

SPECTRA POWERTWIN PANEL-PC WITH BAY TRAIL CPU

FEATURES

- 8" to 24" multi-functional All-in-One Panel PC
- Screen variations:
 - Projected Capacitive Touchscreen
 - 5-wire resistive Touchscreen
 - without Touchscreen
 - Sunlight readable
- Panel PC Modules with Intel® Atom™ E3845 Quad Core 1,91 GHz
- mPCIe expansion possibilities
- Fanless
- Panel PC Module with automatic Display and resolution detection
- Easy replacement of Display or Module
- Panel & VESA mount
- Die-cast aluminium front frame
- Front panel with IP65 protection class



Modular



Expandable



Fanless



SELECTION GUIDE

STEP 1 – CHOOSE YOUR SERIES PENDING ON YOUR APPLICATION



PERFORMANT

The Performant PowerTwin Panel PCs fulfill the desire for more performance with an Intel® Core™ i7 CPU, industrial RAM and data center SSD with PowerGuard function.



ROBUST

The robust version is intended for rough industrial use. The industrial RAM and industrial SSD with extended temperature range allow the use in particularly demanding environments (-10°C to +70°C).



STANDARD

With the PowerTwin Panel PCs in the standard version, most requirements and operating conditions can be easily covered. They are the ideal devices for cost-conscious use in normal industrial environments (0°C to +50°C).



SUNLIGHT READABLE

PowerTwin Panel PCs with sunreadable display are used if the display of the Panel PC is particularly exposed to sunlight and the robustness requirements are particularly high. With a luminance of 1500 or 1600 cd/m², Wide-Temp RAM and SSD with PowerGuard, they are even suitable for outdoor use.

STEP 2 – CHOOSE THE PERFORMANCE OF THE PC MODULE



BAY TRAIL CPU

- Intel® Atom™ E3845
- With oder without Universal Brackets

STEP 3 – CHOOSE THE DISPLAY SPECIFICATIONS



Sunlight-readable:	yes	no
Size:	8" to 19"	8" to 24"
Touchscreen:	PCAP	resistive / PCAP / without Touch

RESULT – CUSTOM-FIT SPECTRA POWERTWIN PANEL PC



Following the same principle, the combination of a display module with a monitor module results in a monitor that is ready to switch on.

EXTENDED FUNCTIONALITIES

WIDE TEMP.

DRAM and SSD products with extended temperature range theoretically allow operating temperatures from -40°C to +85°C. However, depending on the properties of the individual components, the permitted temperature range of the overall system may be narrower.

POWERGUARD

The Power Loss Data Protection (PowerGuard) feature of an SSD provides protection in the event of an unexpected power failure. Additional tantalum capacitors integrated in the SSD provide the permanently stored charge in the event of an interruption of the power supply, so that the current flash write process can be completely terminated and no data is lost. In addition, firmware and the integrity of the mapping table are protected.

EXPANDABILITY

> mPCIe expansions for additional 2 LAN, 2 COM, 4 COM or 2 USB



> RFID equipment for Spectra PowerTwin with 12", 15" XGA & 17" Displays



RFID equipment right or left of Display or under

INTERFACES & CONSTRUCTION OF PC UNIT



Difference with expansions

22,5 mm higher & 200 g heavier

Interfaces bottom



SPECTRA POWERTWIN 8.4" TO 15"

TECHNICAL DATA

Model	Spectra PowerTwin P08	Spectra PowerTwin P10	Spectra PowerTwin PH10	Spectra PowerTwin PH12	Spectra PowerTwin P15
Display size / Aspect ratio	8.4" / 4:3	10.4" / 4:3		12.1" / 4:3	15" / 4:3
Resolution	800 x 600	800 x 600	1.024 x 768	1.024 x 768	1.024 x 768

WITH STANDARD DISPLAY

Brightness (cd/m ²)	400	400	400	500	350
Contrast ratio	600:1	700:1	1400:1	700:1	800:1
Viewing angles (h/v)	150°/130°	160°/130°	178°/178°	160°/160°	160°/160°
MTBF Backlight (h)	30.000	70.000	50.000	30.000	50.000
Touchscreen	P-CAP / resistive				

WITH SUNLIGHT READABLE DISPLAY

Brightness (cd/m ²)	1600	–	1500	1500	1600
Contrast ratio	600:1	–	1400:1	700:1	800:1
Viewing angles (h/v)	160°/140°	–	178°/178°	160°/160°	160°/150°
MTBF Backlight (h)	50.000	–	50.000	30.000	50.000
Touchscreen OB Option	P-CAP, 7H Hard glas, UV-resistant	–	P-CAP, 7H Hard glas, UV-resistant		

PC TECHNICAL DATA

Processor	Intel® Atom™ E3845 (Celeron® J1900 upon request)				
Memory	1 x DDR3L max. 8 GB				
Drives / Flash cards	1 x 2.5" SATA, 1 x CFast Socket, 1 x SIM Socket (with front access)				
I/O Interfaces	1 x USB 3.0, 3 x USB 2.0, 2 x RS-232/422/485, 1 x VGA, 1 x DP, Line-out, Mic-in				
Ethernet	2 x Intel® I210AT Gigabit-LAN				
Digital I/Os	Fintek F81866 Controller, 4 input / 4 output, isolated				
Expansion slots	1 x mPCIe (Full-Size) Additionally for PC with expansion: 2 x Universal Bracket				
Miscellaneous	Watchdog, Wireless: holes for 2 antennas, Speakers: 2 x 2 W, OSD Menu: LCD on/off & Brightness				
Power	9 to 48 V DC, 3-pin Terminal Block				

MECHANICAL DATA

Chassis	Display: Sheet steel housing, Aluminium front, grey, Front IP65 / PC Module: Aluminium, grey				
Mounting	Panel, Wall, Stand (VESA100)				
Cut-out dimensions (WxH)	248 x 172 mm	281 x 213 mm	331 x 251 mm	394 x 298,5	
Dimensions (WxHxD) PC w/out expansion	262 x 186,2 x 65 mm	295 x 227,3 x 65 mm	345 x 265,3 x 65,5 mm	408 x 312,4 x 68 mm	
Weight PC w/out expansion	3 kg	3,6 kg	4,5 kg	5,7 kg	

SPECTRA POWERTWIN 15.6" TO 19"**TECHNICAL DATA**

Model	Spectra PowerTwin PW15	Spectra PowerTwin PWH15	Spectra PowerTwin P17	Spectra PowerTwin P19
Display size / Aspect ratio	15.6" / 16:9	15.6" / 16:9	17" / 5:4	19" / 5:4
Resolution	1.366 x 768	1.920 x 1.080	1.280 x 1.024	1.280 x 1.024

WITH STANDARD DISPLAY

Brightness (cd/m ²)	400	–	350	350
Contrast ratio	500:1	–	800:1	1000:1
Viewing angles (h/v)	170°/160°	–	160°/140°	170°/160°
MTBF Backlight (h)	50.000	–	50.000	50.000
Touchscreen	P-CAP / resistive / without			

WITH SUNLIGHT READABLE DISPLAY

Brightness (cd/m ²)	–	1500	1500	1600
Contrast ratio	–	700:1	800:1	1000:1
Viewing angles (h/v)	–	160°/140°	160°/140°	170°/160
MTBF Backlight (h)	–	50.000	50.000	50.000
Touchscreen	–	P-CAP, 7H Hard glas, UV-resistant		

PC TECHNICAL DATA

Processor	Intel® Atom™ E3845 (Celeron® J1900 upon request)
Memory	1 x DDR3L max. 8 GB
Drives / Flash cards	1 x 2.5" SATA, 1 x CFast Socket, 1 x SIM Socket (with front access)
I/O Interfaces	1 x USB 3.0, 3 x USB 2.0, 2 x RS-232/422/485, 1 x VGA, 1 x DP, Line-out, Mic-in
Ethernet	2 x Intel® I210AT Gigabit-LAN
Digital I/Os	Fintek F81866 Controller, 4 input / 4 output, isolated
Expansion slots	1 x mPCIe (Full-Size) Additionally for PC with expansion: 2 x Universal Bracket
Miscellaneous	Watchdog, Wireless: holes for 2 antennas, Speakers: 2 x 2 W, OSD Menu: LCD on/off & Brightness
Power	9 to 48 V DC, 3-pin Terminal Block

MECHANICAL DATA

Chassis	Display: Sheet steel housing, Aluminium front, grey, Front IP65 / PC Module: Aluminium, grey		
Mounting	Panel, Wall, Stand (VESA100)		
Cut-out dimensions (WxH)	406 x 240 mm	436 x 336 mm	496 x 375 mm
Dimensions (WxHxD)	420 x 254 x 75 mm	450 x 350 x 72 mm	510 x 389,3 x 72 mm
Weight	5,6 kg	7 kg	8,3 kg

SPECTRA POWERTWIN 21.5" TO 24"

TECHNICAL DATA

Model	Spectra PowerTwin PW21	Spectra PowerTwin PW24
Display size / Aspect ratio	21.5" / 16:9	24" / 16:9
Resolution	1.920 x 1.080	1.920 x 1.080

WITH STANDARD DISPLAY

Brightness (cd/m ²)	300	300
Contrast ratio	5000:1	5000:1
Viewing angles (h/v)	178°/178°	178°/178°
MTBF Backlight (h)	50.000	50.000
Touchscreen	P-CAP / resistive / without	

WITH SUNLIGHT READABLE DISPLAY

Brightness (cd/m ²)	1000	1500
Contrast ratio	5000:1	5000:1
Viewing angles (h/v)	178°/178°	178°/178°
MTBF Backlight (h)	50.000	50.000
Touchscreen	P-CAP, 7H Hard glas, UV-resistant	

PC TECHNICAL DATA

Processor	Intel® Atom™ E3845 (Celeron® J1900 upon request)
Memory	1 x DDR3L max. 8 GB
Drives / Flash cards	1 x 2.5" SATA, 1 x CFast Socket, 1 x SIM Socket (with front access)
I/O Interfaces	1 x USB 3.0, 3 x USB 2.0, 2 x RS-232/422/485, 1 x VGA, 1 x DP, Line-out, Mic-in
Ethernet	2 x Intel® I210AT Gigabit-LAN
Digital I/Os	Fintek F81866 Controller, 4 input / 4 output, isolated
Expansion slots	1 x mPCIe (Full-Size) Additionally for PC with expansion: 2 x Universal Bracket
Miscellaneous	Watchdog, Wireless: holes for 2 antennas, Speakers: 2 x 2 W, OSD Menu: LCD on/off & Brightness
Power	9 to 48 V DC, 3-pin Terminal Block

MECHANICAL DATA

Chassis	Aluminium, grey, Front IP65	
Mounting	Panel, Wall, Stand (VESA100)	
Cut-out dimensions (WxH)	536 x 316,5 mm	591 x 359 mm
Dimensions (WxHxD)	550 x 330,5 x 72 mm	605 x 373 x 72 mm
Weight	7 kg	8 kg

READY-TO-RUN SYSTEMS

CONFIGURATION & ORDERING INFORMATION

Display size & resolution	Capacitive Touch Display	Resistive Touch Display
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STANDARD

Intel® Atom™ E3845, 4 GB SO-DIMM DDR3L, 128 GB 2.5" SATA-6G SSD, Windows® 10 IoT Enterprise, 60 W Power adapter, Operating temp.: 0°C to 50°C

8.4"	SVGA	156396	Spectra PowerTwin P08C-BT-S10	156380	Spectra PowerTwin P08R-BT-S10
10.4"	SVGA	156397	Spectra PowerTwin P10C-BT-S10	156383	Spectra PowerTwin P10R-BT-S10
10.4"	XGA	157581	Spectra PowerTwin PH10C-BT-S10	157580	Spectra PowerTwin PH10R-BT-S10
12.1"	XGA	156398	Spectra PowerTwin PH12C-BT-S10	156389	Spectra PowerTwin PH12R-BT-S10
15"	XGA	156400	Spectra PowerTwin P15C-BT-S10	156390	Spectra PowerTwin P15R-BT-S10
15.6"	WXGA	156401	Spectra PowerTwin PW15C-BT-S10	156391	Spectra PowerTwin PW15R-BT-S10
17"	SXGA	156402	Spectra PowerTwin P17C-BT-S10	156393	Spectra PowerTwin P17R-BT-S10
19"	SXGA	156403	Spectra PowerTwin P19C-BT-S10	156394	Spectra PowerTwin P19R-BT-S10
21.5"	Full HD	156404	Spectra PowerTwin PW21C-BT-S10	156395	Spectra PowerTwin PW21R-BT-S10
24"	Full HD	157758	Spectra PowerTwin PW24C-BT-S10	157757	Spectra PowerTwin PW24R-BT-S10

LEGACY

Intel® Atom™ E3845, 4 GB SO-DIMM DDR3L, 128 GB 2.5" SATA-6G SSD, Windows® 7 Pro, 60 W Power adapter, Operating temp.: 0°C to 50°C

8.4"	SVGA	150875	Spectra PowerTwin P08C-BT-L7	142070	Spectra PowerTwin P08R-BT-L7
10.4"	SVGA	141740	Spectra PowerTwin P10C-BT-L7	141738	Spectra PowerTwin P10R-BT-L7
12.1"	XGA	141743	Spectra PowerTwin PH12C-BT-L7	141742	Spectra PowerTwin PH12R-BT-L7
15"	XGA	141747	Spectra PowerTwin P15C-BT-L7	141746	Spectra PowerTwin P15R-BT-L7
15.6"	WXGA	142082	Spectra PowerTwin PW15C-BT-L7	142079	Spectra PowerTwin PW15R-BT-L7
17"	SXGA	141751	Spectra PowerTwin P17C-BT-L7	141749	Spectra PowerTwin P17R-BT-L7
19"	SXGA	142027	Spectra PowerTwin P19C-BT-L7	142028	Spectra PowerTwin P19R-BT-L7
21.5"	Full HD	150636	Spectra PowerTwin PW21C-BT-L7	150635	Spectra PowerTwin PW21R-BT-L7

ACCESSORIES

ORDERING INFORMATION

Article n°	Model	Description
N° 151164	MEC-COM-KIT	2 x RS-232 Port, incl. Universal Braket
N° 162411	MEC-LAN-Set	2 x LAN Port, incl. Universal Braket
N° 159952	MEC-USB-KIT V1	2 x USB 3.0 Port, incl. Universal Braket
N° 156631	PowerTwin RFID Mounting Kit (left/right)	Black, Mounting bar, Snap-in holder, screws
N° 148077	PowerTwin RFID Mounting Kit (under)	Black, Mounting bar, Snap-in holder, screws
Upon request	RFID Module	

SPECTRA POWERTWIN-SERIES | NOMENCLATURE

Spectra PowerTwin	M	H	12	C	-			SR		
Spectra PowerTwin	P		24		-	AL	-	R	10	
Spectra PowerTwin	P	W	15	R	-	i7SL	-	P	E	10

Series

M: Monitor
P: Panel-PC

Resolution

W: Widescreen
H: High Resolution

Display size

08: 8.4"
10: 10.4"
12: 12.1"
15: 15" o. 15.6"
17: 17"
19: 19"
21: 21.5"
24: 24"

Touchscreen

R: Resistive
C: P-CAP
: without Touch

Processor (Generation)

BT: Bay Trail Atom™ E3845
BTJ19: Bay Trail Celeron® J1900 upon request
AL: Apollo Lake Atom® x7-E3950
ALN42: Apollo Lake Pentium® N4200 upon request
i7SL: Skylake Core™ i7-6600U
i5SL: Skylake Core™ i5-6300U
i3SL: Skylake Core™ i3-6100U
i3WL: Whiskey Lake Core™ i3-8145UE
i5WL: Whiskey Lake Core™ i5-8365UE

Version

P: Performant
R: Robust
S: Standard
L: Legacy
SR: Sunlight readable

Expansion

E: 1 PCIe Slot (or PCI upon request)
or 2 universal brackets

Operating System

7: Win7
10: Win10IoT