# Military Design A Passenger A Passenger A Operators

With mechanic and electronic steering combined system, wider EL scan angle from 10 degree to 90 degree with low loss from EIRP and G/T in normal direction



Vehicle is designed for tactical field operations and seamless integration into the existing Satellite Communication (Siskomsat) network

## Contact Us

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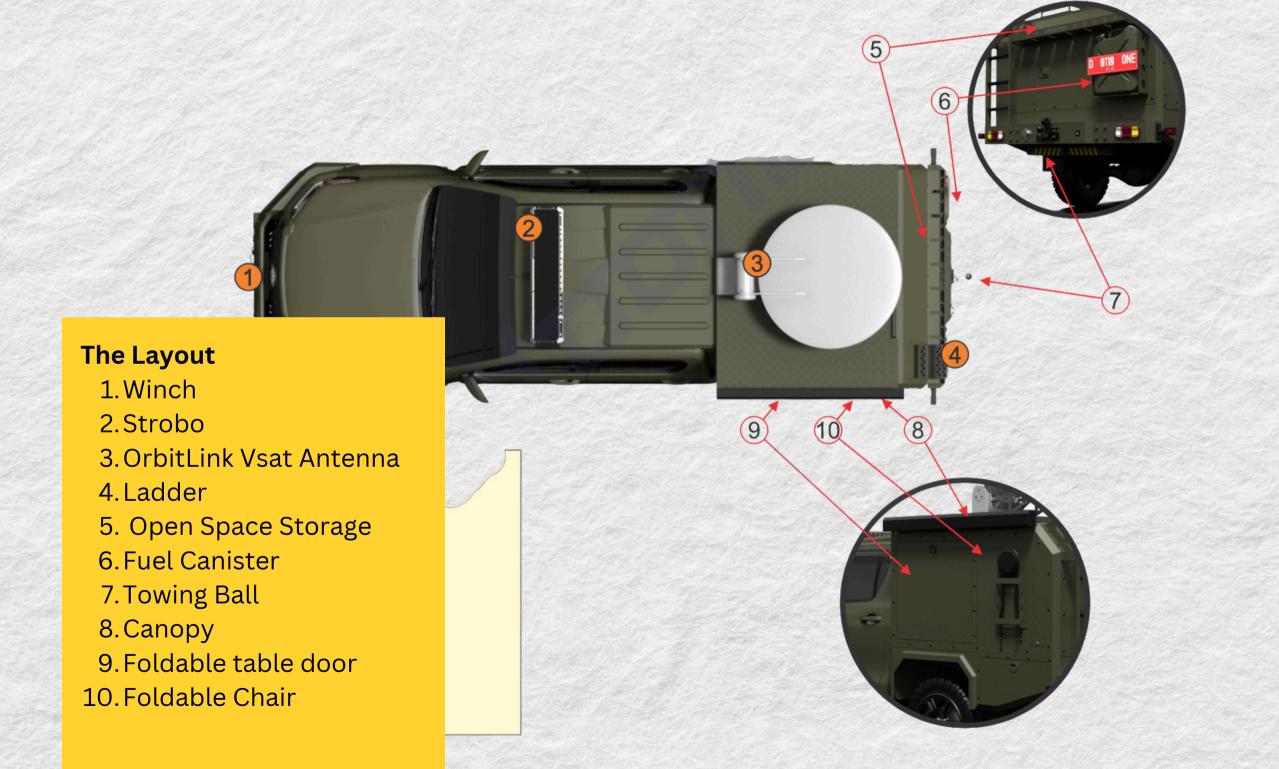


# The Technology

Experience the future of communication with our comprehensive OLOW equipment suite, designed to meet your every need."

**Connecting Beyond Boundaries** 

# Ku-Band OrbitLink on Wheel



- World's fastest VSAT router with aggregate throughput up to 450 Mbps and powerful UHP-RTOS
- Two independent DVB demodulators with separate software-switchable IF inputs and rate up to 500 Msps
- Efficient DVB-S2/S2X ACM modulations with 5% or 20% roll-off and support for wideband HTS transponders
- Multichannel MF-TDMA demodulator with innovative protocol and proven efficiency of 96% vs. SCPC
- Adaptive coding and modulation (ACM) in forward and return channels, including SCPC and TDMA modes
- Ultra-low latency VSAT system with round-trip delay about 570 ms for TDMA mode of operation
- Various modes of operation and topologies: SCPC, TDM/ TDMA, TDM/TDMA Mesh, Hubless TDMA
- HTS-ready VSAT with support of multiple beams, bands, satellites reception with traffic balancing
- Superior IP router productivity up to 190 000 PPS and rich set of supported protocols, multi-level QoS
- Dual-stack IPv6/IPv4 routing architecture and Layer
   2 bridging mode
- Industry's most compact full- scale Hub with multiple MF- TDMA channels and up to 2000 terminals
- 1:1 automatic redundancy without external controllers or M:N Smart Redundancy

# **Universal Satellite Router**

VSAT router with Software-Defined Architecture





## **OrbitLink on Wheel (OLOW)**

Connecting Beyond Boundaries

## **Main Equipment for Unrivaled Connectivity:**

- 1.4x4 Wheel Drive Military Design: Precisionengineered for the toughest terrains, our 4x4 Wheel Drive system guarantees unwavering mobility in even the most challenging environments.
- 2. Antenna OLOW Set: Elevate your signal strength and coverage with our state-of-the-art Antenna Set.
- 3. Modem VSAT: Revolutionize your communication with lightning-fast data transfer through our advanced Very Small Aperture Terminal (VSAT) Modem.
- 4. COFDM N LoS Transmitter, Receiver & Repeater: Experience secure and effortless Non-Line-of-Sight (NLoS) communication using our cutting-edge COFDM Transmitter, Receiver, and Repeater.
- 5. Distribution Link Extender: Expand your reach effortlessly with our Distribution Link Extender, seamlessly connecting remote locations.
- 6. Radio Interconnect: Seamlessly integrate radio communication into your network, enhancing coordination and extending your coverage.

## **Our Comprehensive Equipment Suite:**

- 1. HD Cameras: Elevate your surveillance capabilities with high-definition cameras, capturing every detail with precision.
- 2. Video Conference Codec: Stay connected seamlessly with top-notch video conference codecs, ensuring crystal-clear communication.
- 3.360-Degree CCTV Camera: Enhance security with our 360-degree CCTV camera, providing complete visual coverage.
- 4. Video Mixer: Take control of your content with a professional video mixer, allowing for seamless integration and display.
- 5. LED Display: Make an impact with our vivid LED displays, delivering stunning visuals for any occasion.
- 6. HT Hybrid: Ensure reliable power supply with our high-efficiency hybrid technology.
- 7. LAN Switch: Stay connected effortlessly with our LAN switches, optimizing network performance.
- 8. Mini Rack: Organize and protect your equipment with our compact and versatile mini racks.

## **Our Comprehensive Equipment Suite:**

- 1. Tablet / Laptop: Empower your operations with the latest in portable computing technology.
- 2.IP Phone: Stay connected with high-quality IP phones for clear and reliable communication.
- 3. UPS 3KVA, Rack-Mounted: Safeguard your equipment with our rack-mounted Uninterruptible Power Supply (UPS) units.
- 4. Genset 3KVA + Switching: Ensure uninterrupted power supply with our 3KVA generator and switching system.
- 5. AC 1 PK: Keep your workspace comfortable with our 1 PK air conditioning units.
- 6. Mini Generator: Stay powered up on the go with our compact mini generators.
- 7. Telescopic 4m Antenna: Achieve exceptional signal strength and reach with our telescopic 4m antenna.
- 8. Inverter 220v min 1600W: Convert and regulate power efficiently with our 220v inverter, delivering at least 1600W.
- 9. Upgrade Alternator Mobil: Enhance your mobile power capabilities with our alternator upgrades.
- 10. Additional 100 AH Deep Cycle Battery: Extend your power reserve with an extra 100 AH deep cycle battery.

"OrbitLink on Wheel (OLOW)" Taking into consideration the current strategic environment, we introduce the OrbitLink on Wheel (OLOW) Vehicle. This versatile vehicle is designed for tactical field operations and seamless integration into the existing Satellite Communication (Siskomsat) network.

- 1. Communication Anywhere: Stay connected wherever you are within satellite beam coverage, whether for voice calls, data transfer, or video communication.
- 2. Auto-Tracking Flat Panel Antenna: Utilize an advanced flat panel low-profile antenna with automatic tracking capabilities for enhanced signal reception.
- 3. Precision Location Reporting: Report your location with utmost precision using GPS technology to the central command.
- 4. Radio Integration via RoIP: Seamlessly integrate with radio systems through Radio over IP (RoIP) technology for efficient communication.
- 5. Enhanced Reporting: Improve communication with the central office by transmitting text, images, and limited video content for comprehensive reporting.
- 6. Radio Signal Internet Broadcast: Extend internet access by broadcasting radio signals to personnel in the vicinity of the OrbitLink on Wheel.
- 7. COFDM Video Communication Hub: Serve as a central hub for COFDM video communication from field personnel, ensuring efficient coordination and data transfer.

The OrbitLink on Wheel (OLOW) system offers a versatile and robust solution for communication and data sharing in remote and challenging environments.

Overall Specifications of Terminal				
Model	HSA49125MUF	Dynamic Capture Time of First Boot	≤ 2.5min	
Name	OrbitLink	Static Capture Time of First Boot	≤ 2min	
Туре	Hybrid Electronic Steering	Mechanical Steering Type	Auto	
Tx	13.7 ~ 14.5 GHz	Recapture Time After Loss	< 15sec (Duration of occlusion ≤5min)	
Rx	10.7 ~ 12.75 GHz		< 25sec (Duration of occlusion >5min)	
Tracking Accuracy	≤ 0.2°	Applicable Satellite Type	HTS GEO, MEO and LEO	
Rx LO.	9.75/10.6 GHz	Tx LO.	12.8 GHz	
Scan Mode	Hybrid Steering (2D Electronic Steering + 2D Mechanical Steering)	Beam Switching Time	≤ 3ms	

IF Specifications					
Input Power (Modem Output)	-35 ~ 0dBm				
IF Input (Modem Output)	0.95 GHz ~ 1.7 GHz				
IF Output (Modem Input)	0.95 GHz ~ 2.15 GHz				
External Modem External Adaptation	Internal Modem	Customizable			

RF Specifications				
EIRP	≥ 49dBW@ Normal	G/T	≥ 12.5dB/K@ Normal	
Polarization	Full polarization, automatic switching	Azimuth Range	unlimited	
X-Pol Isolation	> 30dB@90°	Hybrid Elevation Steering Range	10°~ 90° (90° means the antenna is horizontal)	
	≤0.1dB@ Off-axis 30°			
Scanning Gain	≤0.8dB@ Off-axis 60°			
Loss	≤2dB@ Off-axis 75°			
(Hybrid Steering)	≤3dB@ Off-axis 85°			
	≤4.5dB@ Off-axis 90°			

Interface					
Power Interface	Waterproof Quick Plug	Network Interface	Waterproof Quick Plug		
IF Interface (Tx)	SMA	IF Interface (Rx)	SMA		
Physical Dimensions and Electrical Specifications					
Outline Dimension	1150×950×300mm	Power Input (With Adapter)	AC 90 ~ 264V/50Hz		
Weight	≤ 35 kg	Power Input (Without Adapter)	DC 48V±5%		
Power Consumption	≤650W				
Environmental Specifications					
Wind Speed	Force 8 wind works normally	Ingress Protection	IP66		
Operation Temperature	-25°C ~ +50°C	Storage Temperature	-40°C ~ +70°C		
Humidity	5 ~ 95%				



- Unique Design: With mechanic and electronic steering combined system, wider EL scan angle from 10 degree to 90 degree with low loss from EIRP and G/T in normal direction;
- High Integration: All in one, fully 2D phased array, ACU, satellite Modem, Up & Down converter are all integrated in one outdoor unit;
- Proven technology of beam forming to track and switch among multi orbit networks of GEO, LEO and MEO;
- Convenience: With ultra-portability without complex installation, cabling, connection and

