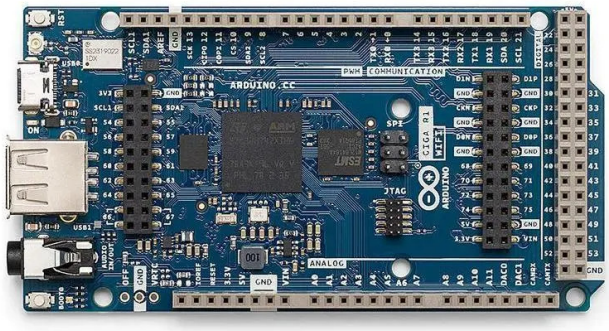
Item no.: 384014

ABX00063 - Giga R1 WiFi

from **77,27 EUR**

Item no.: 384014
shipping weight: 0.10 kg
Manufacturer: Arduino



Product Description

OverviewThe Arduino GIGA R1 WiFi was developed for ambitious makers who want to improve their game. It levels the playing field for gamers, artists, sound designers and anyone entering the tech world with big ideas and a small budget - because it packs advanced features into an accessible component, with the same form factor as our popular Mega and Due.Let's take a look at all the powerful features of this board.Microcontroller (STM32H747XI): This dual-core, 32-bit microcontroller allows you to have two brains talking to each other (a Cortex®-M7 running at 480 MHz and a Cortex®-M4 running at 240 MHz). You can even run Micropython on one and Arduino on the other.Wireless communication (Murata 1DX): Whether you prefer Wi-Fi® or Bluetooth®, the GIGA R1 WiFi is there for you. You can even quickly connect to the Arduino IoT Cloud and track your project remotely. And if you're worried about communication security, the ATECC608A has everything under control.Hardware ports and communication: Inspired by the Arduino Mega and the Arduino Due, the GIGA R1 WiFi has 4 UARTs (serial hardware ports), 3 I2C ports (1 more than its predecessors), 2 SPI ports (1 more than its predecessors), 1 FDCAN.GPIOs and additional pins: We wanted to keep the same form factor of the Mega and Due so that you can easily adapt your customised shields to the GIGA R1 WiFi (but remember that this board works with 3.3V!) and we've added extra headers to access additional pins so the total number of GPIO pins is 76, and the best part is that you can access them from the bottom so you can leave your project as is and just think about how to expand it. We've also added two new pins: a VRTC, which allows you to connect a battery to keep the RTC running while the board is off, and an OFF pin, which allows you to power down the board.Connectors: The GIGA R1 WiFi has additional connectors on the board that make it easier to build your project without additional hardware. The board features:USB-A connector for USB sticks, other mass storage devices and HID devices such as a keyboard or mouse.3.5 mm input/output jack connected to DAC0, DAC1 and A7.USB-C® for powering and programming the board as well as simulating an HID device such as a mouse or keyboard.Jtag connector, 2x5 1.27 mm.20-pin Arducam camera connector.Support for higher voltages: Compared to its predecessors that support up to 12 volts, the GIGA R1 WiFi can handle a voltage range of 6 to 24 volts.Arduino IoT Cloud CompatibleUse your MKR board in Arduino's IoT Cloud, an easy and fast way to ensure secure communication for all your connected things.The Arduino GIGA R1 WiFi is definitely the best board for ambitious makers with bigger ideas. Connect it to the Arduino GIGA Display Shield and unlock the full potential of your next project with a 3.97" 480x800 RGB touchscreen, including a digital microphone, a 6-axis IMU and an Arducam® connectorUnleash your inner innovator and make a unique shield for your GIGA WiFi R1 and GIGA Display Shield! With 3D printing, you can design a customised protective case tailored to your style. Check out our tutorial and start your DIY journey.Technical specifications- Board name Arduino® GIGA R1 WiFi- SKU: ABX00063- Microcontroller STM32H747XI dual Cortex®-M7+M4 32bit low power Arm® MCU (datasheet)- Radio module Murata 1DX dual WiFi 802.11b/g/n 65 Mbps and Bluetooth® (data sheet)- Secure Element ATECC608A-MAHDA-T (data sheet)- USB USB-C® Programming Port / HID- USB-A Host (activate with PA_15)- Pins Digital I/O Pins 76- Analogue Input Pins 12- DAC 2 (DAC0/DAC1)- PWM Pins 12- Misc VRT & OFF pin- Communication UART Yes, 4x- I2C Yes, 3x- SPI Yes, 2x- CAN Yes (external transceiver required)- Connectors Camera I2C + D54-D67- Display D1N, D0N, D1P, D0P, CKN, CKP + D68-D75- Audio socket DAC0, DAC1, A7- Operating voltage of the circuit 3.3V- Input voltage (VIN) 6-24V- DC current per I/O pin 8 mA- Clock frequency Cortex® M7 480 MHz- Cortex® M4 240 MHz- Memory STM32H747XI 2MB Flash, 1MB RAM- Dimensions Width 53 mm- Length 101 mm

Specifications

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