

# DATA SHEET

Manufacturer: **Jakob Hatteland Display AS**

Product: **10.4 inch Maritime Multi Display (MMD)**

Type: JH 10T05 VGA



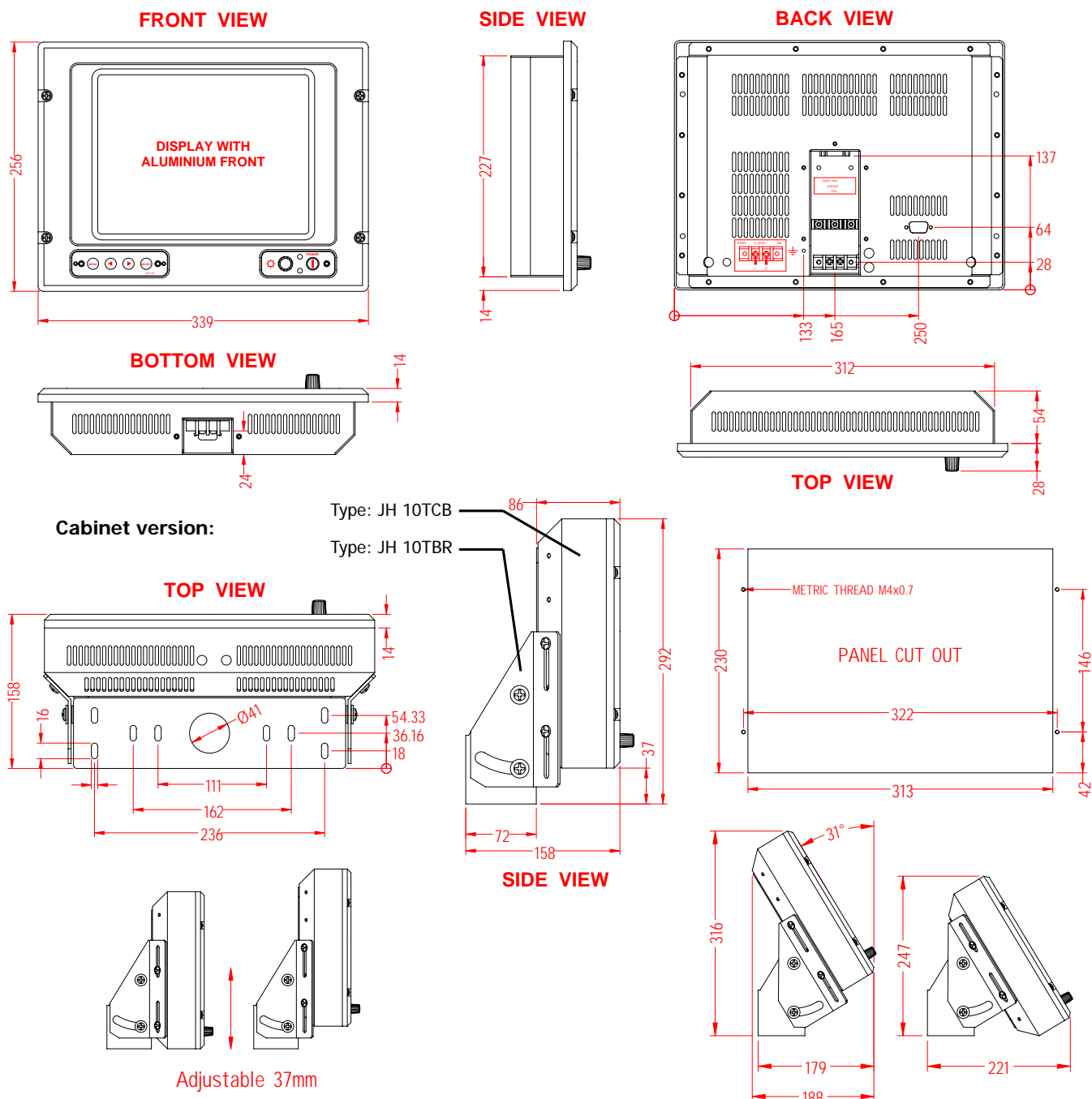
Last Revised:	<b>04 Feb 2003</b>
Revision#:	<b>4</b>

## 10.4 inch Industrial TFT Display (VGA)

### Features:

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The color display described in this Data Sheet is an industrialized version of a high quality Sharp TFT based display. The display allows you to display professional applications with clarity and enhanced color and image quality. The combination of the VGA controller and the high light intensity of the TFT display allows the product to be used in many environments. The combination and the high-color-saturation also makes it suitable for the multimedia use. Standard VGA signal are displayed without external adapters. Brightness is adjustable from 0-100%.

**Rack Version:**

Due to dimensions without decimals, the tolerance on drawings is +/- 1mm (For accurate measurements, measure in AutoCAD)  
Technical drawings (.DWG format) are found on our internet site: <http://www.hatteland.com>

Note: All specifications are subject to change without prior notice!

## TECHNICAL DESCRIPTION

### TFT Technology:

- 10.4 inch viewable image size
- Active Matrix, Thin Film Transistor (TFT)
- RGB vertical stripe

### TFT Characteristics:

- Pixel Number : 640 x 480
- Pixel Pitch (RGB) : 0.33 (H) x 0.33 (V) mm
- Response Time : 20 ms (typical), "black" to "white"
- Contrast Ratio : 300:1 (typical)
- Light Intensity : 350 cd/m2 (typical)
- Viewable Angle : +/- 70 deg. (H), 40 deg. (V)
- Active Display Area : 211.2 (H) x 158.4 (V) mm
- Max Colors : 262,144 colors (6-bit max)

### Synchronisation:

#### Sync Signal:

- Separate H- and V-Sync (TTL)
- Composite-Sync
- Composite-Sync on Green
- Video Signal : Analog RGB 0,7Vp-p
- Input Impedance 75 Ohm

#### Synchronisation Range:

- Horizontal : 31,47 kHz
- Vertical : 60 Hz

### Supported Signal Inputs:

#### Resolutions:

- VGA : 640 x 480 (including 640 x 350)

### Power Specifications:

#### Power Supply Options:

- 12-24 VDC : Model JH 10T05 VGA A0/A1

#### Power Consumption:

- Operating : 25 W (max)

## MECHANICAL DESCRIPTION

### Physical Dimensions:

- 339 (W) 256 (H) 68 (D)
- Weight: 3,7 kg (approx)

### Input Signal Terminal:

- RGB (PC) signal : 15pin mini D-SUB (female)
- DC Power signal : Screw terminal Model JH 10T05 VGA A0/A1

#### Accessories:

- Touchscreen : 1 x D-SUB 9P Connector (female)

### User Controls:

#### On front bezel:

- Power On/Off (push button)
- Brightness Control
- Mode Status LED

#### Behind hatch:

- On Screen Display control (OSD/OSM)

#### Rear side:

- Auto LED adjustment

### Environmental Considerations:

- Operating : Temperature 0 deg. C to +50 deg. C  
Humidity 10% to 90% (non condensing)
- Storage : Temperature -25 deg. C to +60 deg. C  
Humidity 10% to 90% (non condensing)

#### Safety Considerations:

Even although the test conditions for bridge units provide for a maximum operating temperature of 55°C, continuous operation of all electronic components should, if possible, take place at ambient temperatures of only 25°C. This is a necessary prerequisite for long life and low service costs.

### Available Options:

- JH 10TBR STD = Bracket \*
- JH 10TSV = Sun Visor \*
- Touch Screen = Factory mounted
- Higher IP-rating= Factory mounted

\* Option: Standard or custom logo and color  
Note: Ruggedized construction.

## APPROVALS & CERTIFICATES

This product have been tested / type approved by the following classification societies: