X85
Fixed RAIN RFID Reader

RELIABLE RFID IN A POCKET-SIZED DESIGN

Powered by the Xema module with Impinj E310 or E710, the reader offers robust RF performance with output power up to 28 or 33 dBm to choose from and can be powered via PoE or a widely available USB Type-C PD 3.0 adapter. It is available in 2-port and 4-port configurations to provide flexible deployment options.

The die-cast aluminum enclosure provides durability and efficient thermal dissipation, and IP65 protection, ensuring stable and reliable high performance even during continuous operation in demanding environments. The front panel includes four LED indicators that clearly display the reader's status.

This compact reader with horizontal/vertical mounting options, is an ideal solution for space-constrained applications such as kiosks, vending machines, smart shelves/lockers, truck, forklift, and more. It is a versatile RFID reader suited for retail, logistics, transportation, and applications, including inventory management, asset tracking, and warehouse operations.
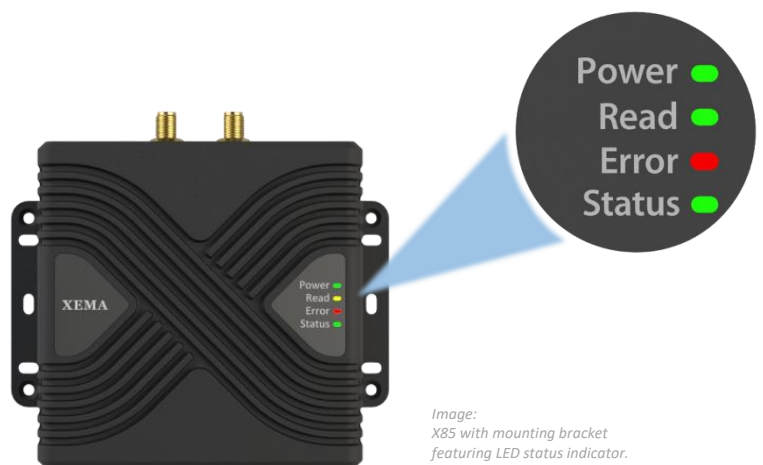

Image:
X85 with mounting bracket
featuring LED status indicator.

SPECIFICATIONS

RFID CHARACTERISTICS

RF Engine	XEMA RFID module with Impinj E310/E710 inside
Air Protocols	ISO 18000-63 (EPC Class1 Gen2 v2)
Frequency Range	902-928 MHz (FCC Part 15.247)
	865-868 MHz (ETSI EN 302 208)
	Japan, Taiwan, and other worldwide regions
RF Power Output	28 or 33 dBm
Port Switching Time	< 10 ms
RX Sensitivity	< -70 or -83 dBm
Fastest Read Rate	Up to 300 tags/s or 1000 tags/s
Number of Channels	FCC: 50 hopping channels
	ETSI: 4 channels
DRM Mode	Supported

CONNECTIVITY

Communications	10/100 Base-T Ethernet (RJ45)
	1x USB Host (Type-C)
General Purpose I/O	12 positions spring clamp terminal block:
	2x digital input, optically isolated, 4~60VDC
	2x relay, 250VAC/220VDC, 62.5VA/60W max
	1x reboot/reset input
	1x trigger input
Power Supply	PoE (802.3af), 15W
	Type-C PD 3.0
Antenna Connector	2/4 ports, RP-SMA, monostatic

PHYSICAL & ENVIRONMENTAL CHARACTERISTIC

Dimensions	100 L x 90 W x 32 H (mm)
	3.94 L x 3.54 W x 1.26 H (in)
Weight	240~260 gr / 8.47~9.17 oz
Housing Material	Aluminum Die Cast and PC/ABS
Visual Indicators	4-Multicolor LEDs: Power, Read, Error, Status
Operating Temp.	-20°C to 55°C / -4°F to 131°F
Storage Temp.	-40°C to 70°C / -40°F to 158°F
Humidity	5%-95% non-condensing
IP Rating	IP65

COUNTRY OF ORIGIN

Made in Taiwan or USA

ORDERING INFORMATION

X85 - AA BB - CC D

AA	OS & Port
M3	28 dBm Max
M7	33 dBm Max

BB	Connectors & Wireless
2S	2-Port, RP-SMA
4S	4-Port, RP-SMA

CC	Country/Region
US	USA
EU	EU
JP	Japan
TW	Taiwan

D	Color
N	Default
W	White
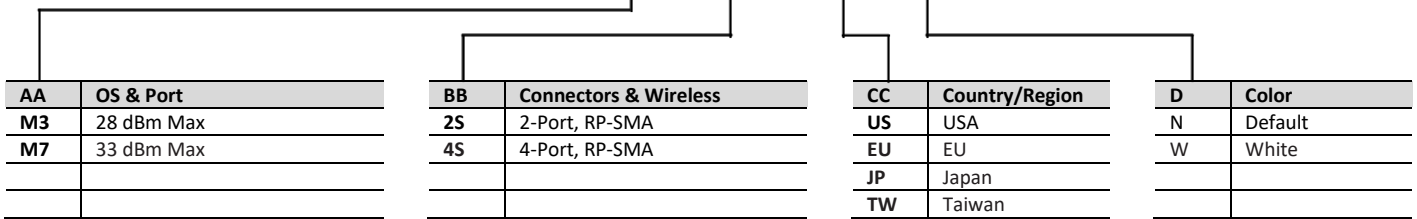
*Example: **X85-M32S-USN** is UHF RFID Linux 4-port reader with RP-TNC connectors for USA market.*