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Windows®  
Embedded Compact 7

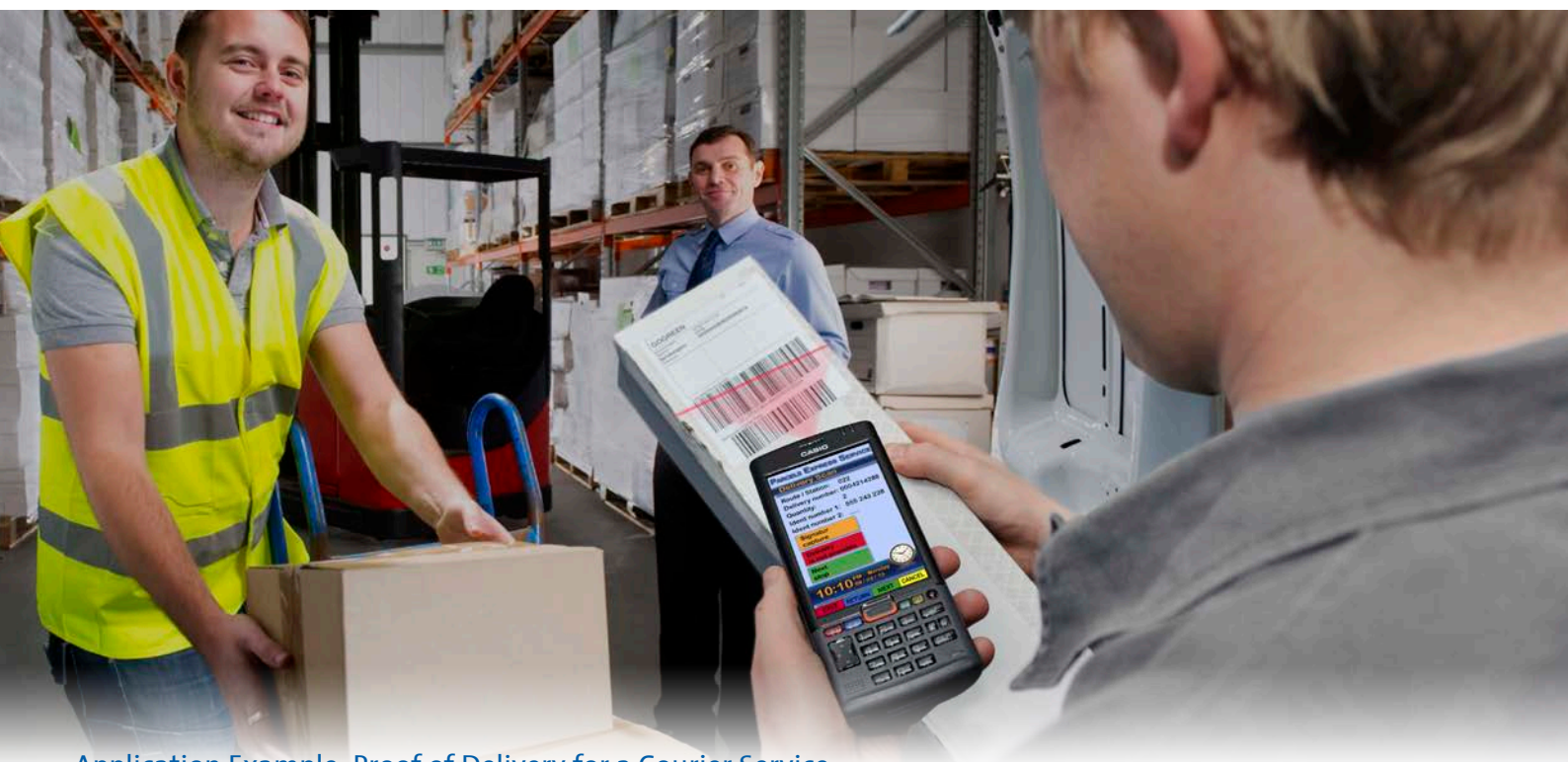


# All-in-One

The High-Spec Handheld Device for all Applications







#### Application Example: Proof of Delivery for a Courier Service

Using the CASIO IT-G500, the delivery agent is able to scan the identification code of the delivered packages quickly and securely. The built-in scanner and the three trigger buttons allow the operator to work comfortably and effortlessly at all times. The device vibrates noticeably to confirm that the scan has been performed successfully. This closes the data capture process. Then the customer can confirm the receipt by providing a signature on the display.

## A Robust All-in-One Handheld Device

The CASIO IT-G500: Extremely robust, comfortably ergonomic and just as high-performance as it is multifunctional!

#### The Device at a Glance:

- Large 4.3" touchscreen (WVGA: 480 x 800 pixels)
- Lightweight at 270 g, with an IP67 protection rating and the ability to withstand drops from heights of up to 1.5 m
- Ergonomic housing design that is extremely easy to hold
- Windows® Embedded Handheld 6.5 or Embedded Compact 7
- ARM® Cortex® A9 dual-core processor (1.5 GHz)
- 3G communication functionality (HSPA and UMTS) and GPS
- WLAN IEEE 802.11 a/b/g/n and Bluetooth™
- Digital camera (5 MP) with LED flash
- Built-in RFID/NFC reader
- High-speed laser scanner or 2D CMOS imager, angled by 25° for enhanced ergonomics



## The Best of Both Worlds

The best features from two proven product lines and innovative new developments have been combined to create the CASIO IT-G500. The device is convenient to use, features an excellent 4.3" touchscreen display and achieves the highest levels of performance and durability – all-in-one!

The various ranges of CASIO business handheld products are renowned for comfort, ergonomics and performance. The CASIO series targets the industry, logistics and service sectors. They guarantee the highest level of resistance to external influences and provide the best results with regards to mobile data collection in the fields of transportation logistics, storage and production. In developing the current IT-G500 model range, CASIO has incorporated state-of-the-art technology for optimum ease of use in an extremely robust unit with specifications that exceed those of most proven handheld devices.

## Extremely Robust yet Ergonomic

The CASIO IT-G500 has been developed in accordance with the guidelines of ISO 9241-210 and reflects the principle of human-centred design. Even though the stylish device may not immediately appear highly resistant, it resists any challenge posed by day-to-day use in rough conditions.

The lightweight housing is produced, using durable plastics and can withstand drops onto concrete from a height of 1.5 metres. The device also offers optimum protection against dust and water according to the IP67 protection class. It is fully functional at temperatures between -20 °C and +50 °C. Come rain or shine – or even at extremely cold temperatures – the CASIO IT-G500 has the ideal features to prove its strength in the long-term when used in a tough day-to-day working environment.

The non-slip surface at the rear of the device and the special shape of the different battery compartment covers allow the device to be operated easily and without effort.



**Lightweight:  
Only 270 Grams!**

### A Focus on Ergonomics: Human-centred Design

The ergonomic shape, the low weight and the special non-slip grip surface show CASIO's focus on the users' operations.

## Pleasantly Easy-to-use

Weighing only around 270 g, the versatile and well-balanced device is easy to hold and can be operated like a smartphone via the large 4.3" touchscreen. Users can control the device in one of two practical ways – either by using their fingertips or a pen on the display, or by using the convenient keypad which allows data to be entered swiftly. The three trigger buttons for the scanner (on the left, right and centre) facilitate use by either left or right-handed people.



**23% Larger Display  
and Extremely Robust!**

### A Unique Display

Boasting a 480 x 800 pixel screen, the WVGA display provides a 23% larger user interface for information compared with a conventional VGA display.

The special display technology from CASIO ensures that the touchscreen can withstand abrupt impacts and does not break. The display is approximately ten times more robust than normal screens.







### Application Example: Process Optimisation through Photographic Documentation of Loading Conditions

Using the built-in digital camera of the CASIO IT-G500, the dispatch employee is able to capture the loading process for the lorry in order to ensure it has been loaded safely and in accordance with regulations. The high sensitivity of the lens, the LED flash and the autofocus function ensure sharp images. They can be immediately transferred wirelessly to the central database. Transportation companies and courier services can provide their customers a track and trace of their goods in a timely, detailed and comprehensive manner.

## Optimum Equipment for Every Task

Thanks to a choice between nine models, the most economical type of the IT-G500 series can be used for each specific task without compromises. One group features a built-in laser scanner, while another is equipped with a CMOS imager. Additionally, both groups are able to achieve quick mobile web access with WLAN or if required, through the use of WWAN with SIM cards. The table on page 6 indicates which models have a built-in a digital camera and RFID/NFC functionality.

## High-speed Scanner or CMOS Imager

It depends on the application whether a laser scanner for barcodes or an imager for common 2D codes is required. Both reading modules are extremely high-performance. They can read multiple codes – even damaged ones – simultaneously at lightning speed. Good or bad reads are confirmed optically, acoustically and with vibration. This is useful in a noisy environment. Thanks to the increased range, the imager model has a clear laser aiming point. Three trigger buttons for the reading operation minimise the amount of finger movement. So the IT-G500 is just as easy for both right and left-handed users to operate.

Integrated band-pass filters prevents the high-frequency flickering of LED lighting from interfering with scanning. Optimised decoding algorithms and an improved stabilisation process have also helped to further improve reading performance, even under modern shop lighting.

## RFID/NFC, Digital Camera and GPS

Common protocols in the field of Contactless Smart Cards and Near Field Communication (NFC) are supported.

The integrated camera is perfect for creating pictures for quality control and damage recording. This data can be combined with the GPS coordinates.

## Signature Capture Directly on the Screen

The scratch-resistant surface of the touchscreen allows handwritten input, such as confirming a receipt via signature.





## On the Way Across all Networks

For fast data communication, Bluetooth™, WLAN (IEEE 802.11 a/b/g/n) and 3G WWAN (HSPA and UMTS) are available. The USB interface or the contacts at the bottom of the housing can be used to connect the device to vehicle cradles and to docking stations (Ethernet and/or USB). For SIM cards and microSD cards, covered slots are built into the device. The integrated microphone and speaker allow the user to make voice calls as well as recording voice memos.

## Ready for Demanding Applications

The CASIO IT-G500 handheld device is equipped with a powerful ARM® Cortex® A9 dual-core processor (1.5 GHz). Together with the large memory (1 GB or 512 MB RAM and 4 GB ROM), the device provides a high performance level.

The device is powered by Microsoft® Windows® Embedded Handheld 6.5 or Embedded Compact 7. It is extremely easy to integrate the mobile devices into existing applications and standard solutions. The combination of innovative hardware and a proven operating system means that the device represents a secure investment over many years and it is suitable for a great number of demanding applications.



### The Ideal Handheld Device for the Industry, Logistics, Retail and Service Sectors

In connection with the robust and ergonomic design, the numerous practical features set new standards. They also represent a benchmark with regards to user acceptance and a high level of investment security.

## Details, Options and Accessories

Front view WVGA display	Back view (scanner version)	Left view (scanner version) with 3 battery cover versions	Models (with integr. RFID/NFC antenna) and additional expansion details
<ul style="list-style-type: none"> <li>Receiver</li> <li>Status LEDs</li> <li>4.3" WVGA display 480 x 800 pixels with touch panel (fingertip or pen control and capture of signatures)</li> <li>4 function keys</li> <li>Cursor keypad</li> <li>Speaker</li> <li>Docking contacts</li> </ul>	<ul style="list-style-type: none"> <li>Laser scanner / CMOS imager</li> <li>Digital camera with LED flash</li> <li>Expansion port (details on the right)</li> <li>Scan buttons left, centre, right</li> <li>Battery case, cover (type Ergo)</li> <li>Power On / Off</li> <li>Microphone</li> <li>Non-slip surface</li> </ul>	<ul style="list-style-type: none"> <li>Flat</li> <li>Ergo</li> <li>Ergo L</li> </ul>	<ul style="list-style-type: none"> <li>Laser scanner</li> <li>CMOS imager</li> </ul>
<ul style="list-style-type: none"> <li>Hand belt</li> <li>Expansion port</li> </ul>			


Model Overview:		IT-G500-15E	IT-G500-G15E	IT-G500-C16E	IT-G500-GC16E	IT-G500-25E	IT-G500-C26E	IT-G500-GC26E	IT-G500-C21E	IT-G500-GC21E
Laser Scanner		•	•	•	•		•	•	•	•
CMOS Imager						•	•	•	•	•
Camera				•	•		•	•	•	•
RFID / NFC Functionality				•	•		•	•	•	•
WWAN Data Communication			•		•			•		•
WWAN Telephony			•		•			•		
Microphone / Receiver			•	•	•		•	•	•	•
Windows® Embedded Handheld 6.5		•	•	•	•	•	•	•		
Windows® Embedded Compact 7									•	•
Specifications:										
Model Name		CASIO IT-G500 series								
CPU		ARM® Cortex®-A9, 1.5 GHz, dual-core								
Operating System (model dependent)		Microsoft® Windows® Embedded Compact 7 / Embedded Handheld 6.5 (english versions)								
Memory	RAM (model dependent)	1 GB in versions with WEC 7 / 512 MB in versions with WEH 6.5								
	ROM	4 GB								
Display	Size	4.3 inch (110 mm) diagonal								
	Resolution	480 x 800 pixels, WVGA, 16,700,000 colours								
	Technology	Blanview® TFT colour LCD with LED backlight and touch panel								
	2 LED Indicators	1: Battery charging status (red, orange, green) 2: Communication/ scan/ application status (blue, orange)								
Input	Keyboard	10 numeric keys with phone keypad characters, 4 function keys (colored), Enter key, Cursor keypad, CLR key, Fn key, Font key, (-) and (.) keys (all backlit), On-/Off key								
	Scan Trigger	3 large scan release buttons (center, left and right)								
	Touch-screen	Industrial touch panel (scratch-resistant) with resistive touch								
Wireless Communication	WLAN	IEEE 802.11 a/b/g/n (max. 65 Mbit/s), security standard and encryption WPA2/AES								
	WWAN (model dependent)	3G: HSPA, UMTS (900/2100 MHz), EGPRS (EDGE), GPRS, GSM (850/900/1800/1900 MHz)								
	Bluetooth™	Bluetooth™ integrated + EDR								
	GPS (model dependent)	12 Chanel Receiver, NMEA-0183, standard in versions with WWAN								
Interfaces	Memory Card Slot	Compatible with microSD memory cards (SDHC)								
	SIM Card Slot	Compatible with microSIM-Karten, standard in versions with WWAN								
	Expansion Port	Electrical and mechanical connection for external hardware modules								
	USB Port	Version 2.0 (host / client), USB connection with docking station or Micro-USB AB connector								
	Headset Connector	3.5 mm jack for earphone and microphone								
Digital Camera (model dependent)		Photo / video, resolution 5.0 MPx, lens (f = 3.53 mm, 1:2.8), autofocus and LED flash								
Audio		integrated microphone and receiver for telephony (model dependent), speaker for signals and alarms etc.								
Vibrating Signal		Confirms successfully decoded ident codes								
Laser Scanner (model dependent)	Technology	Laser diode, resolution 0,127 mm, scan rate approx. 100/s								
	Reading Distance	Approx. 40 to 550 mm								
	Readable 1D Symbolologies	EAN-8, EAN-13, UPC-A, UPC-E, ITF 2/5-Interleaved, Codabar (NW-7), Code32, Code39, Code93, Code128, GS1-128 (UCC/EAN128), MSI, ISBT, GS1 DataBar Omnidirectional, GS1 DataBar Truncated, GS1 DataBar Limited, GS1 DataBar Expanded und 2/5-Industrial								
	Readable 2D Stacked-Codes	GS1 DataBar Stacked, GS1 DataBar Stacked Omnidirectional, GS1 DataBar Expanded Stacked								
Imager (model dependent)	Technology	Autofocus CMOS imager, resolution 832 x 640 px, 1D = 0.15 mm, 2D = 0.25 mm								
	Reading Distance	From a distance of a few millimeters to several meters, depending on size and print quality of the ident code								
	Aimer	Laser beam 650 +10/-5 nm, power 1 mW or less								
	Readable 1D Symbolologies	Selection as in the laser scanner version, but without 2/5 Industrial Code								
	Readable 2D Stacked-Codes	Selection as in the laser scanner version, plus PDF417, Micro PDF, Composite, Codablock F								
RFID / NFC Functionality (model dependent)	Technology	Reader / writer, NFC interface, protocol-2 (ISO 21481), frequency 13.56 MHz								
	NFC Standards	ISO 14443 Typ A/B, Mifare®, FeliCa®								
	RFID Standards	ISO 15693, I-CODE, SLI®, Tag-It®, my-d®								
Power	Operation	3.7 V lithium battery pack: standard = 1,850 mAh, large = 3,700 mAh								
	Memory Backup	Integrated lithium battery								
Environment	Drop Durability	Drop height: 1.50 m onto concrete								
	Dust / Water Durability	IP67 protection rating, IEC 60529 compatible (dust-proof and water-resistant against temporary submersion)								
	Operating Environment	Temperature range -20 to +50 °C, relative humidity 10 to 90 % (no condensation)								
Dimensions (W x H x D)		Approx. 74 x 175 x 22 mm (basic device size)								
Weight (with standard battery)		Approx. 245 to 270 g (WWAN model)								

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