

SPECIFICATION

Customer : _____

Customer's Model No. : _____

Model No. : **SG700 Gun-type Linear Imager Bar Code
Scanner Series**

Date : _____

Sample Serial No. : _____

Spec. Version & Revision Date: V01 2012.10.03

Received/Approved by

CHAMPTEK[®]

[Http://www.champtek.com](http://www.champtek.com)

E-mail : sales@champtek.com

ChampTek Incorporated

5F, 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
V00	2012.02.09	Release for Mass production
V01	2012.10.03	Performance characteristic enhancement (14)

TABLE OF CONTENTS

A. General Description.....4
B. Physical Characteristics5
C. Electrical Characteristics 10
D. Performance..... 10
E. Environmental 10
F. Readable Symbologies..... 11
G. Scan Map 12
H. Reliability 12
I. Packing..... 13

A. General Description



SG700 is a brand new rugged gun-type linear imager bar code scanner which is designed especially for retail, logistic and warehousing management market. We include friendly functions with replaceable multiple interface cable options that makes it more easily to be operated by the customers to accommodate itself to user environment.

SG700 has most modern design with rugged casing and supports IP54 sealing protection, with its auto-shuttle-emulation-like smart detection, offers superior decoding performance on a reading speed up to 500 scans per second and up to 500mm reading depth for the majority of 1D bar codes and GS1 DataBar™ codes. A stand option can be ordered to facilitate hand-free reading options.

With its built-in automatically turn off reading and switch on reading, as it sense a bar code moving in front of it, can extend its lifespan.

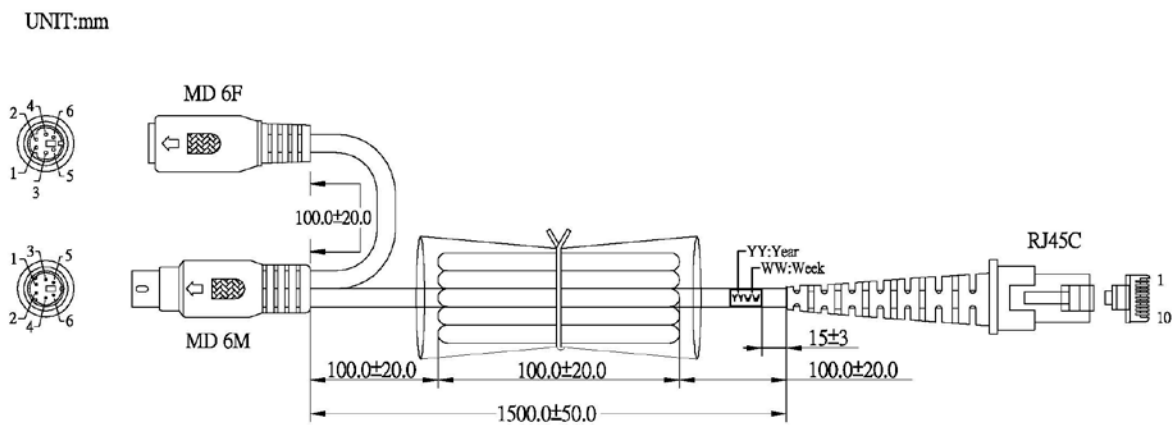
In short, SG700 provides customer with the most cost-effective solution in the market. It is perfectly suitable and definitely the best choice for any retail and logistic environment.

B. Physical Characteristics

Weight	
Body weight	Approx. 152.6g / 5.386 oz (w/o Cable)
Material	
	ABS + Rubber
Cable Length	
	5FT. (150cm)
Connector	
	RJ 45C 10Pins
Dimension	
	75 mm W x 71.73mm H x 177.96 mm L
Color Available	
	Black (Cap & Grip) / Black(Cap), Beige (Grip)

a. Cable drawing (Unit:mm)

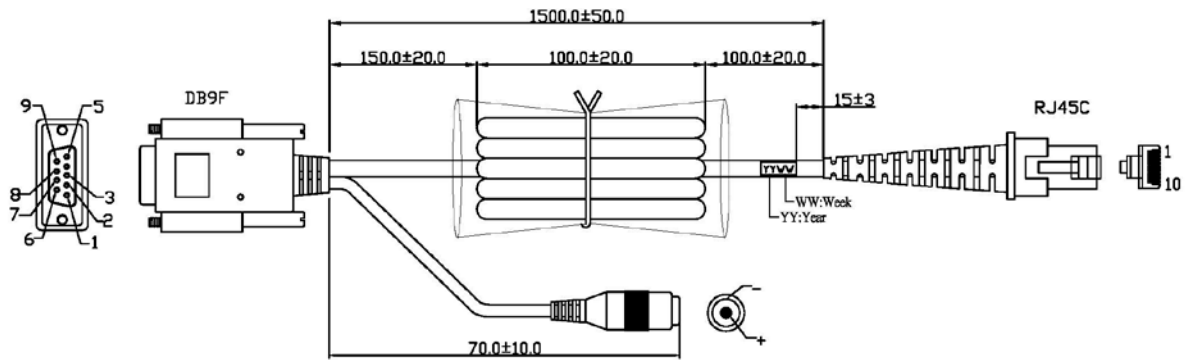
(1) Keyboard



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

(2) RS232

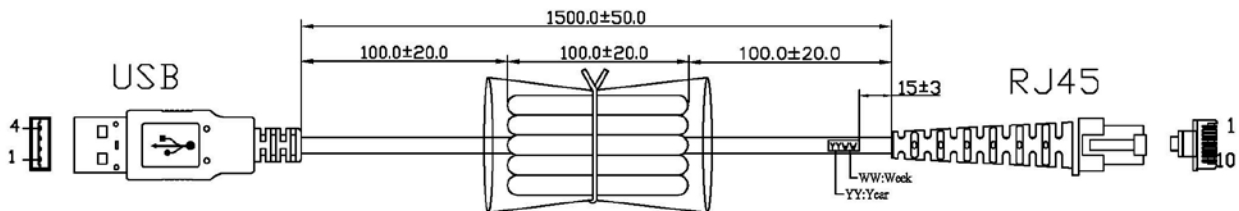
UNIT:mm



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	

(3) USB

UNIT:mm



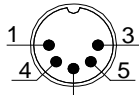
USB	RJ45	FUNCTION	COLOR
1	5	VCC	Red
2	4	D-	Blue
3	2	D+	Green
4	3	GND	Brown
Shell	3	SHIELDING	

b. Pin Assignment

(1) Keyboard Interface

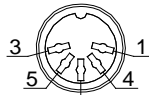
DIN 5 MALE

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



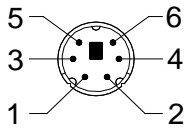
DIN 5 FEMALE

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



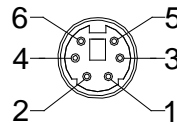
MiniDIN 6 MALE

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

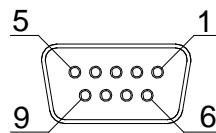


2

(2) RS-232 Interface

DB 9 Female

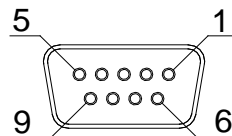
Pin No.	Function
2	TXD
3	RXD
5	GND
7	CTS
8	RTS
9	Vcc/+5V
Power Lead	Vcc/+5V



(3) WAND Emulation Interface

DB 9 Female

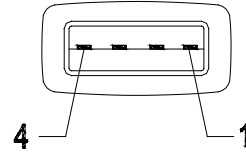
Pin No.	Function
2	DATA
7	GND
9	Vcc



(4) USB Interface

USB A Type Male

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

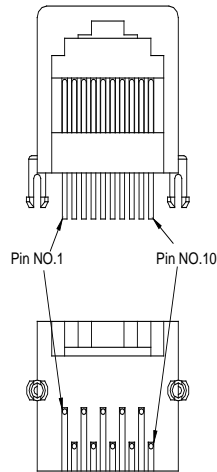


Decoder Data Output

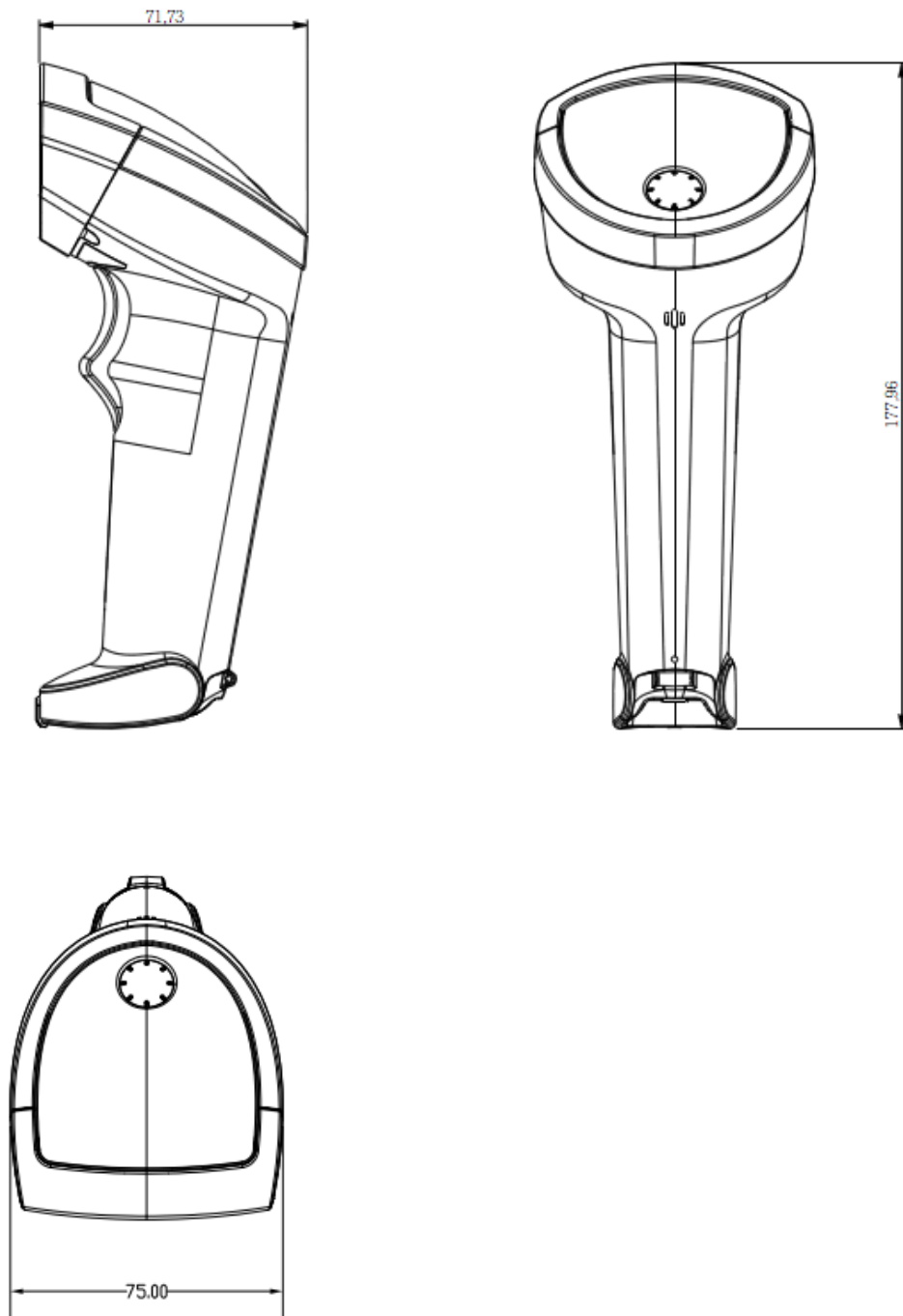
Type RJ45 10P

Pin No. Function

1	RTS
2	HOSTDATA
3	GND
4	HOST CLK
5	Vcc (+5V)
6	KB CLK
7	TXD
8	KB DATA
9	RXD
10	CTS



c. Mechanical drawing



C. Electrical Characteristics

Interface	RS232	KB	USB
Supply Voltage	DC +5V \pm 5%		
Output Voltage (Typ.)	\pm 9V	+5V	+5V
Output low Voltage (Max.)	-	0.7V	0.4V
Current Draw			
Power On (Typ.)	170 mA	170 mA	170mA
Stand by (Typ.)	50 mA	50 mA	50 mA
Operation (Typ.)	150mA	150 mA	150 mA

D. Performance

Light Source	Visible Red light 632nm LED
Sensor	Linear CCD Sensor
Processor Type	32-bit
Operating Freq.	8 MHz
Scan Speed	Smart detection, up to 500 scans per second
Reading Distance	Up to 500mm@20mil/0.5mm, PCS90%, Code39
Print Contrast Ratio(Minimum)	30%
Resolution	4mil/0.1mm@PCS90%, Code39
Indicator	Beep and LED (Good read Green)

Reading Angle	<i>Test Conditions : Code 39, 10mil/0.25mm, PCS 90%</i>
Forward & Backward(Pitch)	\pm 10 $^{\circ}$ ~65 $^{\circ}$ (\pm 5 $^{\circ}$)
Left & Right(Skew)	\pm 60 $^{\circ}$ (\pm 5 $^{\circ}$)
Ambient Light	100,000 Lux Max.

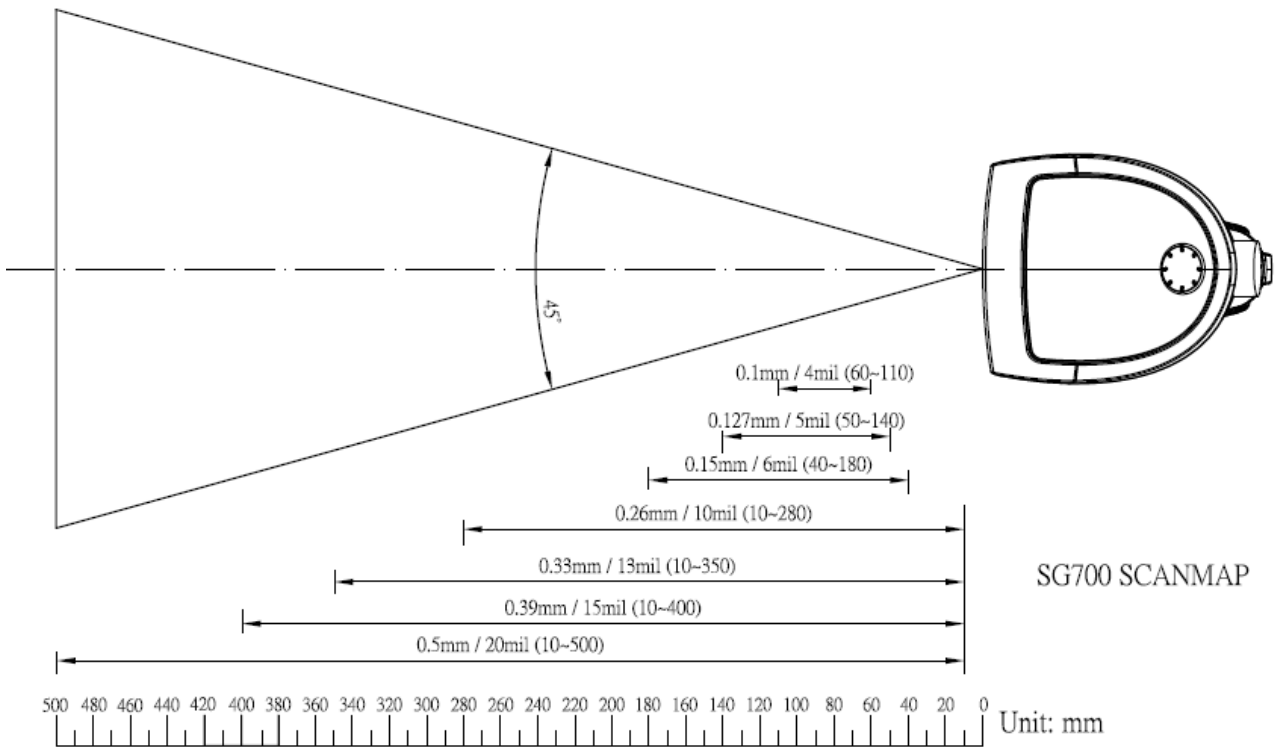
E. Environmental

Operating Temperature	0 $^{\circ}$ C to 50 $^{\circ}$ C (32 $^{\circ}$ F to 122 $^{\circ}$ F)
Storage Temperature	-20 $^{\circ}$ C to 70 $^{\circ}$ C (-4 $^{\circ}$ F to 158 $^{\circ}$ 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. Scan Map



H. Reliability

Life Time

Trigger Switch	1,000,000 times
MTBF(Calculated)	50,000 hours

Thermal Shock

High Temp.	50 °C (122 °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 °)

Drop resistance 70.86 inches(180cm) drop on Concrete Surface

Sealing Designed to IP54 water and dust protection

I. Packing

Dimension

Unit	24 cm X 10.9 cm X 8.6 cm
Carton	57 cm X 37.5 cm X 26.5 cm

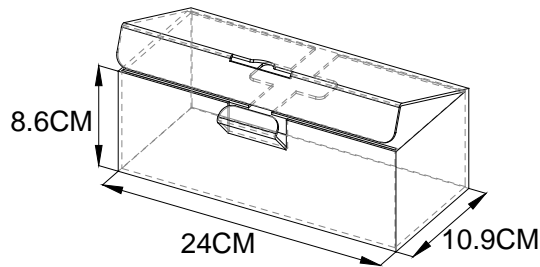
Weight

Unit	345 g
Carton	8 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:

