

SPECIFICATION

Customer : _____

Customer's Model No. : _____

Model No. : **SD120 linear imager barcode scanner Series**

Date : _____

Sample Serial No. : _____

Spec. Version & Revision Date: V02 2013.12.15

Received/Approved by



Http://www.champtek.com
E-mail : sales@champtek.com

ChampTek Incorporated
5/F, No. 2, Alley 2, Shih-Wei Lane, Chung Cheng Rd.,
Xindian District, New Taipei City 231, Taiwan
TEL : 886-2-22192385
FAX : 886-2-22192387

Revision History

Version	Date	Context
V01	2013.09.05	Golden release
V02	2013.12.15	Update drawing of keyboard wedge cable

TABLE OF CONTENTS

A. General Description	1
B. Physical Characteristics	2
C. Electrical Characteristics	5
D. Performance	5
E. Environmental.....	6
F. Readable Symbologies.....	7
G. Pin Assignment	8
H. Reliability.....	10
I. Packing.....	10

A. General Description

The SD120 linear imager barcode scanner is a reliable, economical contact type bar code reader suitable for a wide range of environments. The SD120's features and price make it the best solution for retail, medical and light industrial applications.

The SD120's flexible, multiple interface design supports keyboard wedge, RS232 and USB interface by simply replacing the cable. This scanner provides reliable scanning depth from contact to 60mm, its powerful built-in decoder reads and discriminates all major 1D symbologies, reducing processing time and labor costs, while increasing accuracy. The decoder also allows editing and modifying scanned data before sending it to the host device.

Barcode menus provide extensive configuration options. The settings can then be cloned to other readers through the use of custom bar code labels.

The SD120 Scanner is manufactured at our ISO9001 certified factory and comes with a 2-year warranty.



B. Physical Characteristics

Weight

Body weight Approx. 120g /4.23 oz (w/o cable)

Material ABS

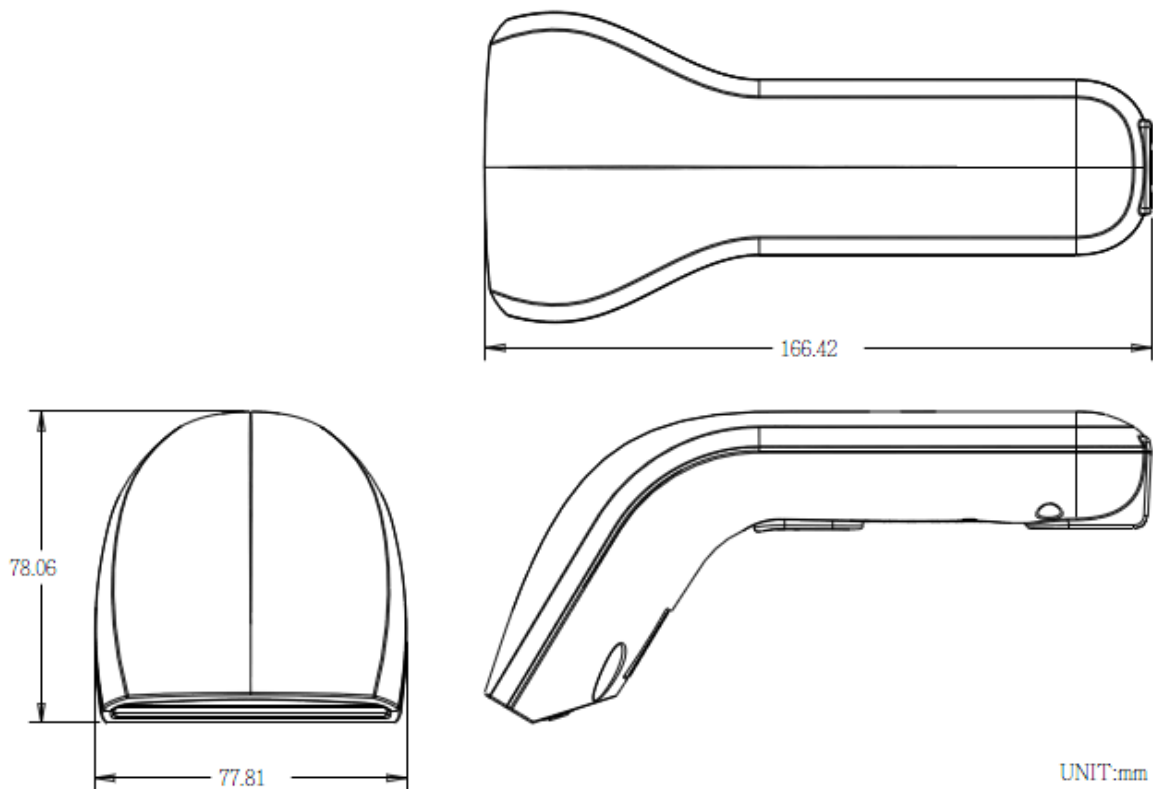
Connector RJ 45C 10Pins

Dimension (WxHxL) 77.81 x 78.06 x 166.42 mm

Color Available Beige or Black

1) Mechanical drawing

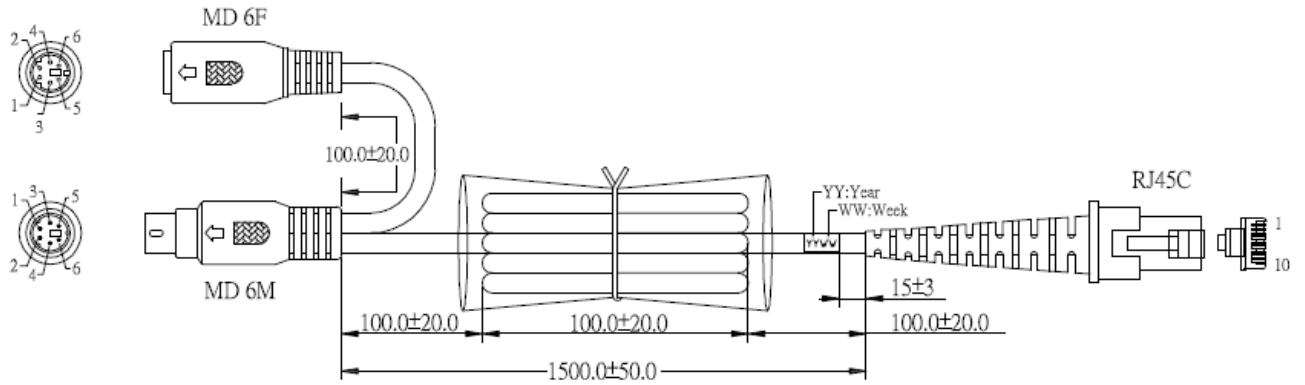
(Unit: mm)



2) Cable drawing

a.KBW Interface

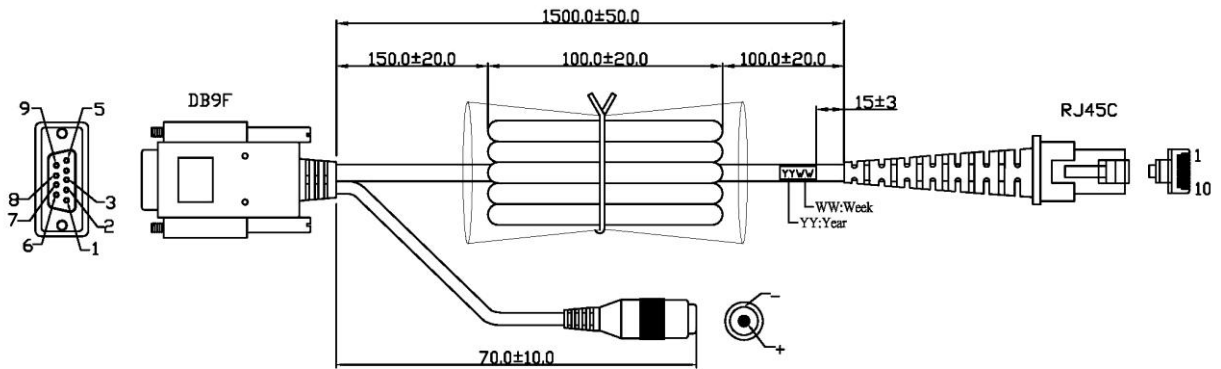
UNIT:mm



MD 6F	MD 6M	RJ45C	FUNCTION	COLOR
	1	2	HOST DATA	Green
3	3	3	GND	Brown
	5	4	HOST CLK	Blue
4	4	5	VCC	Red
5		6	KB CLK	Orange
1		8	KB DATA	Yellow
Spiral	Shell	Shell	SHELDING	

b.RS232 Interface :

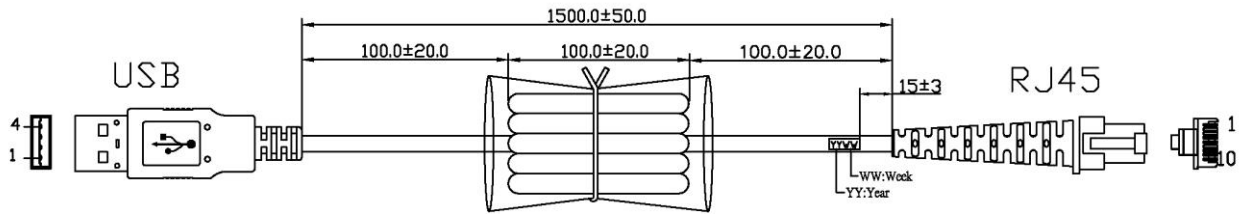
UNIT:mm



DB9F	RJ45C	DC JACK	FUNCTION	COLOR
5	3	Shell	GND	Brown
9	5	CORE	DC +5V	Red
2	7		TXD	Orange
3	9		RXD	Yellow
8	1		RTS	Green
7	10		CTS	Blue
Shell			Spiral	

c.USB Interface :

UNIT:mm



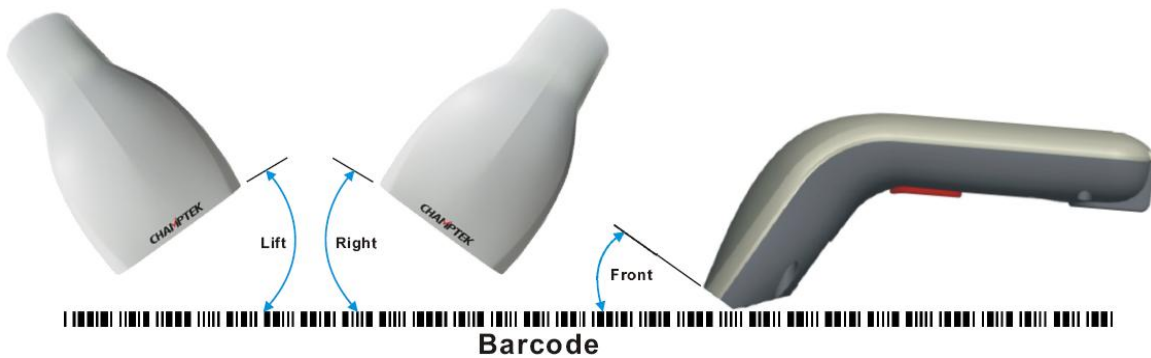
USB	RJ45	FUNCTION	COLOR
1	5	VCC	Red
2	4	D-	Blue
3	2	D+	Green
4	3	GND	Brown
Shell	3	SHIELDING	

C. Electrical Characteristics

Interface	RS232	KB	USB
Supply Voltage		DC +5V ±5%	
Output Voltage (Typ.)	±9V	+5V±5%	+5V±5%
Output low Voltage (Max.)	-	0.7V	0.7V
Current Draw		±10%	
Power On (Typ.)	150mA	150mA	150mA
Stand by (Typ.)	70mA	70mA	70mA
Operation (Typ.)	125mA	125mA	125mA

D. Performance

Light Source	Visible Red Light 632nm LED
Processor Type	32 bits
Scan Speed	120 scans per second ±10%
Reading Distance	From contact up to 60mm@20mil/0.5mm, PCS90%
Width of Field	80mm (60mm at window)
Print Contrast Ratio	30%
Resolution	4mil/0.1mm@PCS90%
Reading Angle	<i>Test Conditions : Code 39, 10mil/0.25mm, PCS 90%</i>
Front	10°~40°(±5°)
Left & Right	± 25°(±5°)
Ambient Light	
Fluorescent lamp	5,000 Lux Max.
Direct sun light	3,000 Lux Max.
Indicator	Beep



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

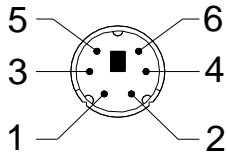
	Readable	Default Enable
All UPC/EAN/JAN	V	V
EAN128 Code	V	
Code 39	V	V
Code 39 Full ASCII	V	
Code32 / Italian Pharmacy	V	
Code 128	V	V
CODABAR/NW7	V	V
Interleave 25	V	V
Industrial 25	V	
Matrix 25	V	
MSI/PLESSEY	V	
Telepen	V	
Code 93	V	
Code 11	V	
China Postage	V	
Code 26	V	
LCD25	V	
GS1 DataBar Omnidirectional & Stacked	V	
GS1 DataBar Limited	V	
GS1 DataBar Expanded & Stacked	V	

G. Pin Assignment

a) Keyboard Interface

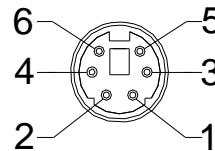
MiniDIN 6 MALE

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



MiniDIN 6 FEMALE

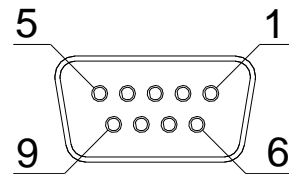
Pin No.	Function
1	KB DATA
3	GND
4	Vcc(+5V)
5	KB CLK



b) RS-232 Interface

DB 9 Female

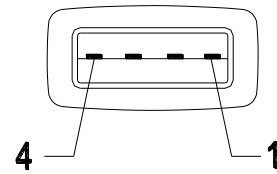
Pin No.	Function
2	TXD
3	RXD
5	GND
7	CTS
8	RTS
9	Vcc/+5V
Power Lead	Vcc/+5V



c) USB Interface

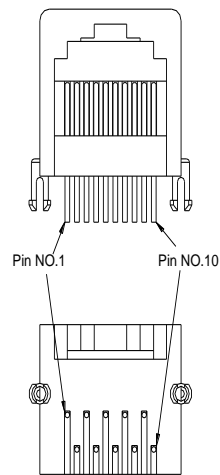
USB A Type Male

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



Decoder Data Output

Pin No.	Function
1	RTS
2	HOST DATA
3	GND
4	HOST CLK
5	Vcc (+5V)
6	KB CLK
7	TXD
8	KB DATA
9	RXD
10	CTS



H. Reliability

Life Time

Trigger Switch	1,000,000 times
MTBF(Calculated)	50,000 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/60 °)

Drop 47.24inches (120cm) drop on Concrete Surface

I. Packing

Dimension

Unit	24 x 9.8 x 7 cm
Carton	42 x 38 x 26.5 cm

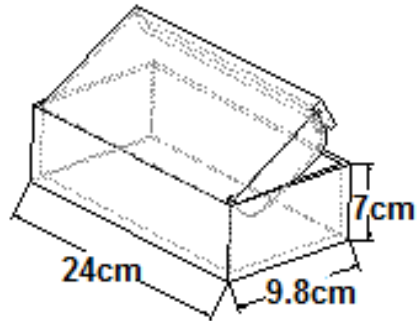
Weight

Unit	300 g(KBW interface)
Carton	7Kg (Q'ty :20 pcs)

Storage

Temperature	-20 °C to 60 °C (-4 °F to 140 °F)
Humidity	20% to 95% (Non-condensing)

Unit :



Carton :

