



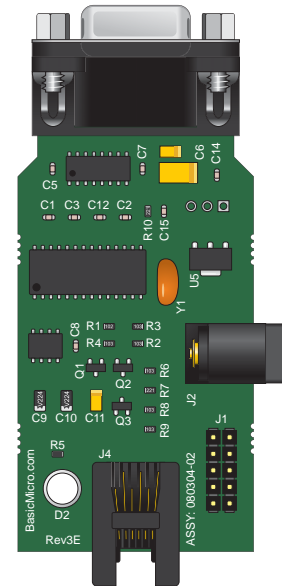
BASIC MICRO

TECHNOLOGY AT WORK

ISP-PRO (Revision 3E)
Data Sheet

Feature Overview:

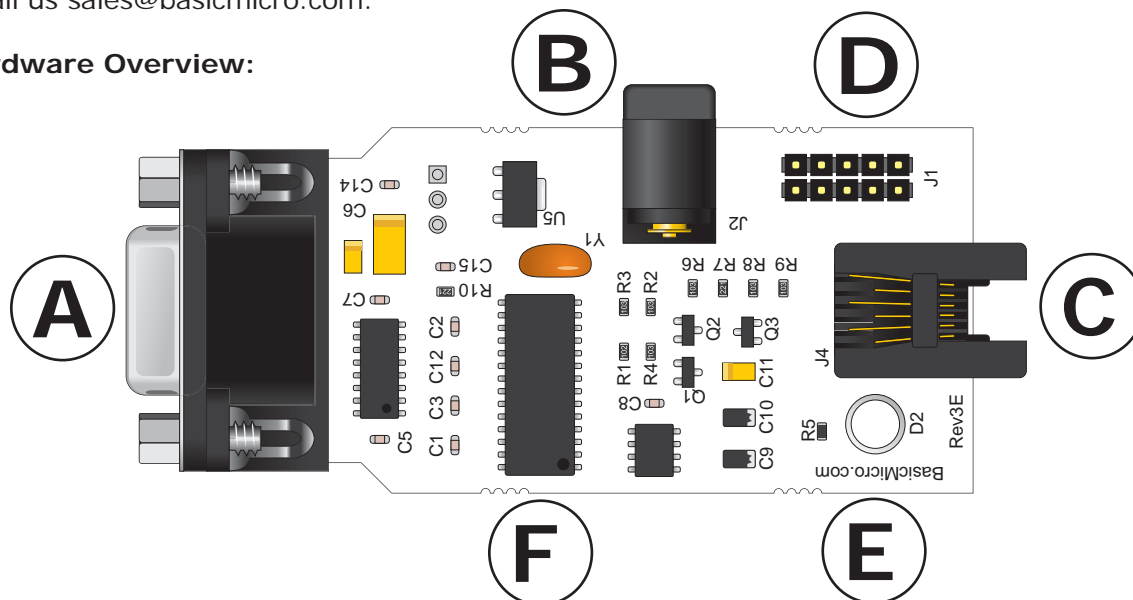
- 10-Pin and RJ11 Header for Use With Programming Adapters
- DB9 (9-pin Serial) Connector for Communications to PC
- On-Board 5V Regulator
- 2.1mm Power Connector, Center Positive
- Firmware can be Updated to Add New Chip Support
- Optionally Powered from Target System
- Microchip ICD Pin Compatible.

**Description**

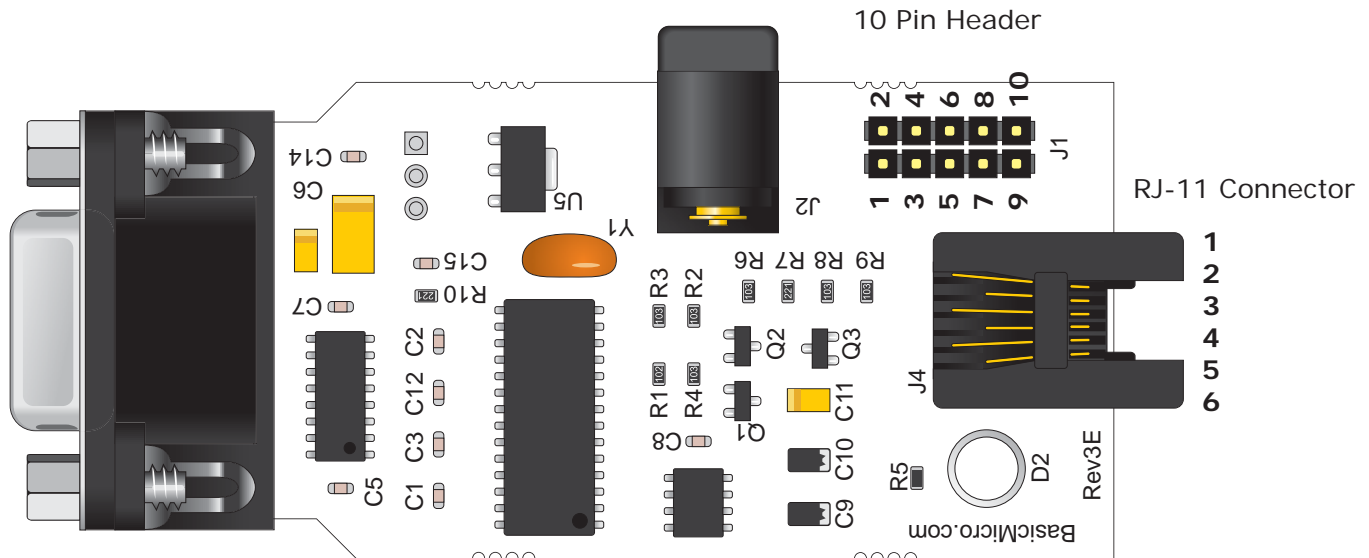
The ISP-PRO provides an easy way to program a PICmicro by Microchip. It provides a DB9 connector for serial connection to a PC, an RJ11 and 10-Pin connector for incircuit serial programming. The ISP-PRO has several available adapters to support various PICmicro packages for out of circuit programming (TQFP,DIP,SOIC,SSOP). The ISP-PRO can be powered by the target system with 5V, simplifying connections.

Support PICmicro Processors

Supported processors are listed on our website and for a more accurate list you can download the ISP-PRO software from our website to see if your required chip is in the drop down list. Or you can email us sales@basicmicro.com.

Hardware Overview:

- A:** Standard DB-9 Connector for Serial Programming
- B:** 2.1mm Center Positive, Max input 12VDC.
- C:** RJ-11 Connector for Incircuit Programming Capabilities
- D:** 10-Pin Header for Incircuit Programming or out of circuit programming adapters.
- E:** Bicolor LED. Green indicates idle. Red indicates busy or error.
- F:** Main CPU. Controls programming circuit and communicates with computer.



Pin Assignment Overview (10-Pin Connector)

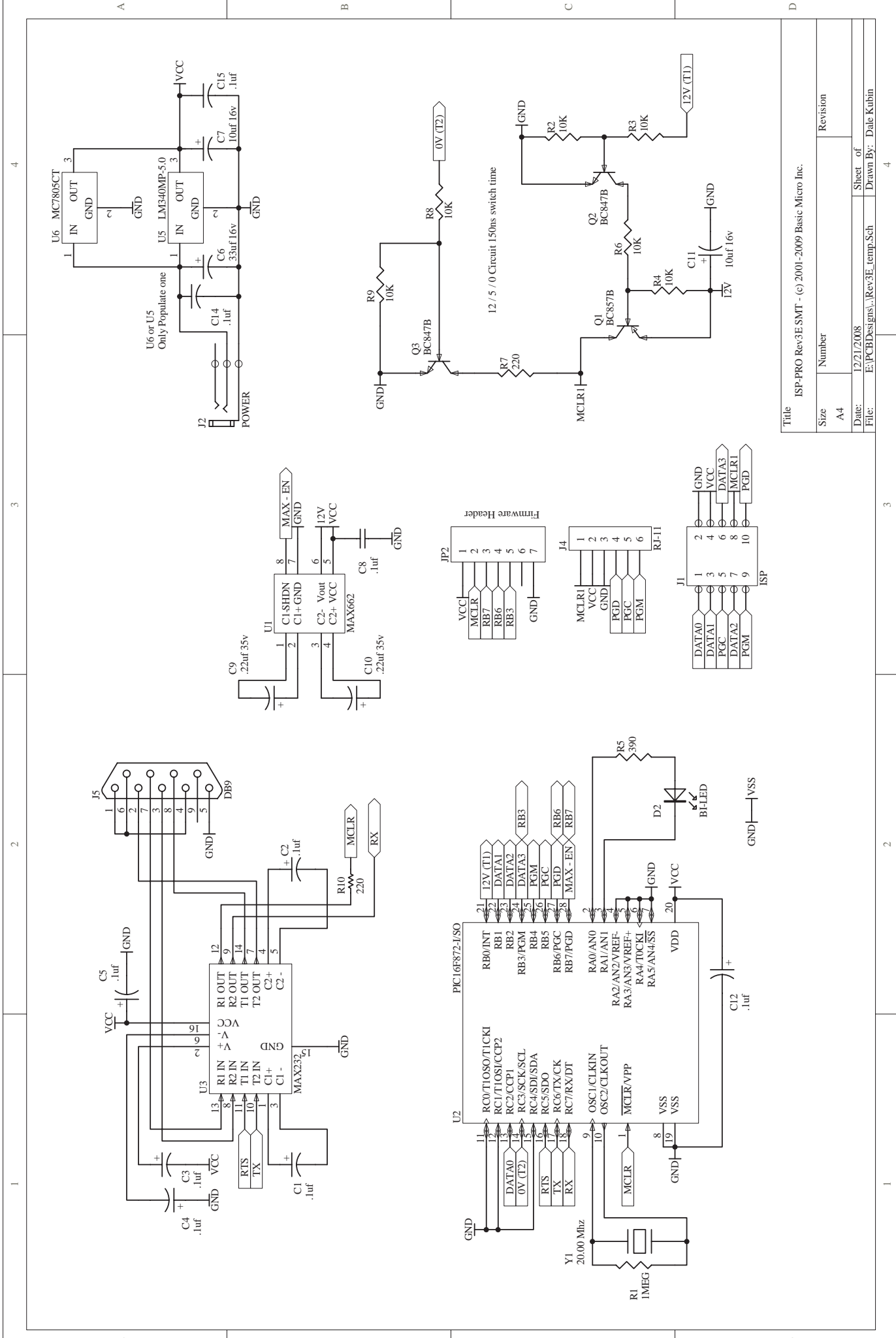
Pin	Description
1	Data 0: Data connection for extended functions.
2	VSS: Ground, Must connect to target system.
3	Data 1: Data connection for extended functions.
4	VCC: Regulated 5V Output. Can supply VCC to target system. Or target system can supply 5V.
5	PGC: Program Clock Pin.
6	Data 3: Data connection for extended functions.
7	Data 2: Data connection for extended functions.
8	VPP: Controls MCLR. Target system VCC must be isolated with diode (See Microchip ICP).
9	PGM: Program Low Voltage Control.
10	PGD: Program Data Pin.

Pin Assignment Overview (6-Pin RJ-11 Connector)

Pin	Description
1	VPP: Controls MCLR. Target system VCC must be isolated with diode (See Microchip ICP).
2	VCC: Regulated 5V Output. Can supply VCC to target system. Or target system can supply 5V.
3	VSS: Ground, Must connect to target system.
4	PGD: Program Data Pin.
5	PGC: Program Clock Pin
6	PGM: Program Low Voltage Control.

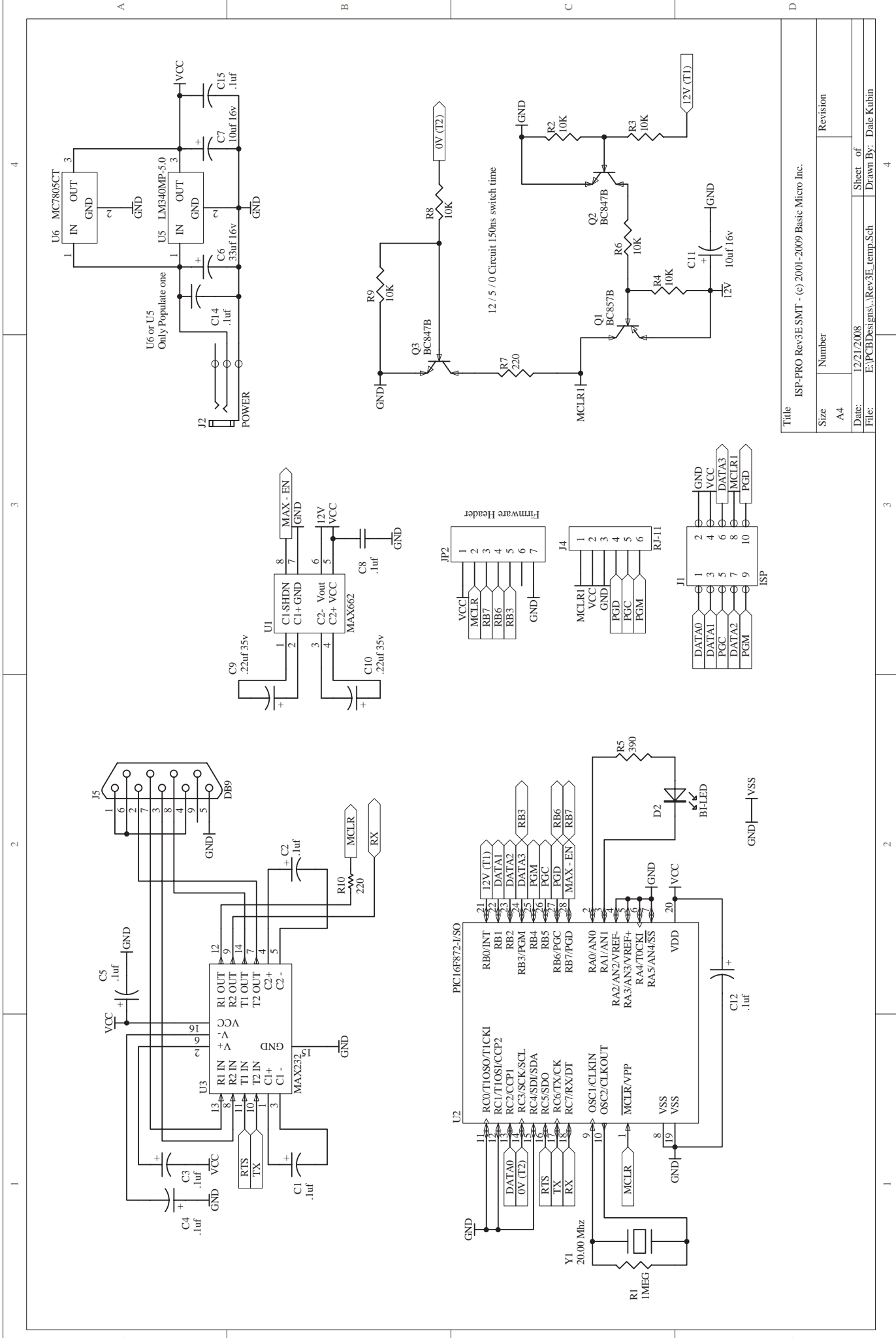
Electronic Characteristics

Characteristic	Value (Units)
VIN Range (min - max)	6 – 12VDC
VCC Range (min - max)	4.9 - 5.1VDC
Current Draw (Idle)	50 mA
Current Draw (Target)	400 mA



Title ISP-PRO Rev3E SMT - (c) 2001-2009 Basic Micro Inc.

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File:	E:\PCBDesigns\Rev3E_temp.Sch	Drawn By: Dale Kublin



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Warranty

Basic Micro warrants its products against defects in material and workmanship for a period of 90 days. If a defect is discovered, Basic Micro will, at our discretion, repair, replace, or refund the purchase price of the product in question. Contact us at support@basicmicro.com. No returns will be accepted without the proper authorization.

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Contacts

Email: sales@basicmicro.com
Tech support: support@basicmicro.com
Web: <http://www.basicmicro.com>

Discussion List

A web based discussion board is maintained at <http://www.basicmicro.com>.

Technical Support

Technical support is made available by sending an email to support@basicmicro.com. All email will be answered within 48 hours. All general syntax and programming questions, unless deemed to be a software issue, will be referred to the on-line discussion forums.