



MILITARY



MULTI-FUNCTION DISPLAY

A4RV SERIES

12" A4RVN 6712WX



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

12"

Key Features

- > GigE Vision Video PIP
- > Overlay drawing
- > Real Time Sight
- > Low latency video
- > 6 levels of overlay
- > Full MIL specs qualified
- > Optional front buttons
- > Option USB front connector
- > Performing CPU & GPU
- > RoHS compliant

IRTS A4RVN 6712WX a digital 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.

In order to facilitate the growing use of augmented reality in battlefield management systems, the IRTS MFD hardware enables efficient drawing of graphical objects (shooting reticule, png/bmp, text, widget, bar graph, etc...) in multiple overlay planes, with no CPU impact.

IRTS A4RVN features the functionality of an A4R Panel PC added to a safe standalone display part (without any CPU load) with:

- > Gigabit Ethernet video interface (GigE Vision & DEF STAN-0082 compliant) with powerful hardware video processing for fixed, low latency video display
- > Or Analog backup video input PAL/NTSC with optimized de-interlacing algorithms
- > Up to 6 levels of overlay with graphic co-processing for real-time display of graphic objects (for augmented reality)
- > Real-time video/image JPEG2000 hardware compressor (for video recording or video streaming)

A4RVN series allows to select 2 WXGA screen sizes (12", 15") equipped or not with a rugged analog-resistive "glass to glass" touchscreen and optional, lighted or not, front function buttons. A4RVN MFDs represent the high-end models of our A4R Panel PC range which meet the operational needs of modern Armed Forces (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	
Size	12"
Resolution	1280 x 800 (WXGA)
Brightness	700 Cd/m ² (LED Technology)
Dot pitch	0.204 (H) x 0.204 (V) mm
Viewing angles	85-85(H) / 85-85(V)
Response Time	16 ms (Tr+Tf) White to Black
Contrast Ratio	700 : 1
Color resolution	16.7 M
Backlight	LED Technology
Dimming ratio	up to 10 Cd/m ²
Touch screen characteristics	resistive 5 wires (Glass to Glass)
Controls	
Remote control	Backlight, blackout and On/Off control in front
Integrated computer	
Microprocessor	Intel® Core™i7-6600U, 2x2.6GHz (6th Generation)
Memory	8GB DDR4 SO-DIMM
Graphic controller	Intel® HD Graphics 520 integrated
Serial Ports	1 x Serial multiprotocol V11/V24 Soft. Conf.
Digital I/O	5 x opto-isolated (4 x Input for IP@ selection, 1 x input for Power Management)
USB 2.0	2 x USB2.0 (1 x in front)
Audio	1 x stereo line out, 1 x stereo line in
Ethernet	1 x 10/100/1000Mbits, Intel® I210IT
Disk	SSD 128Go SATA (iSCL)
Can bus	1 x 2.0B (Data rate up to 1Mb/s)
Video input/Overlay	
Digital video input	1 x DVI/USB or Internal CPU video
Ethernet Video	1 x 10/100/1000Mbits - Gigavision or DEF STAN 00-82
Analog input	1 x PAL/CCIR - 750hms
Digital input	1 x HD-SDI - 750hms
	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 recorder	
Image capture	Video recorder capable with JPEG2000 codec
Software	
Operating system	Linux Xubuntu, Windows
BITE	Unit Management Software and UTV Management
Electrical Features	
Power supply	Power 18/36V DC with galvanic isolation - 1275D compatible
Power consumption	50W without heating device
	80W with heating device
Physical Features	
Dimensions	333 x 240 x 80 mm
Weight	7 Kg
Mechanical standard	200 x 200 - 4 x M8
Packaging /Painting/ Color	Aluminium / NORMEDEF 00001/ BLACK
Connectors selection & position	
Position	UP and LEFT
Type	Type MIL-DTL-38999 III Black Zinc Nickel
Front USB connector	1 x Fischer DPLU (core) serie 102 on front panel
Connector Caps	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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IRTS NATO CODE : FAAJ7

Contact : sales@irts.fr ■ www.irts.fr

RUGGED ELECTRONICS, COMPUTERS & DISPLAYS

RANGE OF DISPLAYS

A4RVN offers a range of panel PCs whose 2 monitor's screen 12" and 15".



A4RVN LCD DISPLAYS DIGITAL VERSION	12"	15"
	WXGA	WXGA
A4RVN Series	A4RVN12 WX	A4RVN15 WX
Screen Ratio	16/10	16/10
Resolution	1280 x 800	1280 x 800
A4RVN Standard Luminance cd/m ²	700	300
Viewing Angles	85°/85°-85°/85° IPS™	80°/80° (H) - 70°/70° (V)
A4RVN Outdoor Luminance cd/m ² (option)	900	NA
Viewing Angles	80°/80°- 80°/80°	NA
Sunlight readability (option)	IRTS bonding technology (applicable to standard & outdoor versions)	IRTS bonding technology (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

Random Vibrations	RTCA DO-160E Section 8 Cat.R Zone 2, Cat.U2, up to 5.95g RMS
Sinus Vibrations	RTCA DO-160E Section 8 Cat.R Zone 2 Curve L, up to 3g
Shocks	RTCA DO-160E Section 7 Cat. B, 30g 11ms half sine
Emission	RTCA DO-160E Section 21.3 & 21.4 Cat.M
Susceptibility	RTCA DO-160E Section 18 Cat. Z & Section 19 Cat. ZN, RTCA DO-160E Section 20 CS & RS Cat. Y
Humidity	RTCA DO-160E Section 6 Cat. A, T = +55°C, HR = 5 to 95%
Operating temperature	RTCA DO-160E Section 4.5.2 & 4.5.4 Cat. B1, -20°C / +55°C
Waterproofness	IP 68, immersion 1 meter

Army

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

Navy

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



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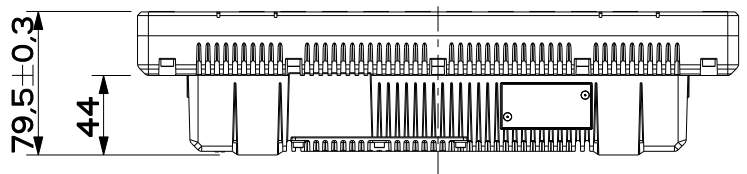
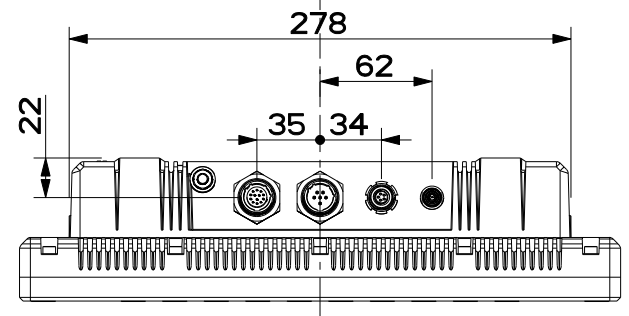
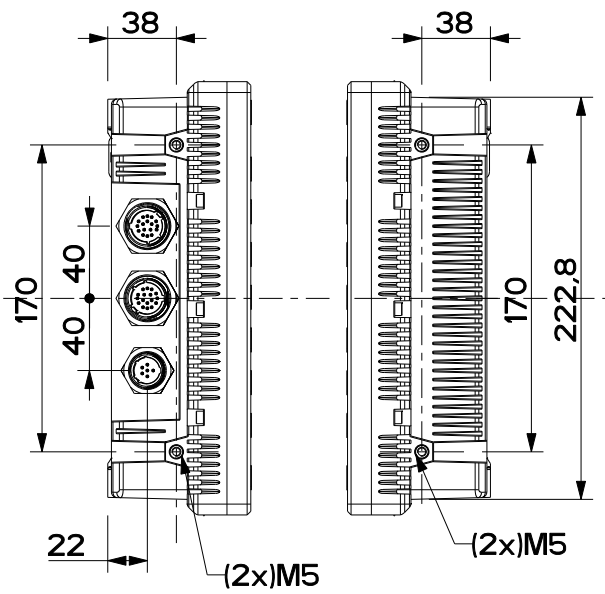
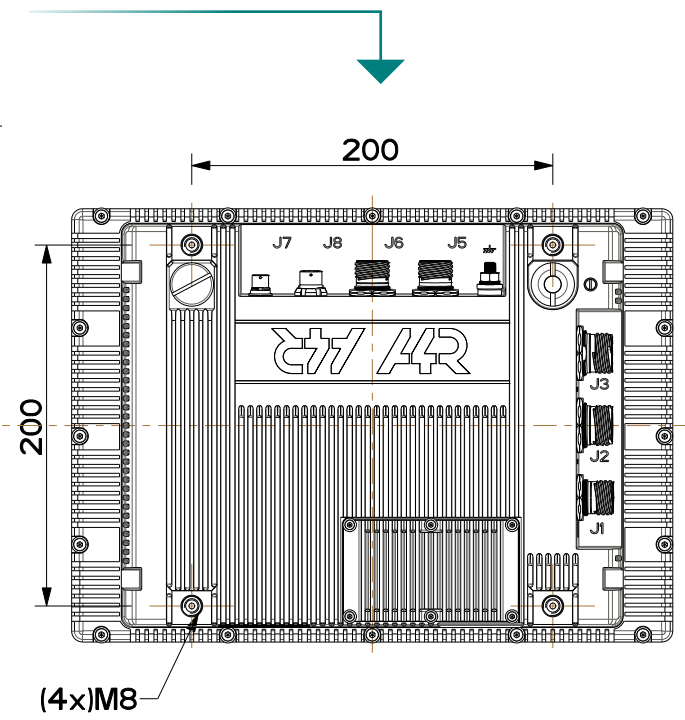
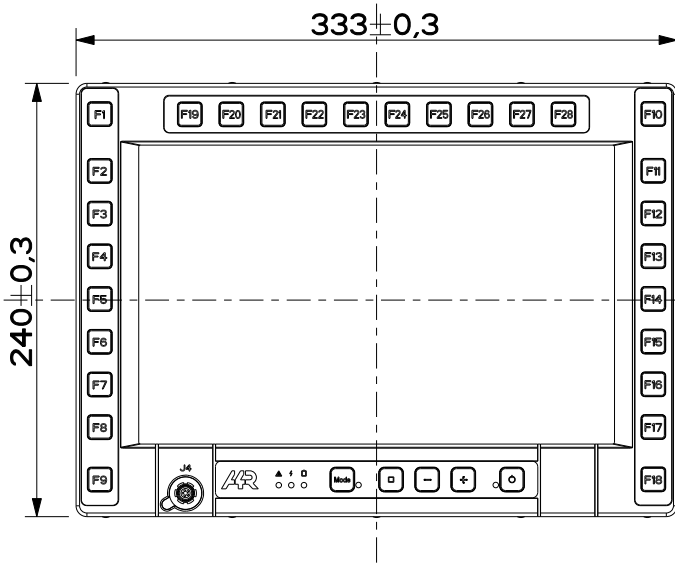
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TECHNICAL LAYOUT

Dimensions are in millimeters (mm).



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