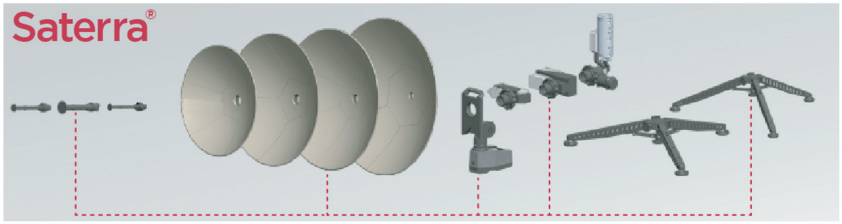
Saterra: X-Band

The Saterra is a flexible, resilient, reliable tri-band VSAT terminal system. It meets the Government's (DoD and civilian) and commercial market's need for improved Size, Weight, and Power (SWaP) and low-cost transportable SATCOM terminals. Saterra's ruggedized form factor ensures reliable operation in harsh environments. It is the perfect solution to deliver high-speed data, audio, and video communications services to deployed personnel.

The Saterra X-band is a VSAT terminal operating in X-band. It comprises four reflectors (0.6 m, 0.8 m, 1.0 m, and 1.3 m), modular feed, integrated RF components, an AutoAQYR (acquire) positioner, and tripods. The terminal is modem agnostic as it supports any L-band modem. It also supports all modems that follow the Open Antenna Modem Interface Protocol (OpenAMIP). Several integrated modem options are available, including a beacon receiver or iDirect 950mp. The modular design enables the change of band or aperture size in five minutes or less.

The tool-free assembly allows setup in less than 10 minutes. A button push initiates the AutoAQYR acquisition algorithm to obtain satellite lock in less than three minutes. The optional automatic re-peaking configuration ensures signal lock. The intuitive graphical user interface (GUI) facilitates remote operation of the SATCOM terminal. Several integrated features available on the Saterra X-band are accessible through the GUI. The terminal is also compliant with MIL-STD-188-164C and environmental specification MIL-STD-810G. Every unit goes through a series of rigorous tests at our in-house facility to ensure quality and performance. Based on the user's needs, the Saterra X-band is configured as a one-person lift, airline-checkable, ruggedized, single-case or dual-case configuration.



Features

- X-band capable terminal with multiple configuration options
- Rugged, lightweight, portable, and modular design
- Tool-free assembly
- Faster user onboarding
- Quick satellite acquisition using AutoAQYR acquisition algorithm
- 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
- Customizable configurations available

Optimization for Every Mission

8880 Gorman Road, Laurel, MD 20723 | 301-937-8888 | ara-inc.com

ANTENNA RESEARCH ASSOCIATES

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 Temperature	-30° to +60°C
Storage Temperature	-40° to +85°C
IP Rating	IP65
Designed to MIL-STD-810G	Rain, dust, sand, solar radiation, vibration, altitude, humidity,
Wind Load	30 mph sustained, 45 mph gusts

Electrical/RF	
Power Input	110/240V AC, 24V DC (< 40W)
Transmit Frequency	7.90 to 8.40 GHz
Receive Frequency	7.25 to 7.75 GHz
Polarization (circular)	Tx: RHCP Rx: LHCP (switchable)
Compliance Certificates	MIL-STD-188-164C
Modem Capability	OpenAMIP, modem agnostic

SATERRA: X-BAND

Reflector Size Specifications				
	60 cm	80 cm	100 cm	130 cm
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			

8880 Gorman Road, Laurel, MD 20723 | 301-937-8888 | ara-inc.com