of Satellite Earth Station RF equipment