

Compare and Contrast Table
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EL8358MS conversion to the EL640.400-C3

The EL640.400-C3 and EL8358MS are very similar in characteristics and capabilities. They were designed by two different companies, which merged in 1990. The specifications represent the different approaches of the two companies. Where possible the specifications have been recalculated to show performance to today's specification standards. See the respective manuals, available at www.planar.com, for the full specifications.

Similarities	EL640.400-C3	EL8358MS
Functionality	The EL640.400-C3 is a 400 line display that can be used in a 200 line mode to emulate a CGA display. See the manuals for details	
Pixel format and size	Same as EL8358MS when F2040 jumper removed	
Mode	Use normal mode with the F2040 jumper removed from PS2 and Pin 5 of J1 grounded. The EL8358MS does not have any VGA capability.	
Vibration	Essentially the same; random vs. swept testing	
Humidity	Essentially the same; test methods differ	
Active Area	Same as EL8358MS	
Altitude	Same as EL8358MS	
Reliability	Same as EL8358MS	

Differences	EL640.400-C3	EL8358MS
Bezel	Metal- The bezel is AC coupled to ground through 4 ceramic capacitors, one at each corner.	Metal, ungrounded
Mechanical Mounting	Mechanical outline and mounting methods significantly different. See manuals for details	
Size	Smaller than the EL8358MS.	EL8358MS has an external power supply
Connector and pinout	16 pin 0.1" square pin for both video and power inputs	12 pin flat flex connector with separate power input connector
Pinout	Many differences. See Manual	
Input voltages	+5V and 11-30V EL8358MS Does not use a 5V power supply	+12V
Video timing	Close to EL8358MS	
Video clock	Active rising edge 30MHz max frequency	Active falling edge 15MHz max frequency
EMI	The EMI signatures are slightly different. System performance should be verified.	
Luminance	The luminance specs appear to be quite different reflecting the different philosophies of the two companies designing these products. The luminance specifications have been converted from the manuals for direct comparison purposes	
	45 cd/m ² typical; 39 cd/m ² min	72 cd/m ² typical; 57 cd/m ² min
Luminance variation, temperature	15% max -25° to 65° C	15% max 0° to 55° C
Luminance variation, time	15% max, 10,000 hrs	10% max, 10,000 hrs
Luminance non-uniformity	35%	26%
Luminance color	582nm yellow	585nm yellow-orange
Temperature range	-25° to 65° C	0° to 55° C
Shock	100G 4mS RMS	50G 11mS, RMS
Regulatory approvals	UL544	UL544, UL1950

Changing from the EL8358MS to the EL640.400- involves significant effort in the cable and connector changes plus the addition of a 5V supply. The two displays use different connectors and pinouts. Except for the video clock, most of the signals and timing are close between the displays. Be aware of the AC connection of the metal bezel to ground.

There are significant mechanical differences in design and construction between the EL640.400-C3 and the EL8358MS displays. The C3 is smaller so mounting brackets can be made to position the C3 display properly. See the manual for mechanical differences.