

Xplore

by Elbit Systems

Software-defined MMW Airborne Radar

Overview

Xplore, a software-defined millimeter-wave (MMW) radar is a low-cost, low SWaP, ground mapping / obstacle detection radar, developed by Elbit Systems. *Xplore* leverages Commercial Off-The-Shelf (COTS) technology for an affordable, high resolution, high frame rate, multi-mode 4D imaging solution that improves pilotage in all Degraded Visual Environment (DVE) conditions (fog, dust, smoke, clouds, etc.).

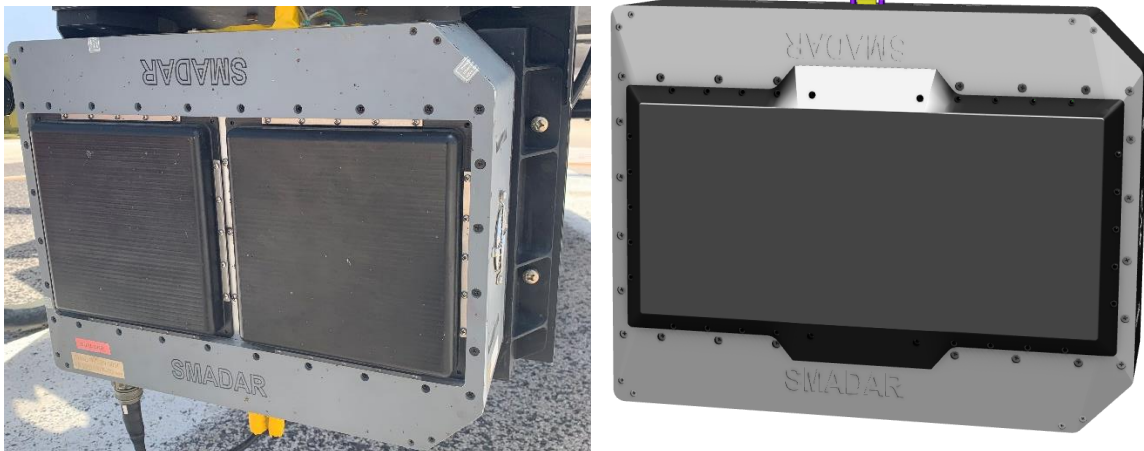


Figure 1: Xplore Radar

Performance Highlights

Parameter	Value
Radar Type	FMCW MIMO
Frequency Band	24.0-24.5GHz
Virtual array	32x32
Horizontal FOV	100°
Vertical FOV	70°
Pointing accuracy	0.5°
Maximum range	1 mile
Maximum range resolution	1 feet
Refresh rate	Up to 30Hz
Max Output Power	+27dBm
Max Output Power (EIRP)	+40dBm
Weight	37.5 lbs.
Size (W x H x D)	440 x 370 x 150 mm
Nominal Power	450W

Table 1: Xplore Specifications

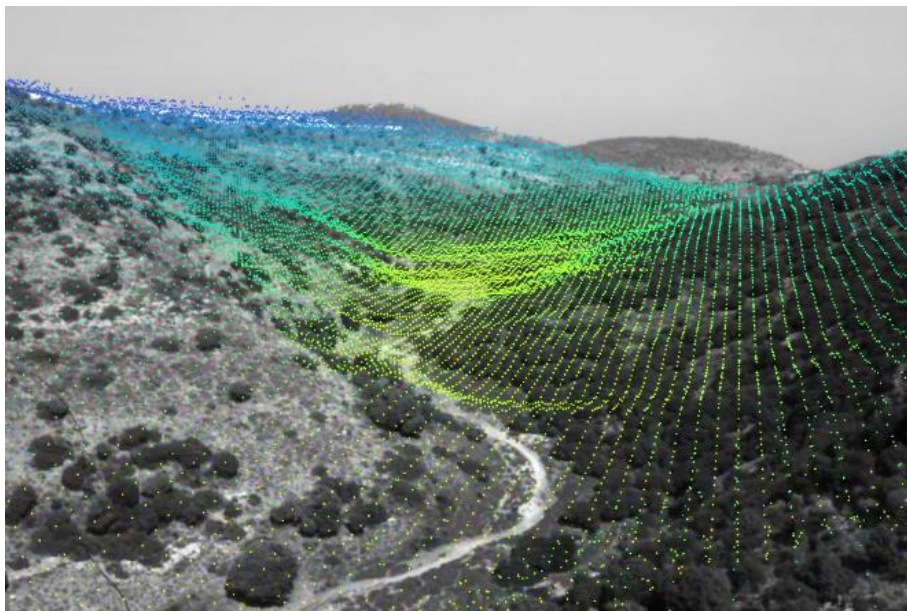


Figure 2: Xplore Point cloud overlaid on reference camera