



A9N SERIES HAND-HELD TERMINAL

PRODUCT SPECIFICATION V1.5



1. NEW AUTOID® 9 PERFORMANCE CHARACTERISTICS

CPU	Cortex-A53 Quad core 1.2GHz
Operating System	Android5.1
RAM	2GB
ROM	16GB
Expansion Slot	Micro SD Card, 32GB SDHC compatible
Interface/Communication	Industrial Micro USB interface, support USB2.0 high speed; Support OTG; USB supports serial port
Keypad	17 key/22 key crystal button
	LED(backlight)
Display	4 inch size industrial grade low temperature resistant, IPS screen, Capacitive, touchable, dual mode touch-with or without a thick glove / with or without wet hand
	800(H)×480(W) (WVGA)
Power	Removable 3.8 V 4000mAh li-ion rechargeable battery; Built in 3.7V 60mAh li-ion backup battery, Internal battery meter
	Side interface: standard Micro USB quick charging interface, intelligent identification of PC and special charger
	Contact at the bottom of the tail plug interface: support for quick charging and USB data communication, intelligent identification of PC and special charger
Battery Performance	Continue to work: more than 12 hours (normally display on and scan once every 6 seconds and WLAN transmission) RTC time: more than 168 hours(no main battery) Dormancy standby: more than 550 hours (GPRS) online, offline (GPRS) is greater than 600 hours
Notification	Sound, vibration, LED indicator light
Audio	Built-in double speakers $8\ \Omega/0.8W \times 2$ (or built-in single speaker $4\ \Omega/2W$) , built-in microphone, the 3.5 mm stereo headset interface
Sensor (optional)	Acceleration sensor, light sensor, electronic compass and gyroscope
Dimension	156(H)×70(W)×22(T)mm (27 mm at barcode engine)
Weight(including standard battery)	270g (Including battery depends on different configurations)
Operating Temp	-20℃ to +50℃
Storage Temp	-40 ℃ to + 60 ℃ (Battery included)
	-40 ℃ to + 70 ℃ (Battery excluded)
Humidity	5% to 95% RH non-condensing
Sealing	IP67
Drop Specification	Multiple 5 ft./1.5m drops to concrete across the operating temperature range
Tumble Specification	1,000 1.64 ft./0.5 m tumbles (2,000 drops)

ESD	±15kV Air discharge, ±8kV direct discharge
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2. NEW AUTOID® 9 DATA CAPTURE OPTIONS

Option 1	1D Laser Scan Engine (option1)
Scan Accuracy	5mil
Rotate	±35°
Pitch Angle	±65°
Skew Tolerance	±40°
Ambient Light	Sunlight: 10,000ft. Candles(107,640Lux) Artificiallight: 450ft. Candles(4,844Lux)
Scan Frequency	104±12/sec
Laser light Angle	47°/35°/10°
Laser Safety Grade	Class 2
Code Support	UPC/EAN, POST, Code 128, Code 39, Code 93, Code 11, Codabar, Interleaved 2 of 5, Discrete 2 of 5, Chinese 2 of 5, MSI, RSSI Etc.
Option 2	1D Laser Scan Engine (option2)
Scan Accuracy	5mil
Rotate	±35°
Pitch Angle	±65°
Skew Tolerance	±50°
Ambient Light	Sunlight: 10,000ft. Candles(107,640Lux) Artificiallight: 450ft. Candles(4,844Lux)
Scan Frequency	100±10/sec
Laser light Angle	47°
Laser Safety Grade	Class 2
Code Support	UPC/EAN, POST, Code 128, Code 39, Code 93, Code 11, Codabar, Interleaved 2 of 5, Discrete 2 of 5, Chinese 2 of 5, MSI, RSSI Etc.
Option 3	1D Laser Scan Engine (option3)
Scan Accuracy	5mil
Rotate	±35°
Pitch Angle	±65°
Skew Tolerance	±50°
Ambient Light	Sunlight: 10,000ft. Candles(107,640Lux) Artificiallight: 450ft. Candles(4,844Lux)
Scan Depth	17.78cm(5mil), 66.04cm(15mil)
Scan Frequency	104±12/sec
Laser light Angle	47°/35°/10°
Laser Safety Grade	Class I
Code Support	UPC/EAN, POST, Code 128, Code 39, Code 93, Code 11, Codabar, Interleaved 2 of 5, Discrete 2 of 5, Chinese 2 of 5, MSI, RSSI Etc.
Option 4	1D Laser Scan Engine (option4)
Scan Accuracy	4mil
Ambient Light	Sunlight: 10,000ft. Candles(107,640Lux) Artificiallight: 450ft. Candles(4,844Lux)
Laser light Angle	Standard: 48° ±2° ; optional: 35° ±2°

Rotate	$\pm 35^\circ$
Pitch Angle	$\pm 65^\circ$
Skew Tolerance	$\pm 50^\circ$
Laser Safety Grade	Class II
Scan Depth	32.6cm(10mil), 80.6cm(40mil)
Scan Frequency	114 \pm 10/sec
Minimum printing contrast	20%
Code Support	UPC/EAN, POST, Code 128, Code 39, POST, Code 93, Code 11, Codabar, Interleaved 2 of 5, Discrete 2 of 5, Chinese 2 of 5, MSI, RSSI, Etc.
Option 5	2D Image Scan Engine (option1)
Sensor Resolution	1280(H) \times 960(V)
Rotate	360 $^\circ$
Pitch Angle	$\pm 60^\circ$
Skew Tolerance	$\pm 60^\circ$
VLD	655nm \pm 10nm
Scan Depth	16cm(5mil), 88cm(20mil)
Ambient Light (Sunlight)	10,000 ft. candles (107,700 lux)
Code Support	Code 39, Code 128, PDF417, Data Matrix, UPCA Etc.
Option 6	2D Image Scan Engine (option2)
Sensor Resolution	1280(H) \times 960(V)
Rotate	360 $^\circ$
Pitch Angle	$\pm 60^\circ$
Skew Tolerance	$\pm 60^\circ$
VLD	655nm \pm 10nm
Scan Depth	21.8cm(5mil), 131.8cm(20mil)
Ambient Light (Sunlight)	10,000 ft. candles (107,700 lux)
Code Support	Code 39, Code 128, PDF417, Data Matrix, UPCA Etc.
Option 7	2D Image Scan Engine (option3)
Image Resolution	844(H) \times 640(V)
Rotate	360 $^\circ$
Pitch Angle	$\pm 45^\circ$
Skew Tolerance	$\pm 65^\circ$
Laser Safety Grade	Class 2
Image Frame	60fps
Code Support	Aztec Code, Codabar, Codablock F, Code 11, Code 128, Code 2 of 5, Code 39, Code 93, Data Matrix, EAN/JAN-13, EAN/JAN 8, EAN-UCC Composite Codes, EAN-UCC Emulation, IATA Code 2 of 5, Interleaved 2 of 5, Matrix 2 of 5, MaxiCode, MicroPDF417, MSI, PDF417, Postal Codes (Australian Post, British Post, Canadian Post, China Post, Japanese Post, Korea Post, Netherlands Post, Planet Code, Postnet), Plessey Code, PosiCode, QR Code, RSS Expanded, RSS Limited, RSS-14, TCIF Linked Code 39, Telepen, Trioptic Code, UPC-A, UPC-E Etc.

Light source system	White light, laser aiming
Minimum printing contrast	20%
Option 8	2D Image Scan Engine (option4)
Image Resolution	1600(H)×1200(V)
Rotate	360°
Pitch Angle	±60°
Skew Tolerance	±55°
Scan Depth	5mil Code39 62-138mm; 20mil Code128 100-550mm
Scan Frequency	15/sec
Code Support	1D UPC/EAN, UPC/EAN with supplementals, Code128, GS1-128, Code 39, Trioptic, Code 32, Code 93, Code11, Matrix 2 of 5, Interleaved 2 of 5, IATA 2 of 5, Industrial 2 of 5, Codabar, MSI ,Code11 等 2D PDF417, MicroPDF417, Composite Code, Data Matrix, Maxicode, QR Code, MicroQR, Aztec
Light source system	White light, laser aiming
Minimum printing contrast	40%
Option 9	GPS Location information collection
Positioning system	GPS, Beidou, GLONASS (Three in one)
Frequency	GPS:L1(1.575GHz); Beidou: B1(1.561GHz); GLONASS:L1(1.602GHz)
Maximum number of channels	31channel
Sensitivity	-130dB(SNR value:42dBHz)
Accuracy	5-10meter (OPEN SKY)
Option 10	Camera
Maximum Resolution	3264*2448 (Taking pictures) , 720P 30fps (camera)
Photo Function	Auto-focus
Flashlight	Support double flashlights
Pixel	8.0 mega pixel
Option 11	RFID Read/write(HF)
Standards Support	Support ISO15693,ISO14443A/B (without encryption protocol) , ISO14443A tag with encryption protocol (Mifare one S50,S70 and compatible with cards) ; Support NFC protocol
Operating Frequency	HF frequency 13.56MHz
Reading Distance	Typical values greater than 6cm (ISO15693), Typical values greater than 4cm (ISO14443A) Typical values greater than 1cm (ISO14443B) (Associated with tag)
Option 12	Fingerprint
Fingerprint type	Capacitive of live fingerprint

Interface standard	Serial port
Fingerprint input time	< 200ms
1:1 Comparison time	< 350ms feature extraction + fingerprint comparison
1:10 search time	< 400ms feature extraction + fingerprint search
False accept rate	< 0.0001 % The fifth security level
False reject rate	< 0.1 %
Image gray	8 bit, 256 grade
Resolution ratio	508DPI

3. NEW AUTOID® 9 WIRELESS DATA COMMUNICATIONS

Option 1	WLAN WIFI
Protocol	IEEE 802.11a/b/g/n (2.4G/5G dual-frequency WIFI)
Frequency Range	Depending on the country (region), 2.4GHz is 2.4GHz-2.496GHz; 5GHz is 5.15GHz-5.85GHz
Working Channel	CH1~CH13, CH34-CH140, CH149~CH165
Security	OPEN, WEP, WPA2-PSK(TKIP+AES), TLS, TTLS (MS-CHAP), TTLS(MS-CHAP v2), TTLS(CHAP), TTLSMD5, TTLS-PAP, PEAP-TLS, PEAP(MS-CHAP v2), AES Etc.
Data Rate	802.11a: 6,9,12,18,24,36,48,54Mbps 802.11b: 1, 2,5.5,11Mbps 802.11g: 6,9,12,18,24,36,48,54Mbps 802.11n: 6.5,13,19.5,26,39,52,58.5,65Mbps (20MHz, Long GI,800ns) 802.11n: 7.2,14.4,21.7,28.9,43.3,57.8,65,72.2Mbps (20MHz, short GI,400ns)
Antenna	Built-in antenna
Option 2	WWAN All Network (7 mode 18 frequency)
Frequency Band	GSM: Quad Band(850/900/1800/1900Mhz) TD-SCDMA: Band34, Band39 WCDMA: Band1, Band2, Band5, Band8 CDMA 1x /EVDO :BC0 TDD-LTE: Band38, Band39, Band40, Band41 FDD-LTE: Band1, Band3, Band7
Communication Rate	GPRS: DL / UL 171.2kbps; EDGE: DL / UL 384 kbps TD: DL 4.2 Mbps / UL 2.2 Mbps DC-HSPA+: DL 42Mbps / UL 5.76 Mbps CDMA1x: DL 153.6kbps/ UL 153.6kbps; EVDO: DL 3.1 Mbps / UL 1.8 Mbps TDD-LTE: DL 117 Mbps / UL 30 Mbps (CAT4) FDD-LTE: DL 150 Mbps / UL 50 Mbps (CAT4)
Option 3	WPAN Bluetooth
Standard	Bluetooth 4.0 (Support BLE)

Power	Class 2
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4. NEW AUTOID® 9 THE THIRD PARTY APPLICATION DEVELOPMENT SUPPORT

System Software	Android 5.1
System programming environment	Eclipse, Android Studio

5. NEW AUTOID® 9 EXTERNAL EQUIPMENT AND ACCESSORIES

Standard Accessories	Universal adapter×1,USB cable×1, Hand Tether×1, Battery ×1, Hand Belt×1
Optional Accessories	Single-Slot Battery Charger, 4-Slot Battery Charger, Single-Slot Charging Dock, Single-Slot Charging Dock(Support Ethernet), 5-Slot Charging Dock, 5-Slot Charging Dock(Support Ethernet), Pistol grip, Vehicle mounted charging rack, Vehicle charger, OTG cable, Multifunctional bag, knapsack for Pistol Grip, Touch pen, Protective cover, Screen protector