

X2 multi-technology keypad reader supports Bluetooth, NFC, QR code and various kinds of Contactless Smart Card technologies. Its design is perfect for true-contactless and accurate cross-platform applications, from Smart Cards to mobile devices.

X2 keypad reader is suitable for indoor installation. It is made of high-quality materials to enhanced reliability and longevity. The reader's output options include Wiegand and scramble encryption, catering to diverse security level requirements. The embedded Bluetooth & NFC technologies as well as the QR code scanner also allow for reading encrypted virtual credential numbers from both Android and iPhone devices.











## **FEATURES**

- QR Code scanner with backlight, 4cm to 22cm read range
- Read the Scramble QR Code by ACX mobile apps for Access Control System
- Read the fixed QR code on mobile or label for Visitor Management System
- 12-key capacitive keypad with blacklight
- 2.4GHz Bluetooth 4.0+ works with ACX mobile apps
- 13.56MHz NFC works with ACX mobile apps
- 13.56Mhz Card technology includes LEGIC Prime and Advant, CSN for Mifare Classic, Mifare Plus, Mifare DESFire, SONY Felica, and PicoPass
- Red / Green / Blue or mixed LED color for visual notification, reader buzzer for audio notification
- User-defined reader's visual and audio notification for access granted and access denied
- Optical sensor for tamper protection, "I Am Alive" feature
- Reader outputs Wiegand and ACX proprietary scramble encryption RS485 format
- Reader LAN cable for clock synchronisation and Visitor Management System (API provided)
- NFC technology compatible
- Waterproof IP55





## CARD TECHNOLOGY

Card Technology	Card Number Output	Item No. ( RF / RF+BLE )
HID iCLASS	32 ~ 64 bits CSN	X211 / X2T1
HID 125KHz	HID card number	X212 / X2T2
EM	32 bits CSN	X213 / X2T3
Mifare Classic	32 ~ 56 bits CSN / Sector	X214 / X2T4
SONY Felica CSN	32 ~ 64 bits CSN	X215 / X2T5
Mifare Plus S/X	32 ~ 56 bits CSN / Sector	X216 / X2T6
Mifare DESFire EV1 / EV2	32 ~ 56 bits CSN / File	X217 / X2T7
LEGIC Prime / Advant	32 ~ 64 bits CSN / Sector	X218 / X2T8

## **SPECIFICATIONS**

	X2 Bluetooth QR Code Card Multi-Tech Keypad Reader
Key Authentication	Custom 128 bits diversify key
Card Data Security	Max. 64 bits card number mixed with original CSN, custom AES 128 bits key data encryption, CRC16
Reader Output	ACX Propriatery scramble RS485 output
QR Code Min. Resolution	5 mil, 1 mil = 0.0254mm
QR Code Resolution	640 x 480
QR Code Scanning Angle	$\pm~60^{\circ}~$ for left & right, $\pm~40^{\circ}~$ for front and back, 360° $~$ rotation
QR Code Scanning Range	4cm to 22cm
NFC Technology	13.56 MHz NFC
Typical Read Range	Bluetooth Technology: 0.5m to 10m, NFC: 2cm to 4cm 125khz: 4cm to 8cm, 13.56MHz: 2cm to 6cm Typical read range achieved in air; different types of metal will cause some degradation Use spacers to space product off metal and improve read range if required
"I Am Alive"	User-defined 1 byte "I Am Alive" data at a certain interval
Reader Cable	LAN 6 pins connector, Pigtail 10 wires
Mounting	Wall switch size, designed to mount and cover single-gang switch boxes primarily used in the Americas. It includes a slotted mounting plate for European and Asian back box spacing
Visual Indicator	LED line in Red / Green / Blue / Amber / Purple / White / Light Purple; user-defined LED ON / OFF time interval
Audio Indicator	Internal buzzer, user-defined beep sound ON / OFF time interval (ms)
Color	Black or White
Dimension	80mm x 130mm x 20mm
Product Weight	150g
Operating Voltage	9-16 VDC, Linear supply recommended
Operating Current	150mA AVG, 120mA PEAK
Operating Temperature	- 31° to 150° F (-35° to 65° C)
Storage Temperature	- 67° to 185° F (-55° to 85° C)
Operating Humidity	5% to 95% relative humidity non-condensing
Housing Material	Polycarbonate
Cable Distance	RS485 interface: 4000 feet (1200m), Wiegand interface: 500 feet (150m) Recommended cable is ALPHA 1295 (22 AWG) 5 conductor minimum stranded with overall shield or equivalent