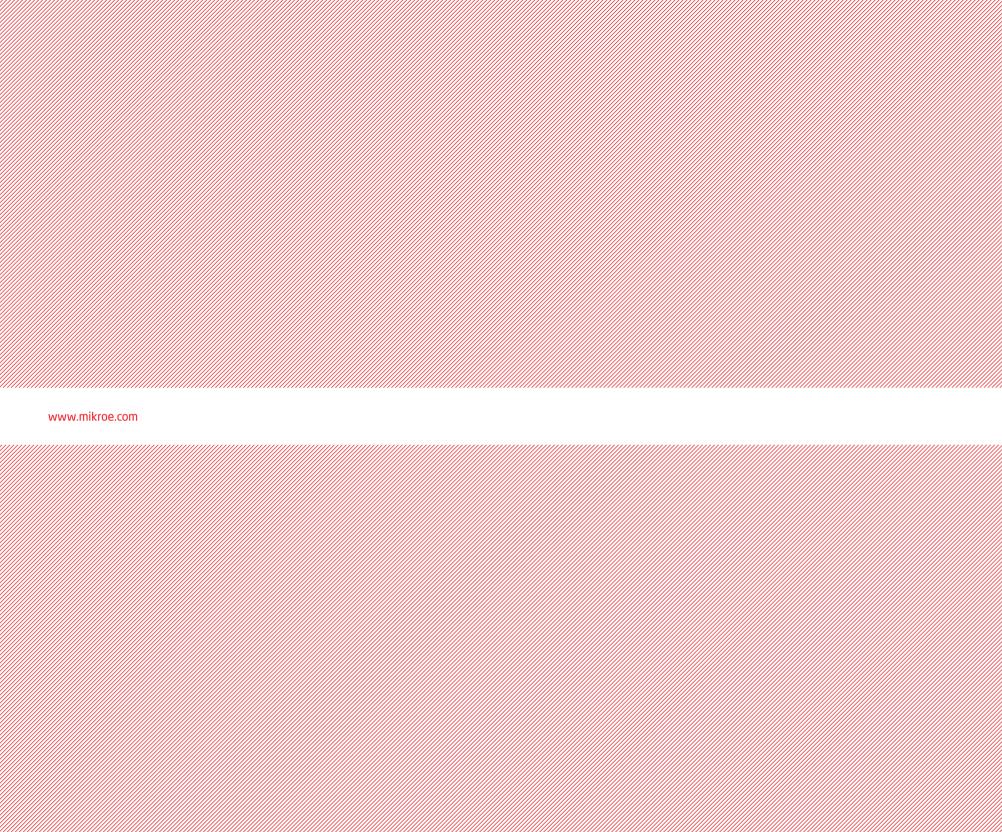
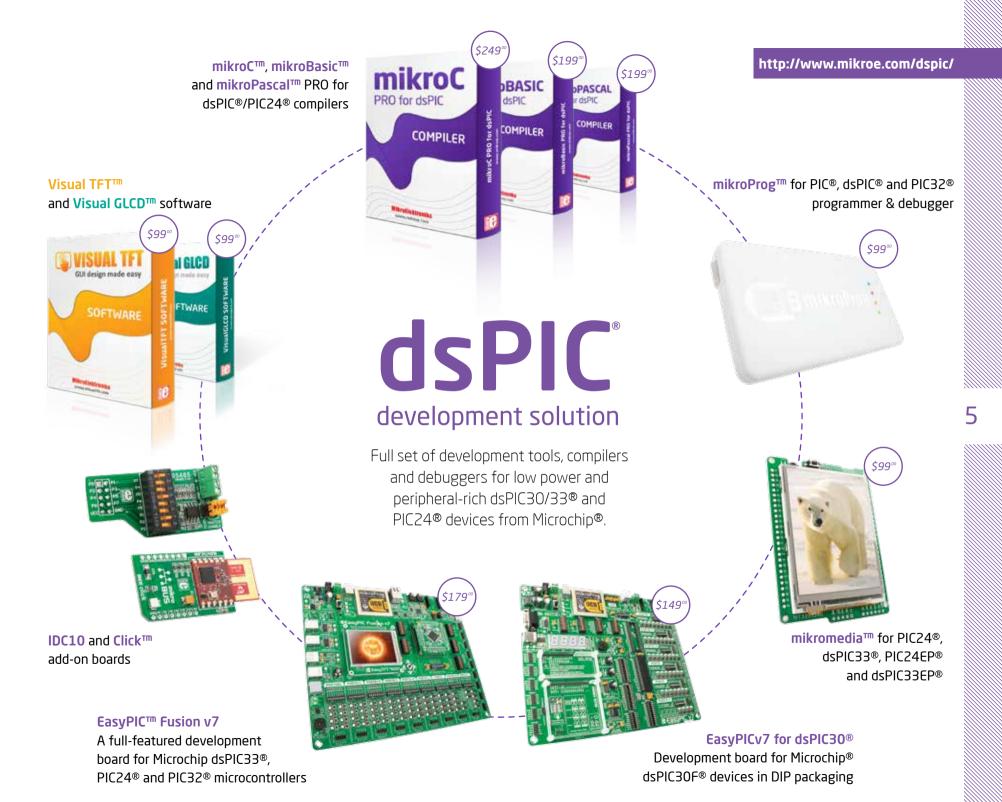
# development solutions

















# ASLK PRO

Learn analog with ease

Depictive board markings

Long lasting quality

Manuals that teach



The best tool for students



Everything is already here



Built from the best components



14 exercises and examples

Analog System Lab Kit PRO is designed for undergraduate engineering students to perform analog lab experiments. The main idea with ASLK PRO is to provide a cost efficient platform or test bed for students to develop almost any analog system using general purpose ICs such as OP-Amps and analog multipliers.

 $11\ \text{sections}$  on the board for  $14\ \text{fantastic}$  experiments

#### **Everything that an engineer needs**

ASLK PRO comes with three general-purpose operational amplifiers (TL082) and three wide-bandwidth precision analog multipliers (MPY634) from Texas Instruments. We have also included two 12-bit parallel-input multiplying digital-to-analog converters DAC7821, a wide-input non-synchronous buck-type DC/DC controller TPS40200, and a low dropout regulator TPS7250 from Texas Instruments. A portion of ASLK PRO is left for general-purpose prototyping and carrying out mini-projects.

Analog System
Lab Kit PRO
from Texas
Instruments,
produced by

mikroElektronika

# Get the MAX with the MINI®

Replace your DIP40 MCU with a pin-compatible MINI board and get up to 40x better performance!

Keep everything you love about 8-bit MCUs in DIP40 packaging and get up to 40x better performance. Our powerful MINI boards are pin compatible with PIC18F45K2x making them a perfect excuse to smoothly switch to 32-bit. Get used to having plenty of available memory and lots of processing power. Each MINI comes preloaded with a fast USB HID bootloader, so programming is as easy as it gets. Try it out for \$29 only.

slow



25x 🕼





40x





PIC18F45K22



MINI-M4 for Stellaris

contains LX4F230H5QR (ARM® Cortex<sup>™</sup>-M4)



contains PIC32MX534F064H

MINI-32

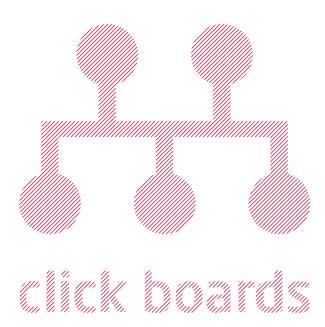


contains STM32F415RG (ARM® Cortex™-M4)

MINI-M4 for STM32

12

45 L



## one **SOCKET**



for ALL boards Just place the Click<sup>™</sup> board you need into the innovative new mikroBUS™ host socket and it's ready to work right away. Adding new functionality to your development board was never so easy!



**ADC** click



**DAC** click



LigtHz click



**EXPAND** click





Flash click



**DIGI POT click** 



IrDA2 click



**BUZZ** click



microSD click



**RTC** click



RTC2 click



**EEPROM** click



**THERMO** click



MP3 click



**Opto click** 



**CAN SPI click** 



**CAN SPI click 3.3V** 



**BEE** click







**USB UART click** 



**USB SPI click** 



RS485 click 5V



**RS485 click 3.3V** 



**Accel click** 



Gyro click



4-20mA T click



4-20mA R click



**ETH click** 



WiFi PLUS click



**GPS** click



GPS click - L10



**GPS2** click



8x8 G click



8x8 R click



8x8 Y click



nRF C click



nRF T click



IrThermo click 3.3V



IrThermo click 5V





SHT1x click



**IR** click



**DALI click** 



**OSD** click



BlueTooth click



Bluetooth2 click



**RELAY click** 

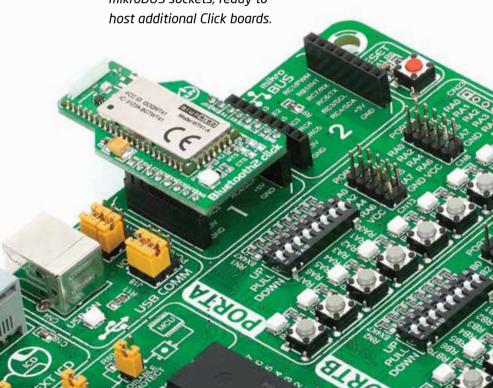


**GSM** click



**GSM2** click

All mikroElektronika seventh generation development boards feature at least two mikroBUS sockets, ready to





# mikromedia boards



mikromedia for PIC32 (features PIC32MX460F512L)

#### Swiss Army Knives for Multimedia Developers

Create control interfaces, run multimedia content, play games, and even movies with fantastic mikromedia boards. They are barely bigger than the size of the TFT display, but are capable of supporting rich multimedia content. Mikromedia boards feature following modules:

- 320x 240 TFT with Touch Panel
- MP3 codec
- Accelerometer
- microSD card slot

- Serial Flash Memory
- USB or USB UART
- Programmer connectors
- Battery Charger with battery connector

Each mikromedia is preprogrammed with bootloader and supported in mikroElektronika compilers and Visual TFT software. They support additional shields, such as: mikroBUS, PROTO, Gaming, Connect or Battery Boost Shield.



mikromedia for PIC24EP (features PIC24EP512GU810)



mikromedia for dsPIC33EP (features dsPIC33FJ256GP710A)



mikromedia for dsPIC33 (features dsPIC33FJ256GP710A)



mikromedia for STM32 (features STM32F207VGT6 or STM32F407VGT6)



mikromedia for Stellaris M3 (features LM3S9B95)



mikromedia for XMEGA (features ATXMEGA128A1)



mikromedia for PIC18FJ (features PIC18F87J50)



mikromedia for PIC24 (features PIC24FJ256GB110)







#### You Design - We Create Code

Just focus on designing your TFT user interface, and the software will make sure to create microcontroller code for you automatically.

#### **Intuitive Drag-n-Drop Interface**

Visual TFT is really easy to use. It implements standard intuitive behavior, so you will feel like using any other vector graphic editors.

#### SingleClick™ settings

With dozens of hardware templates, a single click on a dropdown list item does all the settings for you. Time spent: 5 seconds per project.

#### **FT800/EVE Controller Supported**

Visual TFT is the first software in the world that supports FTDI's powerful new EVE GUI platform, and it's rich set of features.



VISUAL TFT IS A STANDALONE
APPLICATION USED FOR RAPID
DEVELOPMENT OF GRAPHICAL
USER INTERFACES FOR TFT
DISPLAYS.



SOFTWARE GENERATES CODE
COMPATIBLE WITH MIKROC,
MIKROBASIC AND MIKROPASCAL
COMPILERS FOR ALL SUPORTED
MCU ARCHITECTURES.



VISUAL TFT SUPPORTS MORE THAN 10 POPULAR DISPLAY CONTROLLERS AND 5 DIFFER-ENT DISPLAY SIZES. PICK THE BEST ONE FOR YOUR PROJECT.



WE MADE SURE TO PROVIDE

MANY INTERESTING EXAMPLES

AND A COMPREHENSIVE HELP

FILE THAT WILL HELP YOU TO

GET STARTED QUICKLY.





#### Free upgrades

Software is constantly improved and new funcionalities are added with each new release. Owners of Visual TFT licenses are entitled to free upgrades, which takes just a minute of your time.



#### Free Support

Visual TFT license guarantees you free product lifetime technical support, so you can rely on our help when developing.



#### Best price/performance

With Visual TFT you get full-featured and powerful GUI development tool, and at the same time very intuitive and easy-to-use. No other software offers so much at such a price.

http://www.mikroe.com/forum/

### **FORUM**

Nearly **26.000 members**, **190.000 posts** and resourceful topics with solutions and code snippets make our forum a great place for embedded developers.

http://www.libstock.com/

### LIBSTOCK®

**Libstock** is a free community website for sharing and downloading code: projects, libraries and examples. It hosts some of mikroElektronika exclusive libraries, like USB Device Library, Network Ethernet Library, WiFi Library, FAT32 library, but among **450 projects** you can find PID, Modbus and many other libraries as well.

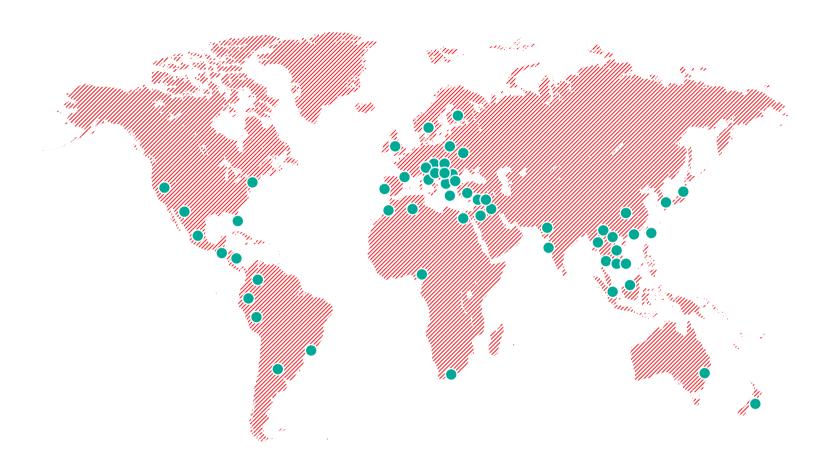
facebook.com/mikroElektronika

## SOCIAL NETWORKS

mikroElektronika community members are very active on social networks. We often discuss interesting topics on **Facebook** and **Twitter**. Our **YouTube** and **Vimeo** channels contain video demonstration and tutorials on interesting projects. Make sure to check them out:

- facebook.com/mikroElektronika/
- twitter.com/mikroel/
- g plus.google.com/+mikroElektronika/
- youtube.com/mikroelektronika/
- vimeo.com/mikroelektronika/
- in linkedin.com/company/mikroelektronika/

## OUR WORLDWIDE DISTRIBUTION MAP



MikroElektronika supplies the entire world with first-class embedded solutions. Find our products with more than 60 distributors worldwide. Choose the one closest to you. Full distributors list and contact information can be found at our webpage:

http://www.mikroe.com/distributors/

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## ABOUT MIKROELEKTRONIKA

For more than a decade MikroElektronika has been one of few companies in the world that produce entire development toolchains for all major microcontroller arhitectures. We make development boards, compilers, add-on boards, additional software and books for microcontrollers.

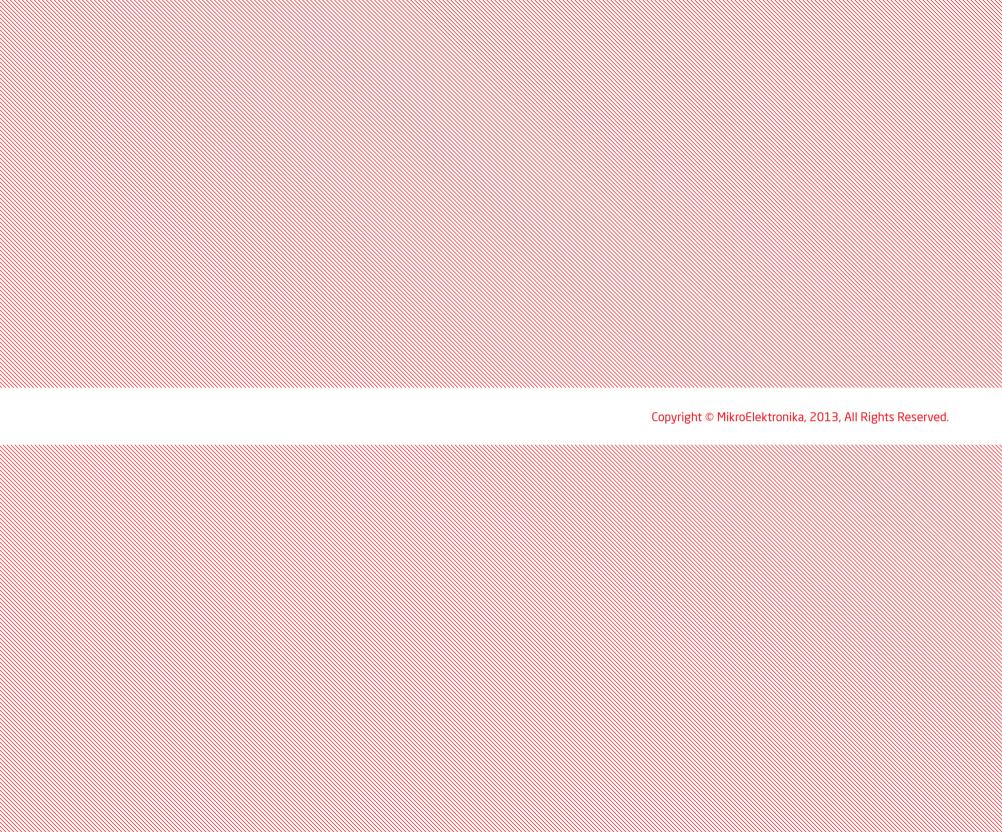
MikroElektronika was grounded on a simple idea. We want to provide software and hardware tools which save time of our fellow engineers and help them to get the job done quickly. We want to make electronics understandable, to bring it to ordinary people and help them improve their lives. On that journey we developed devices that are sophisticated, powerful, beautifully designed and what is most important - easy to use. We're making it easy for hobbyists and enthusiasts, but all this combined power and elegance draws a lot of professionals as well. Many professional users and well known companies are using our products. Right now we have 48% sales to companies and small businesses, around 27% to universities and high schools while the rest goes to individuals and hobbyists.

We have a passion for quality. We do what we love and love what we do. Each product is well thought of, and is always a part of the bigger picture where the user is the center of attention.

E-mail to: office@mikroe.com

Our business hours are from 9 until 17, Central European Time, Monday through Friday. For offline contact, please reach us via:

Address	Phone	Fax
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# development solutions

Designed by
MikroElektronika Ltd.
www.mikroe.com
February 2013.

