



## Human Machine Interface (HMI) Heavy - Duty Series

From general purpose computing to highly customized applications – PRIMARY NETWORKS has a solution.

Our HMIs are designed for severe environments and industrial applications where control capabilities, local database/storage and connectivity are required. Our solutions offer a wide range of I/O, allowing users to connect to multiple devices and take control the factory floor.

All of our panels come equipped with an IP65 compliant flush touch panel, stainless steel housing, isolated serial ports and modular, upgradable design. These products are appropriate for a variety of heavy-duty applications, including but not limited to: Factory Automation, Machine Automation, Energy Management and “Smart” Building Automation.

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- Fanless, modular panel computers.
- 8 inch to 19 inch wide screen panels.
- Intel Celeron 827E, 1.4 GHz cpu and Intel i3 cpu on larger models.
- Wall mount (using ARM 174 bracket), with 3 pivoting points, adjust screen for Right, Left and rotational.
- Panel mounting and VESA 75 /100 mounting.





Model	PARDUS-6174	PARDUS-6194	TOKIN-6083	TOKIN-6123	TOKIN-6153
Dimensions (W x H x D)	438.5 x 366.5 x 93.7 mm	469.7 x 396.5 x 93.7 mm	274.9 x 207.9 x 77 mm	325.9 x 258.9 x 77 mm	389.9 x 309.9 x 84.30 mm
CPU	Intel® Core™ Processor i3-2340UE 1.3GHz	Intel® Core™ Processor i3-2340UE 1.3GHz	Intel® 827E 1.4GHz	Intel® 827E 1.4GHz	Intel® 827E 1.4GHz
	Intel® 847E 1.1 GHz	Intel® 847E 1.1 GHz	Intel® Atom™ Processor D2550 1.86GHz	Intel® Atom™ Processor D2550 1.86GHz	Intel® Atom™ Processor D2550 1.86GHz
Chipsets	Intel® QM67 / HM65	Intel® QM67 / HM65	Intel® HM65/NM10	Intel® HM65/NM10	Intel® HM65/NM10
Memory	2GB DDR3 installed	2GB DDR3 installed	2GB DDR3 installed	2GB DDR3 installed	2GB DDR3 installed
LCD Display	17", 1280 x 1024, LED	19", 1280 x 1024, LED	8", 1024 x 768, LED	12.1", 1024 x 768, LED	15", 1024 x 768, LED
Analog RGB Output	-	-	-	-	-
Video Output	DVI-I	DVI-I	DVI-I	DVI-I	DVI-I
Audio	Yes	Yes	-	-	-
KB/MS	PS2	PS2	-	-	-
Ethernet	2 x GbE	2 x GbE	2 x GbE	2 x GbE	2 x GbE
Mass Storage	2 x CFast & 1 x 2.5" drive bay (default) or 1 x CFast & 2 x 2.5" drive bays	2 x CFast & 1 x 2.5" drive bay (default) or 1 x CFast, 2 x 2.5" drive bays	1 x primary CFast & 1 x 2.5" drive bay or secondary CFast (outside-accessible)	1 x primary CFast & 1 x 2.5" drive bay or secondary CFast (outside-accessible)	1 x primary CFast & 1 x 2.5" drive bay or secondary CFast (outside-accessible)
RS-232	2	2	2	2	2
RS-232/485	2	2	2	2	2
Digital I/O	-	-	-	-	-
USB 2.0	5	5	4	4	4
USB 3.0/2.0	N/A	N/A	N/A	N/A	N/A
WIFI	PCIe Mini-card (optional)	PCIe Mini-card (optional)	PCIe Mini-card (optional)	PCIe Mini-card (optional)	PCIe Mini-card (optional)
Speaker	-	-	-	-	-
Expansion Bus	2 x Mini-card sockets & 1 x PCI 32-bit (default) or PCIe x1	2 x Mini-card sockets & 1 x PCI 32-bit (default) or PCIe x1	2 x Mini-card sockets & 1 x PCI 32-bit (default) or PCIe x1	2 x Mini-card sockets & 1 x PCI 32-bit (default) or PCIe x1	2 x Mini-card sockets & 1 x PCI 32-bit (default) or PCIe x1
Power Input	DC9~36V	DC9~36V	DC9~36V	DC9~36V	DC9~36V
Operating Temperature	-20~55°C	-20~55°C	-20~60°C	-20~60°C	-20~60°C

## Features and benefits

### PARDUS-6174



- 17" Intel® 847E/2340UE Panel PC
- 5wire Resistive T/S with Completely Covered Membrane
- Optional WiFi Connection
- Wide Range DC Power Input (9 ~ 36V)
- Operating temperature (-20°C~55°C)
- Front panel compliant with IP65

### TOKIN-6123



- 12.1" Intel® 827E/D2550 Panel PC
- 5wire Resistive T/S with Completely Covered Membrane
- Optional WiFi Connection
- Wide Range DC Power Input (9 ~ 36V)
- Operating temperature (-20°C~55°C)
- Front panel compliant with IP65

### PARDUS-6194



- 19" Intel® 847E/2340UE Panel PC
- 5wire Resistive T/S with Completely Covered Membrane
- Optional WiFi Connection
- Wide Range DC Power Input (9 ~ 36V)
- Operating temperature (-20°C~55°C)
- Front panel compliant with IP65

### TOKIN-6153

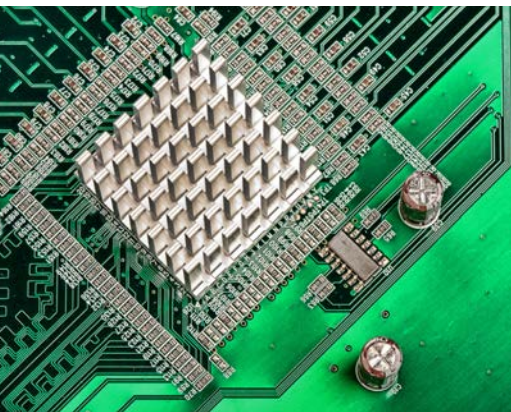


- 15" Intel® 827E/D2550 Panel PC
- 5wire Resistive T/S with Completely Covered Membrane
- Optional WiFi Connection
- Wide Range DC Power Input (9 ~ 36V)
- Operating temperature (-20°C~55°C)
- Front panel compliant with IP65

### TOKIN-6083



- 8" Intel® 827E/D2550 Panel PC
- 5wire Resistive T/S with Completely Covered Membrane
- Optional WiFi Connection
- Wide Range DC Power Input (9 ~ 36V)
- Operating temperature (-20°C~55°C)
- Front panel compliant with IP65



## Services

**Installation** - multi-disciplined installation engineers experienced in the marine environment are available to install the systems. Engineers have the appropriate security clearance to work in many dockyards or land based installations. Both new installations or vessel upgrades can be carried out around the world on request.

**Global support** - around the world ensures support is always close at hand.

**Warranty** - long standard warranty with optional policies available to give extended warranty life plan – gives peace of mind.

**Extended spares programme** - ensures guaranteed availability of spares and whole machines for an agreed period. Gives customers security in the knowledge that products can be operational for given time frames up to 10 years.

**Training** - for engineers or crew at customers premises or our offices.

**Research and development** - dedicated team to design, test and develop the next generation of systems whilst improving reliability and quality at every step.

**Extended life support** - enables deployment of systems over many years can be easily managed ensuring identical systems are installed helping keep costs of change to zero.

**Trade in and recycling program\*** - a 'Whole of Life Plan' for life ownership enables a collection service to take products away from agreed locations in return for funding for new equipment. Full recycling of parts means environmental security from start to finish using the 'Circle 21' Plan

**Purchase options\*\*** - Rent or Lease options available to spread capital expenditure cost and can include additional.

**Repair programme \*\*\*** - aims to extend product life with many product variants being able to be repaired. Upgrades can also be reviewed.

\* equipment as supplied by Primary Networks

\*\* not available all products

\*\*\* revalidation and testing may be required for certain repairs. Where different components are used then additional re-testing may be needed and this maybe uneconomic for small quantities. Contact the manufacturer to discuss.





## Applications

- Maritime controls
- Controlling ballast tanks
- Communications tasks
- Process control
- Data acquisition
- Process control

## Testing / Environmental

We have considerable experience in building and adapting computer equipment to meet tests to include:

- Tempest NATO SDIP 27, level B
- DefStan
- Land Class A
- Below Decks
- MIL-STD 810G

Individual test certificates available for specific categories of test when requested.



## Design Service

- Our range of industrial panel PC's are supplied 'ready to go'. However, we recognise that for some of our customers a bespoke design tailored to their requirements will be needed and our engineers and design team are here to help.
- Our expertise and custom design service enables a customer to have the exact machine built to suit their application. We recognise that sometimes a system needs to be built around a pre-existing piece of kit ie, unusual size, shape, mountings etc, and our design team will work hard to find a solution which can meet these criteria.
- A full service includes a brief and initial prototype through to full manufacturing, test and delivery. This can include all aspects of specific testing such as Tempest or MIL-STD etc where our specialised knowledge ensures we deliver a machine fully certified to the customer specification.
- The finished designs, once fabricated, can then be warehoused and deployed as needed and our installation team are fully experienced in fitting and installation.



## Contact

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### Agents, Partners and Distributors

As part of our continued expansion programme we would be interested in speaking to Sales Agents, Partners and System Integrators in key countries around the world who can help us achieve our aims.

## Services

- Design consultants
- Concept → design → prototype
- Manufacture, test and certification
- Shock, vibration and defence standard EMC, test and certification
- Training
- Projects - prime or sub-contractor
- Worldwide coverage

## Products

- **Louvar ZX3 Series** - ruggedized, Naval certified PC's / computers
- **i-Louvar Mini Series** - ultra compact, thin client, Naval certified PC's / computers
- **Naval Ships Power Systems** - power trays and rack mounted comms trays to provide dual outputs with optimised EMC filters
- **Industrial Panel PC's** - ruggedized, certified and marinised:
  - Wide screen series, fanless, Intel quad core processor
  - Ultra slim series, fanless, Intel Atom processor
  - Heavy Duty Series, fanless, Intel Celeron processor
- **Ruggedised tablets and hand held devices**

A long established, professional company serving the defence sector:

- ISO 9001 quality management approved
- Investors in People certified
- ADS Group Member

We are proud to work with and supply:



Royal Netherlands Navy

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