MODEL X82

Embedded Linux UHF RFID Reader

Supports GEN2X™

THE TOP COST PERFORMANCE RATIO READER

The X82 is cost effective, compact-sized, and high-performance UHF RFID readers best suited for manufacturing, retail, and warehouse/logistic application; available in 4-port and 8-port configuration.

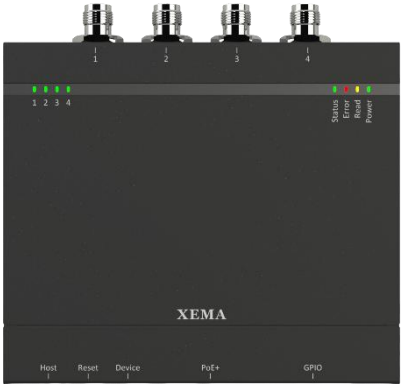
It comes with embedded Linux OS making it easily configurable using an internal web interface. With support for PoE+, 4x USB, and plenty GPIO, the X82 offer users the flexibility to install app to control all RFID features and interfaces for a full reader customization. Long range reading is easily achievable with a maximum power of 33 dBm. Its compact and slim design makes it easy to install in limited spaces.



The reader features optional built-in Wi-Fi and Bluetooth, enabling direct wireless connectivity to Wi-Fi networks and Bluetooth-enabled computers or devices—eliminating the need for hard-wired connections to access points. Additionally, its USB host/device ports support a wide range of peripherals, such as barcode scanners, keyboards, and printers and many others. This transforms the X82 into a powerful, versatile platform for data capture and identification.

An add-on 4G LTE GPS dongle enables users to extend RFID to the field. For example, it can be installed in a delivery truck to automatically verify package pick-up and delivery. The integrated GPS provides the exact location where RFID tags are read, giving users complete visibility into when and where a package or asset is placed or received.





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SPECIFICATIONS

RFID CHARACTERISTICS

RF Engine	XEMA M87P4/8 module with Impinj 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 33 dBm
Port Switching Time	<10 ms
RX Sensitivity	<-83 dBm
Fastest Read Rate	>1,000 tags/s
DRM Mode	Supported

CONNECTIVITY

Communications	10/100 Base T Ethernet (RJ45) 1x USB Host/Client (Type C) 1x USB Host/VCP (Type A) 2x USB Client (Type C & Type A)
Wireless (optional)	Wi-Fi 4/Bluetooth 5.0
General Purpose I/O	24 positions spring clamp terminal blocks: 4x digital input, optically isolated, 4~60VDC 2x relay, 250VAC/220VDC, 62.5VA/60W max 2x programmable output, 12VDC/500mA max 1x continuous output, 5VDC/500mA max 1x reboot/reset input 1x trigger input
Power Supply	PoE+ (802.3at), 30W 12VDC 3A
Antenna Connector	RP-TNC or RP-SMA, monostatic

HARDWARE & OPERATION SYSTEM

Processor	Microchip SAM9X60 (600 MHz)
Memory	Flash 4 Gb, DRAM 1 Gb
Operating System	Embedded Linux
Firmware Upgrade	Web based remote upgrade
Network Services	DHCP, TCP, HTTPS, SSH, HTTP, NTP
API Support	Host Application – .NET Embedded Application – C, Python, Scripts

PHYSICAL & ENVIRONMENTAL CHARACTERISTIC

Dimensions	**4-Port:** 140 L x 121 W x 30 H (mm) 5.51 L x 4.76 W x 1.18 H (in) **8-Port:** 170 L x 121 W x 30 H (mm) 6.69 L x 4.76 W x 1.18 H (in)
Weight	**4-Port:** 440 gr / 15.5 oz **8-Port:** 570 gr / 20.1 oz
Housing Material	Aluminum Alloy
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	IP40

COUNTRY OF ORIGIN

Taiwan

ORDERING INFORMATION

X82 - AA BB - CC D

AA	OS & Port
L4	Linux, 4-Port
L8	Linux, 8-Port

BB	Connectors & Wireless
TR	RP-TNC
SR	RP-SMA
SW	RP-SMA with WiFi/BT

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

D	Color
B	Black (Default)
W	White

*Example: **X82-L4TR-USB** is embedded Linux UHF RFID 4-port reader with RP-TNC connectors for USA market.*

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