

TC22R Integrated Handheld RFID Reader



Specifications

Physical Characteristics

Dimensions	5.7 in. H x 3.3 in. W x 6.96 in. L 14.5 cm H x 8.4 cm W x 17.7 cm L
Weight	20.07 oz. / 569 g
Display	6.0 in. color Full High Definition+ (1080 x 2160), LED backlight, 450 nits
Touch Panel	Multi-mode capacitive touch with bare or light gloved fingertip input
Power	User-removable, quick-release, rechargeable 7,000 mAh Li-Ion battery with PowerPrecision+ for real-time battery metrics
Network Connections	WLAN, WPAN
Notifications	Audible tone, vibration
Indicators	Decode LEDs, battery status LED, beeper
Keypad	On-screen keypad
Buttons	User-programmable button for barcode scanning (default), PTT or other use, volume up/down, power
User Input	Tri-function user-programmable trigger
Interface Ports	USB 3.1 (Bottom Type C), Super Speed (host and client)

User Environment

Operating Temperature	14° F to 122° F / -10° C to +50° C
Storage Temperature	-40° F to 158° F / -40° C to +70° C
IP Sealing	IP65
Humidity	5-95% non-condensing
Electrostatic Discharge	±15 kV air discharge ±8 kV direct discharge
Tumble Specification	500 cycles (1,000 drops, 1.6 ft./0.5 m) at room temperature
Drop Specification	Multiple 5 ft./1.5 m drops to concrete

Performance Characteristics

CPU	5430 hexa-core 2.1 GHz Android: for
Operating System	supported versions, visit www.zebra.com/android-versions
Memory	6 GB RAM / 64 GB Flash

Wireless LAN

WLAN Radio	IEEE 802.11a/b/g/n/ac/d/h/i/r/k/v/w/mc/ax; 2x2 MU-MIMO, Wi-Fi 6E (802.11ax), Wi-Fi certified; Wi-Fi 6 Certified, Dual Band Simultaneous; IPv4, IPv6
Data Rates	6 GHz: 802.11ax—20 MHz, 40 MHz, 80 MHz, 160 MHz—up to 2,402 Mbps; 5 GHz: 802.11a/n/ac/ax—20 MHz, 40 MHz, 80 MHz, 160 MHz—up to 2,402 Mbps; 2.4 GHz: 802.11b/g/n/ax—20 MHz up to 286.8 Mbps
Operating Channels	Channel 1-13 (2,401-2,483 MHz): 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13; Channel 36-165 (5,150-5,850 MHz): 36, 40, 44, 48, 52, 56, 60, 64, 100, 104, 108, 112, 116, 120, 124, 128, 132, 136, 140, 144, 149, 153, 157, 161, 165; Channel 1-233 (5,925-7,125 MHz); Channel Bandwidth: 20/40/80/160 MHz; actual operating channels/frequencies and bandwidths depend on regulatory rules and certification agency
Fast Roam	PMKID caching; Cisco CCKM; 802.11r; OKC
Security and Encryption	WEP (40 or 104 bit); Enhanced Open (OWE); WPA/WPA2 Personal (TKIP, and AES); WPA3 Personal (SAE); WPA/WPA2 Enterprise (TKIP and AES); WPA3 Enterprise (AES) - EAP-TLS (PAP, MSCHAP, MSCHAPv2), EAP-TLS, PEAPv0-MSCHAPv2, PEAPv1-EAP-GTC, LEAP, EAP-PWD; WPA3 Enterprise 192-bit mode (GCMP256) - EAP-TLS
Certifications	Wi-Fi Alliance Certifications: Wi-Fi CERTIFIED n, Wi-Fi CERTIFIED ac, Wi-Fi CERTIFIED 6 (Wi-Fi 6E), WPA2-Personal, WPA2-Enterprise, WPA3-Personal, WPA3-Enterprise (includes 192-bit mode), Protected Management Frames, Wi-Fi Enhanced Open, WMM (Wi-Fi Multimedia), WMM-Power Save, WMM-Admission Control, Voice-Enterprise, Wi-Fi Direct, Wi-Fi Agile Multiband, Wi-Fi QoS Management, Wi-Fi Optimized Connectivity, Passpoint

Wireless PAN

Bluetooth	Class 2, Bluetooth v5.2
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Regulatory Compliance

Electrical Safety	IEC 62368-1 (ed.2) IUL 62368-1, second edition, CAN/CSA-C22.2 No. 62368-1-14
RFI/EMI/EMC	FCC Part 15 Subpart B Class B; ICES 003 Class B; EN 301 489-1; EN 301 489-3; EN 55035; EN 55032 Class B; EN 60601-1-2
RF Exposure	EU: EN 50364, EN 62369-1, EN 50566, EN 62311; USA: FCC Part 2. 1093 OET Bulletin 65 Supplement 'C'; Canada: RSS-102
RFID	EU EN 302 208, FCC Part 15 Subpart C; Canada: RSS-247

Markets and Applications

Retail and Hospitality

- Inventory cycle counting
- Mobile POS/line-busting
- Item finding

Light Manufacturing

- Product and component tracking
- Work-in-progress

Government

- Asset tracking
- Document management

Transportation and Logistics

- Inventory cycle counting
- Loading verification
- Inbound/outbound verification

RFID Characteristics

Standards Supported	EPC Class 1 Gen 2; EPC Gen 2 V2
RFID Engine	Zebra Proprietary Radio Technology
Maximum RFID Read Rate	Up to 1,300 tags/sec
Nominal RFID Read Range - Integrated Antenna	40 ft. / 12.2 m
Frequency Range and RF System Output	US: 902–928 MHz; 0–36 dBm (EIRP) EU: 865–868 MHz; 0–33 dBm (ERP) 916.3, 917.5, and 918.7 MHz; 0–36 dBm (ERP) Japan: 916–921 MHz (w LBT), 0–36 dBm (EIRP)
Integrated RFID Antenna Gain	4 dBi

Data Capture

Scanning	SE4710 1D/2D scan engine Forward-facing 16
Camera	Forward-facing 16 MP camera, front-facing 5 MP camera
NFC	NFC ISO 14443 Type A and B; Mifare, FeliCa and ISO 15693 cards, NFC Forum tags 2,3,4,5; Host Card Emulation, Contactless Payment Support
UHF RFID	Contact TDS to find out

