

# ES-2106/2206

## 6.5" Open Frame and Rugged Panel Mount Monitor



### Features

- 6.5" LCD supports 640 x 480 pixels and wide operating temperature (-20 ~ 70° C)
- Resistive or Capacitive touchscreen and 3 mm tempered glass options
- Versatile mounting brackets
- Modular architecture for efficient integration
- Special back cover designed for 3.5" SBCs and ARK-1000 series box computers
- Sunlight readable (optional)
- Ultra-high brightness up to 1000 cd/m2 with LED backlight technology (optional)
- Rugged aluminum front bezel design (ES-2206)
- VGA or LVDS interface (S-Video: optional)

### Introduction

The Advantech ES-2106/2206 Embedded Open Frame and Rugged Panel Mount Monitor series offer flexible options for LCD, touchscreen, signal interface and chassis mounting. The back cover has mounting holes for industry standard 3.5" SBCs; or Advantech ARK-1000 embedded box computers. The series supports panel and VESA mounting, and is supplied with four versatile mounting brackets for different integration applications. The Advantech Display Solutions Selection Wizard (<http://www.advantech.com.tw/ePlatform/DS/DisplaySolution.asp>) enables easy selection of model numbers by choosing the required options.

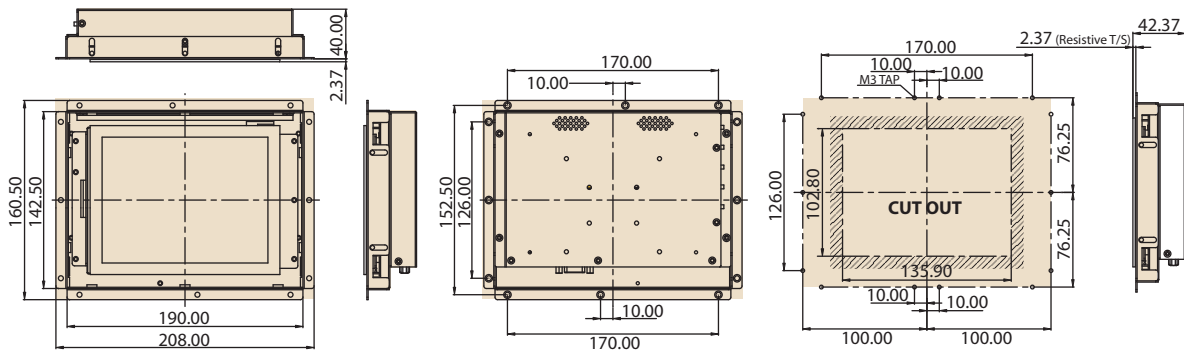
### Specifications

Processor System	I/O Ports	15-pin D-sub, DC power input, RS-232 port, Power Switch and OSD keys (Auto-tune, menu, decrease, increase)			
	Display Input Signal	Analog RGB, 0.7 VP-P / 75 Ohm, optional LVDS			
	Multi-Scan Mode	Multi-Scan Mode supports VGA, SVGA			
	OSD Control	Keys: Auto-tune, menu, decrease and increase Functions: Brightness, Contrast, Clock, Phase, Horizontal Position, Vertical Position and Sharpness			
	Power	External 48 W power adapter, with AC 100 ~ 230 V input and DC +12 V @ 4 A output			
	Dimensions (W x H x D)	Please refer to the product dimension diagram on next page			
Environment	Weight	ES-2106: 1.5 kg ES-2206: 1.8 kg			
	Operating Temperature	-20 ~ 70° C (-4 ~ 158° F)			
	Storage Temperature	-20 ~ 80° C (-4 ~ 176° F) for standard LCDs			
	Humidity	5 ~ 95% @ 40° C, non-condensing			
	Shock	10 G peak acceleration (11 ms duration)			
Display	EMC Approved	CE FCC			
	Feature	Standard	Sunlight Readable		
	Size	6.5"	6.5"		
	Resolution (pixels)	640 x 480 VGA	640 x 480 VGA		
	Number of Colors	16.2 M	16.2 M		
	Viewing Angle (L/R/U/D)	70°/70°/60°/60°	70°/70°/60°/60°		
	Brightness (cd/m2)	500	600		
	Contrast Ratio	600:1	600:1		
	Response Time (ms)	25	25		
	Lamp Life (hrs)	50,000	50,000		
	Long-term Support	Yes	Yes		
	Anti-reflection	N/A	Yes		
Touchscreen	Type	Analog Resistive	Capacitive	SAW	Infrared
	Thickness	1.87 mm	3.18 mm	N/A	N/A
	Resolution	continuous	1024 x 1024	N/A	N/A
	Light Transmission	over 80%	85%	N/A	N/A
	Controller Interface	RS232/USB	RS-232	N/A	N/A
	Power Consumption	+5 V @ 20 mA	+5 V @ 100 mA	N/A	N/A
	Durability (Touches)	36 million hrs	225 million hrs	N/A	N/A
	Driver OS Support	DOS, Linux, Mac, Windows 95/98/NT/ME/CE/2000/XP			

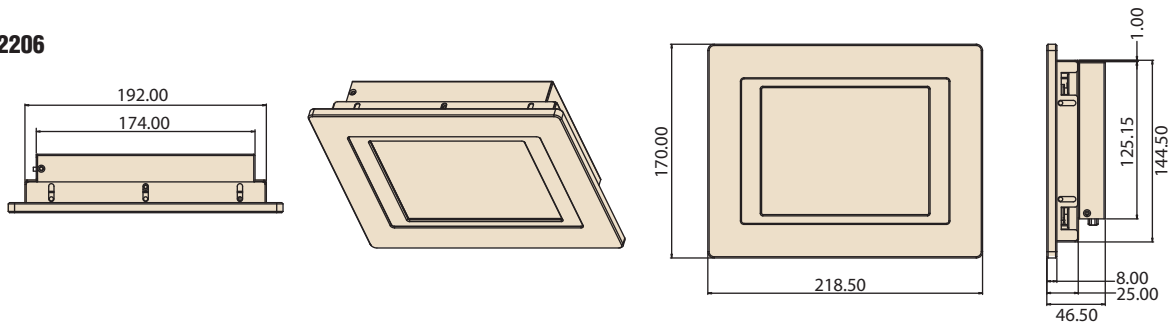
## Dimensions

Unit: mm

### ES-2106



### ES-2206



## Ordering Information

P/N	Type	Brightness (cd/m <sup>2</sup> )	Interface	Touchscreen	Touch Interface	Anti-Reflection
ES-2106G-VVAE	Open Frame	500	VGA	Tempered Glass	N/A	N/A
ES-2106R-VVAE	Open Frame	500	VGA	4-Wire Resistive	RS-232	N/A
ES-2106C-VVAE	Open Frame	500	VGA	Capacitive	RS-232	N/A
ES-2106R-LVA-05E	Open Frame	500	LVDS	4-Wire Resistive	RS-232	N/A
ES-2206R-VVAE	Rugged panel mount	500	VGA	4-Wire Resistive	RS-232	N/A
ES-2206C-VVA-SRE	Rugged panel mount	600	VGA	Capacitive	RS-232	Yes

### Notes:

- 1.) Capacitive, SAW and Infrared touch panels are recommended for applications requiring sunlight readable outdoor solutions.
- 2.) The list above is of major part numbers for your reference. Other combinations of LCD, touchscreen and signal interface features can be found in the Advantech Display Solutions. The Selection Wizard (<http://www.advantech.com.tw/ePlatform/DS/DisplaySolution.asp>) or CTOS services can be used to get your demand configuration and part numbers to us for ordering.
- 3.) For special requests, we welcome you to use the Display Solution DTOS service.