iDTRONIC
PROFESSIONAL RFID

MOBILE RFID
C9 RED

RFID UHF HF | NFC LEGIC | LF	2D Barcode	((4G)) 4G | GSM	GPRS	Bluetooth	
WI-FI	Touchscreen Fingerprint	IP65	13 MP	Android 13	

PRODUCT DESCRIPTION

The powerful C9 RED is a true revolution in rugged handheld computing. Its 5.5 inch touch screen together with resolution of 720*1440 display shall match high standards in logistics, express and retail.

Capable of capture, extract, and analyze data in extrem and remote environments with its IP65 housing and a operating time of up to 8 hours*, the iDTRONIC handheld computer is perfectly suitable for field applications such as aviation, public safety, construction, field sales and the maintenance sector.

The Android™ 13 - powered C9 RED operates on a high performance Cortex A53 2.0 GHz octa-core processor with 3 GB RAM/32 GB ROM memory (Optional: 4 GB RAM/64 GB ROM). The device is only 20.4 mm thick and weights just 400 grams including battery and wrist strap.

A variety of handheld configurations with different barcode modules are available. The C9 RED is available with UHF: 865 – 868 MHz / 920 – 925 MHz, HF | NFC: 13.56 MHz, only NFC (13.56 MHz), LEGIC (13.56 MHz) or LF: 125 or 134.2 kHz. It can be combined with an 2D Barcode imager which allows easy inventory control and reporting. Thanks to the built-in 13 megapixel rear camera with Auto-focus lens + LED flash and a 5 megapixel front camera, damage reporting in the maintenance area never have be easier.

The C9 Red from iDTRONIC offers connectivity wherever you need it. It features double insurance of 4G & WIFI network and highly secured Android 10.0 system shall provide the high speed data communication and perfect security guarantee. Beside the hardware, the C9 RED product family offers an extensive range of documentation, accessories and warranty extensions that support your business applications in the best way.

* battery power varies per product, duration and application

▶ APPLICATIONS

- Logistics Applications
- Access Control
- Asset Tracking
- Maintenance

▶ FEATURES

- UHF, HF, NFC, LEGIC or LF Reader
- Optional: 2D Barcode Reader
- 5.200 mAh Battery*
- Android™ 13 "Tiramisu"
- 4G LTE | Bluetooth | WiFi
- 5.5" Gorilla Glass Touchscreen
- 13 MP Rear | 5 MP Front Camera
- Autofocus with LED Flash
- IP65 Protection Class
- Android Studio or Eclipse
- SDK Included

▶ RFID OPTIONS

- UHF (EPC C1 GEN2 | ISO 18000-6C)
- HF (ISO 14443 A, ISO 15693)
- NFC (NFC-IP1, NFC-IP2)
- LEGIC (13.56 MHz)
- LF (125 kHz | 134.2 kHz)

TECHNICAL DATA

PHYSICAL CHARACTERISTICS

Dimensions	170.8 × 81 × 20.4 mm ±2 mm
Weight	400 g (including battery & wrist strap)
Display	Though 5.5 in. TFT-LCD (720 × 1440) Touch screen with backlight
Backlight	LED backlight
Expansions	2 PSAM, 2 SIM, 1 TF
Battery	Rechargeable li-ion Polymer 3.8 V, 5.200 mAh*
Camera	Rear 13 megapixel, front 5.0 megapixel Auto-focus with LED flash

PERFORMANCE CHARACTERISTICS

CPU	Cortex A53 2.0 GHz octa-core
Storage	3 GB RAM | 32 GB ROM or 4 GB RAM | 64 GB ROM, MicroSD (max 265 GB expansion)

USER ENVIRONMENT

Operating Temperature	−20 °C to +50 °C
Storage Temperature	−20 °C to +70 °C
Humidity	5% RH to 95% RH (non-condensing)
Drop Specifications	5ft./1.5 m drop to concrete across the operating temperature range
Protection Class	IP65, IEC compliance
ESD	±15 kv air discharge, ±8 kv direct discharge

PROGRAMMING ENVIRONMENT

Operating System	Android™ 13 "Tiramisu"
SDK	Online available
Language	Javascript
Environment	Android Studio or Eclipse

COMMUNICATION

WLAN	2.4 GHz/5.0 GHz Dual Frequency, IEEE 802.11 a/b/g/n/ac
WWAN	TDD-LTE Band: 38,39,40,41 FDD-LTE Band: 1,2,3,4,7,17,20 WCDMA (850/1900/2100MHz) GSM/GPRS/Edge (850/900/1800/1900MHz)
WPAN	Bluetooth Class v2.1+EDR, Bluetooth v3.0+HS, Bluetooth v.4.2
GPS	GPS (embedded A-GPS), accuracy up to 5 m

* battery power varies per product, duration and application
**reading range depending on tag, tag orientation and environmental conditions

2D BARCODE IMAGER

**Honeywell N6703 2D Scan Engine
Newland NLS-CM60/Newland NLS-N1**

Symbologies	PDF417, MicroPDF417, Composite, RSS, TLC-39, Datamatrix, QR code, Micro QR code, Aztec, MaxiCode, Postal Codes, US PostNet, US Planet, UK Postal, Australian Postal, nJapan Postal, Dutch Postal. etc.

RFID READERS

	UHF	HF	NFC	LEGIC	LF
Frequency	865 – 868 MHz | 920 – 925 MHz	13.56 MHz			125 kHz 134.2 kHz (FDX-B/HDX)
Protocol	EPC C1 GEN2 / ISO 18000-6C	ISO 14443A, 15693	NFC-IP1, NFC-IP2	LEGIC Prime, LEGIC Advant	ISO 11784 ISO 11785
Antenna Gain	Circular (2 dBi)	-			-
Reading Ranges	up to 2 m**	2 to 5 cm**			2 to 10 cm**

SUPPORTED STANDARDS | TAGS

ISO 18000-6C	Standard ISO 18000-6C (EPC Class 1 Generation 2) E.g.: Alien Higgs 2/3/4, Impinj Monza, NXP UCODE, etc.
ISO 14443 A and compatible	Read/write: MIFARE® DESFire®EV1 2K / 4K / 8K, MIFARE® Classic Mini / 1K /4K, MIFARE Ultralight®, MIFARE Ultralight® C, MIFARE® Plus S / X, MIFARE® Pro X, NTAG 21x Read UID only: all other ISO14443A RFID tags
ISO 15693 and compatible	EM4135, EM4043, EM4x33, EM4x35, I-Code SLI / SLIX, M24LR16/64, TI Tag-it HF-I, SRF55Vxx (my-d vicinity)
LEGIC	LEGIC RF-Standard: Full read/write operation: LEGIC Advant; LEGIC Prime Read UID only (SM4200 chip): MIFARE family (Classic, Mini, DESFireEV1, Plus S/X, Pro X, Smart MX, Ultralight, Ultralight C), Infineon SLE, NTAG21x Read UID only: EM4x33, EM4x35, I-Code SLI/SLIX, M24LR16/64, Infineon SRF55Vxx (my-d vicinity), TI Tag-it HF-I, reads UID/CSN of Inside Secure tags, e.g. HID iCLASS ISO 18092 / NFC: Passive peer-to-peer mode initiator, NFC Tag 2, 3, 4 Sony Felica: Encryption not supported
LF: 125 kHz	EM4100, EM4200, Atmel Temic 5577, NXP Hitag 1, Hitag 2, Hitag S2048
LF: 134.2 kHz	FDX-B, HDX

PSAM SECURITY (OPTIONAL)

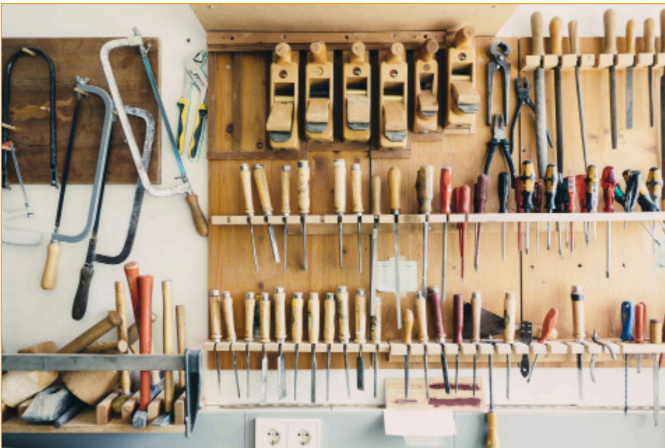|	
Protocol	ISO 7816
Baudrate	9600, 19200, 38400,43000, 56000, 57600, 115200

APPLICATION EXAMPLES

ACCESS CONTROL

Access controls are widespread nowadays. Public organizers, sports events or trade fairs use this technology.

The identification of trade fair visitors and exhibitors on the basis of the trade fair pass can be easily determined by the powerful RFID scanner.

Especially with weather-related outdoor use in front of exhibition halls, the device withstands no problems thanks to its IP65 protection class. Temperature fluctuations do not affect the C9 RED from -20 to +50 ° C.

ASSET TRACKING

The tracking and assignment of assets within industrial applications is important. In automatical processes the right asset has to be identified fast for a specific procedure. Also it has to be available.

The C9 RED identifies the assets availability with it's RFID immediately. The data like usage time and lifecycle will get automatically tranferred to the external data server for statistics.

This increases the workflow and the efficiency of the respective process. The assets are always available and ready for use.

MAINTENANCE

Maintenance processes within workshops have to be organized conscientious. Customer inquries for workshop appointments have increased in the last years.

The tracking of the parts, accessories, etc have to be on the right place at the right time. Availability must be guaranteed.

The C9 RED identifies with the serial number of the device the right part or accessoirce and thus ensures a smooth maintenance process.

The customer satisfaction will be increasing.

PRODUCT PICTURES

ORDER CODES

VERSIONS	ORDER CODES
Mobile RFID C9 RED - UHF	R-HH-C9R-UHF
Mobile RFID C9 RED - HF	R-HH-C9R-HF
Mobile RFID C9 RED - NFC	R-HH-C9R-NFC
Mobile RFID C9 RED - LEGIC	R-HH-C9R-LEGIC
Mobile RFID C9 RED - LF: 125 kHz	R-HH-C9R-LF
Mobile RFID C9 RED - LF: 134.2 kHz	R-HH-C9R-134

BARCODE OPTIONS	ORDER CODES
Mobile RFID C9 RED - 2D Barcode Scanner	R-HH-C9R-2D

ACCESSORIES	ORDER CODES
Mobile RFID C9 RED - Desktop Cradle	R-HH-C9R-DTC
Mobile RFID C9 RED - USB-C Data Cable	R-HH-C9R-PSC
Mobile RFID C9 RED - Wall Power Supply	R-HH-C9R-POS
Mobile RFID C9 RED - Standard Battery	R-HH-C9R-PSC