



# INDUSTRY



RUGGED PANEL PC

A4R SERIES

## 12" A4R 6512 XG



12"

### Key Features

- > IP68/NEMA 6P waterproof
- > CE/EN compliant & ATEX capability
- > Rugged touch screen (glass to glass technology)
- > Optional 12/16 programmable function buttons
- > Multiple I/O & reconfigurable pin-out
- > High connectivity with flexible positioning of the connectors
- > USB front connector
- > Performing CPU & GPU up to Intel Core™ i7
- > ROHS compliant

**IRTS 6512XG** is a 12" smart panel of the A4R Family, a comprehensive range of 10" to 17" IP68 / NEMA 6P rugged panel PCs.

Its specific design, advanced processing, graphic display and video capabilities meet the evolving and operational needs of industry sectors and cope with the toughest environments.

**A4R Technology**, based on mechanical and electronic common architecture, generates modular and flexible configurations. It allows selecting screen sizes (10", 12", 12"W, 15", 15"W & 17"W), brightness level and processors performance.

Tightly coupled with client hardware and software - control, command, communication systems - open-ended electronic architecture and easy mounting make it the choice of prime system integrators as a reliable, configurable, upgradeable, best cost and lead time COTS (Commercial Off The Shelf) equipment in operational use today.

See also the other smart panels in the A4R series specifically designed for your Airborne, Army or Navy applications, as well as the displays of the A4RD series.

[www.irts.fr](http://www.irts.fr)

RUGGED ELECTRONICS, COMPUTERS & DISPLAYS



## PRODUCT SPECIFICATIONS

Display Module	
	<b>Size</b> 12"
	<b>Resolution</b> 1024 x 768 (XGA)
	<b>Brightness</b> 700 Cd/m <sup>2</sup> (LED Technology)
	<b>Pixel pitch</b> 0.24 (H) x 0.24 (V) mm
	<b>Viewing angles</b> 85-85 (H) / 85-85 (V)
	<b>Response Time</b> 24 ms (Tr+Tf) White to Black
	<b>Contrast Ratio</b> 1000 : 1
	<b>Display Color</b> 16.2 M (Dithering)
	<b>Dimming ratio</b> up to 10 Cd/m <sup>2</sup>
	<b>Touch screen characteristics</b> Resistive 5 wires Glass to Glass technology
Controls	
	<b>Remote control</b> Backlight, blackout and On/Off control in front
	<b>Additional control capability</b> 3 free programmable function keys
<b>Option</b>	<b>Additional front control buttons</b> 6 x 2 programmable function buttons
Integrated Computer	
	<b>Microprocessor</b> Intel® Core™ i3-6100U (6th Generation)
	<b>Memory</b> 4 GB, up to 16 GB DDR4 SO-DIMM
	<b>Graphic controller</b> Integrated GPU
	<b>Serial Ports</b> 4 x Serial multiprotocol V11/V24 Soft. Conf.
	<b>Digital I/O</b> 4 x opto-isolated (Input / Output)
	<b>Audio</b> 1 x Out mono, 1 x In mono
	<b>USB 2.0</b> 1 x External / 1 x Front panel
	<b>Ethernet</b> 1 x 10/100/1000 Mbits
	<b>Extension slots</b> 1 x mini PCIe + 1 x IRTS format extension board
	<b>Disk</b> SSD 32 GB SATA (iSLC), up to 512 GB
	<b>Operating system</b> Windows Seven Embedded 64bits or Linux Xubuntu 16.04 64 bits
	<b>Security Feature</b> TPM 2.0
	<b>BITE</b> Unit Management Software
Electrical Features	
	<b>Power supply</b> Power 18/36 VDC with galvanic isolation
	<b>LiPo</b> Internal LiPo battery option
	<b>PLD</b> Power Line Disturbance optional module
	<b>Power consumption</b> 50 W normal environment cond. 80 W max in cold environment
Physical Features	
	<b>Dimensions</b> 315 x 260 x 83 mm
	<b>Weight</b> 7.3 Kg
	<b>Mechanical fixing</b> 200 x 200 - 4 x M8
	<b>Packaging / color</b> Aluminum / GAM C BLACK 36X3 (Other colors available)
Connectors Types & Position	
	<b>Connectors position</b> UP in standard or either DOWN, LEFT, RIGHT
	<b>Connectors type</b> FISCHER DBPLU - sizes 103 & 105
	<b>Front USB Connector</b> 1 x Fischer DBPLU serie 102 on front panel
	<b>Connecteur Caps</b> Standard on front, optional on the others connectors
Options	
	<b>Composite Video</b> 1 x Coaxial composite PAL/NTSC (BNC)
	<b>Optical bonding</b> Bonding LCD Panel
Warranty	
	Two-year limited warranty (parts and labor)
	Additional coverage and customized service plans available on request



IRTS

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RUGGED ELECTRONICS, COMPUTERS &amp; DISPLAYS

## RANGE OF DISPLAYS

A4R offers a wide range of smart panels whose 6 monitor's screen sizes and 2 brightness levels will meet your needs for your indoor and outdoor applications. IRTS has designed 3 additional A4R panels - 13"HD, 15"WX and 17"WU - whose screen sizes could meet your specific needs (contact us for more information).



A4R LCD DISPLAYS	10"4	12"	15"	12"W	15"6 W	17"3 W
	XGA	XGA	XGA	WXGA	HD	
A4R Series	A4R10 XG	A4R12 XG	A4R15 XG	A4R12 WX	A4R15 HD	A4R17 HD
Screen Ratio	4/3	4/3	4/3	16/10	16/9	
Resolution	1024 x 768	1024 x 768	1024 x 768	1280 x 800	1920 x 1080	
A4R Standard Luminance cd/m <sup>2</sup>	600	700	700	700	400	300
Viewing Angles	85°/85°-85°/85° IPS™	85°/85°-85°/85° IPS™	85°/85°-85°/85° IPS™	85°/85°-85°/85° IPS™	80°/80°- 65°/80°	80°/80°- 60°/80°
A4R Outdoor Luminance cd/m <sup>2</sup> (option)	700	900	1000	1000	On customer request	
Viewing Angles	80°/80°- 80°/80°	80°/80°- 80°/80°	80°/80°- 60°/80°	80°/80°- 60°/80°		
Sunlight readability (option)	IRTS bonding technology (applicable to standard & outdoor versions)		IRTS bonding technology (applicable to standard & outdoor versions)		IRTS bonding technology (applicable to standard & outdoor versions)	

## PRODUCT RANGE

Depending on the application, our range offers products that will comply with your size, ruggedization and environmental conditions requirements.

Oil & Gas, Mining  
Maritime, ATEX

A4R for Industry		A4R Range	
		SKU L	
Display Size	A4R Series	Rugged Model	
10"	10"4 XGA (1024 x 768)	6510 XG SK1	
12"	12" XGA (1024 x 768)	6512 XG SK1	
	12" WXGA (1280 x 800)	6512 WX SK1	
15"	15" XGA (1024 x 768)	6515 XG SK1	
	15"6 HD (1920 x 1080)	6515 HD SK1	
17"	17"3 HD (1920 x 1080)	6517 HD SK1	
Power Supply Characteristics		18/36 VDC	
DC Power Supply		85/265 VAC 50-400Hz	
AC Power Supply			
1 Ruggedization Level		Operating Environmental Conditions	
Operating Temperature Range		Level L	
Standard range		- 20° to + 55°C	
Option		- 32° to + 60°C	
Mechanical EN60069		Level L	
Vibrations		10-500 Hz: 2G/3 axes to EN 60068-2-6	
Shocks		30 g 11 msec Half Sine, 3 axes to EN 60068-2-27	
EMC/EMI CE Standards		Level L	
EN 61000 - Generic standards		EN 61000-6-2, Immunity for industrial environments	
EN 55022 - Radio disturbance		EN 55022 Class B, Emission & susceptibility	



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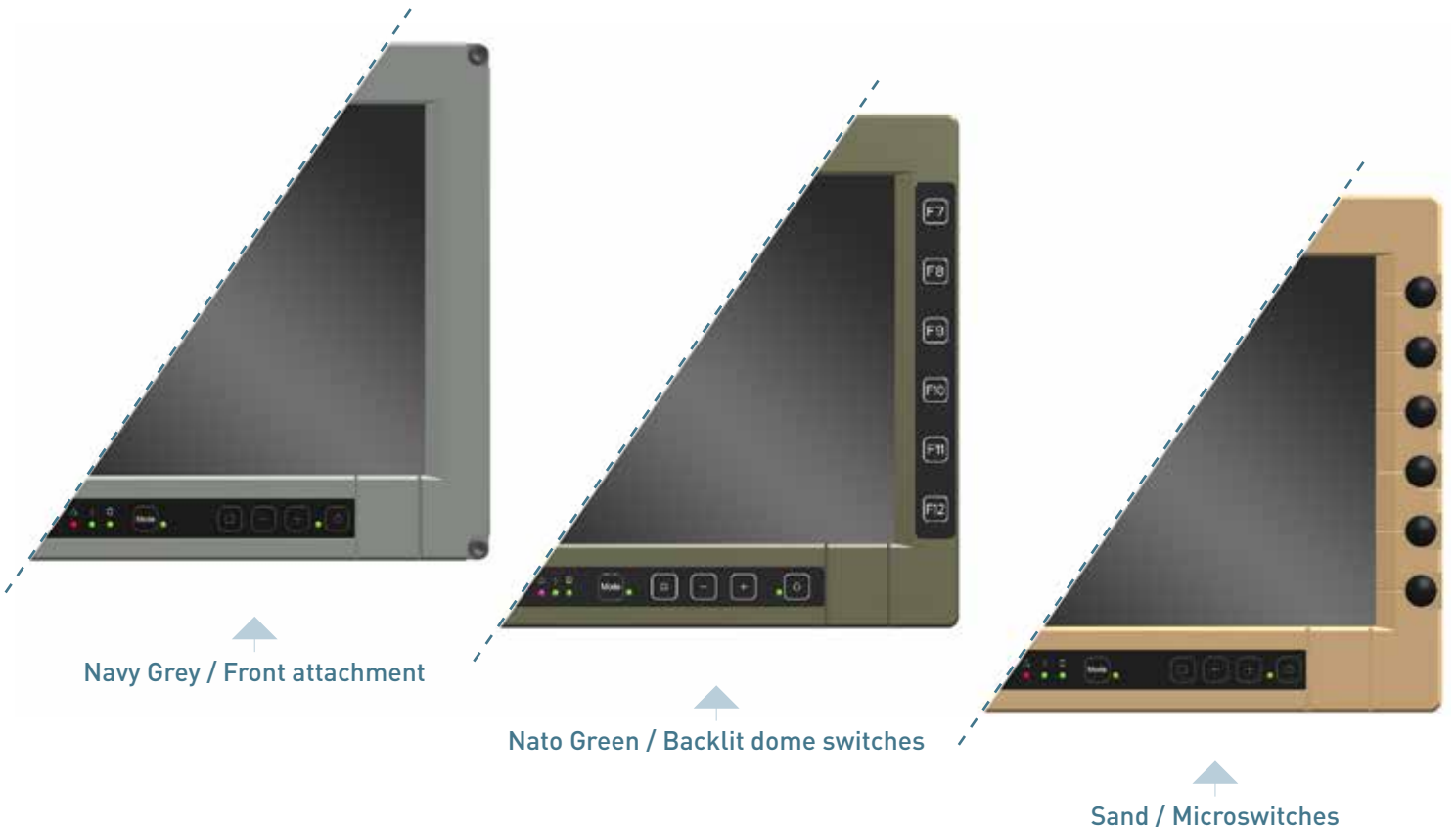
## ENVIRONMENTAL CONDITIONS

The table below shows our benchmark for environmental standards.

Environmental conditions	
Vibrations	EN 60068-2-6
Shocks	EN 60068-2-27
EMC	EN 61000-6-2, EN 55022 Class B
Humidity	10 % to 90 % Relative Humidity, non-condensing
Operating temperature	EN 60068-2-32
Waterproofness	IP 68 / NEMA 6P, immersion 1 meter

## FRONT BUTTONS OPTIONS AND PRODUCT MOUNTING

Front buttons can be proposed as option. Contact us.  
 Standard rear mounting is assured by 4 x M8 screws.  
 Front attachment is made on specific request with Minimum Quantity Order.  
 It offers 4 x M5 screws for front mounting.



## COLOR PRODUCT

Standard color is black (GAM C Black 36X3).  
 Other colors can be proposed on request with Minimum Order Quantity.



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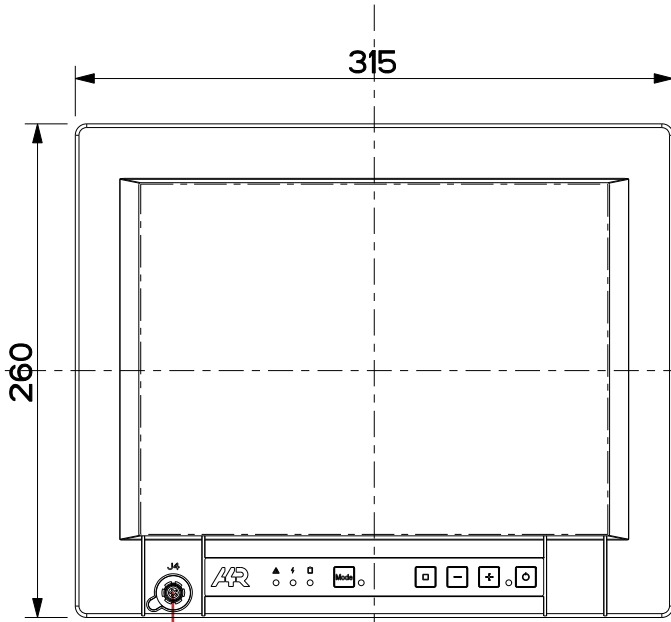
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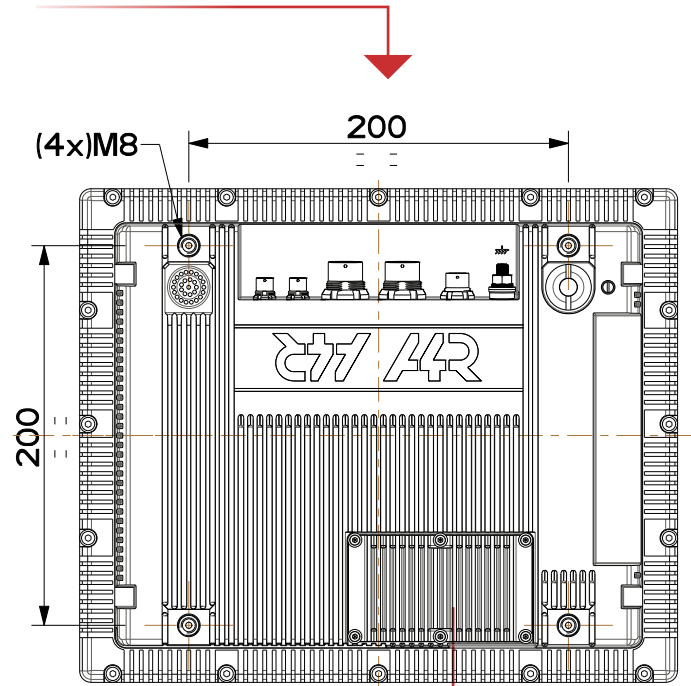
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# TECHNICAL LAYOUT

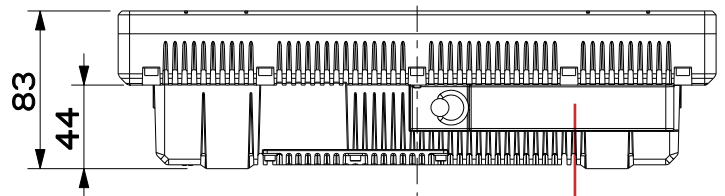
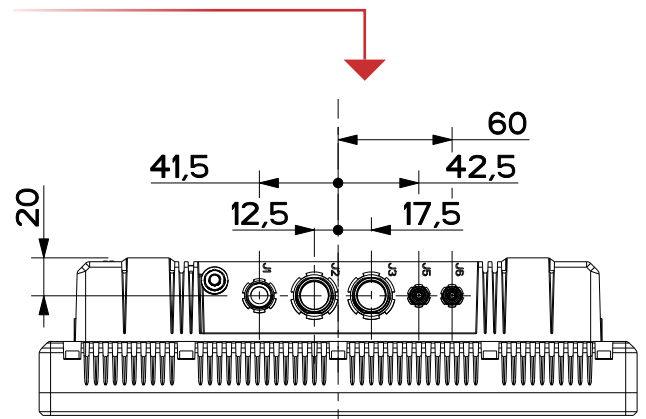
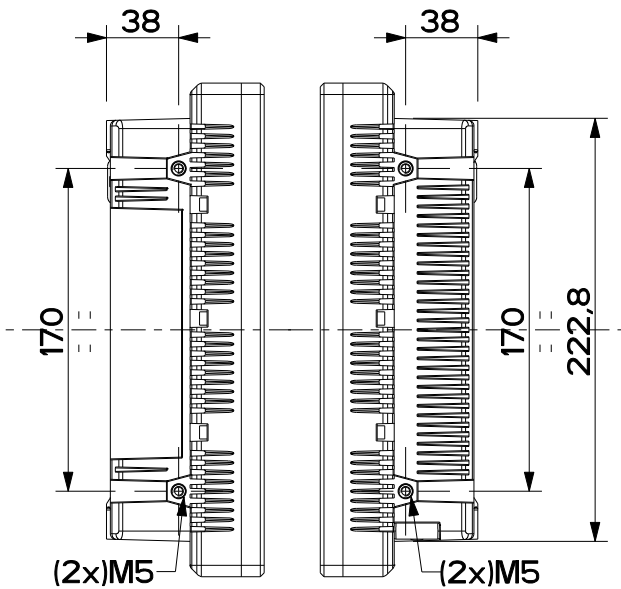
Dimensions are in millimeters (mm).



Standard front USB connector that can be removed as an option



Optional battery hatch



Optional removable hard drive hatch



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