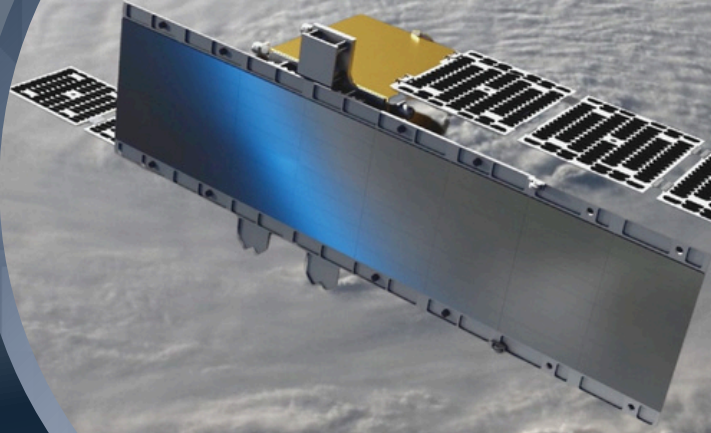




# STARSAR-X

**PRECISION REDEFINED  
VERSATILITY UNLEASHED**

Your Ultimate Solution for Advanced  
SAR Imaging



## **STARSAR-X ADVANCED CAPABILITIES**

The StarSAR-X is MetaSensing's high-performance X-band radar system, designed with some of the most advanced capabilities in radar technology.

Weighing 152 kg, it features a fully phased array radar system with digital multichannel electronic steering in both azimuth and elevation. When closed, the system measures 1868 mm, expanding to 3200 mm when deployed. This cutting-edge design enables StarSAR-X to optimally support all SAR imaging modes, including Stripmap, Spotlight, ScanSAR, and TopSAR, ensuring exceptional versatility for a wide range of applications.



## **PRECISION AND PERFORMANCE EXCELLENCE**

To enhance its precision, StarSAR-X incorporates a calibration line and thousands of digitally controlled Transmit/Receive Modules (TRMs). This meticulous calibration process ensures excellent phase stability and radiometric accuracy, establishing a new standard for SAR image quality and reliability. With a slant range resolution capability of up to 0.125 meters, StarSAR-X offers unmatched performance, making it the ideal choice for applications that require the highest level of detail and accuracy, from urban mapping and natural disaster monitoring to environmental assessments.



## **FLEXIBLE ANTENNA TECHNOLOGY AND CONFIGURATIONS**

Built using microstrip patch array antenna technology, the StarSAR-X is available in single and multichannel configuration for enhanced steering capabilities. This adaptability enables the system to meet a variety of mission requirements and environmental conditions, offering flexibility to support various imaging needs and applications.

# STARSAR-X TECHNICAL DATA

MODE	Swath Width [Km]	Resolution (slant Range x Azimut)	Steering in Azimut [deg]	Steering in Elevation [deg]	Acquisition Time [sec]	Sampling Rate [MHz]	Data with 3/8 compression [Gbits]
Spotlight VHR	5 x 5	0.125 x 0.25	-7.0 to 7.0	NO	< 25	2200	< 88
Spotlight HR	5 x 5	0.15 x 0.5	-1.0 to 1.0	NO	5	2200	17.6
Spotlight	10 x 10	0.3 x 1.0	-0.5 to 0.5	NO	< 10	1100	< 19.6
Stripmap HR	30 x 140	0.5 x 2.0	NO	NO	10-20	660	14.2 - 28.2
Stripmap	30 x 140	1.0 x 2.0	NO	NO	10-20	330	7.0 - 14.0
Stripmap LR	30 x 140	2.0 x 2.0	NO	NO	10-20	165	3.5 - 7.0
ScanSAR 100	100 x 140	2.0 x 8.0	NO	YES	10-20	165	3.5 - 7.0
ScanSAR 200	200 x 140	2.0 x 16.0	NO	YES	10-20	165	3.5 - 7.0

## KEY FEATURES:

- High Performance X-Band Radar: StarSAR-X offers top-tier performance for radar applications.
- Fully Phased Array System: Features electronic steering in both azimuth and elevation.
- Versatile Imaging Modes: Supports all SAR imaging modes, including Stripmap, Spotlight, ScanSAR, and TopSAR.
- Microstrip Patch Array Antenna: Built on advanced antenna technology for superior performance.
- Multichannel Configurations: Available in both single and digital multichannel for enhanced steering capabilities..

## KEY BENEFITS:

- Advanced Capabilities: StarSAR-X offers state-of-the-art features for optimal performance.
- Versatility: Supports a wide range of imaging modes, making it suitable for diverse applications.
- Adaptability: Multichannel configurations enable customization to meet specific mission requirements.
- Superior Performance: Built on advanced antenna technology for exceptional signal quality.
- Enhanced Mission Effectiveness: Provides reliable and precise data in various environmental conditions, ensuring mission success.

