

NVIS DISPLAY SERIES

The ruggedised display module features a high resolution 1024x768 AMLCD and life-of-the-aircraft LED backlight designed for standard avionics ambient-lighting applications. It provides high contrast ratio and superior color stability, very wide viewing angles and superior brightness in day, night and NVIS modes.

The ruggedisation of the LCD includes the following enhancements. Indium Tin Oxide (ITO) coated Glass with Aluminium Busbars which will act as the heater. Woven Wire Mesh placed above provides the EMI shielding. Anti Glare Glass with Broad/Band Anti-Reflective(BBAR) Coating reduces the glare. All the above items are glued to the LCD using an optically clear adhesive (OCA). Available optionally with Resistive Touch Panel

10.4" Sunlight Readable AMLCD with NVIS Dual Mode

- Cost effective
- Very high reliability
- Life-of-the-aircraft, solid-state LED light source with low cost of ownership LED array
- Low weight
- Low operating temperature
- Very low power consumption for increased LRU power budget
- Full night-vision compliance optional (NVIS Class B. Compatible with NVIS Class B & C Goggles)
- Vivid primary colors
- Very wide viewing angle



- Full-array LED backlighting optimized for low power consumption and extended operational lifetime
- Best-in-class true 8-bit AMLCD technology delivering accurate and superior color reproduction
- Guaranteed brightness and color performance over the full operating temperature range throughout the product lifetime
- Environmentally qualified for continuous operation up to 71 °C
- NVIS Class B compliant for night-vision compatibility
- Slim, lightweight construction with passive cooling for high reliability and efficiency

General Specifications			
LCD Type		AMLCD 10.4 inch	
Resolution		1024 pixels x 768 pixels	
Action Display Area		157.80× 210.4 mm	
Pixel Pitch		0.1983 X 0.1983 mm	
Aspect Ratio		4:3	
Operating Temperature		-55 °C to +55 °C	
Intermittent Operation		71 °C	
Storage Temperature		-55 °C to +90 °C	
Altitude		50000 ft	
Signal Interface		LVDS	
Optical Characteristics			
Luminance:		Typically 470 cd/m2	
Uniformity		1.33%	
Contrast		3000:1	
Day Mode Brightness :		470 cd/m2 (Max)	
Night mode Brightness :		0.85 cd/m2 (Min)	
Viewing Angle			
Horizontal axis		-89° to +89°	
Vertical axis		-89° to +89°	
Response Time		Rising - 10 msec	
		Falling 20 msec	
Number of colors		16.2M /262K Colors	
Chromaticity		CIE 1976	
NVIS			
Compatibility		MIL-STD-3009 Type I/II, NVIS Class B ; MIL-L85762 Type I/II, NVIS Class B	
NVIS Backlight u' ang v' Parameters			
White Light		u'	0.14
		v'	0.52
Red Light		u'	0.33
		v'	0.52
Green Light		u'	0.12
		v'	0.56
Blue Light		u'	0.11
		v'	0.37
Heater			
W-W Resistance		12 ohms nominal	
Power Consumption		70 W Max	
EMI Glass			
Thickness		3mm	
Surface		AR Coating	
EMI Shielding Type		Mesh Film	

Electrical Interface					
Pin	Symbol	Description	Pin	Symbol	Description
1	NC	NC	16	Rino-	LVDS Data
2	GND	Ground	17	GND	Ground
3	Rin3+	LVDS Data	18	NC	No Connection
4	Rin3-	LVDS Data	19	GND	Ground
5	GND	Ground	20	SEL6/8	6/8 bits
6	CLK+	LVDS Clock	21	NC	No Connection
7	CLK-	LVDS Clock	22	NC	No Connection
8	GND	Ground	23	NC	No Connection
9	Rin2+	LVDS Data	24	Reverse	Reserved
10	Rin2-	LVDS Data	25	GND	Ground
11	GND	Ground	26	GND	Ground
12	Rin1+	LVDS Data	27	GND	Ground
13	Rin1-	LVDS Data	28	VCC	+3.3V
14	GND	Ground	29	VCC	+3.3V
15	Rino+	LVDS Data	30	VCC	+3.3V

Electrical Specifications				
	Min	Typ	Max	Unit
Module				
Power Supply Voltage VCC	3	3.3	3.6	V
Logic Input Voltage VIH			100	mV
Logic Input Voltage VIL	-100			mV
Voltage Day Mode Backlight		24	28	V
Current Day Mode Backlight		0.10	0.125	A
Voltage NVIS Mode Back Light		21	25	V
Current NVIS Mode Backlight		0.007	0.015	A

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The information and data given are typical for the equipment described. However, any individual item is subject to change without any notice

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