

EXPLORER 8120

1.2m Stabilized, Auto-Acquire, Drive-Away antenna system.

EXPLORER 8120 VSAT

EXPLORER 8120 is the newest member of the EXPLORER 8000 family of VSAT terminals. A unique Dynamic Pointing Correction technology and an advanced carbon fiber reflector makes the EXPLORER 8100 (1m) and EXPLORER 8120 (1.2m) the most advanced Auto-Acquire Drive-Away VSAT antennas available.

Uninterrupted Communication

Traditional vehicle mounted 'Comms-On-The-Pause' VSAT antennas can lose connection to the satellite with even the slightest movement of the vehicle on its suspension caused by high winds or people getting in and out. EXPLORER 8120 isn't a traditional VSAT antenna.

With EXPLORER 8120 you can enjoy continuous connectivity services even if the vehicle rocks thanks to the unique 'Dynamic Pointing Correction' system. Using lessons learned from Cobham SATCOM's maritime stabilized VSAT antennas, EXPLORER 8120 offers the most reliable connectivity available in its class.

Reliable EXPLORER

EXPLORER 8120 is developed completely in-house by Cobham SATCOM. It features genuine and rugged EXPLORER design, which is already established and proven with Cobham SATCOM's highly regarded EXPLORER BGAN and GX terminals.

It is designed to offer unparalleled Comms-On-The-Pause performance, ensuring high-quality connectivity that is available even when other antennas would have lost their connection to the satellite. In the field, this means you can count on EXPLORER 8120 to provide you with vital communications whatever the conditions.



Industry Leading

EXPLORER 8120 features industry-leading fast satellite acquisition with pointing achieved in less than four minutes, making getting connected to a satellite a quick and easy process. The system is available in Kuband configuration and works with most major satellite networks.



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Antenna Characteristics

Frequency (GHz)	Ku-Band Receive: 10.7 - 12.75	Transmit: 13.75 - 14.5
Antenna Gain (dBi ± 0.2)	Ku-Band Receive: 41.1-42.7	Transmit: 43.5-44
Cross Pol Isolation (dB) within 1dB beamwidth	Ku-Band Receive: >27	Transmit: >27
Cross Pol Isolation (dB) On-Axis	Ku-Band Receive: >30	Transmit: >35
Feed Port Isolation Tx to Rx (dB)	Ku-Band Receive: 35	Transmit: 80 w/filter
Beamwidth (degrees) at -3dB	Ku-Band Receive: 1.5	Transmit: 1.2
Beamwidth (degrees) at -10dB	Ku-Band Receive: 2.6	Transmit: 2.1
Antenna Noise Temp. (°K) at 20° Elevation	Ku-Band Receive: 55°	
VSWR	1.3:1	
G/T - Comm (dB/K°)	21.3 @ 30° EL Midband	
Radiation Pattern Compliance	FCC §25.209, ITU-R S.580, EESS 502	
Polarization	Linear Orthogonal Std	
Standard BUC Options	8W / 20W / 56.6 dBW / User dependent	

Mechanical

Positioner	Harmonic Drive
Azimuth	± 195°
Elevation	0-100° antenna boresight (mechanical)
Polarization	±95°
Satellite Inclination	±15°
Slewing & Deploying	9° per second
Acquisition time (typical)	<4 minutes from cold start

Reflector

Size	1.2m single piece carbon fiber RTM reflector
Optics	Offset, Prime Focus
Mount Geometry	2-Axis, Elevation over Azimuth
Polarization	Linear with Motorized Rotation

Electrical

RF	Rx and Tx: Type F (75-ohm) connectors on ACU for modem interface
LNB	Multi-band for international use included. (10.7 - 12.75 GHz)
Motors	Low noise, brushless, DC
Antenna Controller (1RU) Power Supply	100 - 240 VAC, 50/60Hz Nom. Single Phase 540W, 1000W option available
Power Consumption	Motors Active (8W BUC) - 360 Watts Motors Idle (8W BUC) - 180 Watts
BUC Mounting	8 Watt or 20 Watt BUC mount included. The option without BUC (No BUC) includes flexible wave guide termination and a dual-band LNB.

Environmental

Wind Speed	Operational: 61 km/h / 38 mph Survival, deployed: 97 km/h / 60 mph Survival, stowed: 151 km/h / 94 mph
Temperature	Operational: -33° to +55°C / -27° to 131°F Survival: -40° to +80°C / -40° to 176°F
Rain	<100 mm/hr
Humidity	0 to 100% (condensing)
IP Rating	Antenna: IP-55 Antenna Control Unit: IP-30

Weight & Measures

Approx. Weight	68 kg / 150 lbs with 8W BUC/LNB
Approx. Length	170 cm / 67"
Stowed (Height/Width)	36 cm / 14.6" / 120 cm / 47"
Antenna Control Unit (1RU)	Weight: 4.5 kg / 9.9lbs Dimensions: 4.4 x 48 x 33 cm / 1.75" x 19" x 13"

Products

408158A-50013	EXPLORER 8120 Ku No BUC / 1000W ACU
408158A-50211	EXPLORER 8120 Ku 8W BUC / 500W ACU
408158A-50313	EXPLORER 8120 Ku 20W BUC / 1000W ACU