# 8510

## **User Manual**

### Warranty

All products manufactured by SuperLogics are warranted against defective materials for a period of one year from the date of delivery to the original purchaser.

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## Introduction

The 8000 Series of modules is comprised of analog and digital I/O modules designed for a wide variety of data acquisition and signal conditioning functions. These modules are designed for an RS-485 communication network, and require an RS-485 to RS-232 converter in order to be accessed through a standard PC serial port. The 8520/8520R module performs this function. Each 8520/R converter module can accommodate 256 modules over 4000 feet. The 8510 repeater module is used to extend the RS-485 network an additional 4000 feet per repeater module, or to add an additional 256 modules to the network. The 8510 module can also be used to segment a very long 8000 network into smaller isolated portions to protect the system from transient energy surges.

Like the 8520 module, the 8510 contains a unique Self-Tuner ASIC which permits it to process signals from multiple modules operating at different baud rates and with different data formats.

#### **Features:**

Input: RS-485

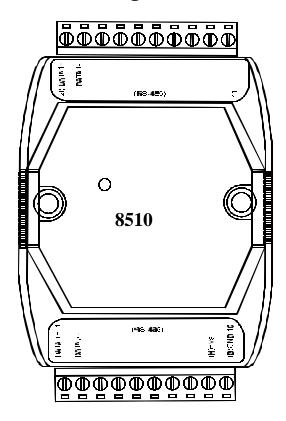
Output: RS-485

**Speed:** "Self Tuner" inside, auto switching baud rate, 300 to 115.2 kbps.

**Isolation Voltage:** 3000 VDC

# **8510 Specifications**

## 2.1 Pin Assignment



## 2.2 Specifications

#### 8510 : RS-485 Repeater

**Input:** two-wire RS-485, (D+,D-) **Output:** two-wire RS-485, (D+,D-)

Speed: Internal "Self Tuner,", automatic switching baud rate, from 300 to 115,200 BPS

**Isolation voltage: 3000V** 

**Connector:** plug-in screw terminal block **Power Requirements:** +10V to +30VDC **Power Consumption:** 2.2W(Max)

### 2.3 Block Diagram

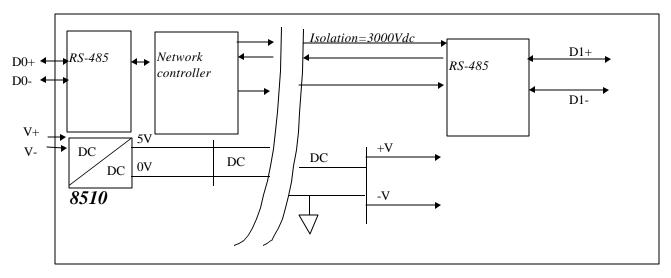


Figure 2.3.1 8510 block diagram

### 2.4 Basic Wire Connection

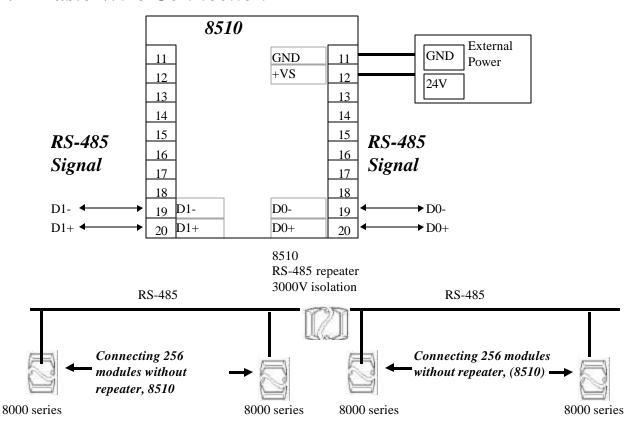


Figure 2.4.1 8510 wire configuration