



# Microtex Electronics

## Pulsar DS Microcontroller Unit



- Industrial Temperature Grade  $-40^{\circ}$  to  $+85^{\circ}$  C
- Universal board supports many CPU's, including Dallas Semiconductor High-Speed Versions
- Non-Volatile FRAM Memory
- Self-regulated, Impervious to power problems
- 16 configurable Digital I/O
- Switchable Serial Interface RS232 and RS485
- 20 x 4 Backlight LCD Screen
- I2C Expansion for Adding Peripherals
- Optional keyboard, relay, and wireless modules
- Designed for Bascom-8051 for fast development

### CPU's Supported:

<b>Dallas</b>	- DS5000, DS8XC310, DS8XC320, DS8XC520, DS8XC530, DS80C323
<b>Atmel</b>	- AT89C51, AT89C52, AT89S8252
<b>Philips</b>	- 8XC550, 8XC31, 8XC51, 8XC54, 8XC58
<b>SST</b>	- SST89F5X Flashflex 51
<b>ST Micro</b>	- ST63155, ST63156
<b>Intel</b>	- 8XC31, 8XC51, 8XC251

### Memory:

Ramtron, 64k x 8 Non-volatile memory. Memory is fast-write FRAM. Used for both temporary storage and NV EEPROM storage

### I/O Capabilities:

**Digital I/O** – The Pulsar DS has 16 bits of user-configurable I/O. These can be set to input or output, or both. 20ma Drive.

**GP I/O** – The Pulsar DS two general purpose I/O pins

**Port I/O** – All port I/O are softened to prevent hardware damage and overloads.

**Counters** – The Pulsar DS has two counter inputs

**Serial** – The Pulsar DS has a full Hardware UART, switchable RS232 and RS485 channels

**Expansion** – The Pulsar DS has an I2C bus for adding expansion modules, addressable from the controller.

**LCD** – Board supports a high-contrast 4x20 LCD panel with LED backlight

### Expansion:

**PUL-AMP** – Signal conditioning board for Low level sensor inputs

**PUL-KBD** – Optional 4x5 Keyboard input module

**PUL-RLY4** – 4-Channel relay bank, 8A contacts

**PUL-RLY8** – 8-Channel relay bank, 8A contacts

**PUL-LCD1** – 4x20 LCD Panel/backlighted

**PUL-LCD2** – 4x20 LCD Panel, daylight Silver

**LR2** – 900 Mhz Wireless Link, 1 Watt, Long Range

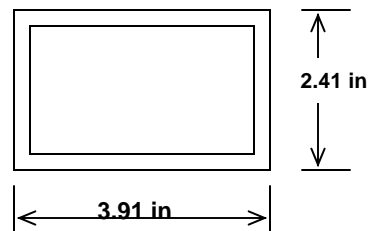
**PUL-I28** – I2C I/O expansion module, 8 channel

**PUL-I216** – I2C I/O expansion module, 16 channel

**PUL-I232** – I2C I/O expansion module, 32 channel

**PUL-DC** – DC power pack w/connection

### Physical:



**Flexible • Rugged Environments • Proven Reliability**

### For More Information:

Microtex Electronics, Inc.  
2929 N. Central Expy. Suite 250  
Richardson, TX, 75080 U.S.A.  
Tel: (972) 479-1011  
Fax: (972) 479-1015  
[www.microtexelectronics.com](http://www.microtexelectronics.com)

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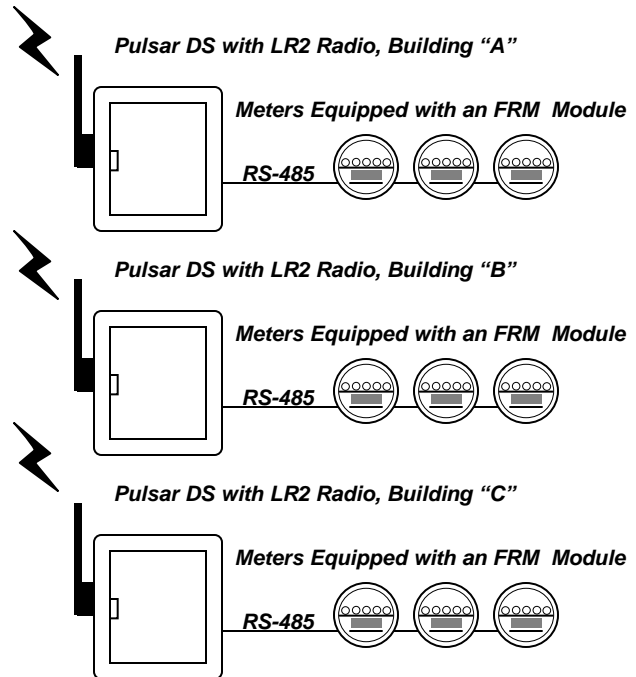
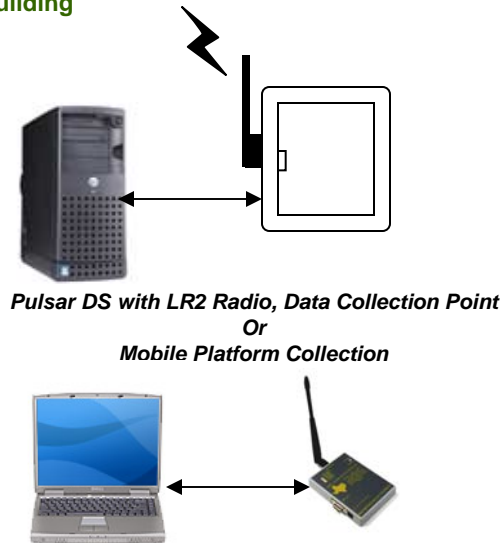


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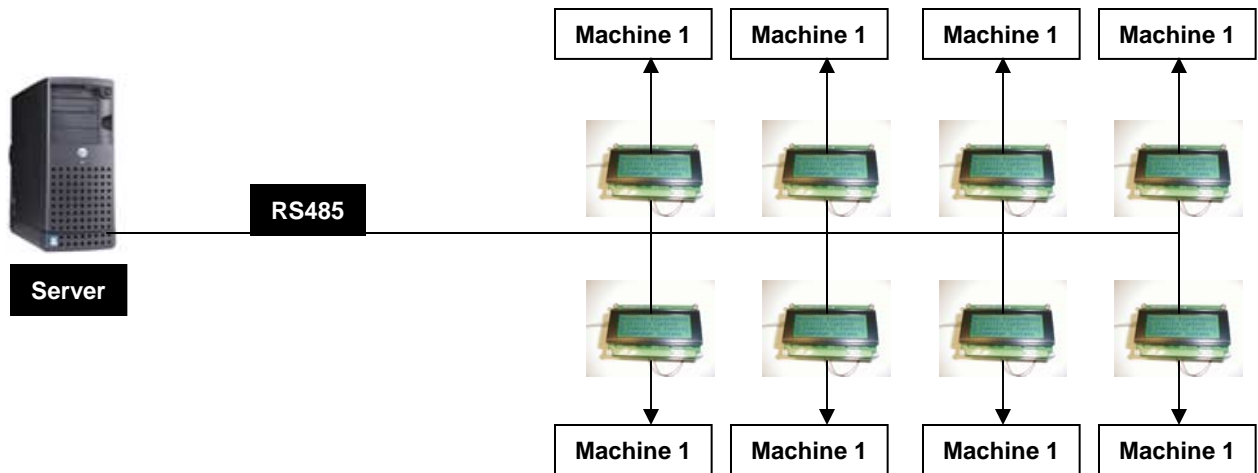
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### Typical Applications:

#### Example #1: Data Collection: AMR Apartment Building



#### Example #2: Computerized manufacturing



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