



Series E

# SMART MONITORS

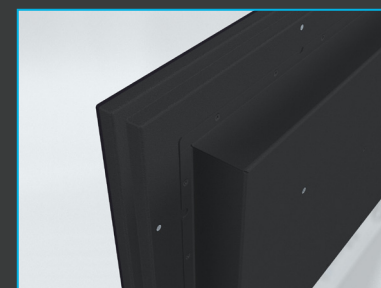
Based on ARM CPU platform w/Android™ or Linux OS

Rockchip Dual Cortex-A72 + Quad Cortex-A53,  
64-bit CPU, Fan-Less Design, LED Backlight  
Technology, Full Dimming 100%, Low Power  
Consumption, Multi-Power Option, Multi-  
Touch, Superior Optical Bonding Option,  
WiFi, Bluetooth & SDCard options,  
EN60945 Tested, Type Approved  
and ECDIS Compliant

NEW

HATTELAND® Smart Monitors have a cost-effective architecture with easy installation, which enables tangible cost savings for maritime technology manufacturers and systems integrators. It is an all-in-one solution for diverse maritime applications based on ARM CPU with an open Android™ platform where any app from Google Play can be installed. HATTELAND® Smart Monitors have a slim design and PoE support.

**HATTELAND  
TECHNOLOGY**  
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# SPECIFICATIONS

## PRODUCT HIGHLIGHTS

- Open Android™ platform, install any app from Google Play.
- Supports multi-format video decoders including H.264/H.265/VP9 up to 4k & 2k @60fps (HW).
- Supports H.264/MVC/VP8 encoders by 1080p@30fps and high-quality JPEG encoder/decoder (HW).
- Run thin client app to control your VM's (like VMware Horizon Client).
- Run VMS app to access your surveillance cameras.



## DISPLAY TECHNOLOGY & MECHANICAL

	Response Time & View Angle (typ)	Contrast Ratio (typ) & Light Intensity (typ)	Pixel Pitch (mm)	Active Area (mm [inch])	Power Consumption (typ/max)	Dimensions (WxHxD) (mm) [inch] & Compass Safe Distance (cm) [inch]	Approx. Weight
15.6" HD 16T30	35ms (tr+tf) 85° (u/d/l/r)	1500:1 400 cd/m²	0.17925 (H) 0.17925 (V)	344.16 [13.55"] (H) 193.59 [7.62"] (V)	Estimated 38W Max: 75W / 100W	397.60 [15.65"] x 279.50 [11.00"] x 84.50 [3.33"] Standard: 60.00 [23.62"] - Steering: 80.00 [31.50"]	3.9kg 8.6lbs
21.5" HD 21T30	25ms (tr+tf) 89° (u/d/l/r)	3000:1 250 cd/m²	0.24795 (H) 0.24795 (V)	476.064 [18.74"] (H) 267.786 [10.52"] (V)	Estimated 38W Max: 156W / 125W	536.00 [21.10"] x 358.50 [14.11"] x 78.50 [3.09"] Standard: 60.00 [23.62"] - Steering: 80.00 [31.50"]	6.5kg 14.3lbs
23.8" HD 24T30	14ms (G/G) 89° (u/d/l/r)	1000:1 250 cd/m²	0.274.5 (H) 0.274.5 (V)	527.04 [20.75"] (H) 296.46 [11.67"] (V)	Estimated 35W Max: 156W / 125W	593.00 [23.35"] x 384.00 [15.12"] x 78.50 [3.09"] Standard: 50.00 [19.69"] - Steering: 75.00 [29.53"]	7.7kg 16.9lbs
27.0" HD 27T30	12ms (on/off) 89° (u/d/l/r)	3000:1 300 cd/m²	0.31125 (H) 0.31125 (V)	597.6 [23.53"] (H) 336.15 [13.23"] (V)	Estimated 44W Max: 156W / 125W	650.00 [25.59"] x 437.00 [17.20"] x 78.50 [3.09"] Standard: 50.00 [19.69"] - Steering: 75.00 [29.53"]	9.7kg 21.3lbs
For all sizes:	Native Resolution & Aspect Ratio: 1920 x 1080 (FHD) - 16:9. Max Colors: 16.77M colors (RGB 8-bit). Operating / Storage Temperature / Humidity: -15°C to +55°C / -20°C to +60°C / Humidity up to 95%. IP Rating: IP66 front - IP20 rear (EN60529) - IP22=option. User Controls: Power On/Off, Brightness Control (-/+), Power LED, ECDIS LED, Buzzer, Light Sensor.						



Signal & I/O Ports	Power Input & Options	Factory Defaults	Factory Options
1 x HDMI OUT (UHD 60Hz, Female) 1 x HDMI IN (FHD 30Hz, Female) 1 x USB2.0 (Type A) 1 x USB3.0 (Type A) 2 x GbLAN (RJ45) 2 x SMA Coaxial RF (SMA) AC: 1 x Std. IEC Inlet if DC: 1 x 2-pin T.Block 5.08	Multi-Power: 100-240V AC - 50/60Hz + 24VDC or Single 100-240V AC - 50/60Hz	LED Backlight Technology Projected Capacitive Touch Screen (Multitouch, USB, Pen, Glove support)	Optical Bonding Technology Color Calibrated model (ECDIS) W/O Projected Capacitive Touch Screen (Multitouch) model <b>Android™ OS or Linux OS:</b> 



Factory Options
SD/uSD (SD Card Reader), WiFi/Bluetooth (SMA Interface) and 1 x or 3 x HD USB module installed as: 1 x PCA100309-1: Dual Isolated RS-232, connector 2xDB9 or 1 x ZIA0001310-B or 1 x ZIA0001310-SL CAN: CAN / socketCAN isolated 2 channel or 2 x 4 channel or 1 x PCA100297-1: Isolated Digital IO module, 4 x OUT/4 x IN or 1 x PCA100298-1: LAN 10/100Mbps, 2 ports RJ45 or 1 x PCA200828: 4xCOM RS-422/485 Isolated NMEA 4 channel
Available Accessories
Console Mount Kit, Table Mount Bracket, VESA Adapter or External USB Modules available. Please review datasheet for complete list.

## COMPUTER TECHNOLOGY

Supported Operating Systems (OS)	Default Processor / CPU installed & options	Default Memory / RAM Installed	Default Storage Device Installed	System / Graphics Chipsets
Android™ 8.1 (Optional Linux 4.x)	Rockchip RK3399 CPU: Dual-core ARM Cortex-A72 MPCore + Quad-core ARM Cortex-A53 MPCore	4GB DDR3L Dual Channel	32GB eMMC (Also see options below)	SoC (System on a chip) / Mali-T864 GPU, support OpenGL ES1.1/2.0/3.0/3.1, OpenCL, DX11
Ethernet GbLAN	Buzzer	Speaker / WatchDog Timer	Other Features	
2 x Gigabit LAN 10/100/1000Mbps	Yes (according to EN60945)	No On-Board Speaker 3 x Watchdogs in SoC w/32bits counter width	Trustzone Technology, Temperature sensor, Light Sensor, RTC, Battery alarm, WakeOnLan, TPM2.0	
Alternative / Additional Storage Device Options			Software Support / API	
Internal: 240GB M.2 SSD and up. SD/uSD (SD Card Reader) options			Android™ - BSP 8.1 and later, Linux - BSP Kernel 4.x and later, SCOM	

