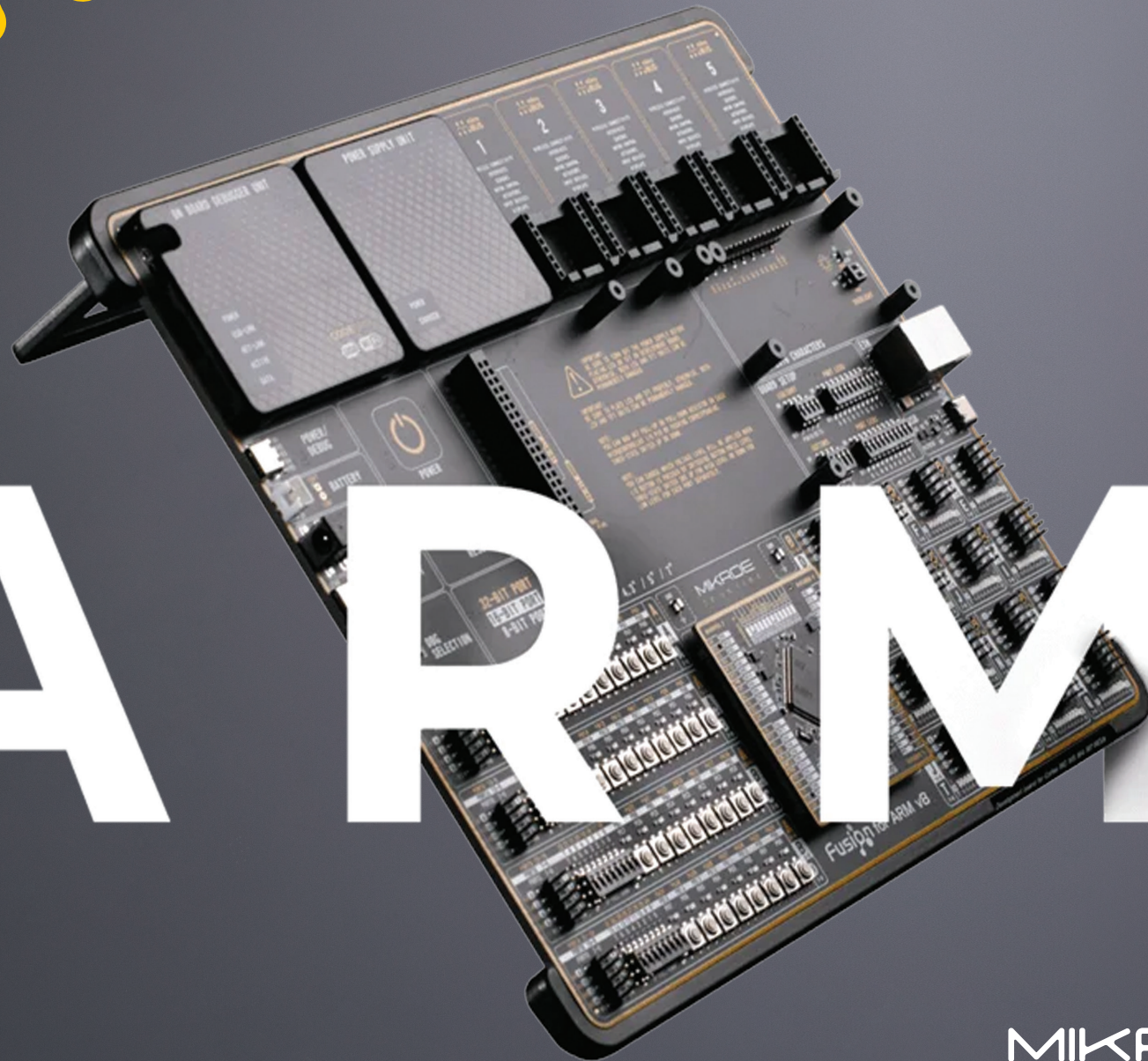# Fusion

Universal development board
for ARM MCUs

for

ARM

MIKROE

1611
Different ARM MCUs supported

ON-BOARD
USB & WiFi debugger

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5 x mikroBUS socket
for 650+ different click boards

WORLD'S FIRST DEBUGGER OVER WiFi

On-board debugging and programming over WiFi

Fusion for ARM development board integrates first-ever embedded debugger/programmer over WiFi. Enjoy cable-free world!

*CODEGRIP WiFi License is available as an add-on feature.

Access anywhere, under any circumstances at anytime

Unlimited possibilities for development, you can place the development board in almost any hardly accessible places such as hazardous environment, agricultural setting, and high-rise buildings while still retaining full debugging and programming access.

Redefine technical support

Replicating user's hardware has always been a challenge, debugging over WiFi enables technical support to directly access user's hardware.

Do more with less effort!

ON-BOARD CODEGRIP DEBUGGER

Free on-board debugger & programmer over USB-C

The on-board CODEGRIP USB-C debugger & programmer, currently supports for more than 1100 microcontrollers from different vendors.

Lifetime free updates with new microcontrollers and vendors.

CODEGRIP Suite

CODEGRIP Suite is a powerful software suite that offers complete control over the Fusion for ARM v8 development board. It is used to intelligently manage programming and debugging tasks, as well as various other options and settings of the development board.

Plug and play

USB-C debugger enables effortless programming/debugging over generic USB driver connection without the need for additional driver support.
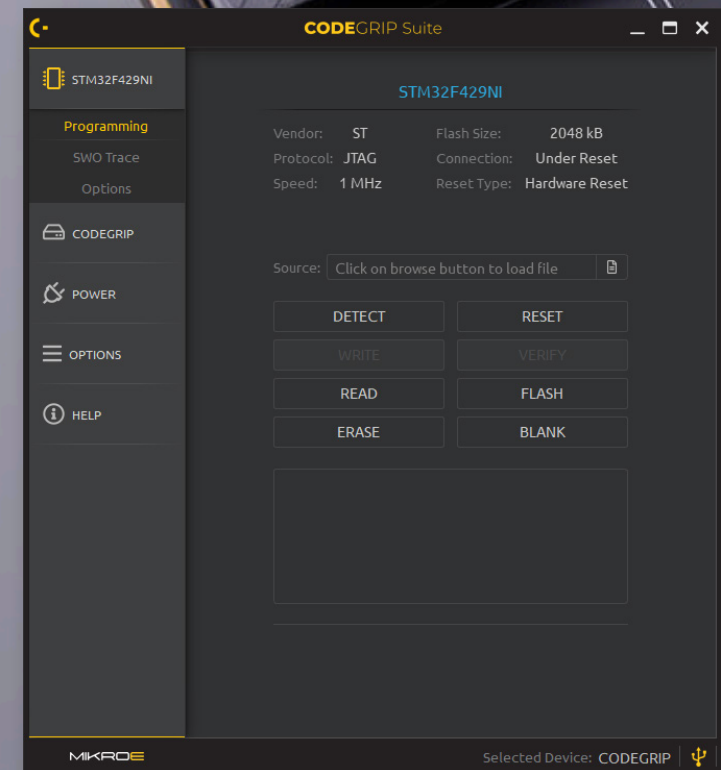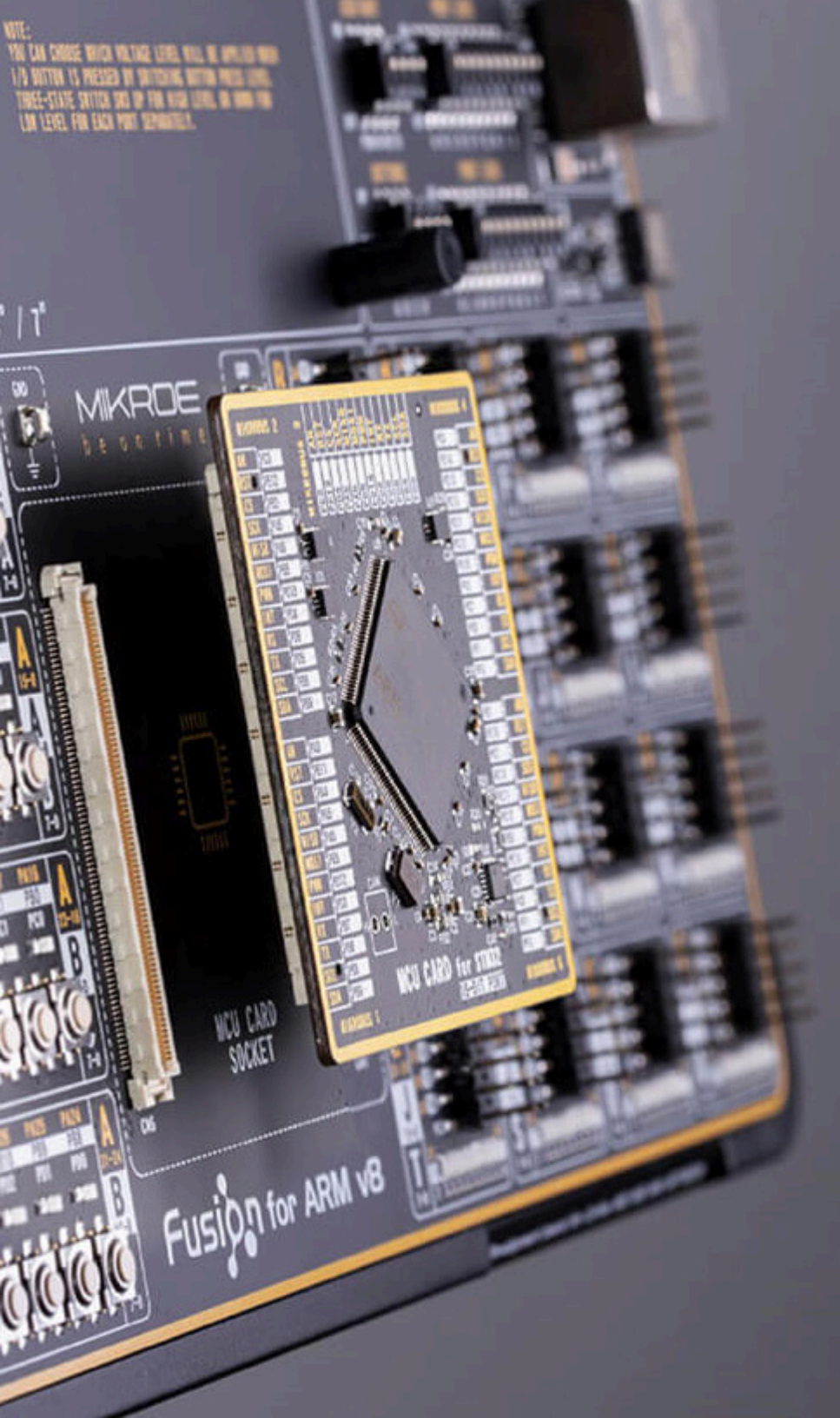
NEW MCU CARD STANDARD

Intuitively designed socket

Fluent design offers high-speed connector, low-profile integration of the MCU card with the development board, the socket has (female/male) connectors that eliminates wrong insertion. The MCU card has standardized dimensions that can support various number of pin varieties for specific hardware requirement. Such a modular approach allows flexibility in selecting the MCU type, regardless of the pin number or the specific hardware requirements.

Freedom of choice

The new MCU card standard allows to simultaneously use from low pin count to high pin count microcontrollers on one board.

Multi-vendor support

The MCU Card standard makes it possible to use MCUs regardless of their vendor or manufacturer.

One MCU card standard supports multiple ARM MCU families: STM32, Kinetis, TIVA, CEC, and MSP.

Support for even more vendors is coming!
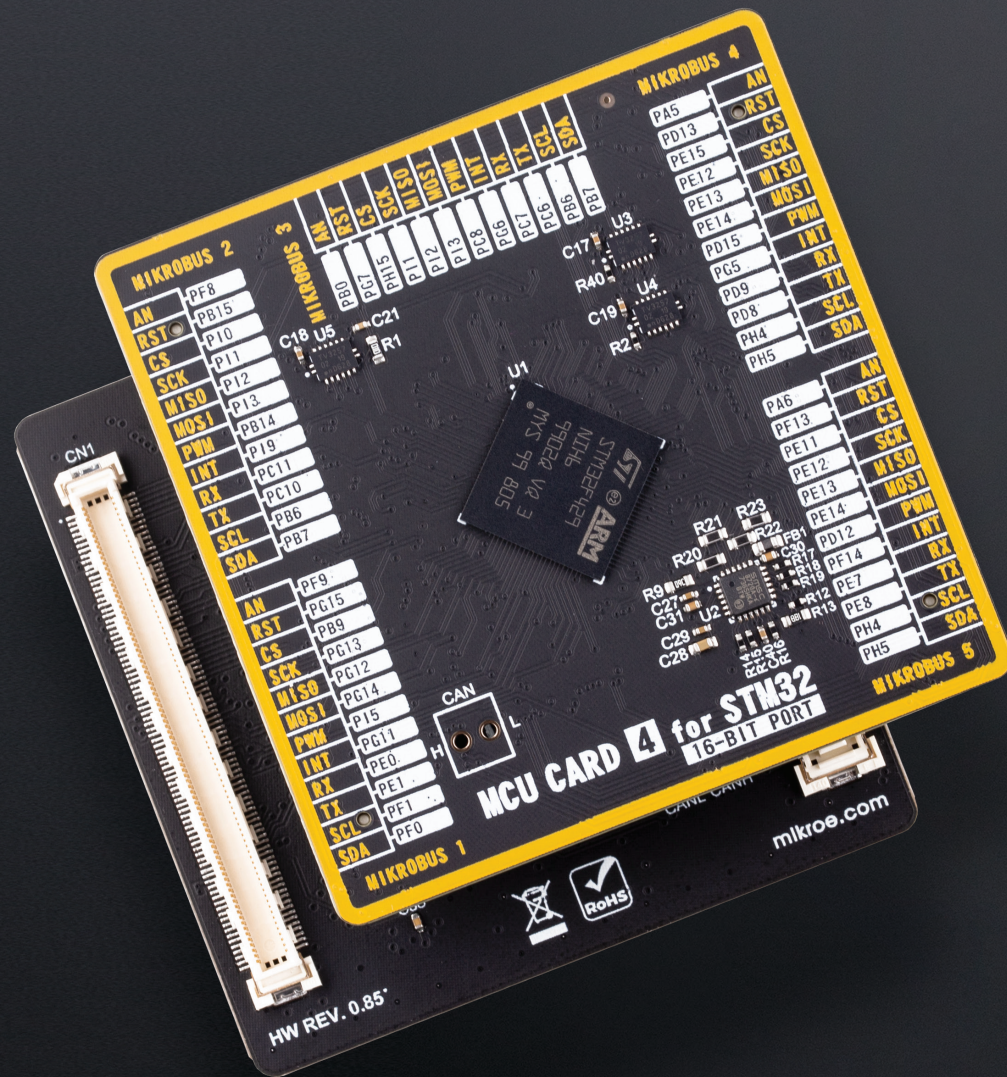
More than **350 MCUs** regardless of their vendor. One **MCU card standard** supports **multiple architectures** ARM, PIC32, dsPIC, PIC, AVR through different vendors: Microchip, ST, NXP, TI and many more yet to come!

NEW DISPLAY BOARD STANDARD

Display board connector

The Fusion for ARM v8 development board features new display connector. New connector has a female 2x20-pin support, which allows different screen sizes as well as technologies.

Screen technology

Display board connector can be attached with various screen technologies, currently available are the TFT capacitive screen boards which offer a wide selection of screen sizes and resolutions. Future iterations will offer technologies such as OLED and e-Ink.

Screen sizes

Check out how it looks with different screen sizes and resolutions, choose from; TFT board 3 with a 3.5" display with the resolution of 320x240 pixels, TFT board 4 with a 4.3" display with the resolution of 480x272 pixels, TFT board 5 with a 5" display with the resolution of 800x480 pixels, TFT board 7 with a 7" display with the resolution of 800x480 pixels.
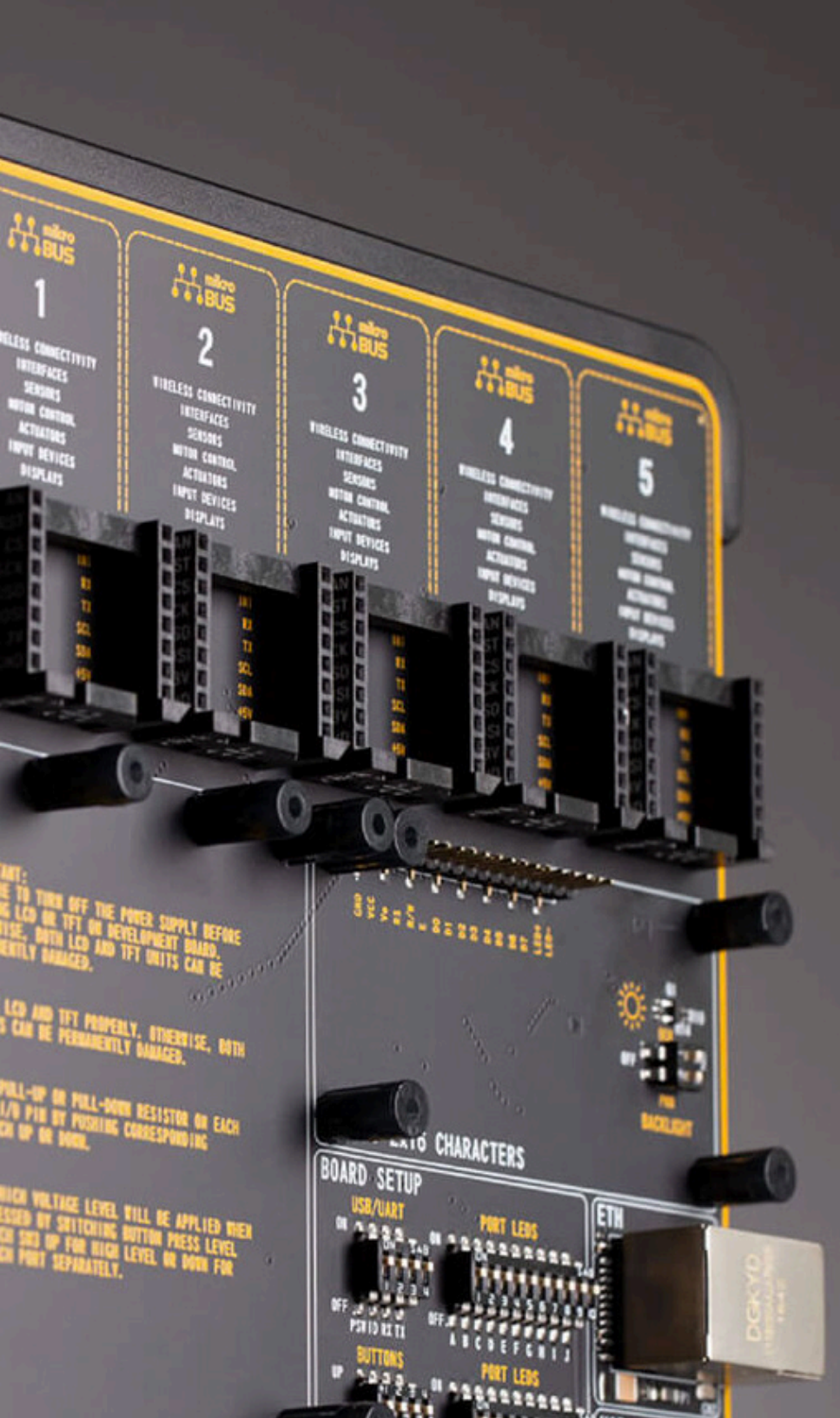
IDEAL FOR RAPID PROTOTYPING

Rapid prototyping allows the engineer to take the most efficient and effortless way, to envision the design ideas, capabilities and limitations through measurable means. This is the crucial eliminating factor for time to market pressure.

Improved mikroBUS™ sockets

The Fusion for ARM v8 offers five improved mikroBUS™ sockets, where you can place any of the 600+ different Click boards™. Adding, the infinite amount of possibilities with the largest add-on board selection in the world.

Ready-to-use Click boards™

With more than 600 Click boards™ available, they are the fastest-growing range of add-on boards in the world, which are standardized by pinout and size.

They enhance rapid development and accelerate time to market. These ready-to-use boards require no additional hardware configuration.

Engineered to deliver the best performances for the used components, they save developers of testing and troubleshooting often associated with the prototyping phase.

Endless modularity

The ready-to-use Click boards™ are saving time and money by offering complete solutions of hardware and software, instead of developing them from scratch.

Choose one of hundreds of Click boards™ out of these categories: mixed signal, wireless connectivity, storage, interface, displays, human-machine interface, adapter, clock and timing, motor control, power management and audio & voice.
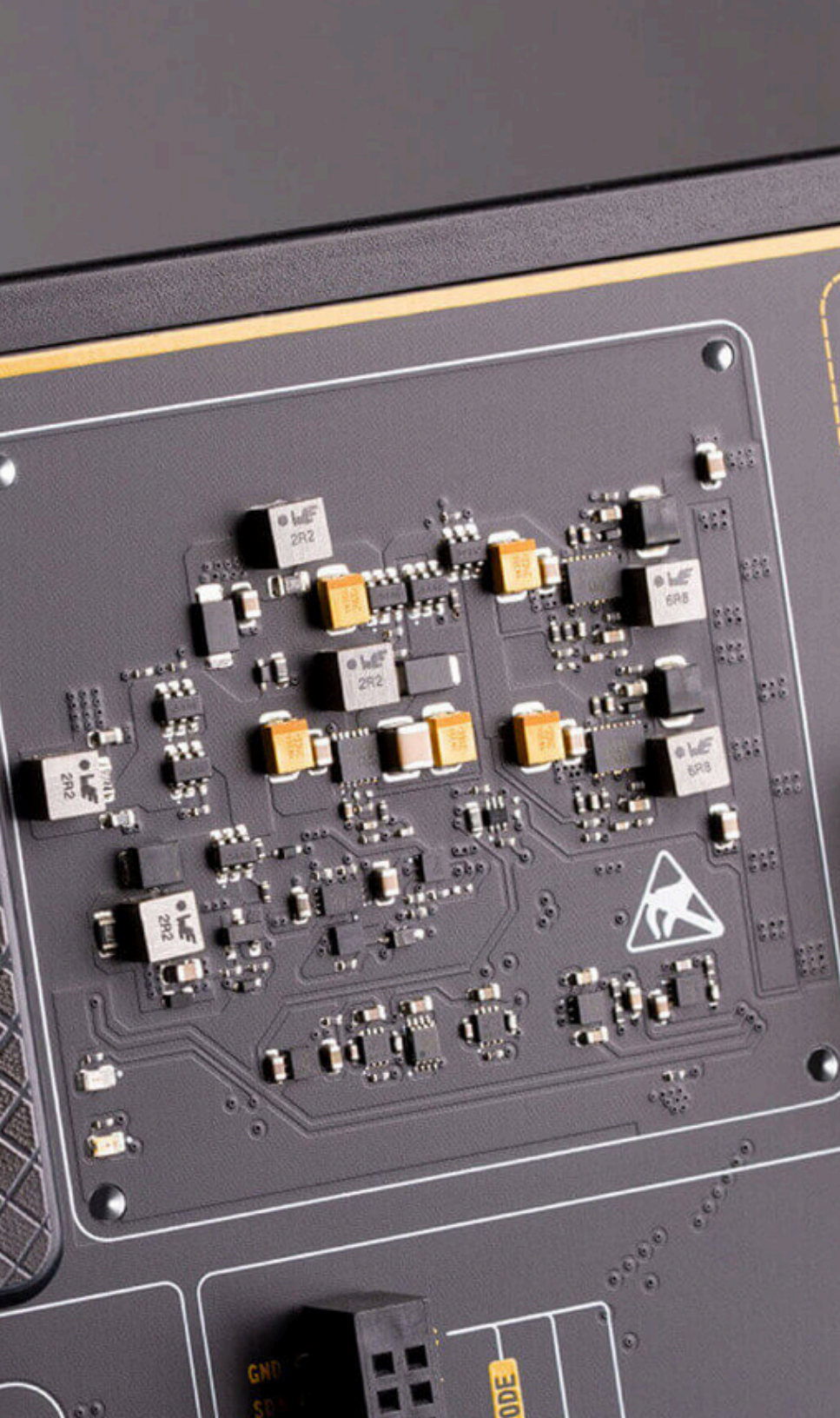
FIRST CLASS POWER SUPPLY

State of the art power supply

Fusion for ARM v8 offers state of the art power supply with constant power delivery and unprecedented flexibility. The power supply module is carefully designed to regulate, filter and distribute the power noise free.

In addition, it features convenient capacitive POWER and RESET buttons.

Uninterruptable power supply

Power supply unit supports a wide range of power sources that can be used: External 12VDC, USB, and a Li-Po/Li-ION battery. It also supports UPS functionality.

When powered by the battery, it offers an ultimate degree of autonomy.

Programmable voltage output

The power supply module supports programmable voltage output which can be used as a reference for various purposes, including A/D or D/A converters, comparators, and any other peripherals that require or can use an external reference voltage. The programmable voltage output can be controlled over the CODEGRIP Suite.

PREMIUM USER EXPERIENCE

Robust by design

The Fusion for ARM v8 development board is 3.2 mm thick, sturdy and durable design eliminates the board from bending when working with it. All the components of the board are produced on surface mounted technology standard, enabling sturdy, compact design.

Sturdy on its feet

Every detail is carefully thought through, from the height-adjustable stand with non-slip pads, to ergonomic design, which allows comfortable project development.
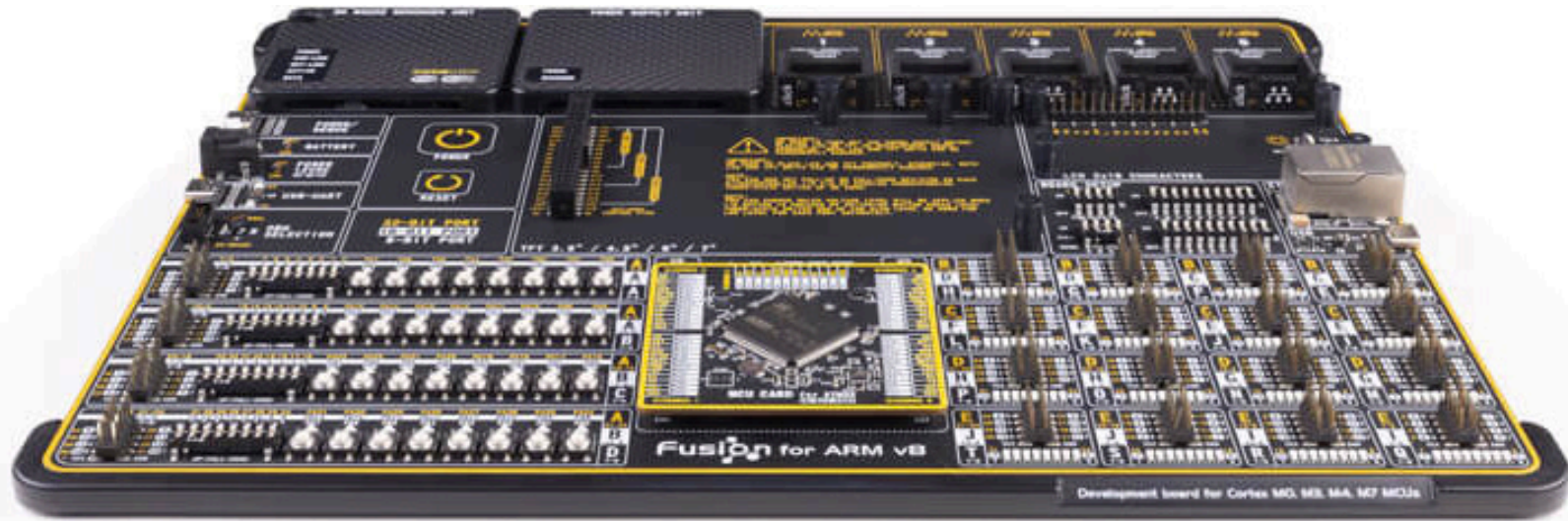
Clear intuitive layout

Fusion for ARM features clean and elegant design, allowing the user to instantly understand how to set it up and how to easily tune it according to needs. The development board is divided into several sections, arranged so that all the related interactive components such as switches, buttons, indicators, and connectors, are logically positioned and grouped together.