

UNIT



UNIT JUN R3 Development Board

Professional electronic component

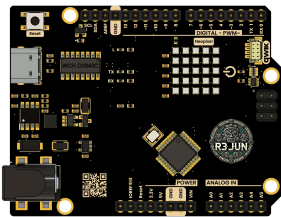
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Rev. A

PRODUCT OVERVIEW

Professional electronic module designed for reliable performance and easy integration with modern development platforms.

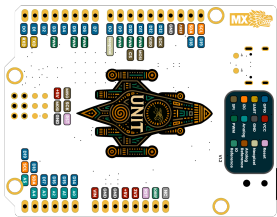
PRODUCT VIEWS

TOP VIEW



Component placement and connectors

BOTTOM VIEW



Underside components and connections

KEY TECHNICAL SPECIFICATIONS



CONNECTIVITY

Primary Interface:**GPIO (Interrupt)**

Logic Levels:**VCC-referenced (2V – 5.5V tolerant)**

Matrix 5x5:**GPIO-8**

PIN CONFIGURATION

FUNCTION	NOTES
RX	Serial Receive
TX	Serial Transmit
Digital I/O	Interrupt capable
PWM	Pulse Width Modulation
Digital I/O	
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Digital I/O	
Digital I/O	
PWM	Pulse Width Modulation
SPI CS	Chip Select for SPI
SPI MOSI	Master Out Slave In
SPI MISO	Master In Slave Out
SPI SCK	Serial Clock
Analog Input	10-bit ADC
Analog Input	10-bit ADC
Analog Input	10-bit ADC
Analog Input	10-bit ADC
I2C SDA	Serial Data Line
I2C SCL	Serial Clock Line
Power Supply	5V or 3.3V depending on design
Ground	Common ground reference

KEY FEATURES

-  **High Accuracy Sensing**
Precise environmental parameter measurement
-  **Compact Design**
Space-efficient module for embedded applications

**Easy Integration**

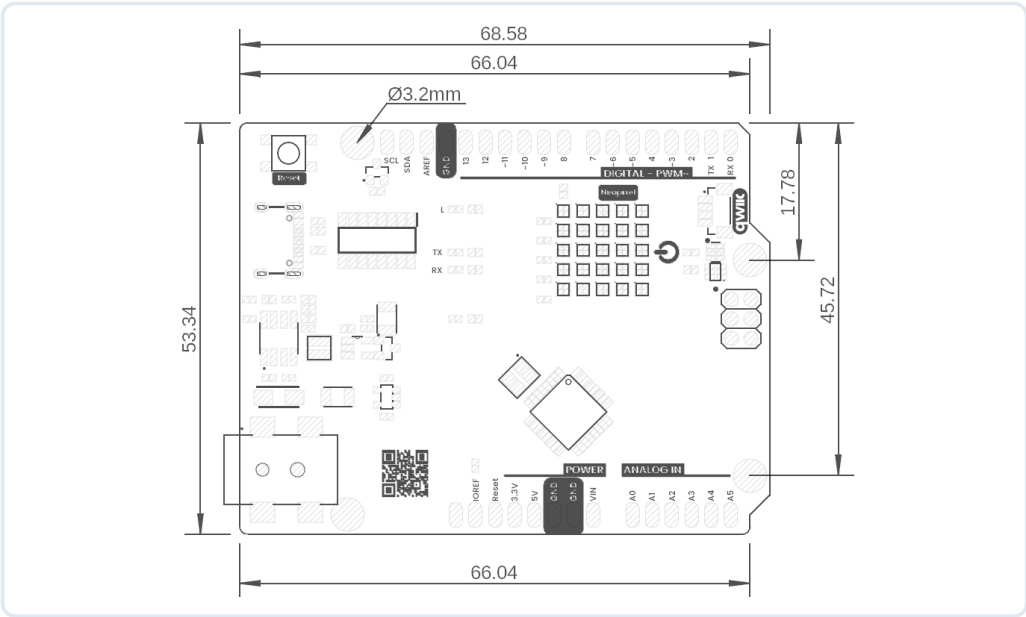
Standard interfaces and connectors

**Industrial Grade**

Reliable operation in demanding environments

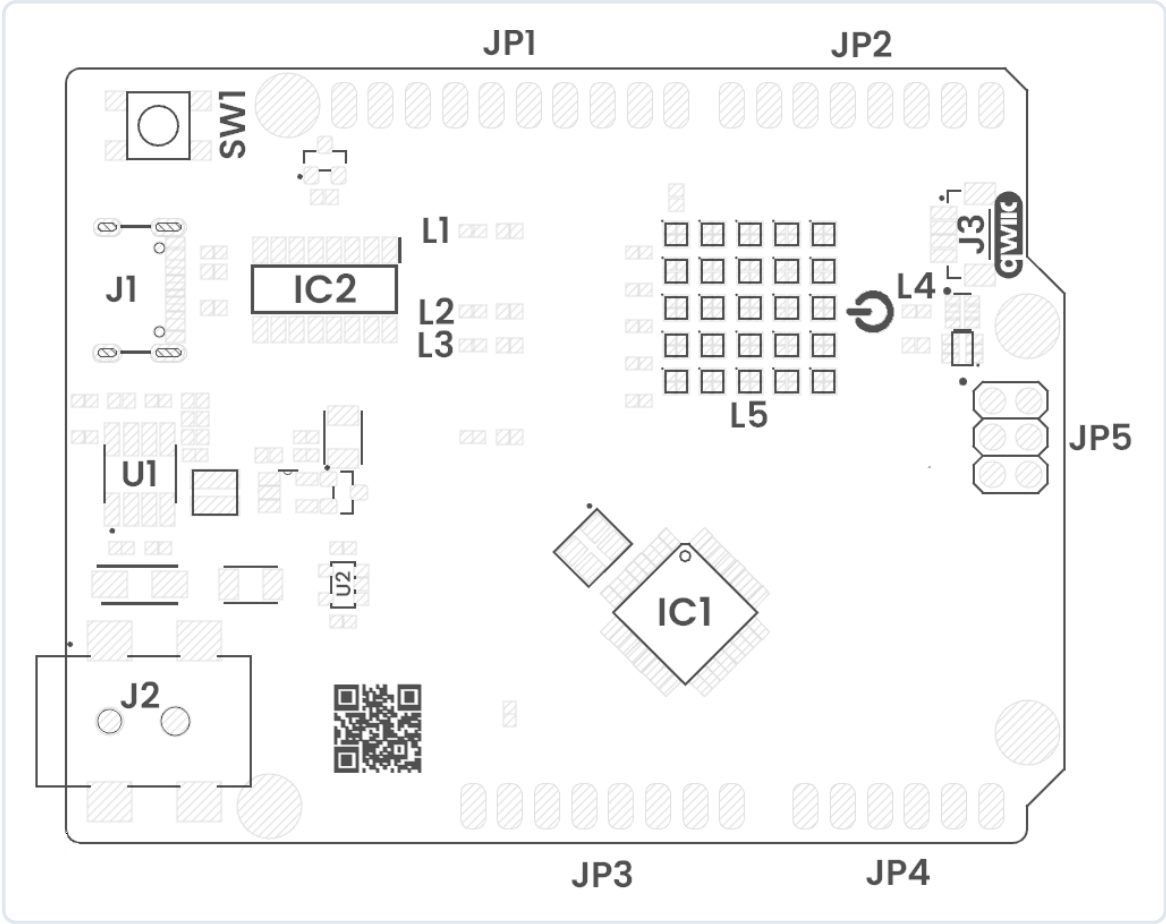
HARDWARE DOCUMENTATION

MECHANICAL DIMENSIONS



Physical dimensions and mounting specifications (measurements in millimeters)

SYSTEM TOPOLOGY



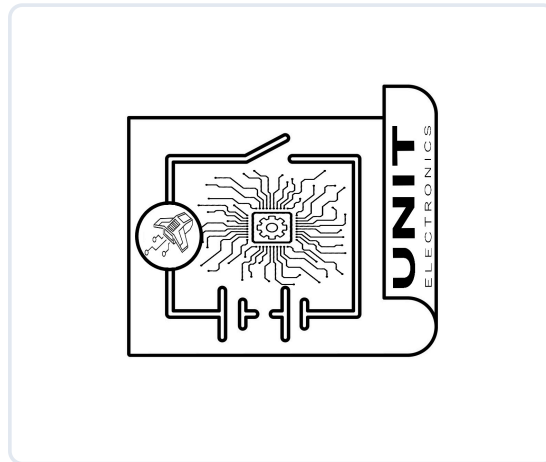
Connection topology and system integration diagram

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COMPONENT REFERENCE

REF.	DESCRIPTION
IC1	ATMEGA 328P Microcontroller
IC2	CH340 USB to Serial Controller
U1	MP1482 5V Step-Down Regulator
U2	AP2112K 3.3V Regulator
SW1	Reset Push Button
L1	Built-In LED
L2	Tx LED
L3	Rx LED
L4	Power On LED
L5	Neopixel Matrix
J1	USB Type-C Connector
J2	5mm DC Barrel Power Jack
J3	QWIIIC Connector (JST 1mm)
JP1	Header for GPIOs
JP2	Header for GPIOs
JP3	Header for Power Supply and System Functions
JP4	Header for GPIOs (Analog)
JP5	Header for GPIOs (SPI)

CIRCUIT SCHEMATIC



Complete circuit schematic showing all component connections

[View Complete Schematic PDF](#)

PIN DESCRIPTION

Detailed pin assignment and electrical specifications

SIGNAL DESCRIPTION

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Professional Technical Datasheet

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