

# SPECIFICATION

Customer : \_\_\_\_\_

Customer's Model No. : \_\_\_\_\_

Model No. : WD200 Series \_\_\_\_\_

Date : \_\_\_\_\_

Sample Serial No. : \_\_\_\_\_

Spec. Version & Revision Date: V02 2006.03.31 \_\_\_\_\_

Received/Approved by

**CHAMPTEK**<sup>®</sup>

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**Revision History**

Version	Date	Context
V00	2004.04.22	Golden release
V01	2005.08.03	
V02	2006.03.31	

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## A. General Description

This wand is a portable hand-held barcode reader that is specially designed to provide the best scanning result. Much of attention is focus on the high quality optical module as well as the efficient electronic circuits to minimize the power consumption. Since current drawn is reduced, it is very suitable for portable or battery operated environment where run time is a very important issue. With different wavelengths, barcodes which are printed on different materials can be easily read to suit the application needs. The high resolution model guarantees the best first read rate for high density codes in the industry.



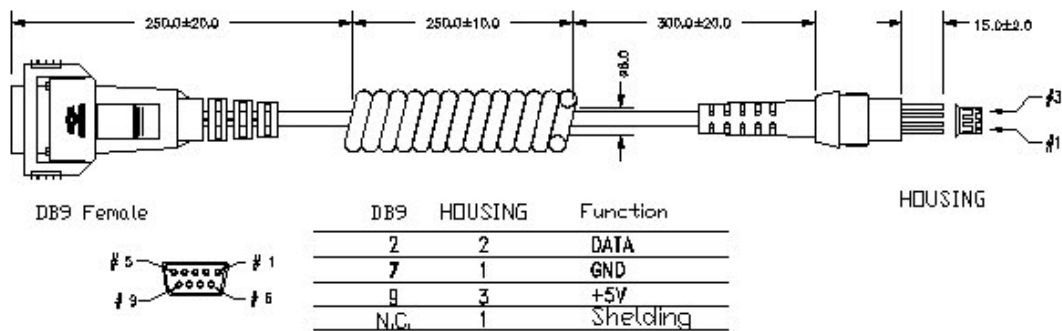
## B. Physical Characteristics

<b>Weight</b>	
Body weight	Approx. 4.594 oz ( 130 gm )
Cable weight	Approx. 2.65 oz ( 75 gm )
<b>Material</b>	
Connector	WAFER 90°3 Pins
<b>Dimension</b>	
Cable Length	820mm ( 32.3 inch )

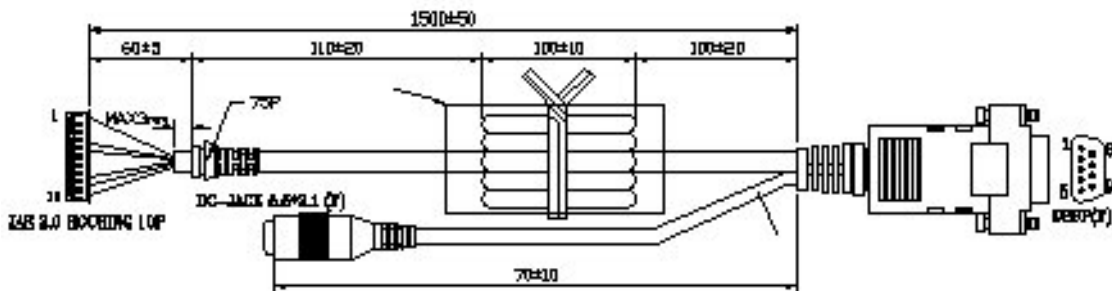
### a) Cable

Unit : mm

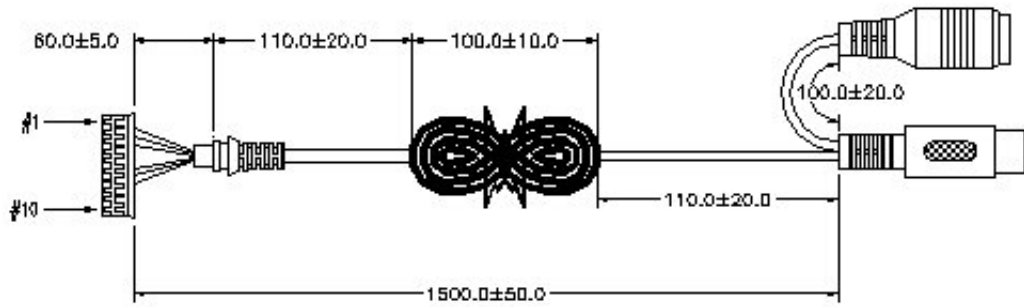
#### 1) TTL



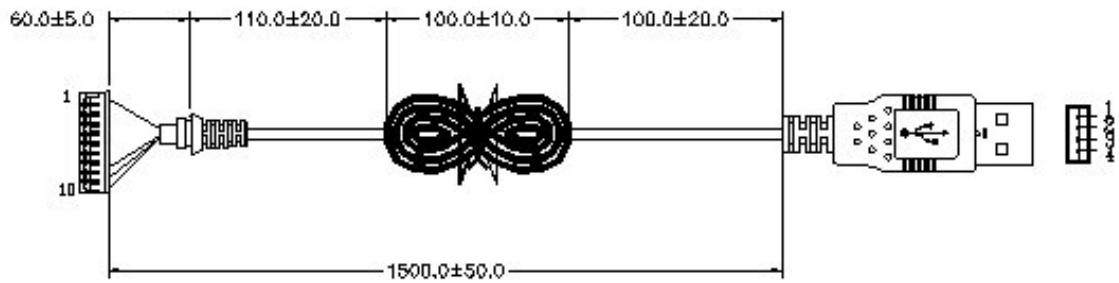
#### 2) RS232



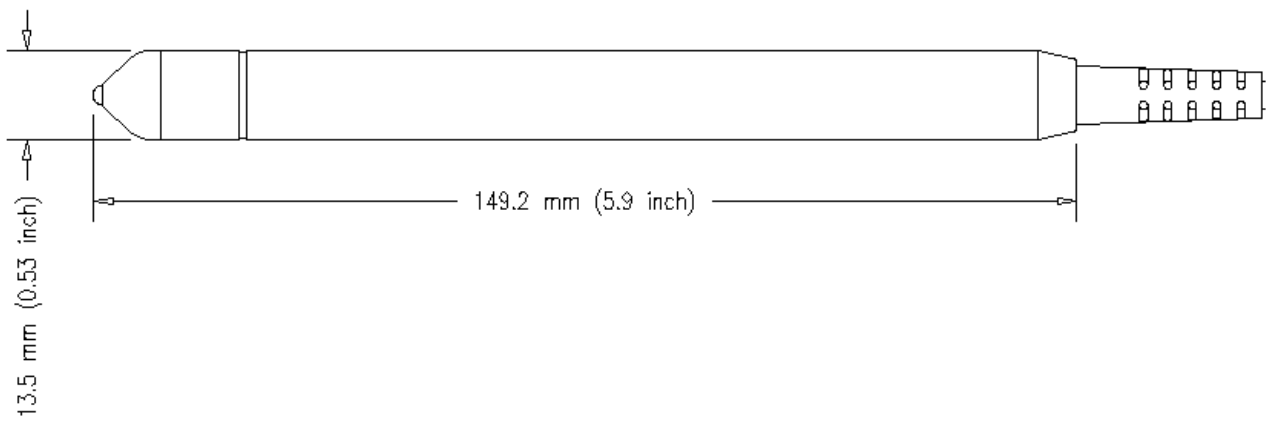
**3) Keyboard**

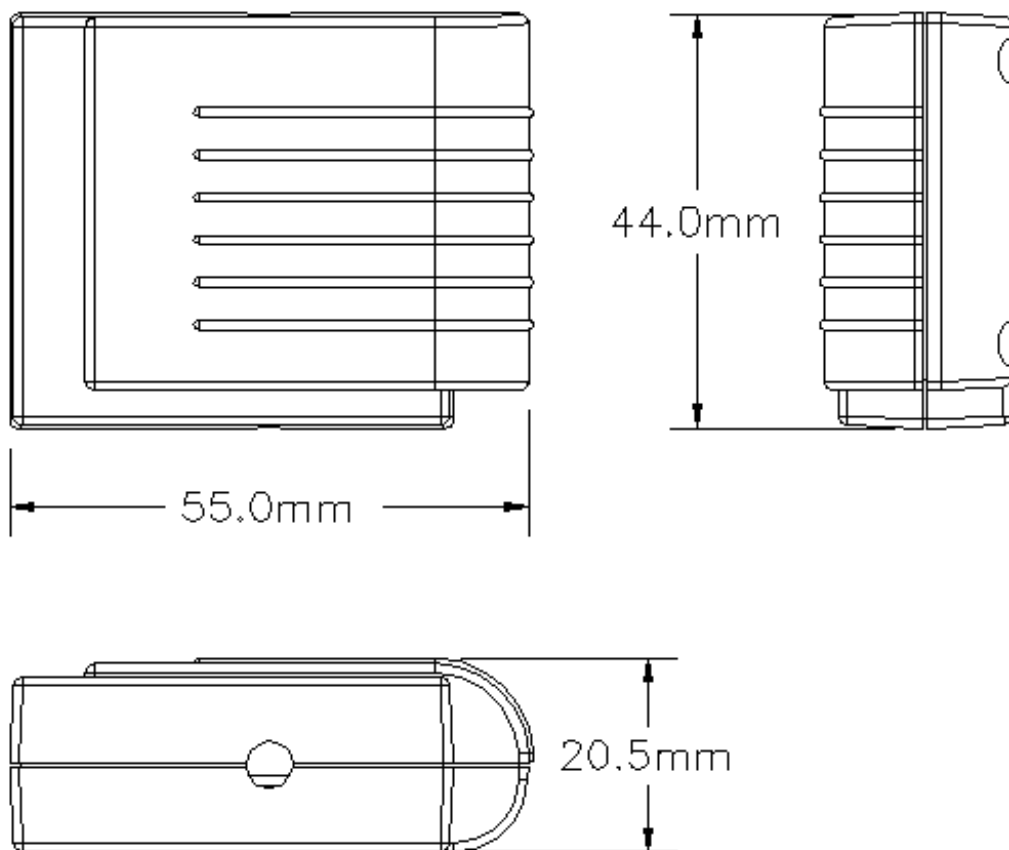


**4) USB**



**b) Mechanical drawing**





### C. Electrical Characteristics

Interface	TTL	RS232	KB	USB
Supply Voltage	DC +5V $\pm$ 5%			
Output Voltage (Typ.)	+5V $\pm$ 5%	$\pm$ 9V	+5V $\pm$ 5%	+5V $\pm$ 5%
Output low Voltage (Max.)	0.4V	-	0.7V	0.7V
Current Draw	$\pm$ 10%			
Power On (Typ.)	-	70mA	65mA	70mA
Stand by (Typ.)	-	50mA	45mA	50mA
Operation (Typ.)	20mA	65mA	55mA	60mA

## D. Performance

	WD20X-X	WD21X-X
Light Source	Visible Red light 660nm LED	infrared light 940nm
Sensor		Photo Diode
Scan Speed		50 - 500 mm / sec
Depth of Field		Contact Type
Resolution	5mil/0.127mm@PCS90%	
Scanning Angle	± 45 ° (±5°)	
Ambient Light	1500 Lux Max. ( Sunlight )	

## E. Environmental

Operating Temperature	0 °C to 50 °C (32 °F to 122 °F)
Storage Temperature	-20 °C to 70 °C (-4 °F to 158 °F)
Relative Humidity	20% to 95% (Non-condensing)

## F. Readable Symbologies

	Readable	Default Enable
All UPC/EAN/JAN	V	V
EAN128 Code	V	V
Code 39	V	V
Code 39 Full ASCII	V	
Code32 / Italian Pharmacy	V	
Code 128	V	V
CODABAR/NW7	V	V
Interleave 25	V	V
Industrial 25	V	
Matrix 25	V	
MSI/PLESSEY	V	
Telepen	V	
Code 93	V	
Code 11	V	
China Postage	V	

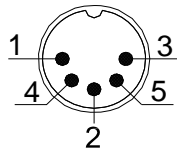


## G. Pin Assignment

### a) Keyboard Interface

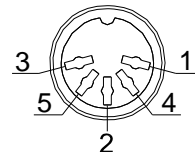
#### DIN 5 MALE

Pin No.	Function
1	HOST CLK
2	HOST DATA
4	GND
5	Vcc(+5V)



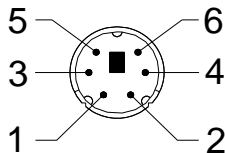
#### DIN 5 FEMALE

Pin No.	Function
1	KB CLK
2	KB DATA
4	GND
5	Vcc(+5V)



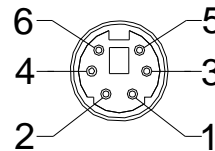
#### MiniDIN 6 MALE

Pin No.	Function
1	HOST DATA
3	GND
4	Vcc(+5V)
5	HOST CLK



#### MiniDIN 6 FEMALE

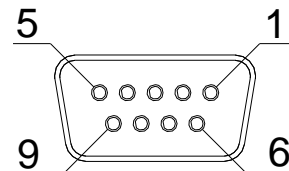
Pin No.	Function
1	KB DATA
3	GND
4	Vcc(+5V)
5	KB CLK



### b) RS232 Interface

#### DB 9 Female

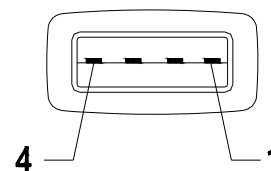
Pin No.	Function
2	TXD
3	RXD
5	GND
7	CTS
8	RTS
9	Vcc/+5V
Power Lead	Vcc/+5V



### c) USB Interface

#### USB A Type Male

Pin No.	Function
1	Vcc
2	D-
3	D+
4	GND



### H. Reliability

#### Life Time

Light Source	40,000 hours
MTBF(Calculated)	80,000 hours

#### Thermal Shock

High Temp.	70 °C (140 °F)
Low Temp.	-20 °C (-4 °F)
Cycle time	20 minutes for high temp. , 20 minutes for low temp.
Cycles	5 cycles

Cable Bending Test 25,000 times minimum (30 times/min @ 500g/90 °)

Mechanical Shock 40 inch (100 cm) Drop on Concrete Surface

### I. Packing

#### Dimension

Unit	17.4 cm X 11.7 cm X 6 cm
Carton	49 cm X 34 cm X 26 cm

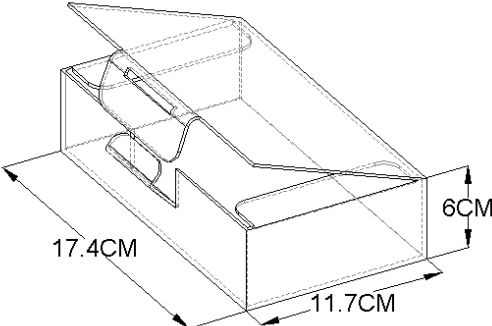
#### Weight

Unit	353 g
Carton	8 Kg ( Q'ty :20 pcs )

#### Storage

Temperature	-20 °C to 70 °C (-4 °F to 158 °F)
Humidity	20% to 95% (Non-condensing)

Unit :CM



Carton :

