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PRD10581 MONITOR 21.5” 16:9 24V FIT (FI RCA) DATASHEET

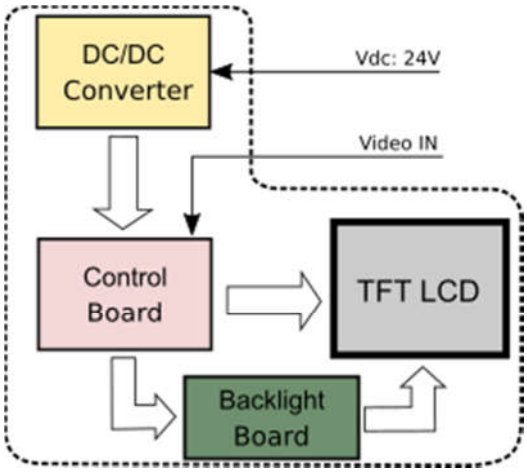
DESCRIPTION

The 21.5” monitor has the most advanced technology when it comes to image, it being composed of the amorphous silicon thin film transistor liquid crystal display (a-Si TFT LCD) panel structure with driver Large-scale integration (LSI) for driving the TFT array and the LED backlight. It was specifically designed, qualified and supported for use in automotive applications. The display supports the Full HD – 1920(H) x 1080(V) screen format and 16.7M colors (8-bit RGB data input). Its high resolution and wide viewing angle, allied with LED backlight cutting edge technology, are differentials in this product.

FEATURES

- 21.5.” High resolution active matrix LCD;
- LED backlight system;
- Full HD resolution (1920 x 1080);
- Wide viewing angle;
- 8-bit of support color (16,7M colors RGB);
- Auto ON/OFF in presence/absence of video signal;
- Protective glass;
- Overcurrent and overvoltage protection;
- Inverted power supply protection;
- Compact and innovative design;
- Easy to install on every automotive video system.

BLOCK DIAGRAM



	By	Date	Sign		Ref. ACTIA	Index
Draw	E. Viana	01/31/2018		MONITOR 21.5” 16:9 24V FIT (FI RCA)	**PRD10581**	**Rev01**
Verif.	E. Freitas	01/31/2018				
Appr.	C.Dambroz	01/31/2018				Page 1/4

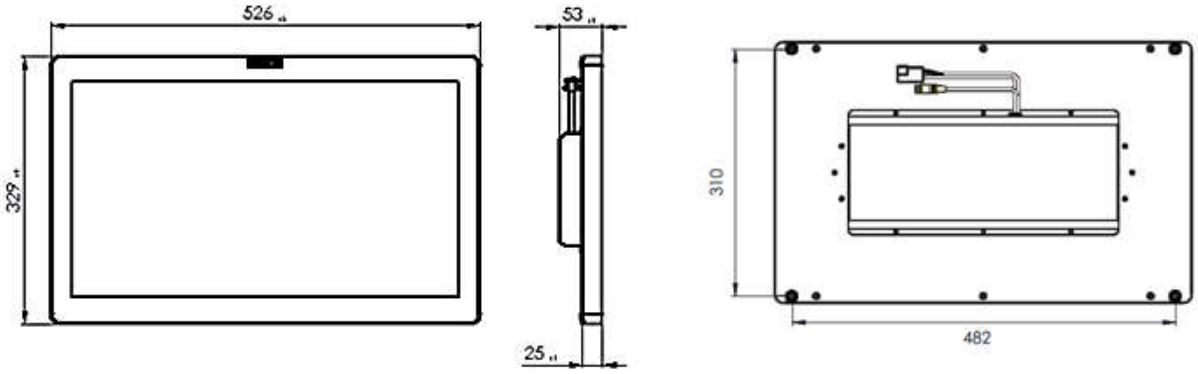
TECHNICAL DATA

PARAMETER	MIN	TYP	MAX	UNIT
Supply voltage range	18	24	32	Vdc
Power consumption (operation)	-	16	20	W
Power consumption (standby)	-	3	3.5	W
Current Consumption (standby)	-	125	-	mA
Current Consumption (operation)	-	665	1000	mA
Luminance	200	250	-	cd/m²
Contrast Ratio	-	3.000	-	-
Viewing angle CR=10 (horizontal)	75	89	-	º
Viewing angle CR=10 (vertical)	75	89	-	º
Operating temperature range	0	-	50	ºC
Storage temperature range	-20	-	60	ºC
Humidity (operation and storage)	5	-	90	%RH
Degree of protection	IP20			-
Video System	PAL / NSTC			-
Video Input signal	CVBS / 1.0Vpp @ 75ohm			-
Aspect Ratio	16:9			-
Screen resolution	1920 x 1080			pixels
Pixel Pitch	248.25 x 248.25			µm
Number of colors	16.7M colors (RGB 8-bit)			-
Life Time	30.000			h
Weight	6.7			Kg

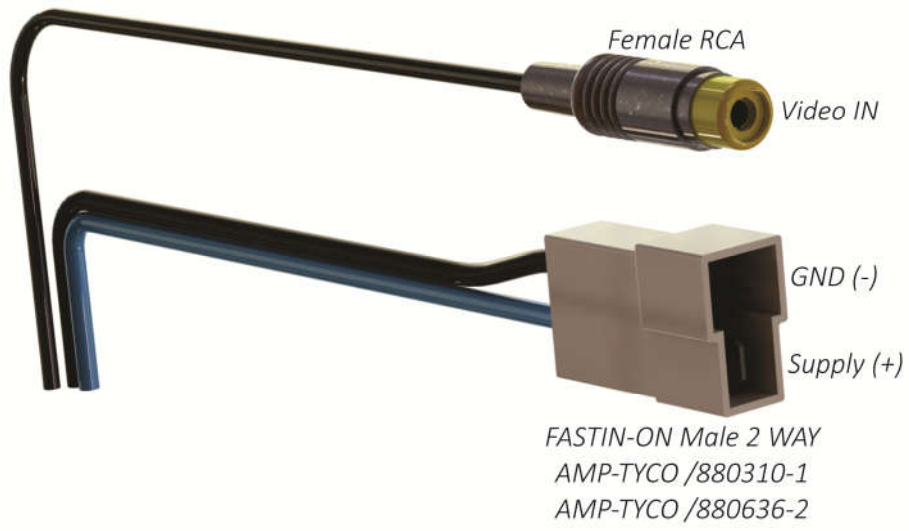
RELIABILITY TESTS (If there is)	
Operating Temperature	Method: 70°C to -20°C at rate of 1.5°C/min. (15min. each extremes).
Thermal Shock	ANSI/ASAE EP455 - 5.1.3 -40°C to 70°C at rate of 4°C/min. (1 hour each extremes).
Humidity	SAE J1455 4.2.3 method 1 -40°C to 70°C @ 8 hours (not operational)
Salt Spray	SAE J1455 – 4.3 (ASTM B117). 48 hours of application.
Vibration, Random	SAE J1455 – 9.4.4.2 8 hours each axis @ 50°C (5Hz to 600Hz).
Shock/Crash safety	ANSI/ASAE EP455 – 5.14.1 A single 11ms half sine pulse of 490m/s^2 on the function axe.
Overvoltage	36V for 60min.
Reverse Voltage	ANSI/ASAE EP455 – 5.10.4
Short circuit protection	All inputs to Vdc, Ground and case for 1 hour.
Starting Profile	ISO16750- 2– 4.6.3

Load Dump	ISO16750-2– 4.6.4 160V (+-10%), tr=0,1ms, td=100ms, Ua=28Vdc.
Switching spikes - Transients	ISO7637-2 Pulse 1, 2a, 2b, 3a and 3b.
Superimposed alternating voltage	ISO16750-2– 4.4 - Severity 1, 2 and 3.
Discontinuities in supply voltage	ISO16750-2– 4.6 Usmin with 100ms drop.

DIMENSIONS
(Millimeters)



CONNECTOR DETAILS



INSTALLATION