

Longer Range | Higher Data Rates | Lowest SWaP

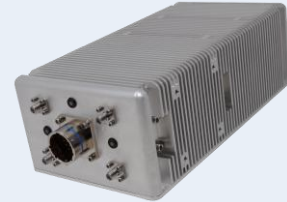
Triad's THPR series break performance barriers for MIMO radios and enable first-run link success. They eliminate the need to integrate stand-alone components for long range wireless links. Triad combines our high-power RF sub-systems with a Silvus SC4400 StreamCaster OEM core radio in a low SwAP package. THPR products contain BDAs, RF filtering, and innovative SoC-based monitoring and controls, with real-time power measurement and link diagnostics.



40W (Small)



100W (Medium)



400W (Mega)

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

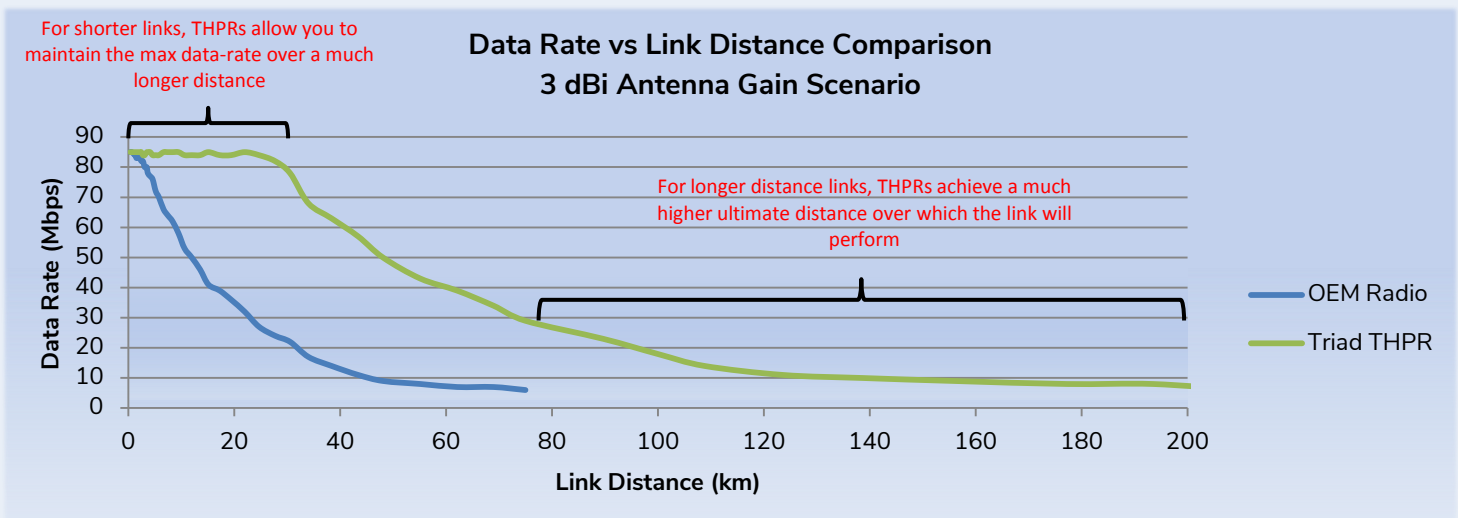
SPECIFICATIONS

Fully Integrated Silvus Core Radios

<u>Model</u>	<u>Frequency</u>
SC4410E-137	1350-1390 MHz
SC4410E-139	1350-1440 MHz
SC4410E-147	1452-1492 MHz
SC4410E-182	1790-1850 MHz

RF Power Levels Available

- Small:** 40W total (10W / Stream)
- Medium:** 60-110W total (15-25W / Stream)
- Mega:** 100-400W total (25-100W / Stream)



Link Distance Charts

These tables provide estimates for link distances achievable, based on typical bandwidth needs and antenna configurations
[Contact Triad](#) for our ISR link team to provide an expert assessment of your link requirements

Typical Use Case 1: Short Range, Low Antenna Gain Link Configuration

Ground Station Antenna: 9 dBi Fixed Omni

Air Vehicle Antenna: 2-5 dBi Blade

	Small THPR (10W / Ch)	Medium THPR (25W / Ch)	Mega THPR (100W / Ch)
Low data rate application 1-3 Mbps for telemetry and low BW video	200+ km	200+ km	200+ km
Mid data rate application 4-8 Mbps for high BW video, single EO/IR Stream + C2/Telemetry	90 km	142 km	200+ km
High data rate application 30+ Mbps multiple high BW video streams. Data with high throughput requirements.	18 km	28 km	56 km

Typical Use Case 2: Long Range, High Antenna Gain Link Configuration

Ground Station Antenna: 24 dBi Tracking Dish

Air Vehicle Antenna: 2-5 dBi Blade

	Small THPR (10W / Ch)	Medium THPR (25W / Ch)	Mega THPR (100W / Ch)
Low data rate application 1-3 Mbps for telemetry and low BW video	200+ km	200+ km	200+ km
Mid data rate application 4-8 Mbps for high BW video, single EO/IR Stream + C2/Telemetry	200+ km	200+ km	200+ km
High data rate application 30+ Mbps multiple high BW video streams. Data with high throughput requirements	100 km	159 km	200+ km

Mechanical Specifications

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

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