

Longer Range | Higher Data Rates | Lowest SWaP

The THPR1019-D03, a Triad High Power Radio (THPR), contains a Silvus Streamcaster SC4200-235-O OEM radio at its core and combines with our TTRM2005D in a low SWaP package. This "housing-less," 2 channel, S-Band, amplified radio integrates the necessary RF amplification, control circuitry, and interfaces to achieve higher RF output power, greater throughput, and longer link distances than the stand-alone radio. Offering +12 to +28 VDC Input Voltage, this THPR contains BDAs, and RF filtering, with link diagnostics.

THPR1019-D03

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THPR SERIES FEATURES

- Fully Integrated High-Power RF Sub-System & Radio
- Extended Range/Data Rate over Stand-Alone Radio
- Wide Input Voltage, Single DC Supply

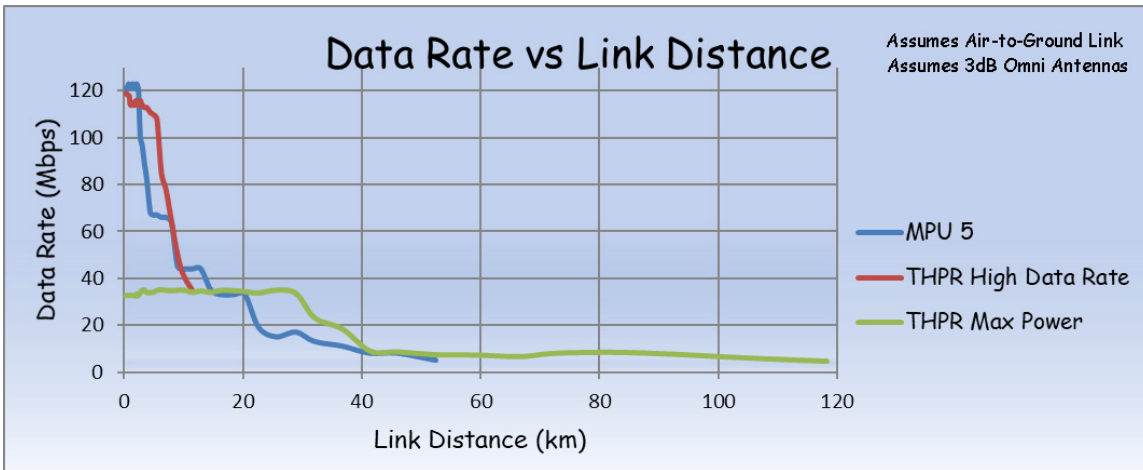
THPR SERIES APPLICATIONS

- 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



LINK DISTANCE CAPABILITIES

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



CHARACTERISTICS/SPECIFICATIONS

RF Performance Specifications

Parameter	Min.	Typ.	Max	Unit	Notes
Operating Frequency	2200	—	2500	MHz	Operating frequency of SC4200
Power output per Channel (Low Data Rate)	—	16	—	W	Typical RF output power per stream (2 total) achievable by the system when the SC4200 is operating at a low data rate MCS.
Power output per Channel (High Data Rate)	—	4	—	W	Typical RF output power per stream (2 total) achievable by the system when the SC4200 is operating at a high data rate MCS.

Electrical Specifications

Parameter	Min.	Typ.	Max	Unit	Notes
Supply Voltage Range	+12	+28	+28	VDC	—
Average Operating Current Draw (Idle)	—	0.58	—	A	+28V supply voltage.
Average Operating Current Draw (Low Data Rate)	—	3.38	4	A	+28V supply voltage, RF power is set to maximum of 16W per Stream operating at a low data rate MCS.
Average Operating Current Draw (High Data Rate)	—	1.7	—	A	+28V supply voltage, RF power is set to maximum of 4W per Stream operating at a high data rate MCS.

Environmental Specifications

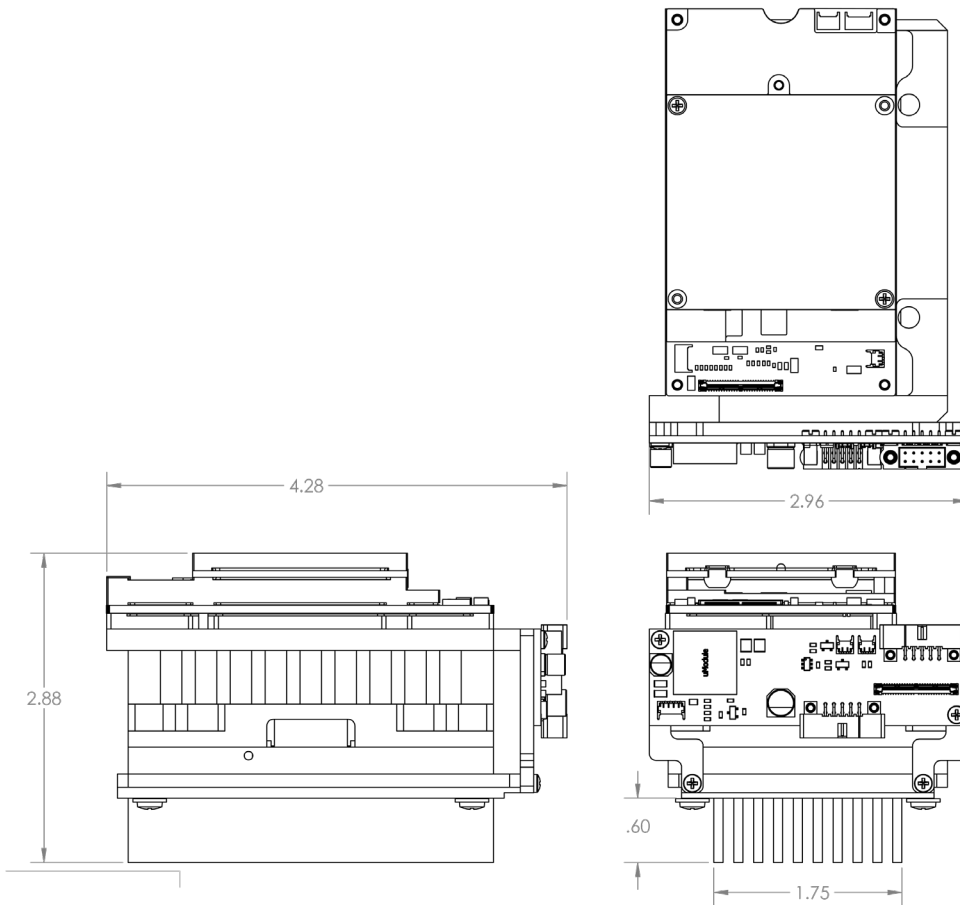
Parameter	Min.	Typ.	Max	Unit	Notes
Operating Temperature	-20	—	+65	°C	Ambient Temperature
Cooling	Conduction/convection			—	—
Shock / Vibration	Designed to MIL-STD-810 and Equivalents			—	—



Mechanical Specifications

Parameter	Value	Unit	Notes
Dimensions	4.28 x 2.96 x 2.88 (108.712 x 75.184 x 73.152)	in (mm)	L x W x H
RF Connectors	SMP-F	Connector Type	Mating Connector Type: SMP-M
Mounting	#4 Through Holes	—	See Mechanical Drawing Below
Weight	22.4 (635.0293)	oz (g)	—
Finish	MIL-DTL-5541	Material: Alloy 6061	—

MECHANICAL DRAWING



CABLE OPTIONS

For available cable options, please [contact us](#) at inquiries and pricing.

