BARTEC

Agile ✕® **User Manual**

10.1" Industrial Tablet PC Type B7-A23.-..../........

BARTEC

User Manual - Translation

10.1" Tablet PC

Agile ✕®

Type B7-A23.-..../.......

ATEX / IECEx Zone 2 / 22
UL Class I Division 2

Document No.: B1-A230-7D0001
Revision 0 / Status: 18 February 2015

Proviso: Subject to technical changes. Changes, mistakes and printing errors do not substantiate any claim to damages..

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1. Basic safety information

1.1 Information on this User Manual

Read carefully before putting the devices into operation.

The User Manual is a fixed part of the product. It must be kept in the direct vicinity of the device and the installation, operating and service staff must have access to it at all times.

The User Manual contains important information, safety instructions and test certificates which are necessary for the perfect function of the device in operation.

The User Manual is directed at all individuals concerned with the commissioning, handling and servicing of the product. The applicable guidelines and standards for areas with gas and dust atmosphere (99/92/EC, EN 60079-17, EN 60079-19, IEC60079-17, IEC 60079-19) must be observed when conducting this work.

Knowledge of the safety and warning information in this User Manual and the strict compliance with it is essential for safe installation and commissioning. Accidents, injuries and material damage can be avoided by circumspect handling and systematically following the instructions.

The examples, tables, and figures provided in this User Manual are for illustration purposes. Due to the different requirements of the respective application, the BARTEC company cannot assume responsibility or liability for actual use based on the examples and figures.

The BARTEC company reserves the right to carry out technical changes at any time.

In no event will BARTEC company be responsible or liable for indirect or consequential damages resulting from the use or application of this User Manual.

Safety and warning information is particularly emphasised in this User Manual and marked by symbols.

⚠ **DANGER**
DANGER describes a directly imminent danger. If not avoided, death or severe injury will be the consequence.

⚠ **WARNING**
WARNING describes a possibly imminent danger. If not avoided, death or severe injury may be the consequence.

⚠ **CAUTION**
CAUTION describes a possibly imminent danger. If not avoided, mild or slight injury may be the consequence.

> **ATTENTION**
>
> **ATTENTION** describes a possibly damaging situation. If not avoided, the plant or objects in its vicinity may be damaged.

ⓘ Important information on effective, economical & environmentally compliant handling.

1.1.1 Languages

The original User Manual with safety information is written in German. All other available languages are translations of the original User Manual.

The User Manual is available in German and English. If further languages are required, these must be requested from BARTEC or stated on placing an order.

1.1.2 Changes in the document

BARTEC reserves the right to change the content of this document without notification. No warranty is assumed for the correctness of the information. In cases of doubt, the German safety instructions apply because it is not possible to rule out errors of translation or printing. In the case of legal disputes, the "General Terms and Conditions of Business" of the BARTEC Group also apply.

The current versions of the datasheets, operating instructions, certificates and EC declarations of conformity can be downloaded from **www.bartec.de** under Products and Solutions in the product area "Automation Technology" or may be requested directly from BARTEC GmbH.

1.1.3 Registered trademarks

Intel®	is a registered trademark of Intel Corporation
Centrino®	is a registered trademark of Centrino Mobile Technology
Bluetooth®	ist eingetragenes Warenzeichen der Bluetooth Special Interest Group
WINDOWS	is a registered trademark of MICROSOFT Corporation
Winmate	is a registered trademark of Winmate Communication, Inc.

1.2   Handling the product

The product described in this User Manual left the factory in a perfect and tested state in terms of safety. To maintain this state and to achieve a perfect and safe operation of this product, it may only be operated in the manner described by the manufacturer. In addition, the perfect and safe operation of this product requires correct transportation, proper storage and careful operation.

The safe and perfect handling of the Tablet PC is a prerequisite for its perfect and correct functioning.

1.3   Intended use

1.3.1   Exclusive purpose

The Tablet PC series is a handheld piece of electrical equipment. It serves the purpose of the mobile recording, processing and/or radio transmission of data within potentially explosive atmospheres.

It is used exclusively in combination with devices which comply with the requirements placed on the overvoltage category I.

The admissible operating data of the device used must be considered.

1.3.2   Unintended use

Any other use is unintended and may lead to damage and accidents. The manufacturer shall not be liable for any use extending beyond the exclusive purpose.

1.4   Duties of the operator

The operator undertakes to only permit persons to work with the Tablet PC who:

▶   are acquainted with the basic regulations on safety and accident prevention, and who have been inducted in the use of the Tablet PC,

▶   have read and understood the documentation, the safety chapter and the warnings.

The operator checks that the safety and accident prevention regulations applicable to the respective case of use have been observed.

1.5 General safety information

▶ Do not dry wipe or clean devices in potentially explosive atmospheres!

▶ Do not open devices in potentially explosive atmospheres.

▶ Do not replace or charge battery in potentially explosive atmospheres.

▶ General statutory provisions or guidelines on occupational health and safety, accident prevention provisions and environmental protection laws must be heeded, e.g. Operational Safety Ordinance (BetrSichV) and nationally applicable ordinances.

▶ Use suitable clothing and shoes with respect to the danger of hazardous electrostatic charges.

▶ Avoid heat influences outside the specified temperature range.

▶ Protect device from external influences! Do not expose device to caustic/aggressive liquids, vapours or spray. In the case of malfunction or damaged enclosure, remove the device immediately from the potentially explosive atmosphere and bring it to a safe place.

1.6 Maintenance

The pertinent erection and operating provisions for electrical systems must be observed! (E.g. Directive 99/92/EC, Directive 94/9/EC, BetrSichV and nationally applicable ordinances EN 60079-14, IEC 60079-14 and the series DIN VDE 0100)!

Observe the national waste disposal regulations when disposing of the devices.

1.6.1 Servicing

No constant servicing will be necessary if operated correctly under consideration of the assembly instructions and environmental conditions. See Chapter "Service, inspection, repair" in this respect.

1.6.2 Inspection

According to EN/IEC 60079-17 and EN/IEC 60079-19, the operator of electrical systems in potentially explosive atmospheres is obliged to have these inspected by an electrician to ensure correct condition.

1.6.3 Repairs

Repairs to explosion-protected devices may only be performed by authorised personnel with original spare parts and according to the state of the art. The applicable provisions must be observed in this respect.

1.6.4 Commissioning

It must be checked that all components and documents are available before commissioning.

1.7 Labelling, test certificate and standards

Labels on explosion protection and the test certificate are attached to the Tablet PC. See Chapter 3 "Technical data" with respect to labelling.

The guidelines and standards applicable to the Tablet PC for devices and protected systems for intended use in potentially explosive atmospheres are provided in Chapter 3 "Technical data".

1.8 Warranty

⚠ **WARNING**

No changes or retrofits may be made without the written consent of the manufacturer.

If non-specified components are used, the explosion protection will no longer be guaranteed. In the case of externally procured parts, it is not guaranteed that these have been designed and manufactured in accordance with their load and requisite safety.

▶ Contact the manufacturer before any changes or retrofits to receive a release.
   Only use original spare and wearing parts.

ⓘ The manufacturer shall exclusively assume the complete warranty only for spare parts ordered from him.

Our "General Terms and Conditions of Sale and Delivery" shall apply in principle. These shall be made available to the operator on signing of contract at the latest. Warranty and liability claims in the case of injury and damage to property shall be excluded if they are attributable to one or several of the following causes:

– Unintended use of the Tablet PC.

– Incorrect handling

– Failure to observe the information in the User Manual with respect to transport, storage, commissioning, operation and service.

– Independent structural changes

– Faulty monitoring of parts subject to wear and tear.

– Incorrectly performed repairs.

– Cases of disaster through the impact of foreign bodies and force majeure.

The BARTEC company grants a warranty period of three years starting from the date of delivery from the Bad Mergentheim factory on the Tablet PCs (exception: battery 6 months). The warranty period for accessories is one year starting from the date of delivery from the Bad Mergentheim factory. This warranty covers all parts of the delivery and shall be restricted to the free replacement or repair of the defective parts in our Bad Mergentheim factory. For this purpose, any packaging supplied must be kept where possible. In the case of warranty, the goods must be returned to us after written agreement using an RMA form. There shall be no claim to repair at the sight of erection.

The information contained herein refers to the explosion-protected version of the Tablet PC series Agile ✕®.

This User Manual contains all important information on the subject of explosion protection. A Short Guide and further product information on handling and commissioning are similarly available.

1.9 Co-applicable documents - set of documents

User Manual for the Tablet PC series Agile ✕®:

The use, commissioning and settings of the explosion-protected version of the Tablet PC series Agile ✕® are described in this User Manual.

Short Guide for the Tablet PC series Agile ✕®:

The safety relevant information, initial use and further data on the explosion-protected version of the Tablet PC series Agile ✕® are described in this Short Guide.

Technical Datasheet for the explosion-protected version of the Tablet PC series Agile ✕®:

This Technical Datasheet contains the most important explosion-relevant technical data as well as general technical data.

1.10 Definition of terms

A few abbreviations are used in the documentation.

IS	=	Intrinsically Safe =>
		is used a generic term for the Zone 1 and Division 1 version
NI	=	Non Incendive =>
		is used as generic term for Zone 2 and Division 2 version
Agile ✕®	=	stands for the entire explosion-protected product series

1.11   Configuration

ⓘ
The devices are only supplied with preinstalled operating system.

- Windows Embedded 8.1 Industry Pro – 64 Bit
- Windows 7 Professional – Service Pack 1 – 64 Bit

Customer software or further applications are not contained in the delivery.

This User Manual refers to the following configurations:

Configuration	Version
Processor	Quad-Core-Processor Intel Bay Trail-M with 1.8 GHz
Display	10.1" with 1920 x 1200 Pixel resolution
RAM	8 GB
Main memory	128 GB, 256 GB on request
Operating system options	Supplied as standard with • Windows Embedded 8.1 Industry Pro – 64 Bit Optionally available with • Windows 7 Professional – Service Pack 1 – 64 Bit without MUI, (Multilingual) is only supplied in English • Windows 8.1 Professional – 64 Bit without MUI, (Multilingual) is only supplied in English
WLAN	IEEE 802.11 a/b/g/n
Bluetooth	4.0
WWAN (optional)	• 4G/LTE module with European frequencies • 4G/LTE module with North American frequencies
GPS	u-Blox Neo-6Q with an accuracy of 2.5 m (prepared for Galileo GPS System)
Scanner Options (optional)	1D/2D Imager
RFID HF	• 13.56 MHz • ISO 15693 • ISO 14443-A • ISO 18092
RFID HF (add-on module as an option)	Dual Band Reader • EU: 865 to 869 MHz • US: 902 to 928 MHz

2. Product description

2.1 Agile ✕®

The Agile ✕® is a tough Tablet PC with 10.1" display, which has been designed for use in the industrial environments and especially developed by BARTEC for use in potentially explosive atmospheres.

2.2 Structure

Front side
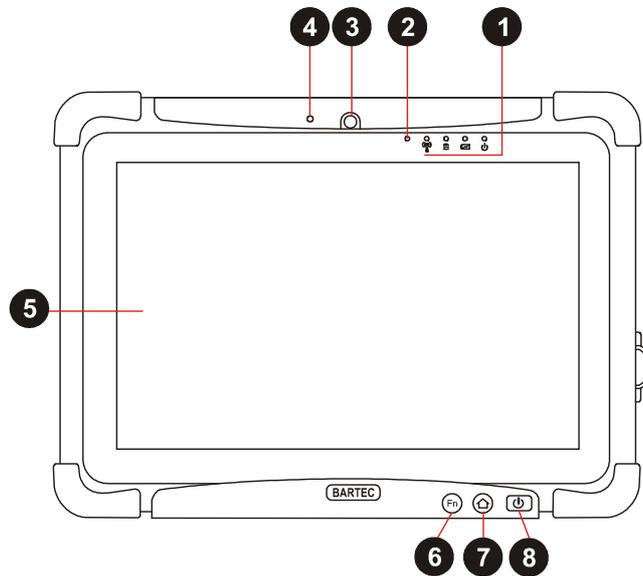
Position	Description
1	Indicators
2	Light sensor
3	2 MP camera
4	Built-in microphone
5	10" touch screen
6	Function button, freely programmable
7	Home button
8	Power button

Rear side
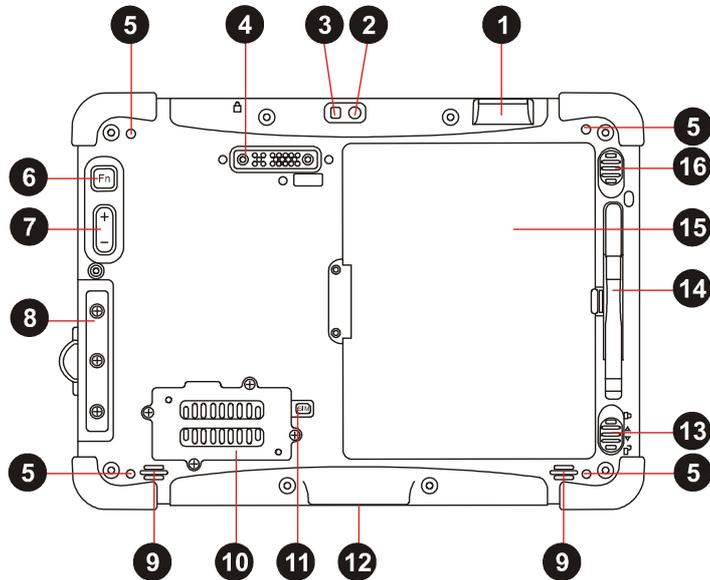
Position	Description
1	Barcode scanner as an option
2	5 MP camera
3	LED Flash
4	Expansion port, RFID module
5	Strap fixture
6	Function button, freely programmable
7	Volume Buttons (+/-)
8	External I/O interfaces under protective cover (for use only in safe area) • Power Jack (DC) • Audio Combo Connection (Mic in/Line Out) • USB 3.0 • 30-pin Combo Connection (Giga-LAN or RS232) • Micro SD slot • Micro HDMI
9	Speaker
10	LTE module as an option
11	SIM card slot
12	Docking station interface, not visible
13	Battery interlock
14	Stylus
15	Battery
16	Remove battery

2.3   Purpose of use

The Tablet PCs Agile ✕ are handheld electrical devices. They serve the purpose of entry, processing and (radio) transmission of data within potentially explosive atmospheres.

The Tablet PC Agile ✕ is used exclusively in combination with devices which comply with the requirements placed on the overvoltage category I.

The **Tablet PCs, Type B7-A23.-…./……..** have been modified for use in the following potentially explosive atmospheres:

- ATEX / IECEx Zone 2 / 22
- UL Class I Division 2 Groups A, B, C and D

The **Tablet PCs, Type B7-A23.-…./……..** may **not** be used in the following zones:

- ATEX / IECEx Zone 0, 1, 21 and 22
- UL Class II Division 1 Groups A, B, C, D, E, F and G
- UL Class II Division 2 Groups E, F and G
- UL Class III

3. Technical data

3.1 Explosion protection NI

ATEX Zone 2 / 22		
Type	B7-A233-..../........ B7-A234-..../........	Agile ✕®
Labelling		⟨Ex⟩ II 3G Ex ic IIA/IIC T5 Gc ⟨Ex⟩ II 3D Ex ic IIIB T90°C Dc IP54 -20 °C ≤ Ta ≤ +50 °C
Test certificate		EPS 15 ATEX 1 823 X
Standards		EN 60079-0:2012 EN 60079-11:2012
Guidelines		ATEX 94/9/EG EMV 2004/108/EG R&TTE 1999/5/EG RoHS 2002/95/EG
IECEx Zone 2 / 22		
Type	B7-A233-..../........ B7-A234-..../........	Agile ✕®
Labelling		Ex ic IIA/IIC T5 Gc Ex ic IIIB T90°C Dc IP54 -20 °C ≤ Ta ≤ +50 °C
Test certificate		IECEx EPS 15.0010X
Standards		IEC 60079-0:2011 IEC 60079-11:2011
Guidelines		ATEX 94/9/EG EMV 2004/108/EG R&TTE 1999/5/EG RoHS 2002/95/EG
UL Class I Division 2		
Type	B7-A232-..../........ B7-A234-..../........	Agile ✕®
Labelling		Class I Division 2 Groups A, B, C and D
Test certificate USA and Canada		E321557
Standards		ANSI/ISA 12.12.01 und CAN/CSA C22.2 No. 213-M1987

X - labelling (special conditions of use for secure operation within the potentially explosive atmosphere)
The ambient temperature range is -20 °C ≤ Ta ≤ +50 °C.*
The device must be protected from impact with high impact energy, from intense UV-irradiation, and strongly charge generating processes.
It is not allowed to use connectors inside the potentially explosive atmosphere.*
It is not allowed to remove, change and/or charge the battery inside the potentially explosive atmosphere.*
It is not allowed to assemble or disassemble the RFID module (Bartec accessory No. B7-A2Z0-0032) inside the potentially explosive atmosphere. It is not allowed to operate the camera's flash (LED) as a continuous light inside the potentially explosive atmosphere.*
The battery must be locked within the potentially explosive atmosphere.*
If the hand strap (Bartec accessory No. 03-9849-0130) is used, the device is only suitable for Group IIA gases.*
*See individual chapter on the points in the Short Guide/User Manual.

3.2   Applicable standards

Explosion protection	
EN 60079-0:2012	Potentially explosive atmospheres – Part 0: Equipment – General requirements
EN 60079-11:2012	Potentially explosive atmospheres – Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-0:2011	Potentially explosive atmospheres – Part 0: Equipment – General requirements
IEC 60079-11:2011	Potentially explosive atmospheres – Part 11: Equipment protection by intrinsic safety "i"
ANSI/ISA 12.12.01	Nonincendive electrical equipment for use in Class I and II, Division 2 and Class III, Divisions 1 and 2 hazardous (classified) locations
CAN/CSA C22.2 No. 213-M1987	Nonincendive electrical equipment for use in Class I Division 2 hazardous (classified) locations
Electrical safety	
IEC 60950-1 (ed.2); am1 UL 60950-1 CSA22.2 No. 60950-1-07	Information technology equipment – safety Part 1: General requirements

Radio specification - WLAN / Bluetooth	
EN 300 328 V1.8.1: 2012	Electromagnetic compatibility and radio spectrum matters (ERM) – wideband transmission systems – data transmission equipment operating in the 2.4 GHz ISM band and using wideband modulation techniques
Safety specification - Specific Absorption Rate (SAR)	
EN 62209-2:2010	Human exposure to radio frequency fields from hand-held and body-mounted wireless communication devices – Human models, instrumentation and procedures – Part 2: Procedure to determine the specific absorption rate (SAR) for wireless communication devices used in close proximity to the human body
RSS-132 Issue 3 January 2013	Industry Canada: Cellular Telephone Systems Operating in the Bands 824-849 MHz and 869-894 MHz
RSS-133 Issue 6 January 2013	Industry Canada: 2 GHz Personal Communications Services
RSS-139 Issue 2 February 2009	Industry Canada: Advanced Wireless Services (AWS) Equipment Operating in the Bands 1710-1780 MHz and 2110-2180 MHz
RSS-210 Issue 8 December 2010	Industry Canada: Licence-exempt Radio Apparatus (All Frequency Bands): Category I Equipment
Safety specification - Laser and/or LED Products	
EN 60825-1	Safety of laser products – Equipment classification and requirements

Electromagnetic compatibility (EMC)	
EN 300 440-1 V1.6.1:2010	Electromagnetic compatibility and radio spectrum matters (ERM) – short range devices – radio equipment to be used in the 1 GHz to 40 GHz frequency range – Part 1: Technical characteristics and test methods
EN 300 440-2 V1.4.1:2010	Electromagnetic compatibility and radio spectrum matters (ERM) – short range devices – radio equipment to be used in the 1 GHz to 40 GHz frequency range – Part 2: Harmonised EN covering essential requirements of article 3.2 of the R&TTE Directive
EN 50566:2013	Product standard to demonstrate compliance of radio frequency fields from handheld and body-mounted wireless communication devices used by the general public (30 MHz - 6 GHz)
EN 55022: 2010	Information technology equipment – radio disturbance characteristics – limits and methods of measurement
EN 55024: 2010	Information technology equipment – radio disturbance characteristics – limits and methods of measurement
EN 61000-3-2: 2006 + A1: 2009 + A2: 2009	Limits – Limits for harmonic current emissions (equipment input current <= 16 A per phase)
EN 61000-3-3: 2008	Limits – limitation of voltage charges, voltage fluctuations and flicker in public low-voltage supply systems, for equipment with rated current <=16 A per phase and not subject to conditional connection
FCC Part 15 Class B	EMC requirements in the USA: Testing for compliance with limits for a digital device of Class B
IC ICES-003	EMC requirements in Canada: Testing for compliance with limits for a digital device of Class B

3.3   Features

3.3.1   Performance features

Processor	Intel BayTrail-M Quad-Core 1.8 GHz • 1830-2160 MHz Clock Speed • 22 nm for low power consumption
Operating system	Windows Embedded 8.1 Industrie Pro – 64 Bit Optional Windows 7 Professional – Service Pack 1 – 64 Bit Windows 8.1 Professional – 64 Bit • without MUI, (Multilingual) is supplied only in English
RAM	8 GB
Main memory	128 GB (standard version) Maximum 256 GB (on request)
Extension slot	Micro-SD- card slot with up to 32 GB Installation and changing of the card only outside the potentially explosive atmosphere!
Interfaces at the Tablet PC	1 x Mikro HDMI 1 x 30 Pin to Ethernet or to RS232 Serial 1 x USB 3.0 1 x Audio (line output / microphone output) 1 x Micro SD card slot 1 x Extension interface for add-on modules 1 x Network connector (12-19 V DC)
Interfaces via desktop docking station	1 x 10/100 MBit Ethernet 1 x RS232 Serial 4 x USB 2.0 1 x VGA 1 x Network connector (12 V DC)

3.3.2   Physical features

Dimensions	in mm/in	Height x width x depth 271.8 x 197.2 x 19 mm 10.7 x 7.76 x 0.75 in
Weight	(including battery)	Depends on version and configuration approx. 1.2 kg approx. 2.64 lb.
Display	Size	10.1"
	Background lighting	IPS LED
	Resolution	700 nits (typical) 1920 x 1200
	Contrast	800:1 (typical)
	Viewing angle	89/89/89/89
	Touch	Projective capacity Multi-Touch (minimum 4 points)
Interactive sensor technology		• Motion sensor for dynamic screen orientation • Power monitoring • Light sensor • G Sensor • Gyrometer • E-compass
Keys on front side		 • 1 x programmable function button • 1 x home • 1 x power button
Keys on rear side		 • 1 x programmable function button • 2 x button for volume (+/-)

3.3.3 User environment

Operating temperature In potentially explosive atmosphere	-20 °C to +50 °C -4 °F to +122 °F
Operating temperature Outside potentially explosive atmosphere	-20 °C to +60 °C -4 °F to +140 °F
Operating temperature during charging	0 °C to +40 °C +32 °F to +104 °F
Storage temperature (without battery)	-30 °C to +70 °C -22 °F to +158 °F
Air humidity	30 % to 90 % (non-condensing)
Class of protection (EN 60529)	IP 65

3.3.4 Application development

Creation of a customised image
All drivers for the creation of a customised image are available on the supplied CD or for download from the BARTEC download page.

Camera
The camera supports the Windows Standard DLLs for connection to a customised application.

1D/2D Imager
The Imager supports the Windows Standard DLLs for connection to a customised application.   For application development, the Intermec Tool "Easyset" is available.

RFID HF

- A program extension for HotTab for the simple writing and reading of HF tags.
- An SDK (Software Development Kit) to incorporate customised applications is available. The SDK is a protocol, which is based on the international UART standard.

RFID UHF

- A program "Thing Magic" is available for the simple writing and reading of RFID UHF tags.
- An SDK to incorporate customised applications is available. The SDK supports SDK C, C#, .NET and Java for all ThingMagic products as programming language.

3.3.5 Voice and data transmission Wi-Fi (Wireless LAN)

ⓘ Dual Wi-Fi and Bluetooth connections are realised with the assistance of the Intel® Centrino® Advanced-N 6235 module.

WLAN radio module	
Radio standard	IEEE 802.11a/b/g/n 802.11 d, 802.11e, 802.11i, 802.11h
Data rate	• IEEE802.11a: up to 54 Mbit/Sec • IEEE802.11b: up to 11 Mbit/Sec • IEEE802.11g: up to 54 Mbit/Sec • IEEE802.11n: up to 65 Mbit/Sec
Frequency range (country dependant)	• IEEE802.11a: 5 GHz • IEEE802.11b: 2.4 GHz • IEEE802.11g: 2.4 GHz • IEEE802.11n: 2.4 GHz and 5 GHz
Operating channels	The actual operating channels and frequencies are subject to the applicable rules and the certification authorities in the respective country.
Wi-Fi alliance	Wi-Fi certified for 802.11a, 802.11b, 802.11g, 802.11n, WMM, WPA, WPA2 and WPS Wi-Fi Direct for point to point devices connection
Microsoft WHQL	yes
Architecture	Infrastructure and SoftAP, supports the simultaneous Client- and SoftAP modules in 2.4-GHz or 5-GHz range
Roaming	Supports seamless roaming between the respective access points (802.11b, 802.11g, 802.11a/b/g and 802.11a/b/g/n)
Authentication	WPA, WPA2, 802.1X (EAP-TLS, TTLS, PEAP, LEAP, EAP-FAST), EAP-SIM, EAP-AKA
Authentication protocols	PAP, CHAP, TLS, GTC, MS-CHAP, MS-CHAPv2
Encryption	64-Bit and 128-Bit WEP, AES-CCMP, TKIP
Wi-Fi Direct encryption and authentication	WPA2, AES-CCMP
Aerial	internal

3.3.6 Voice and data transmission Bluetooth

ⓘ Dual Wi-Fi and Bluetooth connections are realised with the assistance of the Intel® Centrino® Advanced-N 6235 module.

Bluetooth	4.0 (Low Energy) Dual mode 2.1, 2.1+DER, 3.0, 3.0+HS, 4.0 (BLE)Class II, Version 2.1 with EDR
Aerial	Internal

3.3.7   Headset

> ⚠ **DANGER**
>
> **Non-certified accessories endanger explosion protection.**
> **Danger to life in a potentially explosive atmosphere!**
> ▶   Only use the headset connection outside the potentially explosive atmosphere!

3.3.8   Barcode scan options

ⓘ The maximum read range of the scan engine depends on the barcode type used, the quality of print and the module width (in mil).

1 available scan engine possible	1D/2D Imager (EA30 from Intermec)

3.3.8.1   1D/2D Imager (EA30)

ⓘ **For Agile X with integrated 1D-/2D- Imager**
EA30 1D-/2D-Imager Engine (omni directional) decode/read 1D- and 2D barcodes.
The decoding range depends on the quality and size of the barcode and the software setting of the scan or engine.

ⓘ The 1D-/2D-Imager cannot be combined with the internal RFID HF/NFC reader!

Laser class	Class 2 laser / LED
Light source	Visible white LED light 100 lm/W
Read range in close range	• up to approx. 6 cm • up to approx. 2.36 in
Read range in distance range	• up to approx. 75 cm • up to approx. 29.53 in
Scan Rate	Up to 60 fps / 120 fps in 1D Mode
Scan angle	• 34.4° (horizontal) • 22.2° (vertical)
Frame angle	• 30.0° (horizontal) • 20.0° (vertical)
Pitch	86°
Skew	61°
Optical resolution	752 (H) x 480 (V) pixel in grey zones
Print contrast	Below 30 %
Motion tolerance	Up to 500 ips or 12.7 m/s
Minimum barcode dimension 　　　　　**1D Codes** 　　　　　**2D Codes**	 0.1 mm (4 mils) 0.167 mm (6.6 mils)

3.3.9 Decodable barcode types

Supported 1-D barcodes		Supported 2D barcodes (only supported by the Imager Version)	
1D Symbol/Codes		2D Symbol/Codes	
EAN/UPC	RSS	Data Matrix	PDF417
Code 39	Code 128	Micro PDF 417	Codablock
UCC/EAN 128	ISBN	Maxicode	QR
ISBT	Codabar	Aztec	GS1 composite codes
Code 93/93i	Code 11		
MSI	Plessey		
Telepen			
GS1 Databar (limited expanded & omni-directional)			
Interleaved / Matrix / Industrial and Standard 2 of 5			
Postal Codes (Australian Post, BPO, Canada Post, Dutch Post, Japan Post, PostNet, Sweden Post)			

3.3.10 Decode range
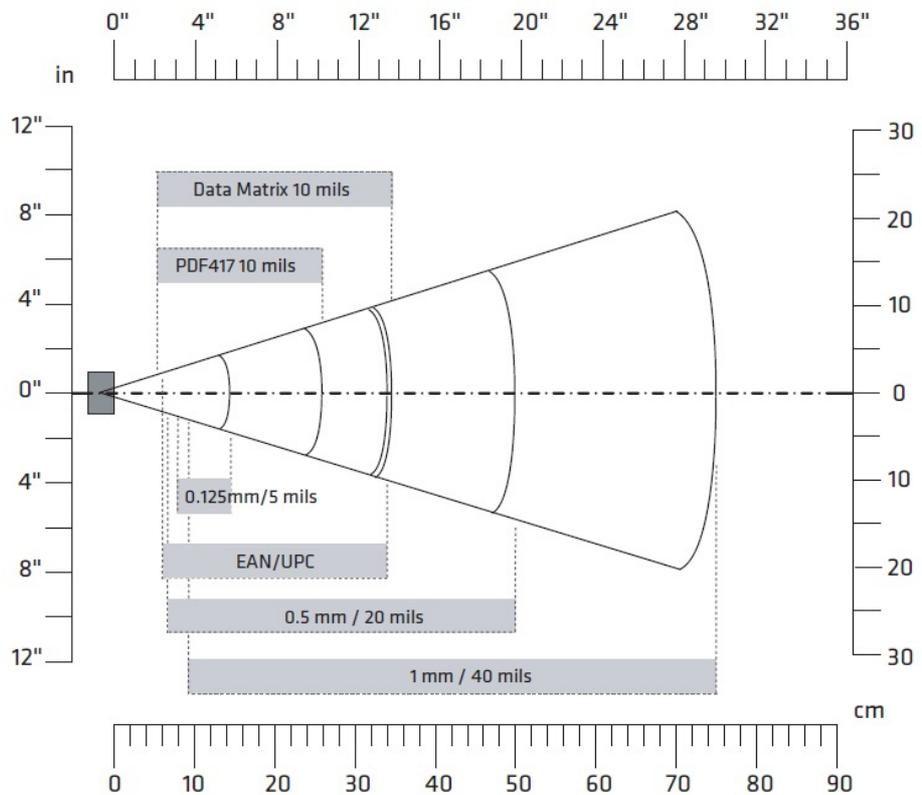
3.3.11 RFID options

ⓘ
The maximum read/write ranges of the RFID reader will depend on the different ambient conditions. For example:

- Transponder (tag), size
- Aerial used in the tag (size, model ...)
- Site of installation (metal, wood or other base)
- Ambient conditions
- External magnetic influences
- Temperature
- Humidity

Available options:	Internal HF Reader (High Frequency) combined with NFC
	External module UHF Dual Reader

3.3.11.1 Internal HF reader combined with NFC

ⓘ
The internal RFID HF/NFC reader cannot be combined with the 1D-/2D Imager.

Supported standards HF	
ISO 14443-A	Mifare One (S50)
	Mifare One (S70)
ISO 15693	TI HF-I Plus TI HF-I Pro TI HF Standard I-Code SLI
ISO 18092 (Read / Write)	SONY Felica
Used module	Sunion RF521 HF Reader Modul
Nominal read range	up to approx. 3 cm up to approx. 1.18 in
Nominal write range	up to approx. 3 cm up to approx. 1.18 in
Aerial	Integrated loop aerial (50 Ohm)
Frequency range	13.56 MHz
Maximum transmission power	264 mW ±2 dB
Application development	SDK supports the programming languages C, .NET and Java.
Communication protocol	Nation Standard UART format

3.3.11.2 External module RFID UHF Dual reader

ⓘ The external module can be subsequently ordered at any time and installed by the customer.

Supported standards UHF	EPC Global Gen 2 (ISO 18000-6C) with DRM
	ISO 18000-6B (optional)
Module used	Sunion RF521 HF reader module
Nominal read range	up to approx. 150 cm up to approx. 59.05 in
Nominal write range	up to approx. 150 cm up to approx. 59.05 in
Aerial	Integrated aerial (50 Ohm)
Frequency range	EU: 865 to 869 MHz
	US: 902 to 928 MHz
Maximum transmission power	1.4 W
	• Transmission power can be separately adjusted for reading and writing.
	• Adjustable from 5 dBm to 31.5 dBm (1.4 W) with +/- 0.5 dBm precision via +15 dBm
Application development	SDK supports the programming languages C, C#, .NET und Java.

3.4   Battery

The life of the battery will depend on different use factors and the device settings, e.g.:

ⓘ
- Use and setting of WLAN / Bluetooth
- Background lighting/screensaver
- Power management settings
- Use and setting of 1D-/2D- Imager
- Use and setting of 4G/LTE module
- Use and setting of RFID module
- Use and setting of the camera

Battery	(only replaceable and rechargeable in safe range)
Type B7-A2Z0-0028	Lithium polymer battery 7.4 V / 5,100 mAh
Type B7-A2Z0-0029	Lithium polymer battery 7.4 V / 10,600 mAh
Operating temperature	
– During charging	0 °C to +45 °C +32 °F to 113 °F
– During discharging in potentially explosive atmosphere	-20 °C to +50 °C -4 °F to 122 °F
– During discharging in safe atmosphere	-20 °C to +60 °C -4 °F to 140 °F
Storage temperature	-20 °C to +50 °C -4 °F to 122 °F
Relative air humidity	30 %-90 % (non condensing)
Lifecycle	≥ 300

| Battery performance	
Type B7-A2Z0-0028	Up to 8 hours
Type B7-A2Z0-0029	Up to 16 hours
	Battery performance depends on device settings.
Backup battery with Hot Swap functions	7.4 V / 330 mAh
	Integrated in the device and only replaceable in the factory.

3.5   External interfaces

> ⚠ **DANGER**
>
> **Non-certified accessories endanger the explosion protection.**
> **Danger to life exists in potentially explosive atmospheres!**
>
> ▶ The external interfaces may only be used outside the potentially explosive range with accessories specified by the manufacturer.
>   Exceptions are modules which are certified for the use in a potentially explosive area and specified by the manufacturer.
>
> ▶ Only use original BARTEC/Winmate accessories.

3.5.1   19 pole data interface for docking station
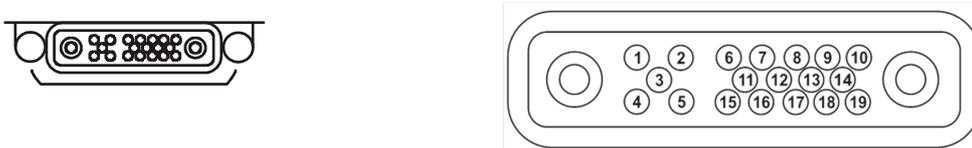
PIN	Signal name	PIN	Signal name
1	RF_GND	11	USB3_Tx+
2	DOCK_DET#	12	USB3_Tx-
3	GPS ANT	13	GND
4	RF_GND	14	Power
5	RF_GND	15	USB+
6	USB3_Rx-	16	USB-
7	USB3_Rx+	17	GND
8	DETECT+	18	GND
9	Power	19	DETECT-
10	Power		

3.5.2   30 Pin Combo connector (Ethernet to Serial)
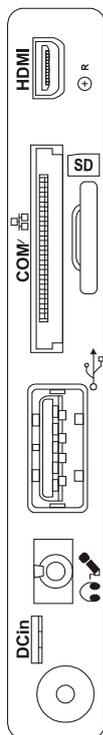
PIN	Signal name	PIN	Signal name
1	+V5S	16	NC
2	GND	17	NC
3	FK_NRI1	18	NC
4	FK_NCTS1	19	GND
5	GND	20	MDIO0+
6	FK_NDCD1	21	MDIO0-
7	FK_NSIN1	22	GND
8	GND	23	MDIO1+
9	FK_NDSR1	24	MDIO1-
10	FK_NRTS1	25	GND
11	GND	26	MDIO2+
12	FK_NDTR1	27	MDIO2-
13	FK_NSOUT1	28	GND
14	NC	29	MDIO3+
15	NC	30	MDIO3-

3.6 Product labelling
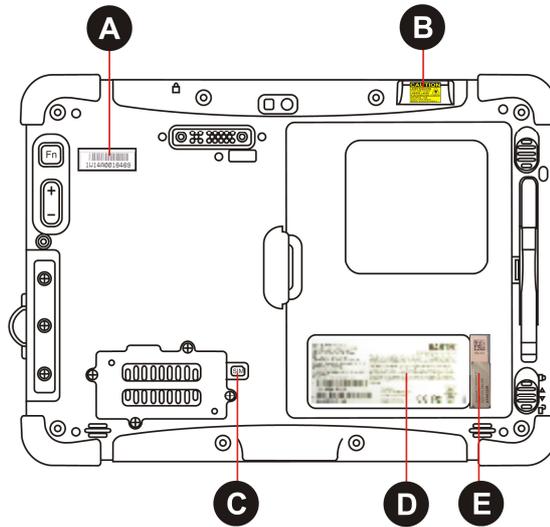
A	Serial number	
B	Laser warning Only for devices with integrated 1D/2D Imager	
C	SIM card slot	
D	Type plate	
	– without 4G LTE	

– with 4G LTE

E **Microsoft Windows Licence**

Windows® Embedded 8.1
Industry Pro
02219-000-388-428
X19-07228
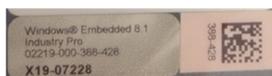
Battery Type B7-A2Z0-0028 and B7-A2Z0-0029

Front side
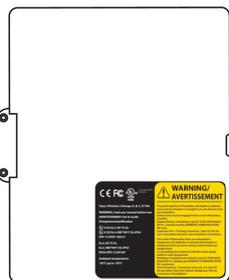
WARNING/ AVERTISSEMENT

Class I Division 2 Groups A, B, C, D T4A

WARNING: read user manual before use.
AVERTISSEMENT: lire le mode d'emploiavantutillisation

II 3G Ex ic IIC T5 Gc
II 3D Ex ic IIIB T90°C Dc IP54
EPS 15 ATEX 1823 X

Ex ic IIC T5 Gc
Ex ic IIIB T90°C Dc IP54
IECEx EPS 15.0010X

Ambient temperature:
-20°C up to +50°C

I.T.E FOR USE IN HAZ.LOC

To prevent ignition of hazardous atmosphere, batteries must only be changed or charged in an area known to be non-hazardous.
Battery lock must be engaged when used in Hazardous Location.
Replace Battery with Battery type B7-A2Z0-0028 Model BS101, manufactured by WINMATE COMMUNICATION INC only.
Expansion Port / Docking Connector / Side I/O: Not for use in hazardous locations. See installation instructions.

Pour éviter l'flammation dans uns atmosphère dangereuse, les batteries ne doivant être changé ou chargé que dans une zone connue comme etant non dangereuse.
Le verrouillage de la batterie doit être activé quand utilisé en zone dangereuse.
Remplacer la batterie avec batterie type B7-A2Z0-0028 Model BS101, fabriqué par WINMATE COMMUNICATION INC seulement.
Port d'extension / Connecteur d'accueil / Le côté I/O: Ne pas utiliser dans des endroits dangereux. Voir les instructions d'installation.

Rear side

BARTEC **BS101** Part number : B7-A2Z0-0028

DC 7.4V ⎓ 5300mAH 39.22Wh

CAUTION
• IMPROPER OPERATION MAY CAUSE DAMAGE TO THE BATTERY OR DANGEROUS ACCIDENTS.
• DO NOT PLACE THE BATTERY NEAR ANY HEAT SOURCE.
• DO NOT TRY TO DISASSEMBLE OR SHORT CIRCOIT THE BATTERY.
• DO NOT USE CHARGES OTHER THAN THE ONES PROVIDED BY THE ORIGINAL MANUFACTURER.
• THIS BATTERY MUST BE RECYCLED OR DISPOSED OF PROPERLY.
• NEVER SOAK THE BATTERY IN LIQUID SUCH AS WATER, DRINK OR OIL.
• PLEASE USE THE BATTERY UNDER PROPER TEMPERATURE CONDITIONS. TEMPERATURE: -10 - 60°C
• IF THE BATTERY HAVE NOT BEEN IN USE, PLEASE CHARGE IT 1-3 MONTHS
   AFTER THE LAST USE TO THE RECOMMENDED STANDARD OF 80% OR ABOVE

2ICP65/54/130-1
MADE IN TAIWAN
E213998

WARNING
MAY EXPLODE IF DISPOSED OF IN FIRE

Recyclable

3.7   Laser labels

ⓘ

The accessible laser radiation is in the visible spectral range (630nm to 680nm). It is not dangerous to the eye for short term exposure (up to 0.25 s).

NB:

In the case of laser devices of class 2, the eye is not in danger from incidental short term exposure to laser radiation, i.e. radiation exposure up to 0.25 s.

Laser devices of class 2 may therefore be used without protective measures if it is ensured that:

• neither intentional looking into the device is necessary for the application for a period longer than 0.25 s
• nor repeated looking into the laser radiation or reflected laser radiation.

In compliance with IEC 60825 and EN 60825, Clause 5 the following information is provided:

DEUTSCH

KLASSE 1	KLASSE 1 LASER PRODUKT
KLASSE 2	LASERLICHT NICHT IN DEN LASERSTRAHL SEHEN KLASSE 2 LASER PRODUKT

ENGLISH

CLASS 1	CLASS 1 LASER PRODUCT
CLASS 2	LASER LIGHT DO NOT STARE INTO BEAM CLASS 2 LASER PRODUCT

FRENCH / FRANÇAIS

CLASSE 1	PRODUIT LASER DE CLASSE 1
CLASSE 2	LUMIERE LASER NE PAS REGARDER LE RAYON FIXEMENT PRODUIT LASER DE CLASSE 2

ITALIAN / ITALIANO

CLASSE 1	PRODOTTO AL LASER DI CLASSE 1
CLASSE 2	LUCE LASER NON FISSARE IL RAGGIOPRODOTTO AL LASER DI CLASSE 2

PORTUGUESE / PORTUGUÊS

CLASSE 1	PRODUTO LASER DA CLASSE 1
CLASSE 2	LUZ DE LASER NÃO FIXAR O RAIO LUMINOSO PRODUTO LASER DA CLASSE 2

DUTCH / NEDERLANDS

KLASSE 1	KLASSE-1 LASERPRODUKT
KLASSE 2	LASERLICHT NIET IN STRAAL STAREN KLASSE-2 LASERPRODUKT

DANISH / DANSK

KLASSE 1	KLASSE 1 LASERPRODUKT
KLASSE 2	LASERLYF SE IKKE IND I STRÅLEN KLASSE 2 LASERPRODUKT

NORWEGIAN / NORSK

KLASSE 1	LASERPRODUKT, KLASSE 1
KLASSE 2	LASERLYS IKKE STIRR INN I LYSSTRÅLEN LASERPRODUKT, KLASSE 2

FINNISH / SUOMI

LUOKKA 1	LUOKKA 1 LASERTUOTE
LUOKKA 2	LASERVALO ÄLÄ TUIJOTA SÄDETTÄ LUOKKA 2 LASERTUOTE

4.   Transport and storage

4.1   Transport

ⓘ Report any transport damage or incomplete deliveries immediately after receipt in writing to the forwarding company and BARTEC GmbH.

Any damage caused through incorrect storage shall not be covered by the warranty provisions of BARTEC GmbH.

4.2   Storage

ATTENTION

Property damage through incorrect storage!
- ▶   Observe storage temperatures.
- ▶   Keep humidity away from the Tablet PC.

Additional information on the batteries

The batteries of BARTEC (Type B7-A2Z0-0028 and B7-A2Z0-0029) are developed and manufactured in accordance with the highest industrial standards. The operating time or storage period of a battery is restricted, however. The actual life of a battery is influenced by different factors, e.g. hot, cold, rough operating environment and falling from a great height. If a battery is kept longer than six months, the performance may be impaired on a permanent basis. Keep the batteries in a dry, cool place. For longer periods of storage, remove the batteries from the device to prevent self-discharge, rusting of the metallic and the escape of electrolyte.

Batteries kept for a duration of six months or longer should be charged and discharged again at least every three months. If electrolyte has escaped, do not touch the areas affected and dispose of the batteries as prescribed. Replace the battery if the operating time has shortened considerably.

The standard warranty period for all BARTEC batteries is six months, whereby it is irrelevant whether the battery was acquired separately or was contained in the scope of the delivery of the Tablet PC.

5. Commissioning

> **⚠ DANGER**
>
> **Avoid electrostatic charging in potentially explosive atmosphere.**
> **Danger to life in explosive atmosphere!**
>
> ▶ Do not dry wipe or clean the devices.
>
> ▶ Wear suitable clothing and shoes.
>
> ▶ Do not use rubber gloves or similar.

> **⚠ DANGER**
>
> **Unintended use endangers explosion protection.**
> **Danger to life in explosive atmosphere!**
>
> ▶ Do not make any changes to the 10.1" ex-certified Tablet PC.
>
> ▶ In the case of function disturbances or damage to the enclosure, the device should be removed immediately from the potentially explosive atmosphere to a safe place. Remove battery to decommission the device!
>
> ▶ Do not use any battery replicas or batteries from other manufacturers.

Before you assemble the device, make sure that all components and documents exist.

5.1 Scope of delivery

- 1 x 10.1" ex –certified Tablet PC
- 1 x lithium polymer battery, type B7-A2Z0-0028 with 7.4 V / 5,300 mAh
- 1 x stylus
- 1 x hand strap
- 1 x charger power pack
- 1 x power cable (EU)
- 1 x power cable (US)
- 1 x spare cover for interface
- 1 x spare tip for stylus
- 1 x CD with drivers and User manual
- 1 x Short Guide with safety information

5.1.1 Optional accessories

Authorised accessories from BARTEC:

– Lithium polymer battery, type B7-A2Z0-0029 with 7.4 V / 10,600 mAh

– Micro SD card

– Spare stylus

– Desktop docking station for network communication and charging

– Battery charging station

– Charger power pack

– Automatic charger power pack

– Vehicle holder with VGA output

– VESA assembly kit

– Shoulder strap

– LAN cable for 30 pin connector

– RS232 cable for 30 Pin connector

– Micro HDMI cable

– Screen protector

5.2 Requirements in potentially explosive atmosphere

Tablet PC

– The Tablet PC may not be opened.
One exception is the cover for the 4G LTE Module/SIM card for installation.

– Do not use, swap or replace and non-specified components.

– Do not retrofit any components to the internal plugs or slots. One exception if the 4G LTE Module, the SIM card and the dolt for the Micro SD card.

– Protect the Tablet PC from impact!

– Do not expose the Tablet PC to caustic/aggressive liquids, vapours, mists!

– Avoid the impact of moisture outside the specifications.

– Avoid thermal impact outside the specified temperature range.

– Use the following data interfaces only outside the potentially explosive atmosphere and exclusively with the devices specified by the manufacturer!
- 1 x 19 pol interface for docking station (bottom)
- 1 x 19 pol additional extension interface (rear side)
- Interfaces on the right side:
  1 x 30 pol interface (Ethernet to serial)
  1 x microphone /headset
  1 x USB
  1 x micro HDMI
  1 x micro SD card
  1 x DC battery

Battery

– The battery may not be opened.

– Only charge the battery (type B7-A2Z0-0028 and type B7-A2Z0-0029) outside the potentially explosive atmosphere.

– Only use the battery for the purpose listed in this Short Guide. Is only suitable for the Tablet PC Agile X Type B7-A23.-…./………

– The battery must be locked within the potentially explosive atmosphere.

– There is a danger of burning if used incorrectly. Do not expose the battery to temperatures of more than +60 °C (+140 °F).

– Battery acid may escape from the cells and cause burning in the case of damage.

– Defective batteries must be disposed of immediately, whereby the provisions on battery disposal applicable in the respective region must be observed.

– The battery may explode if it catches fire!

– Do not short circuit the battery!

Accessories

– Only install or replace accessories outside the potentially explosive atmosphere.

– User accessories exclusively which have been tested or certified by BARTEC for this purpose.

– The end user can replace the 4G LTE modules, SIM card, micro SD card, stylus, hand strap, shoulder strap, screen protector and Vesa assembly kit himself.

5.3 Handling accessories

> ⚠ **DANGER**
>
> **Non certified accessories endanger explosion protection.**
> **Danger to life exists in potentially explosive atmospheres!**
>
> ▶ Only use original accessories from BARTEC/ Winmate.
>
> **Only permitted outside the potentially explosive atmosphere:**
>
> ▶ Insert/charge battery.
>
> ▶ Insert/replace micro SD card.
>
> ▶ Insert/replace SIM card.
>
> ▶ Insert/remove 4G LTE module
>
> ▶ Attach/remove accessories such as stylus, hand strap and should strap.

5.4 First steps

ⓘ The individual steps are explained in detail in the following chapters!

▶ Unpack the Tablet PC.

▶ Insert the battery into the Tablet PC.

▶ Charge the battery in the Tablet PC in a safe atmosphere using the charger power pack supplied.

▶ Switch on the Tablet PC.

5.4.1 Insert battery

ⓘ The Tablet PC is supplied with a 7.4 V / 5,300 mAh battery type B7-A2Z0-0028 as standard.

| Battery for explosion-protected version, type	Order number	Charge time
Lithium polymer battery 7.4 V / 5,300 mAh	B7-A2Z0-0028	Less than 2.5 hours
Lithium polymer battery 7.4 V / 10,600 mAh	B7-A2Z0-0029	Less than 4.5 hours

Work steps:

Only charge, install or replace the battery outside the potentially explosive atmosphere. Use batteries exclusively which have been tested or certified by BARTEC for this purpose.

1. Place the Tablet PC on the display side. Take care that no parts lying about can scratch the display.

2. Open the lever to unlock the battery **(a)**.
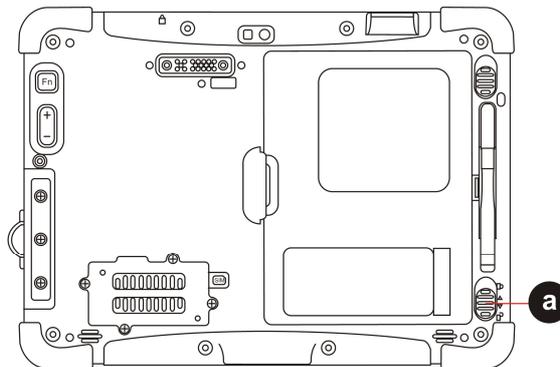
3. Insert the battery **(b)** with the charge contacts first into the battery compartment.

4. The charge contacts of the battery **(c)** must agree with the charge contacts in the battery compartment.

5. Push the lever **(d)** up to remove the battery and hold.

6. Push the battery **(b)** down into the battery compartment.

7. First release the lever **(d)** to remove the battery once the battery is flat in the battery compartment.
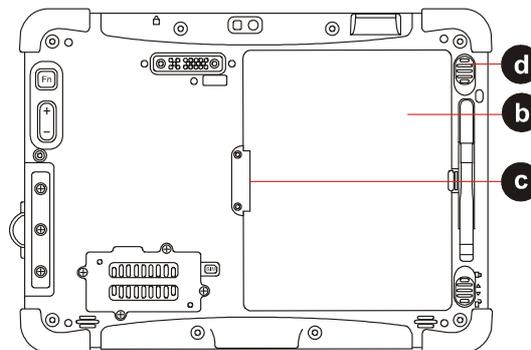
8. Lock the battery using the lever **(e)** for battery interlocking.
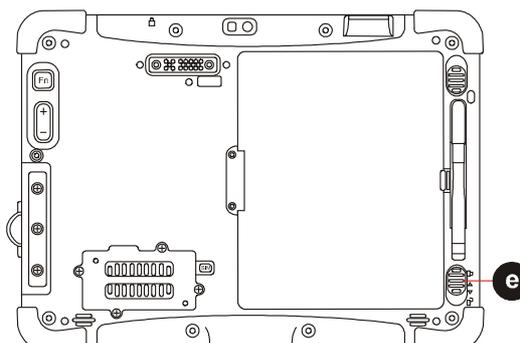
5.4.2 Insert 4G LTE module and SIM card

⚠ **DANGER**
Non-certified accessories endanger explosion protection. **Danger to life exists in potentially explosive atmospheres!** ▶ A condition of a safety conscious operation is the use of original 4G LTE modules which are specified for use by BARTEC. ▶ The ignition protection is rendered ineffective by using modules from other manufacturers so that a danger of fire or explosion exists. **Only admissible outside potentially explosive atmospheres:** ▶ The 4G LTE modules may only be replaced outside the potentially explosive atmosphere! ▶ The EGB information should be followed in order to prevent any damage to the Tablet PC. This includes working on an antistatic mat. The operator must also be correctly earthed. (EGB = Rules in the handling of electrostatically endangered construction elements and assemblies.)

ATTENTION
Incorrect handling can lead to material damage! ▶ Switch off the Tablet PC before replacing components. ▶ Turn off the Tablet PC before removing the battery. Errors when removing the battery may lead to a loss of data.

The Tablet PC has replaceable 4G LTE modules.

Available 4G LTE modules for the Tablet PC:

Type	Order number
LTE (US network) option 4G / LTE Sierra MC7355-US (Gobi5000) LTE, HSPA+ ,GSM/GPRS/EDGE, EV-DO Rev A, 1xRTT	03-9826-0127
LTE (EU network) option 4G / LTE Sierra MC7305-EU (Gobi5000) LTE, HSPA+, GSM/GPRS	03-9826-0128

Work steps:

Only insert or remove the 4G LTE modules outside the potentially explosive atmosphere. Use 4G LTE modules exclusively which have been tested and certified by BARTEC for this purpose.

1. Switch off the Tablet PC using the Power button.

2. Remove the battery.

3. Place the Tablet PC on the display side. Ensure that no parts lying about scratch the display.

4.   Unscrew with 4 screws **(a)** of the cover over the 4G LTE module interface.
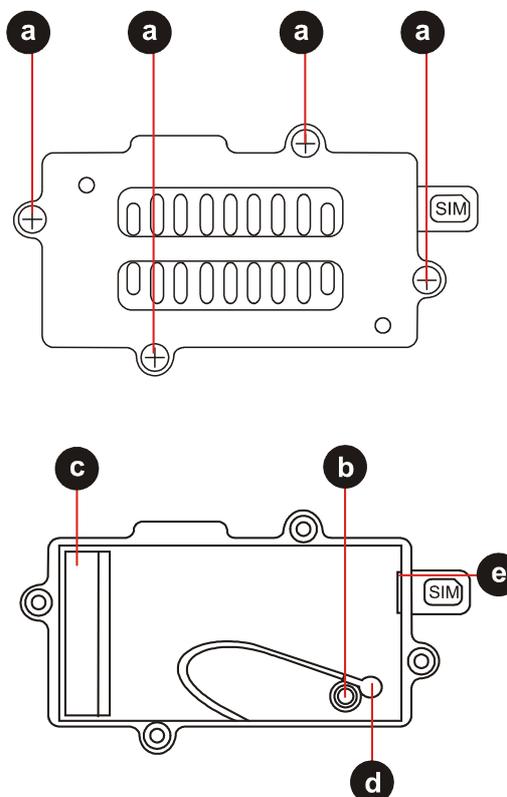
The following components are under the cover:

b   Screw for fixing the 4G LTE module

c   Slot for the 4G LTE module

d   Aerial for the 4G LTE module

e   Slot for the SIM card

5.   Insert the micro SIM card with the contacts facing down into the slot until it locks in.
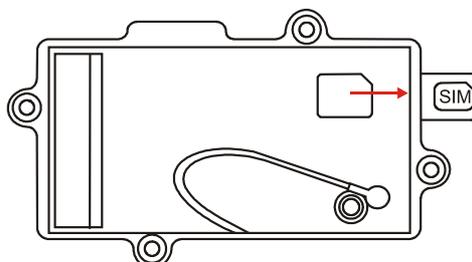
6. Pull up the aerial cable **(f)** and unscrew the screw **(g)**.

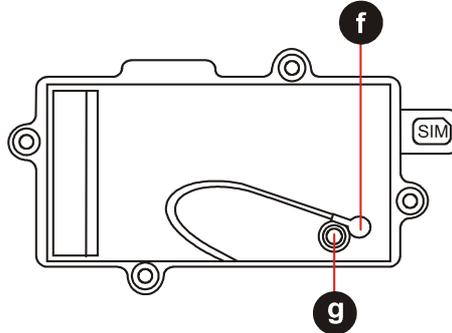7. Unpack the 4G LTE module for installation.
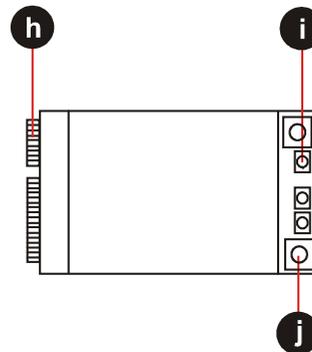
h	Gold contacts for the card
i	Connector for the aerial
j	Fixing hole for the screw

8. Insert the 4G LTE module.

   – Push aerial **(k)** onto the connector.

   – Lay the cable **(l)** beneath the module.

   – Position the 4G LTE module **(m)** diagonally and insert it into the slot for the 4G LTE module **(n)** until the gold contacts have been inserted completely..
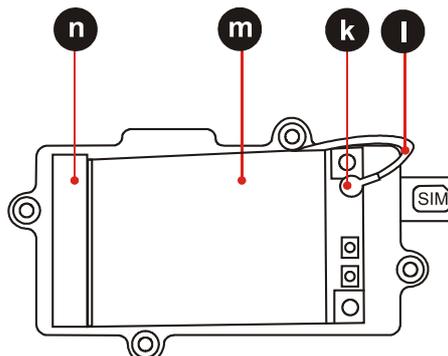
9. Push the 4G LTE module down until it rests on the bolts for the fixing screw without tension.

10. Tighten the fixing screw **(o)** hand tight.
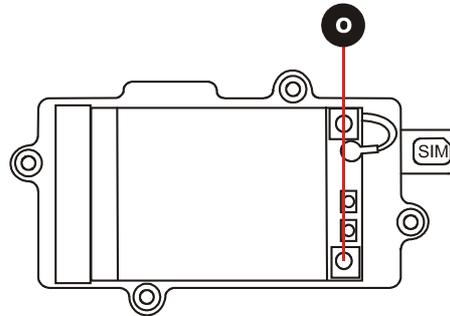

11. Replace the cover and tighten with the 4 screws **(p)** hand tight, so that the cover is tightly in position.
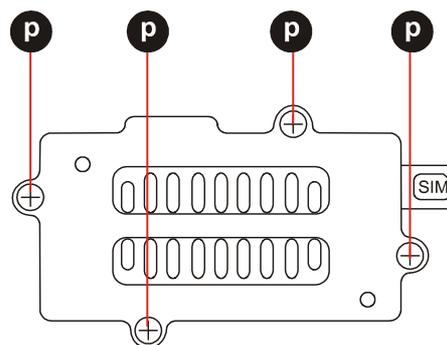
12. Insert the battery.

13. Switch on the Tablet PC using the Power button.

14. Start up the Tablet PC and check whether the 4G LTE module has been recognised in the system control.

5.4.3   Insert micro SD card

ATTENTION
Damage to the micro SD card through electrostatic discharges!
▶ User antistatic mat.
▶ Ensure that the operator is correctly earthed.
▶ A maximum of 32 GB are supported.
▶ BARTEC offers the following micro SD cards:

	1 GB	order number 17-C1Z0-0007
	2 GB	order number 17-C1Z0-0008
	4 GB	order number 17-28BE-F006/000A
	8 GB	order number 17-28BE-F006/000B

Work steps:

Only install or replace the micro SD card outside of the potentially explosive atmosphere. Only use micro SD cards which have been tested and certified by BARTEC for this purpose.

1. Switch off the Tablet PC using the Power button.

2. Remove the battery.

3. Place the Tablet PC on its front (display facing downwards).

4. Open the cover above the I/O interfaces **(a)**.
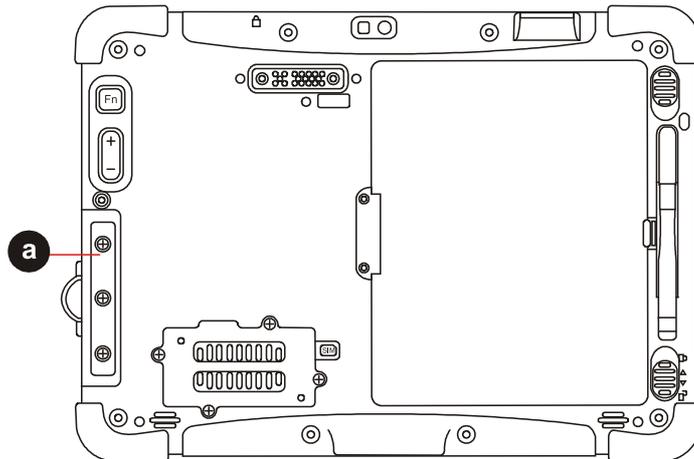
5. Push in the micro SD card with the contacts facing upwards into the micro SD card compartment **(b)** until it locks in.
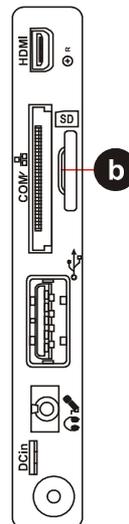
6. Close the cover of the I/O interface.

7. Insert the battery.

9. Switch on the Tablet PC using the Power button.

8. Check whether the micro SD card has been recognised and is available in system control or in the file explorer.

5.4.4 Remove/replace screen protector

⚠ **DANGER**
Non-certified accessories endanger explosion protection.
A danger to life exists in a potentially explosive atmosphere!
▶ A condition for a safety conscious operation is the use of original screen protectors which have been specified for use by BARTEC.
▶ Using screen protectors from different manufacturers renders the ignition protection useless so that there is a danger of fire or explosion.
Only admissible outside potentially explosive atmospheres:
▶ The screen protector may only be attached or replaced outside the potentially explosive atmosphere!

ATTENTION
Incorrect handling may cause damage to property!
▶ Use a screen protector so as not to impair the device warranty.
▶ Only use screen protector (Type B7-A2Z0-0031) from BARTEC.
▶ Observe the installation instructions for the screen protector.
▶ Do not use any sharp objects to remove the screen protector!

ⓘ The screen protector can be ordered from BARTEC. The installation instructions for the screen protector forms part of the scope of delivery. Parts number: B7-A2Z0-0031 screen protector, 1 piece.

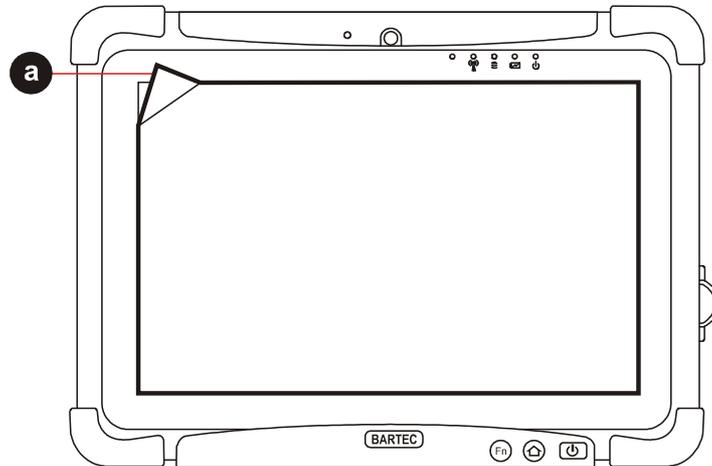| Screen protector	Order number
IECEx/ATEX certified	B7-A2Z0-0031

Work steps:

Only remove or replace the screen protector outside the potentially explosive atmosphere.

1. Lift a corner of the screen protector **(a)** and remove it from the display.

2. Attach the screen protector in accordance with the "Screen protector installation instructions".

5.5 RFID

The Tablet PC can be equipped with RFID as an option.

The unique concept permits ultramodern technologies to be combined with each other. It is therefore possible to combine barcode data capture with RFID technology in one device. The data can be directly processed in the device thanks to virtual keyboards and colour display.

The data can be transmitted to other corporate areas for further processing using WLAN, 4G LTE or Bluetooth and are therefore available in real time for further processing.

5.5.1 Versions

ⓘ The internal RFID HF reader cannot be incorporated in the Tablet PC by the customer himself. A retrofit in the factory is possible.
The internal RFID HF reader cannot be combined with the 1D/2D imager.
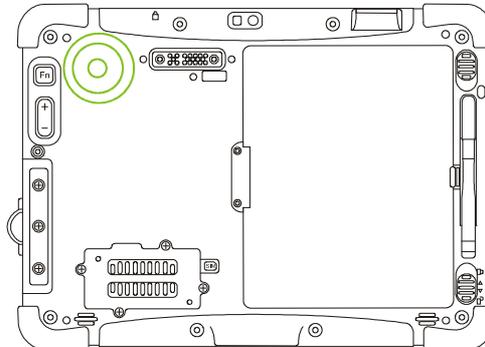
The RFID option is available in several versions:

− Internal RFID reader	HF	13.56 MHz
− External module RFID UHF Dual Reader		
	UHF EU	865 to 869 MHz
	UHF US	902 to 928 MHz

5.5.2 Read range/alignment

The following information on ranges refers to office environments and will depend on the standard use, the tags and the environmental influences.

− RFID HF reader   up to 3 cm

− RFID UHF dual reader   up to 150 cm
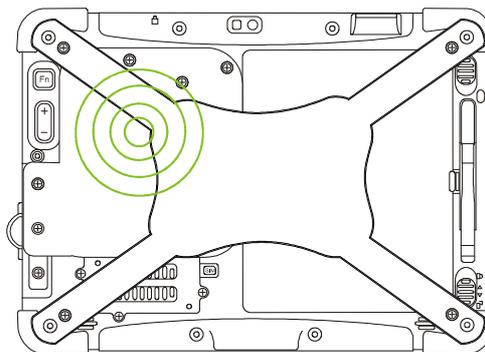
5.5.3 Software

A demo utility is available as a software for application development. An SDK is available for the RFID option.

Internal RFID HF reader:

SDK is a protocol that is based on the international UART standard.

RFID UHF dual band reader:

The SDK supports the programming languages C, C#, .Net, and Java and provides all necessary resources for application development. The Thing Magic Demo serves firstly to demonstrate reading and to describe RFID tags and secondly it is a good example for the application developer for the programming of the reader.

The following operating systems are supported by the SDK and the demo:

− Windows Embedded 8.1 Industry Pro - 64 Bit

− Windows 7 Professional - Service Pack 1 - 64 Bit

− Windows 8.1 Professional - 64 Bit

Das SDK, die Demo und Beschreibungen dazu stehen auf der BARTEC Downloadseite kostenlos zur Verfügung.

http://www.bartec.de/automation-download/

5.5.4 Assembly of RFID UHF dual reader

⚠️ **DANGER**

Non-certified accessories endanger explosion protection.

Danger to life exists in potentially explosive atmospheres!

▶ A condition for a safety conscious operation is the use of RFID modules which have been specified for use by BARTEC.

▶ The ignition protection is rendered ineffective by using modules from other manufacturers so that a danger of fire or explosion exists.

Only admissible outside potentially explosive atmospheres:

▶ The RFID modules may only be replaced outside the potentially explosive atmosphere!

▶ The EGB information should be followed in order to prevent any damage to the Tablet PC. This includes working on an antistatic mat. The operator must also be correctly earthed.
(EGB = Rules in the handling of electrostatically endangered construction elements and assemblies.)

ATTENTION

Incorrect handling may cause damage to property!

▶ Switch off the Tablet PC before replacing components.

▶ Turn off the Tablet PC before removing the battery. Errors when removing the battery may lead to a loss of data.

The Tablet PC has replaceable RFID UHF modules.

Available RFID UHF modules for the Tablet PC:

Type	Order number
RFID UHF Dual Reader Frequencies EU: 865 to 869 MHz US: 902 to 928 MHz	B7-A2Z0-0032

Work steps:

Only insert or remove the RFID module outside the potentially explosive atmosphere. Use RFID modules exclusively which have been tested and certified by BARTEC for this purpose.

1. Switch off the Tablet PC using the Power button.

2. Remove the battery.

3. Place the Tablet PC on the display side. Ensure that no parts lying about scratch the display.

4. Remove the cover **(a)** on the extension interface.

5. Remove the two upermost screws **(b)** of the I/O interface cover.
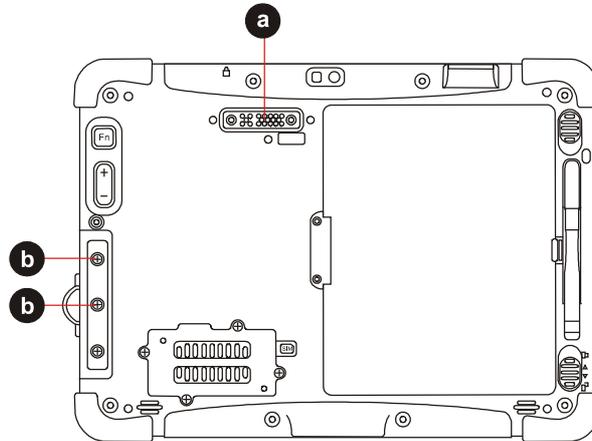
6. Unpack the RFID module. 5 screws for fixing are enclosed in the packaging.

7. Position the RFID module on the rear side on the extension interface.

8. Secure the RFID module using the 5 supplied screws **(c)**. Tighten screws hand tight.
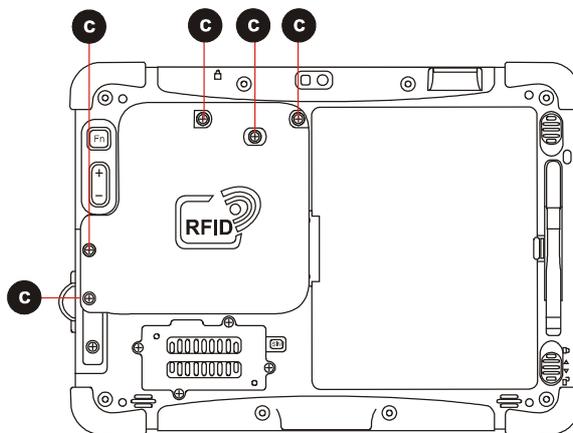
9. Visual control of RFID module that it is correctly positioned and assembled.

10. Insert the battery.

11. Switch on the Tablet PC using the Power button.

12. Start the Tablet PC and install drivers.

ⓘ If no new USB device is recognised, then first check in the Hot Tab Utility whether the extension interface is switched on.

Icon

Status colour	Status description
white	switched off
orange	switched on

13. Switch off the signature driver via settings menu **Disable driver signature enforcement**.

14. Change to the devices manager in order to install the drivers from the drivers CD.

15. The RFID module is recognised in the devices manager as **unknown device**.

16. Open the dropdown menu by right mouse click and select **Update driver software**.

17. A window opens with the message **Looking for driver software**.
    Select **Browse my computer for drivers.**

18. Change manually to the driver CD and select the driver **Micro-USBDriver.inf**.

19. Click on **Next** and continue with the installation.

20. At the end of the installation Windows announces that the drivers have been successfully installed.

21. The ThingMagic Demo Utility can then be installed from the driver CD.

22. For this purpose, select the Exe file **URA2.5BonjourSetup32.exe** on the driver CD and follow the installation instructions.

ⓘ Further information on the ThingMagic Demo is provided in the separate description of the RFID module.

6.   Operation

The operator using an electric system in a potentially explosive environment must keep the accompanying operation equipment in good condition, operate and monitor it correctly and conduct the requisite services and repairs. Before operation the devices it must be checked that all components and documents are available.

6.1   Final inspection

The following aspects must be checked before putting the device into operation:

▶   Is there any damage to the display, scanner window or enclosure?

▶   Are all covers closed as required?

▶   Is the battery used certified?

▶   Is the battery correctly inserted and locked?

▶   Does the screen protector (if used) have the requisite certification?

▶   Is the micro SD card specified for the Tablet PC?

▶   Has the SIM card been correctly inserted?

▶   Has the 4G LTE module been released for use in potentially explosive atmospheres?

▶   Have only accessory parts been attached to the device which have been released for use in potentially explosive atmospheres?

6.2   Care and cleaning

We recommend that the devices be cleaned regularly depending on use and also treated with care to ensure smooth and trouble free operation.

6.2.1   Care

Display	− Only use with supplied stylus for the touchscreen.
	− Use screen protector.
	− Use a soft cloth to clean and do not use aggressive cleaners.
Enclosure	− Protect device from impacts.
	− Do not expose to extreme loads, e.g. strong knocks and falling from great heights.
Environment	− Do not expose to extreme temperatures.
	− Do not leave in dirty, moist or wet environment.

Battery	– Change battery regularly.
	– Discharge and charge battery regularly (every 3 months).
	– For long term storage, remove the batteries from the Tablet PC and store in a cool environment at around 0 °C to +10° C and with a charge state of approximately 40-50 %.
	– Once a charge state of approximately 5 % has been reached, it is recommended that the battery be recharged. It is not necessary to discharge the battery entirely. The daily charging of the battery is also not harmful. Nowadays batteries no longer have a "Memory Effect".
	– If the battery reduces its charge state from 100 % to half to quickly it is time to replace the battery. The expected of the life off the battery is approximately 300 charges with standard use.

6.2.2 Cleaning

> ⚠ **DANGER**
>
> **Danger to life exists in potentially explosive atmospheres!**
> ▶ Only clean the devices and the accessories outside of the potentially explosive atmosphere.

> **ATTENTION**
>
> **Devices and accessories can be destroyed if handled incorrectly!**
> ▶ Generally separate the charger from the power supply.
> ▶ Only clean the interface contacts if the battery has been removed.
> ▶ There should be no residue, e.g. fluff on the contacts.
> ▶ There should be no moisture residue on the contacts.
> ▶ Heed the safety precautions when drying with compressed air.

To guarantee your own safety and the operational safety of the device, observe the precautionary measures carefully.

6.2.3 Suitable materials for cleaning

– Alcohol cleaning cloths

– Lens cleaning cloths

– Cotton swabs

– Isopropanol

– Compressed air spray with tube

Enclosure	– With alcohol cleaning cloths.
Keys and intermediate spaces	– With alcohol cleaning cloths.
Screen	– With alcohol cleaning cloths. – Avoid collections of fluid and rub with smooth cloths.
Scanner window	– Use cleaning agent for optical devices.
Battery contacts	– Remove the battery from the device to clean. – Soak the cotton swabs in an alcohol solution to remove all grease and dirt deposits on the contacts. – Repeat cleaning several times. – Before replacing the battery, the contacts must be completely dry and no fluff should remain.
Interface contacts	– To clean the interface contacts, remove the battery from the device. – Soak the cotton swabs in an alcohol solution to remove all grease and dirt deposits on the contacts. – Repeat cleaning several times. – Before the interfaces of the devices are used again, the interface contacts must be completely dry and no fluff should remain.
Accessories such as charger, docking station, cradle connectors	– Separate the accessories from the power supply to clean. – Soak the cotton swabs in an alcohol solution to remove all grease and dirt deposits on the contacts. – Repeat cleaning several times. – Before the accessory is reconnected to the power supply, the contacts must be completely dry and no fluff should remain.

6.3 Operation, recommendations and requirements

6.3.1 Basic safety and health protection requirements

Consult your local health and safety officer to ensure that you are acquainted with the safety regulations in your company which serve to protect employees at the workplace.

6.3.1.1 Ergonomic recommendation

The following recommendations should be considered for everyday work at the workplace:

– Avoid one-sided, constantly repetitive movements.

– Body posture should be as neutral as possible.

– Avoid exercising great force.

– Keep objects which are used frequently within a functional distance.

– Adjust the working height to the body height and type of work.

– Erect objects without vibration.

– Avoid the exercising of direct pressure.

– Ensure that the tables and chairs are adjustable.

– There must be sufficient room for body movements.

– Ensure that the working environment is suitable.

– Optimise work flows.

– Alternate between the left and right hand as frequently as possible when conducting repetitive tasks.

6.3.1.2 Vehicle installation

ⓘ It is not permitted to connect a warning device which leads to horn sounds or light signals when receiving a call in road traffic.

ⓘ Information on conducting telephone conversations only applies if a 4G LTE module is used.

RF signals may impair incorrectly installed or inadequately shielded electronic systems in vehicles (including safety systems). If you have any questions on your vehicle, get in touch with the manufacturer or sales person.

You can also learn from the manufacturer whether additional equipment has been fitted to the vehicle. An airbag has a strong impact. Do NOT place objects, such as installed or portable radio equipment, in the area above the airbag or in the area of deployment of the airbag. If radio equipment was not correctly installed in the vehicle, severe injuries may result if the airbag is triggered.

Position the device within good range. Ensure that you have access to the device without having to take your eye off the road.

Road traffic safety

Do not take any notes and do not use the device when driving. Making a list of to-dos or browsing through the address book when driving has a negative effect on safe driving. When driving on the road, you must primarily think of your safety and that of other road users. You should therefore concentrate completely on the road. Check the legal provisions on the use of wireless devices in road traffic of the respective region. Always observe these.

If you use a wireless device during driving a car, rely on your good judgement and remember the following:

– Become acquainted with the wireless device and its functions such as the shortcut dialling or dial repetition function. These functions may prove to be useful if you would like to make calls without taking your eye off the road.

– Where possible, use hands-free equipment.

– Let your dialogue partner know that you are behind the steering wheel. When necessary discontinue the call in dense traffic or poor weather conditions. Rain, sleet, snow, ice and even very dense traffic represent dangers.

– Dial the required numbers carefully and estimate and the traffic situation. Make your calls once you have brought your car to a stop or before you leave. Plan your calls such that these can be done when parked. If you really must make a call during the trip, only dial a part of the number, check the road and look in the rear view mirror and then dial the rest of the number.

– Do not succumb to stressful and emotional telephone conversations which could take your attention from the road. Let your dialogue partner know that you are in a car and refrain from conversations which could take your attention from the road.

– Call for help using your mobile device if necessary. Dial the emergency services (911 in the USA and 112 in Europe) or other local emergency service numbers in the event of fire, accident or medical emergencies. Remember that these calls are free of charge on the wireless device! The call can be made independently of security code or networks with or without a SIM card.

– Help your fellow humans in emergency situations with your mobile device. If you witness a serious accident, crime or any other emergency, call the emergency service (911 in the USA and 112 in Europe) or another local emergency service number because you could be the one who needs help next time.

– Call the breakdown service or a special mobile radio number for support if you encounter problems on the road. If you pass a car with a breakdown, which does not represent a serious impediment to traffic, pass traffic lights which do not function, a traffic accident with slight damage and without injuries or a possibly stolen car, please get in touch with the road police or another special mobile radio number for support.

The "Mobile Communication Industry" requests you to give safety priority when using your device/telephone.

6.3.2 Information on the use of wireless devices

Heed all warnings referring to the use of wireless devices.

6.3.2.1 Safety in aircraft

Switch off the wireless device when asked to do so by the ground staff and by employees of the airline. If your device has a flight mode or similar function, find out about its correct use with the help of the aircraft staff.

6.3.2.2 Safety in hospitals

Wireless devices emit radio frequencies and cause disturbances to medical technical electrical devices. Wireless devices should be switched-off on request when you are in hospitals, clinics or health establishments. This is intended to avoid any possible interferences with sensitive medical equipment.

6.3.2.3 Heart pacemakers

Manufacturers recommend that a minimum distance of 15 cm be observed between a wireless handheld device and a pacemaker to avoid potential interference. This guideline is in line with the independent research results and recommendations of Wireless Technology Research.

– Persons with heart pacemakers should ALWAYS keep at least 15 cm away from the activated device.

– The device may not be worn by these persons in the breast pocket.

– The device should be held to the ear which is further away from the heart pacemaker.

– If you have reason to assume that an interference has arisen you should SWITCH-OFF the device immediately.

6.3.2.4   Hearing aids

The wireless device may cause disturbances to hearing devices. Get in contact with the manufacturer of your hearing device in the case of disturbances to ask about possible solutions.

− The device should be held to the ear which is furthest away from the heart pacemaker.
− If you have reason to assume that interference has arisen you should SWITCH OFF the device immediately.

6.3.2.5   Other medical equipment

Ask your doctor or the manufacturer of the medical device to determine whether putting the wireless product into operation impairs the medical device.

6.3.3   Equipment of the laser devices

> ⚠ **CAUTION**
>
> **Laser radiation! May damage eyesight!**
> ▶   Do not look into the laser beam.

Devices from BARTEC/Winmate equipped with lasers comply with the following guidelines:

− IEC 60825-1:2007 / EN 60825-1:2008-05 Class 2 (1 mW, 630-680 nm)
− IEC 60825-1 / EN 60825-1: Class 1 LED product (only with imaging option, no laser label)

The Tablet PC uses the Intermec Scan Engine EA30. The classification for the laser device is stated on the plate attached to the device. Laser devices of class 1 are not considered to be dangerous as long as they are used for their intended purpose.

6.3.4   LED devices

> ⚠ **CAUTION**
>
> **LED light! May damage eyesight!**
> ▶   If you use LED for the camera flash, keep the camera flash LED at least 317 mm (12.5 inch) away from a person's eyes. Otherwise serious damage may be caused to the eyes.

Devices from BARTEC/Winmate equipped with LED devices comply with the following guidelines:

− IEC 62471:2006-07 for LED safety.

6.3.5 Restrictions in the case of wireless devices

ⓘ The use of wireless devices is possibly forbidden or restricted. This applies primarily on board aircraft, in hospitals, in the vicinity of explosive substances or under other hazardous conditions. If you are not sure which regulations apply to the use of the device, ask permission before switching it on.

Radio modules

The device contains radio modules. The identification data for these modules are provided below:

– Radio module from BARTEC/Winmate which supports WLAN 802.11 a/b/g/n and Bluetooth.

– Intel® Centrino® Advanced-N 6235 (802.11a/b/g/n, 2x2, Dual-Band Wi-Fi + Bluetooth 4.0).

Bluetooth® radio technology

This is an authorised Bluetooth® product. Further information and an end product list is provided at **https://www.bluetooth.org/tpg/listings.cfm**.

Country-specific roaming

This device has the International Roaming function (IEEE802.11d) which ensures that the device is used on the channels prescribed for the respective country.

Ad-hoc operation

The ad-hoc operation is restricted to the channels 36–48 (5150–5250 MHz). The use of this bandwidth is restricted to indoor areas; use outdoors is not permitted.

6.4 Operating frequency - FCC and IC

5 GHz only

Use in the UNII-Band 1 (Unlicensed National Information Infrastructure) in the range of 5150-5250 MHz is restricted to indoor rooms. The failure to heed this rule leads to the illegal operation of the device.

Industrial standard declaration for Canada

ATTENTION
Devices can be damaged by inappropriate handling!
▶ The device for the frequency range 5150-5250 MHz is exclusively intended for operation in indoor rooms in order to restrict possible co-channel interference for satellite mobile radio systmes to a minimum. The frequency ranges 5250-5350 MHz and 5650-5850 MHz are primarily intended for the high power radar devices (i.e. these radar devices take priority). These radar devices may cause interference and/or damage WLAN devices.

2.4 GHz only

In the USA the channels 1 to 11 are available for the 802.11 b/g operation. The range of channels is restricted by the firmware.

FCC requirements to protect against high-frequency interference

This device has been tested and satisfies the limit values for a digital device of Class B according to Part 15 of the FCC Guideline. These limit values were stipulated to guarantee appropriate protection against disturbances if the device is used in residential areas.

The device generates and uses radio frequency energy and may emit this energy. This can have a disturbing effect on other radio frequencies if the device is not connected and used in accordance with the operating instructions. A guarantee that no interference will arise for a certain installation cannot be given.

If the device causes interference to the radio or TV reception which can be recognised by switching the device on and off, the interference should be eliminated by one or several of the following measures:

– Re-alignment or moving of the receiving aerial.
– Enlarging the distance between device and receiver.
– Connecting the device to a different socket than the one to which the receiver is connected.
– Advice from the dealer or a radio/television technician.

Declaration in accordance with the FCC regulations, Part 15.21

Changes which have not been explicitly approved by the party responsible for compliance with the regulations can lead to the expiry of the operating authorization for this device.

Radio transmission devices (Part 15)

This device satisfies the requirements of Part 15 of the FCC Guidelines. The operation of the device is based on the following two conditions:

– The device may not cause any damaging interference.
– The device must absorb all receiving interference including interference which may lead to undesirable operation.

Requirements placed on the protection from high frequency interference - Canada

This digital device of Class B satisfies the Guidelines of the Canadian standard ICES-003.

Radio transmission devices

This device corresponds to RSS 210 (Industry & Science Canada). The operation of the device is based on the following two conditions:

– The device may not cause any damaging interference.
– The device must absorb all receiving interference including interference which may lead to undesirable operation.

Label symbol: "IC:" before the radio certification means that the technical data of Industry Canada have been satisfied.

Country approvals

For 2.4-GHz products: Europe covers Belgium, Bulgaria, Denmark, Germany, Estonia, Finland, France, Greece, Great Britain, Ireland, Iceland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, Austria, Poland, Portugal, Romania, Sweden, Switzerland, Slovakia, Slovenia, Spain, Czech Republic, Hungary and Cyprus.

Test symbols are attached to the device which shows that the radio modules are approved for use in the following countries: USA, Canada and Europe.

Detailed information on the test symbol for other countries is provided in the EC declaration of conformity.

USA

> ⚠ **WARNING**
>
> **It is not permitted to operate the device without official approval.**
>
> ► Acquire a permission from the authorities first.

The channels 1 to 11 are available in the USA for 802.11 b/g operation. The range of the channels is restricted by the firmware.

Radio transmitters for RLAN devices

The operation of RLAN devices (5 GHz) is subject to the following restrictions in Canada:

– Frequency range restricted to 5.60 GHz to 5.65 GHz.

This device complies with the radio standard RSS 210 of the Industry & Science Canada.

The operation of the device is based on the following two conditions:

– The device may not cause any damaging interference

– The device must absorb all receiving interference including interference which may lead to undesirable operation.

Label symbol "IC:" before the radio certification merely means that the technical data of Industry Canada have been satisfied.

6.5 Electromagnetic fields

Reduction in high frequency energy – intended use

Only use device in compliance with the supplied instructions.

International

The device complies with the internationally recognised standards for the recommended maximum values for electromagnetic fields of radio devices. Information on "internationally" recommended maximum values for electromagnetic fields is provided in BARTEC's Declaration of Conformity at **http://www.bartec.de/**.

Europe

Portable devices have been specially tested for operation in direct body proximity. Use exclusively belt clips, holsters and similar accessories which have been tested and approved by BARTEC to ensure compliance with the EU regulations.

USA and Canada

Declaration on joint use

To comply with the FCC guidelines with respect to exposure to high frequency energy, the aerial for this transmitter should not be used in the direct vicinity of, or in an operation unit with, other transmitters/aerials with the exception of those approved in this document.

ⓘ The Tablet PC should only be worn close to the body when turned off.

Portable devices has been specially tested for operation in direct body proximity. Use exclusively belt clips, holsters and similar accessories which have been tested and approved by BARTEC to ensure compliance with the FCC regulations. Belt clips, holsters and similar accessories of third manufacturers may not satisfy the FCC requirements for the recommended maximum values for electromagnetic fields and should not therefore be used.

Micro SD card

The Micro SD card slot provides a secondary, non-volatile memory. The slot is located at the side of the Tablet PC. Further information is provided in the documentation supplied with the card. Observe the manufacturer's recommendations on use.

7. Faults and troubleshouting

⚠ DANGER
Danger to life exists in potentially explosive atmospheres! ▶ Examine defective devices and any accessories only outside the potentially explosive atmosphere.

7.1 Troubleshooting

Problem	Solution
The battery does not charge.	• Check that the external power supply is connected and that the replaceable battery is inserted correctly.
No image on the display.	• The Tablet PC is possibly in sleep mode. Press power button to wake up the device. • The settings for the background lighting are possibly too low. Increase the settings of the background lighting.
The screen suddenly switches off and the power LED goes out.	• With the hot tab tool, check whether the power power LED has been deactivated. • Check whether the external power supply is connected. • In the battery mode, check whether the battery is inserted correctly. • It may be necessary to charge the battery.
The WLAN signal is very poor.	• With the hot tab tool, check whether the WLAN is activated. • Check whether the SSID is identical everywhere in the network. • Restart the Tablet PC. • Check whether the IP and subnet mask are set correctly.
Bluetooth connection to other devices is not working.	• Check that the Bluetooth is switched on in both devices. On the Tablet PC, check with the hot tab tool. • Check whether the two devices are discoverable (connectable). • Check whether the two devices are compatible with each other. • Check whether the two devices are further than 10 m apart.

Problem	Solution
The GPS application cannot find my position.	• With the hot tab tool, check whether the GPS is activated. • Check whether the GPS receiver and the position sensor are active in the device manager. • You may possibly be outside the GPS range. Take the Tablet PC outdoors or closer to a window. • Check whether the objects in the environment generate faults such as microwaves or mobile telephones. • Move the Tablet PC away from any such objects.
The GPS is very inaccurate.	• When using the GPS we recommend that the 1D/2D imager be deactivated to avoid faults.
There is no sound from the loudspeaker.	• Check the volume setting with the buttons for high and low. • When using external audio devices check whether the cable has been connected correctly.
The display of the Tablet PC cannot be displayed on an external monitor.	• Check whether the VGA driver is installed. • Check that the output settings are correct.
No laser appears with the 1D/2D imager and it does not appear to work.	• With the hot tab tool, check that the 1D/2D imager is active. • In the system settings, check that the 1D/2D imager is set to COM15 so that the hot tab tool has access.
The laser appears with the 1D/2D imager but no data are shown.	• Reduce the distances between the 1D/2D imager. • In the 1D/2D imager configuration, check whether the barcode type use is active.
The RFID reader does not work.	• In the system settings, check whether the RFID reader is set to COM3 so that the hot tab tool has access.

7.2   Resetting the Tablet PC using the recovery function

ATTENTION
Recovery can cause data loss!!
▶   Data which are stored on the Tablet PC and are not subject to data backup will be deleted and loss irretrievably.
▶   You should therefore first conduct a data backup in order to prevent data loss.

Every Tablet PC is supplied with a recovery partition and permits a 1-key recovery procedure.

Work steps:

Conduct the recovery function only outside of potentially explosive atmospheres. Only start and conduct the recovery function if the Tablet PC is connected to an external power supply.

1. Switch on the Tablet PC using the Power button.

2. When the boot screen appears, there are two ways of reaching the recovery menu.

   –   Press **Fn1** button on the front side of the Tablet PC.

   –   When using an external USB keyboard, press the **F6** button

3. The following screen of the recovery function appears.

4. Select the **Recovery** option and continue.

5. A warning appears that all data will be lost. Ensure that all data are backed up. Where necessary, abort with **No** and conduct a data backup first. Only select **Yes** if you are certain that all data are secure.

6. Wait until the recovery process has been completed. A command window appears during the recovery and shows the progress of the recovery. The Tablet PC restarts after recovery has been completed.

7. Check whether the Tablet PC is working and restore your data and application programs.

8. Service, inspection, repair

Service, inspection, and repair of Tablet PCs may be conducted exclusively by trained and qualified staff! The staff who is familiar with the service, inspection, and repair of the Tablet PCs, has been informed about the risks and has the qualifications necessary for this work.

8.1 Service intervalls

> ⚠ **DANGER**
>
> **Prevent electrostatic charging in potentially explosive atmospheres.**
> **Danger to life in explosive atmosphere!**
> ▶ Do not dry wipe or clean devices.

The mechanical state of the device should be regularly checked. The service intervals will depend on the ambient conditions. We recommend that a service be conducted at least once a year. Regular servicing is not necessary if the device is correctly operated in accordance with the installation instructions and under appropriate consideration of the ambient conditions.

8.2 Inspection

According to EN/IEC 60079-17 and EN/IEC 60079-19, the owner/operator of electrical plants in potentially explosive atmospheres is obliged to have these plants checked by an electrician to ensure that they are in a correct condition.

8.3 Service and repair work

In addition to Directive 99/92/EC, the standards EN/IEC 60079-17 and EN/IEC 60079-19 also apply to the servicing and repair as well as the testing of accompanying operating devices.

Work connected with assembly/dismantling, operation and servicing may only be conducted by trained specialists. All statutory requirements and other binding guidelines on occupational health and safety, accident prevention and environmental protection must be observed.

8.3.1 Information on sending in for repairs

The following information is required for the repair:

– Serial number of the device, see label for series number **(1)**

– Model number or product name, see type plate **(2)**

– Software type and version number from the system information in system control
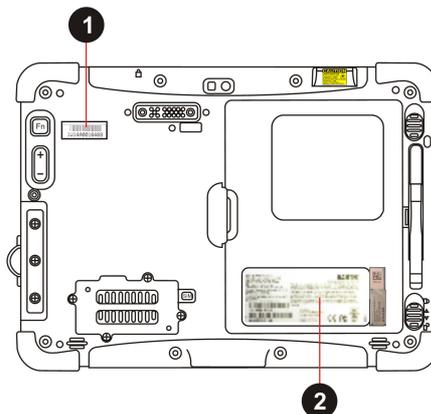
Please read through the handling guidelines for the RMA process before you send in a defective device for repair. Then complete the RMA form (Return Merchandise Authorization), sign it and send it to our "Returns Centre".

| E-Mail: | **services@bartec.de** |
| Fax: | +49 7931 597-119 |

We cannot guarantee the processing within the contractually agreed period for any returns received by us without RMA number.

The handling guidelines and the RMA form are available for download from our website:

http://www.bartec.de

> Quality and Culture

> RMA Form

Haben Sie Fragen? Schreiben Sie uns eine E-Mail oder rufen Sie uns an.

| E-Mail: | **services@bartec.de** |
| Telephone: | +49 7931 597-444 |

9.   Disposal

ⓘ

As professional electrical devices, our devices are intended exclusively for commercial use, so-called B2B devices, in accordance with the WEEE Directive.

The WEEE Directive provides the framework for the treatment of old electrical equipment throughout Europe. This means that you may not dispose of these devices in usual household waste but must dispose of them separately in an environmentally compatible manner and can also bring them to the collection points of public disposal companies.

All products purchased from us can be returned to us by our customers for disposal. We will ensure disposal in accordance with the applicable laws.

The sender shall bear the costs of postage and packaging.

The Tablet PCs contain metallic and plastic parts and electronic components.

10. Forwarding and packaging information

ATTENTION
Sensitive devices! Damage may be caused by incorrect packaging!
▶   Use original packaging for transport.

11. Accessories

Ex-certified	
Description	**Order number**
Replacement battery	
Standard battery Li polymer battery 7.4 V / 5,300 mAh ATEX/IECEx /UL	B7-A2Z0-0028
Extended battery Li polymer battery 7.4 V / 10,600 mA ATEX/IECEx /UL	B7-A2Z0-0029
Further accessories	
Spare stylus 1 piece per pack with rubber strap suitable for capacitive touch screen with anti-scratch rubber tip	03-9849-0131
Shoulder strap for easy carrying shoulder strap with padding adjustable belt length	03-9849-0132
Spare hand strap 1 piece per pack for fitting to rear side	03-9849-0130
Screen protector ATEX/IECEx cerified for gas groups IIA, IIB and IIC – 1 piece per pack – 10.1" widescreen	B7-A2Z0-0031

ℹ The following accessories are only suitable for use outside of a potentially explosive atmosphere.

General (only for use in safe environments)	
Description	**Order number**
ATP industrial-type micro SD cards	
– with 2 GB	17-C1Z0-0008
– with 4 GB	17-28BE-F006/000A
– with 8 GB	17-28BE-F006/000B
Earthing pin plug (IEC 320-C5 socket), AC mains cable, 3-wire, country specific	
– EU version	03-9609-0022
– US version	03-9609-0023
– UK version	03-9609-0024

Further accessories	
Charger power pack • Input voltage: AC 100 to 240 V • Output voltage: DC 19 V, 3.42 A • Available with matching mains cable for EU, UK, US, and others Spare parts required (order separately!): • AC mains cable country specific	03-9911-0040
Battery charger • Input voltage: 10 to 20 V DC (50 W) • Two charging compartments • Charge level display via LED • Buzzer to indicate correctly inserted battery • Supports up to 2 chargers switched together	03-9914-0010
Car charger • Input voltage: DC 11 V to 16 V and 22 V to 32 V • Output voltage: DC 19 V (+/- 5%), 3.42 A • Ambient temperature: 0°C to + 40°C	03-9914-0011

Further accessories	
Desktop holder • Input voltage: DC 12 V • Optional input voltage: DC 9 V to 36 V Interfaces: • 4 x USB 2.0 • 1 x RS232 • 1 x Ethernet 10/100 Mbit/s • 1 x VGA can be used with standard battery and extended battery Spare parts required (order separately!): • Charger power pack	03-9915-0017
Vehicle holder with VGA output • Input voltage: DC 9 V to 36 V Interfaces: • 2 x USB 2.0 • 1 x RS232 • 1 x Ethernet 10/100 Mbit/s • 1 x VGA • 1 x SMA for external GPS aerial can be used and extended with battery standard Spare parts required (order separately!): • Car charge cable	03-9915-0018
VESA assembly kit • Holder • Slim design • Size: 75 x 75 mm • Material: metal	03-9849-0133
LAN cable • for LAN with 30-pin extension port • Plug: RJ45, female	03-9919-0022
RS232 cable • for RS232 with 30-pin extension port • DB9 serial RS232 cable, male	03-9919-0023
Micro HDMI cable • Micro HDMI (male) to HDMI (male)	03-9919-0024

12. Additional information

12.1 Links

ⓘ All documents refere to the non-explosion-protected version.

Please heed the safety information in the BARTEC manuals when using original Winmate documents.

ⓘ The explosion-protected BARTEC Agile ✕® and the non-explosion-protected Winmate M101B series do not differ in terms of software.

The available software in the Winmate download center runs on all devices.

http://www.bartec-group.com

BARTEC website

http://www.bartec.de/automation-download/

BARTEC download page

http://www.winmate.com.tw/TabletPC/rugged_tablet_M101B.htm

Winmate product webside

13. Declaration of Conformity

Erklärung der Konformität
Declaration of Conformity
Attestation de conformité

BARTEC

BARTEC GmbH
Max-Eyth-Straße 16
97980 Bad Mergentheim
Germany

№ B1-A234-7C0001

Wir	We	Nous

BARTEC GmbH,

CE

erklären in alleiniger Ver-antwortung, dass das Produkt	declare under our sole responsibility that the product	attestons sous notre seule responsabilité que le pro-duit
Agile X **M101B^{ex}-NI**	**Agile X** **M101B^{ex}-NI**	**Agile X** **M101B^{ex}-NI**

Typenbezeichnung : B7-A233-..../........
B7-A234-..../........

auf das sich diese Erklä-rung bezieht den Anforde-rungen der folgenden **Richtlinien (RL)** entspricht	to which this declaration relates is in accordance with the provision of the following **directives (D)**	se référant à cette attesta-tion correspond aux dispo-sitions des **directives (D)** suivantes
ATEX-Richtlinie 94/9/EG	**ATEX-Directive 94/9/EC**	**ATEX-Directive 94/9/CE**
EMV-Richtlinie 2004/108/EG	**EMC-Directive 2004/108/EC**	**CEM-Directive 2004/108/CE.**
und mit folgenden Normen oder normativen Doku-menten, soweit zutreffend, übereinstimmt	and is in conformity with the following standards or other normative docu-ments, if applicable	et est conforme aux normes ou documents normatifs ci-dessous, le cas échéant
EN 60079-0:2012 EN 60079-11 :2012 EN 62209-2:2010 EN 55024 : 2010	EN 300 328 V1.8.1:2012 EN 300 440-1 V1.6.1:2010 EN 300 440-2 V1.4.1:2010 EN 50566:2013	EN 55022 : 2010 EN 61000-3-2 : 2006 +A1 : 2009 + A2 : 2009 EN 61000-3-3 : 2008
Kennzeichnung	**Marking**	**Marquage**

⟨Ex⟩ II 3G Ex ic IIC T4 Gc

B1-A234-7C0001 X

If the sign "X" is placed after the declaration of conformity number, it indicates that the equipment is subject to special conditions for safe use specified in the user manual.

03-0383-0289

Erklärung der Konformität
Declaration of Conformity
Attestation de conformité

N° B1-A234-7C0001

BARTEC
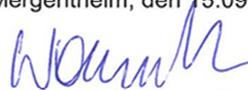BARTEC GmbH
Max-Eyth-Straße 16
97980 Bad Mergentheim
Germany

Verfahren der internen Fertigungs-kontrolle	Procedure of internal control of Production	Procédure de contrôle interne de fabrication

CE

Bad Mergentheim, den 15.09.2014

ppa. Ewald Warmuth
Geschäftsleitung / General Manager

03-0383-0289

BARTEC protects

people and

the environment

by the safety

of components,

systems

and plants.