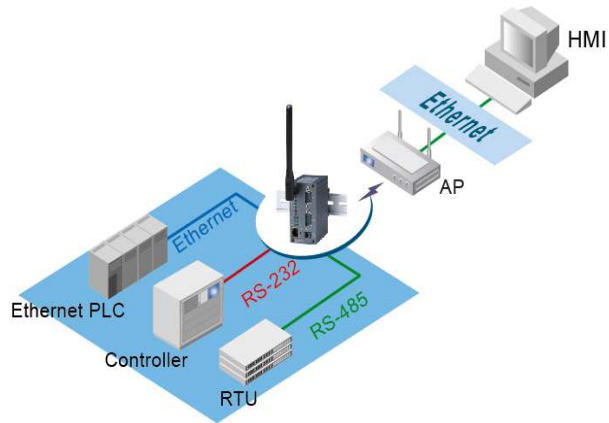# PC-W
Ethernet Wireless Client Adapter

Fig: Sample Application

Description

This Wireless Client Adapter provides Ethernet wireless connectivity for serial devices like RS232, RS422, RS485 and Ethernet devices

Features

Transparent between Ethernet to Wireless networking

2 Nos. serial ports (RS232/RS422/RS485)

One 10/100 Ethernet Port

Support UDP, TCP server and client protocols for Virtual COM mode and pair connection

Configurable via built-in web server and Windows-based utilities

Metal housing and IP50 standard with DIN-Rail mounting

15KV ESD protection for serial ports

IEEE 802.11g 54Mbps wireless network connectivity

Standard 2.4GHz, 4 dBi High-gain antenna, Optional 9 dBi High-gain antenna

Transmission distance up to 300 meters @12 Mbps, in open areas using standard 4 dBi Antenna

Hardware Specifications

Wireless LAN

Hardware	Compliance to IEEE 802.11b/g Standard
	Modulation Type: CCK, DQPSK, DBPSK, OFDM (11g)
Topologies	Infrastructure and Ad-Hoc
Security	WEP 64-bit/128-bit data encryption
	WPA Compatible (TKIP/AES Encryption)
	WPA2-PSK
RF Performance	Tx Power: 14 dBm for 802.11b and 13 dBm for 802.11g
	Rx Sensitivity: -66 dBm @ 54 Mbps, -80 dBm @ 11Mbps
	Transmission Rate: 54 Mbps (max.) with auto fallback
	Transmission distance: Up to 300 meters @12 Mbps, in open areas
	Mobile for Fast Roaming
Interfaces	Reverse SMA connector for an external antenna

BrainChild

Serial

Protocol	Support RS-232/ RS-485/ RS-422 and Software Selection
Interface	D-Sub 9-pin Connector –DB Model (with 12KV ESD)
Parameters	Baud Rate: 1200 bps ~ 921 kbps
	Parity Check: None, Odd, Even, Mark, Space
	Data Length: 7/8 Bit
	Stop Bit: 1/2
	Flow Control: None, Software: Xon/Xoff, Hardware: RTS/CTS

Network

Hardware	10/100M Auto-Negotiation Fast Ethernet
Interface	RJ-45 Connector with 2 LEDs
	Protection: Built-in 1.5 KV magnetic isolation
Configuration	Using Web-based or a Serial Manager program

Power

Input	DC 9V-48V
Consumption	4.5 W max @ Tx Mode

Mechanical

Dimensions	H x W x D: 90mm x 45mm x 75mm
Casing	Metal Housing for IP50 Standard

Environmental

Operating Temp.	0 to 65°C (32 to 140°F), 5 to 95% RH
Storage Temp.	-20 to 85°C (-4 to 185°F), 5 to 95%RH

Regulatory Approvals

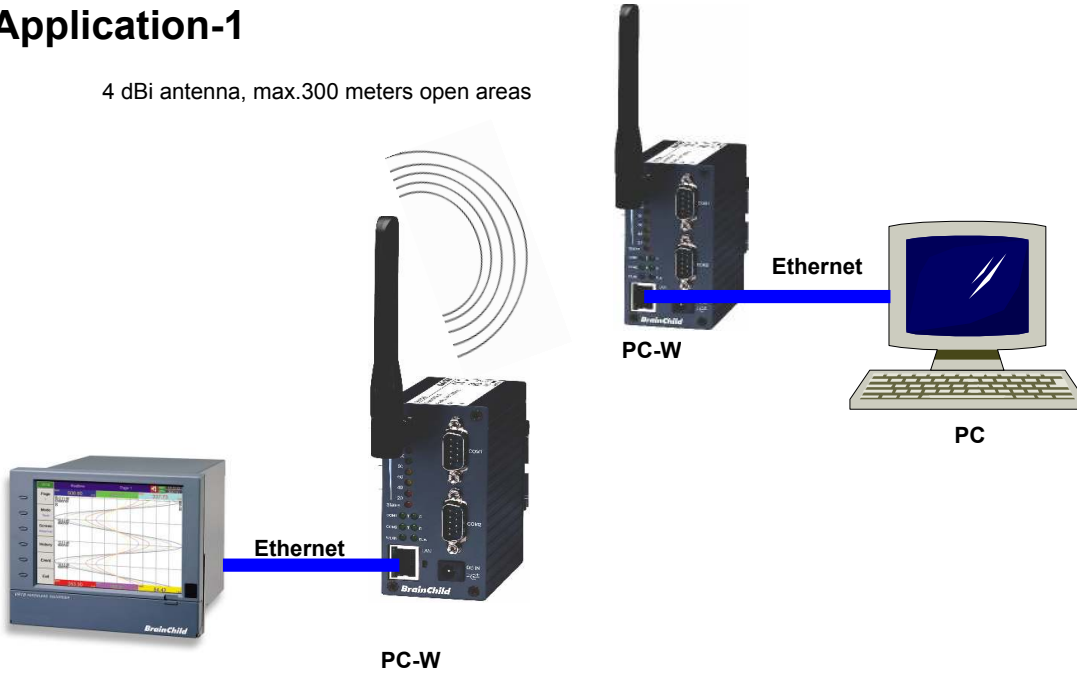|	
EMC	FCC/CE
Safety	UL
Warranty	4.5 Years

Software Specifications

Protocol	ICMP, IP, TCP, UDP, DHCP Client, Telnet, DNS, SNMP, HTTP, SMTP, SNTP
Utility	Virtual COM Utilities for Windows 98/2000/XP/2003/Vista
	Configure Utilities: Supported for Windows 98/2000/NT/XP/2003/Vista
Configuration	Web browser
	Windows utility software
Buffer Size	TCP receiving buffer size = 8K bytes
	TCP transmitting buffer size = 16K bytes
	RS-232/RS-485 receiving buffer size = 4K bytes
	RS-232/RS-485 transmitting buffer size = 4K bytes

Accessories

AH1812-B	AC100~240V US plug / DC12V DC-JACK
AH1812-E	AC100~240V Europe plug / DC12V DC-JACK
1GP-2409	9.0 dBi omnidirectional antenna (Max. line of sight distance: 800 meters)
1PG-24001	9.0 dBi directional panel antenna (Max. line of sight distance: 800 meters)
1CB-0025	External RF Cable, RG58 SMA to N Male 3 meters used with antenna

Application-1

4 dBi antenna, max.300 meters open areas

Ethernet

PC-W

PC

Ethernet

PC-W

VR18   Fig: Paperless Recorder to PC by two PC-W devices
Via Wireless Ethernet
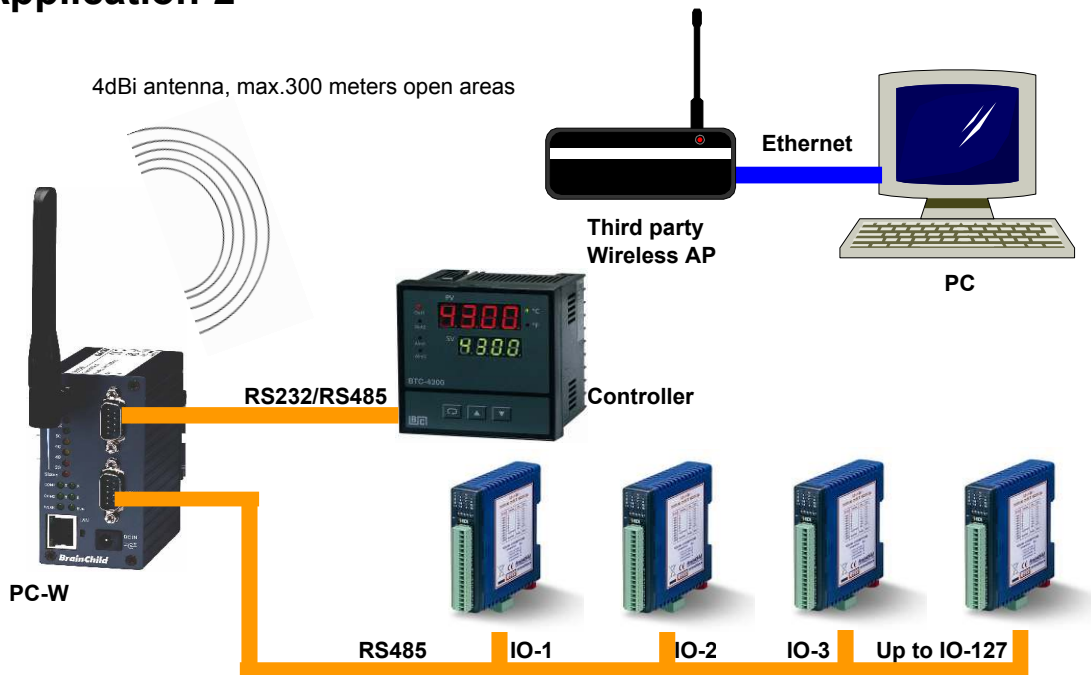
Application-2

4dBi antenna, max.300 meters open areas

Ethernet

**Third party
Wireless AP**

PC

RS232/RS485   **Controller**

PC-W

RS485   **IO-1**   **IO-2**   **IO-3**   **Up to IO-127**

Fig: Controller and IO Modules to PC via Wireless Ethernet