

## Features

- 13.3" TFT
- HDMI Input
- 1920x1080 Resolution
- 850 cd/m<sup>2</sup> Brightness
- IPS Panel
- Full Viewing Angles
- -20°C to +70°C Operating Temperatures
- High Contrast Ratio
- 16.7M Colours
- PCAP Touch

## RS PRO 13.3,, HDMI TFT LCD Display

RS Stock No.: 0712657



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 13.3 (16.9) TFT LCD Display, with a high resolution of 1920x1080 (FHD), 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>	13.3
<b>Resolution</b>	1920x1080
<b>Display Technology</b>	IPS
<b>Contrast Ratio</b>	1000
<b>Brightness (cd/m2)</b>	850
<b>Video Input</b>	HDMI
<b>Operating Temperature</b>	-20°C to +70°C
<b>Storage Temperature</b>	-30°C to +80°C
<b>Touch Panel</b>	PCAP Touch
<b>Touch Panel Interface</b>	USB & I2C

## Mechanical Specifications

<b>Overall Dimensions WxHxD (mm)</b>	324.27 x 195.88 x 25.55
<b>Active Area WxH (mm)</b>	293.76 x 165.24



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	PWM	I	Back-light Dimming control (internal pull up to 3.3V)
3	N.C.	-	No Connection

### 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 I2C Touch - WAFER P1.25mm:50271-0060L-002 or compatible

Pin No.	Symbol	I/O	Function
1	GND	P	Ground
2	VDD	P	Power Supply for I2C
3	SCL	I	IIC SCL to PCT Controller
4	SDA	I/O	IIC SDA to PCT Controller
5	Int	O	Interrupt
6	RESET	1	Reset

### CN5 – PCAP USB Touch - WAFER P1.25mm:50271-0050L-002 or compatible

Pin No.	Symbol	I/O	Function
1	GND -EARTH	P	Earth Ground (Shield)
2	VDD_5V	P	Power Supply for USB I/F
3	GND	P	Power Ground
4	D+	I/O	USB Data+
5	D-	I/O	USB Data-

### CN6 – PCAP I2C & USB Touch - FPC

Pin No.	Symbol	I/O	Function
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1	GND	P	Ground
2	VDD	P	Power Supply for I2C
3	SCL	I	IIC SCL to PCT Controller
4	SDA	I/O	IIC SDA to PCT Controller
5	Int	0	Interrupt signal to inform the host processor that touch data is ready for read
6	RESET	1	External low signal reset the chip.
7	VDD_5V	P	Power Supply for USB I/F
8	D+	I/O	USB Data+
9	D-	I/O	USB Data-
10	GND	P	Ground

## 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)	-	1250	1400	mA
LED life-time		-	50000	-	Hr

### Optical Characteristics

Item	Symbol	Condition	Min.	Typ.	Max.	Unit
Brightness	--		680	850	--	cd/m2

Uniformity		B-uni		--	70	--	%
Contrast Ratio		CR		700	1000	--	--
Response Time		Tr + Tf		--	30	35	ms
Color Chromaticity	White	Wx	Note1, Note 3, ( $\theta = 0^\circ$ , Normal Viewing Angle)	0.247	0.297	0.347	--
		Wy		0.301	0.351	0.401	--
	Red	Rx		0.542	0.592	0.642	
		Ry		0.310	0.360	0.410	
	Green	Gx		0.292	0.342	0.392	
		Gy		0.507	0.557	0.607	
	Blue	Bx		0.108	0.158	0.208	
		By		0.059	0.109	0.159	
View angle	Horizontal	$\theta_{x+}$	Center CR $\geq$ 10		85	--	
		$\theta_{x-}$			85	--	
	Vertical	$\theta_{Y+}$			85	--	
		$\theta_{Y-}$			85	--	

## Projected Capacitive Touch Panel

Item	Specification	Unit
Screen Size	13.3	Inches
Type	Transparent Type Projected Capacitive Touch Panel	
Input Mode	Humans Finger	
Interface	I2C or USB	
Touch Number	10 Points	
Cover glass pencil hardness	7H	
Response Time	$\leq 25$ ms	Ms
Controller IC	ILI2511	

## Approvals

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

Stock No.	Brand	Product Name	Attribute 1	Attribute 2	Attribute 3
<b>0712656</b>	RS PRO	13.3" HDMI TFT	1000 cd/m2 Brightness	No Touch	IPS Technology
<b>0712653</b>	RS PRO	11.6" HDMI TFT	1300 cd/m2 Brightness	PCAP Touch	IPS Technology