



AXONIM Devices Company Overview

Founded in 2011

Headquartered in Lithuania

Engineers 30+ core employees

Organizational

model

open system – only two hierarchy levels: project managers and engineers of the development teams,

others are supporting subsystems

Services embedded solutions development, digital devices development, prototyping, ready-to-manufacturing

Clients' geography CIS, Germany, UK, US

Industries digital optics, industrial automation, telecom, consumer devices, medical devices

Selected clients Yukon Advanced Optics, Lifodas, Round Concept, Polimaster

Solutions video processing, digital optical systems, consumer electronics, hardware & low-level SW solutions for

industrial automation, UAS, embedded systems



Examples of works





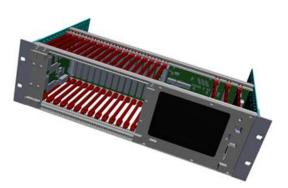
















Embedded development

Spheres Connectivity and networking, Video processing

Objects Sensors, Automation, Wearables, Smart Handheld, Consumer Electronics

Subsystems Hardware, Firmware & ROM code, Drivers & Controllers, RT/Kernel Development and Optimization,

Embedded Applications & Platforms, User Experience and Interface

Devices, IoT Device hardware & firmware, RTOS, drives development

Embedded Embedded software engineering

appliances

Firmware Domain specific hardware controllers and firmware software

Sensors and Analog & digital signal processing, image & video processing, processing algorithms, HW, FW, SW,

Automation SCADA systems development and integration

Networking RTOS, data processing, transmission























End-to-end service offering

Electronics design	Architecture, components selection, throughput & consumption calculation, thermal dissipation estimation, schematics & PCB design, PCB size optimization, signal integrity modeling, PCB prototyping.
Mechanical design	Exterior design selection, detailed 3D design, mounting places, volume minimizing
Firmware, Embedded SW	Embedded SW architecture, OS selecting, proof-of-concept at development boards. Board-up, debugging and testing features and benches. Consumption, dissipation, throughput & signal integrity verifying and correction
MATLAB analysis	Algorithms development, R&D activities, Computational analysis & optimization, Verification environment preparation, Digital signal processing
FPGA design	FPGA / CPLD design (VHDL, Verilog, System Verilog, ANSI C), Emulation and implementation, Hardware and software debugging, RTL design, Verification, co-simulation, Advanced design systems and development boards
Portable RTL design for SoC	Portable RTL design for SoC, Verification of SoC, FPGA HIL



Toolset

Architectures	ARM, SuperH, x86, TI DSP, ADI Blackfin, ADI DSP, AVR32, MSP430
Manufactures	components from leading manufacturers
Operating systems	Embedded Linux, Android, Microsoft Windows Embedded, eCOS, FreeRTOS, ADI VDK, DSP/BIOS
Wireless communications interfaces	IrDA, Bluetooth, WiFi, GPRS / GSM / 3G / HSPA / LTE / LTE Advanced, ZigBee, GPS
Communications interfaces	USB Host/Client/OTG, SPI/SSP, I2C, LVDS, UART, RS232 / 485 / 422, LCD HDMI, DVI, SD / SDHC / MMC / CF / PCMCIA, ATA, SATA, PATA, Ethernet, PoE, PCI, PCIe, 1-Wire, uWire, CAN, SPORT, S/PDIF, PPI, I2S, AC97, TDM, RMII, MII
Industrial interfaces	ProfiNET, EtherCAT, ProfiBUS, ModBUS, CANOpen, IEC 61850, MQTT, GigE Vision
languages	C/C++ (incl STL/ATL), TCL, CDL, Java (J2ME), MatLab, Mathematica, VHDL/Verilog, ASM, XML, XAML
Multimedia	MPEG2, MPEG4, MP3, WMA, H.264, WMV8, JPEG, JPEG2000, Motion JPEG, OGG Vorbis, G.711 u/a-Law, G.722 ADPCM, G.726 ADPCM, Speex, GSM 6.10



Qualifications



Member of TI Design Network, expertize at ARM-Based Processor Platforms, Digital Signal Processors, Microcontrollers (MCU), OMAP Applications Processors, Wireless Connectivity



AXONIM is an accredited partner of Intel Corp. in the design of devices based on Intel processors



Participant of 3rd party developers program. Analog Devices highly appreciate our abilities in software and electronics development.



AXONIM is member of EtherCAT Technology Group. The EtherCAT protocol is used for hard and soft real-time requirements in automation technology, in test and measurement and many other applications.



Solutions and competences

Video processing	Video data processing algorithms development. Color correction algorithms. Eliminating defects
	algorithms. Resolution and detailing increasing algorithms. Examples: automatic screening,
	automated monitoring and measuring systems, computer vision, laser scanning, others.

Optical devices embedded solutions design, electronics, printed circuit boards, processor modules, algorithms and software development, prototyping and preparing for serial production of various optical devices - thermal imagers, monoculars, binoculars, sights, night vision attachments for sights, binoculars, monoculars.

Consumer electronics Contract development, prototyping.

Industrial automation Hardware platforms, hardware and software solutions development.

UAV, UAS, Drones Hardware and software solutions mostly in regards to image and video stream processing.

Telecom Development and prototyping of the communication devices – radio, GSM, Ethernet, IP, etc.

Embedded solutions Processor modules, embedded systems contract development and integrations into serial projects.



CONTACT

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