

SPECIFICATION

Customer : _____

Customer's Model No. : _____

Model No. : **SG700BT**

Wireless Linear Imager Bar Code Scanner

Date : 2012.07.20

Sample Serial No. : _____

Spec. Version & Revision Date: V02 2012.10.08

Received/Approved by

CHAMPTEK[®]

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Revision History

Version	Date	Context
V00	2012.02.22	Initial release
V01	2012.07.20	Scanmap modified
V02	2012.10.08	Performance Enhancement

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A. General Description



SG700BT is a 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 multi-interface cable options that makes it more easily to be operated by the customers to accommodate it to user environment.

SG700BT 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. For hand-free operation application, customers can easily configure by their own to facilitate it to be hand-free reading. 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.

The scanner and cradle with Class1 Bluetooth V2.1 EDR technology with transmission range up to 100m/ 328.08 ft. in line of open sight, supports both SPP and HID profiles can easily pair up with other Bluetooth V2.1 compatible mobile equipments or systems.

In short, SG700BT is a high performance rugged scanner which provides customers 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

Scanner weight	Approx.	214.6g/ 7.58oz
Cradle weight	Approx.	147.4g/ 5.2oz
RS232 Cable weight	Approx.	100g/ 3.53oz
USB Cable weight	Approx.	70g/ 2.47oz
PS/2 Cable weight	Approx.	77g/ 2.71oz
AC adaptor weight	Approx	109g/ 3.84oz

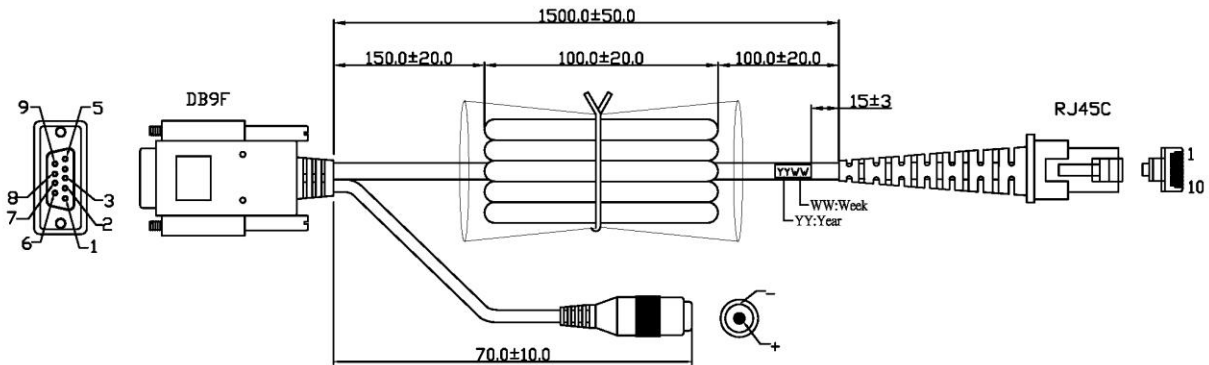
Dimension	Scanner : 75 mm W x 71.73mm H x 177.96 mm L Cradle : 112.18 mm W x 84.64 mm H x 130.6 mm L
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Color Available	Black(Cap & Grip) / Black(Cap) and Beige (Grip)
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Cradle interface cable drawing

(a) RS232 Interface :

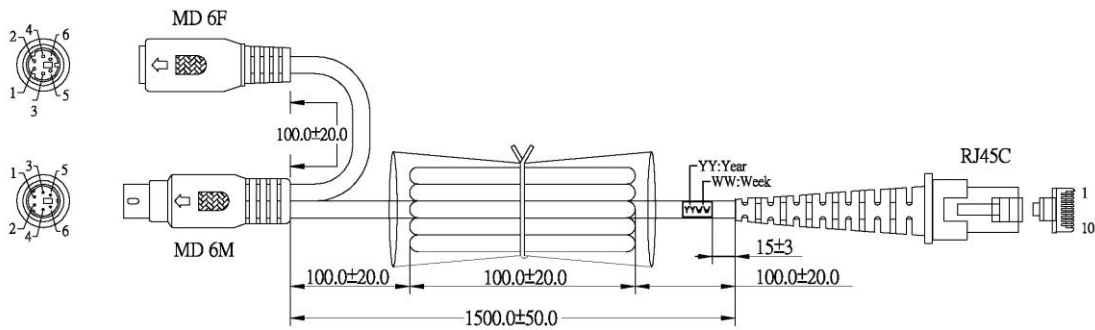
UNIT:mm



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	

(b) PS/2 Keyboard interface

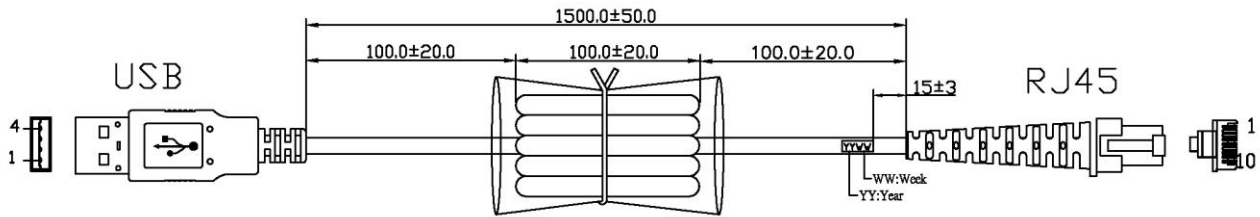
UNIT:mm



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	SHIELDING	

(c) USB interface

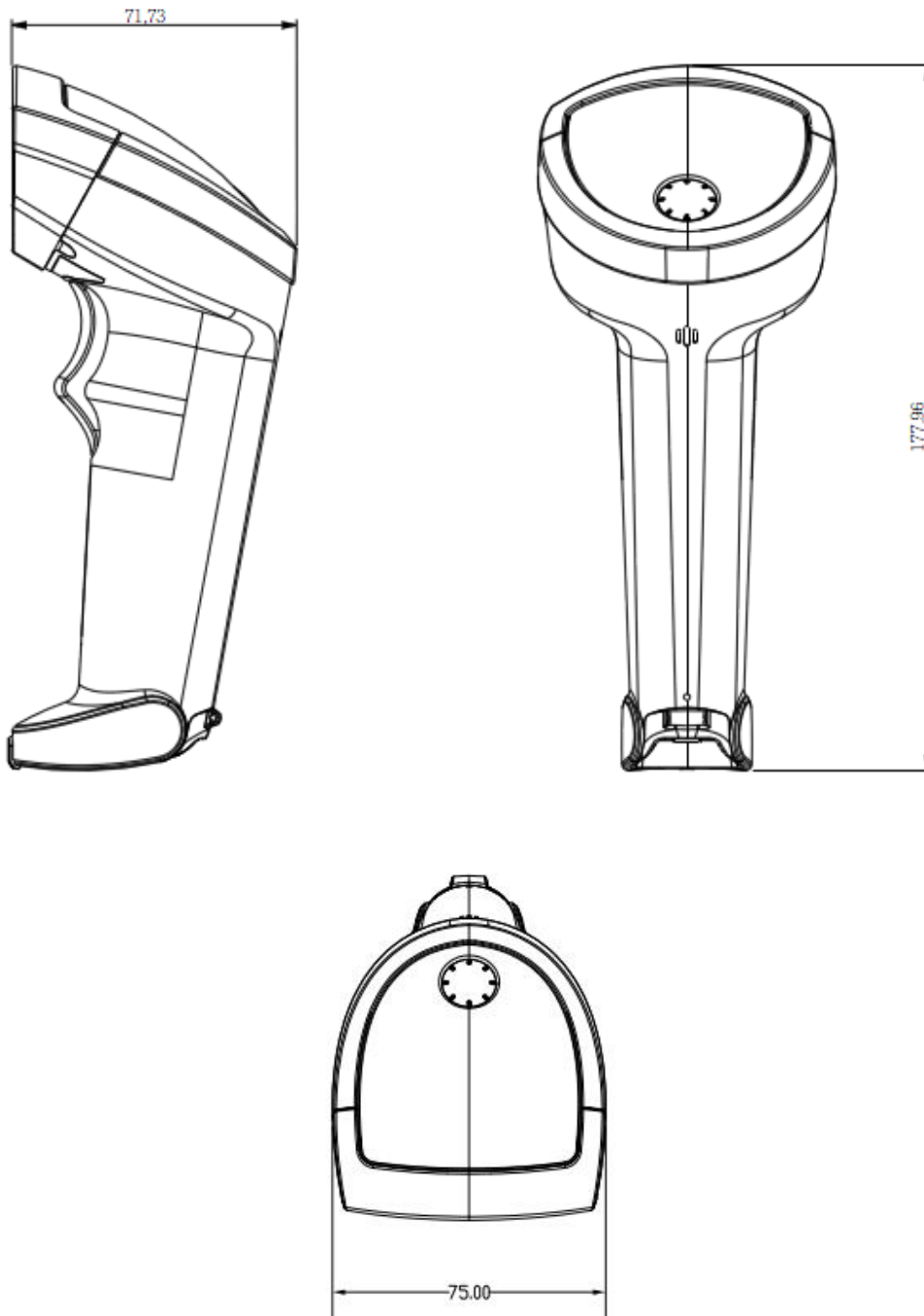
UNIT:mm



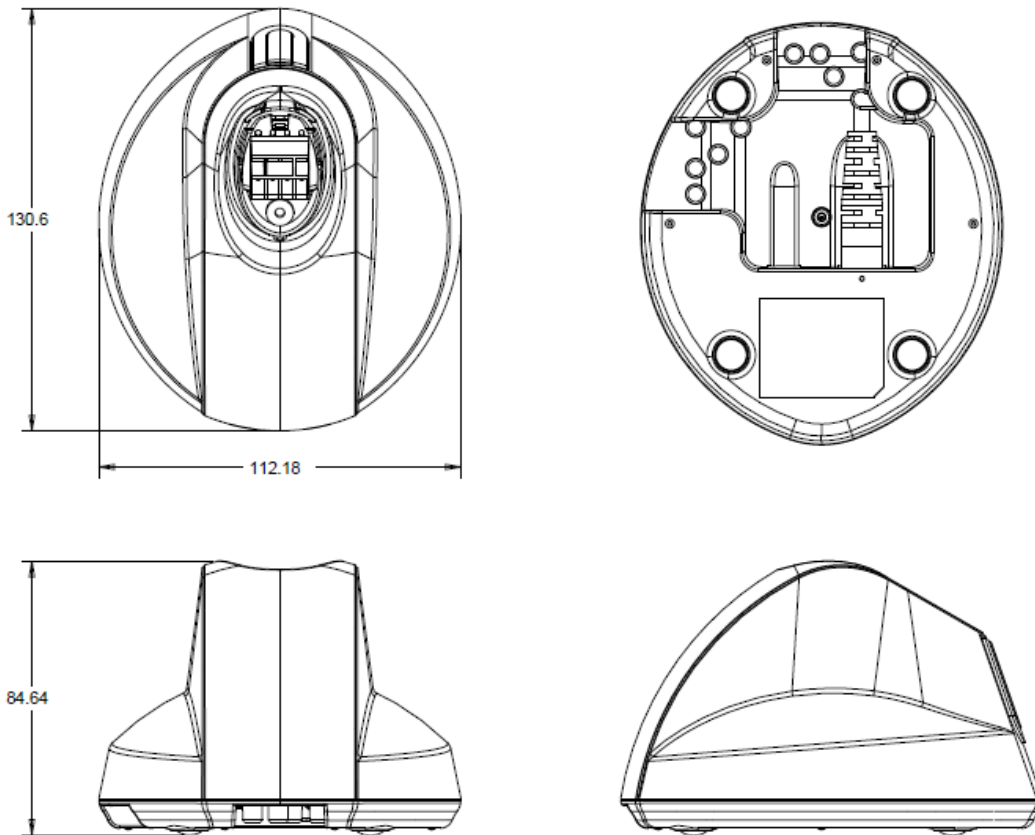
USB	RJ45	FUNCTION	COLOR
1	5	VCC	Red
2	4	D-	Blue
3	2	D+	Green
4	3	GND	Brown
Shell	3	SHIELDING	

Mechanical drawing

(a) Scanner Dimension:



(b) Cradle Dimension:



C. Performance

Light Source	Visible Red Light 632 nm LED
Sensor	Linear CCD Sensor
Processor Type	32-bit
Operating Freq.	8 MHz
Scan Speed	Smart detection, up to maximum 500 scans per second
Reading Distance	Up to 500mm@20mil, PCS90%, Code39
Print Contrast Ratio	30%
Resolution	4mil/0.1mm@PCS90%, Code39
Reading Angle	<i>Test Conditions : Code 39, 10mil/0.25mm, PCS 90%</i>
Forward & Backward(Pitch)	±10°~65°(±5°)
Left & Right(Skew)	± 60°(±5°)
Ambient Light	100,000 Lux Max.
Indicator	Beep and LED (Good read Green)

D. Electrical Characteristics

Scanner Supply Voltage	Battery Li-Ion 3.7V/2600mA
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Scanner Power Consumption

Power On	190mA
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Stand by	50mA
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Operation	200mA
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Sleep	6mA
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Recharge time	Approx. 5 hours
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Reads per charge	50,000 times in continuous read
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Cradle Power Consumption

Power On	95mA
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Stand by	55mA
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Operation	70mA
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E. Radio Characteristics

Bluetooth Module	Bluetooth V2.1 Standard, Supports both SPP and HID profiles
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Frequency Band	2.402GHz ~ 2.480GHz
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Modulation Method	GFSK for 1Mbps
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RF Output Power	Class 1 (under 20dBm)
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Radio Transmission Range	Up to 100m /328.08 ft. in line of open sight
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F. Environmental

Operating Temperature	0 °C to 50 °C (32 °F to 122 °F)
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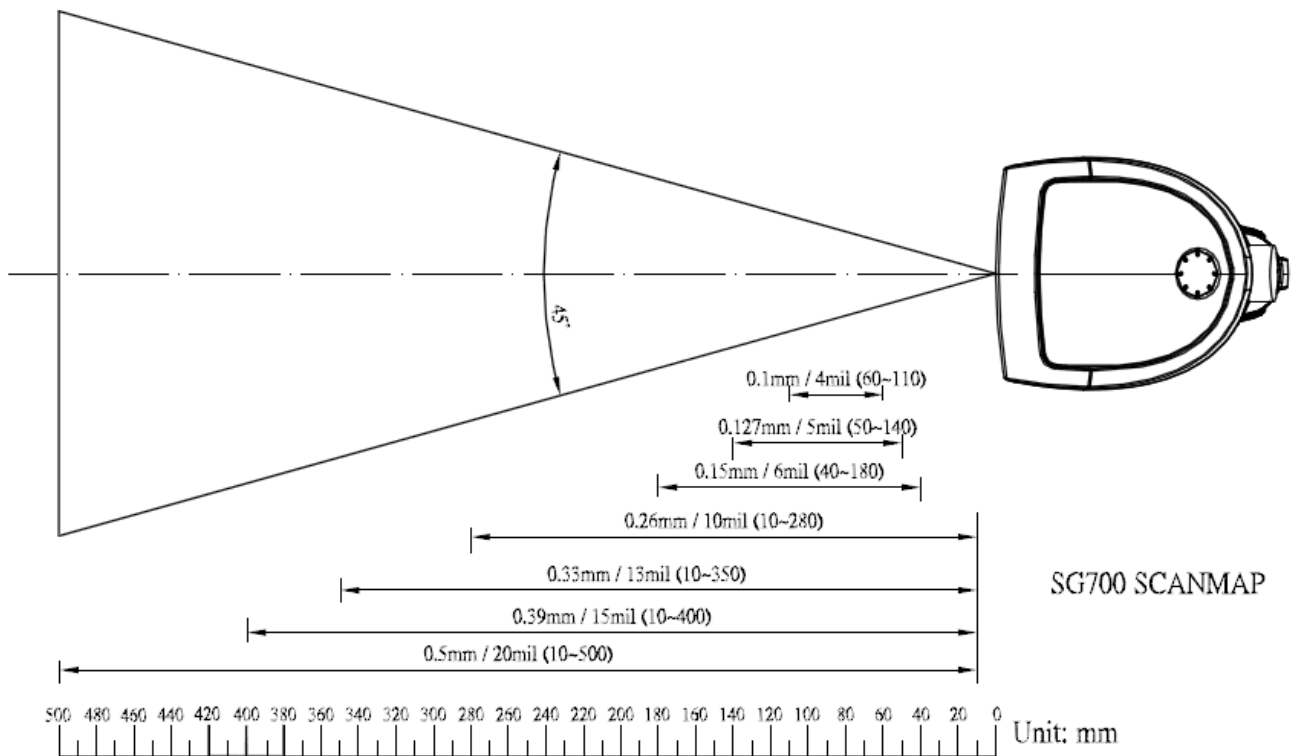
Storage Temperature	-20 °C to 60 °C (-4 °F to 140 °F)
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Relative Humidity	20% to 95% (Non-condensing)
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G. Readable Symbologies

	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	

H. Scan Map



I. Reliability

Life Time	
Trigger Switch	1,000,000 times
MTBF(Calculated)	40,000 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 resistance