

# TC77<sup>ex</sup>-NI

## Touch Computer Datasheet



**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<sup>ex</sup>-NI is the ultimate touch computer for your rugged environment and built to deliver the unstoppable performance you need. The TC77<sup>ex</sup>-NI is built for the toughest conditions and certified to the strictest Ex safety standards for use in Zone 2 and Class I, II, III Div 2. 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 back-end 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 a potentially explosive atmosphere.

## Explosion protection

Marking ATEX	Ex II 3G Ex ic op is IIC T5 Gc Ex 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
	Other approvals and certificates, see <a href="http://bartec.com">bartec.com</a>

## 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 % ~ 90 % (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 32GB SDHC and up to 64 GB SDXC
SIM	2 Nano-SIM-Slots (Dual SIM, Dual Stand-by - EU Only)
Operating system	Android 10 with Mobility Extensions Security updates/patches on request
Size (L x W 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 potentially explosive atmosphere.
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; Cellulat 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)
Externe 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	<b>SE4770-SR</b> 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) <b>supported symbologies/barcodes: see table</b>
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
WLAN-WiFi	IEEE 802.11 a/b/g/n/ac/d/h/i/k/mc/r/v/w; Wi-Fi™ certified; IPv4, IPv6, 2x2 MU-MIMO  <b>Data Rates</b> 5 GHz: 802.11a/n/ac — up to 866.7 Mbps 2.4 GHz: 802.11b/g/n — up to 300 Mbps  <b>Operating Channels</b> 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  <b>Security and Encryption</b> 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  * Note that OWE is a separate Wi-Fi Alliance certification program and not WPA3

	<p><b>Multimedia</b> Wi-Fi Multimedia™ (WMM) and WMM-PS</p> <p><b>Features</b> 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 Beamformee (BFee) capability, Full IEEE 802.11 a/b/g/n legacy compatibility</p> <p><b>Certifications</b> WFA (802.11n, WMM-PS, 801.11ac, PMF)</p> <p><b>Fast Roam</b> PMKID caching; Cisco CCKM; 802.11r; OKC</p>
<b>Bluetooth</b>	Bluetooth v5.0, Class 2, Bluetooth Low Energy (BLE)
<b>GPS</b>	Autonomous, Assisted GPS (A-GPS); Navstar; GLONASS; Gallileo; BeiDou
<b>Software</b>	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 <sup>ex</sup> -NI version. e.g. messaging via Workforce Connect PTT Express or the Mobility DNA solutions from ZEBRA
<b>Mobility DNA</b>	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 <a href="http://www.zebra.com/mobilitydna">www.zebra.com/mobilitydna</a>
<b>PTT (Push-to-Talk) App</b>	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 <a href="http://bartec.com">bartec.com</a>
<b>Warranty</b>	1 year
<b>Service contracts</b>	COMFORT and ALL-IN
<b>Scope of delivery</b>	Touch Computer TC77 <sup>ex</sup> -NI Battery Hand strap Quick Start Guide
<b>Also required</b>	(not included in the delivery) Base station or battery charging station for charging

## Supported Symbologies / Barcodes

<b>1D/Linear Symbol/Codes</b>	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
<b>2D Stacked and 2D Matrix Symbol/Codes</b>	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)

## Ordering information

TC77 <sup>ex</sup> -NI with 4G/LTE US+ CANADA	B7-A264-1K5333311300
TC77 <sup>ex</sup> -NI with 4G/LTE Rest of the world	B7-A264-1L5333311300

## Accessories

see datasheet: TC77<sup>ex</sup>-NI Accessories

It is absolutely necessary to use original accessories from BARTEC!