

4K / FHD Professional Display Panel

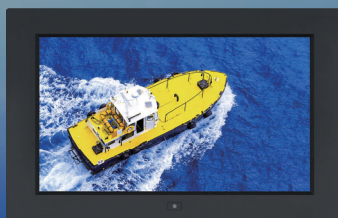
Military MIL-810H & Marine EMC 60945 Compliance



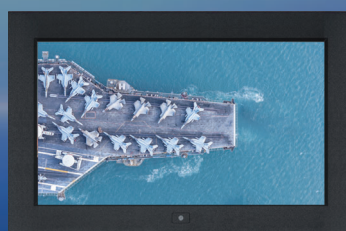
K17 / F17



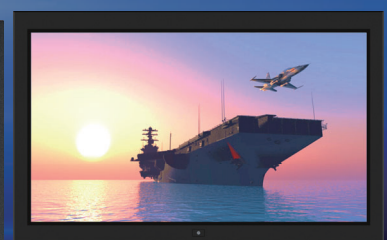
K19 / F19



K21 / F21



K23 / F23



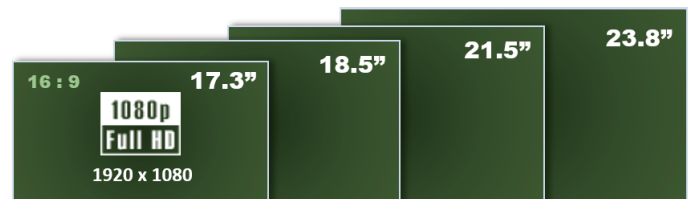
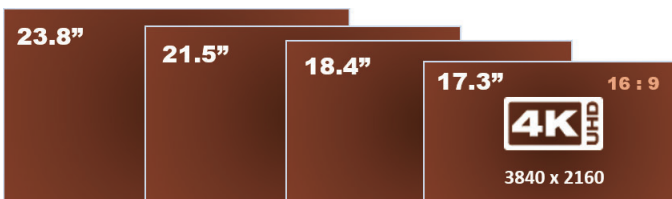
For over 30 years, Austin Hughes has been designing and manufacturing robust monitor solutions from the ground up. Thanks to an efficient manufacturing process and advanced 3D solid modeling, we excel at providing rapid prototyping, short lead time, high mix and full-scale production.

We offer an extensive range of products, including LCD console drawers, display drawers, display panels, and KVM solutions. Our design capabilities continue to evolve in tandem with technological advancements in KVM and LCD innovations. Our MIL Marine series solutions are meticulously crafted to comply with both MIL-810H and Marine IEC 60945 standards.

As a versatile 4K/ FHD monitor, MIL MAP 4K & FHD professional panel solution is meticulously designed to meet professional and environmental demands including Sunlight readable brightness, Front protection, Anti-reflective/Vandal proof glass, IP65 power/ USB/ HDMI/ VGA connector, Brightness dimming and Mounting kit for VESA-mount, Universal-mount, optional robust or flush mount, etc. Our knowledgeable engineers are able to provide customization for specific dimensions, color, metal treatment, screen printing, bezel and mounting.



Military Marine Series Professional Display Panel



Benefits

- Marine EMC 60945 compliance
- MIL-STD-810H standard
- IP65 front protection
- Sunlight readable brightness panels available
- Rugged display panel against vibration
- MAP-K17/K19/K21/K23 : 3840 x 2160@60Hz native resolution
- MAP-F17/F19/F21/F23 : 1920 x 1080 native resolution
- Built-in 2x2 watts stereo speakers in chassis rear side
- MIL power input connector (MS3470W8-33P)
- MIL AC power adaptor (auto-sensing 85 to 264VAC, 50 / 60Hz)
- VESA mount (100 x 100mm)

Options

- IP65 lockable VGA & HDMI ports
- IP65 lockable USB & RS232 serial ports
- IP65 full-protection with IP connectors
- Front panel handles
- LCD mounting kit
- Front IP65 manual dimming knob (brightness 0-100%)
- DC power : 12V / 24V / 48V / 125V / 250V
- LCD protection : Anti-glare, AR & EMC glass
- Touchscreen : Projected Capacitive 10-pt / Resistive 1-pt
- 3G / 12G-SDI input for FHD / 4K panel
- DVI-D input

Applications

- Marine
- Military defense
- Yacht / Boat
- Aircraft / Helicopter
- Police/ Firefight/ Ambulance
- Trans, Metro, Bus
- Surveillance
- Oil & Gas
- Healthcare
- Industrial

4K Model Coverage

17.3" 4K Panel



MAP-K17
400 cd/m²

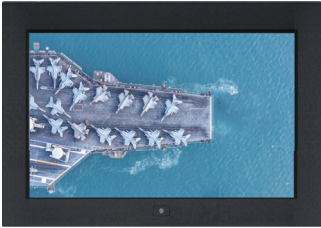
18.4" 4K Panel



MAP-K19
300 cd/m²

MAP-HK19
1000 cd/m²

21.5" 4K Panel



MAP-K21
600 cd/m²

23.8" 4K Panel



MAP-K23
540 cd/m²

MAP-HK23
1000 cd/m²

Military Standard & Compliance

Military Environment MIL-STD-810H Standard	
MIL-STD-810H, Method 502.7 & 501.7	Operation temp : -20 to 65°C
	Storage temp : -30 to 60°C
MIL-STD-810H, Method 500.6-i-500.6-8	Operation altitude : 10,000 ft
	Storage altitude : 30,000 ft
MIL-STD-810H, Method 507.6	Humidity: 10% - 90%, non-condensing
MIL-STD-810H, Method 516.8 & 514.8	Shock/Vibration : Procedure VI, 50G @11ms

Compliance
CE / EMC (Marine) : IEC 60945
CE / EMC (General) : EN55032/ EN55035
CE/ LVD EN62368
FCC sub part 15B
RoHS 3, REACH & WEEE

Product Specifications

	MAP-K17	MAP-K19	MAP-K21	MAP-K23	MAP-HK19	MAP-HK23
Panel size (diagonal)	17.3"	18.4"	21.5"	23.8"	18.4"	23.8"
Brightness (cd/m²)	400	300	600	540	1000	1000
Native resolution	3840 x 2160	3840 x 2160	3840 x 2160	3840 x 2160	3840 x 2160	3840 x 2160
Contrast ratio (typ.)	1000 : 1	1000 : 1	1000 : 1	1200 : 1	1000 : 1	1300 : 1
Colors	16.7M, 8-bit	1.07B	16.7M	1.07B	1.07B	1.07B
Viewing angle (L/R/U/D)	89/89/89/89	85/85/85/85	89/89/89/89	89/89/89/89	85/85/85/85	89/89/89/89
Response time (ms)	16	15	12	14	15	14
Dot pitch (mm)	0.0995	0.1065	0.124	0.1369	0.1065	0.1369
Display area, H x V (mm)	382.12 x 214.94	408.96 x 230.04	476.06 x 267.79	525.66 x 295.70	408.96 x 230.04	525.89 x 295.81
Surface treatment	Anti-glare	Anti-glare, Hard-coating	Anti-glare, Hard-coating	Anti-reflective	Anti-glare, Hard-coating	Haze 25%
Surface hardness	3H	3H	3H	2H	3H	3H
MTBF (hrs)	50,000	30,000	50,000	30,000	30,000	30,000

Product dimension (mm)	480 x 48 x 266	508.5 x 67.6 x 318.1	577.8 x 77.1 x 369.3	584.2 x 63.6 x 363.6	508.5 x 67.6 x 318.1	584.2 x 63.6 x 363.6
Packing dimension (mm)	529 x 124 x 451	662 x 115 x 533	659 x 117 x 640	659 x 117 x 640	662 x 115 x 533	659 x 117 x 640
Net weight (kg)	5.2	7	9	11	7	11
Gross weight (kg)	8	10	12.7	14.7	10	14.7
Power consumption	max. 35W	max. 40W	max. 132W	max. 55W	max. 60W	max. 90W

Video Input	HDMI 1.4 + HDMI 2.0 + DP
Video Input options	12G-SDI / DVI-D

MIL Power Connector	3-pin lockable MS3470W8-33P
AC Power Input	Auto-sensing 85 to 264VAC, 50 / 60Hz

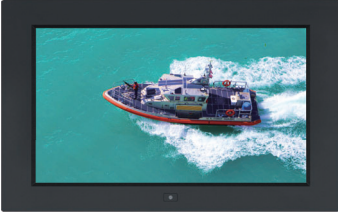
FHD Model Coverage

17.3" FHD Panel



MAP-F17
300 cd/m²

18.5" FHD Panel



MAP-F19
500 cd/m²

21.5" FHD Panel



MAP-F21
250 cd/m²

23.8" FHD Panel



MAP-F23
540 cd/m²

MAP-HF23
1000 cd/m²

Military Standard & Compliance

Military Environment MIL-STD-810H Standard	
MIL-STD-810H, Method 502.7 & 501.7	Operation temp : -20 to 65°C
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MIL-STD-810H, Method 507.6	Humidity: 10% - 90%, non-condensing
MIL-STD-810H, Method 516.8 & 514.8	Shock/Vibration : Procedure VI, 50G @11ms

Compliance
CE / EMC (Marine) : IEC 60945
CE / EMC (General) : EN55032/ EN55035
CE/ LVD EN62368
FCC sub part 15B
RoHS 3, REACH & WEEE

Product Specifications

	MAP-F17	MAP-F19	MAP-F21	MAP-F23	MAP-HF17	MAP-HF19	MAP-HF21	MAP-HF23
Panel size (diagonal)	17.3"	18.5"	21.5"	23.8"	17.3"	18.5"	21.5"	23.8"
Brightness (cd/m²)	300	500	250	540	1000	1000	1000	1000
Native resolution	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080
Contrast ratio (typ.)	1000 : 1	1200 : 1	1000 : 1	1200 : 1	600 : 1	1000 : 1	5000 : 1	1300 : 1
Colors	16.7M, 8-bit	16.7M	16.7M	1.07B	16.7M, 8-bit	16.7M	16.7M	1.07B
Viewing angle (L/R/U/D)	85/85/85/85	85/85/85/85	85/85/80/80	89/89/89/89	80/80/60/80	89/89/89/89	85/85/80/80	89/89/89/89
Response time (ms)	25	30	5	14	5.5	20	5	14
Dot pitch (mm)	0.1989	0.213	0.248	0.1369	0.1989	0.213	0.248	0.0995
Display area, H x V (mm)	381.89 x 214.81	408.98 x 230.04	476.64 x 268.11	525.66 x 295.70	381.89 x 214.81	408.98 x 230.04	476.64 x 268.11	525.89 x 295.81
Surface treatment	Anti-glare, Hard-coating	Anti-glare, Hard-coating	Haze 25%, Hard-coating	Anti-reflective	Anti-glare, Hard-coating	Anti-glare, Hard-coating	Anti-glare	Haze 25%
Surface hardness	3H	3H	3H	2H	3H	3H	3H	3H
MTBF (hrs)	50,000	50,000	30,000	30,000	50,000	50,000	50,000	30,000

Product dimension (mm)	440.5 x 54.1 x 293	508.5 x 65.6 x 318.1	584.2 x 71.8 x 363.6	584.2 x 63.6 x 363.6	440.5 x 54.1 x 293	508.5 x 65.6 x 318.1	584.2 x 71.8 x 363.6	584.2 x 63.6 x 363.6
Packing dimension (mm)	615 x 113 x 523	662 x 115 x 533	659 x 117 x 640	659 x 117 x 640	615 x 113 x 523	662 x 115 x 533	659 x 117 x 640	659 x 117 x 640
Net weight (kg)	5.2	7	9	11	5.2	7	9	11
Gross weight (kg)	8	10	12.7	14.7	8	10	12.7	14.7
Power consumption	max. 14W	max. 12W	max. 28W	max. 55W	max. 39W	max. 40W	max. 32W	max. 90W

Video Input	VGA + HDMI + DP
Video Input options	3G-SDI / DVI-D

MIL Power Connector	3-pin lockable MS3470W8-33P
AC Power Input	Auto-sensing 85 to 264VAC, 50 / 60Hz

