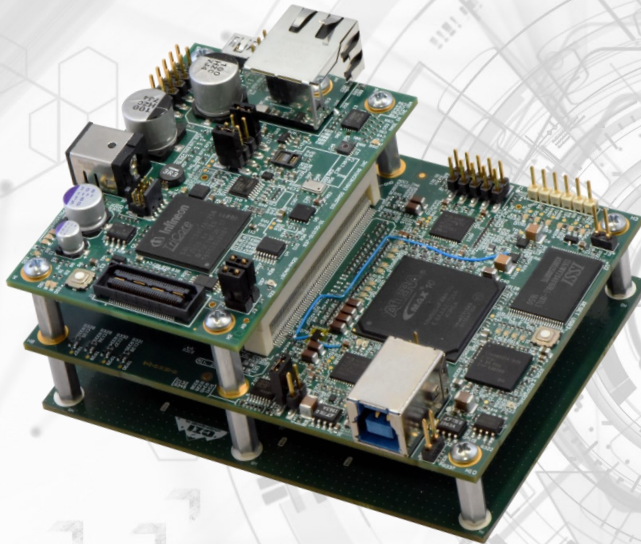


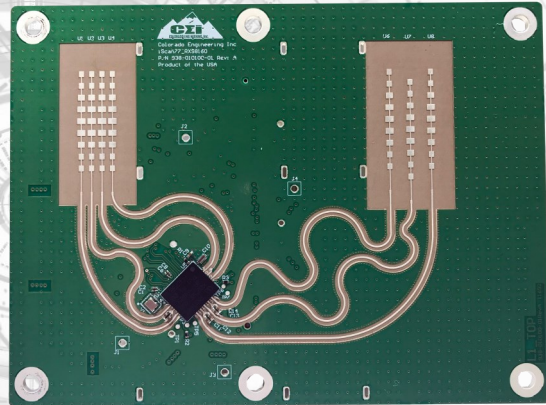
# iScan Phantom

## 77GHz Automotive Radar Development Kit

iScan Phantom Development Kit with Turbo 1 Expansion Module  
Model Number: iScan-K-RXS8160-A2G-M10



**iScan Phantom Development Kit with Turbo 1**  
Model Number: iScan-K-RXS8160-A2G-M10



**Antenna Module (Top)**  
Model Number: iScan-A-RXS8160-6610-D

### iScan OVERVIEW

The iScan Radar Series brings high frequency radar technology to small form factor platforms. Utilizing a modular architecture, CEI's iScan processor, expansion and antenna modules can be mixed and matched to create a customized development platform. iScan provides superior performance for tasks such as range, speed and RCS measurements, target tracking, collision avoidance, occupancy sensing and much more. Designed for various environments where size, weight and power are critical, the Radar Series makes rapid prototyping of high performance radar, quick and easy! Additional interchangeable antenna modules are coming soon making the iScan Radar Series an excellent solution for your next radar application.

### PRODUCT DESCRIPTION

iScan Phantom is a next generation automotive development kit based on Infineon's latest radar MMIC. This development kit contains the radar front-end antenna module, optional expansion module with an FPGA, and a processor back-end module in a stacked configuration. CEI has designed the radar front-end to provide antennas in a MIMO format allowing for digital beamforming and Infineon's processor allows for advanced algorithm development and comes with a software suite for immediate test and deployment. The FPGA expansion module (Turbo 1) is optional and can be added to enhance FPGA processing, increased I/O, data recording and playback, additional sensors and hardware, and more! Choose the iScan Phantom for your next radar application!

### FEATURES

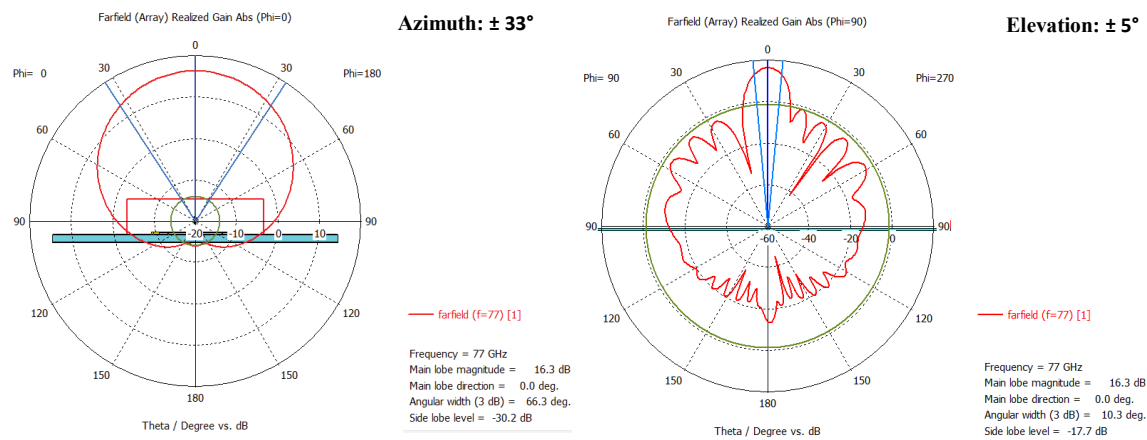
- Infineon 77GHz MMIC RXS8160
- 3x TX, 4x RX
- MMIC Power Output: 12.5 dBm
- Antenna Gain: 16.3 dBi
- Az:  $\pm 33^\circ$ , El:  $\pm 5^\circ$
- Digital Beam Forming
- TC397XA uController with Dedicated Processing
- TLF Power Supply
- Multi-voltage Power Supply
- Optional: Altera Max 10 -10M08DAF484I7G for data recording

- I/O Headers
- USB to PC Interface
- Gigabit Ethernet
- Modular Design
- Highly Configurable
- Compact, Single chip Solution for RF

### APPLICATIONS

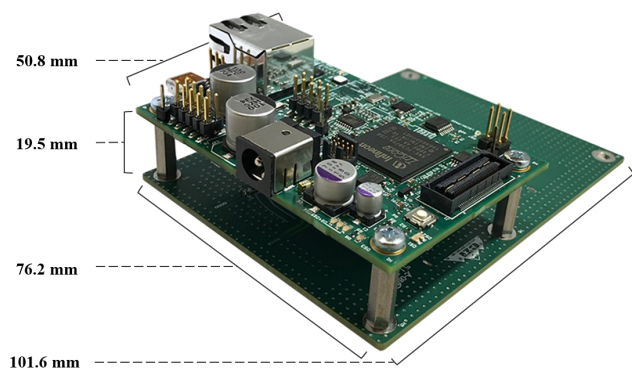
- Collision Avoidance
- Range & Speed
- Moving & Stationary Targets
- Short & Medium Range Radar Application
- Adaptive Cruise Control
- Automatic Emergency Braking

ANTENNA FIELD OF VIEW (FOV):

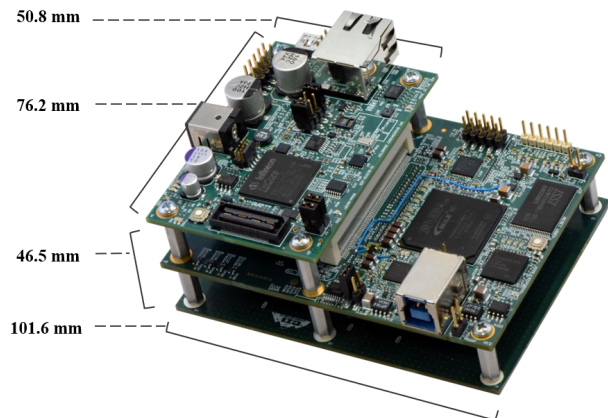


CONFIGURATIONS:

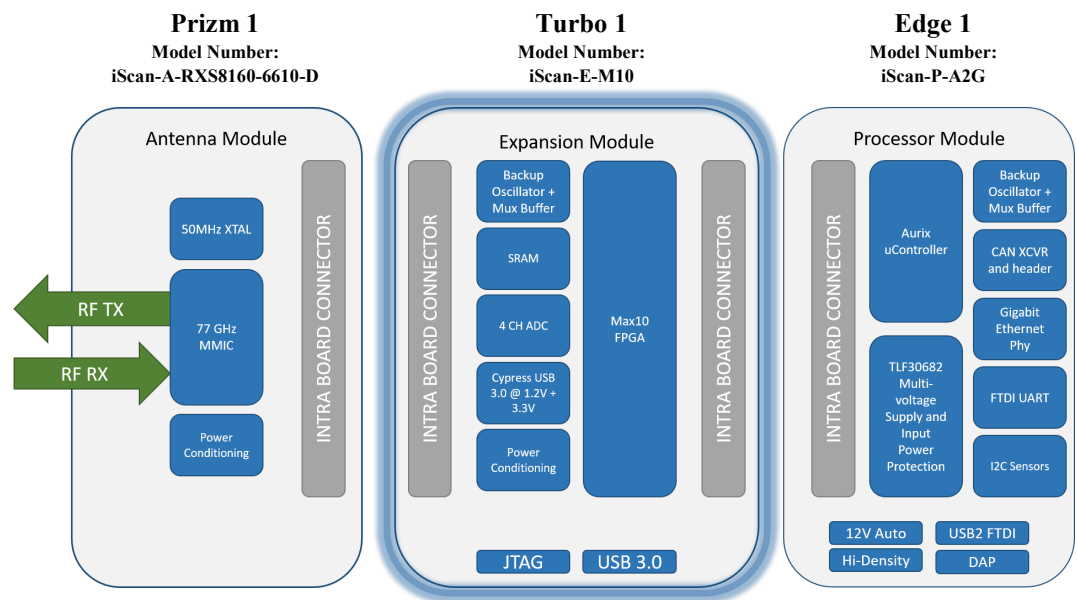
iScan Phantom Development Kit  
Model Number: iScan-K-RXS8160-A2G



iScan Phantom Complete Kit with Turbo 1  
Model Number: iScan-K-RXS8160-A2G-M10



ARCHITECTURE:



\*\*Expansion Module Optional