

SPECIFICATION

Customer :

Customer's Model No. :

Model No. : FS700 Series **CCD Fixed mount scanner**

Date :

Sample Serial No. :

Spec. Version & Revision Date: V00 2016.09.21

Received/Approved by

CHAMPTEK[®]

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

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

Tel : 886-2-22192385

E-mail : sales@champtek.com

Fax : 886-2-22192387

Revision History

Version	Date	Context
V00	2016.09.21	Release

TABLE OF CONTENTS

A. General Description	.....	4
B. Physical Characteristics	.....	5
C. Electrical Characteristics	.....	7
D. Performance	.....	7
E. Environmental	.....	7
F. Readable Symbologies	.....	8
G. Pin Assignment	.....	9
H. Scan Map	.....	10

A. General Description

The FS700 is equipped with ultra-compact high performance CCD imager bar code scanning engine, ideal for OEM applications in devices including POS, medical devices, kiosks, lottery terminals and access control devices, a stand option can be ordered to facilitate desktop hand-free reading options.

Performance : 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 “continuous mode” reading options.

Everything has been done to simplify the integration of the FS700, compact size, multiple mounting possibilities and multiple interfaces selection, such as standard RS232 & USB-HID and USB Virtual COM port.

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. its 100,000 LUX ambient light resistance, hand-on software-programming function, this FS700 is the best choice ever for various fixed mount/build in OEM bar code scanning application.



B. Physical Characteristics

Weight

Body weight	Approx. 108 g
Cable weight(USB)	Approx. 40 g

Material

Polycarbonate

Cable Length

5FT. (150cm)

Dimension

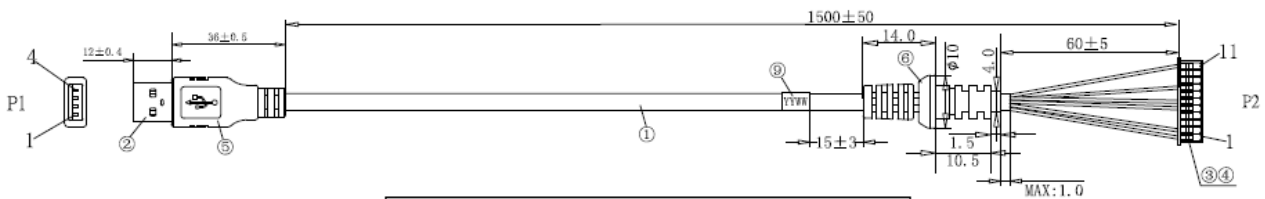
59.2 mm W x 64.6 mm D x 30.0 mm H

Cable drawing

Unit : mm

USB Interface :

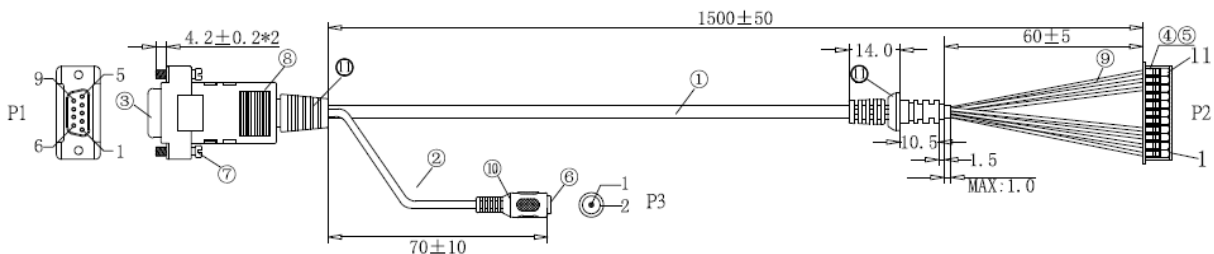
Unit :mm



WIRING DIAGRAM		
P1	P2	COLOR
1	2	RED
	8	ORANGE
2	6	BLUE
3	5	GREEN
4	1	BROWN
SHELL	11	BRAID

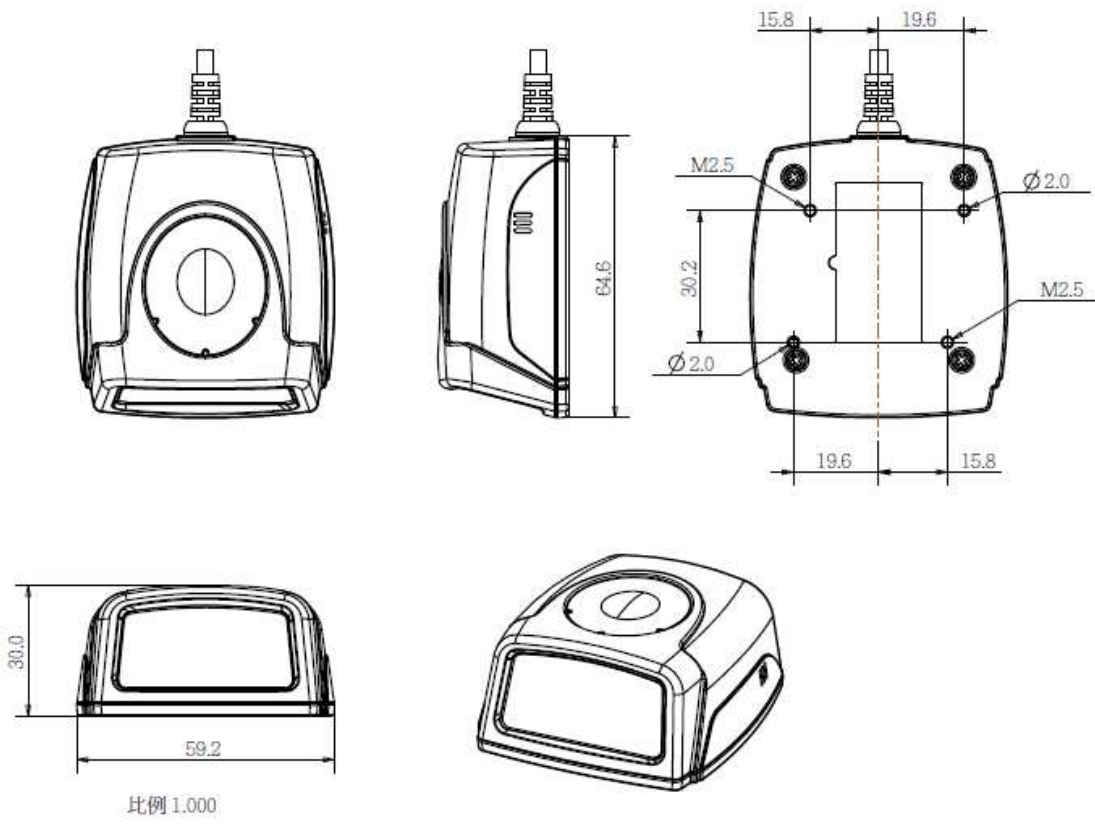
RS232 Interface :

Unit : mm



WIRING DIAGRAM			
P1	P2	P3	功能定義
9	2	1	VCC,+5V
3	4		RXD
2	3		TXD
5	1	2	GND
8	9		RTS
7	10		CTS
SHELL	SPIRAL	11	遮蔽

(a) Mechanical drawing



C. Electrical Characteristics

Interface	RS232	USB
Input Voltage	DC +5V ±5%	DC +5V ±5%
Output Voltage (Typ.)	±9V	+5V±10%
Output low Voltage (Max.)	-	0.7V
Current Draw		
Power On (Typ.)	170 mA	170 mA
Stand by (Typ.)	50 mA	50 mA
Operation (Typ.)	150 mA	150 mA

D. Performance

Light Source	Visible Red light 632nm LED	
Sensor	Linear CCD Sensor	
Processor Type	ARM 32-bit CPU	
Operating Freq.	8 MHz (Internal)	
Scan Rate	Smart detection, up to 500 scans per second ±10%	
Reading Distance	Up to 500mm@20mil/0.5mm PCS90%, Code39	
Print Contrast Ratio	30%	
Resolution	4mil/0.1mm@PCS90%	
Reading Angle	<i>Test Conditions:Code 39, 10mil/0.25mm, PCS90%</i>	
Forward & Backward	±10°~65°(±5°)	
Left & Right	± 60°(±5°)	
Ambient Light	100,000 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

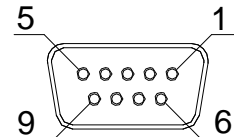
	Readable	Default Enable
All UPC/EAN/JAN	V	V
EAN128 Code	V	
Code 39	V	V
Code 39 Full ASCII	V	
Code32 / Italian Pharmacy	V	
Code 128	V	V
CODABAR/NW7	V	V
Interleave 25	V	V
Industrial 25	V	
Matrix 25	V	
MSI/PLESSEY	V	
Telepen	V	
Code 93	V	
China Postage	V	
GS1 DataBar Omnidirectional & Stacked	V	
GS1 DataBar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

G. Pin Assignment

1) RS232 Interface

DB9 Female with Power Lead

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

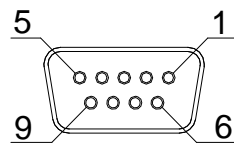


DB 9 Female



DB9 Female without Power Lead

Pin No.	Function
2	TXD
3	RXD
5	GND
7	CTS
8	RTS
9	Vcc (+5V)

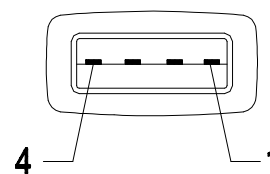


DB 9 Female

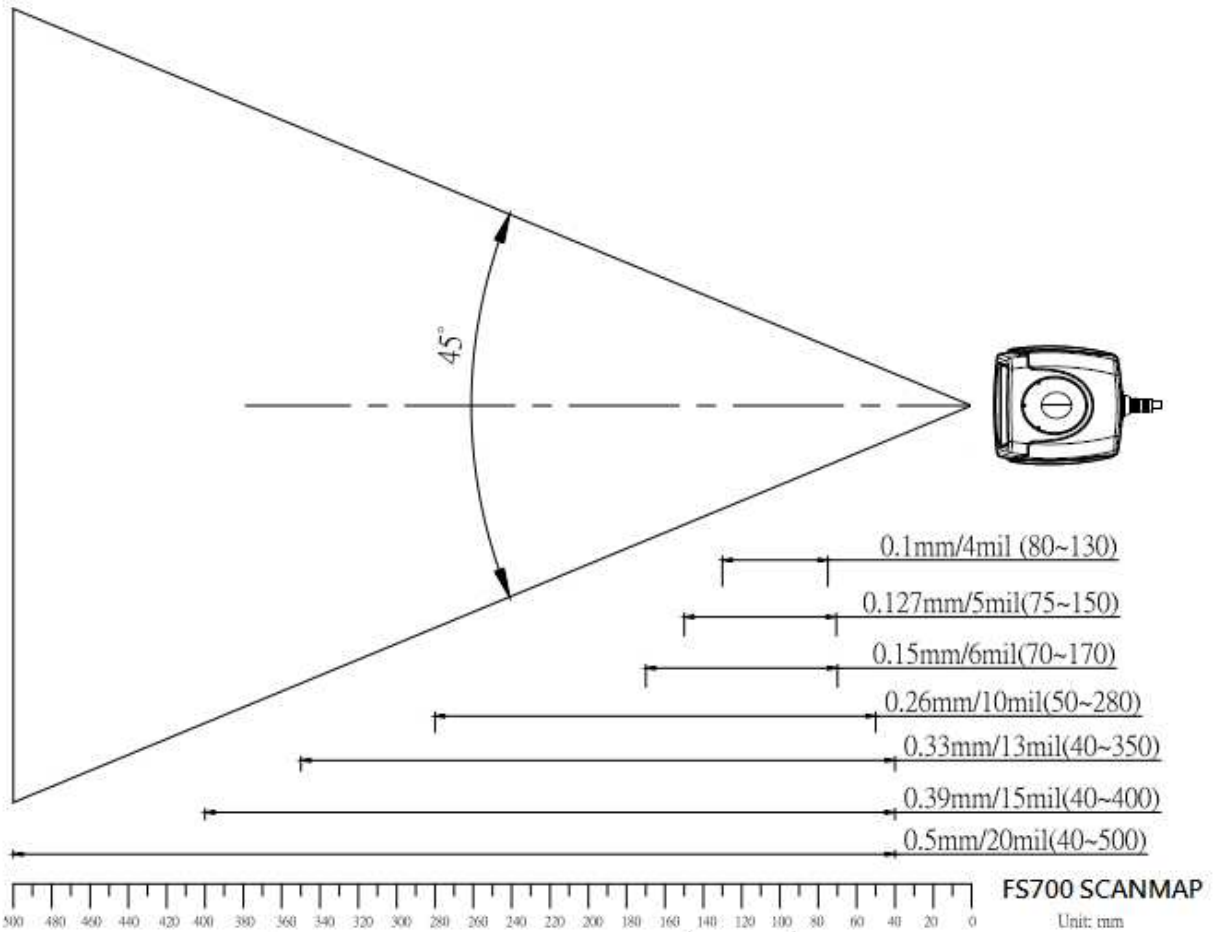
3) USB Interface

USB A Type Male

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



H. Scan Map



I. 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/90 °)

Drop 70.87 inches (180cm) drop on concrete 6 surface