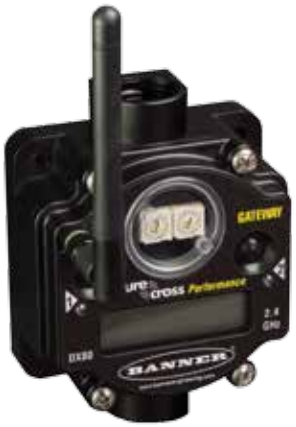

Sure Cross® PM SERIES

An I/O Radio network that combines long range line-of-sight coverage with ease of deployment and use.

Banner's PM Series provides a flexible network that easily sets up without software. Setting up a basic point-to-point network is as easy as pairing a cell phone to a headset. You can replace cables and extend the range of digital and analog signals with minimum effort.

Key Features:

- Menu-driven LCD user interface
- No software needed
- IP67-rated housing for demanding environments
- One Gateway is preconfigured to support up to six Nodes
- Choose from two I/O configurations
- Select from multiple I/O maps

point-to-point point-to-multipoint

PM2 Models

The wireless PM2 models have four selectable discrete inputs, four sourcing discrete outputs, and two analog inputs and outputs in both the Gateway and Node. The PM2 Gateway is pre-mapped to support up to two Nodes.

Gateways	Nodes	Frequency	I/O
DX80G9M6S-PM2	DX80N9X6S-PM2	900 MHz	4 Discrete IN, 4 Discrete OUT 2 Analog IN, 2 Analog OUT
DX80G9M6S-PM2C*	DX80N9X6S-PM2C*		
DX80G2M6S-PM2	DX80N2X6S-PM2	2.4 GHz	
DX80G2M6S-PM2C*	DX80N2X6S-PM2C*		

PM8 Models

The wireless PM8 models have six sourcing discrete inputs and six sourcing discrete outputs in both the Gateway and Node. The PM8 Gateway is pre-mapped to support up to 6 Nodes.

Gateways	Nodes	Frequency	I/O
DX80G9M6S-PM8	DX80N9X6S-PM8	900 MHz	6 Discrete IN, 6 Discrete OUT
DX80G9M6S-PM8C*	DX80N9X6S-PM8C*		
	DX80N9X6S-PM8L*		
DX80G2M6S-PM8	DX80N2X6S-PM8	2.4 GHz	
DX80G2M6S-PM8C*	DX80N2X6S-PM8C*		
	DX80N2X6S-PM8L*		

* Models ending in "C" are screw terminals. Models ending in "L" have no LCD.

PM2 and PM8 Gateways and Nodes Specifications

Radio Range	900 MHz (1 W): Up to 9.6 kilometers (6 miles)* 2.4 GHz (65 mW): Up to 3.2 kilometers (2 miles)* *Line of sight with included 2 dB antenna	
Minimum Separation Distance	900 MHz (1 W): 4.57 m (15 ft)	2.4 GHz (65 mW): 0.3 m (1 ft)
Transmit Power	900 MHz (1 Watt): 30 dBm (1 W) conducted (up to 36 dBm EIRP)	2.4 GHz: 18 dBm (65 mW) conducted, less than or equal to 20 dBm (100 mW) EIRP
900 MHz Compliance	FCC ID UE3RM1809: This device complies with FCC Part 15, Subpart C, 15.247 IC: 7044A-RM1809	
2.4 GHz Compliance	FCC ID UE300DX80-2400 - This device complies with FCC Part 15, Subpart C, 15.247 ETSI/EN: In accordance with EN 300 328: V1.8.1 (2012-06) IC: 7044A-DX8024	
Spread Spectrum Technology	FHSS (Frequency Hopping Spread Spectrum)	
Linked Timeout	Gateway: Configurable via User Configuration Tool (UCT) software	Node: Defined by Gateway
Communication Hardware (RS-485) - Gateways Only	Interface: 2-wire half duplex RS-485 Baud rates: 9.6k, 19.2k (default), or 38.4k Data format: 8 data bits, no parity, 1 stop bit NOTE: Battery life is reduced to 1 year when the sample/report rate is increased to 16 seconds	
Communication Protocol	Modbus RTU	
Supply Voltage	10 to 30 V dc (Outside the USA: 12 to 24 V dc, ±10%) 900 MHz Consumption: Maximum current draw is < 100 mA and typical current draw is < 50 mA at 24 V dc (2.4 GHz consumption is less)	
Construction	Polycarbonate housing and rotary dial cover; polyester labels; EDPM rubber cover gasket; nitrile rubber, non-sulphur cured button covers Weight: 0.26 kg (0.57 lbs) Mounting: #10 or M5 (SS M5 hardware included) Max. Tightening Torque: 0.56 N·m (5 lbf·in)	
Antenna Connection	Ext. Reverse Polarity SMA, 50 Ohms Max Tightening Torque: 0.45 N·m (4 lbf·in)	
Interface	Indicators: Two bi-color LEDs	Buttons: Two Display: Six character LCD
Wiring Access	Two 1/2-in NPT ports	
Environmental Rating	PM2 and PM8 Models: IEC IP67; NEMA 6	PM2C and PM8C Models: IP20; NEMA 1
Operating Conditions	Temperature: –40 °C to +85 °C (–40 °F to +185 °F) (Electronics); –20 °C to +80 °C (–4 °F to +176 °F) (LCD) Humidity: 95% max. relative (non-condensing) Radiated Immunity: 10 V/m, 80-2700 MHz (EN61000-4-3)	
Shock and Vibration	IEC 68-2-6 and IEC 68-2-27 Shock: 30g, 11 millisecond half sine wave, 18 shocks Vibration: 0.5 mm p-p, 10 to 60 Hz	
Certifications	CE	

Sure Cross® PM Kit

Simple wire replacement is even simpler with Banner's fully integrated kit.

Plug-and-play with one Gateway and one Node, pre-bound and mapped to solve your first wireless challenge, and provide the start of a flexible network that can be expanded as production needs change.

Key Features:

- Pre-bound and mapped expandable bi-directional radios
- Eight LCD menu selectable I/O mapping options
- IP67-rated housing for demanding environments
- One Gateway is preconfigured to support up to six Nodes

Kits

DX80K*M6-PM2	4 Discrete IN, 4 Discrete OUT 2 Analog IN, 2 Analog OUT
DX80K*M6-PM8	6 Discrete IN, 6 Discrete OUT

* 9 for 900 MHz or 2 for 2.4 GHz