RS-232C to Wireless LAN
(IEEE802.11n/a/b/g)
FXR2000-G

RoHS Compliant

* Specifications, color and design of the products are subject to change without notice.

The FXR2000-G is a wireless LAN COM converter that conforms to IEEE 802.11n/a/b/g standards.

This product converts RS-232C serial communication interface to wireless LAN or wired LAN, and it is possible to connect Ethernet via access point or HUB. You can control RS-232C device that is connected with FXR2000-G by creating program that uses TCP/IP protocol.

Features

- COM converter

This product converts RS-232C serial communication interface into a wireless LAN (IEEE802.11n/a/b/g) or a wired LAN (10/100 Mbps) and it is connectable to the Ethernet via access point of HUB.

- TCP/IP connection

Using TCP/IP protocol that is used normally in the network, this product's serial port is easily-controllable via a wireless or wired LAN.

- Compatible with 4 standards, IEEE802.11n/a/b/g

This product is compatible with IEEE802.11n/a/b/g, and its frequency and channel are tunable for each country.

- The proprietary encryption technology "WSL" that is available along with WPA2/WPA and WEP.

This product supports a sophisticated security standard "WPA2/WPA", "IEEE 802.1X authentication". In the addition, it also supports the proprietary encryption technology "WSL" that is available along with WPA2/WPA and WEP.

- A wide range of power supplies (5 - 30VDC) supported

As the product supports a wide range of power (5 - 30VDC), it can be used in a variety of power environments.

Specification

Item			Specification
Wired LAN			
Ethernet standard			IEEE802.3 (10BASE-T), IEEE802.3u (100BASE-TX)
Data transfer speed			10 / 100Mbps
Access method			CSMA/CD
Communication type			Half Duplex, Full Duplex
Number of ports			1 (10BASE-T / 100BASE-TX)
Wireless LAN			
Wireless LAN standard			IEEE802.11n, IEEE802.11a, IEEE802.11b, IEEE802.11g
IEEE802.11n			
	USA (FCC)	5GHz	21h(36, 40, 44, 48ch[W52], 52, 56, 60, 64ch [W53], 100, 104, 108, 112, 116, 132, 136, 140ch [W56] 149, 153, 157, 161, 165ch [W58])
Channel		2.4GHz	11ch (1 - 11)
	EU (CE)	5GHz	19h(36, 40, 44, 48ch[W52], 52, 56, 60, 64ch[W53], 100, 104, 108, 112, 116, 120, 124 , 128, 132, 136, 140ch[W56])
		2.4GHz	13ch (1 - 13)
Data transfer speed *1			300 - 6.5Mbps[MSC0 - 15, Short/Long GI] (Fixed / Auto)
IEEE802.11a			
Channel	USA(FCC)		21h(36, 40, 44, 48ch[W52], 52, 56, 60, 64ch [W53], 100, 104, 108, 112, 116, 132, 136, 140ch [W56] 149, 153, 157, 161, 165ch [W58])
	EU(CE)		19h(36, 40, 44, 48ch[W52], 52, 56, 60, 64ch[W53], 100, 104, 108, 112, 116, 120, 124 , 128, 132, 136, 140ch[W56])
Data transfer speed *1			54, 48, 36, 24, 18, 12, 9, 6Mbps (Fixed / Auto)
IEEE802.11b			
Channel	USA(FCC)		11ch (1 - 11)
	EU(CE)		13ch (1 - 13)
Data transfer speed *1			11, 5.5, 2, 1Mbps (Fixed / Auto)
IEEE802.11g			
Channel	USA(FCC)		11ch (1 - 11)
	EU(CE)		13ch (1 - 13)
Data transfer speed *1			54, 48, 36, 24, 18, 12, 9, 6Mbps (Fixed / Auto)
Security			
IEEE802.11n			WPA(AES), WPA2(AES), WPA-PSK(AES), WPA2-PSK(AES), WSL(combination mentioned above are possible)
IEEE802.11a/b/g			WEP(open/ Shared Key /Auto), WPA(AES, TKIP), WPA-PSK(AES,TKIP), WPA2(AES, TKIP), WPA2-PSK(AES,TKIP), IEEE802.1X(EAP-TLS, PEAP), WSL(combination mentioned above are possible)
Serial unit	Serial standard		RS-232C
	Data transmission speed		300, 600, 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200bps
	Number of channels		1
	Connector		9 pin D-SUB, F (Female) type
Antenna connector			R-SMA Connector x2
External Dimensions (mm)			38(W) x 135(D) x 124(H) (Not including antenna connector and other projecting parts)
Weight (kg)			0.5

*1   These are theoretical values based on their respective wireless LAN standards. They do not indicate actual data transfer rates.
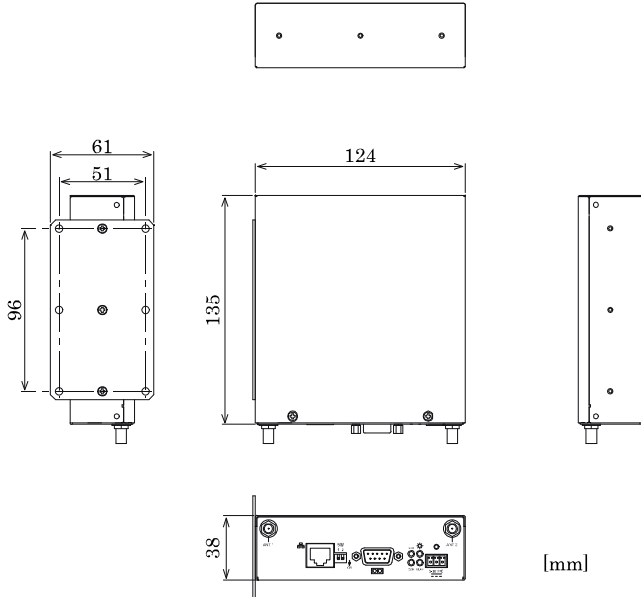
Environmental Specifications

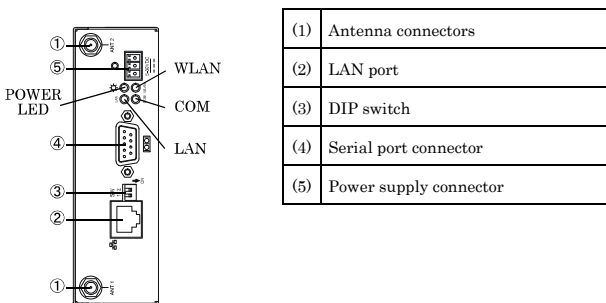| Item	Specification
Input voltage range	5 – 30VDC±5%
Rating input current	1.4 A – 0.24A
Operating ambient temperature	0 - 50°C
Operating ambient humidity	10 - 90%RH (No condensation)
Floating dust particles	Tolerant of small amounts (non excessive)
Corrosive gases	None

Product Configuration List

Main unit (FXR2000-G)...1   Setup Guide...1
Warranty Certificate...1   Power terminal connector...1
Retention bracket...1   Mounting bracket...3
Bracket screw M3 x 6...1   Bracket screw M3 x 5...3
Bracket screw M3 x 8...4

External Dimensions

61
51
96
124
135
38

[mm]

External Dimensions

① POWER LED ⑤ WLAN COM LAN ④ ③ ② ①

(1)	Antenna connectors
(2)	LAN port
(3)	DIP switch
(4)	Serial port connector
(5)	Power supply connector

Serial port connector

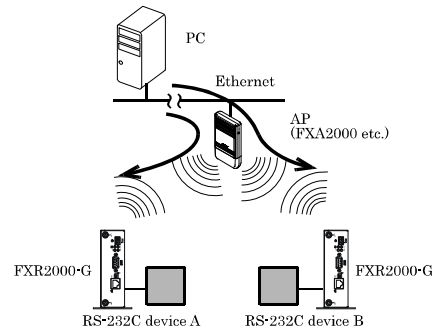| Pin No.	Abbreviated	Signal name	Input / Output
1	DCD	Carrier detect	Output
2	RxD	Received data	Output
3	TxD	Transmitted data	Input
4	DTR	Data terminal ready	Input
5	GND	Signal ground	–
6	DSR	Modem ready	Output
7	RTS	Request to send	Input
8	CTS	Clear to send	Output
9	Not Used	–	–

Connection configuration

Controls this product's serial port via a wireless or wired LAN by using TCP/IP protocol.
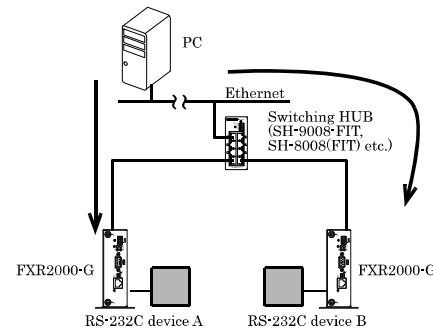
[Connection to the Ethernet]

You can connect RS-232C device to the Ethernet, if you set up this product's mode as "Server (receiver)" and set up an online PC as "Client (requester)" and connect them as below.
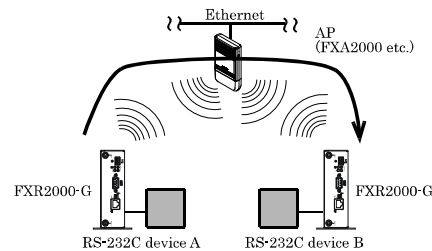
Wireless LAN

Wired LAN

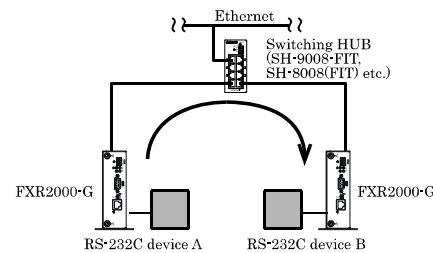**[1 to 1 communication]**

Using these 2 products, you can transfer data to one-to-one from RS-232C devices that are set up them as a server or a client.

Wireless LAN

Wired LAN

⚠ CAUTION
Not to effect on other LAN devices, set IP address and subnet mask to appropriateness.