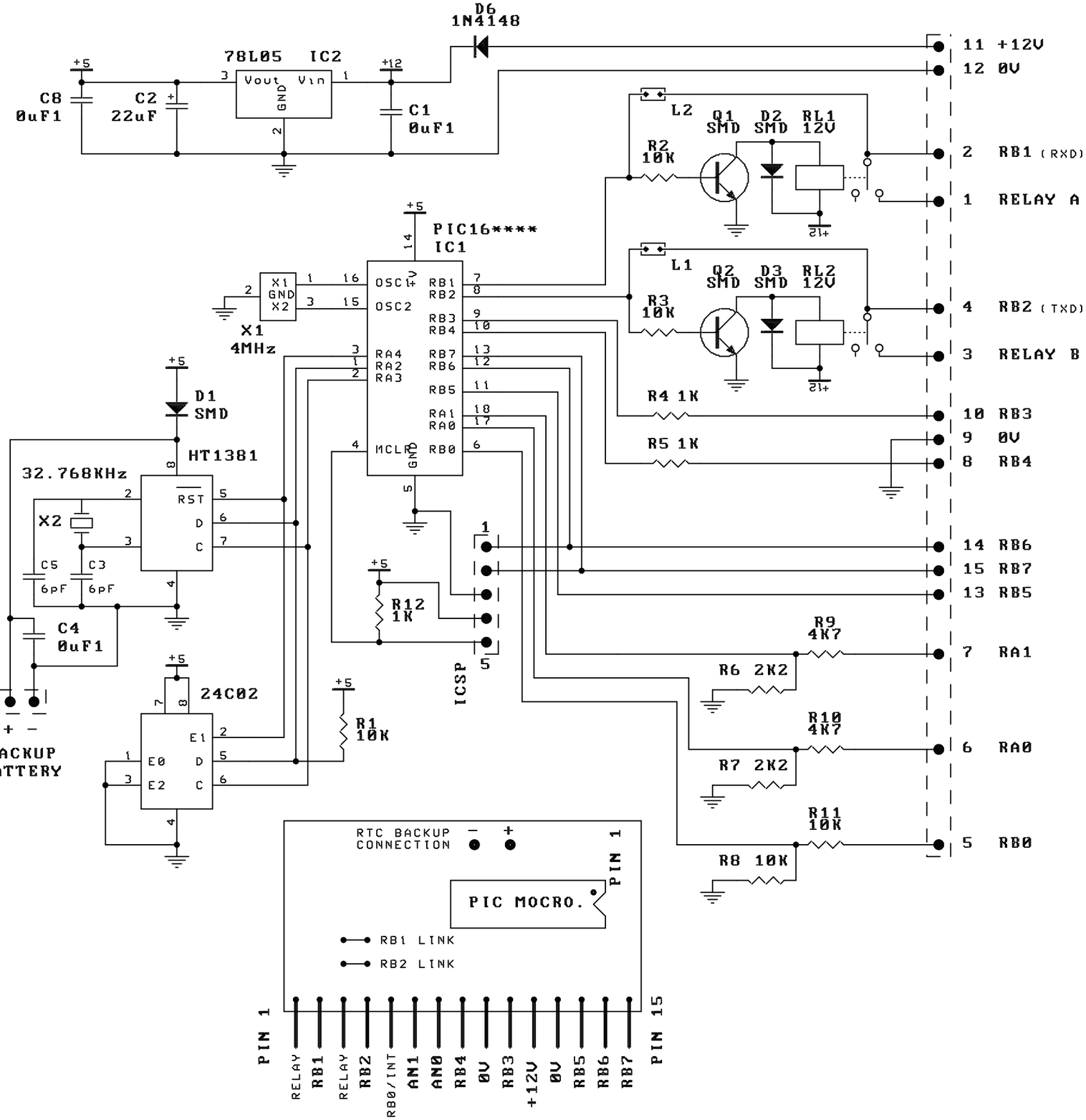

GENERAL NOTES

DESCRIPTION:

The GPC_4A4 is a small PIC based general purpose controller module. It will operate with many of the standard 18-pin PIC micros including the 16F84, 16F62* and 16C71* series.

Features include:

- small size (36mm x 47mm x 15mm deep with relays)
- operates from a 12V DC supply
- 18 pin IC socket for PIC micro
- ceramic resonator main clock (4MHz standard)
  - (other frequencies available)
- real time clock (Holtek) (supports battery backup)
- serial EEPROM (24C02 standard)
- 2 relays outputs
  - (can also be digital I/O lines)
- 5 digital I/O lines (2 directly drive LEDs)
- 2 analog input lines (depends on PIC)
  - (can also be digital I/O lines)
- 1 external interrupt line

The real time clock and serial eeprom make the module ideal for real time control and data logging applications. Similar to another basic control module, the GPC_4A4 could run an interpreter with program tokens stored in serial eeprom.

The GPC_4A4 can be supplied with larger serial eeprom for improved logging performance or program storage depending on the application.

I/O CONNECTIONS

The I/O connections are:

1	relay	relay 1 contact
2	RB1	relay 1 contact or direct I/O connection
3	relay	relay 2 contact
4	RB2	relay 2 contact or direct I/O connection
5	RB0	external interupt input or I/O connection
6	AN1	analog input or I/O connection
7	AN0	analog input or I/O connection
8	RB4	I/O connection (will direct drive LED)
9	0V	0V common (LED common)
10	RB3	I/O connection (will direct drive LED)
11	+12V	power supply input
12	0V	power supply input
13	RB5	direct I/O connection
14	RB6	direct I/O connection
15	RB7	direct I/O connection

The relay contacts are isolated outputs. If relays are not required RB1 and RB2 are available on these pins.
On the PCB under the relay are 2 solder links. These are left open when relays are inserted, and must be shorted (horizontally) when RB1 and RB2 are direct connected.

The analog inputs are configured with voltage dividers to be suitable for direct connection to 12V nominal sources. This makes them ideal for monitoring battery or power supply voltages.

CAUTION * WARNING * DANGER

Connector Pins 5,6,7 are configured to accept voltages up to 16 volts DC. These are the analog inputs and the external interrupt input.

All other I/O pins are rated 5V maximum as these are connected directly to the PIC microcontroller.

Applying higher voltages to these pins will damage the PIC microcontroller.

The maximum power supply voltage is 14V DC is determined by the voltage rating of the relays (nominally 12V).

Double Check all connections before appying power.

PMB cannot accept responsibiltiy for damage caused by applying higher than rated voltages to any connection

PMB ELECTRONICS

Title: GPC_4A4 GP PIC MICRO MODULE		
Size: A3	Number:	Revision: 1
Date: 20-FEB 2002		Sheet 1 of 1
File: GPC_4A4/1		Drawn By: PMB