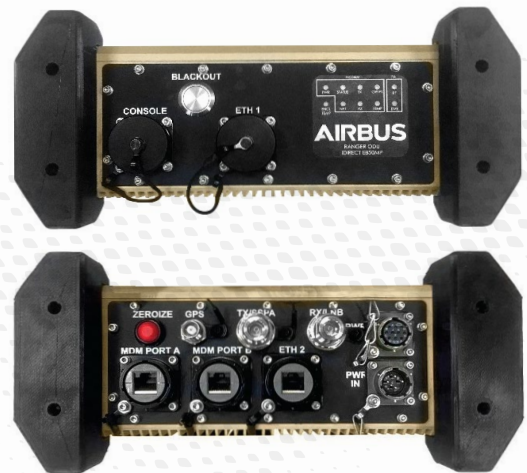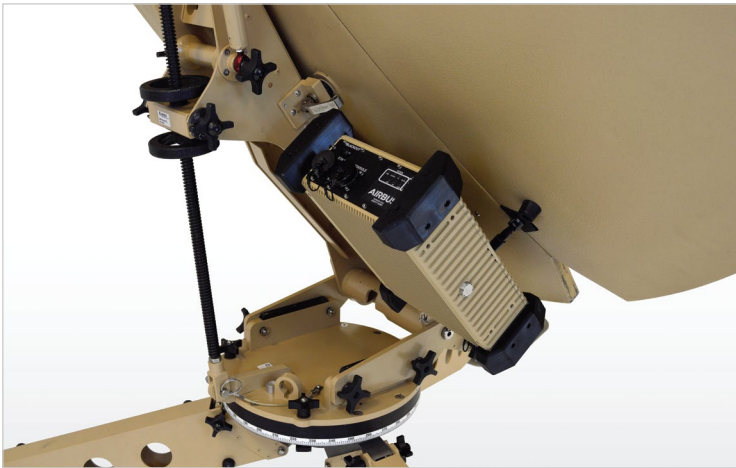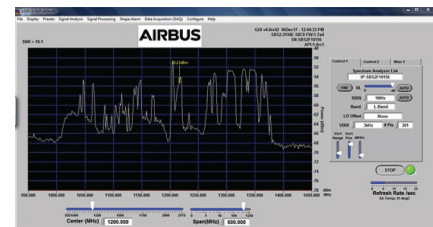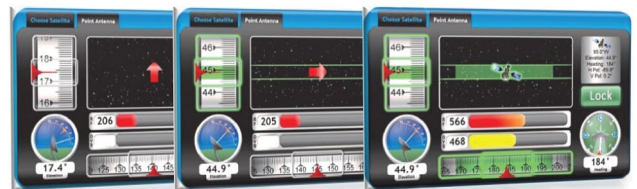# AIRBUS
RANGER OUTDOOR UNIT (ODU)

The ruggedized Ranger ODU fits all of the Ranger family of terminals, which lowers the cost of sparing different modem packages and enables equipment interchangeability between terminals.

The Ranger ODU incorporates a Pointing Assistant (PA) enabling even the most inexperienced SATCOM user to quickly and easily align the antenna on the desired satellite. The PA consists of a tablet and GUI software that walks the user through the selection of the satellite, elevation setting, and points the user in the direction of the azimuth setting until the "LOCKED" icon illuminates. The user can then make minor adjustments for the highest gain setting and lock down the antenna.

The Ranger ODU is configurable with multiple embedded modem options or in a modem agnostic configuration. Optionally, the ODU can be equipped with an integrated Spectrum Analyzer card for spectrum monitoring applications.

No advanced SATCOM knowledge or spectrum analyzer experience required.

ODU OPTIONS	
Modems	
iDirect	950mp Integrated Router Board
Viasat	CBM-400 Modem Board
Comtech EF Data	DMD1050TS or SLM-5650C L-Band Satellite Modem Board
Teledyne Paradise Datacom	Q-Lite Satellite Modem Board
Newtec	MDM-3310 Modem Board
Color	White, Desert Tan, Green, Gray
Spectrum Analyzer	10Mhz and L-Band (Web Browser Based)
TX Variable Gain Amplifier (Optional)	0-30dB
RX Variable Gain Amplifier	0-30dB
Aux Output Power	+24VDC at 5A

RANGER ODU - SPECIFICATIONS

Technical Specifications

Input Power	+24VDC (through included AC/DC power supply) AC/DC power supply accepts 100-240VAC 47-63Hz
RX Port DC Availability	950mp: +24VDC at 1000mA CBM400: +13, +18, +20, +22VDC at 500mA 1050TS: +24VDC at 1000mA Q-Lite: +13, +15, +18, +20, +24VDC at 500mA Modem Agnostic: +24VDC at 1000mA (+24VDC at 3A for BUC)
10MHz Output Availability	950mp: 10/50MHz 0dBm –3/+4dB on TX and RX CBM400: -5 to +5dBm on TX and RX 1050TS: 3dBm ± 3dB on TX and RX Q-Lite: 2dBm ± 2dB on TX and RX Modem Agnostic: 0dBm nominal on TX and RX
L-Band Frequency Range	RX: 900-2150MHz TX: 950-2300MHz (varies with modem option)
Dimensions	950mp/1050TS/5650C/Q-Lite/Modem Agnostic: 17.25"L x 11.0"W x 5.0"H (w/bumpers) CBM400: 19.6"L x 11.00"W x 5.0"W (w/bumpers)

Environmental Specifications

Humidity	0 to 100% (condensing) at 35°C
Rain	MIL-STD-810G
Salt Fog/Sand and Dust/Vibration	MIL-STD-810G
Altitude (Operational)	10,000 ft.
Altitude (Storage)	30,000 ft.
Temperature (Operational)	-40°C to +50°C (w/o fan); -40°C to +55°C (w/ fan)
Temperature (Storage)	-40°C to +71°C

Pointing Assistant

User Interface	Web Browser via Ethernet (Tablet or PC)
GPS Receiver	Yes, antenna included
DVB-S2 Receiver	Yes
Elevation Accuracy	± 0.2°
Heading Accuracy	± 1.5°, undisturbed field
iDirect Modem Integration	Yes
DVB Lock Indicator	Yes
iDirect Modem RX Lock Indicator	Yes (950mp modem board required)
Beacon Lock	Yes (embedded spectrum analyzer required)

Connector Interfaces

Interface	Connector	Mating Connector
Power Input	PT02E12-4P	PT06E12-4S-SR
Receive/Monitor	N-Type (F)	N-Type (M)
Transmit	N-Type (F)	N-Type (M)
Ethernet	RJF2SA1B	RJF6B
Console	RJF2SA1B	RJF6B
GPS	TNC (F)	TNC (M)
AUX Power Output	M53112E12-10S	M53116F12-10P

AIRBUS

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