

Mobile Computing at its best



- Aluminium core for maximum stability, IP 65
- Telephony/GSM/GPRS/WLAN/Bluetooth
- Scanner/RFID reader/card reader
- GPS navigation, camera
- Two serial interfaces, USB and Infrared
- Standard long-life rechargeable battery

The RFID  perts

Your partner for mobile business



The t+t netcom handheld series **tt8000 Premium Line** provides highest quality mobile equipment. The tt8000 series complies with the **IP 65 standard** and is thus suitable for use under the toughest conditions. The **powerful Freescale i.MX21 processor** is an **energy-saving** device which guarantees highest processing speeds and above-average durability.

The basic model in the tt8000 Premium Line is equipped with **512 MB ROM storage**, **two serial interfaces** and **one USB interface**, an **MMC** and an **SD card slot** (SDIO Standard), an integrated **megapixel camera**, the **VOIP option** (voice over IP) as well as the proven standard features common to all t+t netcom series, such as bevelled-edge keys with safety release, a ribbed-surface housing and a backlit keypad.

The devices in the **tt8000 - Communicator** - series are equipped with a powerful GSM modem and can be used for **GPRS data transmission** and as a **mobile phone**. They have a built-in microphone and speakers.

The integrated **GPS module** (optional) always shows you the right direction.

It is not necessary to purchase a new unit if you wish to extend the range of mobile applications; supplementary modules are available. **Scanner, imager, RFID reader** or **chip card reader** can all be integrated into the unit or the BackPack.

- ♦ The integrated aluminium core guarantees maximum stability and breaking resistance
- ♦ GSM/GPRS modem with Easy-GPRS communication *
- ♦ Telephony / GSM / GPRS / WLAN / scanner/ RFID reader all in one housing *
- ♦ Two serial interfaces, freely programmable, USB and IrDA included in the standard configuration
- ♦ SD card and CF card slot included in the standard configuration
- ♦ Modular configuration, subsequent upgrading or extension possible
- ♦ Long-life rechargeable battery
- ♦ Customised software with all options in the Windows CE® range

(* basic configuration tt8000C)

Perfect ergonomics and easy handling

The non-reflective colour display is clearly legible in all conditions of use.

The lateral ribbed structure guarantees non-slip handling of the device. Raised center ridges prevent the accidental operation of key buttons.

The slanted key buttons in the lower row prevent malfunction and early wear-and-tear when the device is pushed in a pocket frequently.

Standard function keys are freely programmable and offer easy operating for any application.

Upgradability and hardware add-ons

The unique BackPack solution enables the additional use of many different expansion modules.

The BackPack accepts almost any board (as long as it doesn't exceed the housing dimensions). For example, RFID readers, GPS modules (incl. antenna) as well as magnetic or chip card readers from different manufacturers can be integrated in addition to barcode scanners. The biggest advantage of the BackPack concept is the independence of the basic device. Using the BackPack kit the device can be extended at any time to meet subsequent upgrading requirements in mobile computing. No devices have to be replaced; the existing devices can be extended by using the BackPack. This guarantees the highest level of flexibility with low investment costs.



Working at its best

tt8000



Camera and Imager

The **integrated camera** or **imager** can recognise photos, identity papers or documents with high resolution and read data by using OCR directly on the mobile device or pass them to a central computer for checking.



Scanner and RFID reader

The tt8000 accepts a wide range of scanners in accordance with storage requirements.

The option **Powerscan** is equipped with a long-range laser scanner which can read barcodes from a distance of up to about 8 metres (depends on barcode quality and surrounding conditions).

If the warehouse goods are already equipped with **transponders**, different **RFID readers** can be integrated.

The tt8000 can accept both technologies if in use in the warehouse. In addition to the various **scanners**, a **RFID reader** can be integrated in the same device.

Chip/Magnet card reader

The tt8000 is the essential assistant for all courier, express, post and delivery services.

Direct on-the-spot payment is guaranteed by means of the **integrated magnetic card and/or chip card reader**.

The reader reads 3 stripes at once and so allows to work with EC cards which need stripe 1 and 2, but also with Credit cards where the information is written on stripe 2 and 3.

The chip card reader works according to the ISO standards, so it's possible to read all typical chip cards in the field and not only payment cards. It's possible to communicate with T0 and T1 standard protocols.



GPS navigation

In-car or outside navigation is easy with the tt8000 series whose internal **GPS receiver** provides navigation without the need for external peripherals. Geo-positions away from the road are easily captured, for example, monitoring industrial plants, tracking containers and vehicles in large car parks. The navigator is also essential for applications in agrarian and forestry areas, which are not recorded on maps.

In the car the internal **GPS receiver** can be used or an **external GPS mouse** can be connected directly or via the installed cradle.

Standard navigation systems such as Map & Guide, Navigon or Tom Tom take care of routing. The tt8000 navigator pinpoints routes and positions.



Handheld Series tt8000

Technical specifications



Operating system

Windows CE.NET® Version 5.0 Professional

Processor

CPU Freescale i.MX21 350 MHz

Memory

ROM 512 MB NAND Flash **

RAM 64 MB SDRAM

Additional memory 1 x Compact Flash card, 1 x SD/MMC card

Display

Touchscreen 3.5" Sharp TFT-LCD with LED backlight, 240 x 320 pixel, 65536 colours

I/O unit

Keyboard Matrix (23 keys)

Touchscreen with stylus

Interfaces

2 serial 1 x RS232 (COM1), 1 x 3,3 V level (COM5)

Infrared 1 x IrDA 1.2 (SIR)

USB Host or device (to be configured via cable)

Mobile communication GSM/GPRS Quadband Modem *

WLAN (CF 802.11 b/g)

Bluetooth

SD/MMC slot SDIO supported

Audio

AC 97 Codec Integrated loudspeaker and microphone, VOIP

Slots

SD/MMC 1 x

Compact Flash 1 x

Rugged standard

IP 65 protected against splashing water and dust

Drop test 1.5 m on concrete, all 6 sides

Power supply

Rechargeable battery

Backup battery

Power adaptor

Li-Polymer, high-capacity

Li-Ion-Cell (rechargeable)

DC 6 V / 3500 mAh with power control on handheld

Housing

Size 214 x 90 x 47 mm (L x W x D)

Weight 490 g (without battery)

Working temperature -10° up to +55° C (bearing -20° up to +70° C)

Integrated modules

Scanner

laser scanner for barcode

RFID reader

RFID 125 KHz and 13,56 MHz

Card reader

magnetic card and/or chip card

Camera

1,3 MPixel

focus: 10 - 90 cm (manual)

Imager

2D, barcode and photo

GPS receiver

20 channel receiver, SIRF Star III

External connections

Printer

RS232, IrDA or Bluetooth

GPS mouse

RS232 via cradle

Accessories

Sync. and power cable

BackPack

Hand strap with stylus

BeltBag

Cradle for desktop and vehicle

Powerscan with long-range laser scanner and additional battery Li-Ion 3,6 V / 2000 mAh

* basic configuration tt8000C
** depending on model

Handheld Series tt8000

The best orientation of the PDA to read LF GLASS TAG, LF DISC TAG and HF ISOCard
you can see in the following pictures:

LF GLASS TAG vertical to PDA head



LF DISC TAG parallel to PDA head



HF ISOCard or other HF TAG
parallel to BackPack



UHF - Ultra High frequency - 868MHz

For the UHF readers a special hand strap in which the UHF antenna finds its place was developed .
Placing the antenna outside of the BackPack guarantees an optimal readability without lowering the ease of use.

50mW (for TPP-80-tt8000 provides about 0,5 ...1 m read range*)

200mW (for TPP-80-tt8000 provides about 1,5 ...2 m read range *which depends always from the environment)



tt8000 with black BackPack and ext. UHF antenna in the big hand strap