

## FEATURES

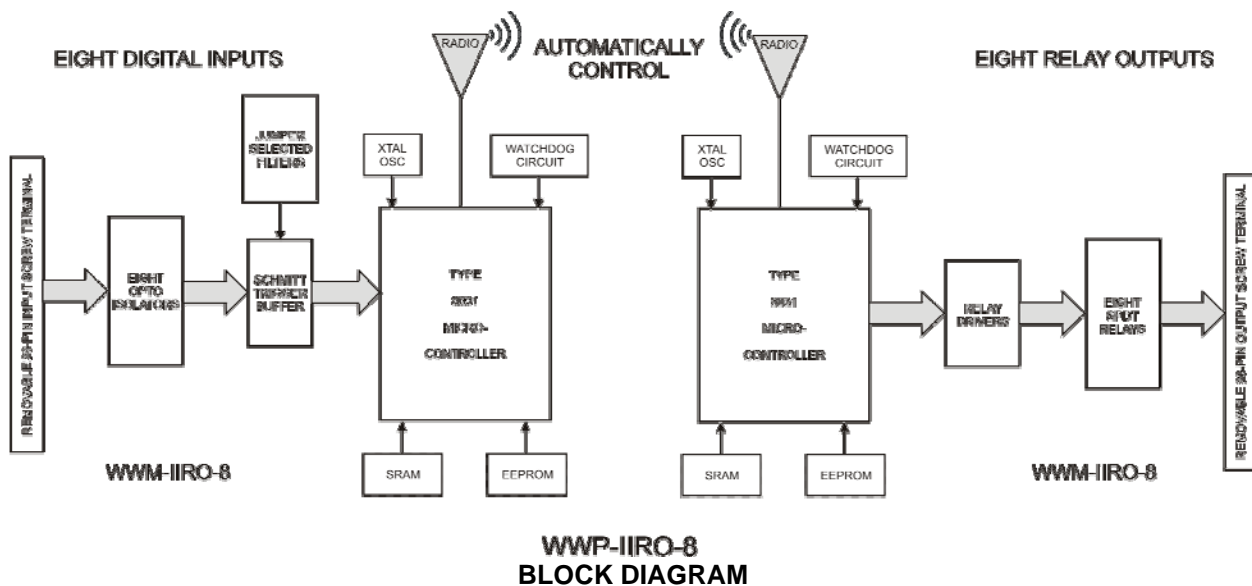
- Wireless Digital Input / Relay Output Module Pair
- 8 optically isolated digital inputs and 8 SPDT electromechanical relay outputs per unit
- Each input on one unit is mapped to control the corresponding relay automatically in the other
- 7-mile line of site communications over integrated non-licensed FCC radio modems
- Internal removable screw terminal boards for simplified wiring



## FUNCTIONAL DESCRIPTION

This product features a pair of intelligent 8-bit parallel digital I/O units that communicate with each other. When an isolated input is toggled on one of the units it will cause the corresponding relay to switch on the other unit. No software or PC connection is required as this solution is completely self-contained and operates autonomously. The units are packaged in NEMA4 enclosures for remote installation in harsh environments. The units communicate at distances up to seven miles with the standard antenna while alternate antennas may be used to boost signal strength.

The eight inputs can be driven by either AC or DC signals and are not polarity sensitive. For dry-contact monitoring applications, simply wire the power supply voltage into the switch circuit. Input signals are rectified by photocoupler diodes. Standard 12/24 AC control transformer outputs can be accepted as well as DC voltages. The input voltage range is 3 to 28 volts (rms). External resistors connected in series may be used to extend the input voltage range. Each input circuit contains a switchable slow/fast filter that has a 4.7 ms time constant, useful to prevent responses to circuit noise and contact bounce. Without filtering, the response is 10  $\mu$ s.





## SPECIFICATIONS

### Power Requirements

Voltage Range:	7.5 to 15 VDC
Current Range:	130 mA - idle mode, 30 mA – increase per relay activation, 470 mA - maximum

### General

Intelligence:	Type 8051 microcontroller family
Protection:	Watchdog Timer circuit
Memory:	8k RAM & 8k EEPROM
NEMA4 box:	4.53" long by 3.54" wide by 2.17" high
Weight:	19.0 oz each (38.0 oz total)
Temperature:	0-65°C Operating

### Isolated Inputs

Number / Type:	Eight / Non-polarized, optically isolated
Logic Low:	-0.5 V to 0.8 V (CMOS compatible)
Logic High:	+3.0 V to +33.0 V
Isolation:	60V channel-to-ground or chl-to-chl
Resistance:	1.8kΩ in series w/2 diodes and an LED

### Relay Outputs

Number / Type:	Eight / SPDT (form C)
Contact Type / Mat'l:	Single Crossbar / Silver + Gold-clad
Rated Load:	0.5 A at 125 VAC; 1 A at 24 VDC
Switching Current:	1 A (max)
Switching Voltage:	125 VAC; 60 VDC (max)
Contact Resistance:	100 mΩ (max)
Operate / Release Time:	5 ms
Switching Capacity:	62.5 VA; 30 W (max)
Contact Life (mechanical):	5 million operations

### Radio

Freq:	902 to 928 MHz, Unlicensed ISM Band
Type:	Frequency Hopping Spread Spectrum
Communication rate:	9600 baud
Transmit Power:	100mW
Receiver Sensitivity:	-110dBm
Outdoor Range:	Up to 7 miles (line of sight)
Interference Rej:	70dB at pager and cell freq.
Impedance:	50 Ω nominal
Gain:	2.1 dBi
Length:	7"
Polarization:	Vertical
Wave:	Half Wave
Connector:	SMA reverse polarity plug

### ORDERING GUIDE

<b>WWP-IIRO-8</b>	Pair of WWM-IIRO-8's (8 Inputs / 8 Relays x 2)
<b>WWP-II-8/RO-8</b>	Pair of WWM-II-8 / WWM-RO-8 (8 Inputs / 8 Relays)

### Options

-HG	High-Gain Antennas
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### OTHER VERSIONS AVAILABLE

<b>WWP-RA1216-I</b>	12-Bit Analog Input Signal Conditioner, accepts eight 4-20mA inputs, wirelessly transmits data to WWP-RDAG12-8 Module
<b>WWP-RDAG12-8</b>	12-Bit Analog Output Pod, receives wireless transmissions from WWP-RA1216-I Module and repeats eight 4-20mA values sensed

