

SPECIFICATION

Customer : _____

Customer's Model No. : _____

Model No. : MCR7 Series Models _____

Date : _____

Sample Serial No. : _____

Spec. Version & Revision Date: V1.0 2004.04.22 _____

Received/Approved by



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Revision History

Version	Date	Context
1.0	2004.04.22	Golden release



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A. General Description

This brand-new designed handheld CCD scanner has inherited the characteristic of “high performance with low price” from its previous series. Aside from the principle of excellence mechanical design, it also installs with many user-friendly operations; extra-large trigger enable user to access the trigger in any scanning position, detachable cable, 4-in-1 interface, and 2 years product warranty; these have added-up additional values to it.



Performance: this scanner supports reading depth up to 4 inches, best choice for retailers using POS or regular cash register system. User can program this scanner to “continuous mode” and pair up with matching hand-free stand. Scanning can be an easiest task and be completed with hand-free.

Aid in various major barcodes, hand-on software-programming function, this economical-type barcode scanner is the best choice ever.

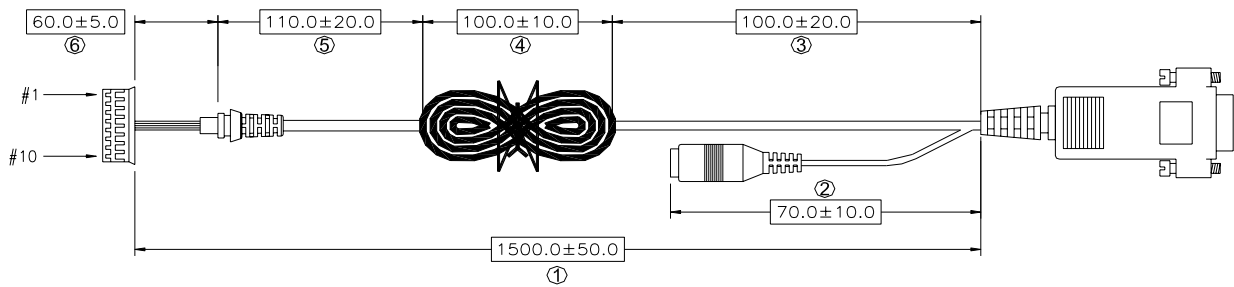


B. Physical Characteristics

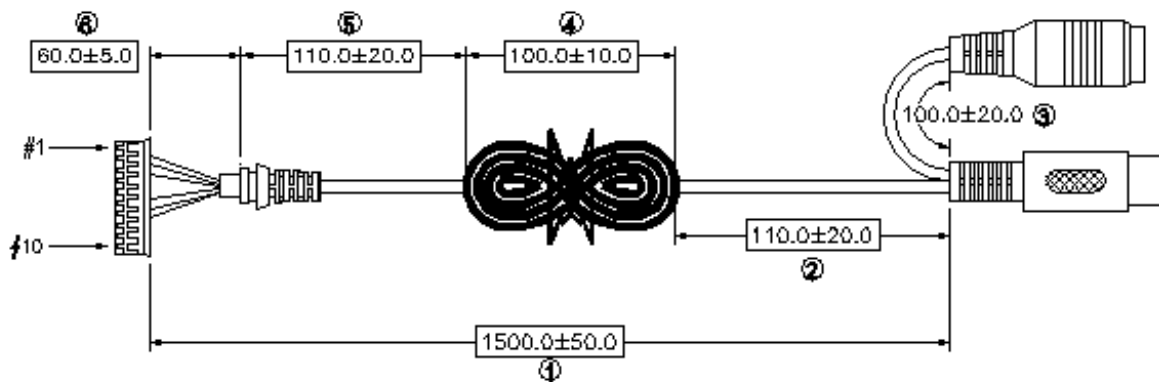
Weight	
Body weight	Approx. 4.59 oz (130 gm)
Cable weight	Approx. 2.47 oz (70 gm)
Material	
	PC + Fiber Plastic
Cable Length	
	5FT. (150cm)
Connector	
	JAE (or Compatible) 10P Pitch 2.0
Dimension	
	70 mm X 54 mm X 28 mm

(a) Cable drawing

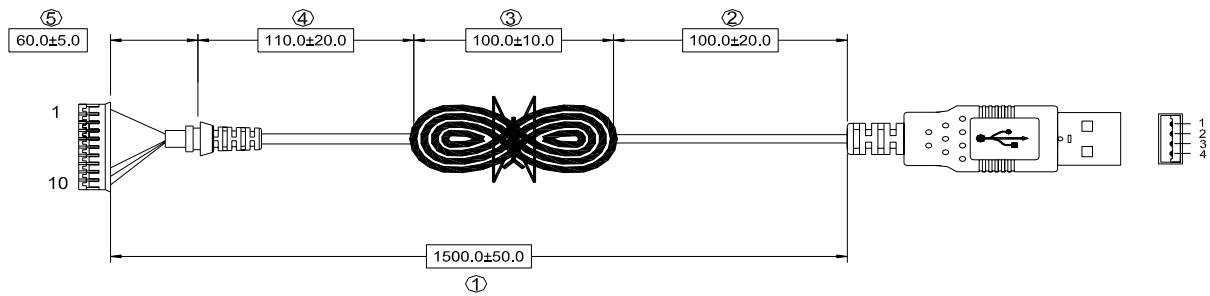
(1) RS232



(2) Keyboard

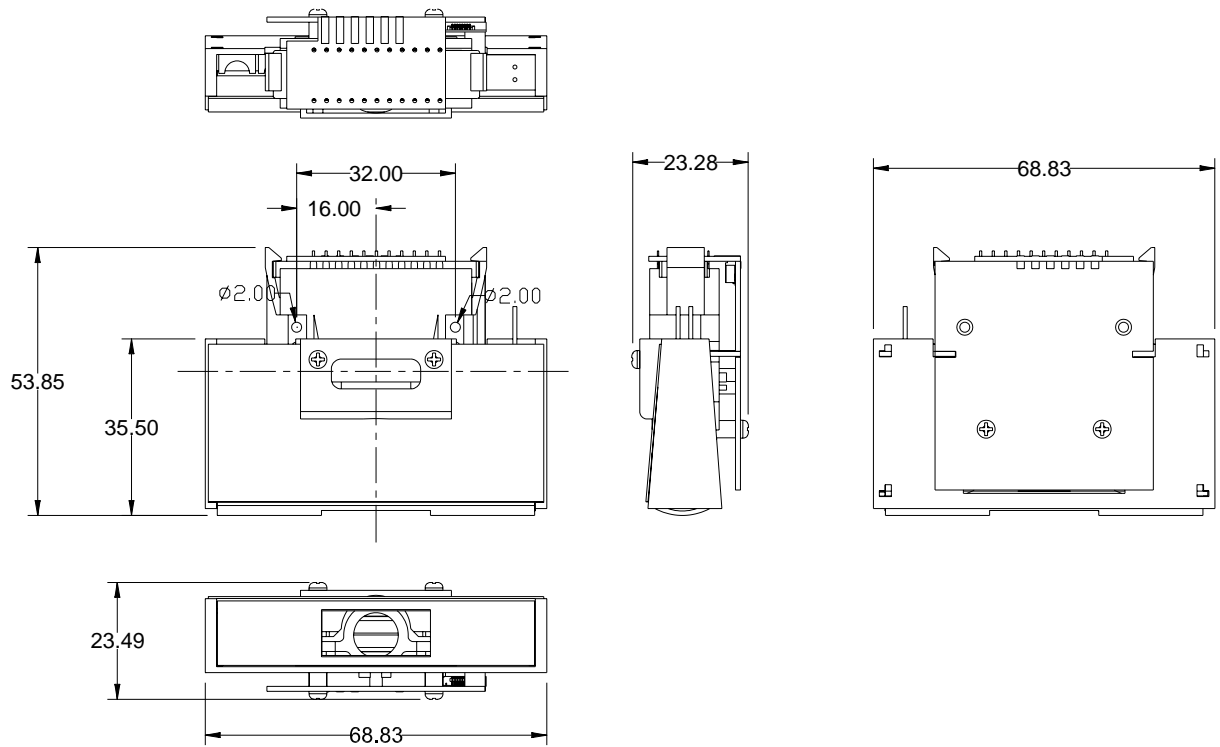


(3) USB

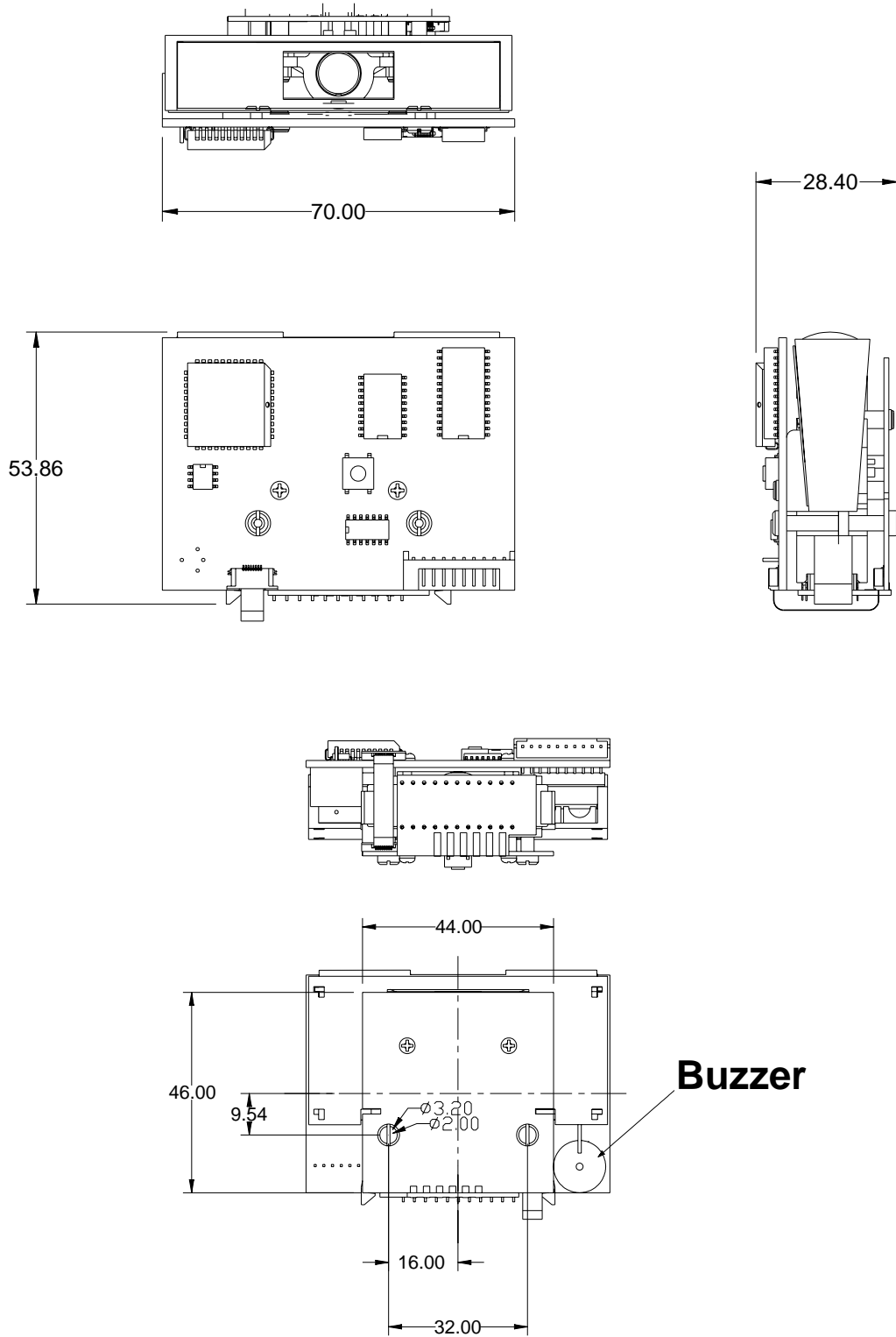


(b) Mechanical drawing

a) Without Decoder



b)With Decoder



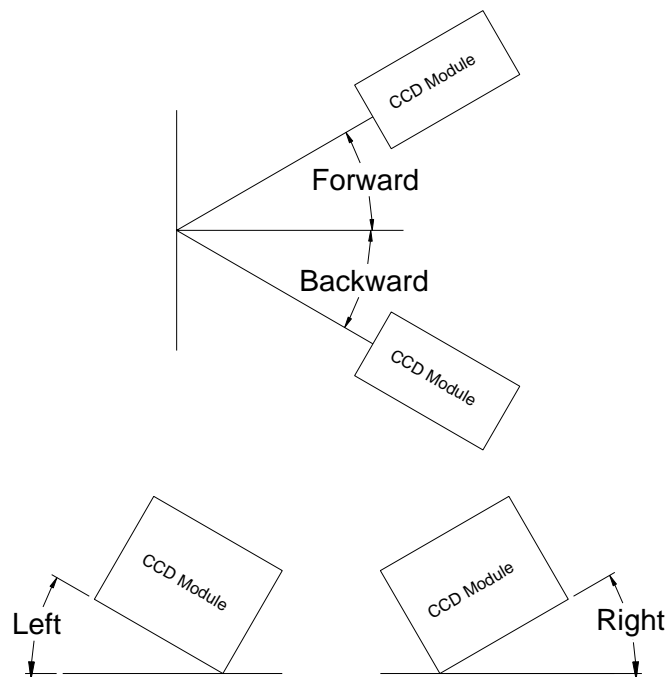
C. Electrical Characteristics

Interface	RS232	RS232 TTL Level	TTL	KB	USB
Supply Voltage	DC +5V \pm 5%				
Output Voltage (Typ.)	\pm 9V	+5V	+5V	+5V	+5V
Output low Voltage (Max.)	-	0.7V	0.7V	0.7V	0.4V
Current Draw					
Power On (Typ.)	115 mA	95 mA	100 mA	100 mA	105 mA
Stand by (Typ.)	100 mA	80 mA	85 mA	85 mA	90 mA
Operation (Typ.)	140 mA	120 mA	125 mA	125 mA	130 mA

D. Performance

Light Source	639 nm
Sensor	Linear CCD Sensor
Processor Type	8051 compatible
Operating Freq.	36.864 MHz
Scan Rate	270 scans/sec
Reading Distance	280 mm
Width of Field	100 mm
Print Contrast Ratio	PCS 0.45@0.1mm
Resolution	0.1mm @ PCS 0.9
Reading Angle	<i>Test Conditions: Code 39, 10mil, PCS 0.9</i>
Forward & Backward	\pm 70°
Left & Right	\pm 60°
Dead Zone	\pm 5°
Ambient Light	100000 Lux Max. @ Direct sun light





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

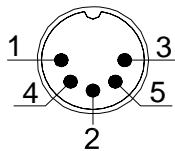
	Readable	Default Enable
All UPC/EAN/JAN	V	V
EAN128 Code	V	V
Code 39	V	V
Code 39 Full ASCII	V	
Code32 / Italian Pharmacy	V	
Code 128	V	V
CODABAR/NW7	V	V
Interleave 25	V	V
Industrial 25	V	
Matrix 25	V	
MSI/PLESSEY	V	
Telepen	V	
Code 93	V	
Code 11	V	
China Postage	V	

G. Pin Assignment

(a) Keyboard Interface

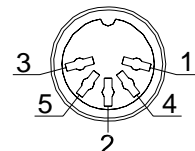
DIN 5 MALE

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



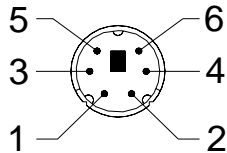
DIN 5 FEMALE

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



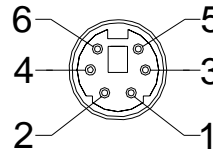
MiniDIN 6 MALE

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



MiniDIN 6 FEMALE

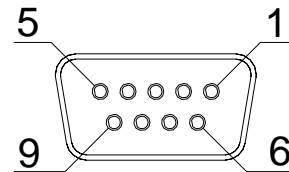
Pin No.	Function
1	KB DATA
3	GND
4	Vcc(+5V)
5	KB CLK



(b) RS-232 Interface

DB 9 Female

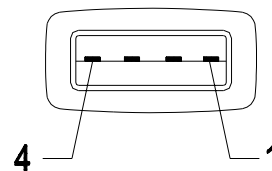
Pin No.	Function
2	TXD
3	RXD
5	GND
7	CTS
8	RTS
9	Vcc/+5V
Power Lead	Vcc/+5V



(c) USB Interface

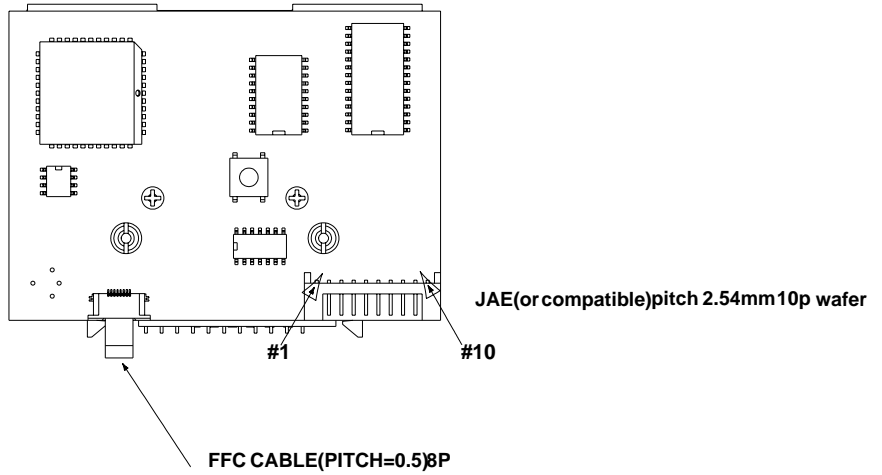
USB A Type Male

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



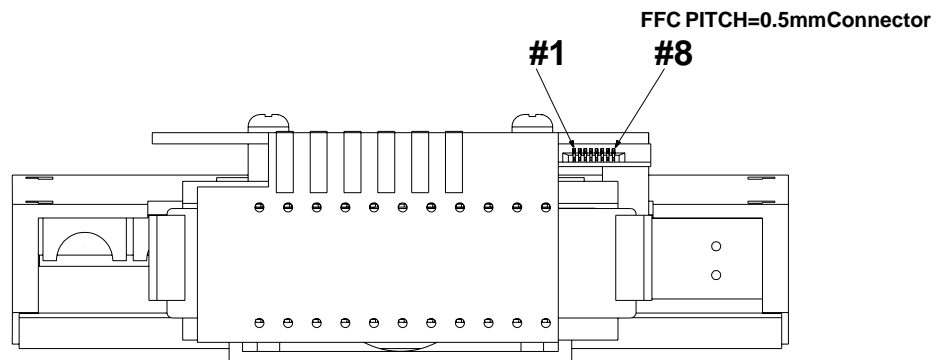
(d)Decoder Pin Assignment

- Pin 1 : Vcc
- Pin 2 : KB_CLK
- Pin 3 : HOST_CLK
- Pin 4 : RXD
- Pin 5 : TXD
- Pin 6 : KB_DATA
- Pin 7 : HOST_DATA
- Pin 8 : GND
- Pin 9 : RTS
- Pin 10 : CTS

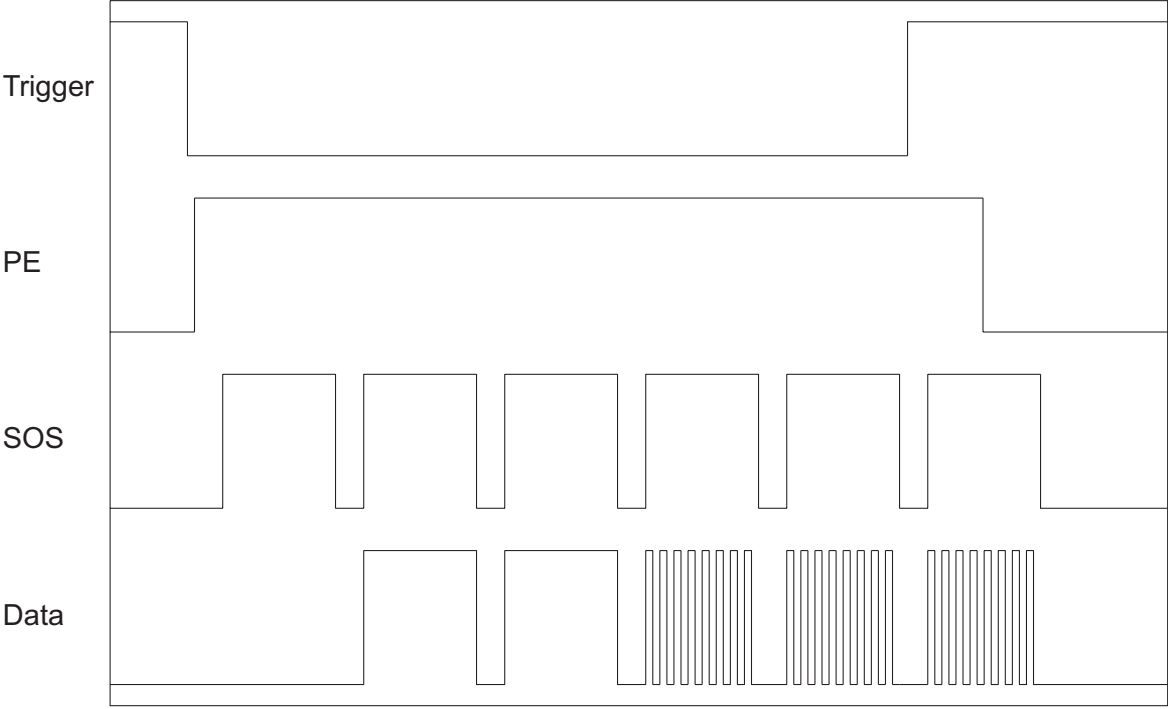


(e)TTL Pin Assignment

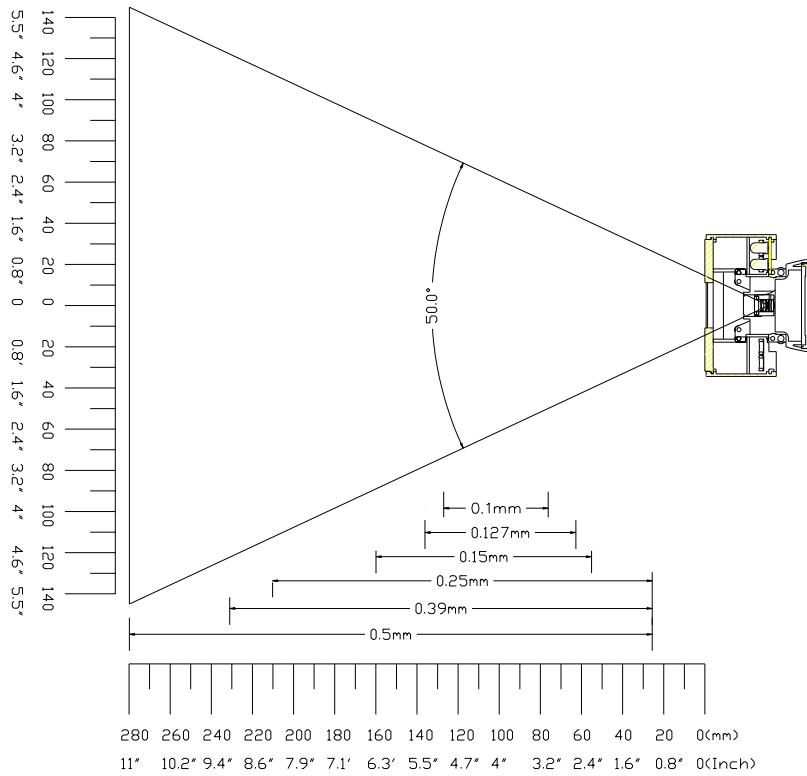
- Pin 1 : Vcc
- Pin 2 : N.C
- Pin 3 : N . C
- Pin 4 : PE
- Pin 5 : DATA
- Pin 6 : SOS
- Pin 7 : GND
- Pin 8 : GND



TTL Timing Diagram :



H. Scan Map



I. Reliability

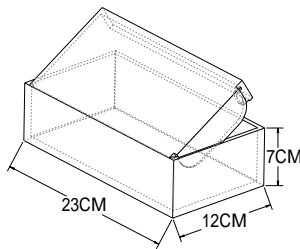
Life Time	
Light Source	40,000 hours
Trigger Switch	300,000 times
MTBF(Calculated)	22,000 hours
Thermal Shock	
High Temp.	60 °C (140 °F)
Low Temp.	-20 °C (-4 °F)
Cycle time	30 minutes for high temp. , 30 minutes for low temp.
Cycles	24 cycles
Cable Bending Test	25,000 times minimum (30 times/min @ 500g/90 °)
Mechanical Shock	40 inch (100 cm) Drop on Concrete Surface



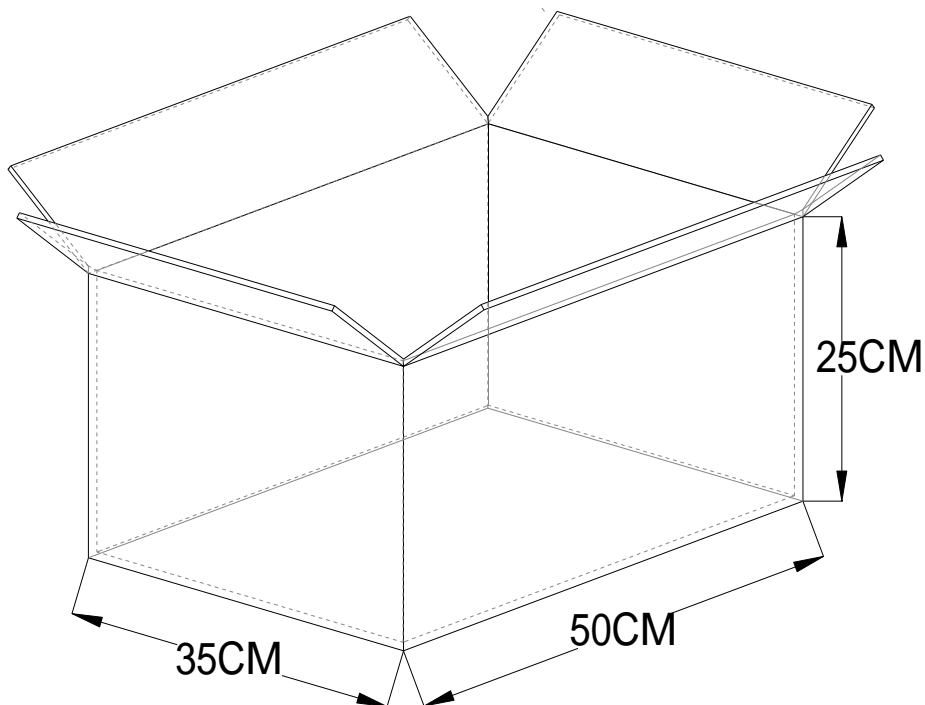
J. Packing

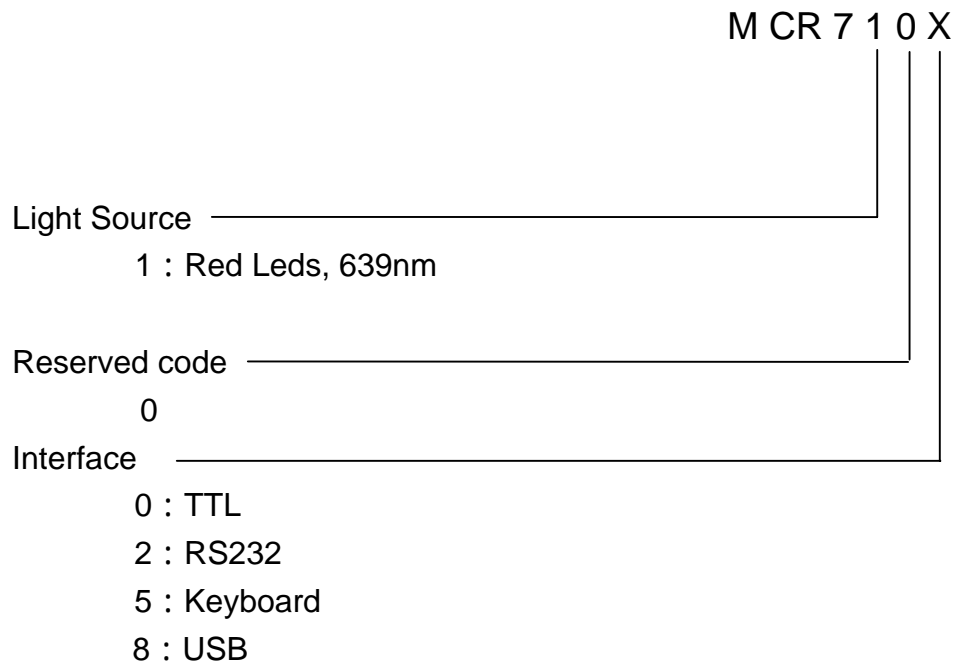
Dimension	
Unit	7 cm X 12cm X 23 cm
Carton	25 cm X 35 cm X 50 cm
Weight	
Unit	265 g
Carton	6.3 Kg (Q'ty :20 pcs)
Storage	
Temperature	-20 °C to 60 °C (-4 °F to 140 °F)
Humidity	20% to 95% (Non-condensing)

Unit :



Carton :



K. Part Number**Cable P/N :**

Interface	Cable P/N:
TTL	004FS1
KB	004FS105
RS232	004FS102
USB	004FS108

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