

Design Services Partner Profile



Topic Embedded Systems Company Overview

Date : 03/09/2020

www.topic.nl/en

Partner Details

Partner Tier: Premier
Headquarters Location: Materiaalweg 4,Best,,Netherlands
Xilinx Alliance Partner Since: 10/22/2008

Key Contact Info

Mirjam Barbereau
mirjam.barbereau@topic.nl

Regions Served

| | | | | |
|--------------------------------|-----|-----------------|-----|-------------------|
| Supported Product Types | Yes | Design Services | Yes | Embedded Products |
| | No | IP | No | EDA Tools |
| | Yes | Boards | | |

| | | | |
|----------------------------------|-----|--|-----------|
| Engineering Service Types | Yes | General Purpose Services | Preferred |
| | Yes | Services in Support of Products Sold | |
| | Yes | Services Leading to Contract Manufacturing | |
| | | Maximum Service Scope: Turnkey / full product design | |

| | | | |
|------------------------------------|------|---|-----------|
| Engagement Models Supported | Yes | SOW-Based Fixed Bid Projects | Preferred |
| | Yes | Time and Materials | |
| | Both | Captive Resources at Partner or Customer Premises | |

| | | | | |
|--------------------------------------|-----|--------|-----|---------|
| Xilinx Design Tool Experience | Yes | Vivado | Yes | SDSoC |
| | Yes | HLx | No | SDAccel |

Industry Certifications Achieved ISO 13485

Industry Certification Services Offered CE, FCC, SIL3/4

Government Clearances None, was not required sofar.

Design Services Partner Profile

Topic Embedded Systems Segment and Application Focus

| | | | |
|-----------------|-----------------------------------|---|---|
| Primary Focus | Defense/Aerospace | Primary Focus Secondary Focus Secondary Focus No Focus No Focus Primary Focus No Focus No Focus No Focus Primary Focus | Homeland Security Electronic Warfare ISR Space Missiles & Munitions Military Avionics Commercial Avionics SatComm Wireless Milcom Other A&D |
| Primary Focus | Audio, Video, Broadcast | No Focus No Focus No Focus No Focus No Focus Secondary Focus Primary Focus Primary Focus No Focus | Encoders & Decoders Monitors & Projection Networking & Converters Audio Systems Video Processing Cards Video Conferencing Routers and Switches Pro Cameras & Camcorders Other Broadcast |
| Secondary Focus | Automotive & Transport | Secondary Focus No Focus No Focus No Focus Primary Focus | Driver Assist - Camera Driver Assist Radar/LIDAR Driver Info/Infotainment Automated Driving Other Automotive |
| Secondary Focus | Consumer | No Focus No Focus Primary Focus No Focus | Digital Display Drones Multifunction Printers Other Consumer |
| No Focus | Datacenter | No Focus No Focus No Focus | Storage Compute Networking |
| Primary Focus | Industrial, Medical | Primary Focus Primary Focus Primary Focus Primary Focus No Focus Primary Focus Primary Focus | Motor Control Industrial Networking Surveillance Machine Vision Medical Imaging Medical / Clinical Other ISM |

Design Services Partner Profile



Topic Embedded Systems Segment and Application Focus (continued)

| | | | |
|-----------------|--------------------------------------|--|--|
| Secondary Focus | Test & Measurement | <ul style="list-style-type: none"> Primary Focus No Focus Secondary Focus No Focus No Focus Primary Focus | <ul style="list-style-type: none"> Simulation / Emulation T & M Instrumentation Semiconductor Test Wired Communication Test Wireless Communications Test Other Test & Measurement |
| No Focus | Wired Comms & Networks | <ul style="list-style-type: none"> No Focus No Focus No Focus No Focus No Focus No Focus No Focus No Focus | <ul style="list-style-type: none"> Access Equipment Long Haul/Transport Wired Mobile Backhaul OTN Enterprise Equipment Ethernet Interlaken Connectivity Packet Processing Other Wired Communications |
| Secondary Focus | Wireless Comms & Networks | <ul style="list-style-type: none"> No Focus No Focus No Focus No Focus No Focus | <ul style="list-style-type: none"> Baseband Wireless Backhaul Connectivity & Switching Radio Other Wireless |

Design Services Partner Profile

Design Competencies

| | | |
|--|--|---|
| System Architecture | Primary Focus | Total systems development from Research to complete product development for end customers (Proof of Concept, Definition, Execution to Deployment and Support) in multiple domains ranging from Medical to Industrial, Space, Avi |
| RF and Analog Design | Secondary Focus | Software defined radio for active and passive RF ID applications. 24 bit analog frontend for EEG/ECG/EMG applications. Wireless connected dependable equipment (434M/868M/2.4G public band). |
| FPGA Design and Integration | Primary Focus | System integration platform: reduction of board form factor, power and complexity. Communication interfaces and protocols. Algorithm translation from mathematical descriptions via Matlab/Simulink/C/C++ into FPGA code using co |
| FPGA Timing Closure | Primary Focus | Part of our design methodology: no designs are released unless proven timing closer with documented exceptions (clock domain crossings, etc.) |
| FPGA Design Optimization | Primary Focus | Offered as a service |
| Signal Integrity Design and Analysis | Primary Focus | DDR3/4, PCIe, HMC, PLL lock 10ppb(!) @ ~6GHz, HD-SDI video, iBert, IBIS, board simulation, layout simulation, Mentor Graphics based. |
| | Inhouse or Subcontracted: Inhouse Typical Serial Speed: 16 | |
| PCB Design & Layout | Primary Focus | Board size from 30x30mm upto 400x300mm. From 2 layers upto 16 layers, geometries < 100um, burried via's, micro vias, IPC610 compliance |
| | Inhouse or Subcontracted: Both | |
| Industrial and Mechanical Design | Primary Focus | Complete systems development (requirements, design and implementation) of systems for radiation treatment simulation and non-destructive testing in steel plate inspection. Collaborated with partners from architecture to impl |
| | Inhouse or Subcontracted: Both | |
| Industry Certification and Compliance Testing | Secondary Focus | Complete compliance to all relevant medical and electrical and electronical standards, like IEC60601, ISO13485, ISO14971, like FDA QSR, ISO62304, EMC/EMI regulations, ISO62366. |
| | Inhouse or Subcontracted: Subcontracted | |
| Quality and Reliability Testing | Primary Focus | Main and core competence on automated verification using several test-driven practises including HIL testing and continuous integration and delivery. When applicable: bump and vibration tests, tests for electromagnetical int |
| | Inhouse or Subcontracted: Both | |
| Contract Manufacturing | Primary Focus | PCB assembly. Enclosure design. Mechanical integration/Industrial design |
| | Inhouse or Subcontracted: Subcontracted Max Quantities Supported: 10,000+ | |
| Digital Signal Processing | Primary Focus | OMAP Davinci, PicDSP |
| | Experience: OMAP Davinci, | |

Design Services Partner Profile

| | | |
|---|---|---|
| | PicDSP | |
| Embedded Processors | Primary Focus | RTOS and Linux based applications. UI and control. Data processing, acceleration and optimization, debugging, TDD, BDD, automatic build&test, configuration management |
| Experience: | EFM32,NIOS,A TMega,MSP430 ,Cortex M0/M3/M4/A53/ A9 | |
| Embedded Porting / BSP Extension | Primary Focus | Various and multiple OS-es often including maintenance. |
| OS and RTOS Design Experience: | FreeRTOS, Linux, Other / Contact Partner, VxWorks, Windows Embedded | |
| Embedded Application Development | Primary Focus | Almost all-in-house work includes a significant part in application development having an interface to customers or users including iOS / Android development, Windows development, Linux development |
| Image Sensor Fusion | Primary Focus | Radar image reconstruction for water depth measurements at sea using wave reflection; Navigation for visual impaired people based on cane integration |
| Homo or Heterogeneous: | Heterogeneous | |
| Sensor Types Design Experience: | Accelerometer, Compass, GPS / Position, Gyro, IR, Inclinator, LIDAR, Radar, Thermal, Tilt, Video (4K, 8K), Video (SD, HD) | |
| Computer Vision | Secondary Focus | We have a lot of experience with vision implementations, but the focus is more related to vision related algorithmic design then providing generic vision solutions. |
| Machine Learning | Primary Focus | WISH is a Topic developed AI based application for workflow optimization in an operating theater context in hospitals. |
| Framework Experience: | Caffe, Other / Contact Partner, TensorFlow | |
| Network Model Experience: | AlexNet, GoogLeNet | |