

INTEGRATED BARCODE & NFC READING · 680 × 480 IMAGE SENSOR · 4 MIL · NFC 0–40 mm · 61.5 × 65 × 18.5 mm

F42-NFC

NFC Scan Module

Integrated Barcode & NFC Reading

Resolution ≥ 4 mil

680 × 480 CMOS

NFC 0–40 mm · 13.56 MHz

20 g

USB · TTL-232 · RS-232

01 High-Performance Decoding

A self-developed decoding core reads barcodes of every kind quickly. Barcode scanning and NFC card reading are designed as one module, so a single unit handles both.

02 High Integration

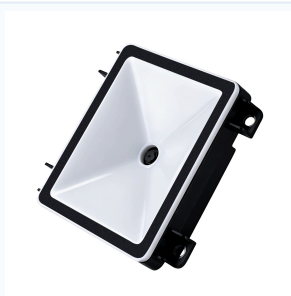
Decode board and camera are integrated into one design that fits a wide range of products; the compact structure shortens the customer's development cycle.

03 Flexible Host Interfaces

USB (HID, CDC, HIDPOS), TTL-232 and RS-232 interfaces cover mainstream host boards and embedded platforms.

04 Modular Design

The camera can be changed to meet the requirements of each project, and both scanning and NFC behaviour are configurable.



45° view



Rear interfaces



Side profile

TYPICAL VERTICALS

F42-NFC embeds directly into **access-control gates, smart lockers, self-service kiosks, retail POS terminals, identity-verification terminals and logistics sorting equipment**. One module reads both the barcode and the 13.56 MHz card, so no second reader and no extra cabling are needed.

F42-NFC NFC Scan Module

PRODUCT FEATURES

- **Integrated barcode & NFC reading** — barcode scanning and 13.56 MHz card reading in one module
- **Host interfaces** — USB (HID, CDC, HIDPOS), TTL-232 and RS-232
- **Compact footprint** — 61.5 × 65 × 18.5 mm, 20 g, Ø3.5 mm mounting holes
- **Proprietary decoding core** — fast reading of dense, damaged and low-contrast codes
- **NFC read range** — 0–40 mm, with S50, S70, NTAG and MIFARE card support
- **Configurable design** — camera and NFC behaviour selectable per project

READING PERFORMANCE

Image Sensor	680 × 480 CMOS
Illumination	White LED
Resolution	≥ 4 mil
Print Contrast Signal (PCS)	≥ 20%
Field of View (FOV)	74.8° (H) × 46.2° (V)
Pitch / Skew / Tilt	±50° / ±50° / 360°
Ambient Light Immunity	0–100,000 lux
User Indicators	Beeper / blue LED

DEPTH OF FIELD (DOF)

EAN-13 (13 mil)	25–150 mm
QR Code (15 mil)	25–140 mm
QR Code, payment (15 mil)	45–200 mm
PDF417 (6.67 mil)	40–90 mm

SUPPORTED SYMBOLOGIES

1D	Code 128, EAN-13, EAN-8, Code 39, Code 93, Code 11, UPC-A, UPC-E, Codabar, ITF, ISBN, UCC/EAN-128, GS1 Databar, Matrix 2 of 5, Industrial 2 of 5, Standard 2 of 5, Plessey, MSI-Plessey
2D	PDF417, QR Code, Micro QR, Data Matrix, Aztec, MaxiCode, HanXin, Grid Matrix, Code16K, Code49

NFC PERFORMANCE

Read Range	0–40 mm
Antenna Frequency	13.56 MHz
Supported Cards	S50, S70, NTAG 213, NTAG 215, MIFARE-UltraLight, Fudan M1, DESFire EV1 / EV2 / EV3, MIFARE Plus 2K / 4K, SR176, ISO 15693

ELECTRICAL

Host System Interfaces	USB (HID, CDC, HIDPOS), TTL-232, RS-232
Input Voltage	DC 3.3–5.5 V
Operating Current	300 mA @ 5 V
Power Consumption	1.5 W (typical)

PHYSICAL

Dimensions	61.5 × 65 × 18.5 mm
Weight	20 g
Mounting Holes	Ø3.5 mm Hole pitch 44.2 mm × 58.2 mm

ENVIRONMENTAL

Operating Temperature	–20 °C to +50 °C
Storage Temperature	–40 °C to +60 °C
Humidity	5–95% RH, non-condensing
Accessory	USB cable
Warranty	2 years

HOST INTERFACE

USB (HID, CDC, HIDPOS), TTL-232 and RS-232 are all provided, and a USB cable is included in the box.

MOUNTING

Ø3.5 mm mounting holes on a 44.2 × 58.2 mm pitch fix the module to a panel or enclosure.

POWER

A single 3.3–5.5 V DC supply at 300 mA typical feeds the scan engine and the 13.56 MHz NFC reader.