Version	Date	Information Source	Update Details
1.0	11/01/2011	Jeff Zhang	Preliminary version
1.1	11/28/2011	Jeff Zhang	Adjustment document format
1.2	12/15/2011	Jeff Zhang	Add warrant information and material description
1.3	04/12/2012	Teddy Xu	Update electrical specification

PRELIMINARY

Infrared Type Touch Panel

RE1400G0XXS
RE1400W0XXS

Technical Specification

1、Characters

IRTOUCH SYSTEMS'S E-Series infrared touchscreen is designed for LCD monitor. Features such as vandal proof, water proof, maintenance free as well as long life time make the E-series touchscreen an ideal choice for many interactive applications such as POS, touch monitors, Kiosks, etc.

RE1400 infrared touchscreen is a brand-new creative version compatible with existing infrared E series products and add gesture function to support zoom in and zoom out operation.

Benefits:

- Vandal proof, scrape-resistant
- Integrated controller
- Support zoom in and zoom out gesture
- High-precision
- Fast response speed
- Maintenance free, long life time
- Fault tolerance design to ensure reliability
- Various touch objects

Typical Applications:

- POS
- Desktop touch monitor
- Indoor/outdoor kiosk
- ATM
- In-vehicles and transportation
- Medical instrument
- Industrial control systems
- Gaming machine
- Ticket machine

PRELIMINARY

2、Order information

Part Number	Description	Version
E15D03U-A01-01	15", 4:3, 3mm general tempered glass, HID	V1.0
E17D03U-A01-01	17", 5:4, 3mm general tempered glass, HID	V1.0
E18D03U-A01-01	18.6", 16:9, 3mm general tempered glass, HID	V1.0
E19D03U-A01-01	19.1", 5:4, 3mm general tempered glass, HID	V1.0
E19D03U-A01-02	19.1", 16:10, 3mm general tempered glass, HID	V1.0
E21D03U-A01-01	21.6", 16:9, 3mm general tempered glass, HID	V1.0
E24D03U-A01-01	24.1", 16:9, 3mm general tempered glass, HID	V1.0

3、Specifications

Mechanical Specifications

Input Method	Finger, gloved hand, or any other opaque stylus
Touch technology	Infrared rays interception detection, no special surface coatings
Available size	15”/17”/18.6”/19”/21”/24”
Outside Dimensions	**See Appendix Ⅰand Ⅱ**
Touch Active Area	**See Appendix Ⅰand Ⅱ**
Glass	3mm tempered glass(customizable)
Luminous transmission	>88% with glass (depending on anti-reflective surface coating)
Shell Material	Top Shell: Polycarbonate(PC) , Bottom Shell: SGCC, Aluminium
Touch durability	Unlimited
Touch Activation Force	No pressure required

Electrical Specifications

Controller reported resolution		32767×32767	
Touch accuracy	[mm]	<1.5mm(central area), <3.2mm(marginal area)	
Touch stylus diameter	[mm]	>8mm	
Output form		Coordinate output	
Calibration		Simple four-point calibration, no drift	
Response Speed	[ms]	<16ms	
Power requirements		DC5V±5% @Min 500mA	
Power consumption		<1.5W, typical at +5 VDC. Average power dissipation is 1.25W	
How to supply it		USB	USB from powered hub
		RS232C	PS2 or USB from powered hub

Interface Specifications

Interface Type	USB	HID
	RS232C	Baud Rate: 38400, 8 Data Bits, 1 Stop Bit, No Parity
Plug and Play	Plug and play and HID compatible(Only HID product)	
Connector Type	USB	A type, **See Appendix Ⅲ**
	RS232C	DB9/M, **See Appendix Ⅳ**

PRELIMINARY

Environmental Specifications

Temperature	Operating：0～55℃ Storage：-30～85℃
Relative Humidity	Operating：10%-90% RH, 40℃ non-condensing Storage：10%-90% RH, 40℃ non-condensing
Electrostatic Protection	Per EN61000-4-2 2008: Level 3. Contact discharge 4kV, air discharge 8 kV on USB connector pins
EMC	CE,FCC Class B Compatible
Seal ability	Can be sealed to meet IP65 standards for front panel (With Glass)
Warranty	18 months

Software Specifications

Item	Contents
Scanning Form	Auto Start, Always Scanning
Movement Mode	Input Point, Finishing Point, Following, Continuous Detection
Firmware Upgrade	Firmware can be upgraded from USB/RS232C
Driver software	No software required. Works with Windows native HID mouse driver, IRTOUCH Driver provides additional utilities. (Only HID product)
Touch Functions	Mouse(Click, drag, double click, right-click) on all operating systems listed below and support zoom in and zoom out gesture on windows 7 and latest version
Calibration	Simple one-time four-point calibration, no drift
Monitor	Split, Dual, Multi-Monitor and stretch Mode support
Operating systems	Windows 2000, XP, Vista, Windows 7,Linux,Mac OS X, Android OS

4、Panel opening Area and Detection coordinate

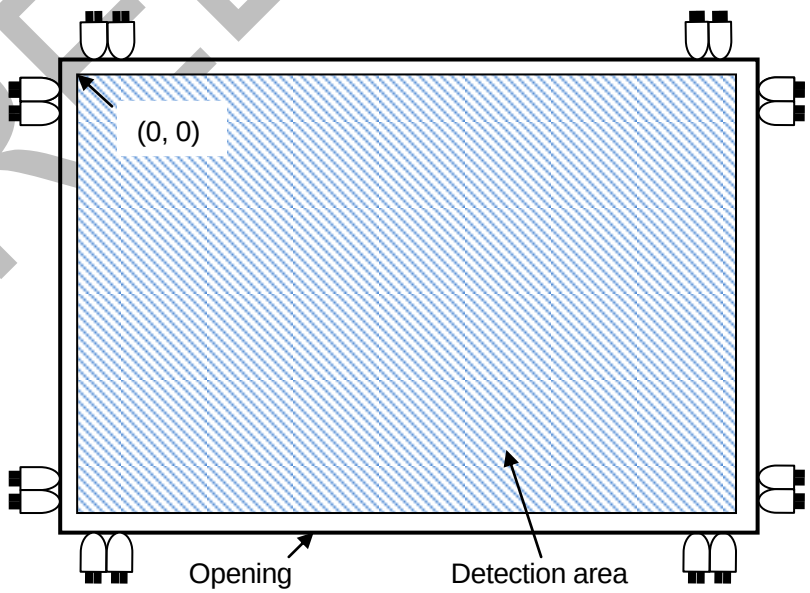

FIGURE 1

5、Dimensional Drawing

PRELIMINARY

Appendix Ⅰ and Ⅱ: RE1400 Series Product Dimension Drawing
Appendix Ⅲ: USB Connector Drawing
Appendix Ⅳ: DB9/F Connector Drawing

6、ROHS COMPLIANCE

RE1400 Series touchscreen is RoHS compliant.

PRELIMINARY

Technical Specification

Innovation Drives Performance, Reliability and ROI

IRTOUCH SYSTEMS

ITEM:	LOC'T	DESCRIPTION OF CHANGE	APP. BY	DATE

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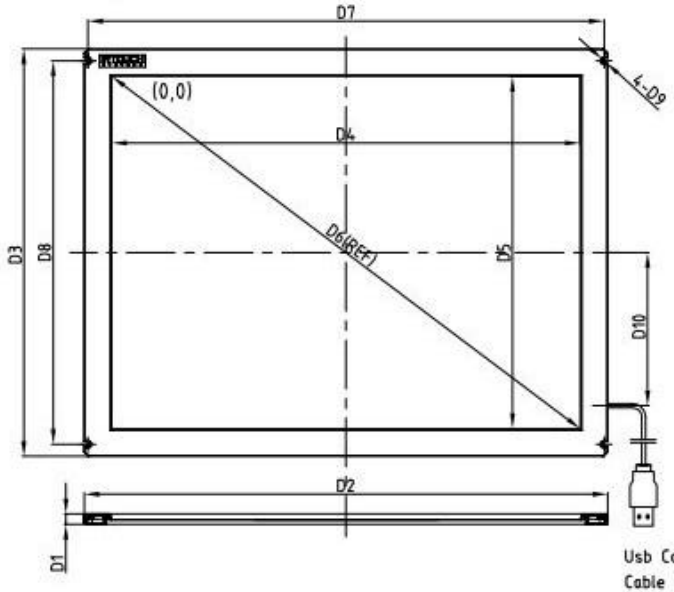

Usb Connector
Cable (TypeA)
30 Centimetre

D-sub 9Pin
Cable
30 Centimetre

Size	Model	Touchscree Thickness (D1)	Outside Dimensions		Touch Active Area			Assenble Hole Dimensions			Connection Position (D10)
			Width(D2)	Height(D3)	Width(D4)	Height(D5)	Diagonal(D6)	Width(D7)	Height(D8)	Diameter(D9)	
(inch)		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
15.1(4:3)	RE1400G015S	6.8±1	342±1	266±1	306±1	230±1	382.8±1	337.1±1	250.3±1	Φ3.6±0.5	100±3
17.1(5:4)	RE1400G017S	6.8±1	376±1	308±1	340±1	272±1	435.4±1	370.4±1	294.3±1	Φ3.6±0.5	107±3
19.1(5:4)	RE1400G019S	6.8±1	414±1	339±1	378±1	303±1	484.5±1	408±1	322±1	Φ3.6±0.5	116.7±3

DO NOT SCALE DRAWING
ALL DIMENSIONS ARE MM
ANGULAR TOL: =±0.5°
LINEAR TOL:

0~50	±0.1
50~150	±0.15
150~250	±0.2
250~400	±0.25
400~1000	±0.3
1000~	±0.5

IRTOUCH SYSTEMS BEIJING IRTOUCHSYSTEMS CO., LTD.

EXPLODE No: | Rev: A | PROJECTION

MATERIAL: | PART No: | DRAW No:

FINISH: | PART NAME: RE1400-series infrared touchscreen | SCALE: 1:1

ACTION: | DESIGNER: XU DATE: 2011-04-28 | CHECKED: DATE: | APPROVED: DATE: | SHEET 1 OF 1 | A4

Technical Specification

Innovation Drives Performance, Reliability and ROI

ITEM:	LOC'T	DESCRIPTION OF CHANGE	APP. BY	DATE

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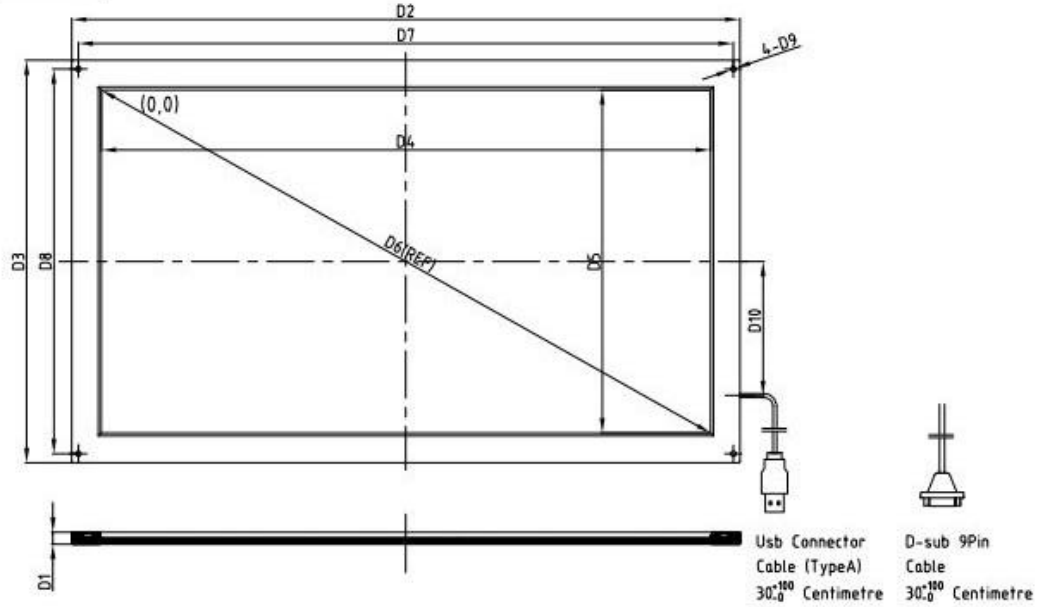

Size	Model	Touchscree Thickness (D1)	Outside Dimensions		Touch Active Area			Assenble Hole Dimensions			Connection Position (D10)
			Width(D2)	Height(D3)	Width(D4)	Height(D5)	Diagonal(D6)	Width(D7)	Height(D8)	Diameter(D9)	
(inch)		(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(mm)
18.6(16:9)	RE1400W018S	8±1	451±1	271.5±1	411±1	231.5±1	471.7±1	442±1	259.5±1	Φ3.2±0.5	91±3
19.1(16:10)	RE1400W019S	8±1	451±1	297±1	411±1	257±1	484.7±1	442±1	285±1	Φ3.2±0.5	103.3±3
21.6(16:9)	RE1400W021S	8±1	517.5±1	309±1	477.5±1	269±1	548.1±1	508.5±1	297±1	Φ3.2±0.5	100±3
24.1(16:9)	RE1400W024S	8±1	573±1	340.5±1	533±1	300.5±1	611.9±1	564±1	328.5±1	Φ3.2±0.5	125±3

DO NOT SCALE DRAWING ALL DIMENSIONS ARE MM ANGULAR TOL: =±0.5° LINEAR TOL:	
0~50	±0.1
50~150	±0.15
150~250	±0.2
250~400	±0.25
400~1000	±0.3
1000~	±0.5

IRTOUCH SYSTEMS BEIJING IRTOUCHSYSTEMS CO., LTD.

EXPLODE No: | Rev: A | PROJECTION

MATERIAL: | PART No: | DRAW No:

FINISH: | PART NAME: RE1400-series infrared touchscreen | SCALE: 1:1

ACTION: | DESIGNER: XU DATE: 2011-04-28 | CHECKED: DATE: | APPROVED: DATE: | SHEET 1 OF 1 | A4

IRTOUCH SYSTEMS

Technical Specification

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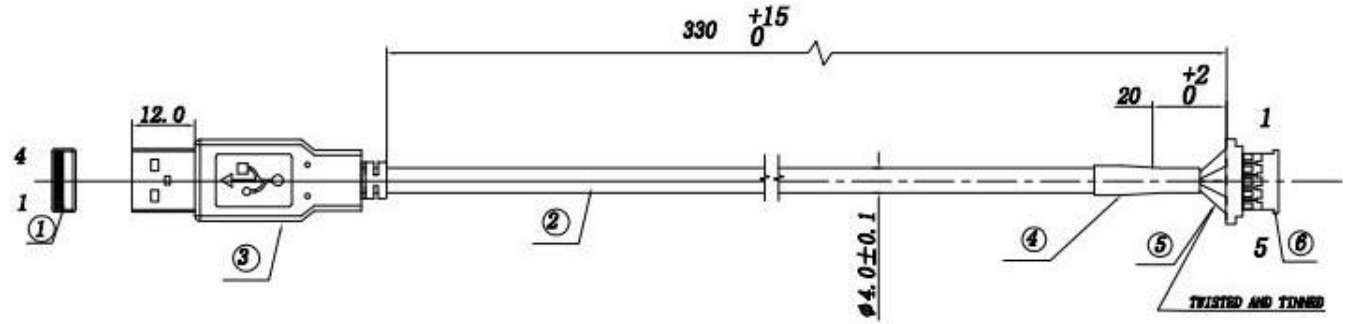

USB	连接线颜色定义	A1254
1	红色(VCC)	1
2	白色(D-)	2
3	绿色(D+)	3
4	黑色(GND)	4
外壳(5)	黑色(屏蔽地线)	5

序号	物料简述	QTY
6	A1254(MOLEX /51146),A1254-T接线端子(5个).	1
5	套管：Φ0.8*16mm;屏蔽芯线直径在0.65mm内; 不能小于其它芯线直径;	1
4	套管：Φ5.0*25mm	1
3	外被：PVC 颜色：黑色半露	1
2	线材：UL2725 28AWG*2C+28AWG*1P+AL+BRAID L=985+15/-0mm 黑色(COM-030)	1
1	PLUG:USB A TYPE MALE-4PIN(SOLDER TYPE)	1

IRTOUCH SYSTEMS — BEIJING IRTOUCHSYSTEMS CO., LTD.

EXPLODE No: | Rev: C | PROJECTION

MATERIAL:	DO NOT SCALE DRAWING ALL DIMENSIONS ARE MM TOLERANCE: LINEAR TOL: .X=±0.25 .XX=±0.10 ANGULAR TOL: =±1.0°	PART No: 271-040303-06		DRAW No:
FINISH:		PART NAME: 带插头USB引出线		SCALE: 1:1
ACTION:	DESIGNER: 付尚应 DATE: 2009.06.03	CHECKED: DATE:	APPROVED: DATE:	SHEET 1 OF 1 A4

Technical Specification

Innovation Drives Performance, Reliability and ROI

IRTOUCH SYSTEMS

ITEM:	LOC'T	DESCRIPTION OF CHANGE	APP. BY	DATE

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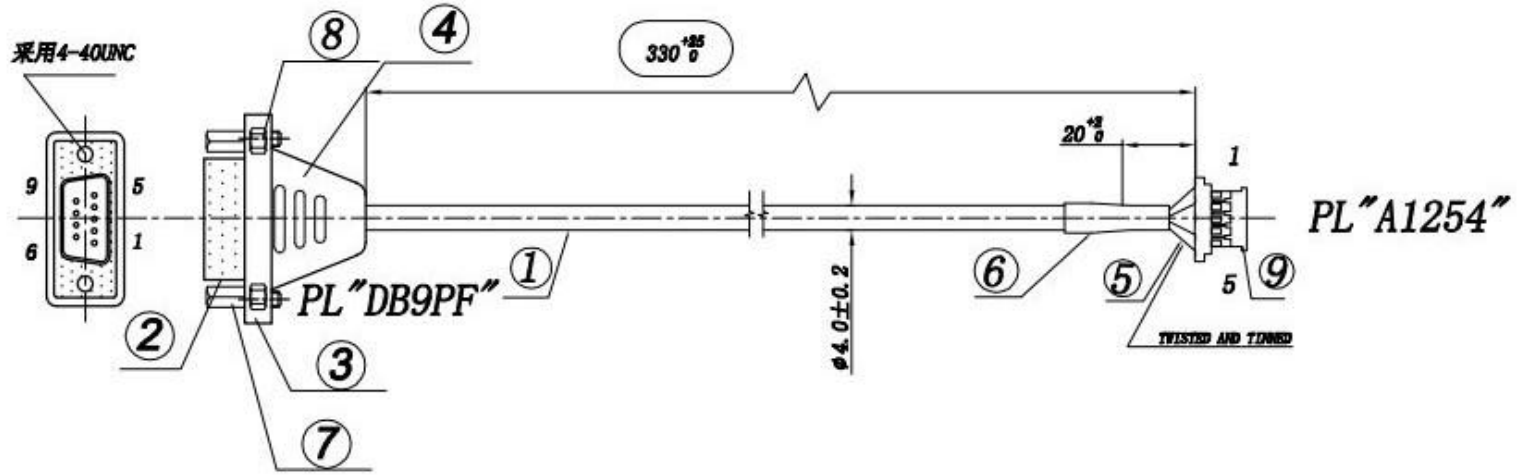

DB9PF	连接线颜色定义	A1254
1	红色(VCC)	1
2	白色(TXD)	2
3	绿色(RXD)	3
5	黑色(GND)	4
外壳	黑色(屏蔽地线)	5

NO	物料简述	QTY
9	A1254(MOLEX /51146),A1254-T接线端子(5个).	1
8	配标准的4-40UNC螺钉的螺帽	2
7	配4-40UNC,外螺纹长:7.0mm	2
6	套管: Φ5.0*25mm	1
5	热缩OD=0.8 L=16mm	1
4	PVC 45P 黑色外模料	12g
3	3mm螺母	2
2	DB9PIN 母头黑胶	1
1	(7/0.12TS*0.8PVC*1P白绿*11/0.12TS *1.0PVC*2C红黑*7/0.12TS成缆*AL *64/0.08TCBD)*1F 黑色PVC UL2725 白和绿为双绞线;	1

DO NOT SCALE DRAWING ALL DIMENSIONS ARE MM ANGULAR TOL: ±0.5° LINEAR TOL:		IRTOUCH SYSTEMS BEIJING IRTOUCHSYSTEMS CO., LTD.	EXPLODE No:	Rev: C	PROJECTION
0~50	±0.1	MATERIAL:	PART No: 271-050303-10		DRAW No:
50~150	±0.15				
150~250	±0.2	FINISH:	PART NAME: 带插头COM引出线		SCALE: 1:1
250~400	±0.25				
400~1000	±0.3	ACTION:	DESIGNER: DATE:	CHECKED: DATE:	APPROVED: DATE:
1000~	±0.5				SHEET 1 OF 1 A4

IRTOUCH-JL-YF-