

## Features

- 12.1" TFT
- HDMI Input
- 1024x768 Resolution
- 1400 cd/m<sup>2</sup> Brightness
- IPS Panel
- Full Viewing Angles
- -30°C to +80°C Operating Temperatures
- High Contrast Ratio
- 16.7M Colours
- PCAP Touch

## RS PRO 12.1, HDMI TFT LCD Display

RS Stock No.: 712-655



RS PRO Professionally Approved Products bring to you professional quality parts across all product categories. Our product range has been tested by engineers and provides a comparable quality to the leading brands without paying a premium price.

## Product Description

*This RS PRO HDMI Display is a 12.1" (4.3) TFT LCD Display, with a high resolution of 1024x768 (XGA), IPS technology and high brightness. This model is composed of:*

- *A TFT LCD panel*
- *Backlight system*
- *HDMI interface*

*Engineered for seamless integration with embedded computing systems, this TFT display connects effortlessly to any device featuring an HDMI output. Its high-brightness screen and wide operating temperature range deliver outstanding performance in both indoor and outdoor environments, making it the perfect choice for demanding applications.*

## General Specifications

<b>Panel Size</b>	12.1
<b>Resolution</b>	1024x768
<b>Display Technology</b>	IPS
<b>Contrast Ratio</b>	900
<b>Brightness (cd/m2)</b>	1400
<b>Video Input</b>	HDMI
<b>Operating Temperature</b>	-30°C to +80°C
<b>Storage Temperature</b>	-30°C to +80°C
<b>Touch Panel</b>	PCAP Touch
<b>Touch Panel Interface</b>	USB

## Mechanical Specifications

<b>Overall Dimensions WxHxD (mm)</b>	289.47 x 222 x 26
<b>Active Area WxH (mm)</b>	245.76 x 184.32



## CN1 – Power Input – DC Jack SCD480CCS000B00GE or compatible

Pin No.	Symbol	I/O	Function
1	12V	P	Power Supply +12V
2	GND	P	Ground

## CN2 – Backlight Control - WAFER P2.0mm: 2001S-03-RTE or compatible

Pin No.	Symbol	I/O	Function
1	GND	P	Ground
2	N.C.	I	N.C.
3	PWM	-	Back-light Dimming control (internal pull up to 3.3V)

## CN3 – HDMI A Type

Pin No.	Symbol	I/O	Function
1	TMDS 2+	I	TMDS Data2+
2	GND	P	TMDS Data2 Shield
3	TMDS 2-	I	TMDS Data2-
4	TMDS 1+	I	TMDS Data1+
5	GND	P	TMDS Data1 Shield
6	TMDS 1-	I	TMDS Data1-
7	TMDS 0+	I	TMDS Data0+
8	GND	P	TMDS Data0 Shield
9	TMDS 0-	I	TMDS Data0-
10	TMDS CLK+	I	TMDS Clock+
11	GND	P	TMDS Clock Shield
12	TMDS CLK-	I	TMDS Clock-
13	N.C.	-	N.C.
14	N.C.	-	N.C.
15	DDC_SCL	I	IIC SCL to EDID ROM

16	DDC_SDA	I/O	IIC SDA to EDID ROM
17	GND	P	DDC/CEC Ground
18	HD_5V	P	+5V Power
19	HPD	O	Hot Plug Detect

## CN4 – PCAP USB

Pin No.	Symbol	I/O	Function
1	VDD-5V	P	Power Supply Voltage, 5 Vdc
2	D+	I/O	USB Data+
3	D-	I/O	USB Data-
4	GND	P	Ground
5	N.C.	-	No Connection
6	N.C.	-	No Connection
7	N.C.	-	No Connection
8	N.C.	-	No Connection

## Electrical Specifications

### HDMI TFT LCD Module

Item	Symbol	Values			Unit
		Min	Typ.	Max.	
Supply Voltage	12V	11	12	13	V
PWM frequency		100		10K	Hz
PWM Duty		17	-	100	%
PWM Dimming Voltage	VPWM-IH	3.3		8	V
	VPWM-IL	-	0.3	-	V
Supply Current	ICC(12V)	-	TBD	-	mA
LED life-time		-	50000	-	Hr

## Optical Characteristics

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
Brightness	--	Note1, Note 3, ( $\theta = 0^\circ$ , Normal Viewing Angle)	1120	1400	--	cd/m <sup>2</sup>
Contrast Ratio	CR		600	900	--	--
Response Time	Tr + Tf		--	30	40	ms
Color Chromaticity	White		Wx	0.251	0.291	0.331
		Wy	0.288	0.328	0.368	0.288
View angle	Horizontal	$\theta_{x+}$	80	85	--	
		$\theta_{x-}$	80	85	--	
	Vertical	$\theta_{Y+}$	80	85	--	
		$\theta_{Y-}$	80	85	--	

## Projected Capacitive Touch Panel

Item	Specification	Unit
Screen Size	12.1	Inches
Type	Transparent Type Projected Capacitive Touch Panel	
Input Mode	Humans Finger	
Interface	USB	
Touch Number	10 Points	
Cover glass pencil hardness	6H	
Response Time	$\leq 25$ ms	Ms
Controller	EE80H462938	

<b>Declarations</b>	UKCA / RoHS / REACH
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## Similar Products

Stock No.	Brand	Product Name	Attribute 1	Attribute 2	Attribute 3
712-654	RS PRO	12.1" HDMI TFT	1600 cd/m2 Brightness	No Touch	IPS Technology
712-659	RS PRO	15" HDMI TFT	1350 cd/m2 Brightness	PCAP touch	IPS Technology