

## B450 Series S-band Tracking Receiver

| INPUT SPECIFICATION                      |   | Options             |
|--|---|---------------------|
| 1. Input Range:                          | 2,000 – 3,000MHz (check model table)  |                     |
| 2. Input connector:                      | N-type  |                     |
| 3. Impedance:                            | 50Ω   | 75Ω (*)             |
| 4. Input return loss:                    | 15dB typical  |                     |
| 5. Nominal beacon input level:           | -70dBm  |                     |
| 6. Maximum beacon input level:           | -60dBm  |                     |
| 7. Maximum aggregate power level:        | -20dBm  |                     |
| 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 -60dBm to -100dBm   |                     |
| 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 -60dBm to -100dBm   |                     |
| 18. Level meter adjust                   | To ±199.9 for -60dBm to -100dBm   |                     |
| 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<br><90s for PLL B/W of 300Hz  |                     |
| MISCELLANEOUS                            |   |                     |
| 24. Power supply:                        | 115V/230V ±10%<br>50/60Hz ±10%, 30VA  |                     |
| 25. Mechanical:                          | 1U 19" frame, 400mm   |                     |
| 26. Temperature:                         | Operating: 0° to 50°C<br>Storage: -40° to 85°C  |                     |
| 27. Relative humidity:                   | Operating: 0 to 90%<br>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<br>Control: beacon frequency<br>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,<br>threshold <35dBHz <sup>(1)</sup> | PLL 2kHz,<br>threshold <43dBHz <sup>(2)</sup> | PLL 2kHz, BPSK option<br>threshold <43dBHz <sup>(3)</sup> |
|------------------|--|---|---|
| 2,000 – 2,300MHz | B450   | B455  | B455A   |

<sup>(1)</sup> Models recommended for antenna and propagation experiments.

<sup>(2)</sup> Models recommended for antenna tracking.

<sup>(3)</sup> Models for antenna tracking of NATO / Skynet / DSCS military beacons.