

# MANTRA

# BioNIC Xtreme

## MULTI MODEL BIOMETRIC SYSTEM

Mantra Softech is a Global Hi-Tech Manufacturer of Biometric Products and Solutions.  
We offer a Wide Range of Products in Biometric and RFID Industry.





## MULTI MODEL BIOMETRIC SYSTEM

### Introduction

The BioNIC Xtreme series epitomizes the evolution of security technology, integrating a comprehensive suite of cutting-edge features for unparalleled protection. This groundbreaking series includes Facial Recognition (FR), Fingerprint scanning (FP), Breath Analyzer, Palm Vein recognition, and a Contactless Card at 13.56 MHz, creating a multifaceted approach to identity verification and access control.

What sets the BioNIC Xtreme series apart is its seamless connectivity through 4G LTE, enabling real-time monitoring and remote management. Whether securing critical facilities, ensuring safety compliance, or enhancing workplace access, these advanced devices empower organizations to embrace a new standard of security, making them the intelligent choice in today's security-conscious world.

### Main Features



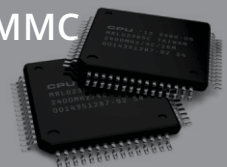
**Fingerprint Sensor**

**Dual RGB and Near Infrared Camera**

2 Million WDR Pixel Resolution



**2GB RAM + 16GB eMMC**



**Palm Vein Sensor**

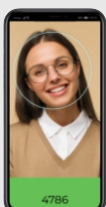
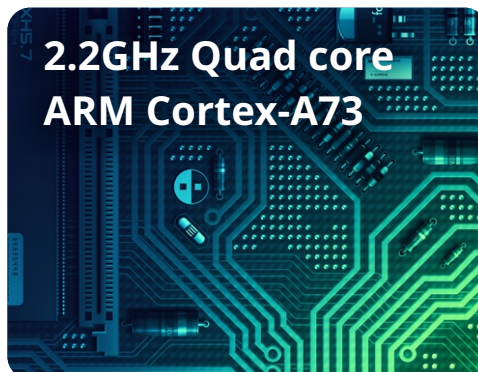


**ISO14443**

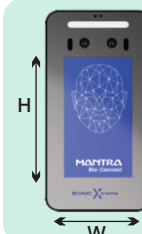
Type A/B Cards, Mifare Classic / Desfire



**2.2GHz Quad core ARM Cortex-A73**



**Liveness Check Passed**



**5 Inch, Vertical Screen H1080 \* W1920 Resolution**

Multi point capacitive touch screen with tuffen glass

## Specification



### Hardware & System

CPU	: 2.2GHz Quad core ARM Cortex-A73 and 1.8GHz dual core Cortex-A53
GPU	: ARM G52 MP4 GPU
Memory (RAM + Storage)	: 2GB + 16GB



### Display & Touch

Display	: 5 Inch, 1080X1920 Resolution, Full view IPS TFT Display
Touch	: Multi point capacitive touch screen with tuffen glass



### Binocular Wide Dynamic Camera (RGB + IR)

Camera Type	: Dual RGB and Near Infrared Camera
Pixel Resolution	: 2M (1920 x1080)
Frame Rate	: 30 FPS
Minimum Illumination	: 0.1 LUX
Dynamic Range	: 45dB Linear & 100 dB HDR supported for various light environment
Focus Distance	: 30 -150 cm
White Balance	: Auto
Photo Flood Light Support	: Visible & IR dual Flood Light : Live Face Detection



### Interface

Network Module	: 1x RJ45, 10M/100M
Wi-Fi / BT	: Supported
Audio	: Supported
HDMI	: 1 X HDMI
RS232	: 1 x RS232
RS485	: 1 x RS485
Wiegand Interface	: 1 x Output ; 1 x Input
Relay Interface	: 2 x Relay (NC, NO, COM)
Power Jack	: DC 12V/2A
GPIO's	: 5 X GPIO
RTC	: Supported



### Smart Card Reader

Contactless Card (Optional)	: ISO14443 Type A/B Cards, Mifare Classic / Desfire
-----------------------------	---



### Functions/Features

Face Detection	: Support multiple people detection and tracking
Face Database Capacity	: 20000 / 50000
1:N Face Recognition	: Supported (20K, 50K)
1:1 Face-matching	: Supported
Stranger Detection	: Supported
Face Recognition Accuracy	: Normal Light Condition > 99.9% External Light Condition > 95%
Liveness Detection	: Supported
Recognition Speed	: 300 ms

## Specification



### Software

Operating System : Customized Android  
 SDK : Appropriate SDK for all accessories to be provided for Android



### Fingerprint Sensor

Fingerprint Type : Scratch Free Optical Sensor  
 Fingerprint Image : 316 x 354 Pixels ( 16 x 18 mm )  
 Image Specs : 500DPI, 8 Bit Grayscale  
 Certifications : CE, FCC, RoHS, STQC, PIV, IEC60950, IS13252 Part I



### Palm Vein Sensor

Image Type : 256 Grayscale Levels  
 Optical Wavelength : 850 nm  
 Dynamic Range : 83 dB  
 CMOS : 1/2.7" HDR CMOS Sensor  
 Default Output Format : MJPEG  
 Distortion Rate : ≤1%  
 Field of View : Horizontal: 37°; Vertical: 48°; Diagonal: 58°  
 Image Resolution : 480W \* 640H  
 Maximal Frame Rate : 25 fps  
 Recognition Distance : 15 cm ~ 35 cm / 6 inch ~ 14 inch  
 SDK : Available  
 Certification : CE, FCC, RoHS, WHQL



### 4G Module

Sim Card Slot : Nano SIM card slot  
 Speed : 150Mbps Download/50Mbps Upload  
 Antenna support : 1\*4G Main , 1\*4G DIV ,1 X GPS  
 Transmission Rate : 150Mbps



### Grove - Alcohol Sensor

Detectable Concentration : 20-1000ppm  
 Response Duration : Fast response and resumes quickly after alcohol exposure

	Variants	Modalities
<b>BioNIC Xtreme Series</b>	BioNIC X1	FR + Contactless Card 13.56 MHz
	BioNIC X2	FR + 4G LTE
	BioNIC X3	FR + Palm Vein
	BioNIC X4	FR + FP + Breath Analyzer

# MULTI MODEL BIOMETRIC SYSTEM



## BioNIC X1 & X2

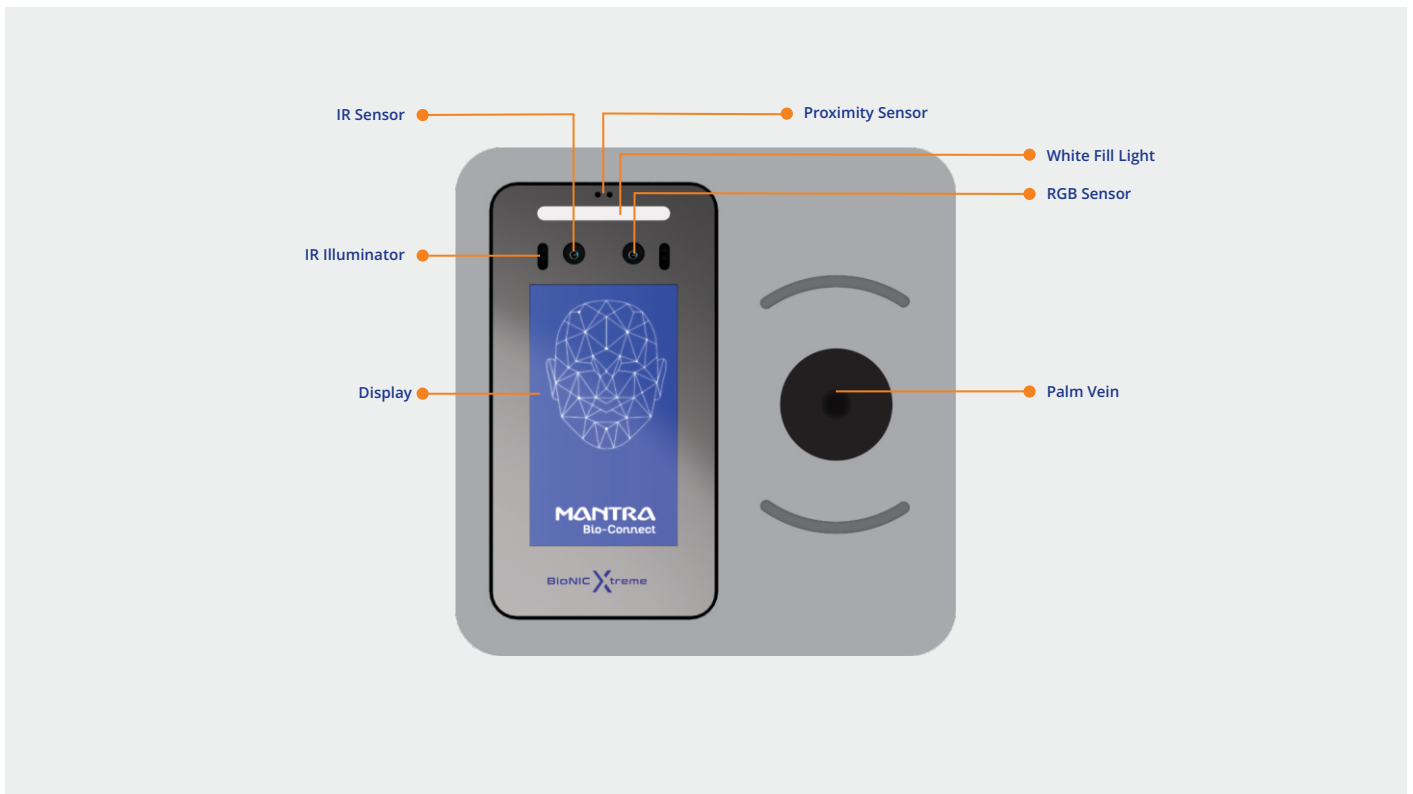
Introducing BioNIC X1 and BioNIC X2, two groundbreaking security solutions. BioNIC X1 combines Facial Recognition (FR) with a Contactless Card at 13.56 MHz, delivering robust access control. Meanwhile, BioNIC X2 takes security to the next level with FR and 4G LTE connectivity for real-time monitoring and management. Elevate your security infrastructure with these innovative solutions, designed to meet the diverse needs of modern security environments.



### General Parameter

Casing	: Light weighted oxidised aluminium alloy bottom enclosure for heat dissipation with ABS top enclosure
Protection Grade	: Dust Proof
Operating Temperature	: - 10°C~60°C
Storage Temperature	: - 20°C~60°C
Operating Humidity	: 10%-90% RH (Non-Condensing)
Dimensions	: 185.0 x 97.0 x 30.5 mm
Weight	: Approx 500 gm
Mounting Type	: Wall Mount
Certifications	: CE, RoHS, BIS, IP65, IK05
Operating System	: Customized Android, Linux
SDK	: Appropriate SDK for all accessories to be provided for Android, Linux

# MULTI MODEL BIOMETRIC SYSTEM



## BioNIC X3

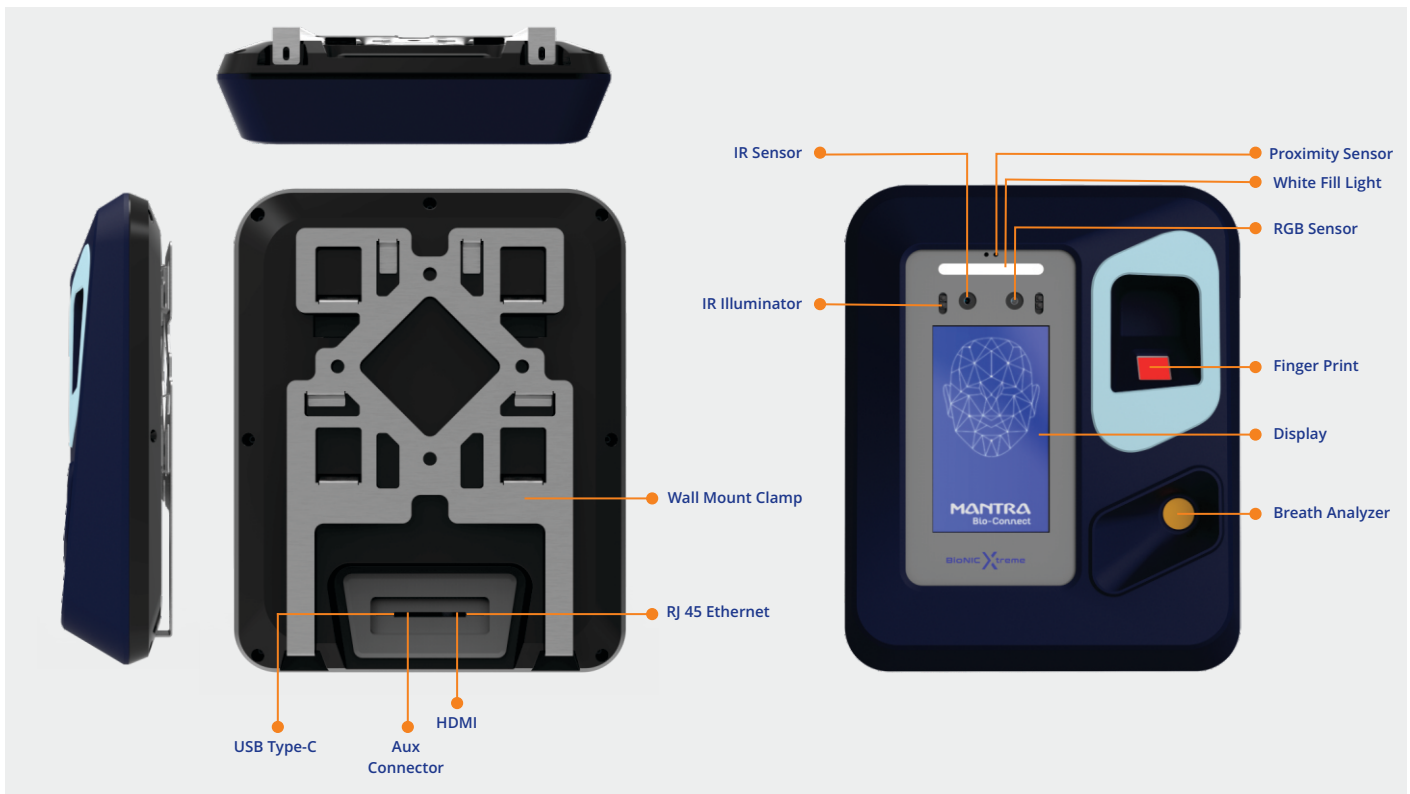
Meet the cutting-edge BioNIC X3, a revolutionary biometric security solution that seamlessly combines Facial Recognition (FR) with state-of-the-art Palm Vein technology. With X3, you can ensure the utmost security and accuracy in identity verification. Its advanced features provide an unparalleled level of protection, making it the ideal choice for organizations and individuals who demand the highest standards of security in today's fast-paced world. Elevate your security measures with BioNIC X3 and experience the future of biometric authentication.



### General Parameter

Casing	: ABS top enclosure & aluminium bottom enclosure
Protection Grade	: Dust Proof
Operating Temperature	: - 10°C~60°C
Storage Temperature	: - 20°C~60°C
Operating Humidity	: 10%-90% RH (Non-Condensing)
Dimensions	: 200 x 200 x 48 mm
Weight	: Approx 1Kg
Mounting Type	: Wall Mount
Certifications	: CE, RoHS

# MULTI MODEL BIOMETRIC SYSTEM



## BioNIC X4

Experience the pinnacle of security technology with BioNIC X4. This groundbreaking device combines the trifecta of advanced biometric authentication methods: Facial Recognition (FR), Fingerprint scanning (FP), and a state-of-the-art Breath Analyzer. X4 ensures not only the highest level of identity verification but also enhances safety by detecting alcohol levels in real-time, making it an ideal choice for industries prioritizing both security and safety. Elevate your security infrastructure with BioNIC X4.



### General Parameter

Casing	: ABS top & bottom enclosure
Protection Grade	: Dust Proof
Operating Temperature	: - 10°C~60°C
Storage Temperature	: - 20°C~60°C
Operating Humidity	: 10%-90% RH (Non-Condensing)
Dimensions	: 271 x 220 x 57.5 mm
Weight	: Approx 1Kg
Mounting Type	: Wall Mount
Certifications	: CE, RoHS

# MANTRA

[www.mantratec.com](http://www.mantratec.com)



**MANTRA**

[www.mantratec.com](http://www.mantratec.com)

Support : [servico@mantratec.com](mailto:servico@mantratec.com)

Sales : [sales@mantratec.com](mailto:sales@mantratec.com)

Copyrights Mantra Softech (India) Pvt Ltd. All Rights Reserved.