



HTT50

For all variants of the HTT50

Hardware Manual

Revision 1.1



Contents

HTT50 Technical Specifications	3
Available Headers	3
Dimensional Drawings	4
Characteristics.....	6
Optical	6
Power	6
Environmental.....	6
Options.....	7
Power Options	7
Recommended Accessories	8
HDMI Cable	8
USB Cable	8
Power Adaptor	8
Support	8
Contact.....	8

Revision History

Revision	Date	Description	Author
1.1	February 2, 2018	Added -TPC variant drawing	Divino
1.0	November 6, 2017	First Release	Divino

HTT50 Technical Specifications

The HTT50 is a 5.0" TFT display with an HDMI interface. The 800x480 resolution offers crisp images, and video feedback, with 24-bit Full colour capabilities. The HTT can be configured with resistive, capacitive, or non-touch panels, making this display suitable for any application.

Available Headers

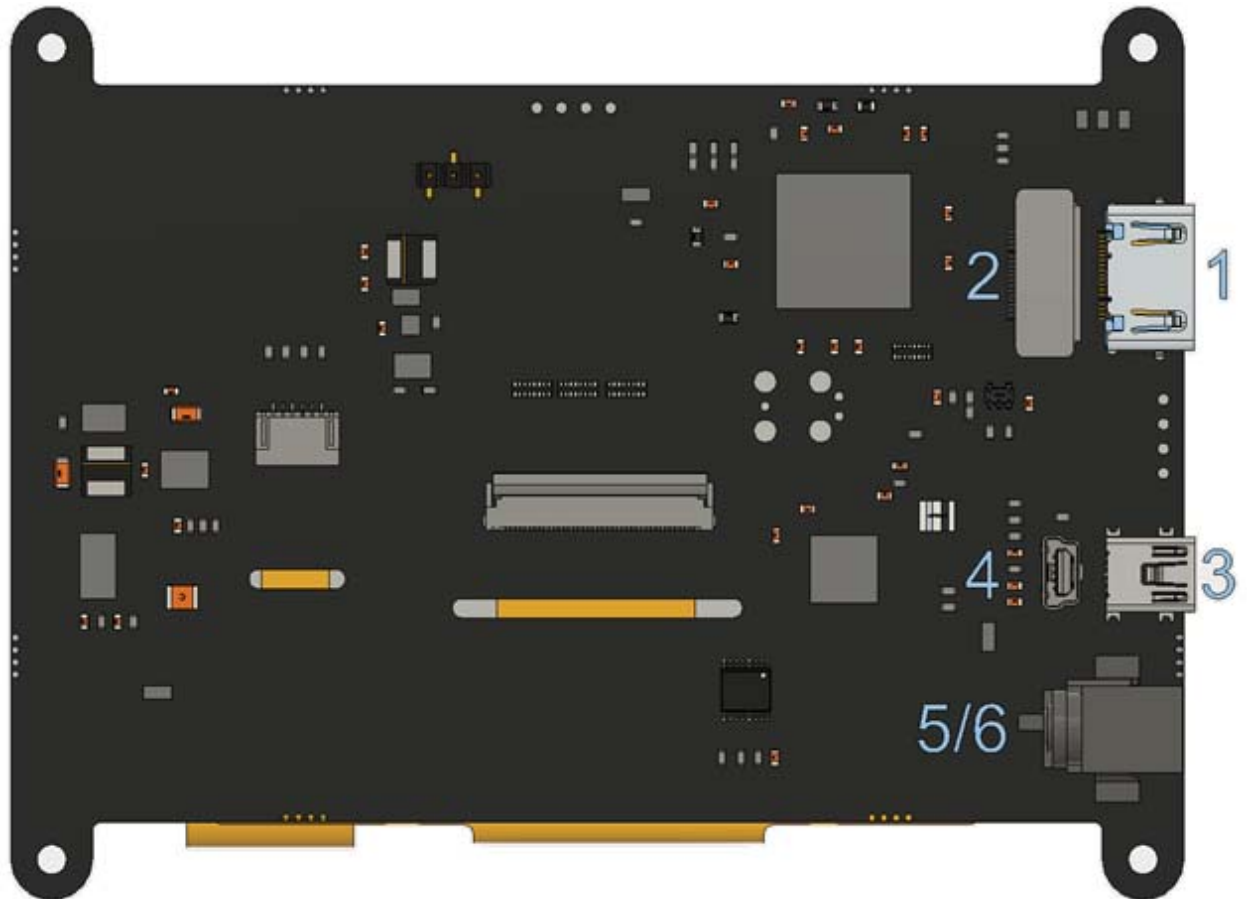


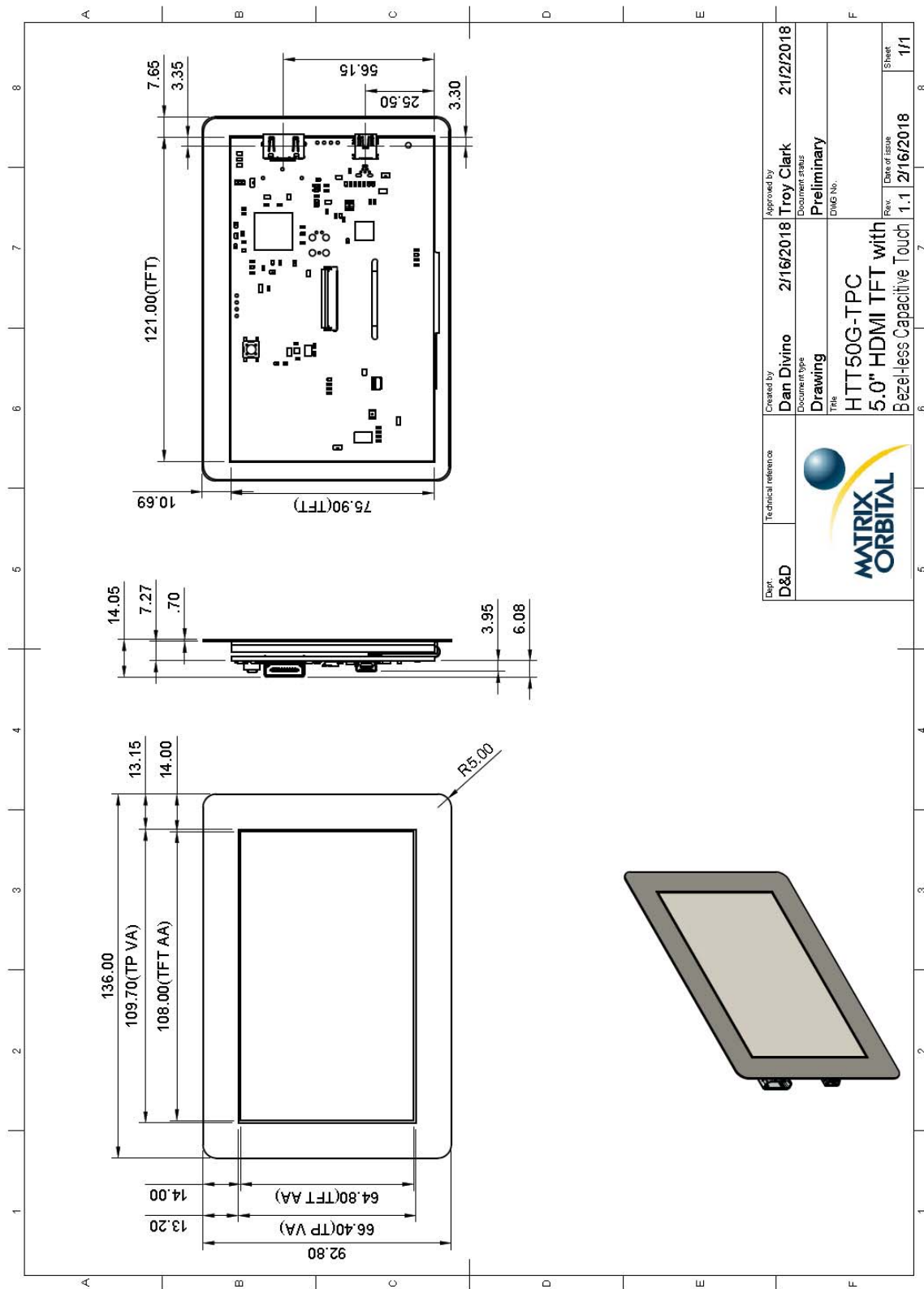
Figure 1: HTT Header Locations

Table 1: HTT50A Headers and Mates

#	Header	Standard Mate	Population
1	HDMI Port, Horizontal, Type A Standard	Type A Standard HDMI Cable	-H5
2	HDMI Port, Vertical, Type A Standard	Type A Standard HDMI Cable	-H6
3	Mini USB, Horizontal: Touch & Power	Mini-B USB Cable	-H5
4	Mini USB, Vertical: Touch & Power	Mini-B USB Cable	-H6
5	Barrel Jack: 2.1mm Center Positive	Power Adaptor	Optional
6	External Power, 2-1445057-2	Micro MATE-N-LOCK 1445022-2	-VPT model

MATRIX ORBITAL





Dept. D&D	Technical reference 	Created by Dan Divino	2/16/2018	Approved by Troy Clark	21/2/2018
		Document type Drawing	Document status Preliminary		
		Title HTT50G-TPC 5.0" HDMI TFT with Bezel-less Capacitive Touch			
		Rev.	1.1	Date of issue 2/16/2018	Sheet 1/1

Characteristics

Optical

Table 2: HTT50 Optical Characteristics

Module Size	121.20 x 92.25 x 12.07	mm
Viewing Area	110.70 x 67.40	mm
Active Area	108.00 x 64.80	mm
Pixel Pattern	800 x 480 x 24bit RGB	
Pixel Pitch	0.135 x 0.135	mm
Luminance	380	cd/m ²
Viewing Angle	70° Left, Right, Up 50° Down	
Contrast Ratio	500:1	
Backlight Half-Life	20,000 hours	

Power

Table 3: HTT50 Typical Power Characteristics

Parameter	Min	Typ	Max	Unit	Remarks
Logic	-	275	-	mA	Backlight Off
Backlight	0	-	225	mA	Off, Mid, Max

Table 4: HTT50 Maximum Power Characteristics

Parameter	Min	Typ	Max	Unit	Remarks
Supply Voltage	4.75	5.0	5.25	V	Standard Voltage (V5)
	5.0	12.0	35.0	V	Wide Voltage (VPT)

Environmental

Table 5: HTT50 Environmental Characteristics

Operating Temperature	0°C to +70°C
Storage Temperature	-30°C to +80°C
Operating Relative Humidity*	90% (T < 60°C)

*Note: No condensation at any temperature

Options

Table 6: Part Numbering Scheme

HTT	50	A	-TPR	-BLM	-B0	-H5	-CH	-V5
1	2	3	4	5	6	7	8	9

Table 7: Display Options

#	Designator	Options
1	Product Type	HTT: Graphic TFT Display
2	Display Size	50: 5.0"
3	Screen Type	A: A Type G: G-Type
4	Touch	-TPN: No touch panel -TPR: Resistive touch panel -TPC: Capacitive touch panel -CTB: Bezel-less capacitive touch panel
5	Backlight	-BLM: 300 Nit < Brightness < 600 Nit -BLH: 600 Nit < Brightness < 1000 Nit -BLD: Brightness > 1000 Nit
6	Bezel	-B0: None
7	Headers	-H5: Horizontal Connectors -H6: Vertical Connectors
8	Protocol	-CH: HDMI interface
9	Voltage	-V5: 5.0V Input Voltage -VPT: Regulated 5V - 35V Input Voltage

Power Options

Table 8: Powering Options

Option	Voltage Input
V5	USB Header
VPT	Barrel Jack/External Power Header

Recommended Accessories

HDMI Cable



Figure 4: HDMI Cable

Part Number:

HDMI3FT or HDMI6FT

Description:

3ft (1m) or 6ft (2m) HDMI Cable

USB Cable



Figure 5: EXTMUSB3FT

Part Number:

EXTMUSB3FT

Description:

3ft (1m) Mini-B USB Cable

Power Adaptor



Figure 6: PWR-ACDC-5V2A

Part Number:

PWR-ACDC-5V2A

Description:

9ft (2.7m) AC to DC power adapter with 2.1mm center positive barrel jack.

Input Voltage: 100-240V AC

Output Voltage: 5V DC @ 2A

AC Plugs Included: North American (NEMA), Europlug (Type C), UK (Type G), Australia/China/New Zealand/Argentina (Type I)

Support

Phone: 403.229.2737

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Manuals: <http://www.matrixorbital.ca>

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