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# EMBEDDED COMPUTER PLATFORMS

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# YOUR SPECIALIST FOR PANEL PC´S, TOUCH SOLUTIONS AND INDUSTRIAL PC PLATFORMS



**s&t embedded GmbH** offers a wide Portfolio of Embedded Systems that are deployed in the most varied industrial sectors such as:

- Automation
- Medical Technology
- Railway Engineering
- Energy Management
- Security
- Multimedia

The HMI systems from s&t embedded are available as Panel-PC or Industry Panels with the latest touch technologies, fulfill the requirements of the protection classes IP40 to IP67 and are thereby perfectly suited to deployment in industrial environmental conditions. A fanless housing design ensures dependable 24 hour operation.

Our Box PC solutions and Rack solutions offer standard solutions for all applications in the industrial environment.

The Engineering Team at s&t embedded offers the full range of services required for the development of customer specific embedded systems and products, as well as for accompanying customers competently and consistently throughout long term partnerships.

# S&T EMBEDDED GMBH

## YOUR SPECIALIST FOR CUSTOM SPECIFIC SOLUTIONS



**s&t embedded GmbH** sees itself as a solution provider for embedded computing. For our customers we develop and manufacture in the fields of hardware, software, mechanic and system integration. We accompany the customer from the conception and pre-development through implementation and product qualification process up to product support for Touch Panel, Embedded Boards, Embedded PC's or Panel PC's. Focus is on the following markets: industrial automation, energy, measurement engineering, industrial image data processing, Railway and Medical.

Our team has wideband experience with dedicated contact persons. Customers can always see the actual status of the project, because the process is always transparent and documented.

As a solution provider, the company performs the following services:

- Conceptual design and requirement specifications
- System Engineering
- Hardware Engineering
- Software Engineering
- Mechanic Design Engineering
- Consulting/Coaching
- Project Management
- Lifecycle Management

Development, Series Production,  
Lifecycle Management - all from a single source!



# FLATMAN

## Overview



### FLATMAN ECO LINE

### FLATMAN PRO LINE

<b>PROCESSOR SYSTEM</b>	CPU BIOS	Intel® BayTrail Celeron Quad Core J1900 AMI uEFI BIOS	Intel® Haswell ULT i5-4300U AMI uEFI BIOS
<b>MEMORY RAM</b>	Standard	4 GB DDR3 SO-DIMM	4 GB DDR3 SO-DIMM
<b>I/O STANDARD</b>		2xGbE (1x Intel®) LAN, (1x Realtek) LAN, 1x HDMI, 1x VGA, 1x USB 3.0, 2x USB 2.0	3xGbE (3x Intel®) LAN, 2x DP, 4x USB 3.0
<b>POWER SUPPLY</b>		16-30 V DC Input via Phoenix Connector PSC 1,5/3-F	
<b>OPERATING SYSTEMS</b>		Windows7 incl Embedded, Windows8.1 incl Embedded, Linux	Windows7 incl Embedded, Windows8.1 incl Embedded, Linux
<b>MECHANICAL</b>	Mounting Options	Full metal housing (VESA 75/75 or 100/100) / built-in-mounting (from rear via brackets) Open Frame	
<b>DISPLAY</b>	Screen Diagonals Format 4:3 Format 16:9 LED lifetime Resolution 800 x 600, SVGA Resolution 1024 x 768, XGA Resolution 1366 x 768, HD Resolution 1280 x 1024, SXGA Resolution 1920 x 1080, Full HD	10,4"/12,1"/15,0"/15,6"/17,0"/18,5"/19,0"/21,5" 10,4"/12,1"/15,0"/17,0"/19,0" 15,6"/18,5"/21,5" > 50.000h for all sizes 10,4"/12,1" 12,1"/15,0" 15,6"/18,5" 17,0"/19,0" 15,6"/21,5"	
<b>TOUCH OPTIONS</b>	PCAP Resistive Protection glass	for all display sizes for all display sizes for all display sizes	
<b>ENVIROMENTAL</b>	Cooling Operating Temperature Protection Class Front Protection Class other sides Humidity EMC	Fanless passiv cooling 0°C - 50°C ambient IP 65 IP 20 10% - 90% @ 39°C, non condensing EN55022 class B	
<b>CERTIFICATIONS</b>		CE, cULus	
<b>OPTIONS</b>		Other ATOM CPUs on request 8 GB RAM CF/SD Card Adapter SD Card Memory 4 GB, 16 GB, 32 GB, 64 GB CF Card Memory on demand mSATA SSD 32GB, 64GB, 128GB 2x COM (RS232, RS422, RS485) Audio with amplifier (2 x 3W) RFID WiFi	Other CPUs on request 8 GB RAM CF/SD Card Adapter SD Card Memory 4 GB, 16 GB, 32 GB, 64 GB CF Card Memory on demand mSATA SSD 32GB, 64GB, 128GB 2x COM (RS232, RS422, RS485) Audio with amplifier (2 x 3W) RFID WiFi

# BOX PC'S

## Overview



**RAIL-PC-5101**

**RAIL-PC-1750**

**RE-OPS-100**

**RE-OPS-1000**

<b>DIMENSIONS (H x W x D)</b>	180 x 134 x 68 mm (including cooling element)	180 x 134 x 50 mm	200 x 119 x 30 mm	200 x 119 x 30 mm
<b>COLOR</b>	RAL 7021 powder-coated	RAL 7021 powder-coated		
<b>PROCESSOR</b>	Intel i5 (2x 1.9 GHz)	Intel BayTrail Celeron J1900 (4x 2.0 GHz)	Intel BayTrail Celeron J1900 (4x 2.0 GHz)	Intel 4th Generation Quad Core (4x 2.0 GHz)
<b>MAIN MEMORY</b>	4 GB SODIMM (optional: max. 8 GB)	4 GB SODIMM (optional: max. 8 GB)	4 GB SODIMM (optional: max. 8 GB)	4 GB SODIMM (optional: max. 16 GB)
<b>STORAGE DEVICE</b>	64 GB ... 512 GB mSATA (SSD)	64 GB ... 512 GB mSATA (SSD)	64 GB ... 512 GB mSATA (SSD)	64 GB ... 512 GB mSATA (SSD)
<b>I/O STANDARD</b>	4x USB 3.0, 3x GbE, 2x DP, 2x COM (RS232, RS422, RS485 all configurable via BIOS), 3x Intel LAN	4x USB 2.0, 1x USB 3.0, 2x GbE, 1x HDMI, 1x VGA, 2x COM (RS232, RS422, RS485 all configurable via BIOS)	5x USB 2.0, 3x USB 3.0, 2x GbE, 1x HDMI, 1x VGA, 2x COM (RS232, RS422, RS485 all configurable via BIOS)	4x USB 3.0, 2x GbE, 1x HDMI, 1x VGA, 1x DP, 2x COM (RS232, RS422, RS485 all configurable via BIOS)
<b>COOLING</b>	fanless passiv cooling	fanless passiv cooling	fanless passiv cooling	CPU fan with Smart Fan Function, System Fan Speed Control
<b>SUPPLY VOLTAGE</b>	24 V DC (16-30 V DC); Phoenix Connector PSC 1,5/3-F	24 V DC (16-30 V DC); Phoenix Connector PSC 1,5/3-F	24 V DC (12-19 V DC); JAE Plug Connector-Connector PSC 1,5/3-F	24 V DC (12-19 V DC); JAE Plug Connector-Connector PSC 1,5/3-F
<b>OPERATING TEMPERATURE</b>	0 - 50°C	0 - 50°C	0 - 45°C	0 - 45°C
<b>OS SUPPORT</b>	optional WIN7, WIN8, Linux	optional WIN7, WIN8, Linux	optional WIN7, WIN8, Linux	optional WIN7, WIN8, Linux
<b>MOUNTING</b>	via top hat rail adapter	via top hat rail adapter		
<b>CERTIFICATIONS</b>	CE	CE	CE	CE
<b>WEIGHT</b>	ca. 1,3 kg	ca. 1 kg	ca. 1 kg	ca. 1 kg

# 19" RACK

## Overview



**1U-BOX**



**2U-BOX**



**4U-BOX**

<b>MAINBOARD</b>	Industrial Mainboard mITX; Q87	Industrial Mainboard uATX; Q87	Industrial Mainboard ATX; Q87
<b>PROCESSOR</b>	Socket LGA1150, max. 95W TDP up to Intel® Core™ i7 series - 4xxx processor series	Socket LGA1150, max. 95W TDP up to Intel® Core™ i7 series - 4xxx processor series	Socket LGA1150, max. 95W TDP up to Intel® Core™ i7 series - 4xxx processor series
<b>MEMORY</b>	2x SODIMM DDR3-1600, non ECC max. 16 GB	4x DIMM DDR3-1600, non ECC max. 32 GB	4x DIMM DDR3-1600, non ECC max. 32 GB
<b>DRIVES</b>	2x 3.5" HDD intern 1x Slim DVD-Rom	2x 5.25" Drive bay 1x 3.5" Drive bay internal: 2x 2.5" Drive bay	3x 5.25" Drive bay 1x 3.5" Drive bay internal: 3x 3.5" Drive bay
<b>INTERFACES</b>	Front: 2x USB Rear: PS/2 Mouse/Keyboard 6x USB 2.0, 2x DP 1.2, DVI-I, COM1, 2x USB 3.0, 2x LAN, Audio Intern: 5x SATA III 600, LVDS, Buzzer, COM2	Front: 2x USB Rear: PS/2 Mouse/Keyboard 6x USB 2.0, 2x DP 1.2, DVI-I, COM1, 2x USB3.0, 2x LAN, Audio Intern: 6x SATA III 600, Buzzer, COM2	Front: 2x USB Rear: PS/2 Mouse/Keyboard 6x USB 2.0, 2x DP 1.2, DVI-I, COM1, 2x USB 3.0, 2x LAN, Audio Intern: 6x SATA III 600, Buzzer, COM2
<b>EXPANSIONS</b>	1x Mini PCI Express, 1x mSATA, 2x USB 2.0, 2x USB 3.0, 1x USB Stick	1x PCIe x16 (Gen3), 1x PCIe x16 (Gen2), 1x PCIe x8, 1x PCI 1x mSATA, 2x USB 2.0, 2x USB 3.0, 1x USB Stick	1x PCIe x16 (Gen3), 1x PCIe x16 (Gen2), 1x PCIe x8, 4x PCI 1x mSATA, 2x USB 2.0, 2x USB 3.0, 1x USB Stick
<b>COOLING</b>	Box: 1x 97 mm Fan Prozessor: Heatsink mit Lüfter	Box: Middle: 1x 80 mm Fan, Rear: 2x 40 mm Fan option Prozessor: Heatsink mit Lüfter	Box: Front: 1x 120 mm Fan, Rear: 2x 80 mm Fan option Prozessor: Heatsink mit Lüfter
<b>BUTTONS</b>	Power on/off, System reset	Power on/off, System reset	Power on/off, System reset
<b>INDICATORS</b>	Power-LED, 2x LAN, HDD-LED	Power-LED, 2x LAN, HDD-LED	Power-LED, 2x LAN, HDD-LED
<b>POWER SUPPLY</b>	250W / ATX-Voltages	300W / ATX-Voltages	500W / ATX-Voltages
<b>POWER INPUT</b>	230 V AC (90 ... 264 V AC) optional 24 V DC (20 ... 36 V DC)	230 V AC (90 ... 264 V AC) optional 24 V DC (20 ... 36 V DC)	230 V AC (90 ... 264 V AC) optional 24 V DC (20 ... 36 V DC)
<b>TEMPERATURE (OPERATING):</b>	0°C - 55°C	0°C - 55°C	0°C - 55°C
<b>OPERATING SYSTEM</b>	optional WIN7, WIN8, Linux	optional WIN7, WIN8, Linux	optional WIN7, WIN8, Linux
<b>MOUNTING</b>	optional 19" slide rails	optional 19" slide rails	optional 19" slide rails
<b>CERTIFICATIONS</b>	CE	CE	CE
<b>WEIGHT</b>	about 9 kg	about 12 kg	about 13 kg
<b>„DIMENSIONS (W X D X H)“</b>	482,6 x 381 x 44,4 mm	483 x 457 x 88,8 mm	483 x 445 x 176 mm
<b>FINISHING</b>	Front Panel: Black	Front Panel: Black	Front Panel: Black

# MONITORS

## Overview



### FLATMAN MONITOR

<b>CONTROLLER BOARD</b>		Embedded Flatpanel Controller
<b>I/O STANDARD</b>		1x DP, 1x DVI-I (DVI+VGA), USB-B or RS232 Touch Controller Support
<b>POWER SUPPLY</b>		16-30 V DC Input via Phoenix Connector PSC 1,5/3-F
<b>OPERATING SYSTEMS</b>		Touch Controller supports Windows 7 incl Em- bedded, Windows 8.1 incl Embedded, Linux
<b>MECHANICAL</b>	Mounting Options	Fill metal housing (VESA 75/75 or 100/100) / built-in-mounting (fastening from rear via brackets) Open Frame
<b>DISPLAY</b>	Screen Diagonals Format 4:3 Format 16:9 LED lifetime Resolution 800 x 600, SVGA Resolution 1024 x 768, XGA Resolution 1366 x 768, HD Resolution 1280 x1024, SXGA Resolution 1920 x 1080, Full HD	10,4"/12,1"/15,0"/15,6"/17,0"/18,5"/19,0"/21,5" 10,4"/12,1"/15,0"/17,0"/19,0" 15,6"/18,5"/21,5" > 50.000 h for all sizes 10,4"/12,1" 12,1"/15,0" 15,6"/18,5" 17,0"/19,0" 15,6"/21,5"
<b>TOUCH OPTIONS</b>	PCAP Resistive Protection glass	for all display sizes for all display sizes for all display sizes
<b>ENVIROMENTAL</b>	Cooling Operating Temperature Protection Class Front Protection Class other sides Humidity  EMC	Fanless passiv cooling 0°C - 50°C ambient IP 65 IP 44 10% - 90% @ 39°C, non condensing EN55022 class B
<b>CERTIFICATIONS</b>		CE, cULus
<b>OPTIONS</b>		Driver for other OS on request



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