



# Commander SX Detailed Datasheet Rev 5

24 Nov, 2017 16:44

## Product Specifications

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### Optical

Image Size	25mm to 100mm (diagonal)
Geometric Distortion	0.1 MAX
Brightness (MAX)	9000 fL
Brightness Levels	256 Levels
Chromaticity (X)	.195 REF
Chromaticity (Y)	.697 REF
Contrast (Min.)	40:1 MIN
Image Defect Criteria	<a href="#">Per 103216 Defect Criteria</a>

### Microdisplay

Display Technology	FLCOS (REFLECTIVE)
Resolution	SXGA 1280 x 1024
Pixel Format	13.62 micron square pixels, 96% fill-factor
Color Depth	8 bit Green Std (24-bit color available)

### Video

Video Input Format	SXGA 1280 x 1024 @ 60 Hz
Video Interface	Mates with NVIS external Video Control Unit through umbilical. (Analog over VGA)
Latency	< 16.7 ms
Video Image Quality	No visible artifacts, noise or abnormalities

### Controls

On/Off Control	Direct via external DC power supply. Plugs into electronics box power socket.
Brightness Control	Vary voltage at J1 pin 2 from 0 VDC to Vref (on pin 9) via external device.
Display Configuration Control	4DD SXProg over RS232 (J3)

### Indicators

Power On/Off Indicator	POWER ON INDICATED BY SOLID GREEN LEDS ON MAIN BOARD OF ELECTRONICS BOX VISIBLE THROUGH HOLES ON THE BOX AT POWER INPUT END BOTTOM.
Sync (video Signal) Indicator	GREEN LED AT POWER INPUT PANEL OF ELECTRONICS BOX. FULL ON STATE INDICATES CORRECT VIDEO FORMAT BEING RECEIVED. "OFF" STATE INDICATES INCORRECT OR

NO SYNC BEING RECEIVED. FAST BLINKING INDICATES VIDEO OUT (LVDS) IS NOT CONNECTED TO DISPLAY.

## Power

Power Consumption (TYP)	7.8 (.65 A AT 12 VDC)
	9.6 MAX W
Power Supply	INPUT 100-240 VAC 1.5 A 50-60 Hz. OUTPUT 12 VDC 5 A
Power Source	120 TO 240 VAC 50/60Hz
Power Input	+12V DC, 5 A

## Physical

Size (envelope)	TBD in
Mass	5 LB MAXIMUM (WITH CABLE)
Color	Bare aluminum/black anodize
Cable Exit	Straight or 90 degree
Cable Length	2.49 m
Cable Minimum Bend Radius	1 in
Cable Makeup	one LVDS cable

## Environment

Operating Temperature Range	-30 TO 50 °C
Operating Humidity Range	40% TO 75% RELATIVE HUMIDITY, NON CONDENSING
Storage Temperature Range	-45 TO 55 °C
Storage Humidity Range	25% TO 75% RELATIVE HUMIDITY, NON CONDENSING
Shock	50g, 6ms, 1/2 sine pulse, 6 per axis
Random Vibration (30 Minutes Per Axis)	0.01G <sup>2</sup> /Hz, 10 Hz - 2000 Hz (4.46g RMS, 30 minutes each axis)