



MILITARY



MULTI-FUNCTION DISPLAY

A4RV SERIES

## 12" A4RV 6712XG



**Real Time Analog Video  
Smart Display  
with Overlay Capabilities**

12"

### Key Features

- > Analog Video PIP
- > Overlay drawing
- > Real Time Sight
- > Low latency video
- > 1 level of overlay
- > Full MIL specs qualified
- > Optional front buttons
- > Optional USB front connector
- > Compact size
- > RoHS compliant

IRTS A4RV 6712XG an analog video Multi-Function Display combines the functionality of an A4R Panel PC with a powerful hardware real-time video processing with overlay capabilities.

Designed for low-latency display of optoelectronic video, these MFDs are particularly suitable for use in firing systems, with low contribution in the feedback firing loop.

A4RV features the functionality of an A4R Panel PC with:

- > 4 analog backup video inputs PAL/NTSC with optimized de-interlacing algorithms
- > 1 level of overlay with graphic co-processing for real-time display of graphic objects (for augmented reality) managed by A4R CPU

A4RV series allows to select 3 XGA screen sizes (10", 12", 15") equipped or not with a rugged analog-resistive "glass to glass" touchscreen and optional, lighted or not, front function buttons.

A4RV MFDs represent the high-end models of our A4R Panel PC range which meet the operational needs of modern Armed Forces (shooting reticule, BMS, infrared video display, target tracking, real-time sight) and cope with the roughest environments

For others screen sizes or resolutions, please ask us.


**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>Dot 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>Color resolution</b>	16.7 M
<b>Dimming ratio</b>	up to 10 Cd/m <sup>2</sup>
<b>Touch screen characteristics</b>	Resistive 5-wire Glass to Glass technology
Controls	
<b>Remote control</b>	Backlight, blackout and On/Off control in front
Integrated computer	
<b>Microprocessor</b>	Intel® Atom™ E3845, 4x1.91GHz
<b>Memory</b>	4Gb DDR3L SO-DIMM
<b>Graphic controller</b>	Intel® HD Graphics (Gen7)
<b>Serial Ports</b>	1 x Serial multiprotocol V11/V24 Soft. Conf.
<b>Digital I/O</b>	3 x opto-isolated (3 x Input)
<b>USB 2.0</b>	2 x USB2.0 (1 x in front)
<b>Ethernet</b>	1 x 10/100/1000Mbits, Intel® I210IT
<b>Disk</b>	SSD 16Go SATA
<b>Can bus</b>	1 x 2.0B (Data rate up to 1Mb/s)
Video input/Overlay	
<b>Input : 1 video from</b>	1 x VGA input 4 x CVBS inputs (PAL) or STANAG 3350 B or C (monochrome)
<b>Overlay</b>	1 configurable transparent colour for the overlay Video is visible only on the surfaces where the computer is displaying the transparent colour Total reponse time on video : 40 ms
Video output	
<b>Image capture</b>	On CAN trigger or Software request
<b>Video output</b>	1 x VGA output
Software	
<b>Operating system</b>	Linux Xubuntu, ElinOS, Windows
<b>BITE</b>	Unit Management Software and UTV Management
Electrical Features	
<b>Power supply</b>	Power 18/36V DC with galvanic isolation - 1275D compatible
<b>Power consumption</b>	50W without heating device 80W with heating device
Physical Features	
<b>Dimensions</b>	315 x 260 x 75 mm
<b>Weight</b>	6,3 Kg
<b>Mechanical standard</b>	200 x 200 - 4 x M8
<b>Packaging / Painting / Color</b>	Aluminium / NORMEDEF 00001/ BLACK
Connectors	
<b>Position</b>	UP and LEFT
<b>Type</b>	Type MIL-DTL-38999 III (Black Zinc Nickel) sizes 11 & 13
<b>Front USB Connector</b>	1 x Fischer DBPLU (core) serie 102 on front panel
<b>Connector Caps</b>	Standard on front, optional on the others connectors
Warranty	
	Two-year limited warranty (parts and labor) Additional coverage and customized service plans available on request



IRTS

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## RANGE OF DISPLAYS

A4RV offers a range of panel PCs whose 3 monitor's screen 10", 12" and 15".

A4RV LCD DISPLAYS ANALOG VERSION	10"4	12"	15"
	XGA	XGA	XGA
A4RV Series	A4RV10 XG	A4RV12 XG	A4RV15 XG
Screen Ratio	4/3	4/3	4/3
Resolution	1024 x 768	1024 x 768	1024 x 768
A4RV Standard Luminance cd/m <sup>2</sup>	600	700	700
Viewing Angles	85°/85°-85°/85° IPS™	85°/85°-85°/85° IPS™	85°/85°-85°/85° IPS™
A4RV Outdoor Luminance cd/m <sup>2</sup> (option)	700	900	1000
Viewing Angles	80°/80°- 80°/80°	80°/80°- 80°/80°	80°/80°- 60°/80°
Sunlight readability (option)	<b>IRTS bonding technology</b> (applicable to standard & outdoor versions)	<b>IRTS bonding technology</b> (applicable to standard & outdoor versions)	<b>IRTS bonding technology</b> (applicable to standard & outdoor versions)

## 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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## ENVIRONMENTAL CONDITIONS

### Airborne

<b>Random Vibrations</b>	RTCA DO-160E Section 8 Cat.R Zone 2, Cat.U2, up to 5.95g RMS
<b>Sinus Vibrations</b>	RTCA DO-160E Section 8 Cat.R Zone 2 Curve L, up to 3g
<b>Shocks</b>	RTCA DO-160E Section 21.3 & 21.4 Cat.M
<b>Emission</b>	RTCA DO-160E Section 21.3 & 21.4 Cat.M,
<b>Susceptibility</b>	RTCA DO-160E Section 18 Cat. Z & Section 19 Cat. ZN, RTCA DO-160E Section 20 CS & RS Cat. Y
<b>Humidity</b>	RTCA DO-160E Section 6 Cat. A, T = +55°C, HR = 5 to 95%
<b>Operating temperature</b>	RTCA DO-160E Section 4.5.2 & 4.5.4 Cat. B1, -20°C / +55°C
<b>Waterproofness</b>	IP 68, immersion 1 meter

### Army

<b>Random Vibrations</b>	MIL-STD-810G Method 514.6, up to 5,93g RMS (Tracked vehicle)
<b>Bumps</b>	DEF-STAN 0035 TEST M12, 40gx6ms - 1000 shocks/axe
<b>Shocks</b>	STANAG 4370 AECTP400: Method 403, 44gx13ms half sine
<b>Emission</b>	MIL-STD-461E Army ground equipment CE102, RE102
<b>Susceptibility</b>	MIL-STD-461E Army Equipment CS101, CS114, CS115, CS116, RS103
<b>Humidity</b>	MIL-STD-810F Method 507.4 T = +60°C, HR = 5 to 95%
<b>Operating temperature</b>	MIL-STD-810F Method 501.4 & 502.4 Procedure II, -32°C / +60°C
<b>Waterproofness</b>	IP 68, immersion 1 meter

### Navy

<b>Random Vibrations</b>	MIL-STD-810G Method 514.6 Cat. 21 Method 528, up to 5.8g RMS
<b>Sinus Vibrations</b>	MIL-STD 167 Type 1, up to 1.28g
<b>Schoks</b>	DEF-STAN 0035 Part3, 30g 11msec half sine
<b>Emission</b>	MIL-STD-461E Naval equipment CE102, RE102
<b>Susceptibility</b>	MIL-STD-461E Naval equipment CS101, CS114, CS115, CS116, RS103
<b>Humidity</b>	MIL-STD-810F Method 507.4 T = +60°C, HR = 5 to 95%
<b>Operating temperature</b>	MIL-STD-810F Method 501.4 & 502.4 Procedure II, -32°C / +60°C
<b>Waterproofness</b>	IP 68, immersion 1 meter



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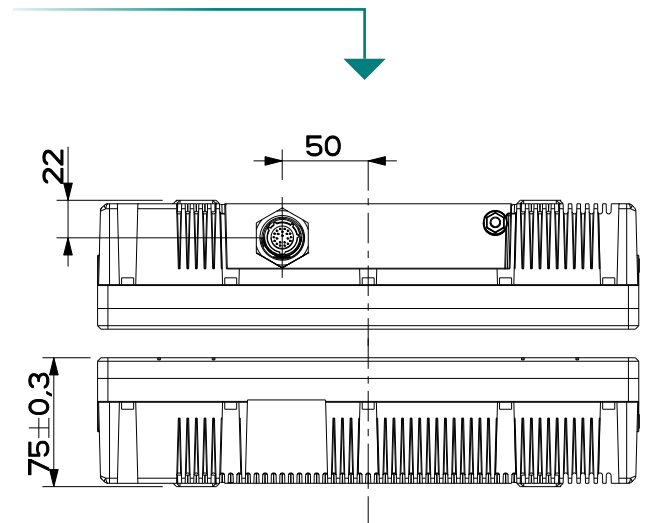
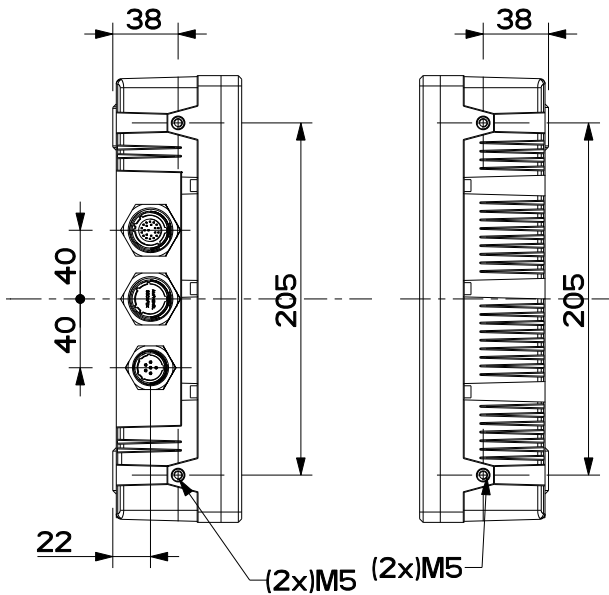
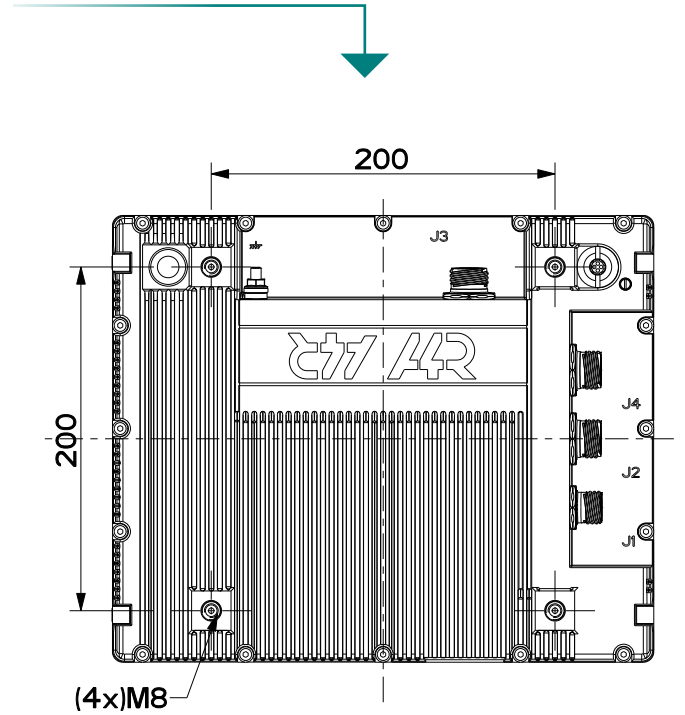
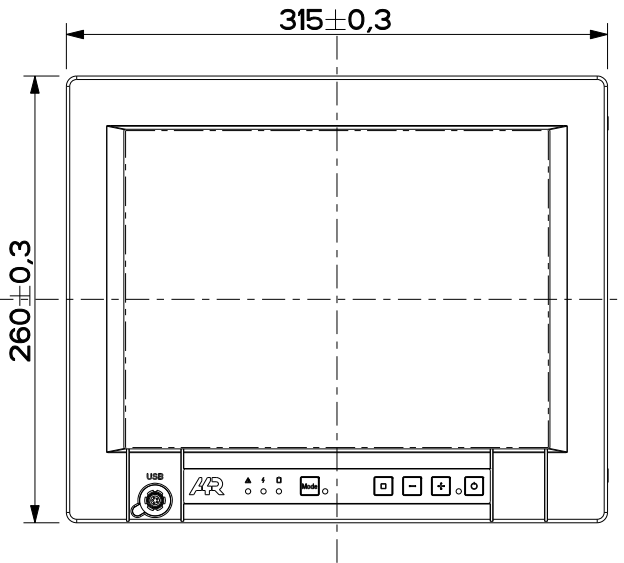
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TECHNICAL LAYOUT

Dimensions are in millimeters (mm).



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