

3.1.5.2 5PP580.1505-00

3.1.5.2.1 General information

- 15" TFT XGA color display
- Analog resistive touch screen and function keys
- Intel® Atom™ technology
- Compact installation depth
- Fanless operation
- Can be upgraded with interface board

3.1.5.2.2 Order data

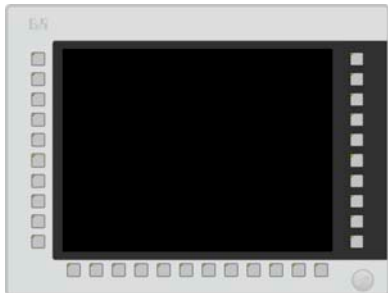
Model number	Short description	Figure
	System units	
5PP580.1505-00	Power Panel 580 15" XGA TFT display with touch screen (resistive); 32 function keys; connections for 1x RS232, 3x USB 2.0, 1x Ethernet 10/100/1000; can be expanded with interface board; IP65 protection (front); order male 24 VDC connector for supply voltage separately (screw clamp: 0TB103.9; cage clamp: 0TB103.91)	
	Required accessories	
	CPU boards	
5PP5CP.US15-00	CPU board Intel Atom Z510 1.1 GHz - Single core - US15W chipset	
5PP5CP.US15-01	CPU board Intel Atom Z520 1.33 GHz - Single core - US15W chipset	
5PP5CP.US15-02	CPU board Intel Atom Z530 1.6 GHz - Single core - US15W chipset	
	Main memory	
5MMDDR.0512-01	SO-DIMM DDR2 RAM 512 MB PC2-5300	
5MMDDR.1024-01	SO-DIMM DDR2 RAM 1024 MB PC2-5300	
5MMDDR.2048-01	SO-DIMM DDR2 RAM 2048 MB PC2-5300	
	Terminal blocks	
0TB103.9	Connector 24 VDC - 3-pin female - Screw clamps 3.31 mm ²	
0TB103.91	Connector 24 VDC - 3-pin female - Cage clamps 3.31 mm ²	
	Optional accessories	
	Batteries	
0AC201.91	Lithium batteries 4 pcs., 3 V / 950 mAh button cell We hereby state that the lithium cells contained in this shipment qualify as "partly regulated". Handle with care. If the package is damaged, inspect the cells, repack intact cells and protect cells against short circuits. For emergency information, call RENATA SA at + 41 61 319 28 27	
4A0006.00-000	Lithium battery, 3 V / 950 mAh, button cell	
	CompactFlash cards	
5CFCRD.016G-06	CompactFlash 16 GB B&R (SLC)	
5CFCRD.0512-06	CompactFlash 512 MB B&R (SLC)	
5CFCRD.1024-06	CompactFlash 1 GB B&R (SLC)	
5CFCRD.2048-06	CompactFlash 2 GB B&R (SLC)	
5CFCRD.4096-06	CompactFlash 4 GB B&R (SLC)	
5CFCRD.8192-06	CompactFlash 8 GB B&R (SLC)	
	Interface boards	
5PP5IF.CETH-00	Ethernet interface card - 1 Ethernet 10/100/1000	
5PP5IF.CHDA-00	Audio interface card - 1 HDA	
5PP5IF.FCAN-00	CAN interface card - 1 CAN master	
5PP5IF.FETH-00	Ethernet interface card - 1 Ethernet 10/100/1000 - 512 kB SRAM	
5PP5IF.FPLM-00	POWERLINK interface card - 2 POWERLINK managing nodes - 512 kB SRAM	
5PP5IF.FX2X-00	X2X Link interface card - 1 X2X Link master - 512 kB SRAM	
5PP5IF.FXCM-00	CAN interface card - 1 CAN master - 1 X2X master - 512 kB SRAM - Can be installed in PP500, APC510, APC511 systems	
	USB accessories	
5MMUSB.2048-01	USB 2.0 flash drive, 2048 MB, B&R	
5MMUSB.4096-01	USB 2.0 flash drive, 4096 MB, B&R	

Table 44: 5PP580.1505-00 - Order data

3.1.5.2.3 Technical data

Product ID	5PP580.1505-00	
Revision	C0	D0
General information		
Cooling	Fan-free	
LED status indicators	Power, CF, Link, Run	
B&R ID code	0xB607	
Battery		
Type	Renata 950 mAh	
Service life	4 years ¹⁾	
Removable	Yes, accessible from the outside	
Design	Lithium ion	
Power button	Yes	
Reset button	Yes	
Buzzer	Yes	
Certification		
CE	Yes	
cULus	Yes	
GOST-R	Yes	
Controller		
Boot loader	BIOS	
Mode/Node switches	2, 16 positions each (back)	
Watchdog	MTCX	
Power failure logic		
Controller	MTCX ²⁾	
Buffer time	10 ms	
Graphics		
Controller	Intel® Graphics Media Accelerator 500	
Memory		
Type	DDR2 SDRAM	
Memory size	Max. 2 GB	
Interfaces		
COM1 ³⁾		
Type	RS232, modem-capable, not electrically isolated	
Design	9-pin male DSUB connector	
UART	16550-compatible, 16-byte FIFO	
Max. baud rate	115 kbit/s	
CompactFlash slot 1		
Type	Type I	
SD memory card slot		
Type	SD card	
USB		
Quantity	3	
Type	USB 2.0	
Design	Type A	
Transfer rate	Low speed (1.5 Mbit/s), full speed (12 Mbit/s), high speed (480 Mbit/s)	
Current load	Max. 1 A per connection	
Ethernet		
Quantity	1	
Controller	Intel 82574	
Design	Shielded RJ45 port	
Transfer rate	10/100/1000 Mbit/s	
Display		
Type	Color TFT	
Display size	15" (381 mm)	
Colors	16 million	
Resolution	XGA, 1024 x 768 pixels	
Contrast	700:1	
Viewing angles		
Horizontal	Direction R = 80° / Direction L = 80°	
Vertical	Direction U = 80° / Direction D = 60° Direction U = 70° / Direction D = 70°	
Backlight		
Type	LED	
Brightness (dimnable)	Typ. 33 to 350 cd/m ²	Typ. 20 to 400 cd/m ²
Half-brightness time ⁴⁾	50,000 h	
Touch screen ⁵⁾		
Type	AMT	
Technology	Analog, resistive	
Controller	B&R, serial, 12-bit	
Transmittance	81% ±3%	
Keys		
Function keys	32 with LED (yellow)	
System keys	No	
Service life	>1,000,000 actuations at 1 ±0.3N to 3 ±0.3 N actuating force	

Table 45: 5PP580.1505-00, 5PP580.1505-00 - Technical data

Technical data • Individual components

Product ID	5PP580.1505-00
LED brightness Yellow	Typ. 38 mcd
Inserts	
Interface board	Yes
I/O board	No
Electrical characteristics	
Nominal voltage	24 VDC ±25%
Nominal current	1.4 A ⁶⁾
Starting current	Typ. 3 A, max. 50 A for <300 µs
Power consumption	34 W ⁷⁾
Electrical isolation	Yes
Operating conditions	
EN 60529 protection	Back: IP20 (only with an inserted CF card, IF board or optional IF cover) Front: IP65, dust and sprayed water protection
Environmental conditions	
Temperature	
Operation	0 to 55°C
Storage	-20 to 60°C
Transport	-20 to 60°C
Relative humidity	
Operation	See temperature humidity diagram
Storage	See temperature humidity diagram
Transport	See temperature humidity diagram
Vibration	
Operation (continuous)	2 to 9 Hz: 1.75 mm amplitude / 9 to 200 Hz: 0.5 g
Operation (occasional)	2 to 9 Hz: 3.5 mm amplitude / 9 to 200 Hz: 1 g
Storage	2 to 8 Hz: 7.5 mm amplitude / 8 to 200 Hz: 2 g / 200 to 500 Hz: 4 g
Transport	2 to 8 Hz: 7.5 mm amplitude / 8 to 200 Hz: 2 g / 200 to 500 Hz: 4 g
Shock	
Operation	15 g, 11 ms
Storage	30 g, 6 ms
Transport	30 g, 6 ms
Elevation	
Operation	Max. 3000 m (component-dependent) ⁸⁾
Mechanical characteristics	
Housing	
Material	Galvanized steel plate
Front ⁹⁾	
Frame	Naturally anodized aluminum
Panel overlay	
Material	Polyester
Light background	RAL 9006
Dark gray border around display	RAL 7024
Gasket	Flat gasket around display front
Dimensions	
Width	435 mm
Height	330 mm
Depth	62.7 mm
Weight	4900 g

Table 45: 5PP580.1505-00, 5PP580.1505-00 - Technical data

- 1) At 50°C, 8.5 µA of the supplied components and a self-discharge of 40%. If an interface board with SRAM has been installed, the service life is 2½ years.
- 2) Maintenance Controller Extended.
- 3) The COM1 interface is identified in BIOS as the COM A interface.
- 4) At an ambient temperature of 25°C. Reducing the brightness by 50% can result in an approximately 50% increase in the half-brightness time.
- 5) Touch screen drivers for approved operating systems are available in the Downloads section of the B&R website.
- 6) The specified value applies to a nominal voltage of 24 VDC.
- 7) The specified value applies to a system unit with a CPU board but without an interface board.
- 8) The maximum ambient temperature is typically derated by 1°C per 1000 meters (starting at 500 meters above sea level).
- 9) There may be visible deviations in the color and surface appearance depending on the process or batch.