The Wireless Industrial Serial Server is a gateway between TCP/IP via wireless and RS-232/422/485 communications. It allows almost any serial device to be connected to a new or existing wireless network. Offers wireless network interface (IEEE802.11g, 54Mbps) and two selectable serial ports. The new isolation model has two photo-couple interfaces for RS-485 signaling connectivity.

By encapsulating serial data and transporting it over Wireless LAN; or for security requirements by WEP or WPA encryption. Offers full-duplex, bi-directional data transmission transparent between serial port and Wireless LAN.

In industrial and manufacturing automation fields, it is used for field devices to connect Wireless LAN through TCP/IP protocol directly. It is also specially designed for conjunction with PLCs, HMIs, Barcode Scanners, Data Terminals, Electronic Kanbans, Shop Floor Control Systems, and Pick-to-Light systems.

Terminal Server (Main Control Program Executed in this unit) makes most use of Wireless LAN (or Ethernet) connectivity to drive serial devices. It transforms whatever serial data received to TCP/UDP format then enables a host computer to drive the serial devices through the Wireless LAN and Ethernet.

Virtual Com software provides existing Windows based applications to access serial devices by mapping to remote serial server over Wireless LAN (or Ethernet).

Flexible configuration options enable this unit to be setup over TCP/IP by Telnet, web browser, or other utility. Packed in a rugged Metal housing with DIN Rail-mountable case and 9~30VDC power input range by Terminal Block or DC-Jack connector, It is ideal for almost any industrial and manufacturing automation.
**Wireless Serial Server- 802.11g/b**

### Specifications

#### Ethernet
- **Compliance**: IEEE802.3
- **Port**: 1-port
- **Transmission Rate**: 10/100Mbps Auto-detection
- **Connector**: RJ-45
- **Auto MDI/MDI-X**: Yes

#### WLAN
- **Compliance**: IEEE802.11gb
- **WEP**: 64-bit / 128-bit data encryption
- **WPA**: WPA/WPA2-PSK compatible (Supported TKIP / AES encryption)
- **Modulation**: CCK, DQPSK, DBPSK, OFDM (11g)
- **Tx Power**: 11b: 15dBm / 11g: 14dBm
- **Rx Sensitivity**: -66dBm@54Mbps / -80dBm@11Mbps
- **Transmission Rate**: 54Mbps (max.) with auto fallback
- **Transmission Distance**: Up to 300 meters (±12Mbps in open areas)
- **Topologies**: Infrastructure, Ad-Hoc
- **Antenna connector**: Reverse SMA

#### Link Mode
- **TCP Server**: Up to 4 connections or Virtual Com mode
- **TCP Client**: Up to 2 destinations
- **UDP**: Up to 4 destinations

#### Serial
- **Interface**: RS-232/422/485 software selectable(SW5002-WgN1(TB)/(DB))
  RS-422/485 software selectable(SW5002-WgN1Sis(TB))
- **Ports**: 2-port
- **Baud Rate**: 110bps~921Kbps
- **Parity**: None, Odd, Even, Mark, Space
- **Data Bits**: 5, 6, 7, 8
- **Stop Bits**: 1, 2
- **Flow Control**: None, Software: Xon/Xoff, Hardware: RTS/CTS
- **Connector**: 5-pin terminal block(SW5002-WgN1(TB)/SW5002-WgN1Sis(TB))
  9-pin Mini DIN(SW5002-WgN1(DB))
- **Protection**: 15KV ESD

#### Power
- **Input**: DC 9~48V
- **Consumption**: Max. 4.5 W (Tx Mode)

#### Environment
- **Operating**: 0°C – 65°C (32° ~ 149°F)
- **Storage**: -40° ~ 85°C (-40° ~ 185°F), 5 ~ 95%RH

#### Dimension
- **W x H x D**: 45mm x 91mm x 80mm

#### Software
- **Configuration**: Web Page / Telnet / Serial console / Windows utility
- **Virtual Com / DeviceView / Serial Manager**: Windows & Linux port redirection software
- **Support Protocol**: ICMP, TCP(UDP) / IP, DHCP client, DNS, SNMP, NTP, SMTP, HTTP, Telnet

### Optional Accessories
- **Antenna**: HG055: 5.5dBi reverse SMA connector with 180cm cable
  HG096: 9dBi reverse SMA connector with 150cm cable
- **RF Cable**: HG-C150AN: SMA(R) to N-male 150cm cable
  HG-C600N: N-male to N-female 600cm cable
- **Power Adapter**: US315-12(US/EU): AC100~240V/DC12V 5.08mm pitch Terminal block(SW5002-WgN1(TB)/SW5002-WgN1Sis(TB))
  UV315-12(US/EU): AC100~240V/DC12V 1.25A DC Jack lockable(SW5002-WgN1(DB))

### Ordering Information

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1P1SW5002WG002</td>
<td>IEEE802.11g 2-port software selectable</td>
</tr>
<tr>
<td>SW5002-WgN1(TB)</td>
<td>RS-232/RS-422/RS-485(TB) wireless serial server</td>
</tr>
<tr>
<td>1P1SW5002WG001G</td>
<td>IEEE802.11g wireless 2-port software selectable</td>
</tr>
<tr>
<td>SW5002-WgN1(DB)</td>
<td>RS-232/422/485(DB9) serial server With DC-jack lockable power connector</td>
</tr>
<tr>
<td>1P1SW5002WG003G</td>
<td>IEEE802.11g wireless 2-port software selectable</td>
</tr>
<tr>
<td>SW5002-WgN1Sis(TB)</td>
<td>RS-422/485(TB) photo isolation serial server</td>
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</tbody>
</table>

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**Design and specification are subjected to change without notice.**

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