PROTO-1
Peripheral Board
Technical Manual

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PROTO-1 Peripheral Board Technical Manual. No part of this work may be reproduced in any manner without written permission of BiPOM Electronics.

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WARRANTY:

BiPOM Electronics warrants PROTO-1 for a period of 1 year. If the board becomes defective during this period, BiPOM will at its option, replace or repair the board. This warranty is voided if the product is subjected to physical abuse or operated outside stated electrical limits. BiPOM Electronics will not be responsible for damage to any external devices connected to PROTO-1. BiPOM Electronics disclaims all warranties express or implied warranties of merchantability and fitness for a particular purpose. In no event shall BiPOM Electronics be liable for any indirect, special, incidental or consequential damages in connection with or arising from the use of this product. BiPOM Electronics' liability is limited to the purchase price of this product.

1. Overview

PROTO-1 is a peripheral prototyping board for the MINI-MAX series of micro-controller systems.

PROTO-1 has a 20-pin universal expansion connector. Using PROTO-1, analog inputs/outputs, temperature sensors, relays, displays and many other circuits can be added to the base microcontroller board for rapid project development.

2. Specifications

PROTO-1 board has the following configuration:

- 20-pin Expansion connector for a host micro-controller board
- Pins of expansion connector are brought to the prototyping area for easier access
- Dimensions are 2.35 X 2.40 inches (5.97 X 6.10 centimeters).
- Mounting holes of 0.138 inches (3.5 millimeters) are on four corners.

3. Functional Blocks

Expansion connector

The 16 control pins and 5 Volt power supply pins are available on the 20-pin connector (J2) for interfacing to micro-controller boards. PROTO-1 can be connected to micro-controller board either as a piggyback daughter-board using standoffs or can be placed away from the micro-controller board using a 20-wire ribbon cable (Part #: EXPCABLE-6). Table 1 shows the pin assignments for the connector.

Connector J2

Signal	Pin	Pin	Signal
P3.0	20	19	P3.1
P3.2	18	17	P3.3
P3.4	16	15	P3.5
P3.6	14	13	P3.7
P1.0	12	11	P1.1
P1.2	10	9	P1.3
P1.4	8	7	P1.5
P1.6	6	5	P1.7
VCC (+5V)	4	3	GND
VCC (+5V)	2	1	GND

4. Application Notes

PROTO-1 board can either be stacked on top of MINI-MAX/51-C using stand-offs or connected in a chain configuration using flat ribbon cable. Figure 2 shows how PROTO-1 can be connected to a Micro-Computer board in a stacked fashion. Figure 3 shows chain connection (without using cable for additional 10-pin connector J2).

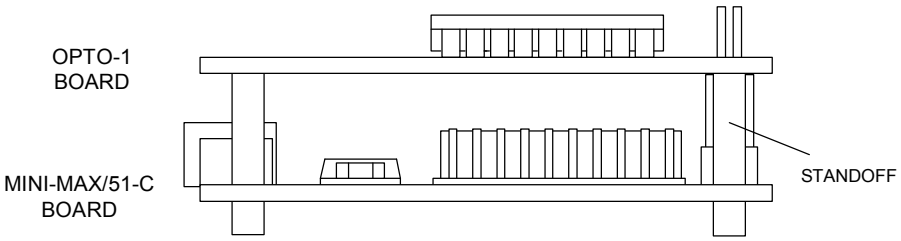


Figure 2

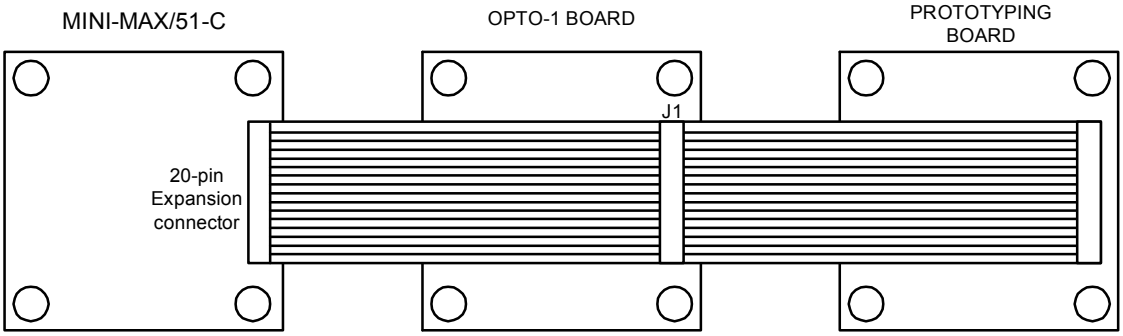
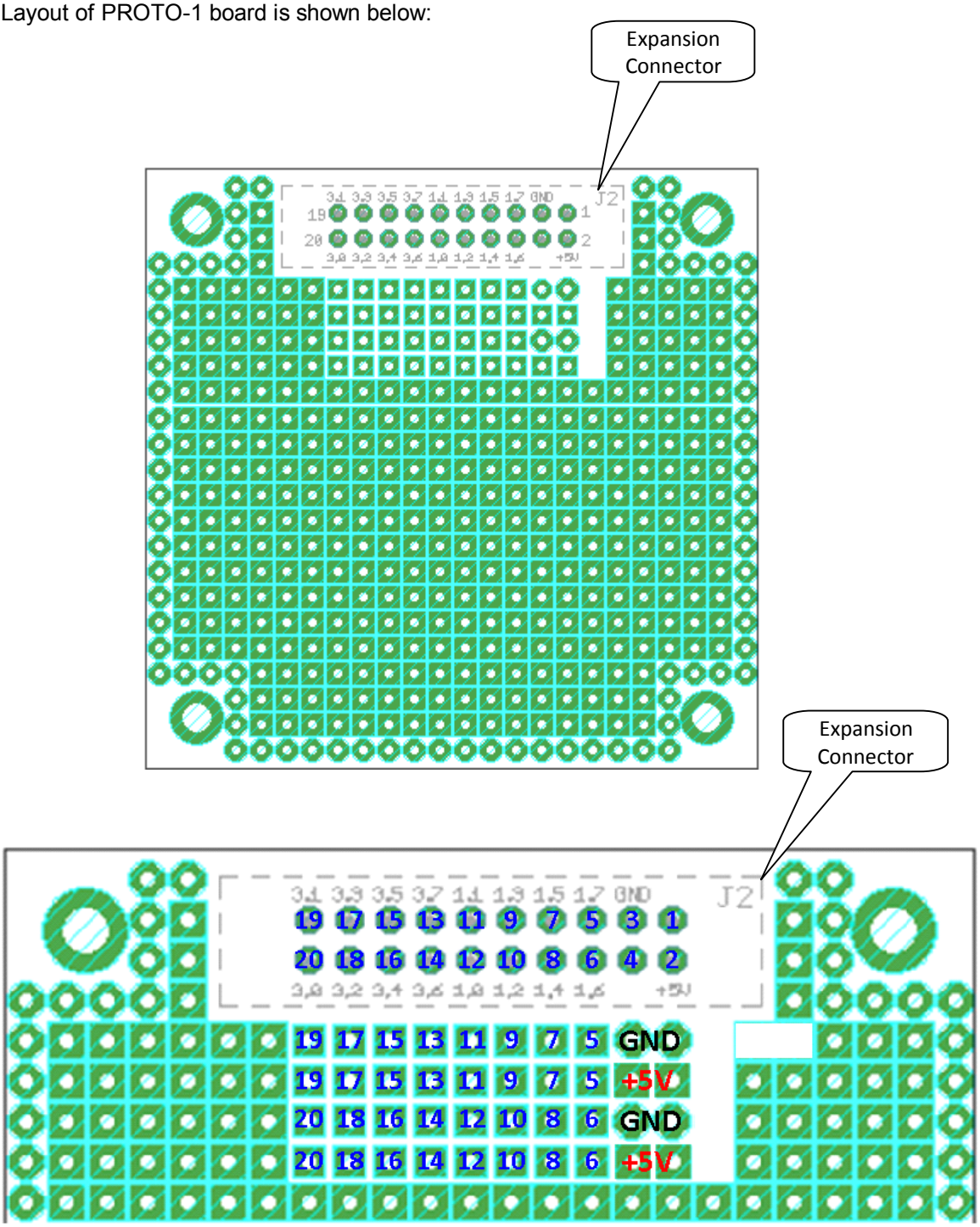
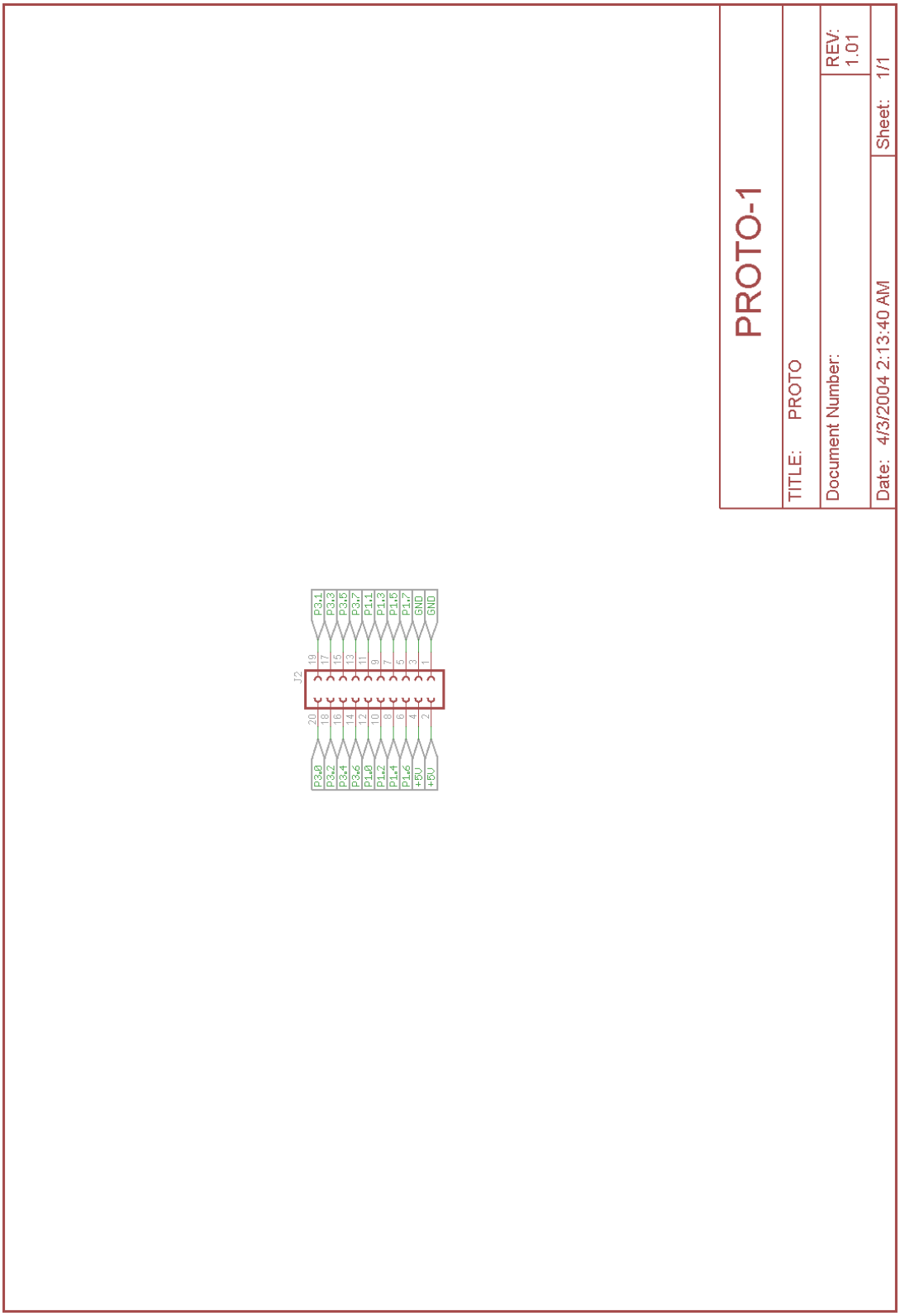


Figure 3

More details regarding BiPOM Peripheral boards are available from the link below:
http://www.bipom.com/periph_boards.php

5. Board Layout

Layout of PROTO-1 board is shown below:



6. Schematics