DATA SHEET

HATTELAND® DISPLAY

Manufacturer:	**Hatteland Display AS**
Product:	**Compact Rugged Naval Computer**
Type:	**HM C01 STz-yxxx** (z=OS, y=Power, xxx=Config)

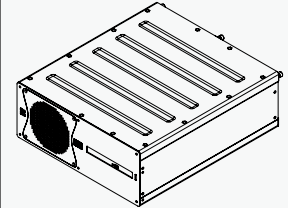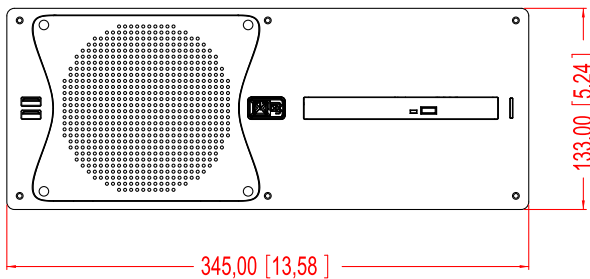| Last Revised:	**05 Nov 2014**
Revision#:	**18**

Compact Rugged Naval Computer

Features:

The HM C01 is a compact naval computer with extreme performance and most computer functions built into a form factor that can be placed virtually anywhere. The HM C01 computer is designed for 24/7 operation and fulfill naval MIL test qualifications.

The computer have a unique mechanical design, intelligent thermal management system and can be equipped with a rich selection of options.
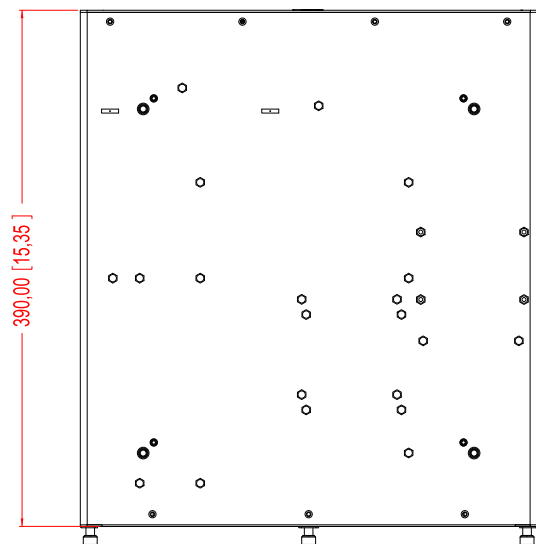
The models are service friendly which makes it easy to replace the Hard Disk media, power supply, memory, media drives, PCI cards, fan and air filter. Either AC or DC power input.

FRONT VIEW

133,00 [5,24]
345,00 [13,58]

BOTTOM VIEW

390,00 [15,35]

BACK VIEW

0 [0,00]
50,05 [1,97]
167,52 [6,60]
260,01 [10,24]
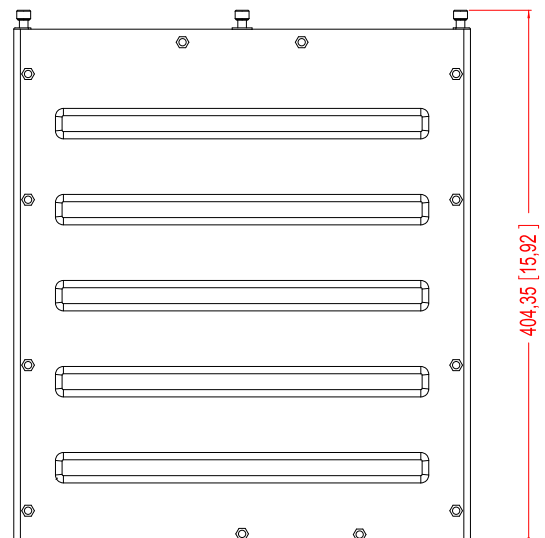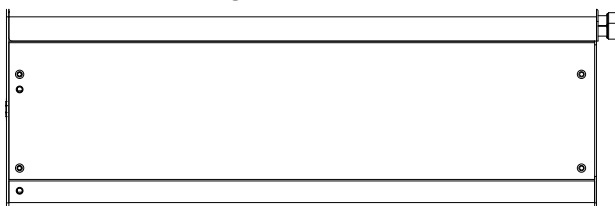280,33 [11,04]
300,65 [11,84]
320,97 [12,64]

TOP VIEW

404,35 [15,92]
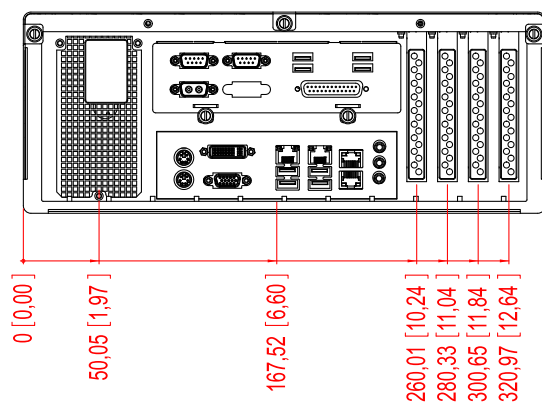
SIDE VIEW

Dimensions might be shown with or without decimals and indicated as mm [inches]. Tolerance on drawings is +/- 1mm. For accurate measurements, check relevant DWG file.

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1/2

SPECIFICATIONS

Note: All specifications are subject to change without prior notice!
Please visit www.hatteland-display.com for the latest electronic version.

HATTELAND® DISPLAY

TECHNICAL DESCRIPTION

Computer Specifications:

		External Connector Type:
• Installed Operating System	: None for standard version (check Accessories / Options below for OS options)	
• Media Drive	: 1 x DVD-RW/CD-RW Dual Recorder/Player	
• Processor	: 1 x Intel® Core™2 Duo Desktop Processor E8400 - 3.0GHz, Bus Speed 1333MHz, 6MB L2 Cache	
• Memory	: 4 x 1GB installed (Dual Channel DDR2 800/667MHz SDRAM, 240-pin DIMM)	
• SATA Interface	: 2 x 250GB Automotive HDD, 5400RPM, 8MB Buffer	
• Graphics	: Intel® Graphics Media Accelerator 3100 (Intel® GMA 3100) integrated	1 x DVI-I & 1 x DB15F
	Note: DVI-I signal support VGA/RGB output via adapter. Due to hardware design achieving 2 x VGA/RGB outputs simultaneously is not possible	
• Graphics Resolution	: Max 2048 x 1536 @ 75Hz	
• System Chipset	: Intel® Q35 / ICH9DO support Intel® Active Management Technology	
• IO Chipset	: Winbond W83627DHG-A	
• BIOS	: AWARD BIOS	
• PCI Slots	: 2 x PCI Rev2.3 Slot 32-bit, 3V and 5V Interface, Full Height & Length	
• PCIe Slots	: 1 x PCI Express X16 (add2), Full Height & Length + 1 x PCI Express X1, Full Height & Length	
• Ethernet #1	: 2 x 10/100/1000Mbps, Intel® 82566DM Gigabit LAN support Intel AMT	2 x RJ-45
• Ethernet #2	: 2 x 10/100/1000Mbps, Realtek RTL 8168C(P)8111C PCI-E Gigabit	2 x RJ-45
• Serial Ports	: 2 x RS-232	2 x DB9M
• Parallel Port (LPT)	: 1 x Bi-Directional Centronics with ECP or EPP mode	1 x DB25F
• USB Ports	: 10 x USB ports (8 in rear, 2 in front) - Supports 2.0 & 1.1	10 x USB Type A
• Keyboard Port / Mouse	: 2 x Standard PS/2 mini DIN connector	2 x PS/2
• Audio	: Realtek® ALC888, 7.1, Mic. in, Line in, Line out, 3.5mm or option	3 x JACKS (+1 x DB9F)
• Speaker	: No	
• Power Manager	: ACPI	
• Watchdog Timer	: Reset: 1 sec.~255 min. and 1 sec. or 1 min./step	
• H/W Status Monitor	: Temperatures, voltages & cooling fan status. Auto throttling control if CPU overheats	

Power Supply Options:

• 115&230VAC - 50/60Hz	: Model HM C01 STx-Axxx (330W)	STD IEC
• 24 VDC	: Model HM C01 STx-Dxxx (220W)	1 x 2p D-SUB (male) Amphenol FCC17
• Power Consumption - Operating	: 70W typical	

Environmental Performance:

- MIL-STD-167-1 Vibration
- MIL-STD-810F Shock 50G 30ms
- EN60945 4th (EN 60945:2002)
- Operating : Temperature -15 deg. C to +55 deg. C.
  Humidity up to 95%
  DNV Temperature Class B +70 deg. C for 2 hours
- Storage : Temperature -20 deg. C to +60 deg. C. - Humidity up to 95%

EMI Testing:

- MIL-STD-461E Naval Limits
- CE 101, CE 102
- RE 101
- RE 102 (AC: front ok, rear deviate 5dB@190MHz)
- CS 101, CS 114, CS 116,
- RS 101, RS 103
- IEC 60945 4th (EN 60945:2002)

Available Accessories:

- HT 00225 OPT-A1 = 2 x 26" ball bearing sliding rail and mounting kit for 19" Rack
- HT 00224 OPT-A1 = 2 x 20" ball bearing sliding rail and mounting kit for 19" Rack
- HT 00223 OPT-A1 = 1 x 4U 19" Rack Case Kit (compatible with HT 00224/00225)
- HT 00300 MSOS = OS options -> http://www.hatteland-display.com/os
- HT 00226 OPT-A1 = 2 x Mounting Bracket, 4mm SECC+Zinc Plating, RAL9011 (included with standard delivery)

- HT 00229 OPT-A1 = 1 x Mounting Bracket PCI Kit
- HT 00235 OPT-A1 = 1 x 2W Amplified Audio out via 1 x DB9F
- JH C01MF A-A = 1 x USB Cable 1m, Type A to Chassis mount receptacle

*Please see user manual/datasheet for more information

Capabilities / Prepared for:

- 8GB (Dual Channel DDR2 800/667MHz SDRAM, 240-pin DIMM) memory (not tested)

Models without/with OS:

- HM C01 ST0-xxxx = No OS
- HM C01 STD-xxxx= Microsoft® Windows® Embedded Enterprise (Win XP Pro Eng w/SP2c, 32bit)
- HM C01 ST3-xxxx = Microsoft® Windows® Embedded Enterprise (Win Server 2003 Eng, 32bit)
- HM C01 ST7-xxxx = Microsoft® Windows® Embedded Enterprise (Win 7 Pro Eng, 32bit)
- HM C01 ST8-xxxx = Microsoft® Windows® Embedded Enterprise (Win Server 2008 Eng, 32bit)

For a full overview of model typenumbers, please review the following link: www.hatteland-display.com/pdflink/ind100780-5.php

MECHANICAL DESCRIPTION

Physical Specifications:

- 345.00 (W) x 133.00 (H) x 390.00 (D) mm
- 13.58" (W) x 5.24" (H) x 15.35" (D)
- Weight: 10 kg (approx)
- Power button, power led, reset button and HDD Led in front
- Replaceable Air Filter in front
- Includes Mounting Brackets (for console mounting)

Compass Safe Distance HM C01 STx-xxxx = Standard: 155cm - Steering: 95cm

Environmental Considerations:

Lifetime 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.

APPROVALS & CERTIFICATES

These products have been tested / type approved by the following classification societies: (1=AC, 2=DC)

IEC 60945 4th (EN 60945:2002) (1,2)	**IACS E10** (1,2)	**EN61162** (1,2)	**ClassNK** - Nippon Kaiji Kyokai (1,2)
DNV - Det Norske Veritas	**GL** - Germanischer Lloyd (1,2)	**BV -** Bureau Veritas (1,2)	
ABS - American Bureau of Shipping (2)	**LRS** - Lloyd's Register of Shipping	**EU RO MR** - Mutual Recognition	