



LW10-110259 30 to 512 MHz, 20 Watt Multiband Amplifier



The Linwave LW10-110259 is an ultra compact combined multiband integrated transmit booster amplifier and high quality receive LNA with fast DAMA compatible Tx/Rx switching and automatic bypass upon power failure.

Designed to work seamlessly with any tactical half duplex radio or radio repeater with a minimum transmit power of 0.5 watts, the unit can be configured to work with FM and all types of digital modulation.

Transmit band selection is fully automatic, with Tacsat, LNA On/Off and terrestrial FM modes being selected by a single rotary switch.

Tough and rugged, the unit is equipped with a Gortex™ breather and designed for use in the most challenging of environments. Applications for the LW10-110259 include half duplex terrestrial and/ or Tacsat terminals and repeater systems.

Its small size and low power consumption makes it particularly suitable for manpack, ground mobile and marine applications, including ultra small vehicle fits such as jet skis and quad bikes where power is at a premium.

An industry standard footprint, interconnect and control interface ensure easy retrofit, thus simplifying the upgrading of existing systems and the implementation of new ones. Because the LWA10-110259 is manufactured in Europe, potential ITAR issues are reduced.

Specification

| Parameter | Value | Notes |
|--------------------------------------|--|--|
| Tx and Rx Frequency | 30 to 512 MHz | |
| Tx Input Power Range | 0.5W (min) to 5W (absolute max., no damage) | |
| Continuous Transmit Time/ Duty Cycle | 15 minutes/ 10% at max rated operating temperature | |
| Modulation Modes | FM, PM (Tacsat) | |
| Transmit Power at O/P TNC | 43dBm \pm 0.5 dB | FM and TACSAT modes |
| Tx Harmonic Rejection | >-60 dBc | |
| Tx Filter Bank Cut-off Frequencies | 45, 70, 108, 175, 345, 512 MHz | Auto Tx frequency detection and filter selection |
| RF Port Connector/ Impedance/ VSWR | TNC/ 50R/ <1.5:1 | Rx and Tx |
| T/ R Switching Time | <50uSec | Fast DAMA compatible |
| Receive LNA Chain Gain | 20dB | Taking filter insertion loss into account |
| Receive LNA Noise Figure | 0.8dB | |
| Rx Band pass Filter | 240 to 272 MHz | |
| Rx Out of Band Rejection | >-50 dBc | Tacsat Mode, LNA in circuit |
| Receive channel insertion loss | 1.5 dB max | LNA out of circuit |
| Environmental sealing | To IP67 | O ring sealed, Goretex breather fitted |
| Vibration and Shock | Suitable for Marine and Ground Mobile Applications | |
| Operational Altitude | 15000 feet | |
| Temperature, Operating/ Storage | -20 to +50°C | Installation must allow for adequate convection cooling |
| Finish | Matt black anodised | |
| Size | 3" x 2.5" x 7" (WxLxH) | 7.62 x 6.35 x 17.78cm |
| DC Input Voltage/ Power | 9 to 36 Volts, 120 watts max | |
| DC Connector | 10 Pin Circular | Mating part supplied |
| Mode Selection | By rotary switch | <ul style="list-style-type: none"> • Satcom with LNA • Satcom no LNA • FM • AM |
| Weight | 2.5lbs | 1.136kg |

Linwave Technology reserves the right to change this specification without notice