Version	Date	Information Source	Update Details
1.0	16/12/2016	Hai Bi	Preliminary version
1.1	09/05/2017	Hai Bi	Update Order information
1.2	12/06/2017	Hai Bi	Add 23.6
1.3	10/08/2017	Hai Bi	Modify 23.6 SN

Infrared Type Touch Panel

IX1102 Series

Technical Specification

1、Characters

IRTOUCH SYSTEMS'S IX1102 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 IX1102-series touchscreen an ideal choice for many interactive applications such as POS, touch monitors, Kiosks, etc.

IX1102 Series 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
- Ultra-high precision
- Ultra-Fast response speed
- Maintenance free, long life time
- Fault tolerance design to ensure reliability
- Various touch objects
- 1-2 points touch

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

2、Order information

Part Number	Description
IX11020151100001	15.1" （4:3）, 3mm general tempered glass HID
IX11020171200001	17.1" （5:4）, 3mm general tempered glass HID
IX11020191200001	19.1" （5:4）, 3mm general tempered glass HID
IX11020191400001	19.1" （16:10）, 3mm general tempered glass HID
IX11020216300001	21.6" （16:9）, 3mm general tempered glass HID
IX11020236300002	23.6" （16:9）, 3mm general tempered glass HID

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	15.1" \17.1" \19.1" \21.6" \23.6"
Outside Dimensions	**see Appendix I**
Touch Active Area	**see Appendix I**
Glass	3mm tempered glass (customizable)
Transmittance	>88% with glass
Shell Material	Top Shell：Polycarbonate (PC) Bottom Shell：SGCC (15.1"- 23.6")
Pressure Required to Trigger Touch Event	No pressure required.

Electrical Specifications

Controller reported resolution		32767×32767
Touch accuracy	[mm]	<1.5mm (central area)，<2.5mm (edgy area)
Touch object diameter	[mm]	>7mm(single point),>10mm(two points)
Output		Coordinates
Calibration		Not required or Simple four-point calibration, no drift
Response Time	[ms]	≤12ms (1points) ≤13ms (two points)
Power requirements		Powered by USB (DC5V±5% @ 500mA)
Power consumption		<1.5W
Electrical life	[Hours]	61000

Interface Specifications

Interface Type	USB	HID
Plug and Play	Plug and play and HID compatible	
Connector Type	USB	Type A

Environmental Specifications

Temperature	Operating：-20～70℃ Storage：-40～85℃
Relative Humidity	Operating：10%-90% RH, 40℃ non-condensing Storage：10%-90% RH, 40℃ non-condensing
Electrostatic Protection	Per EN61000-4-2 2008: Level 4, Class B. Contact discharge 8kV, air discharge 15kV on USB connector pins
Ambient Light Tolerance	Direct light illumination ≤6.5K Lux (Color Temperature = 2700K) (Non-Direct) Sunlight illumination ≤100K Lux
EMC	CE, FCC Class B Compatible
Seal ability	IP65(Front)

Software Specifications

Firmware Upgradability	Yes
Device Type	Touch (with gesture support per OS) or, Mouse (Click, drag, double click, right-click)
Calibration	Four-point calibration, no drift
Multi-Monitor Support	Manually Binding
Operating Systems Support	Windows(xp\7\8.1\10),Linux(≥2.6),Android(≥2.6),Vxwork(≥6.5)

4、 **Panel Opening Area and Touch Active Area**

(0, 0)

LED　　　　Opening Area　　　TAA（Touch Active Area）
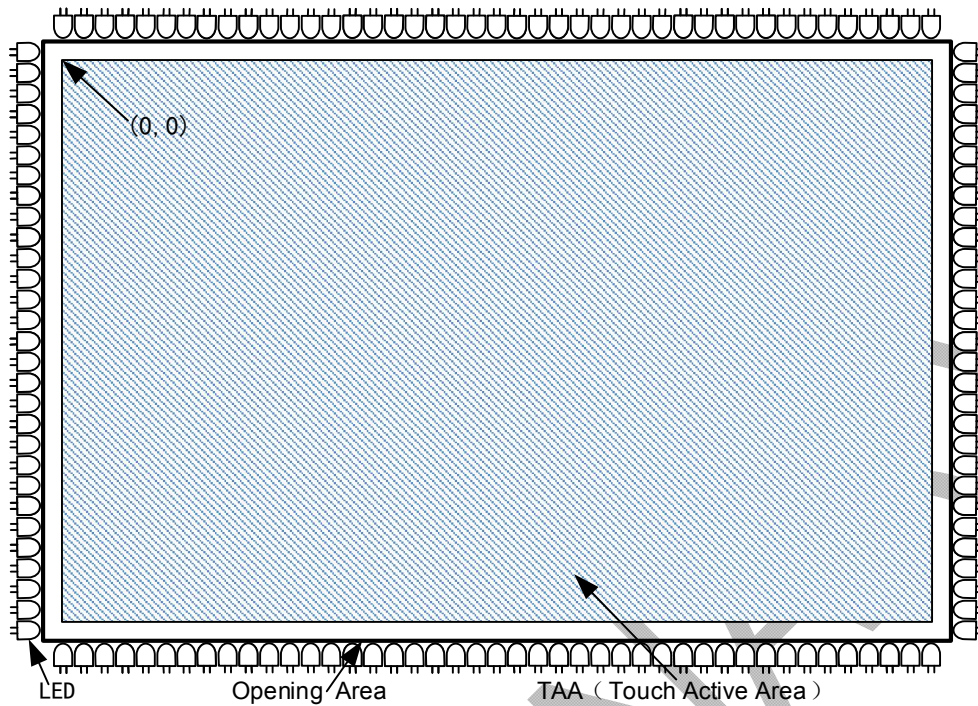
FIGURE 1

5、 **Dimensional Drawing**

Appendix I: Product Dimension Drawing

Appendix II: USB Connector Drawing

6、 **ROHS COMPLIANCE**

IX1102 Series touchscreen is RoHS compliant.

Appendix I:

Size (inch)	Size (mm)	Touchscreen Thickness (D1) (mm)	Outside Dimensions Width(D2) (mm)	Outside Dimensions Height(D3) (mm)	Touch Active Area Width(D4) (mm)	Touch Active Area Height(D5) (mm)	Touch Active Area Diagonal(D6) (mm)	Assemble Hole Dimensions Width(D7) (mm)	Assemble Hole Dimensions Height(D8) (mm)	Assemble Hole Dimensions Diameter(D9) (mm)	Assemble Hole Dimensions Width(D10) (mm)	Assemble Hole Dimensions Height(D11) (mm)	Connection Position (D12) (mm)	EXPLODE No:	Lens Thickness (D13) (mm)	Glass Thickness (D14) (mm)
15.1(4:3)		6.8±0.5	342±1	266±1	306±1	230±1	382.8±1	335.8±1	250.3±1	φ3.6±0.5	308±1	232±1	100±5		3.8±0.2	3.2±0.2
17.1(5:4)		6.8±0.5	376±1	308±1	340±1	272±1	435.4±1	370.4±1	294.3±1	φ3.6±0.5	342±1	274±1	107±5		3.8±0.2	3.2±0.2
19.1(5:4)		6.8±0.5	414±1	339±1	378±1	303±1	484.5±1	408±1	322±1	φ3.6±0.5	380±1	301±1	116.7±5		3.8±0.2	3.2±0.2
19.1(16:10)		8.0±0.5	451±1	297±1	411±1	257±1	484.7±1	442±1	285±1	φ3.2±0.5	413.2±1	259.2±1	103.3±5		4.0±0.2	3.2±0.2
21.6(16:9)		8.0±0.5	517.5±1	309±1	477.5±1	269±1	548.1±1	508.5±1	297±1	φ3.5±0.5	480.1±1	271.6±1	100±5		4.9±0.2	3.2±0.2
23.6(16:9)		8.0±0.5	563.3±1	335.3±1	523.3±1	295.3±1	600.9±1	554±1	326±1	φ3.5±0.5	525.9±1	297.9±1	100±5		4.9±0.2	3.2±0.2
24.1(16:9)		8.0±0.5	573±1	340.5±1	533±1	300.5±1	611.9±1	564±1	328.5±1	φ3.5±0.5	535.1±1	302.6±1	125±3		4±0.2	3.2±0.2

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

MATERIAL:
FINISH:
ACTION:

IRTOUCH
BEIJING IRTOUCHSYSTEMS CO.,LTD.

PART No:
PART NAME: IX-series infrared touchscreen
DESIGNER: 房立顺 DATE: 2017.6.12
CHECKED: 吴丰群 DATE: 2017.6.12
APPROVED: 韩旭军 DATE: 2017.6.12

Rev: A
DRAW No:
PROJECTION
SCALE: 1:1
SHEET 1 OF 1
A4
IRTOUCH-IL-IR-32B

Appendix II:

连接线颜色定义

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
1	PLUG:USB A TYPE MALE-4PIN (SOLDER TYPE)	1
2	线材: UL2725 28AWG*2C+28AWG*1P+AL+BRAID L=985+15/-0mm 黑色 (COM-030)	1
3	外被: PVC 颜色: 黑色半露	1
4	套管: Φ5.0*25mm	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
6	A1254 (MOLEX /51146), A1254-T接线端子 (5个).	1

MATERIAL:
FINISH:
ACTION:

DESIGNER: 竹柏庐 DATE: 2009.06.03
CHECKED: DATE:
APPROVED: DATE:

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
PART NAME: 带插头USB引出线
EXPLODE No:
Rev: C
DRAW No:
SCALE: 1:1
SHEET 1 OF 1 A4
QTY
PROJECTION

BEIJING IRTOUCH SYSTEMS CO., LTD.

Dimensions: 12.0 ; 330 $^{+15}_{0}$; $\phi 4.0 \pm 0.1$; 20 $^{+2}_{0}$

TWISTED AND TINNED