



# AIRSAR-ALPHA-X

High Resolution X Band Synthetic Aperture Radar for Airborne Platforms

Model No: SRPL AIRSAR-ALPHA-X1

AirSAR-Alpha-X\* is a multi-channel X band Synthetic Aperture Radar payload engineered to deliver uncompromising, ultra high-resolution imagery. Optimised for size, weight, and power (SWaP), it integrates effortlessly with tactical UAVs, VTOL platforms, fixed-wing UAVs, and manned aircraft.

Its proprietary airborne SAR processor, equipped with a precision motion-compensation algorithm, guarantees exceptional image fidelity across all airborne platforms, including low-altitude, low-velocity drones.

The payload and processor software are built to natively support all polarimetric modes (hybrid and full) and advanced interferometric processing, ensuring mission-ready performance for the most demanding operational and research applications.

## TECHNICAL SPECIFICATIONS

<b>Frequency of Operation</b>	9-10 GHz	<b>Optional Add-on Features</b>	Hybrid/Full Polarimetry; Repeat Pass Interferometry
<b>Altitude</b>	upto 1 km AGL	<b>IMU/GNSS</b>	Embedded high-performance IMU/GNSS unit
<b>Imaging Range</b>	5 km from nadir	<b>Payload Weight</b>	15 kg (including antenna)
<b>Range Resolution</b>	0.3-0.5 m	<b>Power Consumption</b>	Internal 60,000 mAh and 150 W rechargeable power source
<b>Azimuth Resolution</b>	0.3-0.5 m	<b>Payload Dimension</b>	400×400×200 mm

*\*Payloads can be easily customised and integrated on any UAV platform*