



AIRSAR-ALPHA-L

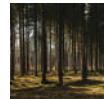
WORLD'S HIGHEST RESOLUTION L BAND SYNTHETIC APERTURE RADAR FOR AIRBORNE PLATFORMS

AIRSAR-Alpha-L* is a multi-channel SAR payload with the highest resolution possible in the L band. The L band SAR system is capable of providing foliage penetration (FOPEN), a unique feature that is not possible in C and X bands. The optimization of the payload in terms of SWaP (Size, Weight and Power) means that it can be fit in Tactical UAVs, VTOL and fixed-wing UAVs as well as Aircrafts. The collected airborne SAR data are processed with the proprietary airborne SAR Processor equipped with custom motion compensation algorithm. The motion compensation algorithm supports all airborne platforms including low altitude, low velocity drones. The payload as well as the processor software are capable of supporting all types of Polarimetric (single, dual, hybrid, full) and Interferometric data processing.

BENEFITS

- 24x7 surveillance and reconnaissance in all weather conditions
- Drone-borne and air-borne SAR systems can be deployed on need basis inside friendly territory to monitor across the border
- L-band SAR can detect the movement of equipments and weaponry in forested terrains from the air
- P-band SAR can detect underground tunnels and landmines from the air
- Both L and P band SARs can see deep inside snow cover

APPLICATIONS



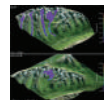
Foliage Penetration (L Band) - Ready for Trials



P Band SAR for Tunnel Detection (Under Development)



Surveillance in Foggy & Inclement Weather



Disaster Monitoring

TECHNICAL SPECIFICATIONS

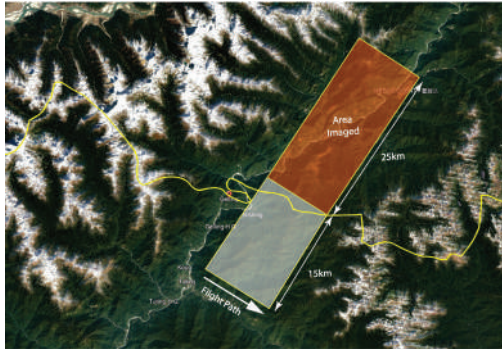
Frequency of Operation	L Band (1-2 GHz)
Altitude	10 km
Imaging Range	25 km
Range Resolution	1 m
Azimuth Resolution	0.75 m
Polarimetry	Hybrid/Full Polarimetry
Interferometry	Repeat Pass Interferometry
IMU/GNSS	Embedded high-performance IMU/GNSS unit
Payload Weight	10 kg
Power Consumption	Internal 60,000 mAh and 150 W rechargeable power source
Payload Dimension	400x400x200 mm



Sisir Radar's L Band SAR is Highly Useful in Foliage Penetration



Sisir Radar's P Band SAR is Highly Useful for Tunnel Detection



Our Area Mapping Range for Enemy Territories (Pictures for representation only)

IDEAL UAV PLATFORMS FOR L BAND SAR PAYLOAD



MALE/HALE UAV



High Altitude Pseudo Satellite (HAPS)



Fighter Aircraft



Prachand

IDEX WINNER FOR SPACE BORNE HIGH RESOLUTION P+L BAND SAR



Second from Left: Ms. Urmi Bhambhani, Co-Founder and CTO of Sisir Radar



First from Left: Ms. Urmi Bhambhani, Co-Founder and CTO of Sisir Radar
Second from Left: Mr. Soumya Misra, Co-Founder and CEO of Sisir Radar

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