TRAK TECOM

Integrated Microwave Assembly

Ku-Band Receiver Protector



TRAK TECOM has developed a receiver protector assembly for UAV datalink applications which enables co-locating sensitive receivers with high power transmitters . The unit can handle exposure to RADAR blanking RF power levels while protecting the RX path with excellent TX/ RX isolation, bandpass filtering and high power limiting. Integrating multiple functions reduces system size and complexity. The module is designed and qualified for operating in an airborne environment, where reliability is critical for operational success.

Applications

- UAV datalinks
- SAR
- RX protection for high EMI environments

Key Features & Benefits

- Compact wide-band 9 pole bandpass filter uses 1/4 wave section coupling
- Low small signal insertion loss waveguide interface minimizes RX path loss
- High gain RX path
- Excellent noise figure
- Balanced LNA offers greater linearity and self stability
- BIT Interface

Technical Characteristics

- Frequency range: 15.2-18.2GHz
- Power consumption: 4.2 watts [typical]
- Gain: 30dB [typical]
- Gain flatness: +/- 3dB
- Out of band filter rejection: >55dBc
- NF: <4.3dB
- OP1dB: +9dBm [minimum]
- Maximum no damage input level: +46dBm[peak]
- Digital control response time: <500ns
- VSWR: <1.5:1
- Operating Temperature Range: -40°C to +85°C

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