

# SAMTEL

## MULTI-FUNCTION DISPLAYS



### GENERAL DESCRIPTION

The MFD is a cockpit Multi function display to be installed on the aircraft instrument panel. It is driven by high-resolution video images coming from external video sources (Display Processor or TV sensor).

### FEATURES

Display of RGB video images with STANAG 3350B standard, Expansion capability for symbol generation, Management of man machine interface, Communication from processor to MFD, Built In Test (BIT)

	Interfaces	Power supply	
Video	STANAG3350B, DVI / YC (Optional)	Main power	115V @ 400Hz, 3 phases
Communication	Duplex RS 422, I <sup>2</sup> C, RS 232		28VDC
Discrete	Day / Night Selection, Port Selection, MFD presence.	Bezel Lighting	0 to 5.5 V AC / 400 Hz

**POWER CONSUMPTION.** The maximum power consumption during stabilized operation with heaters off is 90 maximum on the Network 115VAC or 28VDC. Heaters consumption: < 100 W on the 115V / 400 Hz during the heating duration.

# ELECTRO OPTICAL SPECIFICATIONS

Sizes	5"x5"	6"x6"	6"x8"	12"x9"
Pixel Dimensions	600 x 600	780x780	768 x 1024	1400 x 1050
Sub-pixel arrangement	1800x600	2340x780	768 x 3072	4200 x 1050
Viewing Angle	Vertical: -10° + 30° Horizontal: + 55° - 55°	Vertical: -10° + 30° Horizontal: + 55° - 55°	Vertical: ± 50° Horizontal: ± 50°	Vertical: ± 60° Horizontal: ± 40°
Brightness	630 cd/m2 (Maximum) 0.1 cd/ m2 (Minimum)	630 cd/m2 (Maximum) 0.1 cd/ m2 (Minimum)	630 cd/m2 (Maximum) 0.1 cd/ m2 (Minimum)	630 cd/m2 (Maximum) 0.1 cd/ m2 (Minimum)
Warm up time for: 50% of Brightness 100% of Brightness	25°C / 0°C / -40°C 1 min/2 min/3 min 3min/5min/7 min	25°C / 0°C / -40°C 1 min/2 min/3 min 3min/5min/7 min	25°C / 0°C / -40°C 1 min/2 min/3 min 3min/5min/7 min	25°C / 0°C / -40°C 1 min/2 min/3 min 3min/5min/7 min
Contrast Ratio	300:1	300:1	300:1	300:1
Response time	< 25ms	< 25ms	< 25ms	< 25 ms
Refresh rate	50Hz	50Hz	50Hz	60 Hz
Pixel configuration	RGB Stripe	RGB Stripe	RGB Stripe	RGB Stripe
Grey Shades	Distinguishable at 25°C (minimum)  64 for 10 Lux ambient light.  16 for 50000 Lux ambient light.	Distinguishable at 25°C (minimum)  64 for 10 Lux ambient light.  16 for 50000 Lux ambient light.	Distinguishable at 25°C (minimum)  64 for 10 Lux ambient light.  16 for 50000 Lux ambient light.	Distinguishable at 25°C (minimum)  64 for 10 Lux ambient light.  16 for 50000 Lux ambient light.
Chromaticity	u' v' – White Color 0.19, 0.49 (+/- 0.03)  u' v' – Red Color 0.41, 0.53 (+/- 0.03)  u' v' – Green Color 0.13, 0.55 (+/- 0.03)  u' v' – Blue Color 0.15, 0.30 (+/- 0.05)	u' v' – White Color 0.19, 0.49 (+/- 0.03)  u' v' – Red Color 0.41, 0.53 (+/- 0.03)  u' v' – Green Color 0.13, 0.55 (+/- 0.03)  u' v' – Blue Color 0.15, 0.30 (+/- 0.05)	u' v' – White Color 0.19, 0.49 (+/- 0.03)  u' v' – Red Color 0.41, 0.53 (+/- 0.03)  u' v' – Green Color 0.13, 0.55 (+/- 0.03)  u' v' – Blue Color 0.15, 0.30 (+/- 0.05)	u' v' – White Color 0.19, 0.49 (+/- 0.03)  u' v' – Red Color 0.41, 0.53 (+/- 0.03)  u' v' – Green Color 0.13, 0.55 (+/- 0.03)  u' v' – Blue Color 0.15, 0.30 (+/- 0.05)
NVG Compatibility	As per MIL-STD-3009	As per MIL-STD-3009	As per MIL-STD-3009	As per MIL-STD-3009
Operating Temperature Range	Continuous Operation: -40° C to 55° C Intermittent: +71° C for 30 min Storage: -55° C to 85° C			

Parameters can be built to suit requirements. Technical Specifications are subject to change without notice.

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