Invector Embedded Technologies

The IET8900 is a small form factor Ethernet access module. The module will allow almost any embedded system to connect to a 10Base-T Ethernet network. While this module was designed to accommodate the needs for test systems and DIY projects it is also very well adapted for small volume production runs where Ethernet connectivity is an option for the end user.

The EAM connects to your embedded system via a 20-pin connector that holds the signals needed to interface the EAM to your system.

The device used on this module is the popular Cirrus Logic CS8900. This device is highly suite for small embedded systems due to its built in 4K byte RAM buffer. This RAM can buffer an incoming datagram at the same time that you are writing output data that should be sent later on.

On the board you will also find the normal interface components such as the transformer, two indicator LED's and of course the RJ-45 connector. On rev. B boards and upwards the stand alone transformer and the LED's has been implemented into the connector, thus reducing board complexity and increasing reliability. The board is equipped with a precision 20MHz crystal for Ethernet timing.

Pinout:

J1		J2	
1.	VCC	1.	INT
2.	A3	2.	D7
3.	A2	3.	D6
4.	A1	4.	D5
5.	A0	5.	D4
6.	RESET	6.	D3
7.	CS	7.	D2
8.	RD	8.	D1
9.	WD	9.	D0
10.	GND	10.	GND

For detailed information about how to program the CS8900A chip we recommend that you visit the Cirrus Logic Semiconductor website at http://www.cirrus.com and download the latest data sheets and application notes.

The board is shipped with a CD containing an evaluation version of the popular uC/51 8051 C-compiler including source code for a complete TCP/IP stack + web server.
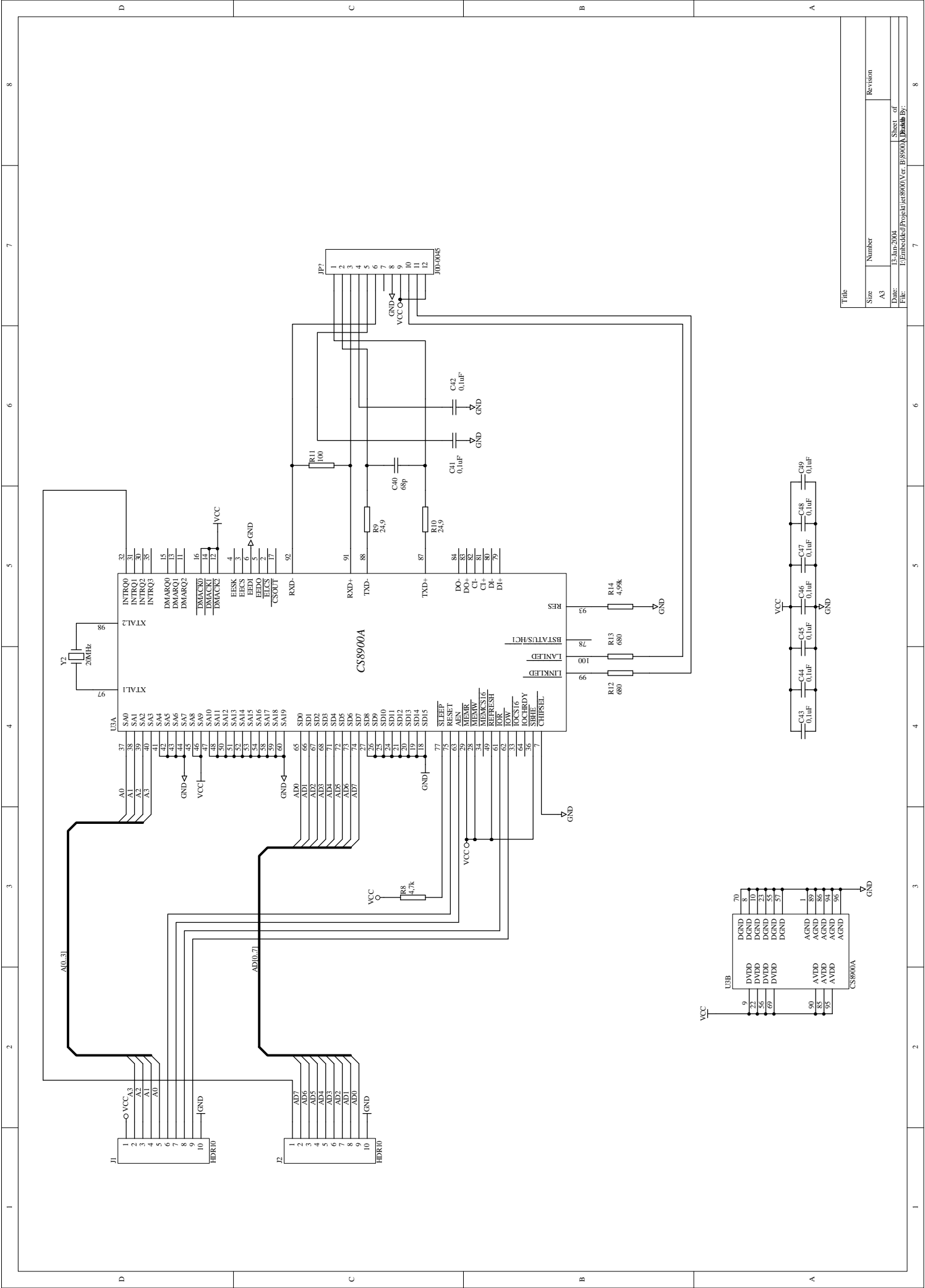
Caution:
We have included a interrupt signal on the pin out even though Cirrus Logic states in their documentation that interrupts should not be used in the 8-bit mode. You can use this interrupt signal during testing and when you know that your system will not be heavily loaded with traffic. Do not use interrupts in a production unit and/or when your system sits in a system with heavy load, or your system will eventually fail.

Technical Data:
Measures (mm): 54 x 33.5
Connector 1: Standard RJ45
Connector 2: 2 row headers (20-pins)
Ethernet Chip: Cirrus Logic CS8900A

Ordering Information:
IET8900-5, 5 Volt assembled version.
IET8900-22, 3.3 Volt assembled version.
IET8900-B, Naked Board