



# **AUTOID6C** TOI HANDHELD TERMINAL

## PRODUCT SPECIFICATIONS



**SEUIC**

### **1. AUTOID6C Characteristics of Performance/ Physical & User Environments**

<b>CPU</b>	Marvell Intel XScale™ PXA3XX 806 Mhz
<b>Operating system</b>	Microsoft Windows CE or Microsoft Windows Mobile



<b>RAM</b>	256MB
<b>ROM</b>	256MB
<b>User's storage</b>	Integrated Non-removable large storage(4GB)
<b>User's storage expansion</b>	Micro SD Card compatible with 32GB SDHC compatible
<b>Slot/Interface</b>	RS232/ USB2.0 FullSpeed
<b>Keypad</b>	28 Keys(Standard), P+R material
	LED (Backlight)
<b>Display</b>	3.5 in. Colorful LCD display, 65536 color
	240(W)×320(L)(QVGA)
<b>Power</b>	Removable, rechargeable 3.7V Lithium-ion 2700 mAh battery
	Supports quick charging: 2700mAh/4Hs Charging time
	Charging slot: Special industrial charging slot
	Backup power: Non- Removable rechargeable 3.7V/60mA Lithium-ion battery
<b>Battery life</b>	Continuous work: 6 hours (Display continuous light, 600 times scanning per hour and WLAN transmission;
	System maintance: 5 hours(Without main battery);
	RTC time maintaining: 5 hours(Without main battery);
	Standby and sleep mode: Not less than 200 hours(Offline); Not less than 100 hours(GPRS online); Not less than 50 hours(EVDO online)
<b>Notifications</b>	Audio
	Vibration
	Charging indicator
	Barcode scanning indicator
	Battery cover detecting indicator
<b>Audio</b>	Internal Speaker/ Microphone (Optional)/ Eeaphone (Optional)/ Expandable cable earphone
<b>Dimensions</b>	158mm(L)×84mm(W)×39mm(H)
<b>Weight(With battery)</b>	380g (differs depending on detailed configurations)
<b>Operating Temp</b>	-20°C to +50°C
<b>Storage Temp</b>	-40°C to +60°C(With battery)
	-40°C to +70°C(Without battery)
<b>Humidity</b>	5% to 95% RH non-condensing
<b>Sealing rate</b>	IP64
<b>Drop Specification</b>	Multiple drops to concrete: 4 ft./1.2 m across the operating temperature range
<b>Tumble Specification</b>	1000 1.64 ft/0.5m tumbles at room temperature
<b>ESD</b>	+/-15kVDC air discharge , +/-8kVdc direct discharge

### 3. AUTOID6C Specifications of data capturing functions

FUNCTION 1	1D Senior Laser Scanning Engine SE955	Internal Code S1
<b>Optical Resolution</b>	0.004 in. The Minimum Stripe Width	
<b>Roll</b>	±35°from vertical	
<b>Pitch Angle</b>	±65°from normal	
<b>Skew Tolerance</b>	±50°from normal	



<b>Ambient Light Immunity</b>	Sunlight:10,000ft. Candles(107, 640Lux)
	Artificial light:450ft.candles(4, 844Lux)
<b>Scan Depth</b>	15.2cm(4mil), 64.1cm(55mil)
<b>Scan Frequency</b>	The minimum 92 per second, Typical 104 per second, The maximum 116 per second (Bidirection)
<b>Scan Width</b>	47° , 35°
<b>Laser Power</b>	0.7mw ± 0.1mw
<b>Barcode Supported</b>	UPC-A, UPC-E, EAN-8, EAN-13, Code 128, Code 39, Code 93, Code 11, Codabar, Interleaved 2 of 5, Discrete 2 of 5, Chinese 2 of 5, MSI, RSSI etc
<b>FUNCTION 2</b>	<b>1D Laser Scanning Engine      Internal Code S4</b>
<b>Optical Resolution</b>	0.005 in. The Minimum Stripe Width
<b>Roll</b>	±35°from vertical
<b>Pitch Angle</b>	±65°from normal
<b>Skew Tolerance</b>	±50°from normal
<b>Ambient Light Immunity</b>	Sunlight: 10,000ft
<b>Scan Depth</b>	13.5cm(5mil), 91cm(55mil)
<b>Scan Frequency</b>	100±10 per second
<b>Scan Width</b>	47°
<b>Laser Power</b>	1.7 Milliwatt ± 0.2 Milliwatt (Standard)
<b>Barcode Supported</b>	UPC-A, UPC-E, EAN-8, EAN-13, Code128, Code 39, Code 93, Code 11, Codabar, Interleaved 2 of 5, Discrete 2 of 5, Chinese 2 of 5, MSI, RSSI etc.
<b>FUNCTION 3</b>	<b>2D scanning engine Honeywell5100      Internal code S2</b>
<b>Field of View:</b>	Horizontal:39.6°, Vertical: 25.7°
<b>Image Resolution:</b>	752(H)×480(V) Pixel Wide
<b>Roll:</b>	360°
<b>Pitch Angle:</b>	±60°from normal
<b>Skew Tolerance:</b>	±60°from normal
<b>Engine front focal length:</b>	Standard:8 inch,Best:5.3 inch, High density barcode: 2.9 inch
<b>Aiming Element(VLD):</b>	655nm±10nm
<b>Illumination Element (LED):</b>	635nm±5nm
<b>Ambient Light(Sunlight):</b>	9000 ft. Candles(96,900Lux)
<b>Codes supported</b>	1D Barcode: Aztec Mesas/ Codabar/ Codablock F/ Code 11/ Code 128/ ISBT 128/



	<p>GS1-128/ Code 16K/ Code 32 pharmaceutical(PARAF) / Code 39(supports Full ASCII mode)/ Code 49、 Code 93 and 93i/ Composite Symbology/ EAN13(including BooklandEAN)/ EAN-8/ Interleaved 2 of 5/ Matrix 2 of 5/ MSI/ Plessey Code/ PosiCode/ Reduced Space Symbology(RSS-14,Rss Limited,RSS Expanded)(GS1DataBar)/ Straight 2 of 5/ IATA/ Straight 2 of 5、 Industrial/ Telepen/ Trioptic Code/ UPC-A/ UPC-A with Extended Coupon Code(UCC Coupon Code)/ UPC-E/ UPC-E1/ Inverse 1D</p> <p>2D Codes: Aztec Code/ DataMatrix/ MaxiCode/ MicroPDF417/ OCR-A/ OCR-B/ PDF417/ QRCode/ MiroQR/ CIF Linked Code 39(TLC 39)/ Inverse 2D</p> <p>Post codes: 4-CB (4-State Customer Barcode) (Posta US4) (USPS 4-State)/ AustralianPost/ British Post (UK Postal) (BPO 4-State)/ Canadian Post/ China Post/ ID-tag (UPU4-State)/ Japanese Post/ KIX (Netherlands) Post (Dutch Postal)/ Korea Post/ PlanetCode (U.S.Planet)/ Postn (U.S.Postnet)</p>
<b>Optional Model: SR</b> (Internal code:2S-1)	Reads low density or medium density range standard 1D/2D symbologies
<b>Optional Model: SF</b> (Internal code:2S-2)	Reads medium density or high density range standard 1D/2D symbologies
<b>Optional Model: HD</b> (Internal code:2S-3)	Reads very high density range standard 1D/2D symbologies
<b>FUNCTION 4</b>	<b>2D Laser scanning engine SymbolSE4500 Internal S5</b>
<b>Image Resolution</b>	752(H)×480(V) Pixel Wide VGA
<b>Roll</b>	360°
<b>Pitch Angle</b>	±60°from normal
<b>Skew Tolerance</b>	±60°from normal
<b>Aiming Element(VLD)</b>	655nm±10nm
<b>Illumination Element (LED)</b>	635nm±5nm
<b>Ambient Light(Sunlight)</b>	9000 ft. Candles(96,900Lux)
<b>Optional Model: SR</b> (Internal code:5S-1)	Offers the best range and performance on medium and low density 1D and 2D bar codes.
<b>Optional Model: DL</b> (Internal code:5S-2)	Optimized for medium to high density bar codes as well as the bar codes found on driver's licenses and other identification documents, ideal for border crossings as well as the healthcare and electronics industry
<b>Optional Model: HD</b> (Internal code:5S-3)	Omnidirectional scanning of medium to high density 1D/2D codes and the large PDF codes found on driver's licenses and other identification cards for gate access and border crossings
<b>FUNCTION 5</b>	<b>DPM 2D scanning engine Internal code s6</b>
<b>Field of View</b>	Horizontal: 34.4° , Vertical: 22.2°



<b>Image Resolution</b>	752(H)×480(V) Pixel Wide VGA
<b>Roll</b>	360°
<b>Pitch Angle</b>	±86° from normal
<b>Skew Tolerance</b>	±61° from normal
<b>Ambient Light(Sunlight)</b>	0-100000 lux
<b>Aiming Element(VLD)</b>	635nm±5nm
<b>Supported DPM</b>	Dot curving/ Laser printing
<b>FUNCTION 6</b>	<b>RFID Read/ Write(HF) Internal code H3</b>
<b>Standards Supported</b>	ISO15693/ ISO14443A/B/ ISO18000-3/ ISO14443A(Encryption)/ Supports Mifare one S50, S70
<b>Frequency Range</b>	HF RFID, RF frequency 13.56MHz
<b>Read Range</b>	Read Range≤10cm (Depends on the antenna and tags)
<b>FUNCTION 7</b>	<b>RFID Read/ Write(LF) Internal code LF</b>
<b>Standards Supported</b>	ISO11784 FDX-B
<b>Frequency Range</b>	134.2 KHz±2KHz
<b>Read Range</b>	8cm
<b>FUNCTION 8</b>	<b>GPS Internal code G2</b>
<b>Chipset</b>	SiRFstarIV
<b>Hot Start</b>	<5 seconds (Average)
<b>Warm Start (autonomous)</b>	<35 seconds (Average)
<b>Warm Start (with CGEE)</b>	<10 seconds (Average)
<b>Cold Start</b>	<40 seconds (Average)
<b>FUNCTION 9</b>	<b>Photo and Video Internal code C2</b>
<b>Resolution of photos</b>	2592*1944, 1600*1200, 1024*768, 640*480
<b>Focal Distance</b>	Auto-focusing
<b>Flashlight</b>	User controllable flash
<b>Pixel</b>	5.0 megapixel
<b>BSI</b>	Supported
<b>FUNCTION 10</b>	<b>Fingerprint Internal code F1</b>
<b>Fingerprint module type</b>	Capacitive fingerprint for fingerprint identification
<b>Fingerprint recording time</b>	< 200ms
<b>1:1 matching time</b>	< 350ms Feature extration+ Fingerprint matching
<b>1:10 inquiring time</b>	< 400ms Feature extration+ Fingerprint inquiring
<b>Storing Capacity</b>	1776 pcs
<b>False acceptance rate</b>	< 0.0001 % 5 security level
<b>False reject rate</b>	< 0.1 %
<b>Image gray level</b>	8 bits/ 256 level
<b>Resolution</b>	508DPI
<b>FUNCTION 11</b>	<b>Active RFID Internal code Z1</b>
<b>Frequency</b>	2.4G
<b>Protocol</b>	The exclusive protocol;
<b>Distance</b>	100in the open area



### 3. AUTOID6C Specifications of WIRELESS DATA COMMUNICATIONS

FUNCTION 1	WLAN	WIFI	Internal code W1
<b>WLAN</b>	IEEE 802.11b/g/n		
<b>Frequency Range</b>	Depending on different countries: 2.4GHz to 2.5GHz in normal		
<b>Number of Channels</b>	CH1~CH14		
<b>WLAN Security</b>	OPEN/ WEP/ WPA-PSK (TKIP) / WPA2-PSK (TKIP+AES) 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)/ WPA-AES/ Support CCX v4 etc.		
<b>Output Power</b>	802.11b /11Mbps : 15 dBm ± 1.5 dB @ EVM ≤ -9dB		
	802.11g /54Mbps : 15 dBm ± 1.5 dB @ EVM ≤ -25dB		
	802.11n /65Mbps : 15 dBm ± 1.5 dB @ EVM ≤ -28dB		
<b>Sensitivity</b>	802.11b @8% PER: - 1Mbps PER @ -93 dBm, typical		
	802.11g @10% PER: - 6Mbps PER @ -89 dBm, typical		
	802.11n @10% PER: - MCS=0 PER @ -86 dBm, typical		
<b>Transmission Distance</b>	>150 meters (Industrial AP, open area)		
<b>Data Rate</b>	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)		
<b>Antenna</b>	Internal single antenna		
FUNCTION 2	WLAN	WIFI	Internal code W2
<b>WLAN</b>	IEEE 802.11b/g		
<b>Frequency Range</b>	Depending on different countries: 2.4GHz to 2.5GHz in normal		
<b>Number of Channels</b>	CH1~CH14		
<b>WLAN Security</b>	OPEN/ WEP/ WPA-PSK (TKIP/ WPA2-PSK (TKIP+AES) 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)/ WPA-AES/ Supports CCX v4 etc		
<b>Output Power</b>	802.11b: typical 19dBm ± 1.5dBm		
	802.11g: typical 15dBm ± 1.5dBm		
<b>Sensitivity</b>	Typical: 1 Mbps: -96 dBm 6 Mbps: -94 dBm 54 Mbps: -75 dBm		
<b>Transmission Distance</b>	>170 meters (Industrial AP, open area)		
<b>Data Rate</b>	802.11b: 1, 2, 5.5, 11 Mbps 802.11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps		



<b>Antenna</b>	Internal double antenna
<b>FUNCTION 3</b>	<b>WWAN GPRS</b> <b>Internal code G1</b>
<b>Frequency</b>	850/900/1800/1900MHz
<b>Transmitted Power</b>	Class 4 (2W): GSM850 and GSM900
	Class 1 (1W): DCS1800 and PCS1900
<b>Character</b>	GPRS The maximum down-load: 85.6kbps (Class 12, up-load and down-load are symmetrical)
	GPRS The maximum up-load: 85.6kbps (Class 12, up-load and down-load are symmetrical)
	Coding format: CS-1;CS-2;CS-3;CS-4
<b>FUNCTION 4</b>	<b>WWAN EVDO</b> <b>Internal code E2</b>
<b>EVDO</b>	800MHz
<b>Transmitted Power</b>	CDMA 800MHz: +23dBm (Power Class 3)
<b>Character</b>	IS-856-0 protocol standard:
	Forward single user peak rate: 2.4576Mbit/s
	Inversion single user peak rate: 153.6kbit/s
	IS-856-A protocol standard:
Forward single user peak rate: 3.1Mbit/s	
Inversion single user peak rate: 1.8Mbit/s	
<b>FUNCTION 5</b>	<b>WWAN WCDMA</b> <b>Internal code G4</b>
<b>Frequency</b>	GSM/GPRS/EDGE: Dual band GSM 900/1800MHz
	UMTS/HSPA+: Dual band UMTS 900/2100MHz
<b>Transmitted Power</b>	Class 4 (+33dBm ±2dB) : EGSM900
	Class 1 (+30dBm ±2dB) : GSM1800
	Class E2 (+27dBm ± 3dB): GSM 900 8-PSK
	Class E2 (+26dBm +3 /-4dB) : GSM 1800 8-PSK
	Class 3 (+24dBm +1/-3dB) : UMTS 2100, WCDMA FDD BdI
Class 3 (+24dBm +1/-3dB) : UMTS 900, WCDMA FDD BdVIII	
<b>Character</b>	Features of HSPA:
	3GPP Release6,7 : Max.downloading rates: 7.2Mbps,
	Max. uploading: 5.7Mbps
	Features of UMTS:
	3GPP Release 4:
	PS range (Data) – 384 kbps DL / 384 kbps UL
	CS range (Audio) – 64 kbps DL / 64 kbps UL
	Features of GSM/GPRS/EGPRS:
	GPRS:
	GPRS The maximum down-load: 85.6kbps (Class 12, up-load and down-load are symmetrical)
GPRS The maximum up-load: 85.6kbps (Class 12, up-load and down-load are symmetrical)	
EGPRS:	
The Max. rate of each time-slot: 59.2 kbps; (MCS-9)	
EGPRS 8 time-slot max. rate: 474 kbps; (MCS-9)	



FUNCTION 6	WPAN Bluetooth	Internal code BT
Standard	Bluetooth 2.0(EDR)	
Power	Class 2	
Distance	>20m(Industrial Bluetooth Adaptor)	

## 4. AUTOID6C SUPPORTS TO THIRD PART APPLICATION DEVELOPMENTS

Systems Software Development	SEUIC's SDK
Programming Environment	eMbedded Visual C++ 4.0
	Visual Studio 2008 (Supports .NET CF 3.5)

## 5. AUTOID6C PERIPHERALS AND ACCESSORIES

Standard Accessories	Universal Adapter×1、USB Cable×1、Touch Pen×2、Hand Tether×2、Hand Belt×2、Battery×1
Optional Accessories	Single Slot Serial Cradle, Battery Charger, Auto Adapter , Fabric Case ,Four Slot Battery Charger、Bluetooth Printer and Card Reader.

## 6. AUTOID6C REGULATORY

Telecom Equipment Access to Network Licence; UN38.3 battery Certified; CCC Certified of PRC; Obtained control of pollution caused by electronic information products of PRC