WAVEDYUT GII
PTP, PTMP and Mesh Radio

WAVEDYUT GII is a Lightweight and Cost effective Radio for Tactical autonomous (UAV, UGV) vehicle applications. Powered with AI based Spectral sensing and Cognitive capabilities.

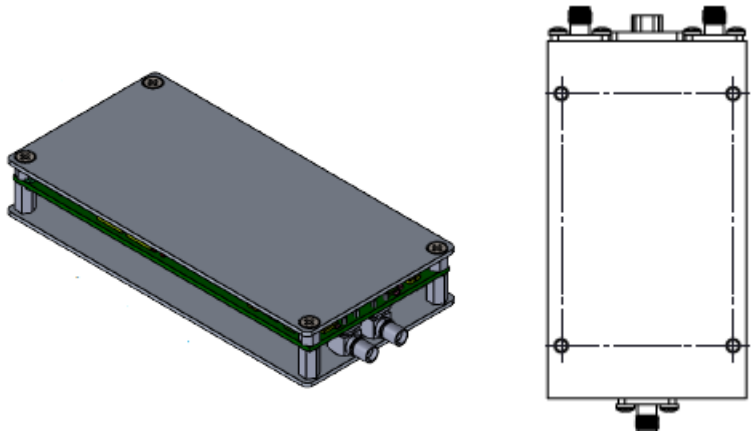
Introduction

WaveDyut GII is a Point to Point, Point to Multi-point and MANET radio with COFDM and SC-FDE waveforms. PTP, PTMP and Mesh Network topologies are supported. AI enabled Spectral sensing and Cognitive capabilities are added to enable reliable communication in tough field conditions.

FPGA SoC with Integrated RF transceiver platform enabling customization for different applications. The radio head is offered in two variants where one is on ISM and other one is on Military band.

Applications

- Point to Point, Point to Multi-Point and Mesh Networks
- Mission critical and high availability communication
- UGV and UAV Defence Networks
- Industrial IOT Networks
- Disaster Management
- Tested links for Terrestrial, airborne and waterfront data link applications.
- Streaming of high-quality video and Control Data Payloads.
- Configurable max network Ranges and Max System Users



WaveDyut GII Modules

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Specifications

Feature	Description
System Specifications	
Operating Frequency	S-band (Customizable for other bands)
RF Bandwidth	25 KHz to 5 MHz
Throughput	12 Kbps to 6 Mbps
RF Output Power	Low Power and 0.5W, 1W and 2W Configurations
Antenna	Antenna 1 for Transmit and Receive Antenna 2 for Receive only (optional)
Waveforms	COFDMA and SC-FDE
Modulation	QPSK, QAM16, QAM64
FEC	CTC Rate ½, 2/3, ¾ & 5/6
Mobility	120 Kmph
Duplex Method	TDD
Topology	Point to Point, Point to Multi-Point and Mesh
COMSEC	AES128/256
ECCM/TRANSEC	FH
Link Adaptation	Link Quality based Modulation and Coding Adaptation
QoS	Best effort, UGS, Real time services for video and audio streaming
Messaging	Unicast, Broadcast
IP Video, Data	IP Audio, Video and Data and Serial Data Bidirectional
Physical Specifications	
Power Input	24 to 48 V DC Input (Customizable for specific battery mode)
Power Consumption	25W with 30dBm mean power output
Dimensions	100 mm x 55 mm x 40 mm
Weight	250 grams in open module form
Enclosure	Aluminium alloy, IP65 Grade Environmental sealing Housing
Connectors	38999 series circular connector interfaces
Mounting Option	Mounting provision for Vehicular and pole
Environmental	MIL STD 810 G compliance for Vibration, shock and thermal stress

Deliverables

- Modems with Embedded Firmware and Software
- Antenna and Accessories
- Functional, Field Test and Lab Performance Test reports.
- Interface specification for integrating customer's applications.

Additional Support

- Support for setting up trial network and deployment.
- Support for different form factor designs
- Integration for proprietary security algorithms.