

**FWO-713**

**IEEE 802.11b Industrial Wireless Outdoor AP/Bridge**



**Features**

**High Performance Wireless Technology**

- ✓ Wireless LAN IEEE802.11b compliant
- ✓ Compliant with IEEE 802.3 、 IEEE 802.3u 、 IEEE 802.3x 、 IEEE802.11b 、 IEEE802.11g 、 IEEE 802.3af
- ✓ Supports radio modules 2.4~2.472 GHz (802.11b)
- ✓ Supports point to point and point to multi-point bridging function
- ✓ Flexible four operating modes: Access Point, Bridge, AP Client and Repeater
- ✓ Strong Network Security with 64/128/152-bit WEP and WPA encryption
- ✓ Supports DFS/TPC ( Dynamic Frequency Selection and Transmit Power Control )
- ✓ Flexible Software configuration through WEB GUI interface & Remote Telnet for easy management

**Robust Industrial Design**

- ✓ Robust Weatherproof IP-68 housing protection

**Reliable Power Design**

- ✓ Supports Power Over Ethernet Design
- ✓ Supports power input of 48 VDC

**Overview**

The Falcon series FWO-713 is a 2.4 GHz IEEE 802.11b compliant Wireless Outdoor Access Point available for Industrial Ethernet applications. With innovative technology design, FWO-713 provides 11 Mbps high data rate for outdoor environment. It links two or more separate networks to create a single expanded LAN network cost effectively and efficiently. The robust IP-68 housing protects the device from harsh outdoor environment – weatherproof, waterproof, dustproof. FWO-713 supports four different operation modes namely Access Point, Bridge, AP Client and repeater. In addition, the built-in Power over Ethernet design reduces the cost of power cables installation and provides future proof investment. To secure information, it comes with WEP encryption and WAP function. With of these advanced features, FWO-713 is a powerful Outdoor solution produced for Industrial applications.

**Hardware Specifications**

**Interface**

<b>Antenna Type</b>	Reverse N-type female External high gain antenna (optional)
<b>Access Point Interface</b>	Auto sensing MDI/MDI-X Ethernet 10/100Base-TX:RJ-45
<b>Flash</b>	1 MB bytes
<b>SD RAM</b>	4 MB bytes

**Power Requirements**

<b>Power Input</b>	DC 12 Volt ± 5%; 2A (Max.); AC adapter AC 100V ~ 240V
<b>Output power</b>	200 watts
<b>Power consumption</b>	19.2 watts

## Physical

<b>Dimensions</b>	IP-68 standard, 152 mm (W) x 112.8 mm (H) x 35 mm (D)
<b>Weight</b>	1.8 kg
<b>Installation</b>	Panel mount or desktop
<b>Accessories</b>	Bracket + Power over Ethernet adapter

## Environmental

<b>Operating Temperature</b>	Regular: -30 to 70°C
<b>Storage Temperature</b>	-40 to 85°C (-40 to 185°F)
<b>Operating Humidity</b>	5%~90% RH (Non-condensing)

## Technology Specifications

<b>Operating Type</b>	AP/AP with Bridge/Wireless Client/Repeater
<b>Standard</b>	IEEE 802.11b ; IEEE802.3 ; IEEE802.3u ; IEEE 802.3af
<b>Radio Frequency Type</b>	DSSS (Direct Sequence Spread Spectrum)
<b>Modulation</b>	IEEE 802.11b: CCK,DQPSK,DBPSK
<b>Frequency Band</b>	America/FCC: 2.412~2.462 GHz (11 channels) Europe CE/ETSI: 2.412~2.472 GHz (13 channels) Japan: 2.412~2.484 GHz (14 channels) France: 2.457~2.472 GHz (4 channels) Spain: 2.457~2.462 GHz (2 channels)
<b>Transmission Power</b>	802.11b : 23dBm
<b>Transmission Rate</b>	IEEE 802.11b : 1/2/5.5/11
<b>Data Rate</b>	802.11b: Up to 11Mbps
<b>Sensitivity</b>	IEEE 802.11b : -86dBm @ 11 Mbps, PER<8%

## Regulatory Approvals

<b>EMI</b>	FCC Class A
<b>EMS</b>	EN6100-4-2 EN6100-4-3 EN6100-4-4 EN6100-4-5 EN6100-4-6 EN6100-4-8 EN6100-4-11
<b>WI-FI compliant</b>	YES

<b>Shock</b>	IEC60068-2-27
<b>Vibration</b>	IEC60068-2-6
<b>Free Fall</b>	IEC60068-2-32
<b>Class 1 DIV 2</b>	Pending *
<b>DNV</b>	Pending *
<b>Environmental</b>	WEEE, RoHS
<b>MTBF</b>	425,000 hrs based on Mil-Hdbk-217F, GB
<b>Warranty</b>	5 years

### Management Specifications

<b>Software</b>	<ul style="list-style-type: none"> <li>Site survey</li> <li>DHCP Client</li> <li>Suppressed SSID</li> <li>Wireless access control by MAC address(deny or accept)</li> <li>WPA Support (WPA personal and enterprise)</li> <li>Web-based configuration via popular browser (MS IE, Netscape ... )</li> <li>Windows "Locator" program to help find IP in DHCP client mode</li> <li>Firmware upgrade and configuration backup via Web</li> <li>Reset to default by Web-UI</li> </ul>
<b>Security</b>	64 bit/128 bit bit WEP encryption; Wi-Fi protected Access (WPA)

### Ordering Information

<b>FWO-713</b>	802.11b 2.4 GHz Industrial Wireless Outdoor AP/Bridge/Client/Repeater
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## Recommended Accessories

### Industrial Wireless 2.4HGz Antenna

Model	2.4HGz Specifications
<b>Gridpak Antenna</b>	
ANT-24020D	ANT Gain: 21dBii
	Beamwidth deg.: Horz. 8"
	Vert. 5"ng
ANT-24024D	ANT Gain: 24dBi
	Beamwidth deg: Horz. 8"
	Vert. 5"
ANT-24024D-1	ANT Gain: 24dBi
	Beamwidth deg.: Horz. 10"
	Vert. 14 "
<b>Flat-panel Antenna</b>	
ANT-2408D	ANT Gain: 8dBi
	Beamwidth deg.: Horz. 75"
	Vert. 75"
ANT-24018A	ANT Gain: 18dBi
	Beamwidth deg.: Horz. 30"
	Vert. 20"
ANT-24015A	ANT Gain: 15.5dBi
	Beamwidth deg.: Horz. 120"
	Vert. 7"
<b>Omnidirectional Antenna</b>	
ANT-2408O	ANT Gain: 8dBi
	Beamwidth deg.: Horz. 360"
	Vert. 8"
ANT-2415O	ANT Gain: 15dBi
	Beamwidth deg.: Horz. 360"
	Vert. 15"
<b>YAGI Antenna</b>	
ANT-24008E	ANT Gain: 8dBi
	Beamwidth deg.: Horz. 42"
	Vert. 21"
ANT-24013E	ANT Gain: 13dBi
	Beamwidth deg.: Horz. 32"
	Vert. 19"
ANT-24016E	ANT Gain: 16dBi
	Beamwidth deg.: Horz. 26"
	Vert. 15"

### Industrial Wireless Accessories for 2.4GHz Antenna

ASP-242 2.4GHz Antenna Splitter  
ASP-244 2.4GHz Antenna Splitter