



Apex A6 Pro

Mobile Rugged Handheld Scanner



The Apex A6 Pro by Mnnno stands out as a robust handheld computer with extensive expansion capabilities. Featuring a Qualcomm octa-core processor and running on Android 11 OS, this device boasts a spacious 5-inch HD display, integrated barcode scanner, and NFC functions. Its capabilities are further enhanced with support for quick charging, built-in UHF functions, and Wi-Fi 6 for heightened data throughput and security. Users can also opt for additional features such as fingerprint recognition and volume measurement, making the Apex A6 Pro ideal for fulfilling diverse requirements in logistics, warehouse management, manufacturing, retail, and various other applications.



UHF Sled Reader



Pistol Grip

Specifications

Physical	
Dimensions	160.0 x 76.0 x 15.5 / 17.0 mm / 6.3 x 2.99 x 0.61 / 0.67 in.
Operating System	Android 11 OS
Weight	295g / 10.40 oz.(device with battery) 297g / 10.47oz.(device with battery, Fingerprint / Volume Measurement / Built-in UHF)
Keypad	1 power key, 2 scan keys, 2 volume keys
Battery	Removable main battery (normal version:4420 mAh ; Android 11 with fingerprint / built-in UHF / volume measurement version: 5200mAh) 5200 mAh optional pistol battery, support QC3.0 and RTC Standby: up to 490 hours (only main battery ; WiFi: up to 470h; 4G: up to 440h) Continuous use: over 12 hours (depending on user environment) Charging time: 2.5 hours (charge device by standard adaptor and USB cable)
Speaker	Support
Vibrator	Support
Microphone	2 Microphones, 1 for noise reduction
Display	5.5-inch high definition full display (18:9), IPS IGZO 1440 x 720
Touch Panel	Corning Gorilla Glass, multi-touch panel, gloves and wet hands supported
Sensor	Accelerometer sensor, light sensor, proximity sensor, gravity sensor
Indicator LED	Power, charging, status indicator
Card slot	1 slot for Nano SIM card, 1 slot for Nano SIM or TF card
Interfaces	Android 11: USB Type-C, USB 3.1, OTG, extended thimble;
Performance	
CPU	Android 11: Qualcomm Snapdragon™ 662 Octa-core, 2.0 GHz
RAM+ROM	4 GB + 64 GB
Expansion	Supports up to 128 GB Micro SD card
Environment	
Operating System	Android 11; GMS, 90-day security updates, Android Enterprise Recommended, Zero-Touch, FOTA, Soti MobiControl, SafeUEM supported. Committed support for a future upgrade to Android 12, 13, and Android 14 pending feasibility
SDK	Software Development Kit
Language	Java
Tool	Eclipse / Android Studio
User Environment	
Operating Temp.	-4°F to 122°F / -20 °C to +50 °C
Storage Temp.	-40°F to 158°F / -40 °C to +70 °C
Humidity	5% RH - 95% RH non condensing
Drop Specification	Multiple 1.8 m / 5.91 ft. drops (at least 20 times) to the concrete across the operating temperature range Multiple 2.4 m / 7.87 ft. drops (at least 20 times) to the concrete after installed rubber bumper
Tumble Specification	1000 x 0.5 m / 1.64 ft. falls at room temperature
Sealing	IP65 per IEC sealing specifications
ESD	±15 KV air discharge, ±8 KV conductive discharge
Communication	
Vo-LTE	Support Vo-LTE HD video voice call
Bluetooth	Bluetooth 5.1
GNSS	GPS/AGPS, GLONASS, BeiDou, Galileo, internal antenna

WLAN	Support 802.11 a/b/g/n/ac/d/e/h/i/k/r/v, 2.4G/5G dual-band, IPV4, IPV6, 5G PA Fast roaming: PMKID caching, 802.11r, OKC Operating Channels: 2.4G(channel 1-13), 5G(channel36,40,44,48,52,56,60,64,100,104,108,112,116,120,124,128,132,136,140,144,149,153,157,161,165), Depends on local regulations Security and Encryption: WEP, WPA/WPA2-PSK(TKIP and AES), WAPI-PSK—EAP-TTLS, EAP-TLS, PEAP-MSCHAPv2, PEAP-LTS,PEAP-GTC,etc.
WWAN (Europe, Asia)	2G: 850/900/1800/1900 MHz 3G: CDMA EVDO: BC0 WCDMA: 850/900/1900/2100MHz TD-SCDMA: A/F(B34/B39) 4G: B1/B3/B5/B7/B8/B20/B38/B39/B40/B41
WWAN (America)	2G: 850/900/1800/1900 MHz 3G: 850/900/1900/2100 MHz 4G: B2/B4/B5/B7/B8/B12/B13/B17/B28A/B28B/B38
Data Collection	
Camera	
Rear Camera	Rear 13MP Autofocus with flash
NFC	
Frequency	13.56 MHz
Protocol	ISO14443A/B, ISO15693, NFC-IP1, NFC-IP2, etc.
Chips	M1 card (S50, S70), CPU card, NFC tags, etc.
Range	2-4 cm
Barcode Scanning (Optional)	
2D Scanner	Zebra: SE4710/SE2100; Honeywell: N6603; E3200; IA166S
1D Symbolgies	UPC/EAN, Code128, Code39, Code93, Code11, Interleaved 2 of 5, Discrete 2 of 5, Chinese 2 of 5, Codabar, MSI, RSS, etc.
2D Symbolgies	PDF417, MicroPDF417, Composite, RSS, TLC-39, Datamatrix, QR code, Micro QR code, Aztec, MaxiCode; Postal Codes: US PostNet, US Planet, UK Postal, Australian Postal, Japan Postal, Dutch Postal (KIX),etc.
UHF1 (Optional)	
Engine	CM710-1 module based on Impinj E710 CM2000-1 module based on Impinj Indy R2000
R/W range	Up to 15 m (open outdoors, Impinj MR6 tag)
UHF2 (Optional)	
Engine	CM710-1 module based on Impinj E710 CM2000-1 module based on Impinj Indy R2000
R/W range	Up to 10 m (open outdoors, Impinj MR6 tag)
UHF3 (Optional)	
Power	1 W (+19 dBm to +30 dBm adjustable)
R/W range	Up to 3 m
Fingerprint (Optional)	
Sensor	Capacitive TC51
Volume Measurement	
Measured distance	40m-4m
Optional accessories	
Separate handle with one button ; Handle + battery (handle battery 5200 mAh, one button)	
UHF back clip + handle (5200 mAh, one button) ; Wrist Strap; Rubber Bumper; Charging Cradle	

Module Specifications

UHF2

Apex A6 Pro+Sled



UHF2 (Optional)

Engine	CM710-1 module based on Impinj E710 CM2000-1 module based on Impinj Indy R2000
Frequency	865-868 MHz / 920-925 MHz / 902-928 MHz
Protocol	EPC C1 GEN2 / ISO18000-6C
Antenna	Circular Polarized Antenna (3 dBi)
Power	1W (30 dBm, support +5~+30 dBm adjustable) 2W Optional (33 dBm, for Latin America, etc.)
R/W range	Up to 10 m (open outdoors, Impinj MR6 tag)
Fastest Read Rate	900+ tags/sec
Communication Mode	Pin Connector / Bluetooth

UHF3

Built-in UHF



UHF3 (Optional Android 11, Built-in UHF)

Engine	CM510-1 module based on Impinj E510
Frequency	865-868 MHz / 920-925 MHz / 902-928 MHz
Protocol	EPC C1 GEN2 / ISO18000-6C
Antenna	Circular polarization (-2.5 dBi)
Power	1 W (+19 dBm to +30 dBm adjustable)
R/W range	Up to 3 m
Fastest Read Rate	900+ tags/sec

*Ranges and rates depend on tags and environment, built-in UHF version does not support pistol

Fingerprint



Fingerprint

Sensor	TCSI
Sensing Area	12.8 × 18.0 ; 10.4 × 14.4 (mm)
Resolution (dpi)	508 dpi, 8-bit greylevel
Certifications	FIPS 201, STQC
Format Extraction	ISO 19794, WSQ, ANSI 378, JPEG2000
Fake Finger Detection	Supported by SDK
Security	AES, DES key encryption of the host communication channel

*Fingerprint version does not support pistol

Volume Measurement



Volume Measurement

Sensor	IRS1645C
Measurement Error	<5%
Module	MD101D
Field of view Angle	D71°/H60°/V45°
Measurement speed	2s/ piece
Measured distance	40cm-4m

*Volume Measurement version does not support pistol