

TC77^{ex}-NI Touch Computer

for Zone 2/Div. 2 hazardous areas



Your workers in the field need a mobile computer to communicate with others and to access information. Only in this way they can work with maximum efficiency and improve service to customers.

The TC77^{ex}-NI is the ultimate touch computer for your rugged environment and built to deliver the unstoppable performance you need. This professional grade device married the intuitive and elegant smartphone experience with today's most advanced enterprise-class features. Your workers get everything they need to work smarter and faster, able to deliver the kind of service that will put your business a step above the competition. You get a ultra-rugged device built to last for years with everything you need to streamline your workflows and maximize your return on investment. Access to practically all information in your backend systems wherever and whenever you need it. The ability to collect more types of data quicker than ever before. Immediate Push-to-Talk communication with field staff, line managers, despatch coordinators and colleagues in the office. 4G LTE support for robust, wireless connections in the fastest mobile phone networks in the world. And an extensive range of accessories which meets the unique demands of practically all mobile employees. The TC7X series – a simple way of equipping your field team with a true mobile office – now also in in the hazardous area.

The TC77^{ex}-NI is approved for ATEX/IECEX/UKEX Zone 2/22 and NEC Class I, II, III Div 2.

Further local certifications are possible on customer request.

- Certified for Zone 2 and Div. 2 hazardous areas
- Proven ultra-rugged design
- Most battery power in it's class
- Integrated scan functionality
- High-quality integrated camera
- Android 14
- More value with Mobility DNA software

Explosion protection

Marking NEC	⚠ II 3G Ex ic op is IIC T5 Gc ⚠ II 3D Ex ic op is IIIB T100 °C Dc IP 64
Certification	EPS 17 ATEX 1 028 X
Marking IECEx	Ex ic op is IIC T5 Gc Ex ic op is IIIB T100 °C Dc IP 64
Certification	IECEx EPS 17.0012X
Marking ETL	Class I Div. 2 Groups A, B, C and D Class II Div. 2 Groups F, G Class III; T4
Certification	5012876
Marking UKEX	⚠ II 3G Ex ic op is IIC T5 Gc ⚠ II 3D Ex ic op is IIIB T100 °C Dc IP 64
Certification	CML 21 UKEX2341X

Other approvals and certificates, see
www.bartec.com

User environment

Operating temperature	-20 °C to +50 °C (-4 °F to 122 °F)
Storage temperature (without battery)	-40 °C to +70 °C (-42 °F to 158 °F)
Relative humidity	5 % ~ 95 % (non-condensing)
Protection class (IEC 60529)	IP 65 and IP 68
Drop Specification	Multiple 2.4 m (94.5 inch) drop to concrete at room temperature MIL-STD-810G, Multiple 1.8 m (70.9 inch) drop to concrete across full operating temperature range
Tumble Specification	2.000 tumbles from a height of 1.0 m (39.4 inch); meets and exceeds IEC tumble specification

Technical data

Processor	Qualcomm Snapdragon™ 660 octa-core, 2.2 GHz
Memory (RAM)	4 GB RAM
Mass storage	32 GB Flash pSLC
Storage expansion	User accessible MicroSD, up to 32 GB SDHC and up to 256 GB SDXC
SIM	2 Nano-SIM-Slots (Dual SIM, Dual Stand-by - EU Only)
Operating system	Android 14™ delivered as GMS (Google Mobility Services) version, Hardware supports future Android™ versions (up to Android™ 14) Configuration Zebra's "Restricted Mode" can be set via StageNow, for control over Google Mobile Services (GMS) and other services
Size (W x L x H)	161 x 84 x 28 mm (6.3 x 3.3 x 1.1 inch)
Weight (with battery)	376 g (0.83 lb)
Display	4.7", bonded
Resolution	1280 x 720 pixels
Front glass	Corning Gorilla glass

Touch function	Dual mode capacitive touch
Usability	With Stylus or bare or gloved fingertip input
Battery	Lithium polymer battery 3.7 V/4620 mAh (1S/2P) Battery change function Must only be changed and charged outside hazardous areas!
Notifications	Audible tone; multi-color LEDs; vibration
Voice and audio	Three microphone support with noise cancellation; vibrate alert; speaker; Bluetooth wireless headset support, High quality speaker phone; PTT headset support; Cellular circuit switch voice; HD Voice
Buttons	1 x on/off button 1 x function button 1 x scan button 2 x volume buttons (+/-) 4 x capacitive function buttons (home, menu, ESC, search function)
External I/O	Only for use outside potentially explosive atmospheres. USB 2.0 High Speed (Host and Client) 1 x Cradle Connector (OTG host, data exchange and charging) 1 x Port (PoGo Pin) for 2-slot charger
Sensors	Light sensor: automatically adjusts display backlight brightness; Motion sensor: eCompass, 3-axis Gyro, 3-axis accelerometer; Atmospheric Pressure Sensor
Barcode capture	– SE4770-SR: 1D/2D standard range imager – Scan range at Code 39 barcode: 0.51 mm: 4.1 cm to 91.7 cm (0.02 inch: 1.6 inch to 36.1 inch) 0.08 mm: 7.6 cm to 14.7 cm (0.003 inch: 3.0 inch to 5.8 inch) Supported symbologies/barcodes: see table.
RFID Reader HF/NFC	ISO 14443 Type A and B; F; FeliCa and ISO 15693 cards; P2P mode and Card Emulation via Host; SAM support for Calypso, Felica and Mifare technology; Dual SAM support on TC77 SAM SKU
Camera	Backside: 13 MP with autofocus Frontside: 5 MP fixed focus f/2.4 aperture; flash LED generates balanced white light; supports Torch mode; 4K video with image stabilization; Camera supports barcode scanning
Radio Frequency Band	Supports VoLTE, Carrier Aggregation up to 3DL CA AT&T FirstNet Ready certification Verizon PNTM certification LTE FDD: 700/800/850/900/1800/1900/ AWS/2100/2600 (28,13,14,12,17/19,20/5,26/8/ 3/2,25/4,66/1/7); LTE TDD: 1900/2300/2500 (39/40/41,38); UMTS/HSPA/HSPA+: 850/900/ AWS/1900/2100 (5/8/4/2/1); GSM/GPRS/EDGE: 850/900/1800/1900

Bluetooth	Bluetooth v5.0, Class 2, Bluetooth Low Energy (BLE)
GPS	Autonomous, Assisted GPS (A-GPS); Navstar; GLONASS; Galileo; BeiDou
Software	No functional changes were made to the device due to the explosion protection. All tools and applications available from Zebra for the TC77 are compatible with the TC77 ^{ex} -NI version. e.g. messaging via Workforce Connect PTT Express or the Mobility DNA solutions from ZEBRA.
Mobility DNA	Mobility DNA solutions help you get more value out of our mobile computers by adding functionality as well as simplifying deployment and management of our mobile devices. For more information on these Zebra-only features, please visit www.zebra.com/mobilitydna
PTT (Push-to-Talk) App	Powered by Zebra Technologies, BARTEC brings the enterprise-class push-to-talk application PTT Pro into hazardous areas. PTT Pro connects your workforce with enterprise-class instant PTT and secure messaging services. It supports direct messaging, image, audio, and video - regardless of whether your users are carrying a BARTEC mobile device in hazardous areas, or their own Android or Windows device in non-hazardous areas. For more information see bartec.com
Warranty	1 year for TC77 ^{ex} -NI Touch Computer 6 month for battery and accessories
Service contracts	COMFORT and ALL-IN
Scope of delivery	– TC77 ^{ex} -NI Touch Computer – Battery – Hand strap – Quick Start Guide
Also required	(not included in the delivery) – Charging accessories (see all available options in the datasheet: TC77 ^{ex} -NI Accessories)

WLAN-WiFi

Radio	IEEE 802.11 a/b/g/n/ac/d/h/i/r/k/v/w; Wi-Fi™ certified; IPv4, IPv6, 2x2 MU-MIMO
Data Rates	5 GHz: 802.11a/n/ac — up to 866.7 Mbps 2.4 GHz: 802.11b/g/n — up to 300 Mbps
Operating Channels	Channel 1-13 (2412-2472 MHz) Channel 36-165 (5180-5825 MHz) Channel Bandwidth: 20, 40, 80 MHz Actual operating channels/ frequencies and bandwidths depend on regulatory rules and certification agency.
Security and Encryption	WPA3-Personal (SAE); WPA3-Enterprise; Enhanced Open - Based on opportunistic wireless encryption (OWE)*; WEP (40 or 104 bit); WPA/WPA2 Personal (TKIP, and AES); WPA/WPA2 Enterprise (TKIP and AES) - EAP-TTLS (PAP, MSCHAP, MSCHAPv2), EAP-TLS, PEAPv0-MSCHAPv2, PEAPv1-EAP-GTC and LEAP.EAP-PWD <small>* Note that OWE is a separate Wi-Fi Alliance certification program and not WPA3</small>
Multimedia	Wi-Fi Multimedia™ (WMM) and WMM-PS
Features	Soft AP, 2x2 MU-MIMO, 256 QAM Modulation on 5G GHz radio Maximum Ratio Combining (MRC), Tx/Rx Low-Density Parity Check (LDPC), Transmit Beamforming (TxBF) and Beamforming (BFee) capability, Full IEEE 802.11 a/b/g/n legacy compatibility
Certifications	WFA (802.11n, WMM-PS, 802.11ac, PMF)
Fast Roam	PMKID caching; Cisco CCKM; 802.11r; OKC

Accessories

See datasheet: TC77^{ex}-NI Accessories

It is absolutely necessary to use original accessories from BARTEC !

Ordering information

TC77^{ex}-NI – with 4G/LTE for US+ CANADA	B7-A264-1K5333311300
TC77^{ex}-NI – with 4G/LTE for the rest of the world	B7-A264-1L5333311300

Supported Symbolologies/Barcodes

1D/Linear Symbol/Codes	Code 11 Code 39 Code 93 Code 128 Codabar Coupon Code Chinese 2 of 5	Discrete 2 of 5 EAN-8 EAN-13 Interleaved 2 of 5 MSI UPCA UPCE	UPC/EAN supplementals Trioptic 39 RSS-14 RSS Expanded RSS Limited Webcode
2D Stacked and 2D Matrix Symbol/Codes	Aztec Australian 4-state Canadian 4-state Composite AB Composite C PDF-417 Data Matrix	Dutch Kix Japanese 4-state Macro PDF-417 (Macro) Micro PDF-417 Micro PDF-417 microQR Maxi Code	QR Code TLC39 UK 4-state US Planet US Postnet USPS 4-state (US4CB)