

# HTT70

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For all variants of the HTT70

**Hardware Manual**

Revision 1.1



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## Revision History

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

## HTT70 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

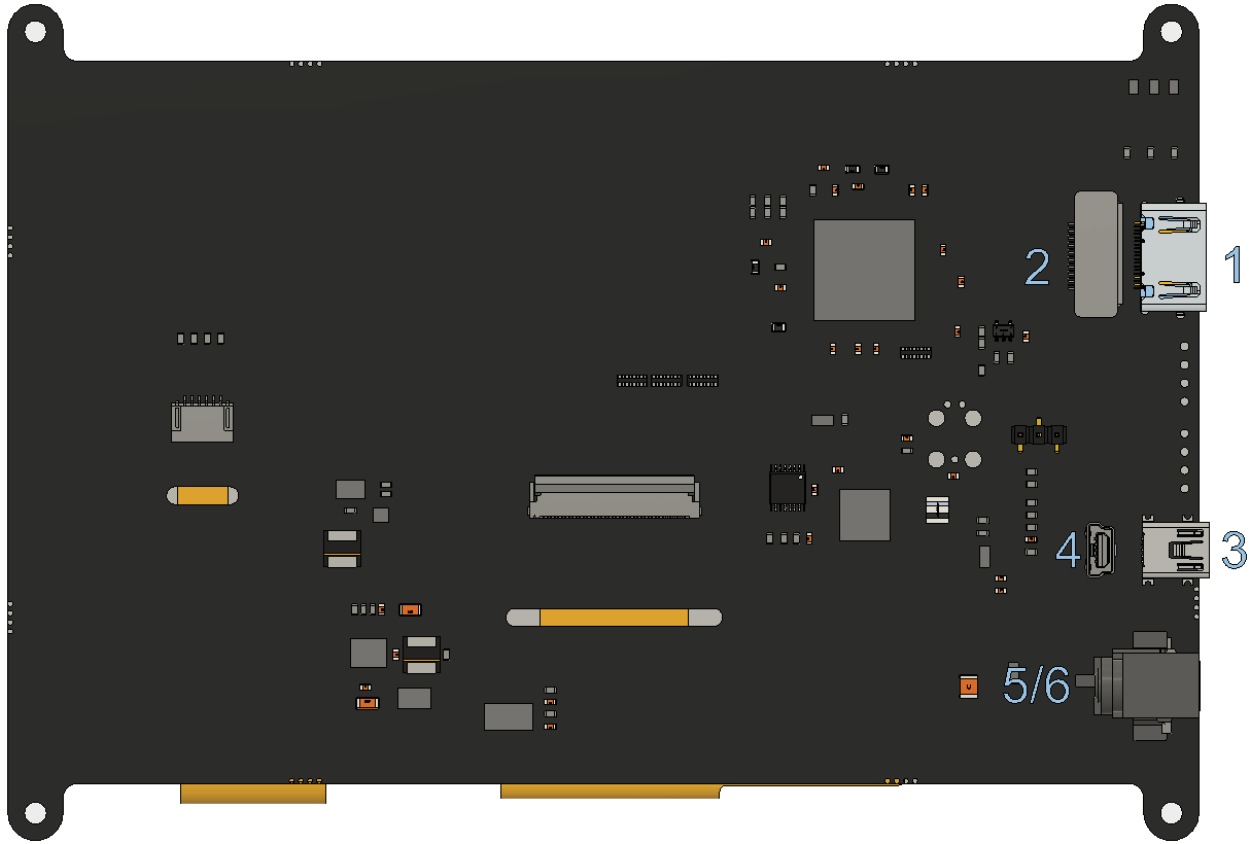


Figure 1: HTT70A Headers

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

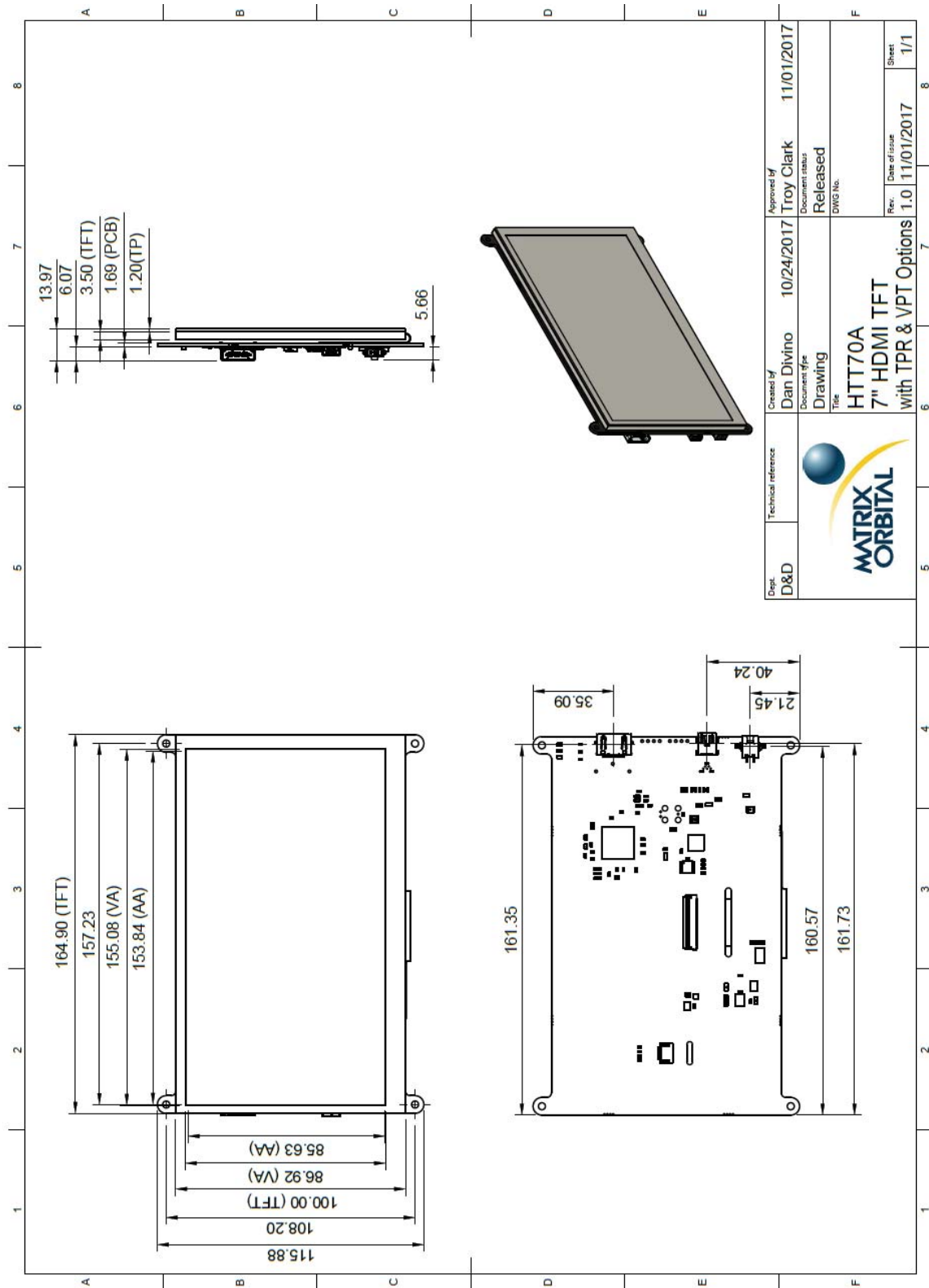
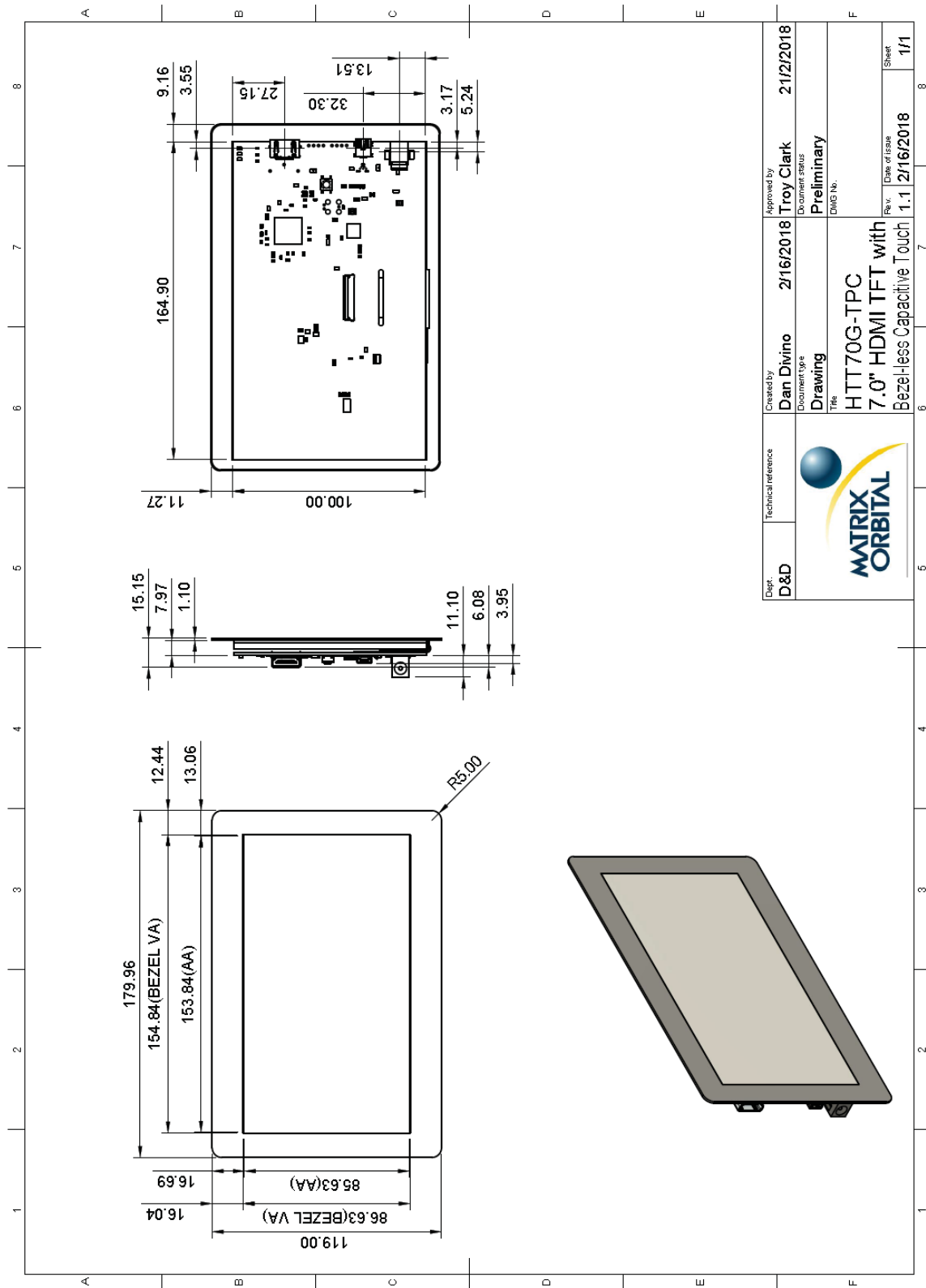


Figure 2: Resistive Touch Panel HTT70A Dimensional Drawing




|              |  |                             |                                |
|--------------|--|-----------------------------|--------------------------------|
| Dept.<br>D&D | Technical Reference<br> | Created by<br>Dan Divino    | Approved by<br>Troy Clark      |
|              |  | 2/16/2018                   | 21/2/2018                      |
|              |  | Document Type<br>Drawing    | Document Status<br>Preliminary |
|              |  | Title<br>HTT70G-TPC         |                                |
|              |  | 7.0" HDMI TFT with          |                                |
|              |  | Bezel-less Capacitive Touch |                                |
|              |  | Rev.<br>1.1                 | Date of Issue<br>2/16/2018     |
|              |  |                             | Sheet<br>1/1                   |

Figure 3: Bezel-less Capacitive Touch Panel HTT70G Dimensional Drawing

## Characteristics

### Optical

Table 2: HTT70 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 <sup>2</sup> |
| Viewing Angle       | 70° Left, Right, Up<br>60° Down |                   |
| Contrast Ratio      | 500:1                           |                   |
| Backlight Half-Life | 20,000 hours                    |                   |

### Power

Table 3: HTT70 Typical Power Characteristics

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

Table 4: HTT70 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: HTT70 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<br>G: G Type   |
| 4 | Touch        | -TPN: No touch panel<br>-TPR: Resistive touch panel<br>-TPC: Capacitive touch panel<br>-CTB: Bezel-less capacitive touch panel |
| 5 | Backlight    | -BLM: 300 Nit < Brightness < 600 Nit<br>-BLH: 600 Nit < Brightness < 1000 Nit<br>-BLD: Brightness > 1000 Nit                   |
| 6 | Bezel        | -B0: None  |
| 7 | Headers      | -H5: Horizontal Connectors<br>-H6: Vertical Connectors   |
| 8 | Protocol     | -CH: HDMI interface  |
| 9 | Voltage      | -V5: 5.0V Input Voltage<br>-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](mailto:support@matrixorbital.ca)

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

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

## Contact

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