TT250

2.5M Terminal in C, X, Ku and Ka-Band

The Holkirk TT250 is a next-generation, deployable ground station designed to deliver high-performance satellite communications in any environment.

Featuring a highly mobile 2.5M carbon fibre reflector and full multi-band capability across C, X, Ku, and Ka frequencies, the TT250 offers seamless interoperability with both commercial and military satellite networks.

Engineered for rapid deployment, the system integrates all drive and control subsystems into a single compact unit that rotates into position, eliminating the need for tools or connectors and dramatically reducing setup time in the field.
Whether supporting tactical operations, broadcast missions, or humanitarian aid, the TT250 combines rugged reliability with intuitive operation, making it the ideal solution for users who demand flexibility, speed and precision in real-world conditions.

The TT250 deliver seamless multi-band SATCOM capability across the full SHF spectrum including C, X, Ku, and Ka (commercial and MIL) using a quick-change modular architecture that dramatically simplifies field operations.
At the heart of this flexibility is a fast-swap RF cartridge system that enables operators to transition between frequency bands without tools, connectors, or downtime.

Each cartridge is pre-configured for its respective band, allowing effortless reconfiguration in under a minute.
This intuitive design is further enhanced by advanced band auto-sensing technology within the ACU, which detects the installed RF module and automatically adjusts system parameters for optimal performance.

The TT250 is fully compatible with a wide range of Traveling Wave Tube (TWT) and Solid State Power Amplifier (SSPA) configurations, with full monitor and control from the TT250 ACU command and control system independent of OEM manufacture, giving operators the flexibility to tailor power output to specific mission profiles.
Additionally, the system supports modular RF-over-fibre and off-air monitoring options, allowing remote diagnostics, signal verification, and scalable integration with broader network architectures.

Together, these features position the TT250 as a truly adaptive SATCOM platform, one that combines rugged field performance with cutting-edge modularity to meet the evolving demands of defence, broadcast, and humanitarian aid deployments.

Applications:

DSNG / Broadcast applications

Quad-Band secure communications

Non-GEO orbit tracking / Inclined

Satcom as a Managed Service

Ranging Terminal

- Multi-Band C, X, Ku and Ka-Band
- Two cases (antenna only)
- Quick change frequency cassette
- No-tools construction
- 1:1 BUC/TWT and LNB options
- Multi-Band integrated ACU with 30 satellite database
- TWT/SSPA integration
- Compact Design
- Minimal Maintenance
- Designed to meet MIL-STD 810G

TT250

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The TT250 is the latest in large deployable satcom terminals for use by commercial and MIL-COM customers world-wide.

Specifications

Multi-Band	C, X, Ku and Full Ka-Band
Antenna diameter:	250 cm
Geometry:	Centre feed
Reflector material:	Carbon fibre
Antenna Control Interface	30 satellite multi-orbit/Frequency database Tracking for inclined orbit satellite LNB/HPA Control TLE data
Azimuth range:	+/- 200°
Elevation range:	0° to 90°
Polarisation range (Linear):	+/- 95°
Temperature	
operational:	-22°C to +52°C (option -30°C to +60°C BUC dependant)
Storage	-40°C to + 65°C
Wind speed operational:	30 mph (48 km/h) gusting to 45 mph (72 km/h)
Case 1 (Drive case – AZ/EL/POL)	1023 x 1023 x 525mm 72kg (option dependant)
Case 2 (Antenna Case – Antenna)	1023 x 1023 x 525mm 68kg (option dependant)
Case 3 (RF Case)	676 x 525 x 378mm 18kg (single band)
Case 4 (BUC/TWT case)	896 x 483 x 383mm 32kg (single band)
Power Requirements	110/240 VAC or 24VDC
Set up time	less than 15 minutes

	C-Band	X-Band	Ku-Band	Ka-Band
Receive				
Polarisation:	Circular	Circular	Linear	Circular
Frequency band:	3.6- 4.2GHz	7.25 – 7.750GHz	10.70 – 12.75GHz	17.7 – 21.2GHz
Gain	38.7dBi	43.85 dBi	47.7 dBi	52.59 dBi
g/t	16.8dB/k	23.44dB/k	26.88 dB/k	28.69 dB/k
Transmit				
Polarisation:	Circular	Circular	Linear	Circular
Frequency band:	5.850-6.425GHz	7.90 – 8.40GHz	13.75 – 14.5 GHz	29.0 – 31GHz
Gain	42.5dBi	44.58 dBi	49.56 dBi	56.03 dBi
Cross Polarisation:	-28dB	-30dB	-35dB	-30dB