

NM-DSP-8666

20.1" Rugged Display Module

FEATURES

- 20.1" Diagonal Color TFT LCD
- High Resolution
- High Contrast Ratio
- High Luminance
- Fast Response
- Inbuilt Heater
- Signal Input: Analog RGB H Sync V Sync / RGB Sync On Green
- On Screen Display (OSD) Control for color, brightness and Power ON/OFF

Connectors

- Power Input: 3 Pin Amphenol round connector
- RGB input: 5-pin Amphenol VGA Round connector
- Grounding point: M6 threaded bolt

APPLICATIONS

- MIL Grade Display Systems for Rugged Applications
 - Marine
 - Ground Mobile
 - Avionics



OVERVIEW

NM-DSP-8666 is a Rugged Display System designed to meet harsh environment and military specifications.

DISPLAY

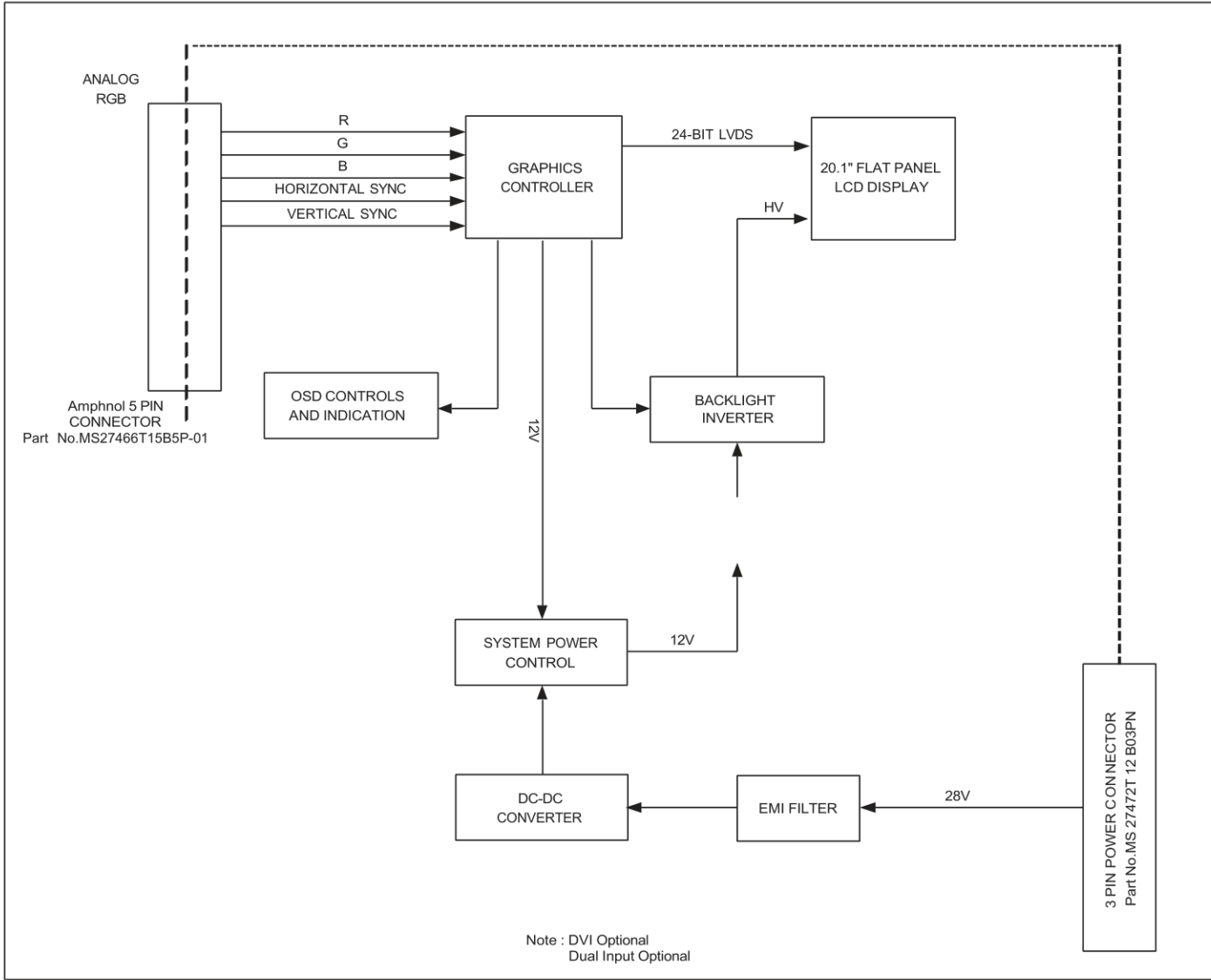
This display system is equipped with high performance 20.1" diagonal color TFT flat panel with maximum resolution of 1600 x 1200, 16.7 million simultaneous colors, aspect ratio 4:3, high contrast ratio, high luminance and wide viewing angle.

It is built with highest quality standard of mechanical and electrical components. The design takes care of EMI, EMC, Thermal dissipation and longevity

NM-DSP-8666 interfaces with analog RGB input signal sources. It operates with standard VGA to UXGA (H-Sync. and V-Sync.) and RGB with Composite Synchronization on Green. System is built with heater module to improve the display performance at lower temperature.

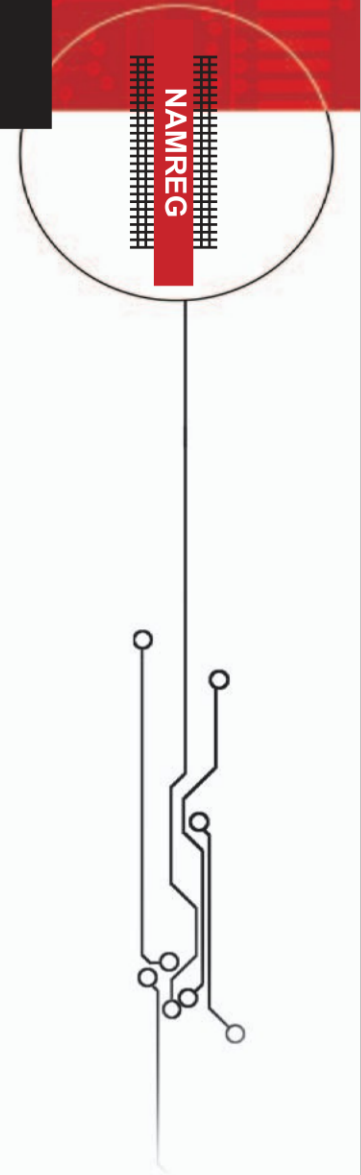
GRAPHICS CONTROLLER

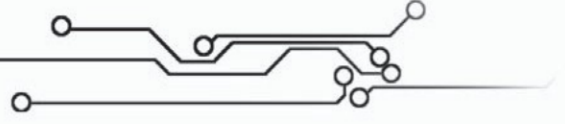
The graphics controller converts the input analogue RGB video signals to 24-bit LVDS output signals and it is capable of handling both RGB H sync V sync and RGB sync on green. The OSD (On Screen Display) facilitates monitoring and adjustments of picture relating to Brightness, color saturation, and backlight brightness etc.



BLOCK DIAGRAM OF NM-DSP-8666

NM-DSP-8666




SPECIFICATIONS
20.1" RUGGED DISPLAY MODULE

Display area	408mm(H) x 306mm(V)
Aspect ratio	4:3 (Landscape Format)
Display technology	Color TFT LCD
Display color	16.7 million colors, 256 gray scale
Resolution	1600(H)x1200(v)
Pixel arrangement	RGB(Red, Green and Blue)
Dot pitch	0.085mm(H)x0.255mm(V)
Pixel pitch	0.255mm(H)x0.255mm(H)
Contrast ratio	500:1 (typ)
Viewing angle	80 degree right, left, up, down
Luminance	125 cd/m ²
Viewing Angle	80 degree right, left, up and down
Auto scale	upto 1600 x1200 pixels
On Screen Display	(OSD) for user specific adjustment like intensity, color, backlight brightness etc
Analog RGB Interface	VGA standard Amphenol round connector

POWER

Power supply	28 V
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MECHANICAL

Outside dimension	483(W) x 399(H) x 250(D)mm
Weight	14.4 Kg

ORDERING INFORMATION

NM-DSP-8666-XX
 XX- Factory specified option

ENVIRONMENT

High temperature	Operation: +55°C & Storage: +70°C Duration:16 hrs each temperature
Low temperature	Operation: -10°C & Storage: -20°C Duration:16 hrs each temperature
Thermal shock	-20°C and 70°C 2 hrs soak, 3 Cycles
Bump test	10g, 7ms, Half sine wave, 2-4 bumps per seconds, 100 bumps
Random vibration	20-50Hz, 0.02g ² /Hz – 50-500Hz Rolling off to 0.001g ² /Hz 30min on Z axis
Damp heat	95% RH at 40°C, Duration: 16 hrs
Altitude	Operation at 3000 meters, 25°C 8 hrs