iDTRONIC
PROFESSIONAL RFID

Handheld Computer
C4 RED

FEATURES

- Android 7.0 (Optional 5.1.1)
- Large 5.0" TFT-LCD
- Gorilla Glass 3 Screen
- Li-Ion Polymer Battery
- Wi-Fi/Bluetooth/GSM/GPS/3G
- 1D/2D Barcode Reader Optional
- Rear 8 MP Camera
- Optional Fingerprint Reader
- Optional PSAM Security
- ETSI & FCC Frequencies (UHF)
- IP65 Protection Class
- SOTI MobiControl

RFID OPTIONS

- **UHF** (EPC C1 GEN2 / ISO 18000-63)
- **HF** (ISO 14443A, ISO 15693)
- **LEGIC** (13.56 MHz)
- **LF** (125 kHz or 134.2 kHz)

PRODUCT DESCRIPTION

The C4 Red is the first professional mobile terminal on the market with Android.

It also supports Googles Mobile Device Management (MDM) system: "Android for Work" and all other Enterprise Mobile Management (EMM) systems.

The combination of the common smartphone technique (high class built-in camera, touch display with Gorilla Glass protection) and an industrial grade device, that last for years, thanks to the IP65 protection, makes the handling easy and long lasting.

The Data Connectivity for different environments and application scenarios (Fast and reliable cellular & Wi-Fi Connections) makes working in changing locations easy to handle. With support of 4G LTE and Dual Frequency Wi-Fi (2.4 GHz & 5.8 GHz) you can speed your work speed up to highspeed.

A world class data capturing with different Barcode (Honeywell and Newland 2D Imagers) & RFID options simplifies your work process. The working range of RFID is extraordinary with up to 1.5 meters (UHF: 865 – 868 MHz / 902 – 928 MHz, up to 150 cm (59"), HF: 13.56 MHz, up to 8 cm (3.15"), LEGIC: 13.65 MHz & LF: 125 kHz or 134.2 kHz, up to 8 cm (3.15")).

Unique on the market, the C4 Red offers a dual RFID feature that can optionally read out not just one, but two RFID frequencies (e.g., UHF & HF)!*

Simplify your solutions with various ways of direct data input. Not only that you can use the display for input, but also Keyboard Emulation, hardware buttons and scanning via RFID & Barcode options.

The C4 Red is equipped with the Mobile Management Application SOTI MobiControl Communications. SOTI MobiControl is an Enterprise Mobility Management Solution. The SOTI MobiControl System is intended to simplify the management of our C4 Red.

The industry comprehensive development package includes Android Studio & Eclipse Sources + Demo Apps for all RFID & Barcode Options.

*no Barcode option possible if Dual-RFiD is used

RFID	1D/2D Barcode	GSM/3G/4G	GPS	Bluetooth	Wi-Fi	Touch Screen	IP65	Camera	Android OS

APPLICATION EXAMPLES
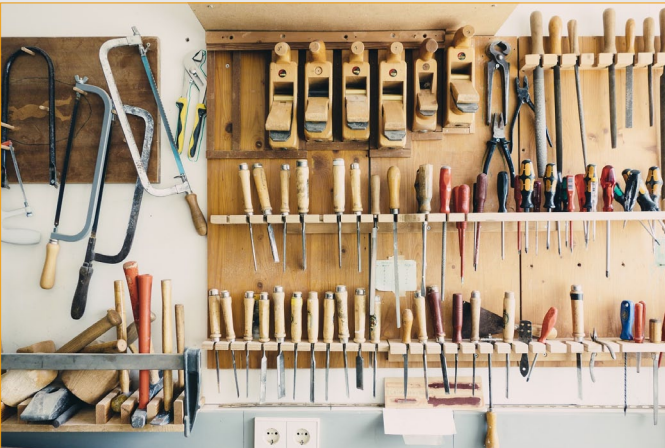
ACCESS CONTROL (*LEGIC FUNCTION*)

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 LEGIC 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 C4 Red LEGIC 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 C4 Red identifies the assets availability with it's RFID scanner 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 C4 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.

TECHNICAL DATA

PHYSICAL CHARACTERISTICS

Dimensions	Standard: 170 × 85 × 23 mm Extended LF-Antenna: 232× 85 × 23 mm Extended Battery: 170 × 85 × 35 mm
Weight	Net 370 g (includindg battery & wrist strap)
Display	Gorilla Glass 3 9H 5.0 in. TFT-LCD (720 × 1280) touchscreen with LED backlight
Keypads	3 TP keys, 6 function keys, 4 side buttons
Expansions	2 PSAM, 1 SIM, 1 TF
Battery	Standard: Rechargeable li-polymer, 3.7 V, 4500 mAh Extended: Rechargeable li-polymer, 3.7 V, 8000 mAh

PERFORMANCE CHARACTERISTICS

CPU	Quad A53 1.3 GHz quad-core
RAM/ROM	2 GB	16 GB
Storage	MicroSD (max. 32 GB expansion)

PROGRAMMING ENVIRONMENT

Operating System	Android 7.0 „Nougat" (Optional 5.1.1 „Lollipop")
Mobile Management	Android for Work, SOTI MobiControl Communications

USER ENVIRONMENT

Operating Temp.	-20 °C to 50 °C / -4 °F to 122 °F
Storage Temp.	-20 °C to 70 °C / -4 °F to 158 °F 10% - 90%RH (Non-condensing)
Drop Specifications	1.5 m / 5 ft. drop to concrete across operating temperature range
ESD	±15 kv air discharge, ±8 kv direct discharge
Sealing	IP65

COMMUNICATION

WLAN	2.4 GHz/5.8 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 v4.0
GPS	GPS (embedded A-GPS), accuracy of 5 m

1D | 2D BARCODE READER (OPTIONAL)

1 D laser engine	Symbol SE955
Symbologies	All major 1D barcodes
2D CMOS Imager	Honeywell N6603
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, Japan Postal, Dutch Postal.etc.

CAMERA

Resolution	8.0 megapixel
Lens	Auto-focus with LED flash

FINGERPRINT READER (OPTIONAL)

Sensor / Type	TCS1CT/ Capacitive, area sensor
Resolution	508 DPI
Performance	FRR<0.008 %, FAR<0.005 %
Capacity	1000

PSAM SECURITY (OPTIONAL)

Protocol	ISO 7816
Baudrate	9600, 19200, 38400,43000, 56000, 57600, 115200
Slot	2 slots (maximum)

RFID READERS

	UHF	HF	LF	LEGIC
Frequency	865 – 868 MHz / 902 – 928 MHz	13.56 MHz	125 kHz or 134.2 kHz	13.56 MHz
Protocol	EPC C1 GEN2 / ISO 18000-6C	ISO 14443A ISO 15693	ISO 11784 ISO 11785	ISO14443A+B and compatible / ISO15693 and compatible / ISO18092/NFC
Antenna Gain	Circular antenna 2 dBi	-	-	-
R/W Range	Up to 1.5 meters (tags and environment dependant)	Up to 8 centimeters	Up to 8 centimeters	

SUPPORTED STANDARDS | TAGS

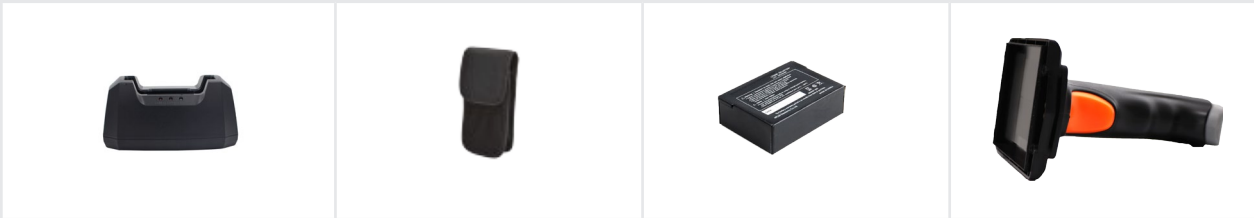|	
ISO 18000-6C	Standard ISO 18000-6C (EPC Class 1 Generation 2) E.g.: Alien Higgs 2/3/4, Impinj Monza, NXP UCODE, etc.
ISO 14443 A and compatible	Read/write: MIFARE® DESFire®EV1 2K / 4K / 8K, MIFARE® Classic Mini / 1K /4K, MIFARE Ultralight®, MIFARE Ultralight® C, MIFARE® Plus S / X, MIFARE® Pro X, NTAG 21x Read UID only: Read UID only of 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)
ISO 11784	ISO 11785	Read only: EM4100 and EM4200
LEGIC	LEGIC RF-Standard: Full read/write operation: LEGIC Advant; LEGIC Prime Read UID only: 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

PROGRAMMING ENVIRONMENT

SDK	Handheld-Wireless Software Development Kit
Language	Java
Environment	Android Studio or Eclipse

ACCESSORIES (OPTIONAL)

Desktop Cradle USB	Carrying Case	Spare Battery	Pistol Grip**

PRODUCT VERSIONS

Version with Keypad

Version with optional Fingerprint Reader

Version with Extended LF-Antenna**

Version with Extended Battery**

ORDER CODES

VERSIONS	ORDER CODES
C4 Red UHF ETSI (865 – 868 MHz)	R-HH-C4R-UHF
C4 Red UHF FCC (920 – 925 MHz)	R-HH-C4R-UHF-FCC
C4 Red HF (13.56 MHz)	R-HH-C4R-HF
C4 Red LEGIC (13.56 MHz)	R-HH-C4R-LEGIC
C4 Red LF (125 kHz)	R-HH-C4R-LF
C4 Red LF (134.2 kHz)	R-HH-C4R-134

BARCODE OPTIONS	ORDER CODES
1D Barcode Scanner	xx-1DBC
2D Barcode Imager	xx-2DBC
Fingerprint Reader	xx-FPR

ACCESSORIES	ORDER CODES
Desktop Cradle USB	R-HH-C4R-DTC
Spare Battery	R-HH-C4R-PS

For further information & prices, please contact info@idtronic-rfid.com