

HTT70A

For all variants of the HTT70A

Hardware Manual

Revision 1.1



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Revision History

| Revision | Date | Description | Author |
|----------|-------------------|----------------------------|--------|
| 1.1 | February 22, 2018 | Added -CTB variant drawing | Divino |
| 1.0 | November 6, 2017 | First Release | Divino |

HTT70A Technical Specifications

The HTT70 is a 7.0" 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

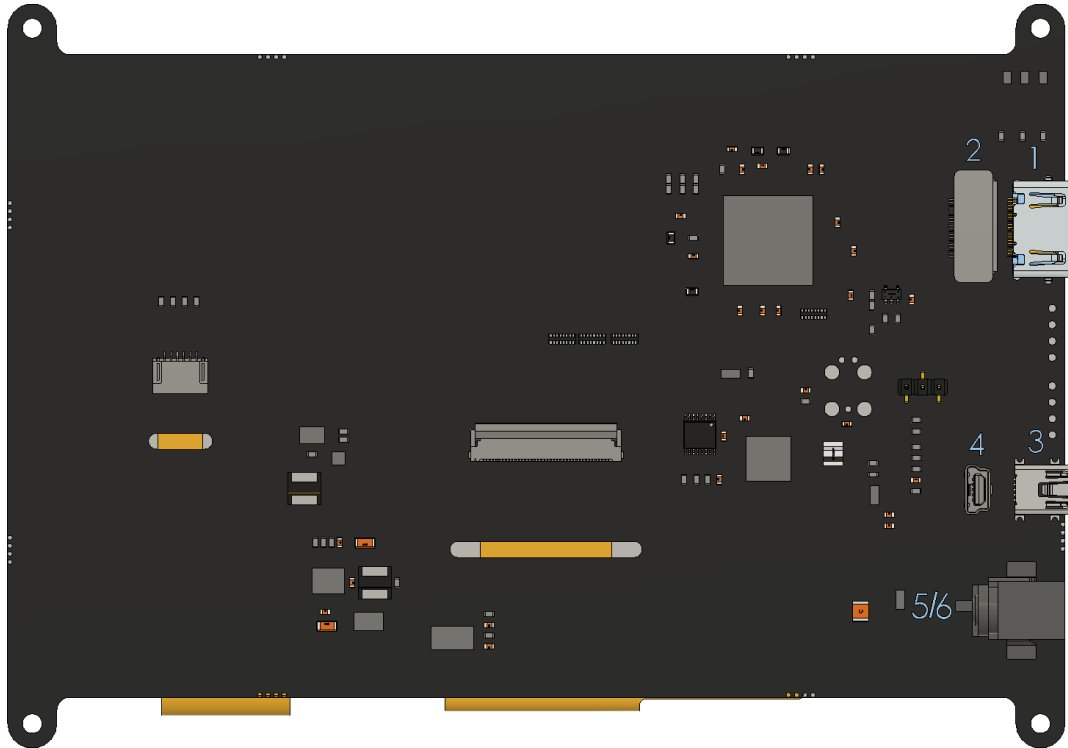


Figure 1: HTT70A Headers

Table 1: HTT70A 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 | -H6 |
| 6 | External Power, 2-1445057-2 | Micro MATE-N-LOCK 1445022-2 | -VPT model |

Dimensional Drawings

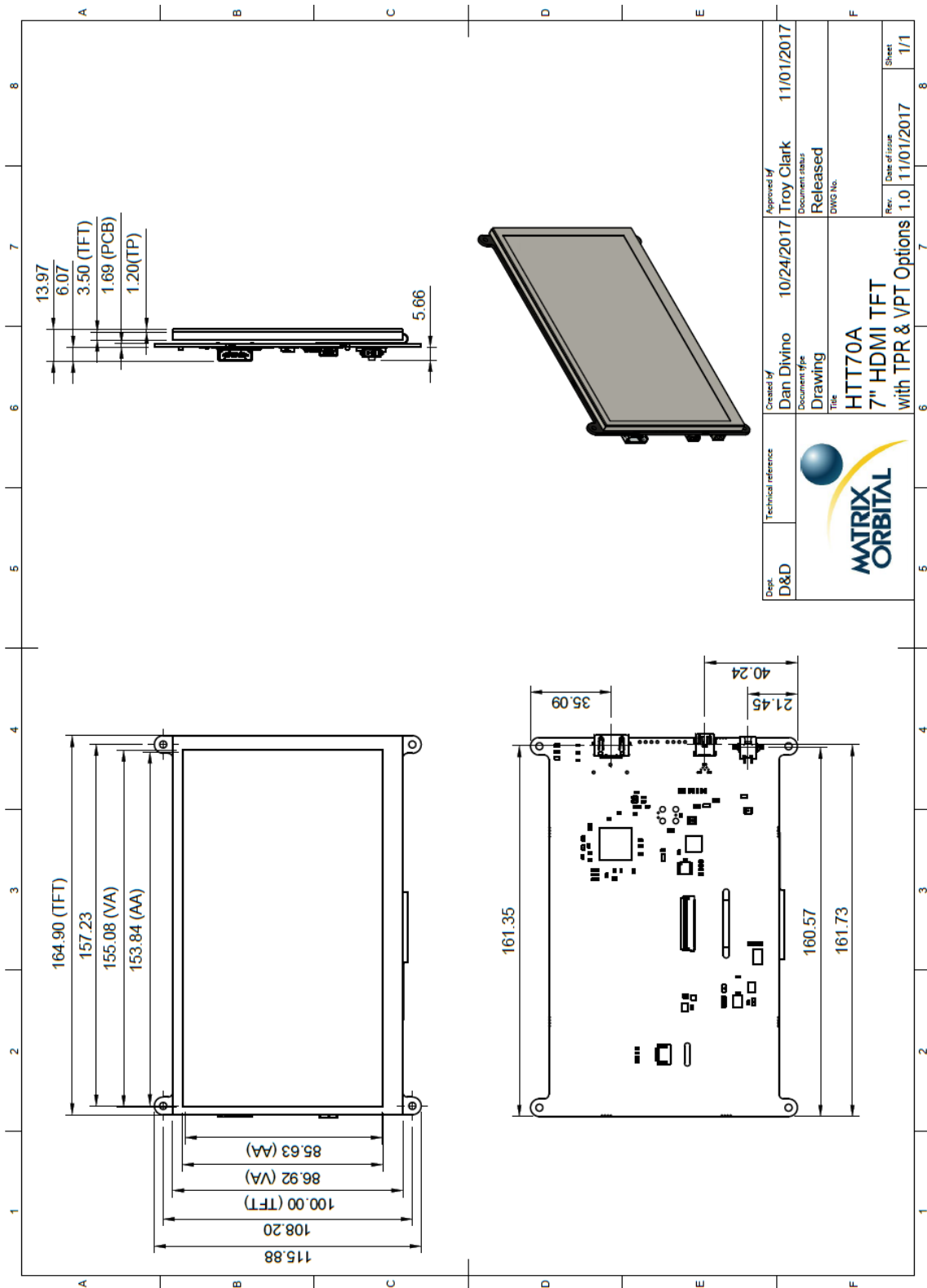
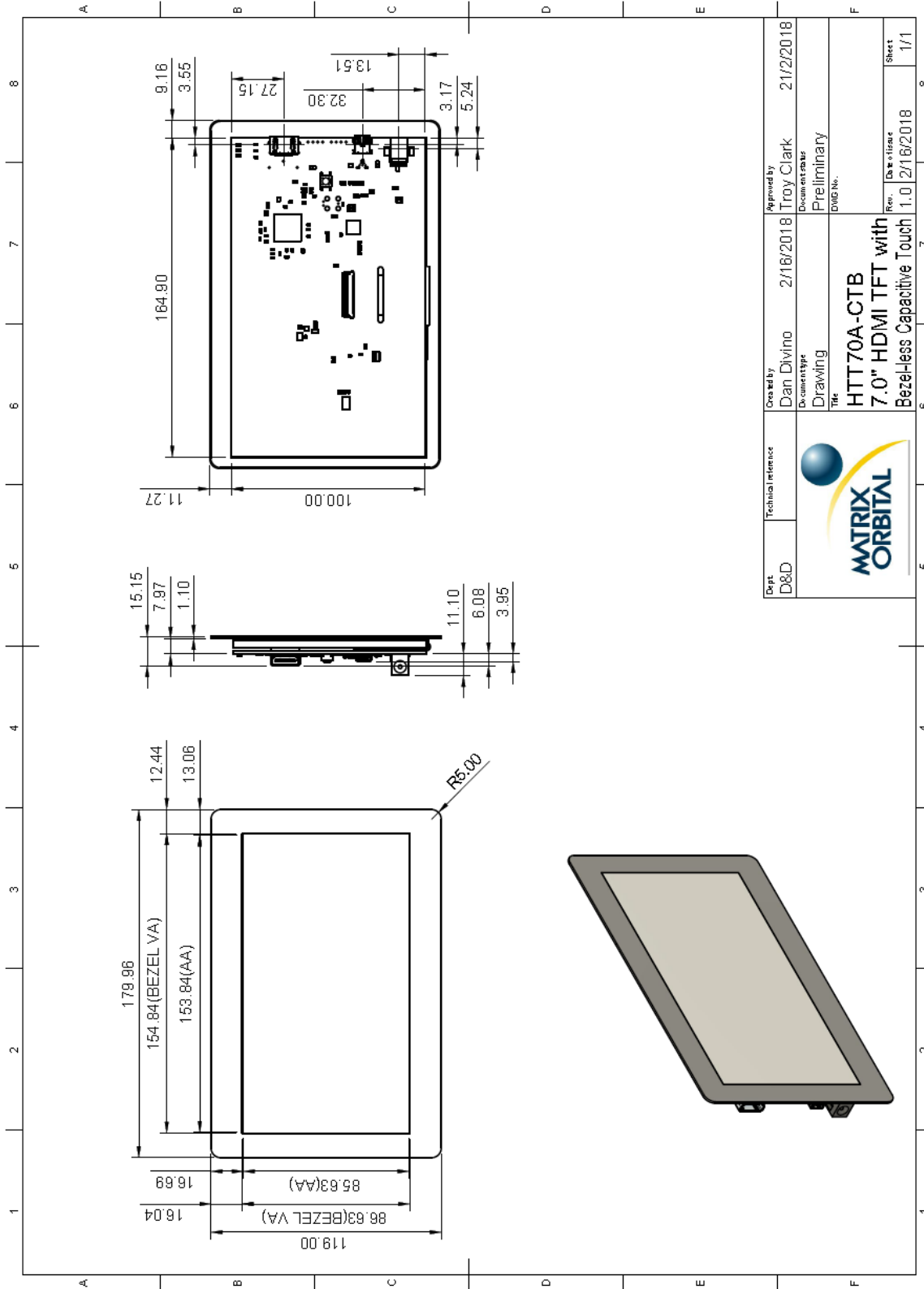


Figure 2: Resistive Touch Panel HTT70A Dimensional Drawing




| | | | |
|-------------|---|---|---------------------------|
| Dept D&D | Technical Reference | Created by Dan Divino | Approved by Troy Clark |
| |  | Document No. 2/16/2018 | Document No. 21/2/2018 |
| | | Title Drawing | Title Preliminary |
| | | HTT70A-CTB 7.0" HDMI TFT with Bezel-less Capacitive Touch | |
| | | Rev. 1.0 | Sheet 1/1 |

Figure 3: Bezel-less Capacitive Touch Panel HTT70A Dimensional Drawing

Characteristics

Optical

Table 2: HTT70A Optical Characteristics

| | | |
|---------------------|---------------------------------|-------------------|
| Module Size | 164.90 x 115.88 x 12.77 | mm |
| Viewing Area | 157.00 x 89.10 | mm |
| Active Area | 153.84 x 85.63 | mm |
| Pixel Pattern | 800 x 480 x 24bit RGB | |
| Pixel Pitch | 0.1923 x 0.1784 | mm |
| Luminance | 520 | cd/m ² |
| Viewing Angle | 70° Left, Right, Up 60° Down | |
| Contrast Ratio | 500:1 | |
| Backlight Half-Life | 20,000 hours | |

Power

Table 3: HTT70A Typical Power Characteristics

| Parameter | Min | Typ | Max | Unit | Remarks |
|-----------|-----|-----|-----|------|---------------|
| Logic | - | 375 | - | mA | Backlight Off |
| Backlight | 0 | - | 465 | mA | Off, Mid, Max |

Table 4: HTT50A 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: HTT70A 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 | 70 | 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 | 70: 7.0" |
| 3 | Screen Type | A: A 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

Email: support@matrixorbital.ca

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

Forums: <http://www.lcdforums.com/forums>

Contact

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Purchasing: www.matrixorbital.com

Support: www.matrixorbital.ca