

DATA SHEET

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HATTELAND®
DISPLAY

Manufacturer: **Hatteland Display AS**
Product: **Compact Computer (Entry Level Models)**

Type: **HT C02HI STC-yzz-wzzz**
where y=OS, w=Power Input, z=configuration

Last Revised: **21 Jan 2016**
Revision#: **07**

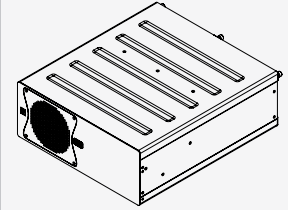
Compact Computer (Entry Level Models)

Features:

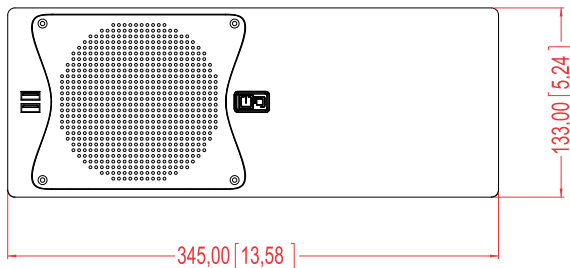
The HT C02HI model is the successor to the best in class and highly successful HT C01 computer. The new model incorporates latest processor technologies and enhanced feature sets, thus providing greater versatility for high-end maritime system applications.

The HT C02HI entry-level model has a basic mechanical structure (No DVD drive and No Extractable Disc bays) and is equipped with an i3 processor. This solution provides the most competitive in type approved rugged PC computing to system integrator applications while retaining a high level of feature sets and connectivity capability.

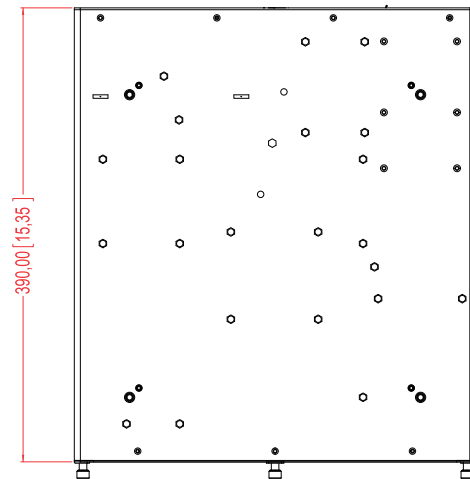
It includes 4 PCI slots, memory up to 16GB RAM, RS232, 422, 485 support, 6 USB, multiple LAN ports, 2 DVI-I plus 1 Display port and more, making the HT C02HI the most versatile and economic rugged PC solution for the professional maritime segment.



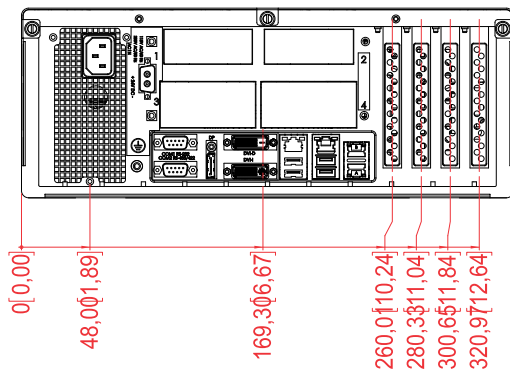
FRONT VIEW



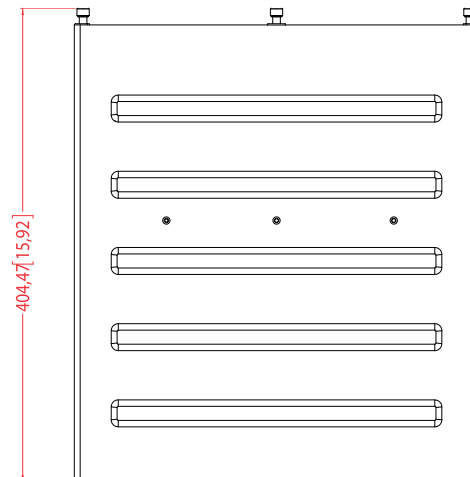
BOTTOM VIEW



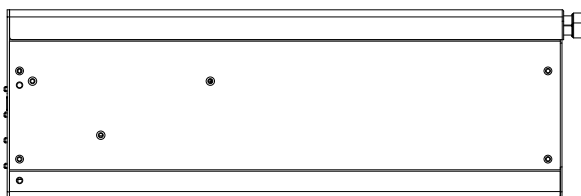
BACK VIEW



TOP VIEW



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.

TECHNICAL DESCRIPTION

Computer Specifications: (Entry model)

<ul style="list-style-type: none"> Operating System Support : None, customized image or see table below. Storage Devices : 1 x 2.5" 1TB HDD SATA installed (2 x internal 2.5" HDD SATA possible) Processor : 1 x Intel® Core™ i3-4330 Dual Core 3.5GHz, Front Side Bus: 1600Mhz, 4MB Cache Memory/RAM : Max 16GB possible (Dual Channel DDR3 1600 204pin SO-DIMM), see table below Graphics : Intel HD Graphics 4600 integrated Graphics Capabilities : Direct3D 11.1 w/Shader Model 5.0, OpenCL 1.2, OpenGL 4.2/3.3 (Linux). Max memory available for use: 1.7GB Max Graphics Resolution : Max 2560 x 1600 @ 60Hz for DVI-I/VGA/DVI-D. Max 3840 x 2160 (4K UHD) @ 30Hz (60Hz Pending) for DP (DisplayPort) System Chipset : Intel® Q87 BIOS : AMI BIOS PCI Slots : 1 x PCI v2.3, 32-bit/33MHz, 3V and 5V Interface, Full Height & Length PCIe Slots : 1 x PCI Express x16 + 1 x PCI Express x4 + 1 x PCI Express x1, all Full Height & Length Ethernet #1 : 2 x 10/100/1000Mbps, Intel® I217/I210 Gigabit LAN supports Intel® Teaming Ethernet #2 : 2 x 10/100/1000Mbps, Realtek 8111E Gigabit LAN Serial Port #1 : 1 x RS-232 Baud Rate: Max ~256Kbps Serial Port #2 : 1 x RS-422/RS-485 Baud Rate: Max ~256Kbps USB Ports #1 : 2 x USB2.0 (<5m) ports in front USB Ports #2 : 1 x USB2.0 (<5m) + 1 x USB1.1 (<10m) / USB2.0 (<5m) ports in rear USB Ports #3 : 2 x USB3.0 (<3m) ports in rear PC-Speaker : Yes, onboard Audio : Realtek ALC892-CG HD Audio supports 5.1 channel (Note: for sound outputs, hardware option VSD100897-1 is required) 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 Other Features : LAN Wakeup, USB Boot, Wakeup, Intel® Management Engine. True power on after power fail. 	External Connector Type: 1 x DVI-I + 1 x DVI-D + 1 x DP 2 x RJ-45 2 x RJ-45 1 x DB9M 1 x DB9M 2 x USB Type A 2 x USB Type A 2 x USB Type A
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Power Supply Options:

<ul style="list-style-type: none"> 115&230VAC - 50/60Hz 24 VDC 	: Power Consumption - Operating: 70W typical (AC and DC models) : Model HT C02HI STC-xxx-Axxx (330W) : Model HT C02HI STC-xxx-Dxxx (220W)	External Connector Type: STD IEC 1 x 2p D-SUB (male) Amphenol FCC17
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Available Computer Configurations:

Type	Description	Size/Specification
Memory	DDR3 SO-DIMM 204-pin	- Uses 2 slots, available sizes are 2x2GB, 2x4GB, 2x8GB
Storage	2.5" SSD SATA, Multi Level (MLC)	- 80GB, 120GB, 300GB
Storage	2.5" HDD SATA	- 1TB
Storage	2.5" HDD SATA Ruggedized/Automotive	- 320GB (Shock 2ms: 300G - Vibration: 3/2.5/1G - Operating Temp: -30 to +85°C)
OS	Embedded Enterprise (WEE): Microsoft® Windows® 7 Professional SP1 32/64bit, Microsoft® Windows® 7 Ultimate SP1 32/64bit, Microsoft® Windows® Embedded 8.1 Industry Pro MultiLang 32/64bit, Microsoft® Windows® Server 2008R2 64bit, Microsoft® Windows® Server 2012 64bit, Microsoft® Windows® Server 2012R2 64bit. Linux: openSUSE® 11.4, Fedora™ 15, Ubuntu® 10.04 LTS, Ubuntu® 12.04 LTS.	
Notes	Review "SSD Selection Guide" in manual. 32bit or 64bit versions available where applicable.	

Factory Mounted Options:

*If 1600x1200 resolution is used, DVI signals must be set to CVT-RB mode manually. Max Resolution: 2048x1536

<ul style="list-style-type: none"> P69-MDDE128LPF: Matrox®P690 LPF Graphics Card,PCIe x1,1xDVI-I,128MB* P69-MDDE256LAUF: Matrox®P690 LP Graphics Card,PCIe x16,2xDVI-I,256MB* M9140-E512LAF: Matrox®9140 LP Graphics Card,PCIe x16,4xDVI-I,512MB* CP114UL-I: 4 Ports COM Card, PCI, 1xDB44F to 4xDB9M isolated, RS-232/422/485) CP114EL-I: 4 Ports COM Card, PCIe x1, 1xDB44F to 4xDB9M isolated, RS-232/422/485) CP118U-I: 8 Ports COM Card PCI, 1xDB44F to 8xDB9M isolated, RS-232/422/485)*** VSD100897-1: Audio 2W Amplified (1xDB9F+3x3.5mm Jack) Line-in,Line-Out,Mic** i350F2BLK: Intel® Ethernet Server Adapter I350-F2, FiberLAN (2 x LC Fiber Optic) i350F4BLK: Intel® Ethernet Server Adapter I350-F4, FiberLAN (4 x LC Fiber Optic) 	<ul style="list-style-type: none"> PCA100294-1: COM un-isolated RS-232 via DB9M, 4 channel* PCA100298-1: LAN 10/100Mbps, 2 ports (RJ45)* HT 00268 OPT-A1: Digital IO Isolated, 4 IN + 4 OUT** HT 00254 OPT-A1: CAN isolated, 2 channel** PCA100293-1: COM RS-422/485 isolated NMEA 4 channel** VSD100896-1: 2 x PS/2 5pin mini (Keyboard + Mouse inputs)** VSD100898-1: Additional USB ports: 2 x USB3.0+2 x USB2.0** SX-118A: 1xParallel Port LPT, DB25F, Bi-Dir. ECP/EPP, PCIe x1 card Variations of Storage, RAM Memory and Operating System
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For all Factory Mounted Options, review User Manual for possible HW combinations. * Recommended Baud Rate: <57000b/s

Available Accessories:

<ul style="list-style-type: none"> HT 00225 OPT-A1: 2 x 26" ball bearing sliding rail & mounting kit for 19" Rack HT 00224 OPT-A1: 2 x 20" ball bearing sliding rail & mounting kit for 19" Rack HT 00223 OPT-A1: 1 x 4U 19" Rack Case Kit(compatible with HT00224/00225) HT 00226 OPT-A1: 2 x Mounting Bracket, 4mm SECC+Zinc Plating, RAL9011 JH C01MF A-A: 1 x USB Cable 1m, Type A-Chassis mount receptacle HT 00300 MSOS: OS options -> http://www.hatteland-display.com/os H733S3Q20-SP000-0: 1 x Replacement Front Air Filter w/4 screws 	<ul style="list-style-type: none"> HT 00273 OPT-A1: 4 x Digital IN/OUT isolated, USB ext. module HT 00262 OPT-A1: 4 x RS-422/RS-485 isolated, USB ext. module HT 00263 OPT-A1: 4 x RS-232 COM non-isolated, USB ext. module HT 00264 OPT-A1: 1 x CAN isolated, 2 channel, USB ext. module HT 00274 OPT-A1: 2 x LAN 10/100Mbps, RJ45, USB ext. module HT 00275 OPT-A1: 1 x PCI Mount Kit EN60945, Low Profile (LP, any len.) HT 00229 OPT-A1: 1 x PCI Mount Kit,Half Height to Full Height (any len.)
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MECHANICAL DESCRIPTION

Physical Specifications:

<ul style="list-style-type: none"> W:345.00 [13.58"] x H:133.00 [5.24"] x D:390.00 [15.35"] mm [inch] Weight: 10 kg (approx) Power button, power led, reset button and HDD Led in front Easy Removable Front Air Filter (spare part accessory available) Includes Mounting Brackets (HT 00226 OPT-A1) 1 x Internal Cooling fan in front (120x120mm)

Environmental Considerations:

<ul style="list-style-type: none"> Operating : Temperature -15 to +55°C - Humidity up to 95% Storage : Temperature -20 to +60°C - Humidity up to 95%
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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.

Compass Safe Distance: Standard: 140cm - Steering: 90cm

APPROVALS & CERTIFICATES

IEC 60945 4th (EN 60945:2002)	These products have been tested / type approved by the following classification societies:	EU RO MR - Mutual Recognition (covers DNV, BV, ABS, GL, NK and LRS certificates)
IACS IE10	EN61162	