

Wireless Tactical Edge Router

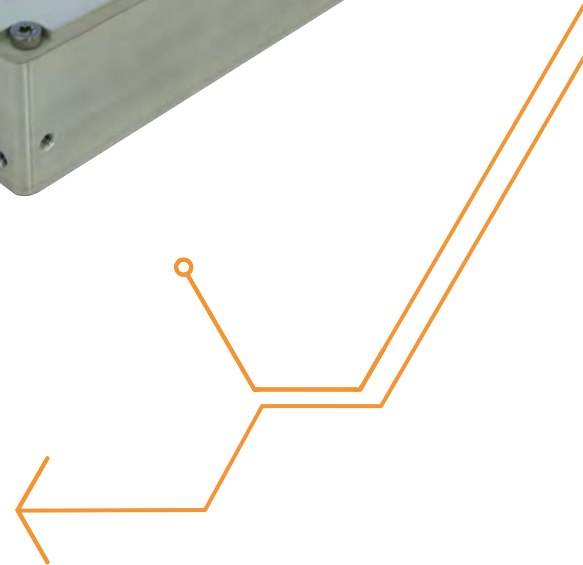
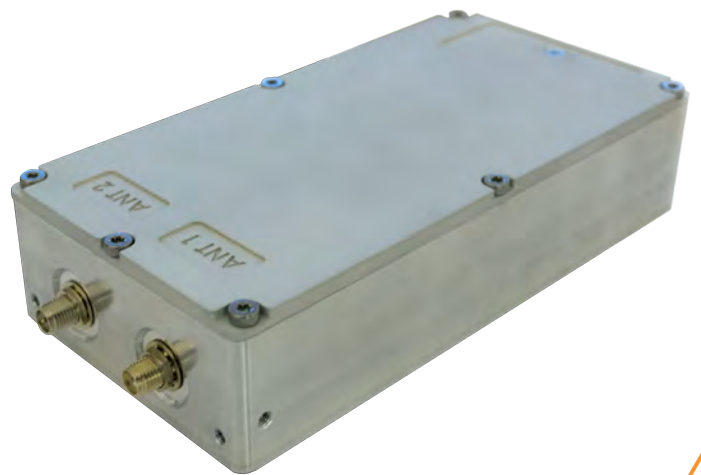
× Main Features

- Lightweight: 450 g
- Power supply: 12-24 V
- Frequency range: 47 MHz – 2700 MHz
- Data rate: up to 20 Mb/s
- RF output power: 2 W
- Excellent receiver sensitivity
- Easy platform integration
- Adaptive waveform with MANET
- Flexible SDR architecture
- TDD/FDD mode with FHSS
- Ethernet

○ Tactical Edge

Tactical Edge Router TWR-202D is a lightweight embeddable wireless router designed for drone and small UAV requiring secure and high data rate applications, such as streaming video. This router is fully compatible with other TWR-family devices and can serve as a relay to increase network coverage. Device supports frequency hopping with TDD or FDD modes.

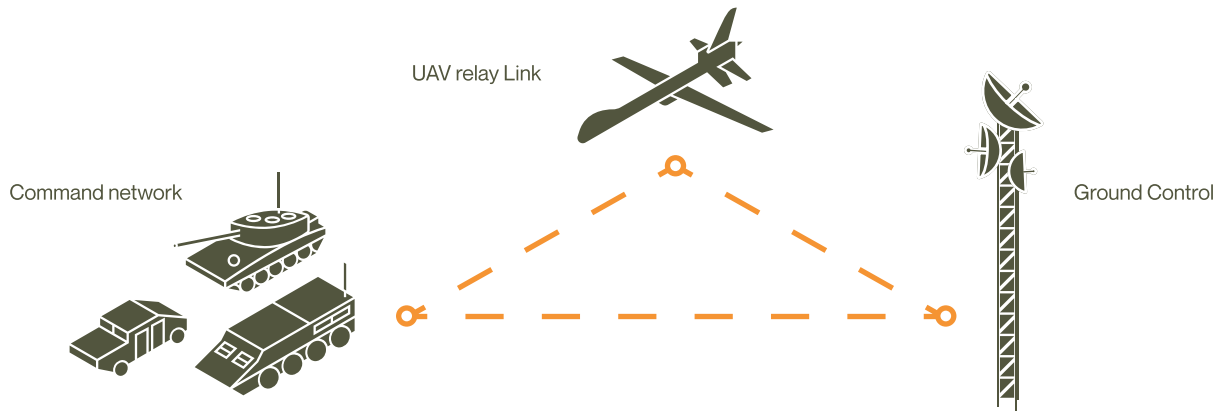
TWR-202D provides Ethernet interface and supports both IPv4 and IPv6 for unicast and multicast traffic. Equipped with broadband high power RF amplifier, TWR-202D enables operation across extremely broad frequency range 47 MHz – 2700 MHz supporting variable data rate, modulation and coding.



State-of-the-art mobile ad hoc network (MANET) waveform SRDN Release 1.0 designed to meet challenging electromagnetic environment in tactical edge ensures reliable, scalable, and secure network-centric communications for tactical networks operating under disconnected, intermittent, and bandwidth-limited conditions.

Highly flexible software defined radio (SDR) architecture, based on BitSDRTM system-on-module, allows rapid adjustment to any customer specific requirements while maintaining air interface compatibility with other TWR products.

○ Typical Application



○ Waveform Features

Features	Value
Release	1.0
Occupied bandwidth	Up to 20 MHz, configurable
Link bitrate	Up to 30.72 Mb/s, configurable
Modulation	BPSK/QPSK
Coding	BCH, configurable
MAC	TDMA with guaranteed latency
Capacity	100+ nodes
Comsec	AES-256
Transec	FHSS, configurable up to 2000 hops / sec ¹
Configuration	Built-in web interface

✗ 1 —ordered separately

Accessories

Features	Product Code
Power cable with Ethernet	TWR-202D-PWR

Product Features

Features	Value
Size	140x72x38 mm
Weight	450 g
Power supply	12-24 V
RF connector	2xSMA
Frequency range	47-2700 MHz
Tx output power	2 W
Gain flatness	±1.5 dB (<1 GHz), ±3 dB (>1 GHz)
Interfaces	Ethernet 1000Base-T
Waveform	SDRN Release 1.0
Protocols	L3: IPv4, IPv6, DHCP (client/server); L2 bridge mode
MANET	Up to 8 hops, static and dynamic routing
Accessories	Ethernet
Environmental	MIL-STD 810H
EMC	MIL-STD 461G, MIL-STD 1275D

○ Visit www.wp2p.org for more information and ordering

