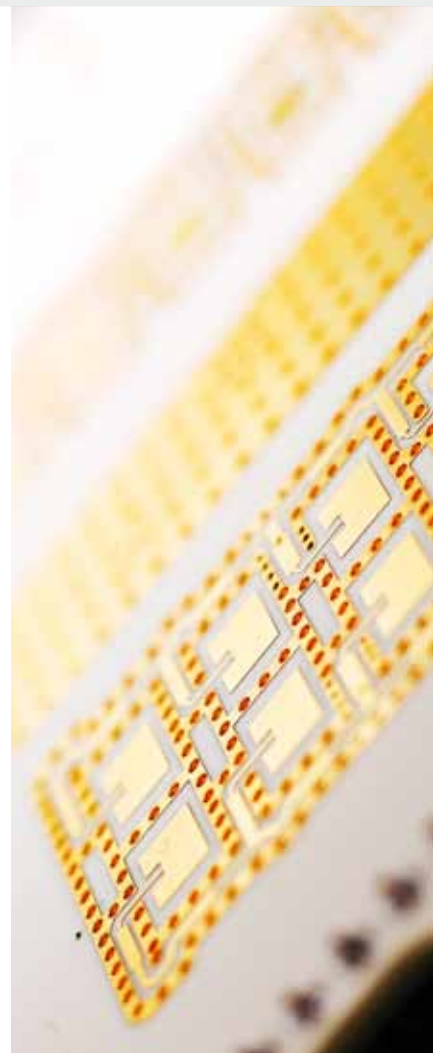
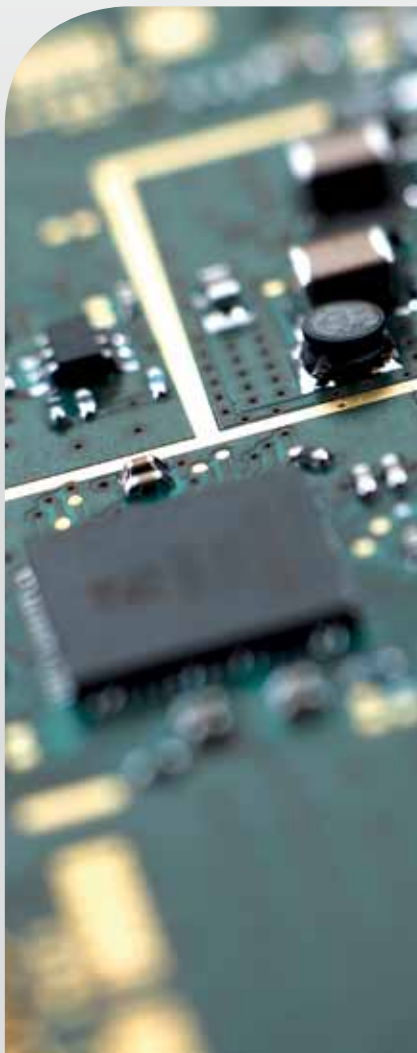




RADAR **PREFERRED DESIGN HOUSE**

Basic & Premium Support Services



YOUR CHALLENGES — OUR SOLUTIONS

IMST GmbH

IMST

BASIC SUPPORT SERVICES – FREE OF CHARGE

Basic Support Services, provided free of charge, aim to offer a generic technical help-desk to the customers for Infineon RADAR related topics which include the radar frequency bands at 24 GHz, 60 GHz and 77/79 GHz. This does not include design services or topics requiring substantial design or R&D effort – these are part of IMST Premium Services.

→ TECHNICAL INTERFACE AND SUPPORT TO THE CUSTOMERS

48-hrs response time (at normal working hours) to the customer by email and/or phone to IMST/ Infineon RADAR related inquiries.

- Project requirements
- RF and baseband feasibility analysis
- Antenna consultation
- Radar signal processing possibilities
- Radar developer kit advices (SenTool)
- Interfaces, communication and documentation guidance

→ TRAININGS AND CONSULTANCY

Introductory trainings on various radar topics. Typical duration is 0.5 – 3 hours, online or at IMST.

- Radar basics in theory
- Radar basics in practice with Developer-Kit(s)
- Radar measurements
- Basics in signal processing

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PREMIUM DEVELOPMENT SERVICES

Premium Development Services are based on specific agreements between a customer and IMST. The technical focus is at these radar frequency bands 24 GHz, 60 GHz and 77/79 GHz and covers antennas, frontends, signal processing, digital interfaces, firmware, developer kit GUI software and measurement services. All RF circuit and antenna designs will be made with EMPIRE™-XPU, a real 3D FDTD simulation tool.

→ SYSTEM DESIGN

- Analysis of system requirements for a given (radar) application
- Evaluation and comparison of different solutions for a technical problem
- Specification of a new (radar based) system
- Development of a system concept based on a given specification

→ RADAR FRONTEND DEVELOPMENT

- Multi-channel radar frontends including Infineon's radar chips
- Divider-/combiner networks for complex antenna feeding structures
- RF and IF amplifiers and RF filters

→ ANTENNA DEVELOPMENT

- Specific (patch) antenna configurations
- Linear and circular polarization
- Multi-channel arrays and beam-forming (SAR, MIMO ...)
- Matched radome design

→ DESIGN OF SPECIFIC DATA INTERFACES

- H/W and S/W implementation of different data interfaces like:
- Ethernet (Power-over-Ethernet), CAN bus, SPI, UART ...

→ IMPLEMENTATION OF DIGITAL SIGNAL PROCESSING

- Radar firmware implementation on AURIX processors
- Signal processing algorithms
- Specific application routines

→ CHARACTERIZATION OF RADAR PARAMETERS

- Antenna far-field and near-field measurements in anechoic chamber
- RF circuit measurements (S-parameters, output power, noise, harmonics ...)
- Radar parameters like EIRP, accuracy, resolution ...
- Customer specific field tests
- Support in RED conform qualification