

Transmitters, Receivers and Subsystems

Aethercomm is an industry leader in the design and manufacture of L-band data link transmitters for combat aircrew training equipment. We have extensive knowledge and experience in system and subsystem design and produce military subsystems with frequencies up to 40 GHz. Our transmitters and subsystems typically feature receive functions, DC-DC converters for regulation and power conditioning, high-speed DC and RF switching functions, filtering, upconversion and exacting mechanical designs for operation on fighter and attack aircraft. Technologies used in these products include GaAs, LDMOS, Silicon Bipolar, SiC, GaN and MMIC devices.

Aethercomm transmitters, receivers and subsystems are custom in nature. These products have frequencies up to 40 GHz. Transmit power levels are typically several hundred watts, but can exceed several thousand watts depending on the system.

Transmitter, receiver and subsystem custom features include:

- operation from any power supply specified
- low Rx noise figures
- internal high power limiters
- high-speed DC blanking function of 1000 nSec typical
- internal DC-DC or AC-DC converter
- self protect functions
- system protect functions
- BIT telemetry options
- high-speed digital interface
- microprocessor control
- other high performance options as required

If you do not see the product you need in the standard offerings listed below, please contact the factory with your specific requirements. Aethercomm will design and manufacture your custom RF product to your exacting specifications.

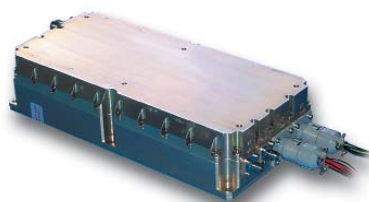
All data presented is at room temperature. Visit www.aethercomm.com for a complete list of datasheets.

TR 0.42-0.45-100



- Operation from 420 MHz to 450 MHz min
- Small signal gain 46.5 dB min
- 10 uSec Rx to Tx and Tx to Rx switching time
- Internal transfer switch
- Gallium nitride broadband power amplifier section

TR 1.35-1.45-20



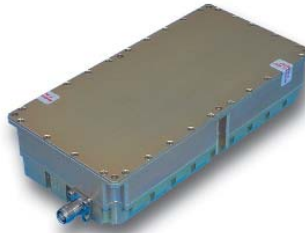
- Airborne L-band data link T/R module
- 20 watts peak output power min
- 50% transmit duty cycle @ 10 msec pulse width
- 2 dB noise figure
- High speed T/R switch

TR 1.35-1.45-80



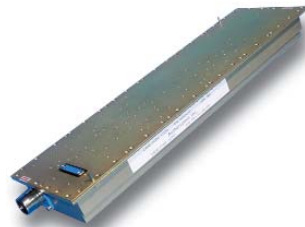
- Airborne L-band data link T/R module
- 80 watts peak output power min
- 50% transmit duty cycle @ 3 msec pulse width
- 3 dB noise figure
- High speed T/R switch

TR 1.35-1.45-100



- Airborne L-band data link T/R module
- 100 watts peak output power min
- 50% transmit duty cycle @ 10 msec pulse width
- 2.0 dB noise figure
- High speed T/R switch

TR 1.75-1.85-100



- Airborne L-band data link T/R module
- 100 watts peak output power min
- 50% transmit duty cycle @ 10 msec pulse width
- 3.0 dB noise figure
- High speed T/R switch

TR 1.75-1.85-125



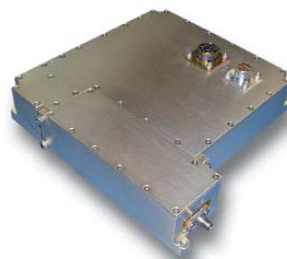
- Airborne L-band data link T/R module
- 125 watts peak output power typ
- 10% duty cycle @ 10 msec pulse width
- 3.0 dB noise figure
- Compact and rugged package

TR 2.3-2.4-5



- S band T/R module
- 10 dB PAR Tx waveform
- Low noise front end
- 100-200 watt final stage
- +50 Vdc operation

Rx 9.0-9.2-5.0



- 9.0 - 9.2 GHz bandwidth
- 4.5 dB noise figure typ
- High power front-end limiter
- High speed RF switch
- High speed DC switching