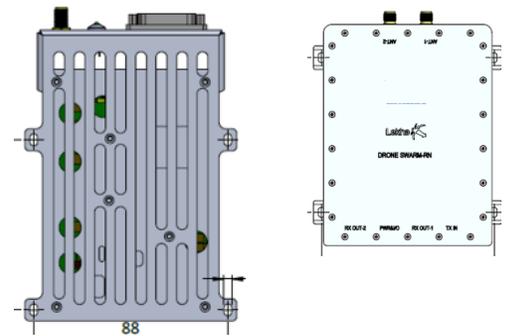


## Product Description

SWARM Radio is a High Capacity UAV and UGV compact Radio with Secure Mesh and PTMP combined design. Highly scalable Network solution with multi-channel and carrier aggregation to concepts. Military qualified secure radio with custom form factors aligning to UAV class to enhance the ranges and capacity.



Autonomous Vehicle  
SWARM Radio

## Applications

- SWARM autonomous vehicles (Drones and UGVs)
- Long Range UAV Networks with Relay connectivity
- Secure Multisite Radar Network Communication
- PTMP Network with Device to Device Mesh connectivity for Private Industry Mining and Utility Networks



Ground Control Station  
with Antenna Tracker  
Unit

## Specifications

Feature	Description
<b>System Specifications</b>	
Operating Frequency	1.6 GHz to 2.6 GHz (customizable for different Military License frequency bands and open Unlicensed bands)
Waveforms	Advanced COFDM
Modulation Schemes	QPSK, QAM16, QAM32, QAM64 (dynamically switchable and configurable)
FEC	CTC Rate $\frac{1}{2}$ , $\frac{3}{4}$ , 9/10 (programmable)
RF Bandwidth	Aggregated Network Bandwidth of 5 MHz, 10 MHz, 20 MHz and 40 MHz
Data Rates	2 Mbps to 10 Mbps Minimum 2 Mbps per Node with scalable aggregated data rates of 100 Mbps
ECCM	TRANSEC functionality with Frequency hopping
Application Security	COMSEC with AES128 and ASES 256
RF Output Power	1W and Customizable for a given requirement
Rx Sensitivity	-98 dBm for each Node reception (at 5 MHz Bandwidth)
Antenna	Omni Antenna for the autonomous nodes Omni and Directional Antenna for Ground Node
Range	50 Km with Antenna Tracker 25 Km with Static Directional Antenna
Topology	Point to Point, Point to Multipoint & Relay mode
Data Protocol	1Gbps Ethernet Interface
Control, monitor & Maintenance	Network Management System (NMS) Situational Awareness of all Autonomous Nodes
<b>Physical Specifications</b>	
Power Input	Autonomous Node: 5V Ground Node: 24V
Dimensions	100 mm x 135 mm x 62 mm
Weight	< 500 grams (Ruggedized Enclosure form)
Front panel Connectors	38999 series circular connector interfaces & 1Gbps Ethernet Port
Mounting Option	Tripod mount enabled for Ground Station
Environmental	MIL STD 810 G compliance for Vibration, shock and thermal stress

