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NETWORK
RESILIENCE WITH
INTELLIGENCE

Hydra 2

Dual-link Ka Terminal for
Government & Defense



Sense, Analyze and React to Real-time Conditions with the Most Resilient Multi-Link Multi-Orbit Mobility Terminal

Hydra 2 is a next-generation, software-defined service mobility platform engineered for the most demanding defense SATCOM operations. As the most resilient tactical terminal available, it delivers true multi-link, multi-orbit capability—seamlessly maintaining wideband connectivity across two satellites in GEO and/or MEO orbits simultaneously.

Built to MIL-STD ruggedization, Hydra 2 ensures communications-on-the-move with a solid-state, no-moving-parts architecture for maximum reliability. Designed for warfighters and mission-critical systems, it delivers superior connectivity in contested environments, rough terrain, and heavy seas with electronic beam steering and industry-leading scan performance.

KEY FEATURES

- ✓ **Simultaneous Two Full Performance Links**
Multiply your throughput and connectivity options for total mission assurance
- ✓ **Multi-Orbit Connectivity**
Operations in concurrent GEO and MEO orbits for unrivalled flexibility and resiliency
- ✓ **Full Ka-Band Frequency Range**
Supports both commercial and military Ka-band applications as standard
- ✓ **Integrated Modems**
Field swappable multi-purpose bays for optional configurations tailored to each mission
- ✓ **Inherently Resistant to Jamming**
Resilient to unintentional or intentional interference due to lens-array digital beamforming
- ✓ **Solid-State, Class Leading Performance Over Scan**
All-electronic, multi-link terminal to allow always-on connectivity in the harshest mobility environments



Hydra 2



TECHNICAL SPECIFICATIONS

(As of March 2026; Subject to Change)

PHYSICAL	Dimensions	86 cm DIAMETER x 18 cm HEIGHT / 33.85 in. D x 7.08 in. H
	Weight (standard model)*	77 kg (170 lb)
SYSTEM	Qty Full Duplex Links	2
	Frequency Band	Mil. Ka and Comm. Ka
	Scan Range	Az: 360° , El: 20° to 90°
	Pointing Accuracy	< 0.1 with platform motion
	Polarization ELECTRONIC	LHCP and RHCP
	Xpol Discrimination (boresight/ scan)	25 dB / > 20 dB
	Tracking	Off-Road and Naval COTM
TRANSMIT	Transmit Range	27.5 GHz to 31.0 GHz
PERFORMANCE	Max EIRP PER LINK (@ P1dB)	50 dBW
	Tx Max IBW	125 MHz
RECEIVE PERFORMANCE	Receive Range	17.7 GHz to 21.2 GHz
	Max G/T PER LINK	12 dB/K
	Rx Max IBW	125 MHz
INTERFACE	Input Power	Internal : 100-240VAC, 50/60Hz, 1500W Max
	Power Consumption (TYPICAL)**	1 Link: 700 W / 2 Links: 1000 W
	Modem Options	External Modems / Intergrated Modem Modules
	Network	Ethernet
ENVIRONMENT & COMPLIANCE	Operating Temperature	-40°C to +55°C (ambient)
	Storage Temperature	-40°C to +70°C (ambient)
	Environmental/Certifications (In Progress)	designed to MIL-STD-810H, FCC, CE, RoHS, MIL-STD-461G

* Final weight depends on terminal configuration

** Power consumption per terminal depends on operating mode and duty cycle

TERMINAL OPTIONS

for optional configurations to each and every mission

STANDARD MODEL INCLUDES

- 2 x External Modem Pass-Through Bays
- AC Power Supply Unit
- Web Based GUI
- Standard Cable & Accessories Kit
- Standard Pallet Transport Box

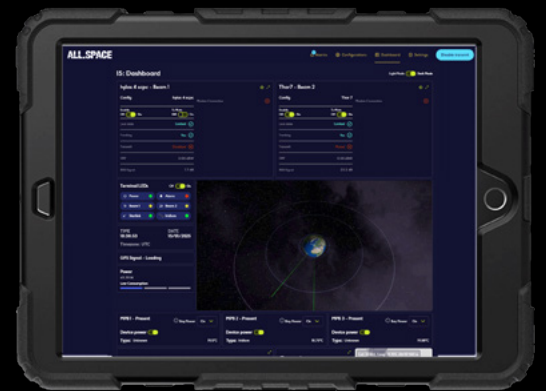
ADDITIONAL OPTIONS

- 3 x Swappable Multi-Purpose Bays for Integrating a mix of Modems
- RF over Fiber Modules
- Embedded WiFi
- MIL Color Radomes
- DC Power Supply Unit
- Rugged & Metal Transport Cases
- Mounting Kits (vessel fixed and motion)

TERMINAL CERTIFICATIONS

(In Process)

Hydra 2 is certified on SES's Ka-band GEO and O3b mPOWER Ka-band constellation, Viasat Global Xpress (GX Category 4), and will be on additional Ka-band GEO HTS.



INTUITIVE GUI



MULTI-PURPOSE BAY



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