

Saterra

Revolutionizing Satellite Communications for Every Mission

Saterra is the ultimate solution for satellite communications (SATCOM), offering unparalleled performance and adaptability for diverse missions. In an era where terrestrial infrastructure can be compromised or non-existent, Saterra ensures seamless connectivity, making it indispensable across various sectors including military operations, emergency management and commercial enterprises. Whether it's ensuring operational efficiency or enhancing safety, Saterra delivers unmatched reliability and resilience.

Satellite communications (SATCOM) is indispensable for modern operations, offering unparalleled adaptability and reliability. In commercial settings, Saterra facilitates seamless connectivity across various industries, ensuring uninterrupted communication even in the most remote or challenging environments. From emergency management to logistical operations, Saterra empowers businesses to thrive.



In military operations, Saterra plays a crucial role in providing secure, resilient and global communication capabilities. It enables military forces to maintain situational awareness, coordinate missions, and execute operations effectively, regardless of geographical constraints or adversarial interference. With Saterra, military organizations can communicate securely and reliably across diverse terrains, ensuring mission success and operational superiority.

Why choose Saterra?

Saterra offers unmatched resilience, flexibility, reliability, and ease of use. It's the first tactical parabolic VSAT system offering a planned easy upgradability to new multi-band, multi-carrier, multi-arc AESA technology.

This datasheet has been released into the public domain in accordance with International Traffic in Arms Regulations (ITAR) 22 CFR 120.11(6).

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Features:

- Tri-band capable terminal with multiple possible configurations
- ARSTRAT certifiable (Phase 0 complete; Phase 1 in process)
- Rugged, lightweight, portable, and modular design
- Tool-free assembly
- Quick satellite acquisition using AutoAQYR acquisition algorithm
- Faster user onboarding
- User-configurable satellite settings
- Modem agnostic
- Utilizes OpenAMIP protocol
- Simple, intuitive, and integrated user interface
- Remote GUI available
- Available in single or dual IATA-compliant cases

Benefits:

- Enhanced Performance: Seamless communication even in challenging environments.
- Flexibility and Futureproofing: Easy transition to AESA technology for scalability.
- Cost Efficiency: Upgrading to AESA technology saves on upfront costs and operational expenses.
- Improved Reliability and Resilience: Greater flexibility in mitigating interference and adapting to changing conditions
- Technological Advancements: Access to advanced features for a competitive edge.



Specifications:

Mechanical				
Antenna Control	Automated			
Antenna Size	60 cm, 80 cm, 100 cm, 130 cm			
Antenna Type	Center-fed			
Azimuth Range	±30°			
Elevation Range	0° to 90°			
Pointing Accuracy	< 0.1°			
Environmental				
Operating Temp.	-30°C to +60°C			
Storage Temp.	-40°C to +85°C			
IP Rating	IP65			
MIL-STD 810G	Rain, Dust, Sand, Solar Radiation, Vibration, Altitude, Humidity			
Wind Load	30 mph sustained, 45 mph gusts			
Electrical / RF				
Power Input	110/240 VAC, 24 VDC (<40W)			
Transmit Frequency	Ka: Commercial: 29.0 - 30.0 GHz, Military: 30.0 - 31.0 GHz Ku: 13.75 - 14.50 GHz X: 7.90 - 8.40 GHz			
Receive Frequency	Ka: Commercial: 19.2 - 20.2 GHz, Military: 20.2 - 21.2 GHz Ku: 10.70 - 12.75 GHz X: 7.25 - 7.75 GHz			
Polarization	Ka: Circular: Tx-RHCP, Rx-LHCP (Switchable) Ku: Linear, ±90° Skew X: Circular: Tx-RHCP, Rx-LHCP (Switchable)			
Compliance Certificates	MIL-STD-188-164C, FCC 25.209			
Modem Compatibility	OpenAMIP, Modem Agnostic			
Reflector Size Specifications				
	60 cm	80 cm	100 cm	130 cm
Ka				
Tx Gain	43.5 dBi	46.0 dBi	47.9 dBi	50.2 dBi
Rx Gain	40.1 dBi	42.6 dBi	44.5 dBi	46.8 dBi
G/T	16.6 dB/K	19.1 dB/K	21.0 dB/K	23.3 dB/K
BUC Size Options (W)	6, 10, 12, 20, 25, 40, 50			
Ku				
Tx Gain	36.8 dBi	39.3 dBi	41.2 dBi	43.5 dBi
Rx Gain	35.8 dBi	38.3 dBi	40.2 dBi	42.5 dBi
G/T	15.3 dB/K	17.8 dB/K	19.7 dB/K	22.0 dB/K
BUC Size Options (W)	4, 6, 8, 16, 25, 30, 40, 55			
X				
Tx Gain	32.0 dBi	34.5 dBi	36.4 dBi	38.7 dBi
Rx Gain	31.3 dBi	33.8 dBi	35.7 dBi	38.0 dBi
G/T	10.6 dB/K	13.0 dB/K	15.0 dB/K	17.2 dB/K
BUC Size Options (W)	40, 50, 80, 100			