

SPECIFICATION

Customer : _____

Customer's Model No. : _____

Model No. : MCR9 Series Models _____

Date : _____

Sample Serial No. : _____

Spec. Version & Revision Date: V1.4 2006.03.14 _____

Received/Approved by



Web : <http://www.champtek.com>

E-mail : sales@champtek.com

ChampTek Incorporated

5/F, No. 2, Alley 2, Shih-Wei Lane, Chung Cheng Rd.,
Hsin Tien City, Taipei, Taiwan, R.O.C.

Tel : 886-2-22192385

Fax : 886-2-22192387



Revision History

Version	Date	Context
1.0	2004.09.24	Golden release
1.1	2004.11.28	Packing
1.2	2005.11.10	Update Current Draw
1.3	2005.12.19	Update Pin Assignment
1.4	2006.03.14	



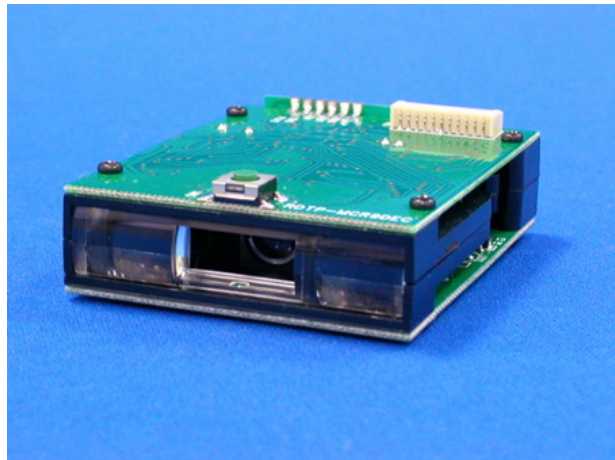
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A. General Description

Brand new design compact CCD barcode scanner module, features a scanning depth up to 8 inches, wide scanning angles and high scanning speed, plus the remote control software commands supported and ISP function (RS-232 interface), the small footprint and thin body design makes the MCR9 a best choice for economic middle to long range CCD scanner module in the industry.



B. Physical Characteristics

Weight

Body weight (with Decoder) 39.8 g (1.28 oz)

Material PC+FIBER

Connector Molex (or Compatible) 11P Pitch 1.25

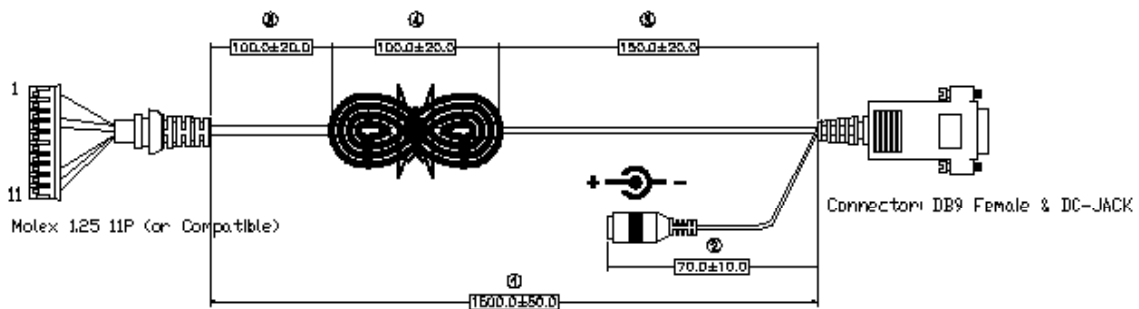
Dimension 59 mm X 46 mm X 20 mm

Cable drawing

Unit : mm

1)RS232 Interface :

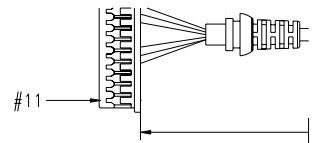
Unit : mm



Molex 1.25	DB9F	DC-JACK	COLOR	Function
1	5	SHELL	Brown	GND
2	9	CORE	RED	POWER
3	2		Orange	TXD
4	3		YELLOW	RXD
9	8		Green	RTS
10	7		Blue	CTS
11	SHELL		SHIELDING	SHIELDING



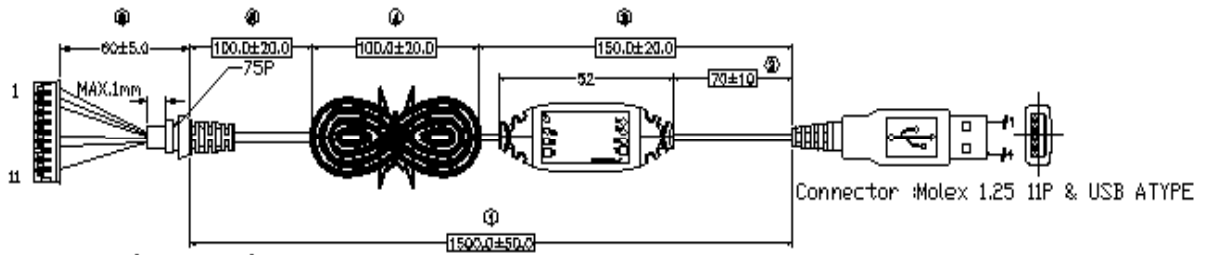
2)Keyboard Interface :



Molex (or Compatik

Molex 11P	Mini DI
2	4
8	
6	5
7	
5	1
1	

3)USB Interface :



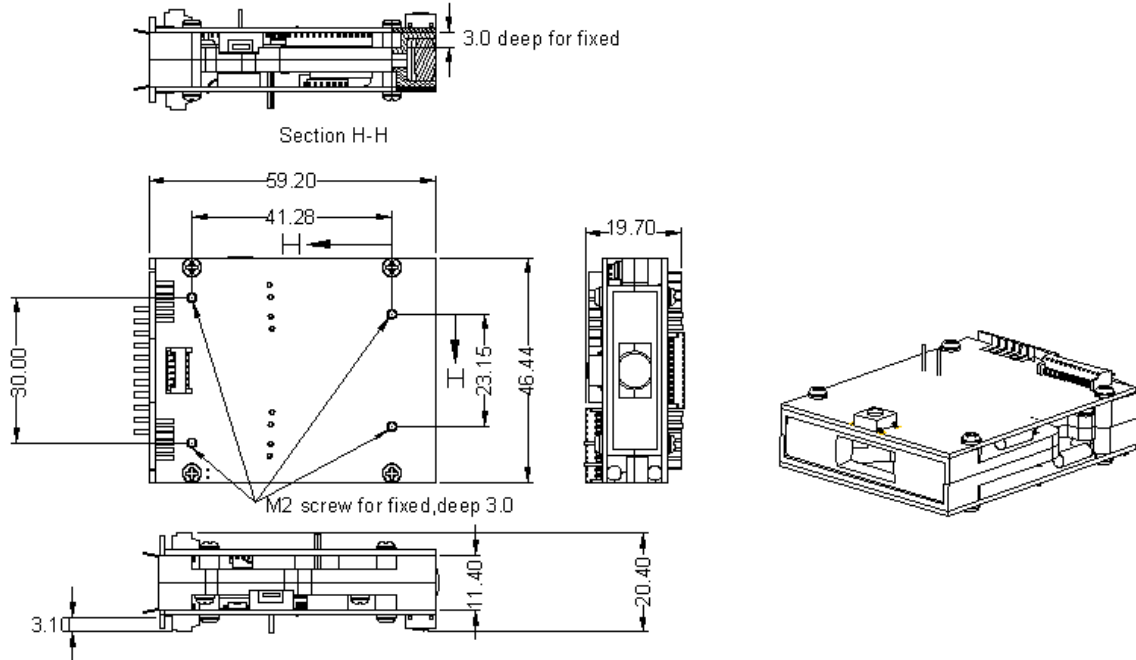
Molex 1.25 HOUSING 11P(or compatible)

HOUSING	L	COLOR	Function	USB A TYPE	R	COLOR	Function
5	3	Green	Host DATA	1	1	RED	Vcc
1	4	Brown	GND	2	4	YELLOW	D-
6	2	Blue	Host Clk	3	3	Orange	D+
2	1	RED	Vcc	4	2	Brown	GND
11	4	SHIELDING	SHIELDING	SHELL	2	SHIELDING	SHIELDING



Mechanical drawing

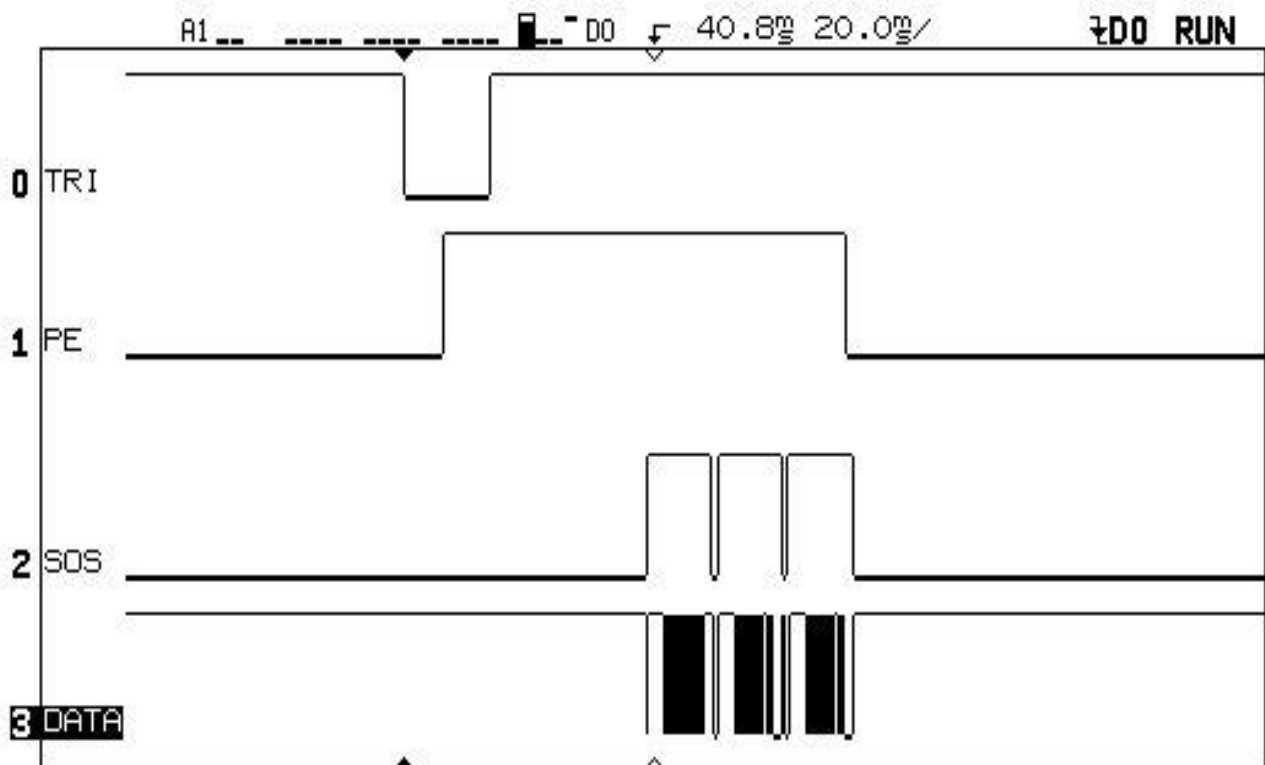
Unit : mm



C. Electrical Characteristics

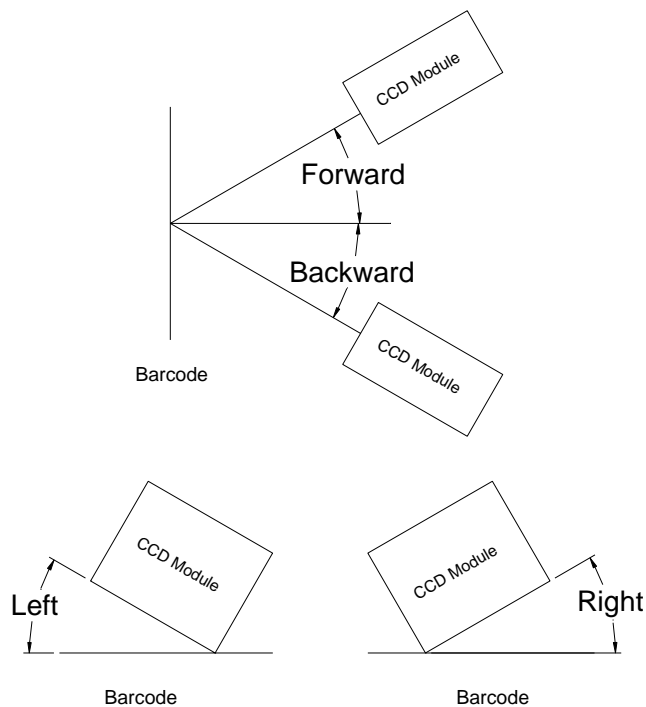
Interface	RS232 TTL	RS232	KB	USB
Supply Voltage		DC +5V ±5%		
Output Voltage (Typ.)	+5V±5%	±9V±5%	+5V±5%	+5V±5%
Output low Voltage (Max.)	0.7V	-	0.7V	0.7V
Current Draw				
Power On (Typ.)	110 mA±10%	115mA±10%	110mA±10%	112 mA±10%
Stand by (Typ.)	40 mA±10%	45mA±10%	40mA±10%	43 mA±10%
Operation (Typ.)	117 mA±10%	135mA±10%	120mA±10%	128 mA±10%

TTL Timing Diagram :



D. Performance

Light Source	632 nm
Sensor	Linear CCD Sensor
Processor Type	8051 compatible
Operating Freq.	29.4912 MHz
Scan Rate	135 scans/sec $\pm 10\%$
Reading Distance	200 mm
Width of Field	80 mm
Print Contrast Ratio	PCS 0.3 @ 0.127mm
Resolution	0.1mm @ PCS 0.9
Reading Angle	<i>Test Conditions: Code 39, 10mil, PCS 0.9</i>
Forward& Backward	$\pm 5^{\circ} \sim 55^{\circ}$
Left& Right	$\pm 5^{\circ} \sim 65^{\circ}$
Dead Zone	$\pm 5^{\circ}$
Ambient Light	
Fluorescent lamp	5000Lux Max.
Direct sun light	3000Lux Max.



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	

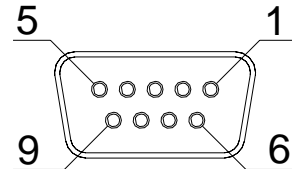


G. Pin Assignment

(a)RS232 Interface

DB 9 Female

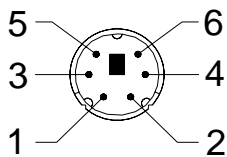
Pin No.	Function
2	TXD
3	RXD
5	GND
7	CTS
8	RTS
9	Vcc/+5V
Power Lead	Vcc/+5V



(b)KBW Interface

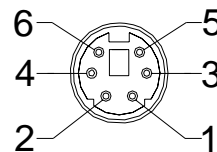
MiniDIN 6 MALE

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



MiniDIN 6 FEMALE

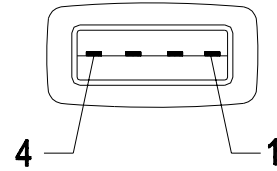
Pin No.	Function
1	KB DATA
3	GND
4	Vcc(+5V)
5	KB CLK



(c)USB Interface

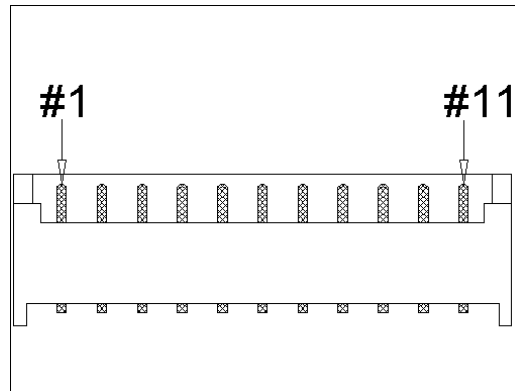
USB A Type Male

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

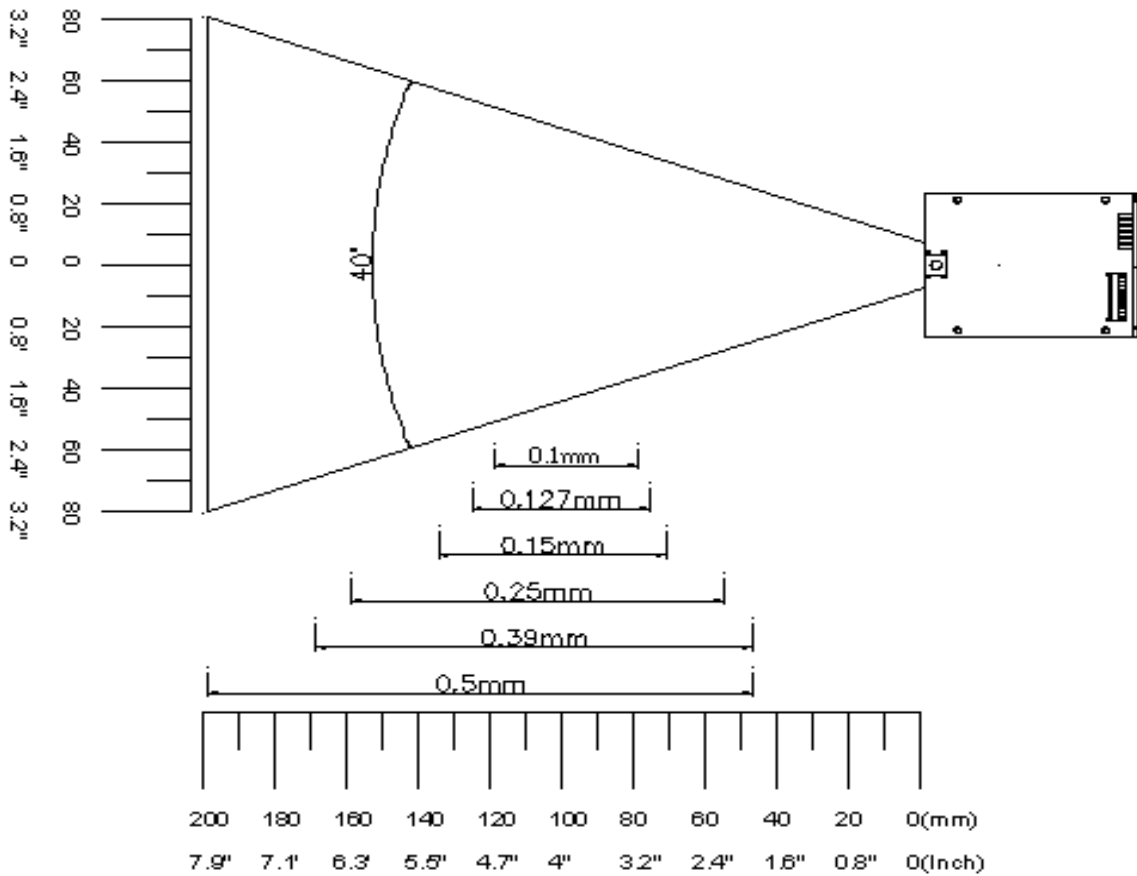


Decoder Data Output Connector

Type	MOLEX (or Compatible) 11P Pitch 1.25
Pin No.	Function
1	GND
2	Vcc (+5V)
3	TXD
4	RXD
5	HOST DATA
6	HOST CLK
7	KB DATA
8	KB CLK
9	RTS
10	CTS
11	SHIELD



H. Scan Map



I. Reliability

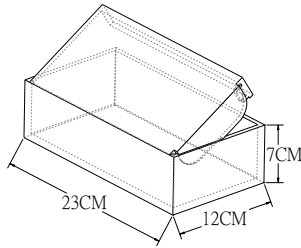
Life Time	
Light Source	20,000 hours
Trigger Switch	300,000 times
MTBF(Calculated)	22,000 hours
Thermal Shock	
High Temp.	60 °C (140 °F)
Low Temp.	-20 °C (-4 °F)
Cycle time	30 minutes for high temp. , 30 minutes for low temp.
Cycles	24 cycles
Cable Bending Test	25,000 times minimum (30 times/min @ 500g/90°)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



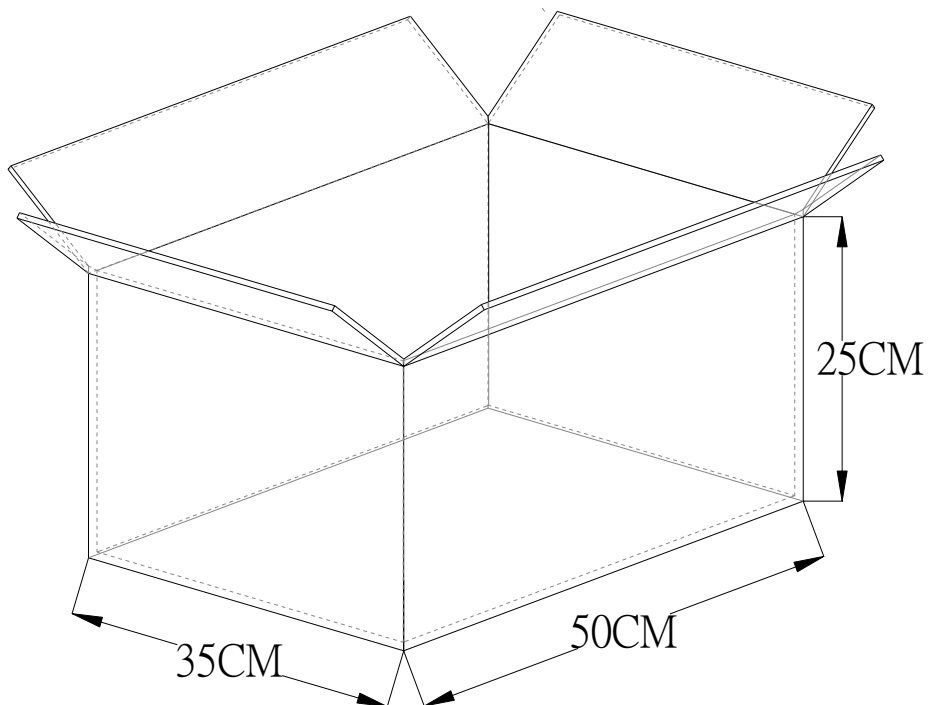
J. Packing

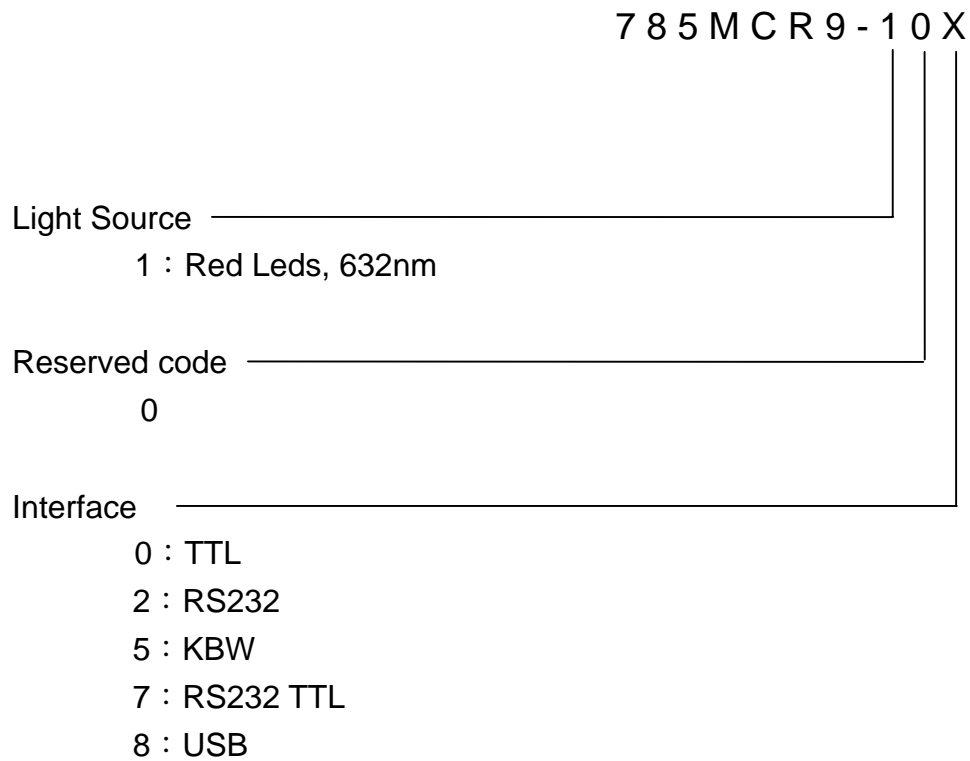
Dimension	
Unit	7 cm X 12cm X 23 cm
Carton	25 cm X 35 cm X 50 cm
Weight	
Unit	265 g
Carton	6.3 Kg (Q'ty :20 pcs)
Storage	
Temperature	-20 °C to 60 °C (-4 °F to 140 °F)
Humidity	20% to 95% (Non-condensing)

Unit :



Carton :



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

Interface	Cable P/N
KB	004MMR/TVS-1
	004MMR/TVS-2
RS232	004MCR8-102-B
	004MCR8-102-W
USB	304MCR8-108-B
	304MCR8-108-W

Your contact: www.codico.com mailto: office@codico.com phone: +43/1/86305-0 fax: +43/1/86305-98

