

Mobilicom Range Enhanced Amplified Radios

UHF, S, and C Band 2x2 MIMO High Power Radios (THPR Series)

Longer Range | Higher Data Rates | Lowest SWaP



Triad's THPR series breaks performance barriers for MIMO radios and enables first-run link success. They eliminate the need to integrate stand-alone components for long range wireless links. Triad combines our high-power RF subsystems with Mobilicom MCU-30 and SkyHopper OEM core radios in low SwAP packages. THPR products contain BDAs, RF filtering, and innovative SoC-based monitoring and controls, with real-time power measurement and link diagnostics.

AVAILABLE FEATURES

- Fully Integrated High-Power RF Sub-System & Radio
- Extended Range / Data Rate over Stand-Alone Radio
- Enhanced RF Link Control via USB & Serial
- Wide Vin, Single DC Supply
- Power Equalization over Frequency and Temperature

APPLICATIONS

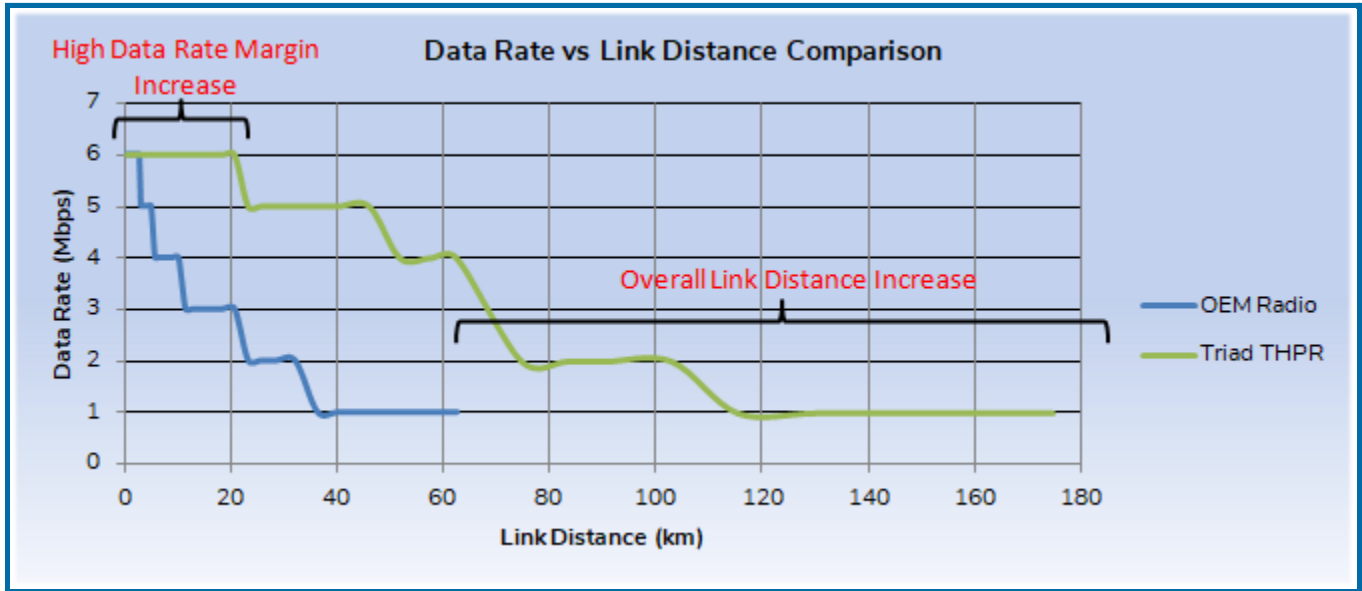
- Long Distance - High Data Rate ISR Links
- UAS, UGV and USV Video / Data Links
- Military MANET
- Maritime High-Throughput LOS/NLOS Systems
- Point-To-Point and Mesh Networking

FULLY INTEGRATED MOBILICOM CORE RADIO SPECIFICATIONS

Model	Frequency	RF Power Level
MCU-30	UHF, S, and C Band	10 - 50 WATTS PER CHANNEL
SkyHopper	S and C Band	10 - 50 WATTS PER CHANNEL

LINK DISTANCE CAPABILITIES

The chart and tables below provide estimates for link distances achievable, based on typical bandwidth needs and antenna configurations. [Contact Triad](#) for our expert ISR link team to assess of your link requirements.



TYPICAL USE CASE 1: SHORT RANGE, LOW ANTENNA GAIN LINK CONFIGURATION

Ground Station Antenna: 9dBi Fixed Omni

Air Vehicle Antenna: 2-5 dBi Blade

Short range, fixed antenna application ~6 Mbps	100 km
---	--------

TYPICAL USE CASE 2: LONGE RANGE, HIGH ANTENNA GAIN LINK CONFIGURATION

Ground Station Antenna: 24dBi Tracking Dish

Air Vehicle Antenna: 2-5 dBi Blade

Low data rate application ~6 Mbps	200+ km
--------------------------------------	---------

MECHANICAL SPECIFICATIONS

Parameter	Value	Unit
RF Connectors	SMA-F, N-F, and TNC Standard, others available	--



11 Harts Lane, Suite I, East Brunswick, NJ 08816

www.triadrf.com

DC / Control Connector	Circular Locking	--
Mounting	6-32 Through Holes	--

ENVIRONMENTAL SPECIFICATIONS

Parameter	Min	Max	Unit
Ambient Operating Temperature	-40	60	°C
Ingress Protection Rating	IP67		--
Altitude	0-50,000		ft.
Shock / Vibration	MIL-STD-810 and Equivalentents		--

For more information and to request a quote: [Triad RF Radio Systems](#)