Product Specification

Android Signage Display
Android Commercial Tablet

Model: ASD-156E ASD-156C ASD-156CE ASD-156R

(√) Preliminary Specification
( ) Final Specification

For APPROVAL

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

PCB No.: M6P V11

Customer's Approval

Customer's Name:	
Date:	
By:	

Manufacturer

Approve	**Prepare**
Date:	**Date:**
By:	**By:**

Last Modified Date: Thursday, June 11, 2015

Record of Revision

Version	Revise Date	Page	Content	Remark
Ver. 1.0	2012.12		First Draft	
Ver. 1.1	2014.07		Add Complete Metal Housing model and capacitive touch screen	
Ver. 1.2	2014.08		Add spec of PoE	
Ver. 1.3	2014.09		Add more pictures	
Ver. 1.4	2014.10		Add more information on 3G	

Our Android-based Signage Display (Commercial Tablet) is designed to enhance the customer experience and provide the most cost effective solutions for retail POS/POP, commercial, industrial, and hospitality markets.

- Perfect for end-cap displays, kiosks, or as a customer-facing display in retail POS/POP environments
- Utilizes the security of wired OR the convenience of 3G/4G/LET connections
- Designed for fixed applications where a rugged mountable Android tablet is desired and where battery power is not required. Battery is optional and part of a separate base.
- Build-in proprietary app automatically starts with the device boot completed.
- No back/home/menu system button for the security, to prevent users from accessing Settings or install other apps or install other apps or install other apps

1. Main Features

- Support Web browsing via native browser or dedicated Apps
- Dynamic touch screen for complex multi-layer interactive solutions
- Updates contents & scheduling over network without disturbing foreground display
- Support Power-On Auto Play Function
- Full HD(1080P) H.264(AVC), MPEG1/2/4, VC1, 720P RealVideo decoding up to 70Mbps bitrates
- Play High Definition Content on SD Card
- Digital 15.6” TFT panel with 1366X768 or 1920X1080 resolution
- Support automatically update content of SD Card from USB thumb drive
- Multi-language OSD: English/German/French/Spanish/Italian/Russian/Chinese/other
- Built-in stereo amplifier
- Industrial grade plastic housing
- Two mounting options: key-hole slots and VESA 100 (4” x 4”) Uses 4 M4 screws for mounting
- Optional Capacitive Multiple Touch Screen
- Optional motion sensor (Photo or IR)
- Optional Barcode Scanner
- Optional Thermal Printer
- Optional RFID Reader
- Optional 3G/4G built-in Module, support WCDMA, HSPA: UL 5.76 (Mbps)/ DL (14.4 Mbps)
- Optional Wired Ethernet and PoE (Power Over Ethernet, IEEE 802.3AT)

Product specification

Product Name: Android Signage Display

Model No.:

ASD-156R	Standard Plastic Open Frame and Resistive Touch Screen
ASD-156E	Plastic open frame housing, no Touch Screen, built-in Ethernet and PoE Module
ASD-156C	Complete Housing, plastic middle frame, metal back and Capacitive Touch Screen
ASD-156CE	Complete Housing, plastic middle frame, metal back and Capacitive Touch Screen, built-in Ethernet and PoE Module

CPU: Amlogic 8726-MXS (ARM Cortex-A9 Dual Core) up to 1.5GHz

GPU: ARM Mali-400 Dual Core up to 400MHz (DVFS)

Memory: 1GB DDR3 @ 516MHz

Storage: 4GB (4-16GB optional)

Operating system: Rooted Google Android 4.2.2(Jelly Bean)

2. Input

2.1 Storage Media / Device

SD/SDHC Card

USB Thumb Drive, USB HDD

2.2 Supported Codecs and Formats

Video Codec

H.264 HP@L5.1 up to 1080P@60fps

H.264 MVC up to 1080P@60fps

MPEG‐4 Part 2 ASP@L5 up to 1080P@60fps (ISO 14496)

WMV/VC-1 SP/MP/AP up to 1080P@60fps

AVS JiZhun Profile up to 1080P@60fps

MPEG-2 MP/HL ISO 13818 (1080p)

MPEG-1 MP/HL ISO 11172 (1080p)

RealVideo 8/9/10 up to 1080P@60fps

WebM up to VGA

Multiple languages and multiple formats sub-title video support

Motion-JPEG (VGA)

H.263 (VGA)

Supports *.mov, *.mpg, *.avi, *.mp4, *.rm, *.mkv, *.ts, *.m2ts, *.iso, *.asf container formats

Photo Decoding

Streaming hardware JPEG decoder supporting ISO 10918

Unlimited pixel resolution (100M‐pixel tested)

Support scaling, rotation and transition effects

Audio Decoding

Support MP3, AAC, WMA, RM, FLAC, OGG Vobis, AC3*, DTS* format

5.1 Or 7.1 down-mixing

I2S and SPDIF/IEC958 digital output (optional)

*need license

3. Output

3.1 Stereo Audio Output

Line Out: 3.5mm Stereo Jack

Speaker Out: 4pin 2.0mm Stereo 3W (8Ω)

3.2 Multi-channel Audio Output

Standard Toslink Port: 5.1 or 7.1 in RAW format

4. Jack and Connector

4.1 Supported Connections

1x 12 Key IR Remote control with virtual mouse support

1x Single Channel LVDS port, support up to 1366*768 resolution

1x Dual Channel LVDS port, support up to 1920*1080 resolution

1x eDP port, support up to 1920*1080 resolution

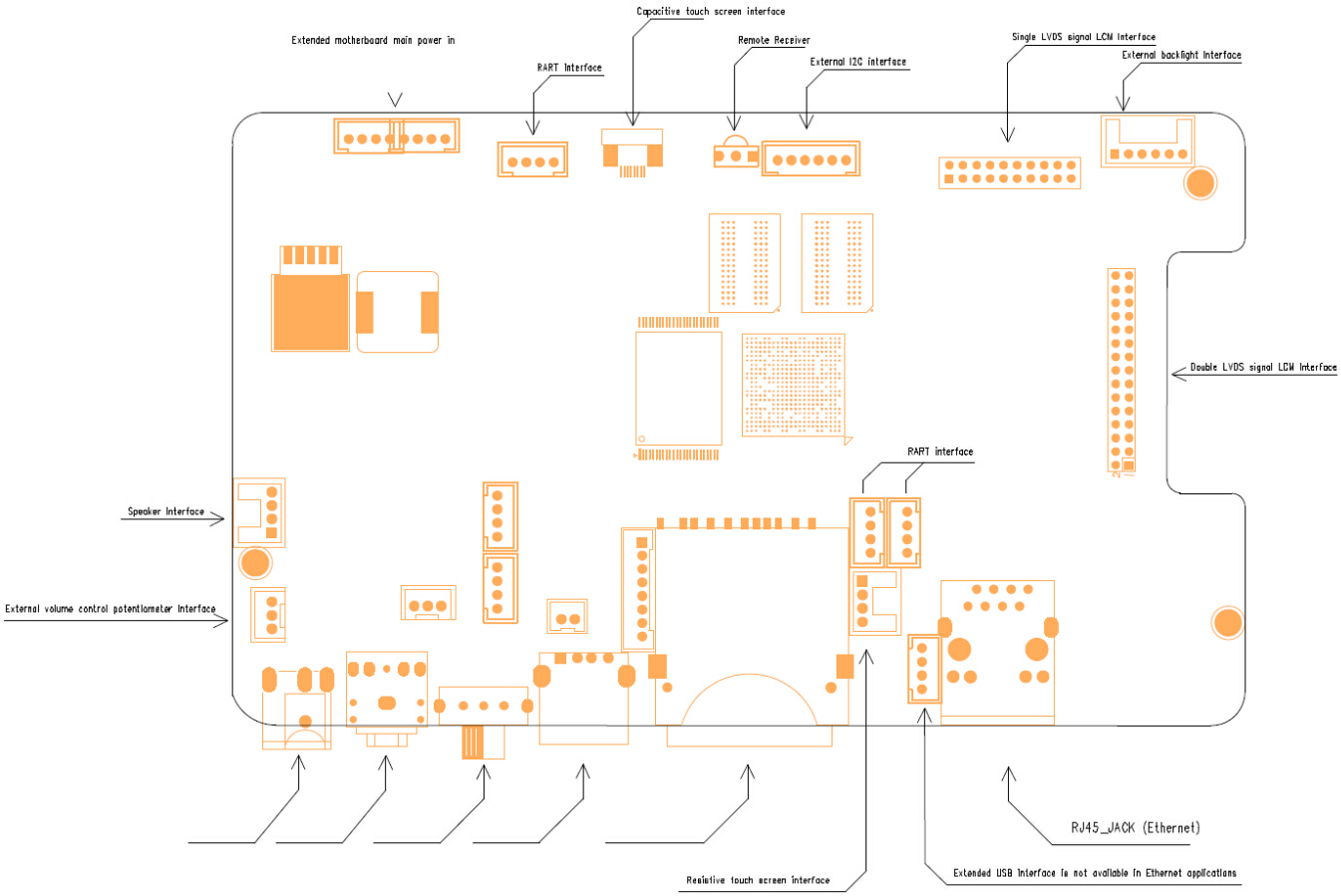
1x 10/100M RJ45 Ethernet Port (optional)

2x Standard High-speed USB 2.0 Host ports can support USB Thumb Drive, USB HDD, USB Camera, USB Mouse/Keyboard, USB Joystick, etc.

2x On-board USB Host port, support Infrared Touch Panel, SAW Touch Panel, USB Camera, USB 3G/4G Modem, etc.

3x RS-232 Serial Port, can support thermal printer and communicate with other devices.

4.2 Jacks and Connectors on board



5. Environment

Operating Temperature:

-20 to +40℃

Operating Humidity:

80% max, relative humidity, non-condensing

6. Electrical Characteristics

Item	Symbol	Condition	Min.	Typ.	Max.	Unit	Remark
Supply Voltage	V_{cc}	GND = 0	9	12	15	V	
Supply Current	I_{cc}	V_{cc} = 12		<1200		mA	

For PoE enabled Models:

Input：37V-57V from PoE Switch
Output：12V/1.5A/18W
Datarate：10/100Mbps, 100 Meters on CAT5 cable
PoE Pin Pair：12+/36- and/or 45+/78-
PoE Protocol：IEEE 802.3AF/AT

7. Mechanical

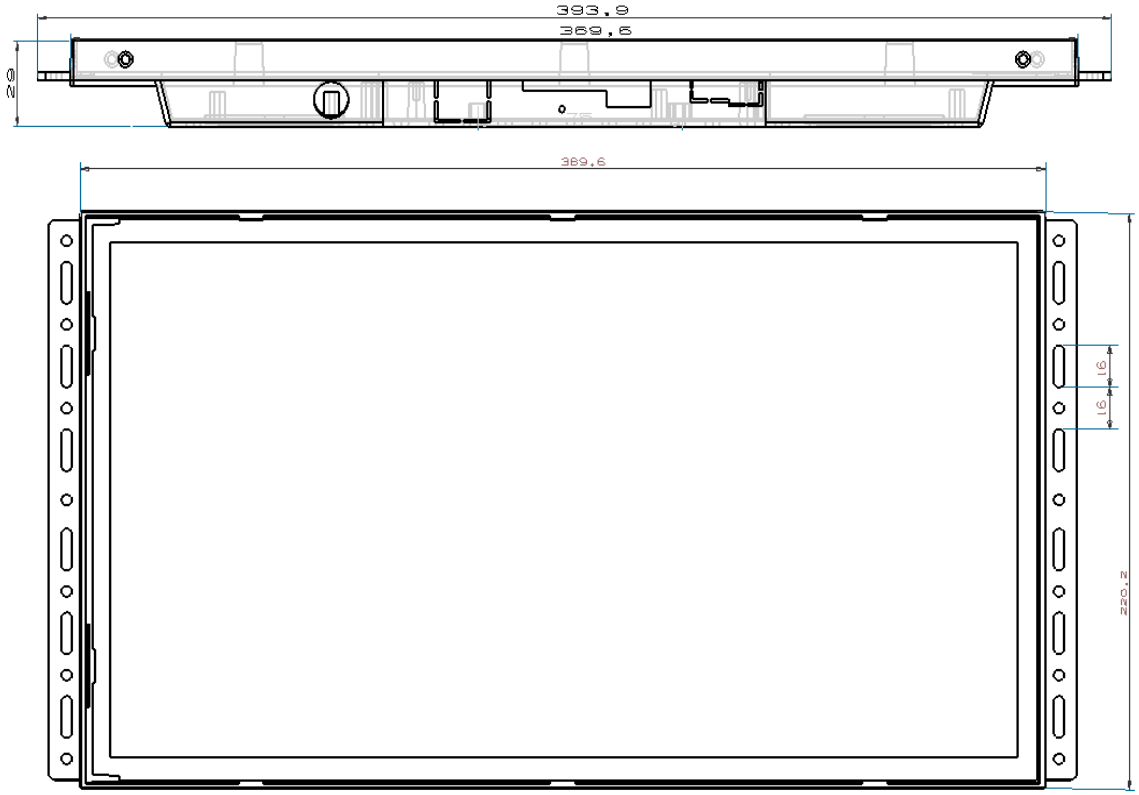
7.1 Overall Dimension

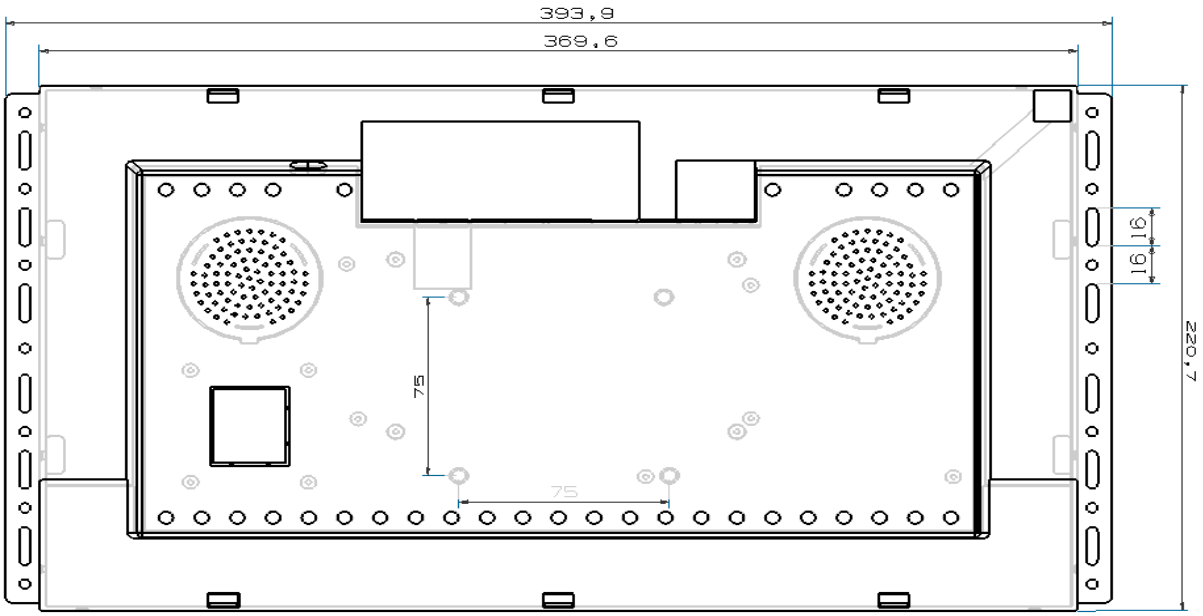
Dimension	ASD-156W/R/E	ASD-156C/CE	Unit
Length	393.9	383.1	mm
Width	220.7	242.8	mm
Thickness	29.0	31.8	mm

7.2 Mechanical Drawing

Model A: ASD-156W/R/E

Plastic Open frame





Model B: ASD-156C/CE
Plastic Complete Housing with Capacitive Touch Screen and VESA mounting hole

Drawing T.B.D

8. LCD Panel

The following items are characteristics summary on the table at 25℃ conditions:

Model A: ASD-156W/R

Item		**Specification**	**Unit**
Module Size		359.5 (H) × 223.8(V) ×3.8(D)	mm
Active Area		344.2 (H) × 193.5(V) (15.6” diagonal)	mm
Bezel Opening Area		349.58(H) x198.29 (V)	mm
Pixel Number		1366 x R.G.B. x 768	pixel
Pixel Pitch		0.252 (H) x 0.252 (V)	mm
Display Colors		262,144	color
Brightness		200	cd/m^2
Contrast Ratio		500:1 Typ.	-
Response Time		16	Ms
View Angle	Up	15	Deg.
	Down	35	Deg.
	Left	45	Deg.
	Right	45	Deg.
Power Consumption		3.7	Watt
Weight		440	g
LED Life time		12,000	Hours

Model B : ASD-156E/C/CE

Item		**Specification**	**Unit**
Module Size		359.5 (H) × 223.8(V) ×4.2(D)	mm
Active Area		344.2 (H) × 193.5(V) (15.6” diagonal)	mm
Bezel Opening Area		349.58(H) x198.29 (V)	mm
Pixel Number		1920 x R.G.B. x 1080	pixel
Pixel Pitch		0.17925 (H) x 0.17925 (V)	mm
Display Colors		262,144	color
Brightness		300 Typ./ 270 Min.	cd/m^2
Contrast Ratio		800:1 Typ.	-
Response Time		16	ms
View Angle	Up	85	Deg.
	Down	85	Deg.
	Left	85	Deg.
	Right	85	Deg.
Power Consumption		6.2	Watt
Weight		400	g
LED Life time		15,000	Hours

Note: We have others panel with different view angle, resolution and brightness as option, please contact our sales for more information.

9. Pictures

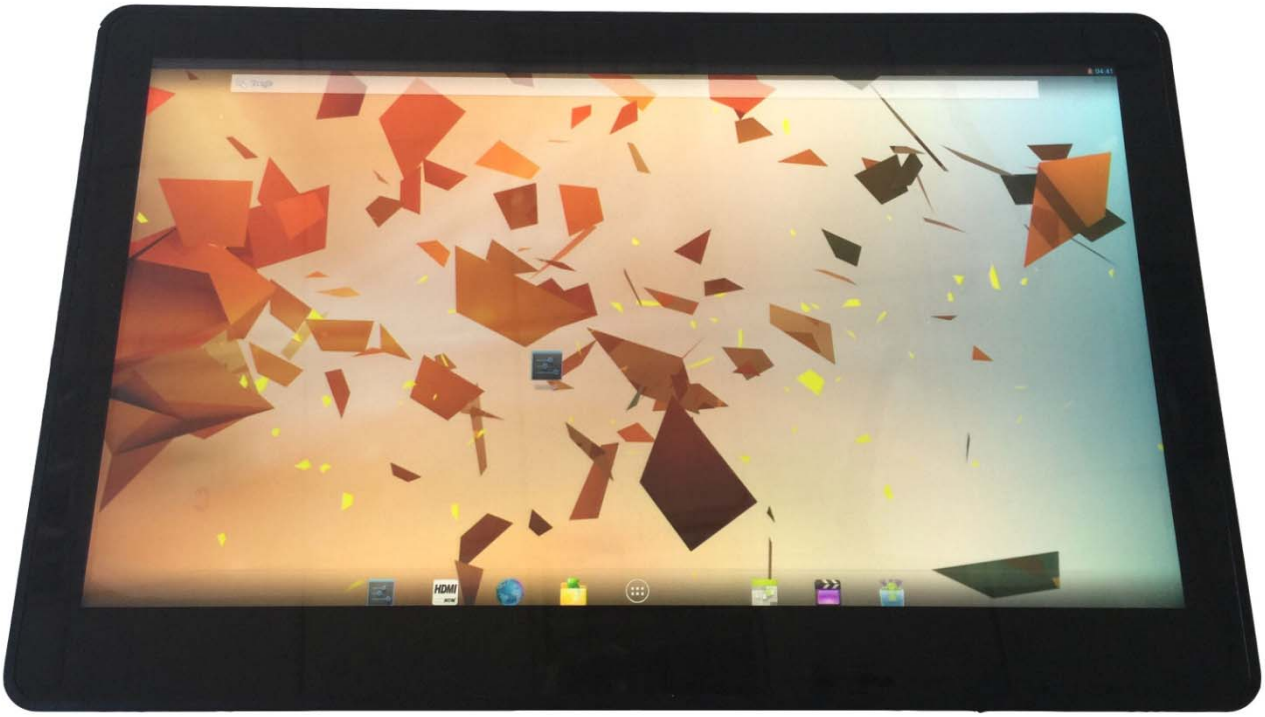
Model A: ASD-156W/R/E

Front:

Back:

Model B: ASD-156C/CE

Front:



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