

INDUSTRIAL COMPUTING PRODUCTS



In-vehicle computers and displays
Wireless communication: GPS, GSM, WLAN
Flexible ignition control, easy adoption to car power-systems
High vibration resistance, wide operating temperature
Additional IP65 housing

Full HD Digital Signage Solutions
Wide range of industrial players designed for 24/7 operation
Perfect graphic performance, various video outputs
Single, dual, triple and quad display possibility

Panel PCs and fanless box computers for automation industry
Compact sizes, low power consumption
Many options of I/O interfaces, high reliability
Embedded OS, watchdog built-in, long life



IP67 Panel PCs, Industrial displays, Embedded boards
Fanless with Intel, VIA and AMD CPUs, RISC
Different form factors: FSB, HSB, 3.5", 5.25", PC/104
EPIC, ETX, ITX, XTX, COM, Qseven



Cost-effective and reliable mini-ITX boards
Intel Atom/i3/i5/i7 and AMD G-series platforms
Industrial design
5 Years life cycle support



32 - 65" Large Format Displays with Touchscreen
Fanless, great viewing angles and exceptional color clarity, wide range of video and audio inputs, dedicated space for multimedia player mounting at the rear

ISM PRODUCTS

Wireless M-Bus modules and devices
868MHz and 169MHz

for metering applications
Modules, Modems & USB Dongles
for 868MHz, 169MHz, 2.4MHz

Long range (~2km) with 2.4GHz
Certified industrial Bluetooth modules and Stacks
BT 2.1, BT 4.0 and BT 4.2 (BLE), Class 1 & 2,

with medical certificates
Modules with dedicated MCU for built-in applications

Wi-Fi modules
Compact (15x26x4mm), low power AMBW020 module with integrated IPv4&IPv6 stacks

Ultra compact (10x14x3.8mm) LILY-W1 modules with integrated antenna and LTE filter

Multiradio modules
Wi-Fi, Classic BT and BT 4.0 (BLE) combined in one module

Wi-Fi (a/b/g/n/ac), Classic BT, BT 4.1 & NFC in one module

AMBW020
Wi-Fi module

AMB8426-M & AMB8466
Wireless M-Bus module and bridge

OBS421
dual-mode Bluetooth module

NINA-B112
Bluetooth 4.2 module with MCU for customer applications
10.0x14.0x3.7 mm

ODIN-W260
BT 2.1+BT 4.0+Wi-Fi Multiradio module
22.3x14.8mm

THEO-P1 (30.0x40.0x4 mm)
Host based V2X module with AEC-Q100 and ISO 16750-4 automotive certificates

AEG ID INTELLIDENTIFICATION™

LUX

ISO Cards, Key Fobs, Wrist Bands, PET laminates

RFID system solutions for: Access control, Animal identification (Pet, bird and livestock), Industry and logistic (also KEG and waste ID)

iiyama

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Compatible with WEZAG hand tool dies

with dedicated dies

compatible with WEZAG hand tool dies



locate, communicate, accelerate

State of the art GNSS modules based on the latest technology u-bloxM8/u-blox8

Form factors: MAX, NEO, LEA, EVA, PAM, CAM
Modules are qualified for in vehicle use (ISO16750)

High performance GNSS receivers, sensitivity: -167dBm
Flexible modes, fe: GPS, Glonass, GPS+Glonass parallel

Extremely low power: 4.5mA/3V (fix GPS every 1s)
Position accuracy (CEP, SBAS): 2.0m

Built in active antenna support (power, monitor)
High in-band jamming immunity, Jammer detection

Assisted GNSS: GPS as well as Glonass supported
AssistNow Online, Offline and Autonomous modes

Direct cooperation with GSM/UMTS modules
High precision NEO-M8P, accuracy < 0.025m

Built in sensors for navigation without sky view (NEO-M8L/U)
Dedicated modules for timing, RAW data

Miniature modules with built-in antenna (CAM-M8Q/C)

CAM
Miniature GPS+Glonass module with built-in antenna (9.6x14.0x1.95mm)

NEO-M8P
High precision positioning with NEO-M8P modules acting as base and as moving rover utilizing u-blox Real Time Kinematic (RTK) Technology

Accuracy: 0.025 m + 1 ppm CEP

NEO-M8L/U
NEO-M8L requires distance provided by CAN messages or analog speed tick pulses

NEO-M8B
The UNTHETHERED DEAD RECKONING module NEO-M8B requires no additional connection, only GNSS signal.

TOBY family: LTE modules

LARA family: LTE Low cat. modules

SARA family: LTE/HSPA+/GPRS Mini PCIe modules

TOBY family: LTE modules

Reliable, field proven

GPS/GALILEO/Glonass/BeiDou/QZSS and GSM/UMTS/LTE/NB-IoT

High performance GSM, UMTS, LTE, NB-IoT modules
Navigation without GPS, based on GSM network

eCall ready products with in-band modem
Wide temperature range -40°C to +85°C

LEON-G1, SARA-G3 - GSM/GPRS modules
Embedded TCP/UDP/IP, FTP/HTTP/SMTP stack
ATEX certificate to be used in explosive environments

Low cost versions (2 GSM bands)
Low power consumption (<0.9mA idle, 2.9mA active mode)

Built-in Assisted GNSS client to support GNSS modules
Multiple socket & IP addresses, SSL
DTMF support, SIM card detection, BIP

Small form factor 16.0x26.0x3.0mm
One PCB design for GSM, UMTS, LTE and NB-IoT modules

Simple integration with u-blox' GNSS modules

SARA-U2 family of compact GSM/UMTS/HSPA modules
Form factor as small as 16.0x26.0x3.0mm

Worldwide version, all 2G+3G bands
Pin compatible to GSM/GPRS module SARA-G3, LTE Low Cat.

LARA and NB-IoT SARA modules
Low cost version available (UMTS only, no GSM support)

Low power consumption

LISA-U2 GSM/UMTS/HSPA+ modules
HSDPA (21.1Mb/s), HSUPA (5.76Mb/s)

Worldwide module

TOBY/MPCI - LTE modules
TOBY-L2/MPCI-L2: GSM/GPRS/HSPA+/LTE

Up to 150Mb/s data rate

SARA NB-IoT - breaking point
with leading position of u-blox.
Low power (10µ on battery), low cost, better link budget than GSM, works in existing cellular infrastructure.

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Reliable interconnect products

SIM / Nano SIM / Pico SIM connectors
Memory Card Connectors
USB Connectors
Board to board connectors
FFC connectors
Dedicated white connectors for LED boards

DC Power Jacks

Modular Jacks

Components
Terminal Blocks, PCB mounted, pluggable and other interconnection solutions, Fuses & Fuse-holders, Batteries, LEDs & Indicators, Miniature Switches, Limit & Safety Switches, DIN Rail mounted Interface Modules, Control Products and Transformers

Enclosures
Universal Housings, Hand-held Enclosures, Die-cast Boxes, Potting Boxes, Desktop Cases, Instrument Cases, DIN rail Enclosures or Interface Supports

Full customisation service for all enclosures
With custom colours, surface coating & RFI shielding, engraving & silk-screening, labels & membrane

Keypads, as well as milling for all types of connectors and control components

Custom enclosures
Designed, prototyped and manufactured to specific and exacting requirements with rapid lead-times using Flat Sheet Plastic Technology process, a solution for unique enclosure requirements without tooling costs

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Push-pull circular connectors and cable assembly solutions

Core Series
ANY SIZE, ANY CONFIGURATION
ANY APPLICATION

Ultimate Series
RUGGED, COMPACT
LIGHTWEIGHT

Fiberoptic Series
ROBUST, OPTICAL PERFORMANCE
EASY CLEANING

Minimax Series
HIGH DENSITY, SIGNAL & POWER
MINIATURIZATION

Wide range of electromechanical solutions

Tact Switches
Snap-in types
available in 4.5x4.5mm to 12x12mm sizes

Surface Mount types
available in 2.8x2.4mm to 10x10mm sizes

Sharp and Soft feeling types
Multiple operating force versions (stem color coding)

Dust proof & water proof versions available

Encoders

Rotary and slide potentiometers, industrial and pro-audio types available

Power Switches

Memory and SIM card connectors also dedicated for automotive market

Detector switches

Magnetic, MEMS and capacitive sensors

Thermal Printers

ALPS

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Terminal blocks

SPRINGCON - spring type
RIAICON - screw type
PLUGCON - pin strips
IDCON - IDC - PCB connectors

Data communication solutions
Industry RJ45 & fiberoptic connectors
Ethernet M12 connectors
Patch cords

Heatsinks
Machined extruded heatsinks
Heatsinks for LEDs
Extruded heatsinks with retaining springs for PCB mounting

Heatsinks and fan coolers for processors, PGA & BGA components

Cooling aggregates
Thermal conductive materials

Cases
Miniature aluminum cases
Combination cases
Desk consoles and shell cases
19" system cases

Connectors
Hi precision board-to-board connectors
IDC connectors
D-SUB connectors
DIL PGA, PLCC sockets

Services
Precision CNC machining of heatsinks, cases, front panels
Powder coating
Screen printing
YAG laser engraving

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Thermal Printers



Automotive connectors
RAST connectors 2.5 and 5.0
Chain terminals 2.8-4.8-6.3-7.7-9.3mm
Ring tongue and other solderless terminals and splices
Tools

Industrial Cables
VDE/UL/CSA/MIL approvals
DIN standards
Single, multiple, fine, ultra-fine wire
Single, double, triple coloured
Insulation: PVC/PE/TPE/silicone/PP/PA Tefzel/Teflon/PUR/
Glass filament/EVA etc.
Temperature range: -200°C to 1200°C
Halogen free/flame-resistant/lead-free

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LIGHTING PRODUCTS

SEOUL SEMICONDUCTOR



ACRICH3 - supplied directly from 230VAC. Luminous flux of one module up to 11500lm (105W module), and up to 140lm/W efficacy (10W module)
STREETLIGHT ACRICH3 MODULES - cost effective ready modules with 3000lm output, AC driven in IP67 casing



Z-POWER LED - super bright power LEDs. Efficacy up to 170lm/W
SIDE, TOP, CHIP, LAMP - available as through hole and SMD, ultrabright, multicolor, full-color (RGB), efficacy of 5630D LED up to 220lm/W (@65mA)



COB - from 4W up to 100W standard sized modules, with up to 11800lm per array, and 149lm/W
MIT (Multi Junction Technology) - HV LEDs for ease of design, cost effective mid-power (i.e. 5630) and high power (i.e.5050) packages available
WICOP2 - new phosphor-on-chip power LED, with high performance and low-cost



Taiwanese cost-effective LEDs
 Wide portfolio of signalling LEDs
 Double color (warm + cool) power LEDs
 Standard form factors
 Aluminium and ceramic COBs
 Power LED matrix modules
 Ready modules
 High efficacy EMC packages (over 150lm/W)

Customized solutions & accessories

LED modules: square and round modules in different sizes
 LED strips
Acric modules
 Lighttubes
 Lenses, reflectors & holders

Design support and contract manufacturing



High quality semiconductors
 Transient Voltage Suppressors
 Zener and switching diodes
 Rectifier diodes
 Rectifier bridges
 Linear and switching voltage regulators
 Amplifiers and comparators
 Voltage references
Industry standards:
 78(9)xx, 78(9)Lxx, LM317, LM339, LM358, LM431, LM810, SMAJ, SMBJ, SMCJ, P4KE, P6KE, 1.5KE, BAV, BAS, BAT and many others



Timing and Sensing quartz based devices

Crystal units
 kHz Range
 MHz Range
 SAW Resonators

Oscillators
 SPXO kHz & MHz range
 TCXO
 VCXO
 SAW Oscillators

SAW Filters

RTC Modules

Gyro sensors

Programmable Oscillators

Customer specified frequency (1.000MHz to 166.000MHz)
 Customer specified logic (5V, 3.3V, 2.5V, 1.8V)
 10 sizes available including THT, SMD plastic package or SMD ceramic package

Available within 24h from stock!



QMEMS is a combination of 'Quartz', a crystal material with excellent characteristics such as high stability and high precision, and 'MEMS' (a microfabrication technology). To a semiconductor MEMS material, EPSON applies precision microprocessing based on quartz material to create a quartz device called 'QMEMS' which offers high performance in a compact package.



- Bulgaria** Bulgaria@microdis.net
- Croatia** Croatia@microdis.net
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- Ukraine** Ukraine@microdis.net
- Other countries** microdis.de@microdis.net

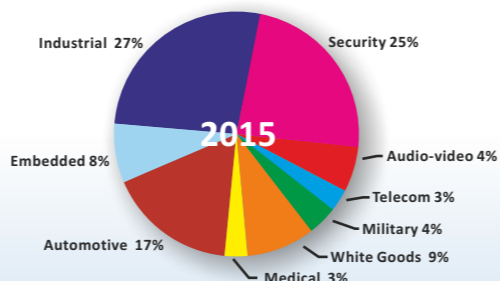
*Electromechanical Competence Center for France

CONTACT



SERVICES FOR OEMS AND CEMS IN EASTERN EUROPE

- Design-in support - well trained engineers are providing high quality service
- Sample supply and product info - high level and many years of experience
- Trainings - common actions with our franchise partners
- Programming of oscillators, ICs, etc
- Harness making according to specification
- Supply of more than 500 000 components
- Access to more than 100 suppliers
- EDI, e-commerce on www.microdis.net
- Online Order Tracking
- Consignment stock: central as well as local possibilities



Long-term cooperation with customers covering all industrial segments

Supply of small quantities by catalogue distribution

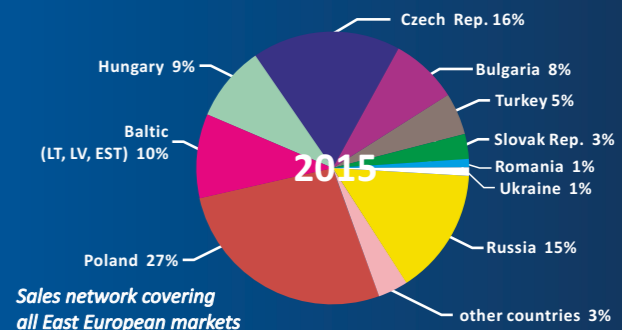


Find us on www.facebook.com/Microdis.Electronics/



MICRODIS BUSINESS MODEL

- Franchise Distribution for a selected number of manufacturers
- Special Mass Market Distribution by Internet and Catalogue
- Network Partnership with suppliers and customers



DEVELOPMENT STEPS OF THE MICRODIS ELECTRONICS GROUP

- 1989** Foundation of the companies in Hungary and Germany
- 1990** Foundation of sales companies in Poland and Slovakia
First deliveries to the industry
- 1992** Foundation of LSB Electronics later renamed to Microdis Plus Poland
Restructuring from retail to distribution
- 1993** Foundation of Microdis KFT in Hungary
- 1995** Consolidation of all companies within the Eurodis Microdis Holding AG in Switzerland (60% Eurodis [later Eurodis Electron PLC] and 40% Microdis)
Foundation of a subsidiary in Czech Republic
- 2000** Europartners Consultants proclaimed Eurodis Microdis No. 1 in Poland and No. 3 in Hungary. Start of catalogue distribution
- 2003** Microdis sells its 40% shares of the Eurodis Microdis Electronics AG to Eurodis Electron PLC and takes over entirely Eurodis Microdis Electronics in Germany
- 2006** Microdis obtained ISO 9001:2000 Certification
- 2007** Foundation of Microdis in Ukraine
- 2008** Foundation of Microdis in Latvia
- 2009** Foundation of Microdis in Bulgaria
- 2010** Microdis Group obtained ISO 9001/2008 Certification
- 2011** Foundation of Microdis Components Elektronik in Turkey (Istanbul)
- 2012** Logistic Center moved to the acquired building in Hockenheim, Germany
- 2013** Inauguration of Electromechanical Competence Center for France, in Sarrebruck
- 2014** 25 years of Microdis' Innovation and Reliability on the market

ADVANCED EDI SYSTEM

- Access to components base with individual, quantity dependent, pricing
- Stock information
- Downloadable file with components base
- On-line ordering
- Order status and order/invoice history information
- Individual account for each employee

