



ATEX / IECEx

Zone 2 and 22

UL Class I Division 2



User Manual - Translation**7" Industry Tablet - Lumen X7**

Type B7-A23.-2.../.....

ATEX / IECEx Zone 2 / 22

UL Class I Division 2

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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/EG, EN/IEC 60079-17 and EN/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 in the product area "Automation & Enterprise Mobility" or may be requested directly from BARTEC GmbH.

1.1.3 Registered trademarks

ARM®	is a registered trademark of ARM Limited
Android	is a registered trademark of Google Inc.
Bluetooth®	is a registered trademark of Bluetooth Special Interest Group
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 Industry Tablet is a prerequisite for its perfect and correct functioning.

1.3 Intended use

1.3.1 Exclusive purpose

The Industry Tablet 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 Industry Tablet who:

- ▶ are acquainted with the basic regulations on safety and accident prevention, and who have been inducted in the use of the Industry Tablet,
- ▶ 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.
- ▶ 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 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 Industry Tablet. See Chapter 3 "Technical data" with respect to labelling.

The guidelines and standards applicable to the Industry Tablet 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 Industry Tablet.
- Incorrect handling.
- Failure to observe the information in the User Manual and the Quick Reference Guide 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 Industry Tablets (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 Lumen X7 Industry Tablet series.

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

1.9 Co-applicable documents - set of documents

- **User Manual for the Lumen X7 Industry Tablet series:**
The use, commissioning and settings of the explosion-protected version of the Industry Tablet series are described in this User Manual.
- **Quick Start Guide for the Lumen X7 Industry Tablet series:**
The safety relevant information, initial use and further data on the explosion-protected version of the Industry Tablet series are described in this Quick Start Guide.
- **Technical Datasheet for the Lumen X7 Industry Tablet series:**
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.

NI	=	Non Incendive => is used as generic term for Zone 2 and Division 2 version
Lumen X	=	stands for the entire explosion-protected product series

1.11 Configuration



The devices are only supplied with preinstalled operating system.

- Android 4.2.1 (Jelly Bean)

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

This User Manual refers to the following configurations:

Configuration	Version
Processor	ARM® Cortex™-A7 Quad Core 1.5 GHz
System memory	1 GB Mobile DDR2
Main memory	16 GB eMMC
Expandable memory	Micro SD card, supports up to 32 GB
Display	7" WSVGA TFT LCD with 1024 x 600 Pixel resolution
WLAN/WiFi	IEEE 802.11 a/b/g/n
Bluetooth	Version 3.0 + EDR
WWAN (optional)	3.75G - only data transfer HSPA / UMTS / GPRS / WCDMA / GSM
GPS	integrated
Kamera	5 MP camera on the back
RFID NFC/HF	<ul style="list-style-type: none"> - 13,56 MHz - ISO 15693 (Read) - ISO 14443-A (Read) - ISO 18092 (Read/Write)

2. Product Description

2.1 Lumen X7



Lumen X7 Industry Tablets are tough tablets with 7" display, which have been designed for use in the industrial environments and especially developed by BARTEC for use in potentially explosive atmospheres.

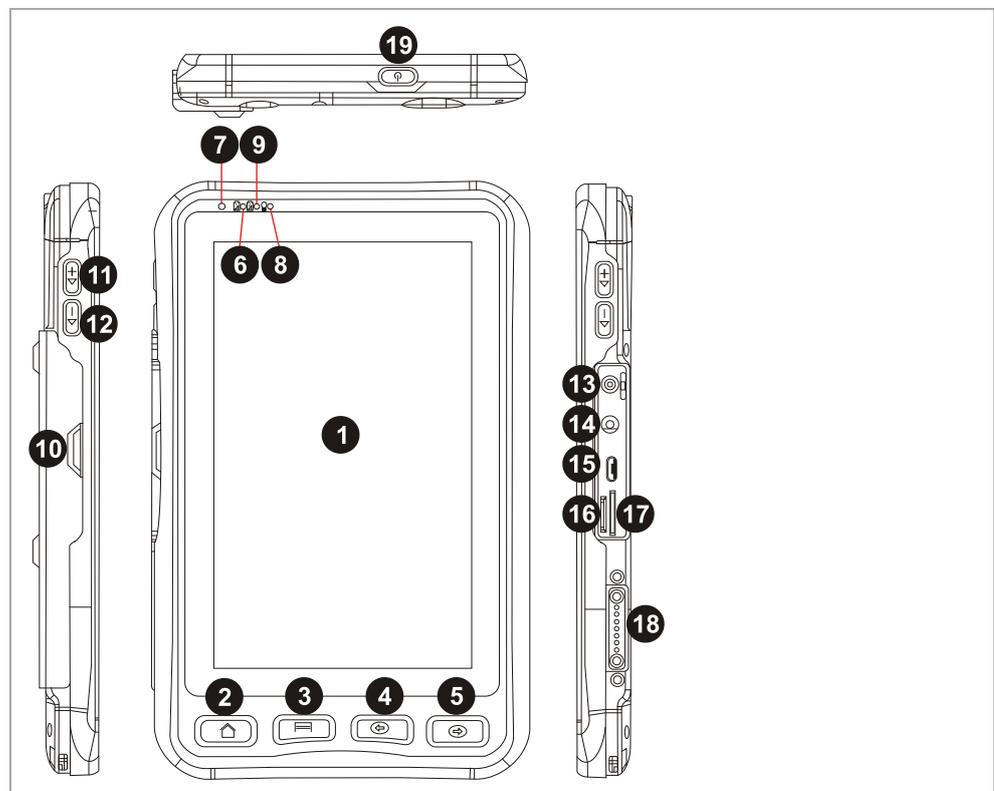
The Lumen X7 Industry Tablet is based on the ARM Cortex-A7 Quad Core processor running at 1.5 GHz. The 7-inch capacitive multi-touch display offers 1024 x 600 pixel WVGA resolution.

The Lumen X7 Industry Tablet owns a large number of international certifications and can be used worldwide. It is approved for ATEX/IECEx Zone 2 / 22 and UL Class I Division 2. Further country approvals are available on request.

Because of its numerous functions, the Lumen X7 Industry Tablet is perfect for stock management, transport, maintenance technicians, operating personnel, engineers, and project managers afield and in industry.

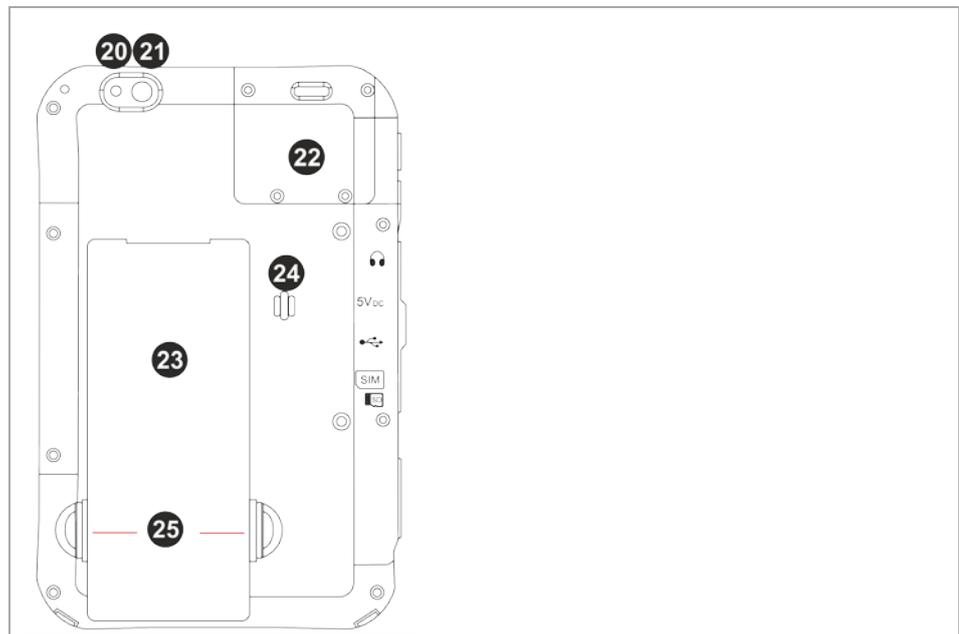
2.2 Structure

Front and side view



Position	Designation	Description
1	7" touch screen	Display and data input medium of the tablet
2	Home button	Returns to home screen
3	Menu button	Opens a list of actions that the user can do on the current screen
4	Return button	Returns to the previous screen
5	Trigger button	If the device was equipped with scanners, this button can be function as a trigger button
6	Light sensor	Controls the screen brightness
7	Battery status green	Indicates the device is charging
8	Battery status red	Indicates low battery
9	Power mode status	Blue light: indicates Power On No light: indicates no Power
10	Standard I/O cover	Prevents the access to the Inputs/Outputs in potentially explosive atmospheres
11	Volume up	Increases the volume of music or radio
12	Volume down	Decreases the volume of music or radio
13	Audio Jack (under cover)	Connects a set of headphones, external speakers, or an audio device
14	Power Jack (under cover)	DC-IN power input jack
15	USB ports (under cover)	Connects USB flash drive 2.0 / mouse / printer / keyboard, etc
16	MicroSD Card Reader (under cover)	Memory card reader port for MicroSD Card
17	3G Module/SIM card slot (under cover)	Service window to insert Micro SIM card also provides access to 3G module.
18	Docking connector	Port to docking solutions such as vehicle docking to provide power and external antenna
19	Power Button	Press and hold the button for 3 seconds to turn on the device Press to turn on/off the screen Press and hold the button for 3 seconds to select: <ul style="list-style-type: none"> • Power Off - to turn off the device press button for 8 Sec to force system power off • Airplane mode – to disable all wireless connections • Restart - to restart the device

Rear view



Position	Designation	Description
20	LED auxiliary light	Provides lighting while using the camera
21	Rear Camera	5 MP autofocus camera captures photos and videos
22	Optional Barcode	Barcode scanner for reading 1D/2D barcode is not available as certified version for use in hazardous locations.
23	Battery	Replaceable battery, battery with 3.7 V, 5300 mAh
24	Speaker	Provides audio output for music and video
25	2 x Battery Clips	2 clips for battery lock and unlock

2.3 Purpose of use

The **Lumen X7** Industry Tablets are handheld electrical devices. They serve the purpose of entry, processing and (radio) transmission of data within potentially explosive atmospheres.

The **Lumen X7** Industry Tablet is used exclusively in combination with devices which comply with the requirements placed on the overvoltage category I.

The **Lumen X7** Industry Tablets, **Type B7-A231-2.../.....** have been modified for use in the following potentially explosive atmospheres:

- UL Class I Division 2

The **Lumen X7** Industry Tablets, **Type B7-A231-2.../.....** may **not** be used in the following zones:

- ATEX / IECEx Zone 0, 1, 2, 22 and 21
- Class II Division 2
- Class I, II Division 1
- Class III

The **Lumen X7** Industry Tablets, **Type B7-A234-2.../.....** have been modified for use in the following potentially explosive atmospheres:

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

The **Lumen X7** Industry Tablets, **Type B7-A234-2.../.....** may **not** be used in the following zones:

- ATEX / IECEx Zone 0, 1 and 21
- Class II Division 2
- Class I, II Division 1
- Class III

3. Technical Data

3.1 Explosion protection NI

ATEX Zone 2 and 22	
Type B7-A234-2.../.....	Lumen X7
Labelling	 II 3G Ex ic IIC T5 Gc  II 3D Ex ic IIIB T100°C Dc -10 °C ≤ Ta ≤ +50 °C
Test certificate	EPS 15 ATEX 1 037 X
Standards	EN 60079-0:2012 + A11:2013 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 and 22	
Type B7-A234-2.../.....	Lumen X7
Labelling	Ex ic IIC T5 Gc Ex ic IIIB T100°C Dc -10 °C ≤ Ta ≤ +50 °C
Test certificate	IECEX EPS 15.0053X
Standards	IEC 60079-0:2011 Edition 6.0 IEC 60079-11:2011 Edition 6.0
UL Class I Division 2	
Type B7-A234-2.../.....	Lumen X7
Type B7-A231-2.../.....	
Labelling	Class I Division 2
Test certificates USA and Canada	E321557 Vol 5 sec 1
Standards	ANSI/ISA 12.12.01-2013 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 -10 °C to +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.*

*See individual chapter on the points in the User Manual.

3.2 Applicable standards

Explosion protection	
EN 60079-0:2012 + A11:2013	Explosive atmospheres - Part 0: Equipment - General requirements
EN 60079-11:2012	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-0:2011	Explosive atmospheres - Part 0: Equipment - General requirements
IEC 60079-11:2011	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
ANSI/ISA 12.12.01	ANSI/ISA-12.12.01-2013 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	Non-Incendive Electrical Equipment for Use in Class I, Division 2 Hazardous Locations
Electrical safety	
IEC 60950-1 (ed.2); am1 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 \leq 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 \leq 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	ARM® Cortex™-A7 Quad Core 1.5 GHz
RAM	1 GB Mobile DDR2
Main memory	16 GB eMMC
Extension slot	Micro SD card slot supports up to 32 GB It is not allowed to insert or change the card inside the potentially explosive atmosphere!
Lumen X7 interfaces (underneath the protection cover)	1 x SIM card slot 1 x Micro SD card slot 1 x Micro USB 2.0 type B (OTG) 1 x power connection (DC) 1 x audio combo connection (Microphone In/Line-out)
Interface for charging via desktop docking station	1 x 7-pin docking connector (PoGo pin)
Operating system	Android 4.2 (Jelly Bean)
Application availability	Google App Store is pre-installed
Software development	Own development possible with standard Google Android SDK. Additional are the OS image, SDK and drivers available as download.

3.3.2 Physical features

Dimensions in mm/in (Length x Width x Height)	212.4 x 132.8 x 19 mm (8.36 x 5.23 x 0.75 inch)
Weight (with standard battery)	600 g (ca. 1.32 lb)
Display	Size 7"
	Brightness 500 cd/m ² (nits)
	Resolution 1024 x 600 pixels
	Touch projective capacitive multi-touch
Interactive sensor technology	<ul style="list-style-type: none"> - Light sensor - G sensor - Proximity sensor - Digital compass
Keys on front side (see also chapter 2.2 "Structure")	<ul style="list-style-type: none"> - 1 x Power on/off button - 2 x Function button (F1, F2) - 1 x Volume up/down button - 4 x Home, Menu

3.3.3 User environment

Operating temperature in battery mode	-20 °C to +50 °C / -4 °F to +122 °F
Operating temperature In AC modus, only 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 +60 °C / -22 °F to +140 °F
Air humidity	5 % to 95 % (non-condensing)
Class of protection (EN 60529)	Ex-version IP 54 Non Ex-version IP65

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



Wi-Fi connections are realised with the assistance of ARM® Cortex™-A7 Quad Core 1.5 GHz processor.

WLAN/WiFi radio module	
Radio standard	IEEE 802.11a/b/g/n
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
Roaming	Supports seamless roaming between the respective access points (802.11b, 802.11g, 802.11a/b/g und 802.11a/b/g/n)
Aerial	internal

3.3.5 Voice and data transmission Wireless WAN

WWAN radio module (optional)	
HSPA / UMTS / GPRS / WCDMA / GSM	3.75G
GPS	integrated

3.3.6 Voice and data transmission Bluetooth



Bluetooth-Verbindungen connections are realised with the assistance of ARM® Cortex™-A7 Quad Core 1.5 GHz processor.

Bluetooth	Version 2.1 or 3.0 + EDR
Aerial	internal

3.3.7 Audio

⚠ DANGER

Non-certified accessories endanger explosion protection.
 Danger to life in a potentially explosive atmosphere!
 ► Only use the audio connection outside the potentially explosive atmosphere!

3.3.8 Camera

5 MP camera with autofocus and LED flash on the back

3.3.9 RFID



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 option:	Internal NFC/HF Reader (High Frequency)
-------------------	---

3.3.9.1 Internal HF reader

Supported standards	
ISO 14443-A (Read)	NXP Mifare_One (S50_4byte) NXP Mifare_One (S70_4byte) NXP Mifare_UltraLight C NXP Mifare_One (S50_7byte) NXP Mifare_UltraLight
ISO 15693 (Read)	TI HF-I Plus TI HF-I Pro NXPI-Code SLI
ISO 18092 (Read/Write)	SONY Felica SONY Felica Lite s

3.3.10 NFC (Near Field Communication)

The communication between NFC-capable devices via active-active (Peer-To-Peer).

Supported standards	
ISO 14443-A (Read)	NXP Mifare_One (S50_4byte) NXP Mifare_One (S70_4byte) NXP Mifare_UltraLight C NXP Mifare_One (S50_7byte) NXP Mifare_UltraLight NXP Mifare_DesFire_EVI
ISO 15693 (Read)	TI HF-I Plus TI HF-I Pro NXPI-Code SLI
ISO 18092 (Read/Write)	SONY Felica SONY Felica Lite s

3.4 Battery

DANGER

Do not replace or charge the battery in a potentially explosive atmosphere.

Danger to life in a potentially explosive atmosphere!

- ▶ Use original BARTEC/Winmate accessories only.
- ▶ Do not open, disassemble, puncture, or crush the battery.
- ▶ Do not leave or store the Lumen X7 Industry Tablet in an area which is near a heat source such as vehicle dashboard, dryer or other heat source.
- ▶ Do not allow conductive objects to contact the battery.
- ▶ Please contact your manufacturer if you suspect damage to your Lumen X7 Industry Tablet or battery for inspection and reparation.



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
- The settings in power management
- Use and setting of the optional 3.75G module
- Use and setting of the RFID module
- Use and setting of the camera

Battery Type B7-A2Z0-0027	Lithium polymer battery 3.7 V / 5300 mAh
Weight	130 g (ca. 0.286 lb)
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	5 % to 95 % (non condensing)
Lifecycle	≥ 300
Performance	depending on device settings, up to 12 hours
Charging time	3 hours

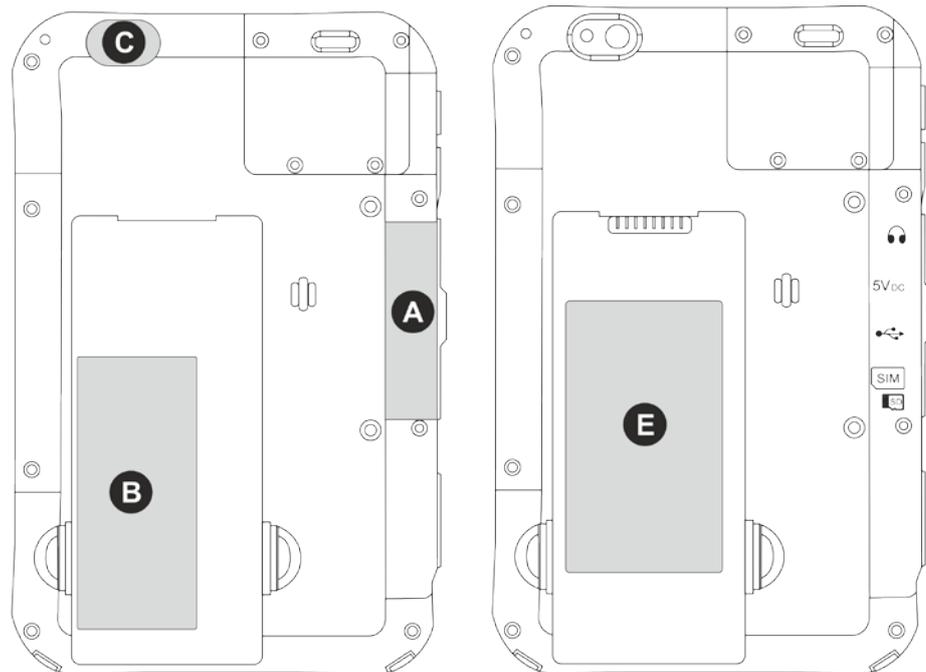
3.5 External interfaces

⚠ DANGER

Non-certified accessories endanger the explosion protection.
Danger to life exists in potentially explosive atmospheres!

- ▶ The external interfaces "Micro USB Type B (OTG Host, data exchange and charging), Pogo Pin (charging in docking station)" may only be used outside the potentially explosive range with accessories specified by the manufacturer.
- ▶ Only use original BARTEC/Winmate accessories.

3.6 Product labelling



A Description of the external interfaces



B Warning

WARNING/ AVERTISSEMENT

To prevent ignition of hazardous atmosphere, don't replace batteries unless power has been switched off or the area is known to be non-hazardous, and batteries must only be charged in an area known to be non-hazardous.

Battery lock must be engaged when used in Hazardous Location.

Replace Battery with Battery Model B7-A2Z0-0027, manufactured by BARTEC GmbH only.

Expansion Port / Docking Connector / Side I/O: Not for use in hazardous locations. See installation instructions.

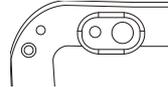
Pour éviter l'flammation dans une atmosphère dangereuse, ne pas remplacer les batteries que l'alimentation est coupée ou que la zone est connue pour être non dangereuse, et les batteries ne doivent être chargés que dans une zone connue comme étant non dangereuse.

Le verrouillage de la batterie doit être activé quand utilisé en zone dangereuse.

Remplacer la batterie avec batterie Modèle B7-A2Z0-0027, fabriqué par BARTEC GmbH seulement.

Port d'extension / Connecteur d'accueil / Le côté I / O: Ne pas utiliser dans des endroits dangereux. Voir les instructions d'installation.

C Camera



D Type plate

Part Number: B7-A234-234
Rating: DC 5V ~ 3A
II 3G Ex ic IIC T5 Gc
III 3D Ex ic IIB T100°C Dc
EPS 15 ATEX 1 037 X
IECEx EPS 15.0053X
Class I, Division 2, Groups A, B, C, D
Hazardous Locations
Temperature code T4A
Ambient Temperature: -10°C to +50°C
WARNING:
Read user manual before use

BARTEC
97980 Bad Mergentheim Germany

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation. This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations. Cet appareil numérique de la classe B respecte toutes les exigences du Règlement sur le matériel brouilleur du Canada.

Contains
FCC ID: PXGM/C7355
IC: 9911A-MC7355

UL LISTED 398G
Made in Taiwan

CE **FC**

Battery type B7-A2Z0-0027

Front side

WARNING/ AVERTISSEMENT

To prevent ignition of hazardous atmosphere, don't replace batteries unless power has been switched off or the area is known to be non-hazardous, and batteries must only be charged in an area known to be non-hazardous.

Battery lock must be engaged when used in Hazardous Location.

Replace Battery with Battery Model B7-A2Z0-0027, manufactured by BARTEC GmbH only.

Expansion Port / Docking Connector / Side I/O: Not for use in hazardous locations. See installation instructions.

Pour éviter l'flammation dans une atmosphère dangereuse, ne pas remplacer les batteries que l'alimentation est coupée ou que la zone est connue pour être non dangereuse, et les batteries ne doivent être chargés que dans une zone connue comme étant non dangereuse.

Le verrouillage de la batterie doit être activé quand utilisé en zone dangereuse.

Remplacer la batterie avec batterie Modèle B7-A2Z0-0027, fabriqué par BARTEC GmbH 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 M700DT4 Part number: B7-A2Z0-0027
DC 3.7V --- 5300mAh 19.61Wh

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 CIRCUIT 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.

1ICP65/54/130-1
MADE BY Winmate IN TAIWAN

WARNING: MAY EXPLODE IF RECHARGED



3.7 Laser labels

The accessible laser radiation is in the visible spectral range (630 nm to 680 nm). 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 LASERLICHT KLASSE 2 NICHT IN DEN LASERSTRAHL SEHEN KLASSE 2 LASER PRODUKT			
ENGLISH CLASS 1 CLASS 1 LASER PRODUCT LASER LIGHT CLASS 2 DO NOT STARE INTO BEAM CLASS 2 LASER PRODUCT		FRENCH / FRANÇAIS CLASSE 1 PRODUIT LASER DE CLASSE 1 LUMIERE LASER NE PAS REGARDER LE CLASSE 2 RAYON FIXEMENT PRODUIT LASER DE CLASSE 2	
ITALIAN / ITALIANO CLASSE 1 PRODOTTO AL LASER DI CLASSE 1 LUCE LASER CLASSE 2 NON FISSARE IL RAGGIOPRODOTTO AL LASER DI CLASSE 2		PORTUGUESE / PORTUGUÊS CLASSE 1 PRODUTO LASER DA CLASSE 1 LUZ DE LASER NÃO FIXAR O RAIO LUMINOSO CLASSE 2 PRODUTO LASER DA CLASSE 2	
DUTCH / NEDERLANDS KLASSE 1 KLASSE-1 LASERPRODUKT LASERLICHT KLASSE 2 NIET IN STRAAL STAREN KLASSE-2 LASERPRODUKT		DANISH / DANSK KLASSE 1 KLASSE 1 LASERPRODUKT LASERLYF KLASSE 2 SE IKKE IND I STRÅLEN KLASSE 2 LASERPRODUKT	
NORWEGIAN / NORSK KLASSE 1 LASERPRODUKT, KLASSE 1 LASERLYS IKKE STIRR INN I KLASSE 2 LYSSTRÅLEN LASERPRODUKT, KLASSE 2		FINNISH / SUOMI LUOKKA 1 LUOKKA 1 LASERTUOTE LASERVALO LUOKKA 2 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 Lumen X7 Industry Tablet.

Additional information on the batteries

The batteries of BARTEC (type B7-A2Z0-0027) 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.

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 Industry Tablet.

5. Commissioning

⚠ DANGER

Avoid electrostatic charging in potentially explosive atmosphere.

Risk of fatal injury in an 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.

Risk of fatal injury in an explosive atmosphere!

- ▶ Do not make any changes to the Lumen X7 Industry Tablet.
- ▶ In the case of functional 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 7" ex-certified Lumen X7 Industry Tablet
- 1 x battery
- 1 x hand strap
- 1 x capacitive stylus
- 1 x USB network adapter with EU plug
- 1 x USB network adapter with US plug
- 1 x USB cable (Type A to micro Type B)
- 1 x Quick Start Guide

5.1.1 Optional accessories

Authorized accessories from BARTEC

For the Ex area:

- Replacement battery
- Hand strap
- 1 x capacitive stylus

For the non-Ex area:

- USB network adapter for EU, UK, US and AUS
- USB cable (Type A to micro Type B)
- Micro USB Host cable (OTG)
- Micro SD card
- Screen protector
- Charging station for Lumen X7 Industry Tablet
- Battery charging station
- Vehicle charging docking station
- Vehicle charging adapter (Input 12 V DC, Output USB Type A)
- Mobile power station
- Hand strap
- Leather case with screen protector and shoulder strap

5.2 Requirements in potentially explosive atmosphere

Lumen X7 Industry Tablet

- The Industry Tablet may not be opened.
Exceptions are the interface cover at the lower side for the installation of the SIM/Micro SD card or the connection of the Micro USB cable, headset, and power (DC).
- Do not use, swap or replace and non-specified components.
- Do not retrofit any components to the internal plugs or slots. One exception is the SIM card and the Micro SD card.
- Protect the Industry Tablet from impact!
- Do not expose the Industry Tablet to caustic/aggressive liquids, vapors, 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 7-pin docking connector (PoGo pin for charging in the docking station)
 - 1 x Micro USB Type B (OTG Host, data exchange and charging)
 - Interfaces underneath the cover
 - 1 x SIM card
 - 1 x Micro SD card
 - 1 x Micro USB 2.0 Type B (OTG)
 - 1 x Power connection (DC)
 - 1 x Audio combi connection (microphone In/Line Out)

Battery

- The battery may not be opened.
- Only charge the battery (type B7-A2Z0-0027) outside the potentially explosive atmosphere.
- Only use the battery for the purpose listed in this User Manual. Is only suitable for the Lumen X7, Type B7-A234-2.../.....
- It is not allowed to remove, change and/or charge the battery inside 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).
- 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 battery, SIM card, micro SD card, hand strap, and screen protector 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.
- ▶ Attach/remove accessories such as hand strap and screen protector.

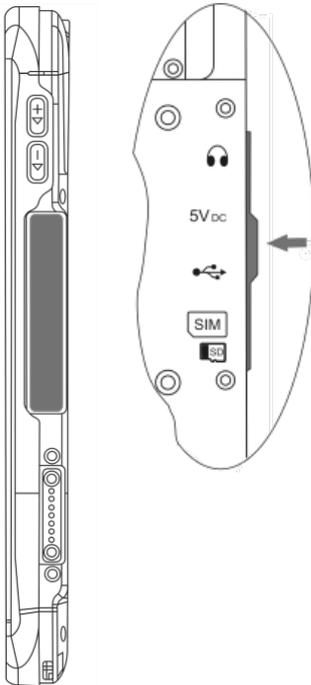
5.4 First steps



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

- ▶ Unpack the Lumen X7 Industry Tablet.
- ▶ Insert SIM card and micro SD card.
- ▶ Insert battery.
- ▶ Charge battery.
- ▶ Switch on/off the Lumen X7 Industry Tablet.
- ▶ Remove/replace screen protector.

5.4.1 Open/Close protective I/O cover



Open protective I/O cover

Open the protective I/O cover outside of the potentially explosive atmosphere.

1. Place the Industry Tablet on a flat mat.
2. Open carefully the protective I/O cover.

Close the protective I/O cover

1. The protective cover must be correctly aligned, the Inputs/Outputs have to be fully covered.

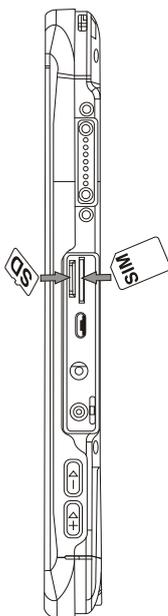
⚠ DANGER

The protective I/O cover has to be closed.

Danger to life exists in potentially explosive atmospheres!

- ▶ The protective cover must be correctly aligned, the Inputs/Outputs have to be fully covered.

5.4.2 Insert SIM card and Micro SD card



ATTENTION

Damage to the SIM / micro SD card through electrostatic discharges!

- ▶ Use an antistatic mat.
- ▶ Ensure that the operator is correctly earthed.
- ▶ A maximum of 32 GB are supported.

To insert the SIM card and Micro SD card, the protective I/O cover must be removed.

Work steps:

Only insert or replace the SIM / micro SD card outside of the potentially explosive atmosphere.

Only use SIM / micro SD cards which have been tested and certified by BARTEC for this purpose.

1. Place the Industry Tablet on its front (display facing downwards) on a flat mat.
2. Open the protective rubber bumper.
3. Insert the SIM card (with the golden parts facing up and cut-off corner facing out) and push it in the direction of the arrows as shown in the figure.
4. Push the SD card in the slot to insert it.

5.4.3 Insert battery

⚠ DANGER

In potentially explosive atmospheres, battery latches must be locked.

Danger to life exists!

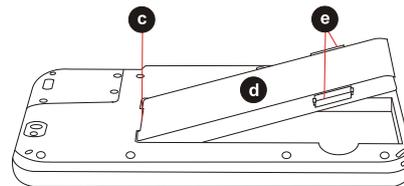
- ▶ Check the locking of the battery latches carefully.

Work steps:

Only install or replace the battery outside the potentially explosive atmosphere.

1. Disconnect any cables connected to the Industry Tablet.
2. Place the Industry Tablet on its front (display facing downwards) on a flat mat.
3. Insert the battery on the connector-pins side (c) first, and then lower the battery (d) into the battery compartment. Continue to hold the battery latches (e) before the battery is fully inserted.

Make sure the battery is completely lowered into the compartment before letting go the battery latches (e). The battery will be flat against the housing once it is fully inserted.



5.4.4 Charge battery

⚠ DANGER

Non-certified accessories endanger explosion protection.

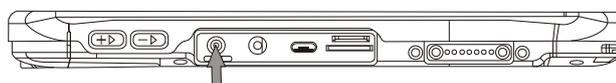
Danger to life exists!

- ▶ Use only the adapter included with the Industry Tablet. Using other adapters may damage the Industry Tablet and the battery.

The Industry Tablet operates either on external adapter or internal battery power. To connect the Industry Tablet to the power supply, the protective I/O cover must be removed.

Work steps:

1. Plug the adapter into the Power Jack of the Industry tablet.
2. Plug the adapter power cable into the electrical outlet. As soon as the adapter is connected with the outlet, the battery will be charged. The battery LED display (see chapter 2.2 "Structure") at the Industry Tablet changes.



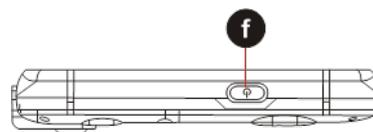
LED Status	Description
OFF	The Industry Tablet is not charging or not properly connected
Solid red	Low battery
Solid green	Charging in progress

5.4.5 Turn On and Off the Lumen X7 Industry Tablet

Work steps: Turn the device on

The device may be power supplied either via the adapter or the battery.

1. Press and hold the Power On/Off button (f) for 3 seconds, located on the top of the device.



Do not press the Power On/Off button repeatedly!

Do not perform the following operations until the hard drive indicator turns off:

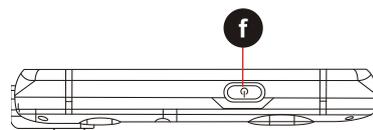
- Connect or disconnect the adapter
- Press the Power On/Off button
- Touch the tablet buttons, screen, or external keyboard/mouse



Work steps: Turn the device off

Make sure you have closed any programs that are open on the desktop.

1. To turn off the device, press and hold the Power On/Off button (f) on top of the device for 6 seconds or longer until the phone options menu appears.

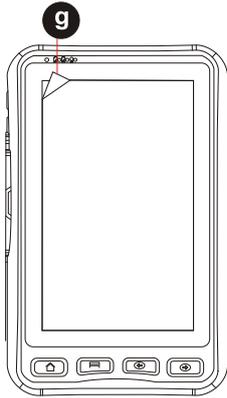


2. Tap **Power off**.



The user can also use the Phone options menu to put the device into silent or airplane mode, see features table in chapter 2.2 "Structure".

5.4.6 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-A2Z0-0030) 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-A2Z0-0030 screen protector, 1 piece.

Screen protector	Order number
IECEX-, ATEX- and UL certified	B7-A2Z0-0030

Work steps:

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

1. Lift a corner of the screen protector (**g**) and remove it from the display.
2. Attach the screen protector in accordance with the "Screen protector installation instructions".

5.5 RFID



The internal RFID NFC/HF reader is pre-installed in all devices.

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

The data can be transmitted to other corporate areas for further processing using WLAN, 3.75G, or Bluetooth and are therefore available in real time for further processing.

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 (optional) or enclosure?
- ▶ 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 Lumen X7 Industry Tablet?
- ▶ Has the SIM card been correctly inserted?
- ▶ 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	<ul style="list-style-type: none">– Use screen protector.– Use a soft cloth to clean and do not use aggressive cleaners.
Enclosure	<ul style="list-style-type: none">– Protect device from impacts.– Do not expose to extreme loads, e.g. strong knocks and falling from great heights.
Environment	<ul style="list-style-type: none">– Do not expose to extreme temperatures.– Do not leave in dirty, moist or wet environment.

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	<ul style="list-style-type: none"> – With alcohol cleaning cloths.
Keys and intermediate spaces	<ul style="list-style-type: none"> – With alcohol cleaning cloths.
Screen	<ul style="list-style-type: none"> – With alcohol cleaning cloths. – Avoid collections of fluid and rub with smooth cloths.
Battery contacts	<ul style="list-style-type: none"> – 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	<ul style="list-style-type: none"> – 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, etc.	<ul style="list-style-type: none"> – 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.

6.3.2 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.

6.3.3 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 3.75G 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 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.

6.3.4 Information on the use of wireless devices

Heed all warnings referring to the use of wireless devices.

6.3.4.1 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.

6.3.4.2 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.

6.3.4.3 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.

6.3.4.4 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.

6.3.4.5 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.

6.3.5 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.

6.3.6 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.
- ARM® Cortex™-A7 Quad Core 1.5 GHz (WLAN-WiFi IEEE 802.11 a/b/g/n, Bluetooth Version 3.0 + EDR, GPS, WWAN 3.75G - GSM / GPRS / EDGE / WCDMA / HSDPA / HSUPA).

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 systems 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 Lumen X7 Industry Tablet should only be worn close to the body when turned off.

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 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 on the side of the Industry Tablet. Further information is provided in the documentation supplied with the card. Observe the manufacturer's recommendations on use.

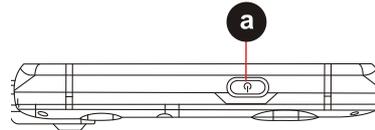
6.6 Use the Android 4.2 Operating System

6.6.1 Wake up the phone

If you do not use the phone for a while, the screen dims and then darkens to conserve the battery.

Work steps:

1. Press the Power on/off button (a) on the top of the Industry Tablet.

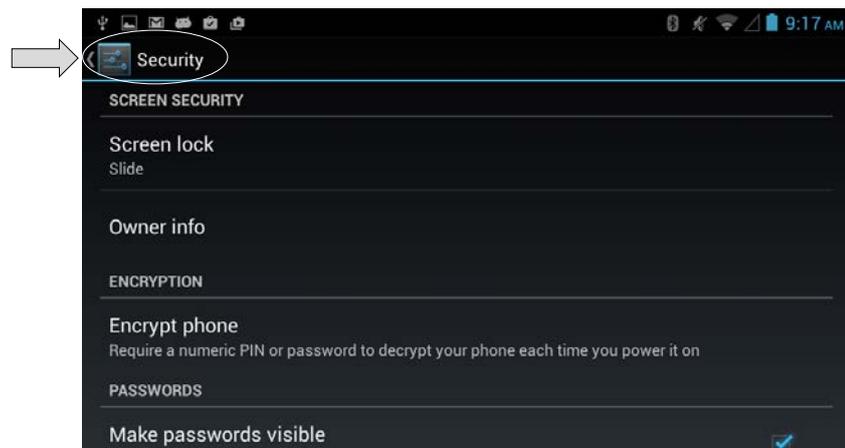


2. Drag the lock symbol (arrow) to the right.



There are several options to choose the screen lock method such as: **Slide**, **Voice Lock**, **Pattern**, **PIN**, or **Password**.

3. To select the screen lock method, tap  select **Settings** and then select **Security**.



6.6.2 Use the touch screen

Tap	Simply touch the icon, symbol, or onscreen button using your finger.
Tap and hold	Touch an item using your finger and not lifting it until an action occurs.
Drag	Touch and hold an item for some amount of time and then, without lifting your finger, move your finger along the screen until you reach target position.
Slide	Quickly move your finger across the surface of the screen, without pausing it when you first touch it. (e.g. scroll a page or a list up or down).
Double tap	Tap quickly twice on a webpage, map, or other screen to zoom. Double tapping after pinching the zoom in some application to fit the width of the screen.
Zoom out/ zoom in	Place two fingers on the screen at once and pinching them together (to zoom out) and spreading them apart (to zoom in).
Rotate the screen	Orientation of the screens rotates with the phone as user turn it from upright to its side and back again.

6.6.3 Use the Home screen

The home screen is the starting point to access all the features on the Industry Tablet. It displays application icons, widgets, shortcuts, and other features. The user can personalize the home screen. See "Personalize the home screen".



Position	Designation	Description
1	Status Bar	Shows the time, signal strength, battery status, and other information. It also displays notification icons.
2	Launcher icon	Opens the launcher and view all applications.
3	Apps	Applications that the user can use directly on the home screen.
4	Settings	General settings that concern the Industry Tablet.

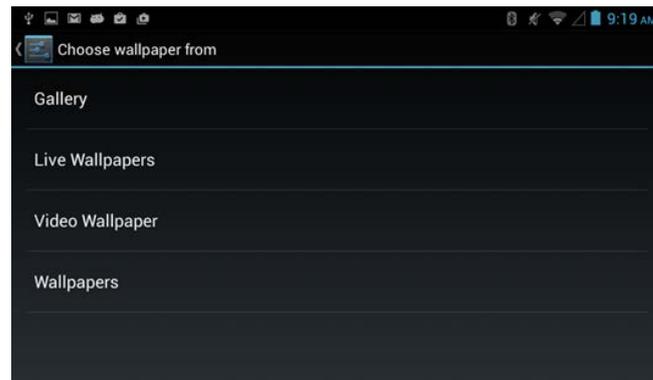
6.6.4 Personalize the home screen

The user can add application icons, shortcuts, widgets, and other items to any part of the Home screen where there is free space. The user can also change the wallpaper.

Change the wallpaper

Work steps:

1. Tap  and select **Settings**, select **Display** and then tap **Wallpaper**.
2. On the menu that opens tap the type of item you want to add.



Move an item

Work steps:

1. Tap and hold the item you want to move, until it can be moved.
2. Drag the element to a new location on the screen.
3. Place the element where you want to put it and release your finger. (Example: To move the **Clock** to the home screen.)



Remove an item

Work steps:

1. Tap and hold the element (a) you want to remove (here the clock item).
The launcher icon (b) will change into a Remove icon.



2. Drag the item you want to remove to the Remove icon.
When the item turns red, release your finger.
The element you want to remove is removed.

View other elements on the home screen

Extensions to the home screen provide extra space for APPS, shortcuts, and other items.

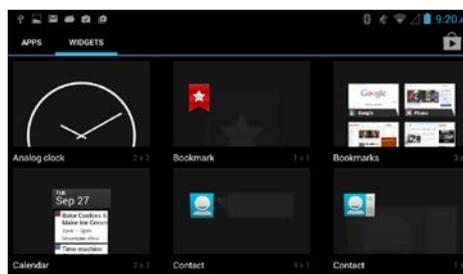
Work steps:

1. Slide your finger left or right across the home screen.
2. Tap the launcher icon to show the entire APPS and Widgets of the device.

APPS



WIDGETS



Status and notification icons

The status bar appears at the top of every screen. On the left are notification icons (d) and on the right are status icons (e), along with the current time.



<p>Notification icons</p>	<p>The following icons indicate that you have received notification.</p>			
	<p>New email message</p>		<p>Incoming call</p>	
	<p>New text or multimedia message</p>		<p>Missed call</p>	
	<p>Alarm is set</p>		<p>Speakerphone is activated</p>	
	<p>Upcoming event</p>		<p>Phone microphone is muted</p>	
	<p>Data is syncing</p>		<p>Downloading data</p>	
	<p>Problem with sign-in or sync</p>		<p>Phone is connected via USB cable</p>	
	<p>A screenshot is captured</p>			
<p>Status icons</p>	<p>The following icons indicate the status of the Industry Tablet, for example if users are connected to a Wi-Fi network that is not connected to the internet, the network icons are appears in white color.</p>			
	<p>Connected to GPRS mobile network</p>		<p>Bluetooth is on</p>	
	<p>Connected to 1xRTT mobile network</p>		<p>Conneted to a Bluetooth device</p>	
	<p>Connected to EDGE mobile network</p>		<p>No SIM card installed</p>	
	<p>Connected to 3G mobile network</p>		<p>Vibration mode</p>	
			<p>Ringer is silenced</p>	
	<p>Mobile network signal strength</p>		<p>Battery is very low</p>	
	<p>Searching for a network signal</p>		<p>Battery is low</p>	
	<p>No signal</p>		<p>Battery is partially drained</p>	
	<p>Connected to a Wi-Fi network</p>		<p>Battery is full</p>	
	<p>Roaming</p>		<p>Battery is charging</p>	
	<p>Airplane mode</p>		<p>Receive location data from GPS</p>	

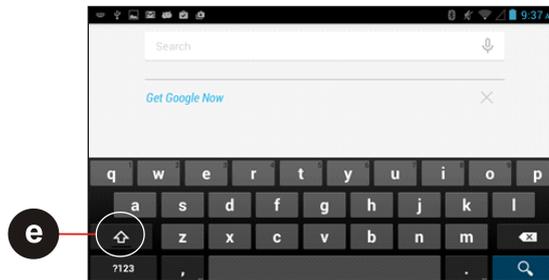
6.6.5 Use the On-Screen Keyboard

The user will be able to enter text using the On-Screen Keyboard. Some applications will launch the keyboard automatically. In others, the user needs to touch a text field where the user wants to enter text to launch the keyboard.

Enter text by typing

Work steps:

Open a text field (in this example we used Google Chrome to create a note).
The On-Screen Keyboard opens.



Tap (e) once to capitalize the alphabet.

If the user taps in a text field which already contains text, the insertion point is set where the user taps and the cursor appears. The user can drag the cursor to pick exactly where you want to add more text. The user can also select a word to copy, cut and paste it. See "Edit text".

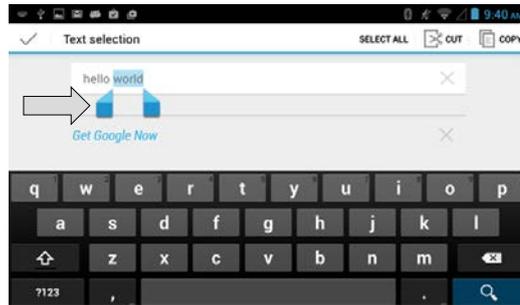
	Tap the delete key to erase characters to the left of the cursor.
	Tap the key to enter numbers.
	Tap the key to return to letters.
 	To open a small window with a set of common symbols, tap and hold the periode key. Slide your finger up to the list of the options. Lift your finger when you find your selection. The selected symbol will be inserted.

6.6.6 Edit text

Work steps:Select text

1. Double tap the text you want to select.
2. Tap **Select All** to select all the sentences in the menu that appear.
The selected text is highlighted in blue, with a tab at each end of the selected word.

3. Drag the selection tab to expand or reduce the range of the selected text.



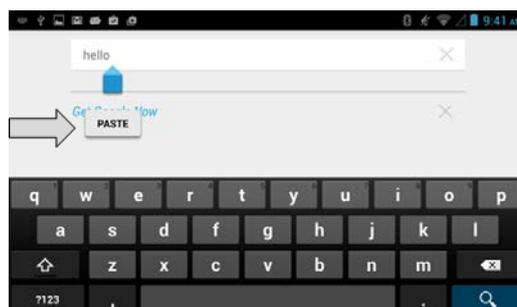
Work steps: Cut or copy text

Select the text that should be cut or copied and then should be pasted.

	<p>Tap on the key to remove the selected text from the text field. The removed text is stored in a temporary area so that you can paste it into a different text field.</p>
	<p>Tap on the key to copy the selected text from the text field. The copied text is stored in a temporary area so that you can paste it into a different text field.</p>

Work steps: Paste text

1. Place the cursor in the text field where you want to paste the text. The user can paste text that you copied from one application into a text field in any application
2. Tap and hold into the location that you want to paste the text. Tap **Paste** in the menu that opens to replace the text with the cut or copied text.



6.6.7 Set the display

Use the display settings to configure brightness and other screen settings.

Configure brightness



For the longest battery life between charges, use the lowest brightness level.

Work steps:

1. Tap  and then tap **Settings**.
2. Tap **Display** and then tap **Brightness**. The following options for **Brightness** will be offered:

Automatic Brightness	Tap Automatic Brightness to adjust the brightness automatically
Economical Backlight	Tap Economical Backlight to save power.
Slide bar	Slide the bar to adjust the brightness manually.

Configure Font size

Work steps:

1. Tap  and then tap **Settings**.
2. Tap **Display** and then tap **Font size**. There are several options for **Font Size**: Small, Normal , Large, or Huge.

6.6.8 Set the audio profile

Use the sound settings to configure how and at what volume the phone rings, vibrates or alerts the user in other ways when the user receives a call, receives a notification, or an alarm sounds.

Work steps:

1. Tap  and select **Settings** and then tap **Audio profiles**.
2. Tap **General** and then tap **Settings**  (located on the right side of the screen).

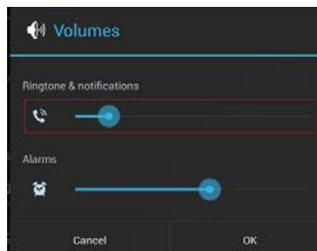
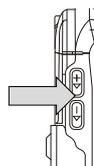
The user can select to disable or adjust music, video games and other media as well as notifications and alarms. The following options will be offered:

General	Ring
Silent	Silent only
Meeting	Vibrate only
Outdoor	Loudest ring and vibrate

6.6.9 Adjust volume

Work steps:

Press the volume keys on the side of the Industry Tablet to change the ring volume (On Home screen) or earpiece volume (during a call).



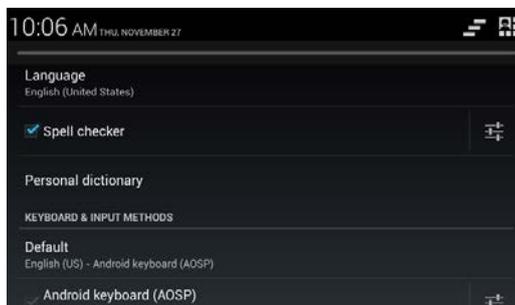
6.6.10 Set language and keyboard

Use the language and keyboard settings to select the language for the text on your Industry Tablet and for configuring the On-Screen Keyboard, including words that you add to its dictionary.

Set language

Work steps:

1. Tap  and then tap **Settings**.
2. Tap **Language & Input** and then **Language** to open the language screen, where user can select the language to use for the text on the device.



Language	Opens the language screen, where the user can select the language to use for the text on the device.
Spell checker	Improves the text input experience on Android by helping the user to identify and correct spelling errors quickly.
Personal dictionary	Adds custom words to a personal dictionary for faster typing.

Change the keyboard language

The current keyboard language is displayed on the space key and the user can switch languages.

Work steps:

Tap the keyboard icon located on the top right.



There are four input options:

<p>Hardware-physical keyboard</p>	<p>Tap Hardware-physical keyboard to use the Hardware-physical keyboard.</p>
<p>English (US) - Android Keyboard</p>	<p>Tap English (US) - Android Keyboard to use the Android Keyboard.</p> <p>Tap Settings  (on the display's right) to change the input language via Input languages >> ACTIVE INPUT METHODS.</p> <p>Make the required settings in General by tapping (for example autocapitalization, auto-correction, or other options).</p>
<p>Google voice typing</p>	<p>Tap Google voice typing to control the Industry Tablet via speech.</p>

6.6.11 USB debugging setting

To permit debugging tools on a computer to communicate with the user's Industry Tablet via USB connection.

Work steps

1. Tap  and then tap **System settings**.
2. Tap { } **Developer options** and then tap **USB debugging** to allow USB debugging.
If the USB is connected, there will be a symbol in the notification icons on the bottom right.

6.6.12 About the phone

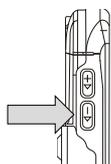
About Phone includes information about user's Industry Tablet.

System Update	Provides information regarding the local or online update of your devices.
Status	Opens the status screen with a list of information about battery, network, signal strength, and other details.
Legal Information	Lists details about the model number, Android Version, Baseband version etc. This information is useful if the user needs to work with the support team.

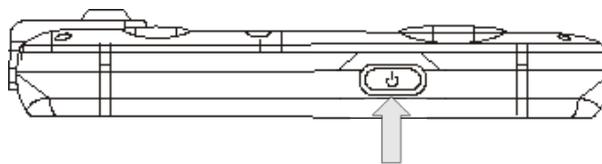
6.6.13 Screenshot capture

Screenshot capture is result of simultaneous oppress of volume key (-) and On-/Off key.
The screenshots stored on the device: Phone Storage / Pictures / Screenshots

Volume key (-)



On-/Off key



6.7 Connection to mobile networks and devices

When users assemble their Industry Tablet with a SIM card from the service provider, their phone is configured to use their provider networks for voice calls and for transmitting data.

Different locations may have different mobile networks available. The user may need to configure the Industry Tablet to use certain networks. To obtain fastest networks, the user can configure the Industry Tablet to 3.75G. To extend the life of battery the user can use 2G network.

6.7.1 Check the network (3G) connection

Work steps:

1. Tap  and then tap **Settings**.
2. Tap **More...** in the **Wireless & networks**, and then tap **Mobile networks**.
3. Tap **Network operators** to select the network operator.

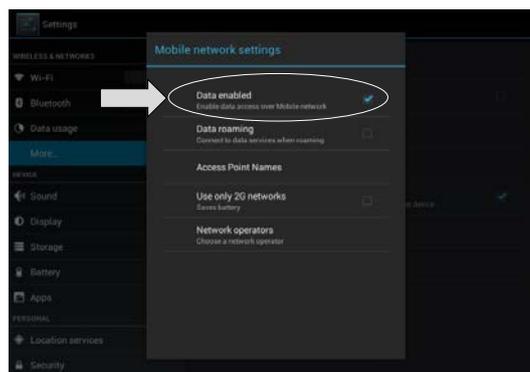


Do not change the parameters of the access point to prevent the user to be unable to access network sources.

6.7.2 Turn on the data service

Work steps:

1. Tap  and then tap **Settings**.
2. Tap **More...** in the **Wireless & networks**, and then tap **Mobile networks**.
3. Tap **Data enabled** to enable the data connection via mobile network.



4. Select the desired network operator to enable the data connection.

6.7.3 Connect to Wi-Fi networks

Turn on the Wi-Fi and connect to a Wi-Fi network

Work steps:

1. Tap  and then tap **Settings**.
2. Tap **Wireless & networks** and then select **Wi-Fi** to turn it on.
3. Tap **Wi-Fi**.

The device scans for available Wi-Fi networks and displays the list of it. Secured networks are indicated with a lock icon .

If the phone finds a network that you have connected previously, it connects to it automatically.



4. Tap a network to connect to it.

If the network is open, you are prompted to confirm that you want to connect it by tapping **Connect**.

If the network is secured, users are prompted to enter a password or other credentials.

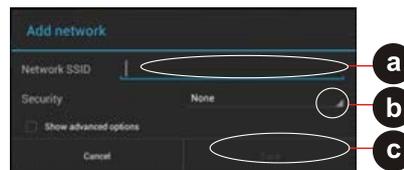
To check the details about the speed, security, address, and related settings, tap its name in the Wi-Fi settings screen.



Work steps: Add a Wi-Fi Network

1. Turn on Wi-Fi, in the Wi-Fi settings screen, tap on the  icon (at the top right over the list of the recognized networks).

The **Add network** window is displayed.



2. Input the **Network SSID** (name of the network) (a).
3. If the network is secured, tap the security menu (b) and then tap the type of security deployed on the network. Enter any required security credentials.
4. Tap **Save** (c).

6.8 Connection to Bluetooth devices

6.8.1 Turn Bluetooth on or off

Work steps:

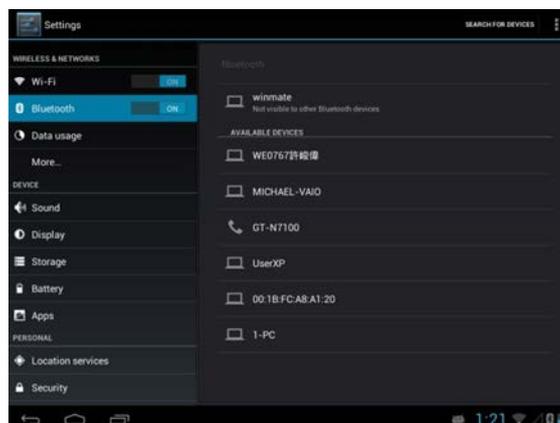
1. Tap  and then tap **Settings**.
2. Tap **Wireless & networks** and then select **Bluetooth** to activate the Bluetooth function.

6.8.2 Connect / disconnect to Bluetooth devices

Connect

Work steps:

1. Tap  and then tap **Settings**.
2. Tap **Wireless & networks** and then tap **Bluetooth**. The Industry Tablet will automatically scan and display the IDs of all available Bluetooth devices in range.
3. Tap **Search for devices** to search for other Bluetooth devices.
4. Tap the ID of the other device in the list in **Settings** to **pair** them.



Work steps: Disconnect

1. Tap the device in the Bluetooth settings screen.
2. Tap **OK** to confirm that you want to disconnect.

6.9 Connection / disconnection via USB

DANGER

Non certified accessories endanger explosion protection.
Danger to life exists in potentially explosive atmospheres!

- ▶ The external Micro USB Type B interface (OTG Host, data exchange, and charging) must only be used outside hazardous areas with specified accessories recommended by the manufacturer.

ATTENTION

Data loss due to incorrect connection/disconnection of USB devices!

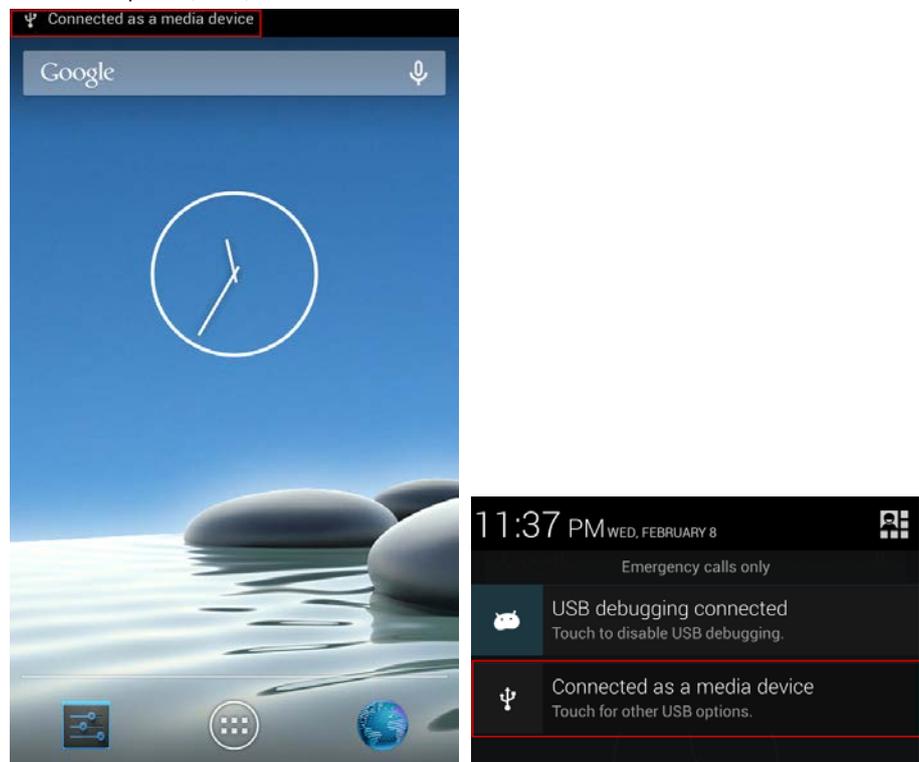
- ▶ When connecting your Industry Tablet to a computer and mounting its USB storage or SD card, the user must follow the computer's instructions for connecting and disconnecting USB device, to avoid damaging or corrupting files.

The user can connect the Industry Tablet to a computer with an USB cable to transfer files between the Industry Tablet and another computer.

Connect Lumen X7

Work steps:

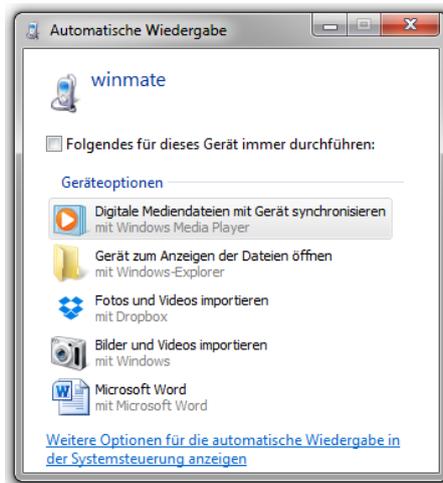
1. Use the USB cable that came with your Industry Tablet to connect the phone to a USB port on your computer.
2. After you received a notification that the **USB is connected**, tap the notification panel and then tap  (USB) connected as a media device.



3. Select **Media device (MTP)** to confirm the file transfer.



When the device is connected as USB storage, the screen indicates that USB storage is in use and user will receive a notification.



Disconnect Lumen X7 

Work steps:

1. Tap the notification panel and then tap **USB connected**.
2. Tap **Turn off USB storage** in the screen that opens.
3. Disconnect the Industry tablet by unplugging the USB cable.

6.10 Use the camera

The Industry Tablet is equipped with a 5 MP camera on the rear side, which the user can use to capture photos or video.



Make sure that the protective lens cover is clean before taking pictures. A dirty lens cover can cause blurry pictures.

6.10.1 Open the camera

Work steps:

Tap the **Launcher** and then tap **Camera** . The camera opens in portrait mode, ready to take a picture or to shoot a video.

6.10.2 Take a picture

Work steps:

1. Adjust the exposure, flash, and other necessary settings. Or leave it automatic.
2. Das gewünschte Objekt auf dem Bildschirm einrahmen und zum Vergrößern oder Verkleinern aufziehen bzw. zusammenschieben. Frame your subject / object on screen.

	Tap the On Screen Shutter icon. The camera brings the image into focus. When the image is in focus, the focus indicators in each corner will turn green. The camera is ready to capture.
	Touch the icon to change camera settings.

View pictures

After taking a photo, a thumbnail of the picture is shown on the corner of the capture screen.

Work steps:

Tap the thumbnail to view the picture. The following options are available:

	Share photo
	Delete photo
	View another photo in the gallery.

6.10.3 Record a video

Work steps:

1. Tap  to switch from camera to video mode.
2. Point the lens to record the scene where you want to start.
3. Tap the Record icon  to start the video recording.

The countdown time remaining to record the video is located on the upper left. When the time left is less than a minute, the countdown turns red.

4. Tap the Record icon  to stop the video recording.

6.10.4 Open the gallery

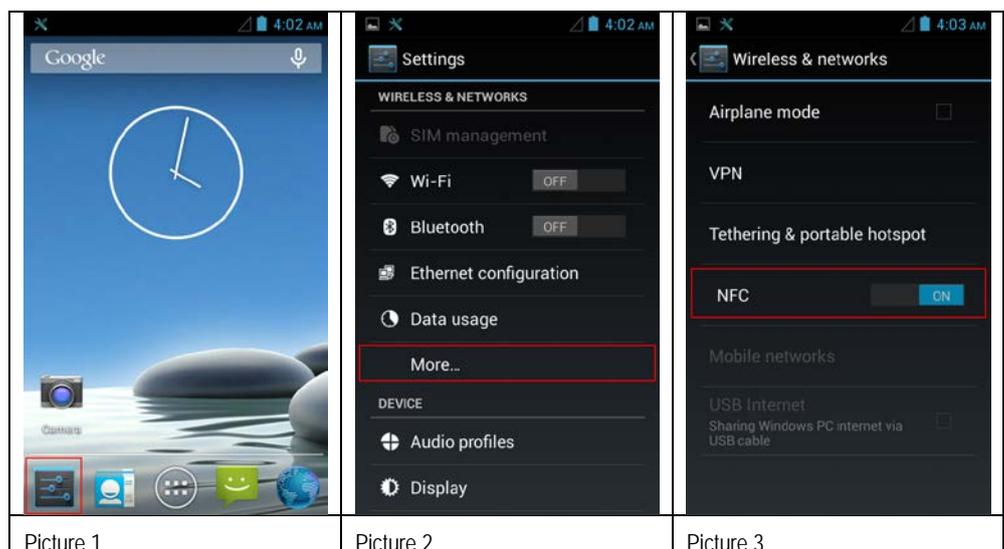
Work steps:

1. Tap the **Launcher** and then tap **Gallery** .
2. Tap a folder to view the pictures or video inside in full screen mode.
3. Slide the pictures to the right or left to view the previous or next picture.

6.11 Use RFID NFC/HF

6.11.1 Enable RFID HF/NFC

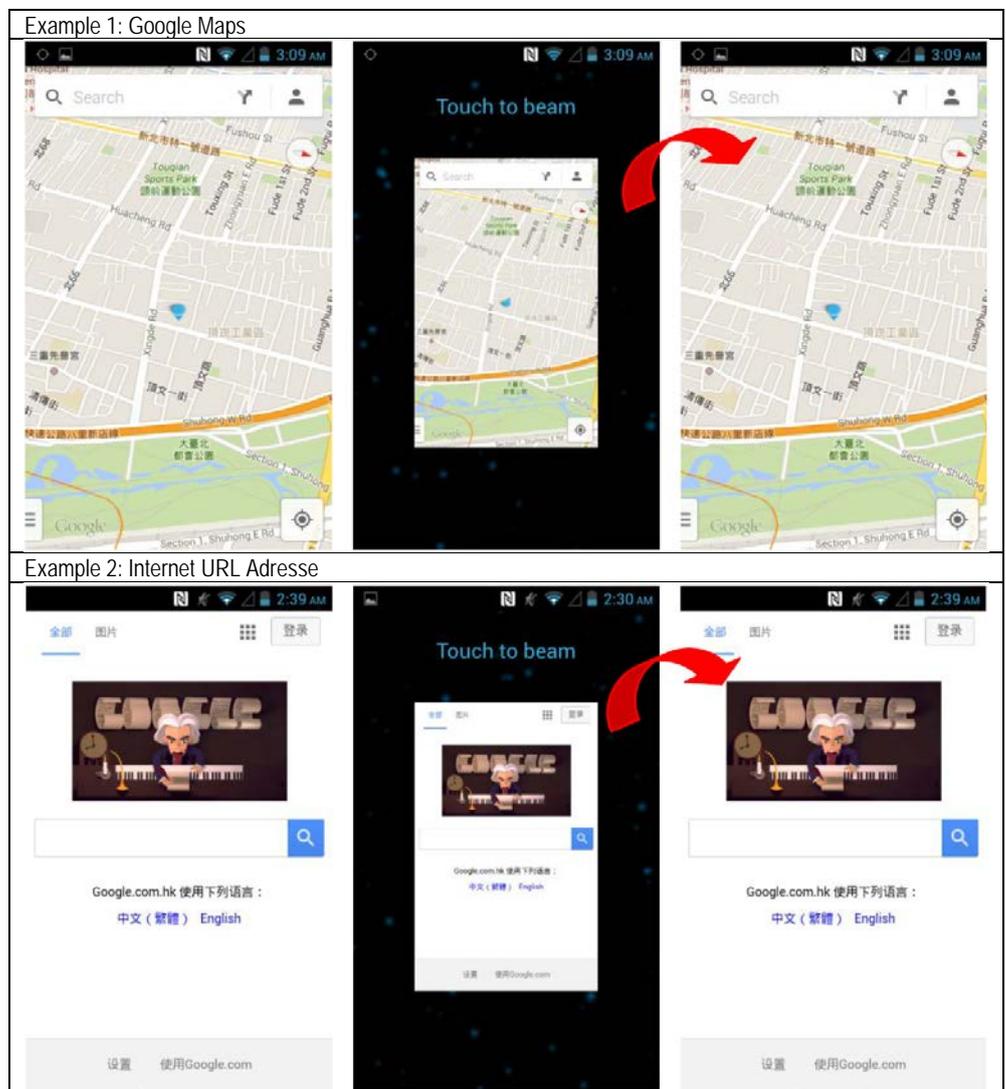
1. Enter the "Settings" menu with a tab on the setting  symbol. (Picture 1)
2. Select the option "More" to open the menu for "Wireless & Networks". (Picture 2)
3. Enable NFC option to "ON". (Picture 3)
- 4.

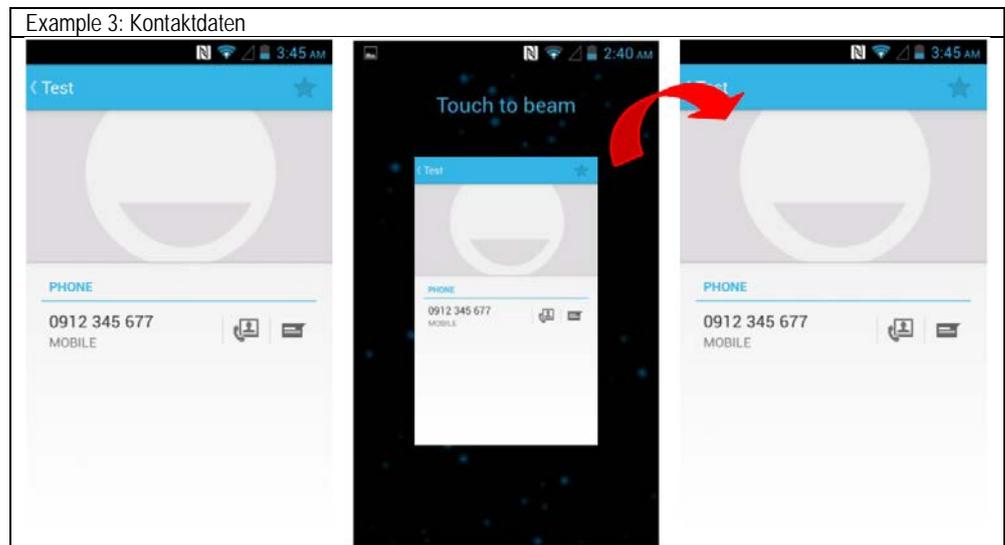


6.11.2 Daten mit Punkt zu Punkt (P2P) Verbindung übertragen

1. There are two NFC capable devices required.
2. Enable NFC on the receiver device.
3. Enable NFC function on Lumen X7 as described in chapter 6.11.1.
4. Select the program or file what you transmit.
5. Bring both NFC devices close together that connection can established.
6. If connection is established then you can transmit the file with a tab on the message "Touch to beam"
7. Confirm the message box with "Yes".
8. Check on the receiver device that the file is received.

Example:





6.11.3 Use Read / Write Function

The RFID HF/NFC Reader supports following protocols:

- ISO 14443-A (read)
- ISO 14443-B (read)
- ISO 15693 (read)
- ISO 18092 (read/write)

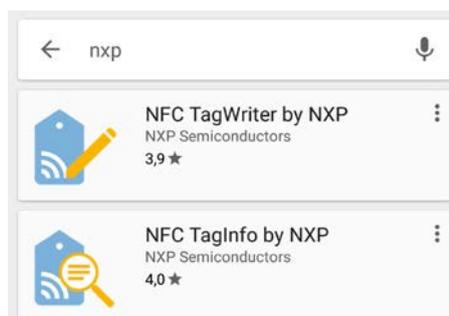
By default, no application for read / write function is pre-installed.

The user can download an existing application from Google App Store what is usable for the RFID HF/NFC reader.

Another option is to use the standard Google Android SDK (Software Development Kit) for development of a customized solution. For the Lumen X7 is a SDK available for download what is needed for the development. See Chapter 12.1

Example Application for test:

Open Google App Store and search for "NXP" and install it.



7. Faults and Troubleshooting

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.	<ul style="list-style-type: none"> - Check that the external power supply is connected and that the replaceable battery is inserted correctly.
No image on the display.	<ul style="list-style-type: none"> - The Industry Tablet 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.
There is no WLAN signal.	<ul style="list-style-type: none"> - Check under "System settings/Wireless & networks" whether the WLAN is activated. - If the function is deactivated, activate the function. If the Industry Tablet finds a network that you have connected previously, it connects to it automatically.
The WLAN signal is very poor.	<ul style="list-style-type: none"> - Select a network with a better signal strength.
Bluetooth connection to other devices is not working.	<ul style="list-style-type: none"> - Check that the Bluetooth is switched on in both devices. - Check whether the two devices are connectable. - •Check whether the two devices are compatible with one another - Check whether the two devices are further than 10 m apart.
The GPS application cannot find my position.	<ul style="list-style-type: none"> - Check under "System settings/Wireless & networks" whether the GPS is activated. - You may possibly be outside the GPS range. Take the Industry Tablet outdoors or closer to a window. - Check whether the objects in the environment generate faults such as microwaves or mobile telephones. - Move the Industry Tablet away from such devices.
There is no sound from the loudspeaker.	<ul style="list-style-type: none"> - 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 RFID reader does not work.	<ul style="list-style-type: none"> - Check that a Lumen X7 with integrated RFID Reader is used.

8. Service, Inspection, Repair

Service, inspection, and repair of Lumen X7 Industry Tablets may be conducted exclusively by trained and qualified staff! The staff who is familiar with the service, inspection, and repair of Lumen X7 Industry Tablets, has been informed about the risks and has the qualifications necessary for this work.

8.1 Service intervals

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 Industry Tablet 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 Industry Tablet 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 in chapter 3.6 "Product labelling"
- Model number or product name, see type plate in chapter 3.6 "Product labelling"
- Software type and version number, see system information in Control Panel

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>

If you have any questions? Please write us a mail or give us a call.

E-Mail: services@bartec.de

Telephone: +49 7931 597-444

9. Disposal

The Lumen X7 Industry Tablets contain metallic and plastic parts and electronic components.

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.

10. Forwarding and Packaging Information

ATTENTION

Sensitive devices! Damage may be caused by incorrect packaging!

► Use original packaging for transport.

11. Accessories

Description	Order number
Ex-certified accessories	
Spare battery Lithium polymer battery 3.7 V / 5.300 mAh	B7-A2Z0-0027
Screen protector Protect the touchscreen from dirt and water	B7-A2Z0-0030
Micro SD card <ul style="list-style-type: none"> storage capacity of 4 GB storage capacity of 8 GB 	17-28BE-F006/000A 17-28BE-F006/000B
Hand strap For a safe handling during use of the device	03-9849-0141
Capacitive Stylus For direct entry via touchscreen	03-9849-0144
Optional accessories for the non-Ex area	
USB power adapter Input: AC 100-240 V / 50-60 Hz / 0.3 A Output: DC 5 V / 3 A / 15 W max. - with EU-plug, with US-plug	03-9914-0013
USB cable Type A to micro Type B	03-9919-0025
USB car charger cable	03-9914-0012
Desk Docking Station <ul style="list-style-type: none"> 4 x USB 2.0 (2 x rear, 2 x side), LAN (10/100), COM (RS232), 12V DC IN 	03-9915-0020
Vehicle Docking Station <ul style="list-style-type: none"> 4 x USB 2.0, LAN (10/100), COM (RS232), 12V up to 36V DC IN 	03-9915-0021
Quick Start Guide	B1-A234-7E0001

12. Additional Information

12.1 Links



All original Winmate documents refer to the non-explosion-protected version. Please heed the safety information in the BARTEC manuals when using original Winmate documents.



The explosion-protected Lumen X7 series from BARTEC and the non-explosion-protected Winmate E430RM4 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

BARTEC

Your partner
for safety
technology.
Challenge us!

