



QUINCE 2560I

INDUSTRIAL 45 INPUT INTERFACE BOARD WITH ETHERNET

For the Arduino Mega 2560

Designed to mate directly to an Arduino Mega 2560, the Quince 2560 transforms the Arduino Mega into a rugged, Ethernet-connected, DIN-rail compatible device that can be used to collect data in a variety of industrial environments. Offering 45 isolated 24VDC tolerant inputs along with an onboard WizNet W5500 Ethernet interface, the 2560I allows rapid prototyping and data collection in an industrial environment.

USES

- Data collection and industrial data analysis
- Industrial prototyping
- Low power edge sensing for power sensitive networks
- Industrial product and concept development

FEATURES

- 45 optically isolated inputs (2.5kV, UL 1577) with a working range of 10-30VDC
- Standard 72mm width profile fits in a variety of DIN rail PCB enclosure systems
- Onboard Ethernet based on the widely-supported WizNet W5500 Ethernet chip
- Screw terminated integrated headers with wire protection

TECHNICAL SPECIFICATIONS

Supply Voltage	Supplied via Arduino Mega 2560 5V and 3.3V pins
Digital Input Specifications	45 x differential optically isolated PNP or NPN inputs Inputs require 2mA of current to operate Input voltage range 10VDC - 30VDC Inputs are NOT reverse input protected!
Operating Temperature	-40°C to 85°C for the Quince board only Refer to the Arduino Mega 2560 documentation for temperature ratings
Compatible Arduino Hardware	Arduino Mega 2560
Ethernet Specifications	Hardwired TCP/IP Protocols : TCP, UDP, ICMP, IPv4, ARP, IGMP, PPPoE Supports 8 independent sockets simultaneously More information from WizNet. See <i>Resources</i> section.

PROGRAMMING/ GETTING STARTED

Use of the Quince 2560I should be relatively transparent. Simply program the Arduino Mega 2560 as you normally would, taking care to enable the pull-up resistors for the inputs you wish to use.

To use the WizNet W5500 Ethernet chip, you must download and install the Arduino library for the WizNet W5500 (see the *Resources* section).

I/O CONNECTOR PIN OUT

*3-Tier Connector
Top Down View*

(THIRD ROW, CONNECTOR TOP)

NC	44	45	46	47	48	49	NC	NC	NC	NC	NC
32	33	34	35	36	37	38	39	40	41	42	43
NC	22	23	24	25	26	27	28	29	30	31	NC

(BOARD EDGE)

*Single Row Connector
Top Down View*

C	C				C														
O	O	13	12	11	O	9	8	7	6	5	4	3	2	19	18	17	16	15	14
M	M				M														

(BOARD EDGE)

- ** Number correlates with Arduino Mega 2560 pin number
- ** COM = DC Common/ DC-
- ** DC COM inputs are not protected! Reverse wiring WILL damage board!
- ** NC = No connect

RESOURCES

WizNet W5500 Arduino Library
https://github.com/Wiznet/WIZ_Ethernet_Library

WizNet W5500 Datasheet
http://wizwiki.net/wiki/lib/exe/fetch.php?media=products:w5500:w5500_ds_v106e_141230.pdf

Quince 2560I board schematic available upon request.

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