Steered Omni-Directional Antenna
Model Number: HZSODA-XX *PRELIMINARY*

HERTZIAN LABS

The HZSODA-XX series of antennas are purpose-built for the next generation of mesh networks. Leveraging low power components, ultra light materials tailored for modern day use cases. Conceived for drifting High Altitude Balloons, but ideal for UGV/UAV applications

- -Simplified Architecture over Traditional Steered Arrays
- -Graceful Failure: fail-over to omni antenna performance with control failure/pwr loss
- -Mitigates Signal Detection Threats, radiated energy just to maintain mesh + geofenced
- -Integrated Ultra low power control(uA)
- -Polarization Diversity options including circular polarization
- -SDR controlled leveraging steering optimized for client unique mesh algorithm

Electrical Specifications/Connector	
Frequency Band	S Band: 2-3.5GHz In development Future: 900ISM, 5-6GHz, L-Band
Gain	S Band: 10.8dBi or to suit use case
Pattern	Directional/Reconfigurable 30/60/90/180° Omnidirectional
Control	GPIO/MIPI
Return Loss	-15dB(1.5:1 VSWR)
Polarization	Vertical/Horizontal Or Circular Polarized
Radio Mount	Internal Mount or External with Ctrl/Pwr Cable
Connector	SMA Female, other options available

Mechanical/Environmental Specifications	
Materials	PCB/FlexPCB
Mounting	Customized to platform or use case
Temp Rating	(-40°F to + 149°F) Operating and Storage
Water Ingress	IP68 standard, customizable for radio cooling
Size/Weight	5.3”(135mm)L x 5.3”(135mm)W x 11.7”(297mm)H 12oz(340gm)

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Example Azimuth Pattern (Phi=90)