

**BULGARIA@MICRODIS.NET** CROATIA@MICRODIS.NET CZECH@MICRODIS.NET **ESTONIA@MICRODIS.NET** FRANCE@MICRODIS.NET\* **GERMANY@MICRODIS.NET HUNGARY@MICRODIS.NET** LATVIA@MICRODIS.NET LITHUANIA@MICRODIS.NET POLAND@MICRODIS.NET ROMANIA@MICRODIS.NET RUSSIA@MICRODIS.NET SERBIA@MICRODIS.NET SLOVAKIA@MICRODIS.NET SLOVENIA@MICRODIS.NET UKRAINE@MICRODIS.NET



I Design-in support - well trained, competent engineers I Trainings - common actions with our franchise partners

I Programming of oscillators, ICs, etc.

I Harness making according to specification

I Supply of more than 500 000 components

I EDI and e-commerce on www.microdis.net I Online Order Tracking

**EUROPE@MICRODIS.NET** 

I Consignment stock - central as well as local possibilities

Supply of small quantities by catalogue distribution

\*Electromechanical Competence Center for France

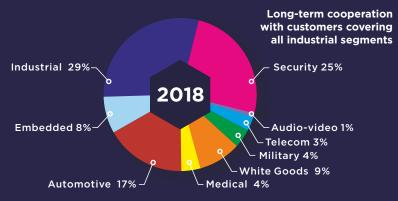
Turkey

Turkey@microdis.net



Currently the Microdis Group employs over 100 people, with a large number of electronic engineers, mostly involved in sales and support.

The quality of our management system is confirmed by ISO 9001:2015



TR 6.11





## **WIRELESS**

RFID, ANTENNAS, HF CONNECTORS, ADAPTERS, ACCESSORIES



## **SEMICON**

TRANSISTORS, DIODES, ICS, **QUARTZES AND OSCILLATORS** 



## **OPTO**

LOW, MID AND HIGH POWER LEDS, COBS, LED MODULES, LENSES DRIVERS, DIPLAYS AND OPTOCOUPLERS



## **EMBEDDED**

INDUSTRIAL FANLESS PCs. **ALL-IN-ONE PANELS.** EMBEDDED BOARDS. **DISPLAYS WITH TOUCH -**SCREEN



## **HARNESS MAKING & TOOLS**





**COMPREHENSIVE PORTFOLIO** WITH MILLIONS OF COMPONENTS RELIABLE SOURCE FOR MASS PRODUCTION. AS WELL AS FOR FEW PIECES PROTOTYPING



WWW.MICRODIS.NET

The leading technical distributor of electronic components acting in Eastern Europe.

With years of experience and built up trust on the market.

Reliably providing local logistic and technical support to the most demading applications.

## ADVANCED **EDI SYSTEM**

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



## MICRODIS BUSINESS MODEL

**OTHER 0.7%** 

I Franchise Distribution for a selected number of manufacturers Sales network covering all I Special Mass Market Distribution by Internet and Catalogue East European markets I Network Partnership with suppliers and customers

**CZECH 15.1% HUNGARY 12.8%** REPUBLIC **BALTIC 12.3%** (LT, LV, EE) **POLAND 27.3%** 2018 **BULGARIA 5.2%** SLOVAK REP. 4.2% **RUSSIA 15.4% SLOVENIA 0.5% TURKEY 2.5%** 

**UKRAINE 1.2%** 

**FRANCE 2.8%** 



**3C Electronics** THT LEDs in various shapes, colors and

sizes, chip LEDs, digit displays, light bars, side view LEDs

Horticulture dedicated mid and high power LEDs for

UV & IR LEDs for special applications, Low, mid

and high powers, in various form factors. Wide

selection of UV wavelengths (270nm-420nm)

**Lighting Products** Mid and high power white

sizes and number of characters. Monocolor and

full color OLED and TFT displays. LCD with touch

LEDs in most popular packages (2016, 2835,

plant growth stimulation with specific wavelengths.

**BRIGHTEK** 

## FANLESS INDUSTRIAL COMPUTERS

Rugged Box PCs for automation industry Many options of I/O interfaces to find the optimal solution for the application, highest reliability because

Long life and availability

I Strong metal housing I Wide operating temperature

■ Anti-vibration & shock

Dust resistant

I Embedded OS

I Wide input voltage range Low power consumption

Compact size





### **Full HD & Ultra HD Digital Signage Solutions**

I Wide range of industrial media players designed to 24/7 operation

Perfect graphic performance

I Various video outputs



### Powerful Box PCs with optional external GPU

Machine vision controllers

I -25 ~ 70°C extended

operating temperature Patented expansion Casette and MezIO modules



Cost-effective reliable mini-ITX & 3.5" boards Latest Intel Atom/Celeron/Pentium/i3/i5/i7 AMVA3/MVA/IPS panel technology processors

Only Japan-made high-quality Conductive Polymer Capacitors used

Various form factors

Extended operating temperature

### **GSM** antennas

Embedded: I PCB & ceramic

Screw, sticker or magnetic mount

Connector and cable upon request Robust

### **GPS/GLONASS** antennas

Embedded:

Passive patch



Connector and cable upon request Robust

I Omnidirectional

In-vehicle computers and railway displays

I lanition control

I Easy adaption to car power system Railway EN50155 certificate



### All-In-One Panel PCs

I Many sizes available









with Full HD & Ultra HD resolution

I Durable & professional design

I Compatible with NEXCOM OPS players

## WIRELESS ACCESSORIES

### Reliable interconnect products

I SIM / Nano SIM connectors I Memory card connectors

**ELECTROMECHANICAL** 

I USB connectors

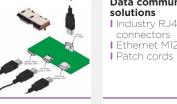
I Board to board connectors I FFC connectors ■ Dedicated white

connectors for LED boards **DC Power Jacks** 

Modular Jacks Overmolded cable assemblies









### Components

I Terminal Blocks, PCB mounted.

pluggable and other interconnection solutions

I Fuses & Fuse-holders Batteries

I LEDs & Indicators Miniature switches,

I Limit & Safety switches

I DIN Rail mounted interface modules I Control products and



### Enclosures

I Universal housings

transformers

I Hand-held enclosures

Die-cast boxes Potting boxes

Desktop cases

I Instrument cases

I 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.









### Data communication solutions I Industry RJ45 & fiberoptic

RIACON - screw type

I PLUGCON - pin strips

Terminal blocks

connectors



CONNECT



SPRINGCON - spring type

I IDCON - IDC - PCB connectors

■ Ethernet M12 connectors



### Heatsinks

I Machined extruded heatsinks

I Heatsinks for LEDs

with retaining spring for PCB mounting



### Cases

I Miniature aluminum cases

Combination cases Desk consoles and shell cases

to-board connectors I IDC connectors

■ Precision CNC machining of front panels

I Screen printing



coolers for processors, PGA & BGA components Cooling aggregates

▮ 19" system cases

## Connectors

High precision board

I D-SUB connectors I DIL PGA, PLCC sockets

## Services

heatsinks, cases,

I Powder coating I YAG laser engraving



Extruded heatsinks

I Heatsinks and fan



### Standard and custom terminal and connector systems

I From advanced research, development and tooling construction, to extensive manufacturing expertise

Terminal systems starting at 0.5 mm I Wire cross section starting at 0.08mm<sup>2</sup> I Sealed and unsealed solutions

I Reliable electrical contact due to spring loaded terminal system designs I Compact inline solutions with various housings

I Fuse solutions like master fuse and single fuses Press fit pins and pin headers

Electronic module connection systems



### Research and development, stamping and assembly I Standard connectors, stamped parts

I Stamping parts on customer's specification I Tabs, receptacles, ring terminals, sockets

I Specific products I Custom products



## Industrial Cables

I VDE/UL/CSA/MIL approva

I Single, multiple, fine, ultra-fine wire I Single, double, triple coloured

I Insulation: PVC/PE/TPE/silicone/ PP/PA Tefzel/Teflon/PUR/ Glass filament/EVA etc.

I Temperature range: -200°C to 1200°C I Halogen free/flame-resistant/lead-free Customised Hybrid cables on demand

### \*excluding Hungary

I Wire to PCB connectors I PCB to PCB connectors

I Wire to wire connectors I Jumpers I Memory cards and PCMCIA

connectors I Serial, parallel, USB

I Wide range of terminals I Strips and cables I Customized harness





available

## High quality semiconductors

I Transient Voltage Suppressors (up to 3000W)

I Zener and switching diodes

I Rectifier diodes Schottky diodes I Rectifier bridges

I ESD diodes and arrays ■ BJT transistors

■ MOSFET transistors Transoptors

Linear and switching voltage regulators 3030, 5630, 3535), available also in R. G. B colors. Amplifiers and comparators

> I Voltage references **LED drivers:** DC boost, DC buck, Current Regulator





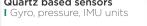
Inductors: chip, bead, power in THT and SMD I Transformers

APAQ High quality polymer capacitors for demanding applications. Providing longer lifetime, voltage stability in different temp., low voltage derating and a very low bias dependency.

available with AECQ-101 certificates

I kHz crystals MHz crystals

I SAW resonators and filters Quartz based sensors



### Programmable oscillators (P-SPXO) Crystal oscillators that include a PLL circuit and can be programmed to output a desired

frequency. Being able to program for any output frequency facilitates short-lead-time, small-lot

### Available within 24h via epson.microdis.net service

### **New products:**

slew rate

SG-8101 Series

I any frequency out of 0.67 do 170MHz range

Cost Effective

I ±20ppm @ -40°C - 105°C or I ±50ppm @ -40°C - 105°C ±15ppm @ -40°C - 85°C stability stability including 10 years aging

I power supply 1.8V, 2.5V or 3.3V I power supply 1.8V, 2.5V or 3.3V

## Harness making

COBs in standard sizes.

Crimping all typical connectors half or full automatic process

Cutting and stripping from AWG32(0,05 mm<sup>2</sup>) up to AWG8 (8.00 mm<sup>2</sup>)

### Lead free tin plating

Coiling/Collection

Tools for various

manual tools

Spare parts

Machines for: I Benchtop crimping & stripping I Cutting to length & stripping

I Full Process Crimping Marking ranging from 16-way to 62-way I Prefeeding

### Hand tools for cutting and crimping

connectors

Various versions of pneumatic and



HARNESS MAKING, ASSEMBLING, MACHINES AND TOOLS

### **Applicators** Presses for all types of connectors











## Timing and Sensing quartz based devices

## I SPXO, TCXO, VCXO, OCXO

RTC modules

Crystal units



SG-8018 Series DDOGDAM PROGRAM I any frequency out of 0.67 do 170MHz range

slew rate



## I OF function





# for RAST connectors

















### Iridium antennas I Internal & external I High performance Robust Variety wireless communication: GPS, GSM, WLAN GPS+Iridium combo (M1600-HCT) WiFi, Bluetooth, ISM antennas Internal & external

## HF connectors and adapters I SMA, MCX, MMCX, FME

I THT, SMD & edge mounted

I TConnector and adapter customisation possible

**AEG** ID

INTELL**I@ENTIFICATION**™

ISO Cards, Key Fobs, Wrist Bands, PET laminates RFID system

livestock), Industry and logistic (also KEG and waste ID)

solutions for access control, animal indentification (pet, bird and

Combo versions available

(2 or more outputs)

I Resistive or Capacitive Multi-touch



I Great viewing angles and exceptional color clarity

I Open frame mounting



## External:

## I Combo available

Active patch

I Omnidirectional

External:

### Combo L1/L2/E5 GNSS bands

**GERSYS** 



Optical Multi-Touch Technology

## Wide range of high quality monitors

Projective Capacitive, Infrared or

# for driver's cabin





## Embedded boards

## Up to 15 years product availability

