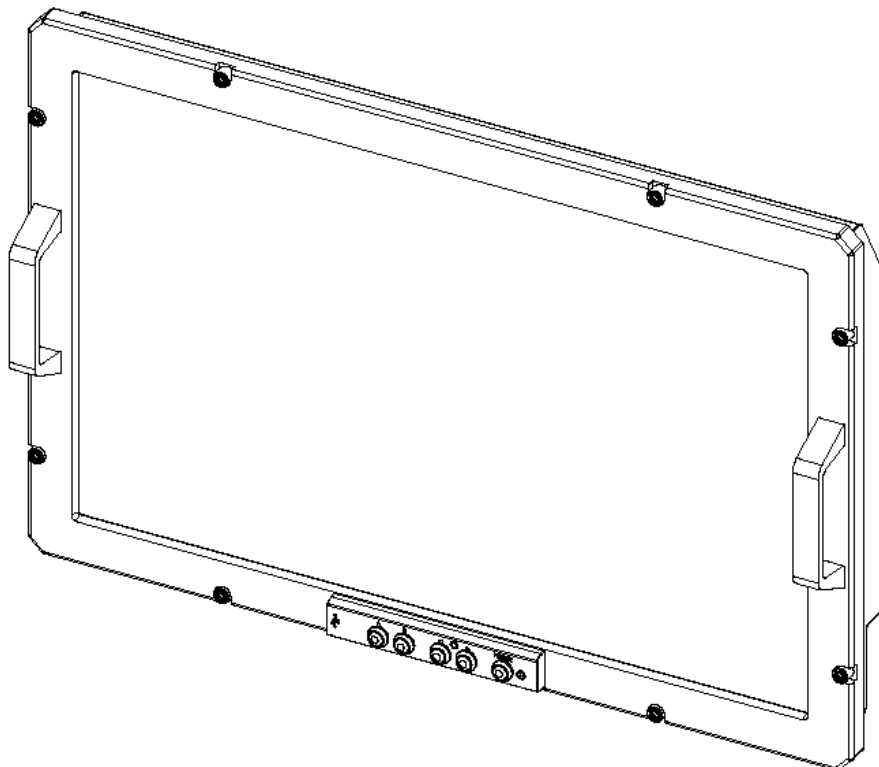# RF-27   27" Rugged COTS Display Series

Rugged Hi-Resolution Displays For Operation Critical Marine, Airborne and Ground Mobile Deployments

The RF-27 series of 27" displays are lightweight, rugged flat panel color monitors engineered to operate reliably under the demanding conditions routinely experienced during deployment in hostile environments. The RF-27 employs a 27" amorphous silicon active matrix LCD panel with WQHD (2560 x 1440) pixel resolution and True HD 16:9 Aspect Ratio. The rugged LED backlight system features 800:1 dimming over two ranges with adjustment below 0.5 cd/m^2. The RF-27 can be powered from selectable DC or AC sources and is convection cooled (no fans). The RF-27/Configuration 0 has been Flight Certified for Fixed Wing (Jet) applications but it is also ideally suited for Rotary Airborne, Ground Based Vehicle and Shelter applications. The 16.7M, True 8-bit color depth of the LCD panel makes the RF-27 ideal for Marine Sonar, Bridge and Navigation applications requiring high resolution.

- The RF-27 is available in several mechanical configurations to satisfy a wide range of mission requirements. Custom configurations are also available.
- The RF-27 comes standard with two A/B switchable Dual Link DVI inputs. Other configurations with support for Analog RGB, HDMI 1.4, Display Port, Composite Video and HD-SDI video are available.
- Active Heating for operation down to -40°C, Hi-Bright backlight enhancement for direct sunlight readability, Resistive and Multi-Touch Optical Touchscreens, NVG compatibility and ECDIS/N for Marine Bridge and Naval operations are available options.

Technical Specifications	
Panel Size	27.0" (684.7mm) Diagonal
Resolution	2560 x 1440 WQXGA; 16:9 AR
Active Display Area	23.49"(596.74mm) x 13.21"(335.66mm); 0.2331 pixel pitch
Luminance	380cd/m^2 (typ.); Optional Hi-Bright
Contrast Ratio	1000:1 (typ.)
Optical Response Time	T-rise and T-fall = 7 msec avg. typical
Viewing Angle (CR>10)	89/89/89/89 CR>10 (L/R/U/D)
Color Depth	16.7M, True 8-Bit;
Video Input Configurations	Configuration 0: 2ea A/B Selectable Dual-Link DVI-D Digital Video
	Configuration 1: 1ea Analog RGB VGA, DVI Digital Video, HDMI 1.4
	Configuration 2: 2ea Analog RGB, VGA, 2ea DVI, Display Port, Picture-in-Picture*
Video Compatibility	640x480 to 2560x1440
Vertical Refresh	60Hz at 2560x1440, 1920x1200, 1920x1080, UXGA; 75Hz all others
Analog RGB Video Synch	Digital Separate Synch, Composite Synch, RGsB synch-on-green (Config 2 only)
Composite Video (Optional)	NTSC, PAL, SECAM, RS-170, RS-343 (Config 2 only)
User Controls	Power, Video Channel A/B Select, Luminance Up/Down
	OSD: Menu, Select Up/Down, Adjust Up/Down; Hot Keys
Touchscreen Options	IR Optical with 2.6mm resolution and 6/12/32 Point Multi-Touch; Rugged Resistive; USB output standard; RS-232/422/485 output available.*
Power Supply	
DC Power	28VDC (18-36V); Optional MIL-STD-1275 , MIL-STD-704
AC Power	95-264 VAC, 50-400Hz; Optional MIL-STD-1275/704;
Power Consumption	80 watts typ., 90 watts max. standard; 200 watts max with optional heater
Vibration-Functional*	MIL-STD-810F
Shock-Functional*	MIL-STD-810F
EMI/EMC	Tested and Certified to MIL-STD-461E: CE-102, RE-102, CS-101, CS-114, RS-103
	*Consult Factory for additional test requirements
Drip Proof#	MIL-STD-810F
Fungus#	MIL-STD-810F
Safety	CE/CSA/FCC(A)
Ingress Protection#	IP 65 on console level std.; Optional IP65 on unit level
Operating Temp	-10°C to +50°C standard; Optional -40°C to +55°C with heater.
Storage Temp	-20°C to +60°C standard;
Humidity	10-90%, non-condensing
Altitude: Operating	10,000ft
Altitude: Storage	40,000ft
Rapid Decompression	8,000ft to 40,000ft to 25,000ft per MIL-STD-810F
Chassis Construction	Aluminum Alloy
Size	26.4" x 16.85" x 3.75
Weight	38 lbs.
Other Options *	MS-38999 connectors for all I/O connections

*Consult Factory for Details.

Designed and Built to meet or exceed these standards.