MODEL X85

UHF RFID Reader

Supports GEN2X™

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. Featuring GPIO with two optically isolated inputs and two relays. 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.



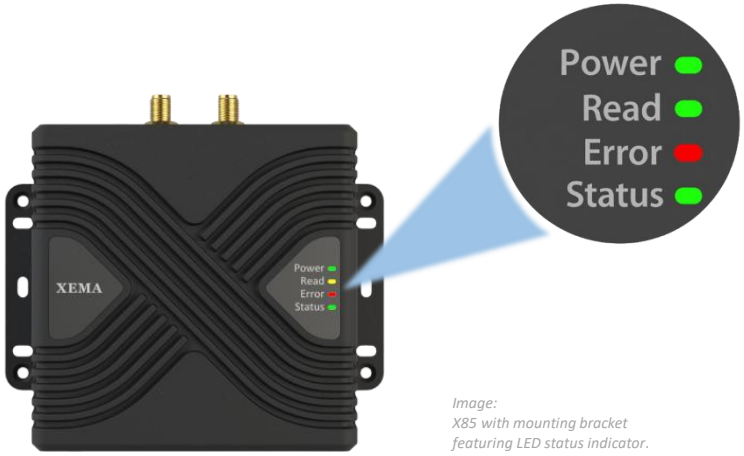


Image:
X85 with mounting bracket featuring LED status indicator.

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SPECIFICATIONS

RFID CHARACTERISTICS

RF Engine	XEMA RFID module with Impinj E310/E710
Air Protocols	ISO 18000-63 (EPC Class1 Gen2 v2)
Frequency Range & Certification	902~928 MHz, USA/FCC 14 CFR 15.247/107/109 865~868 MHz, EU/ETSI EN 302 208 (In progress) 916~921 MHz, Japan/Giteki 2-1-6-2 922~928 MHz, Taiwan/NCC LP0002 and other worldwide regions
RF Power Output	Up to 28 dBm or 33 dBm
Port Switching Time	<10 ms
RX Sensitivity	**M3** <-70 dBm, **M7** <-83 dBm
Fastest Read Rate	**M3** >300 tags/s, **M7** >1,000 tags/s
DRM Mode	Supported (**M7**)

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	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	Multicolor LEDs: Power, Read, Error, Status, and antenna port activity
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	IP53 (Optional IP65)

COUNTRY OF ORIGIN

Taiwan

ORDERING INFORMATION

X85 - AA BB - CC D

AA	Module & Power
M3	M83Pn, 28 dBm Max
M7	M87P4, 33 dBm Max

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

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

D	Color
B	Black (Default)
W	White

*Example: **X85-M74S-USB** is 33 dBm 4-portUHF RFID reader with RP-SMA connectors for USA market.*

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