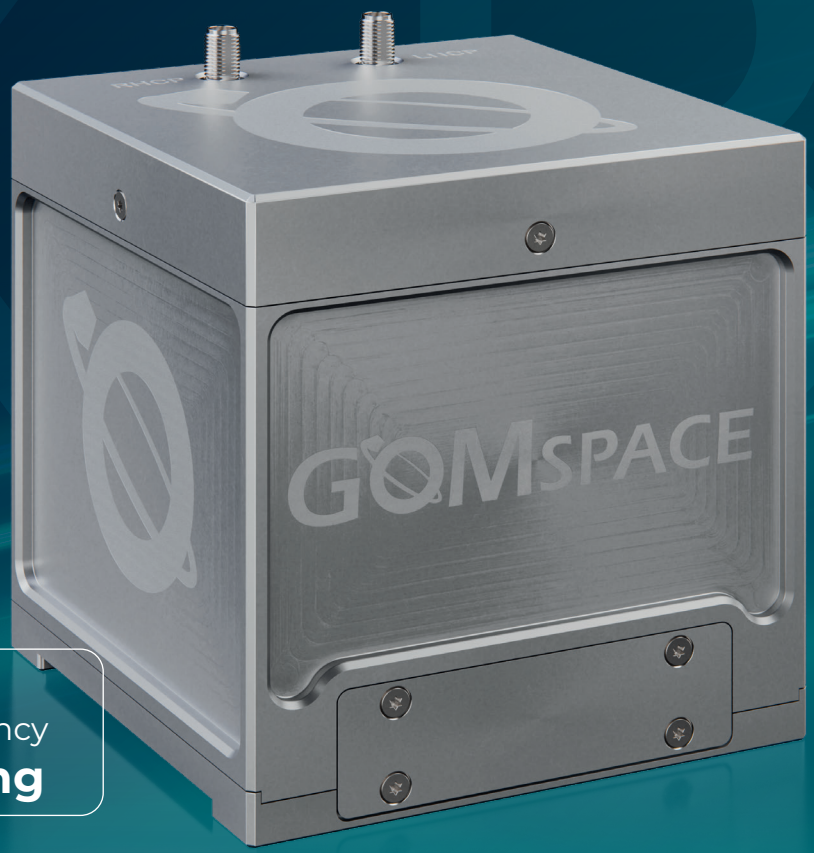
GOMSPACE

TURN RF VERIFICATION COMPLEXITY INTO TESTING CONFIDENCE

Antenna Test Cap

NanoCom Test Cap X



Simplify
high-frequency
RF testing

NanoCom Test Cap X provides a controlled RF environment that enables repeatable and reliable testing of X-band communication systems throughout the spacecraft development lifecycle.

By shielding the antenna from external interference while maintaining realistic operating conditions, teams can quickly validate performance and focus on mission readiness.

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NanoCom Test Cap X

Antenna Test Cap

Eliminate RF test uncertainty
Validate X-band communications faster, reduce test uncertainty, and simplify spacecraft integration with a controlled RF test environment. The integrated Faraday-cage design prevents unwanted radiation from entering or leaving the test environment, delivering consistent and repeatable measurements across test campaigns.

Reduce integration and verification effort
Perform transmitter, receiver, and polarization measurements directly through dedicated RHCP and LHCP interfaces, eliminating complex test configurations and accelerating troubleshooting.

Move seamlessly from integration to TVAC
Designed using low-outgassing materials and compatible with vacuum environments, the Test Cap X can remain installed throughout thermal vacuum testing, reducing handling risk and test downtime.

Validate missions earlier
Connect directly to ground equipment and attenuation networks to simulate end-to-end communication links before launch, allowing issues to be identified when they are easier and less costly to resolve.

Ideal for:
- Spacecraft manufacturers
- System integrators
- AIT and AIV teams
- RF engineers
- Environmental test facilities
- Mission verification teams

KEY FEATURES:	
Benefits:	• Verify X-band downlink performance with confidence • Reduce qualification and acceptance testing effort • Improve measurement repeatability • Minimize integration complexity • Accelerate troubleshooting and fault isolation • Streamline TVAC and environmental testing • Reduce mission verification risk

TECHNICAL INSIGHTS:	
Frequency range:	• 8000–8500 MHz
Electrical properties:	• Match (reflection typical) both RHCP and LHCP: <–12 dB • Coupling (typical) RHCP to Link X: –16 dB • Cross coupling LHCP to Link X: < –25 dB • Link-X Isolation from environment (TRP): < –50 dBm
Compatible with proven GomSpace products:	• NanoCom Link X • NanoCom Link SX (X-Band antenna)
Flexible Mounting Options:	• Optional interface kits support multiple GomSpace antenna backplates: – X-Side Interface Kit – Y-Side Interface Kit – Z-Side Interface Kit
Environmental:	• Operating temperature: –40°C to +85°C • Storage temperature: –40°C to +85°C • Vacuum compatible (<1 mbar) • Low-outgassing design
Interfaces:	• Dual SMA RF connectors • SMA interface compliant with MIL-STD-348B
Mechanical Design:	• Size: approximately 99 × 99 × 115 mm • Mass: approximately 707–710 g • Operating temperature: -40°C to +85°C • Aluminium construction • Clear anodised finish per MIL-A-8625F Type II Class 1