Interchangeable Display Modules FPM-BE series for TPC-B300/B510/B610 Computing Box

Interchangeable Display Modules with 12" XGA / 15" XGA / 17" SXGA/ 15.6" FHD / 18.5" FHD / 21.5" FHD

Preliminary



Features

- Modular front display design in three application-based module categories, enabling flexible configurations
- Front panel module with P-CAP multi-touch sensor available in various sizes
- Front panel module with 5-wire resistive touch control available in FPM-D12T-BE
- Industrial-grade LED LCD
- System status LED indicators in front panel
- IP66-rated front panel and panel mount
- Rear mounted computing box or monitor box module is compulsory to activate display module

Introduction

Advantech's modular display BE* series offers various display modules ranging between 12.1" and 21.5" inches in size to go with selections of computing boxes (TPC-B300/TPC-B510/TPC-B610) for multiple configurations that can be flexibly adapted to various scenarios. Modular display series are equipped with industrial grade LCD and Projected Capacitive touch screens, providing the best user experience and reliable operation. The modular design ensures flexible configuration and easy maintenance/upgrades. Its robust enclosure is equipped with a die-cast aluminum alloy front bezel and IP66 rating for protection from dust and water ingress.

*For newer version of FPM-Display Series, please check "FPM-DXXX-CE"、"FPM-DXXX-HE"、"FPM-SXXX" series from Advantech website.

Specifications

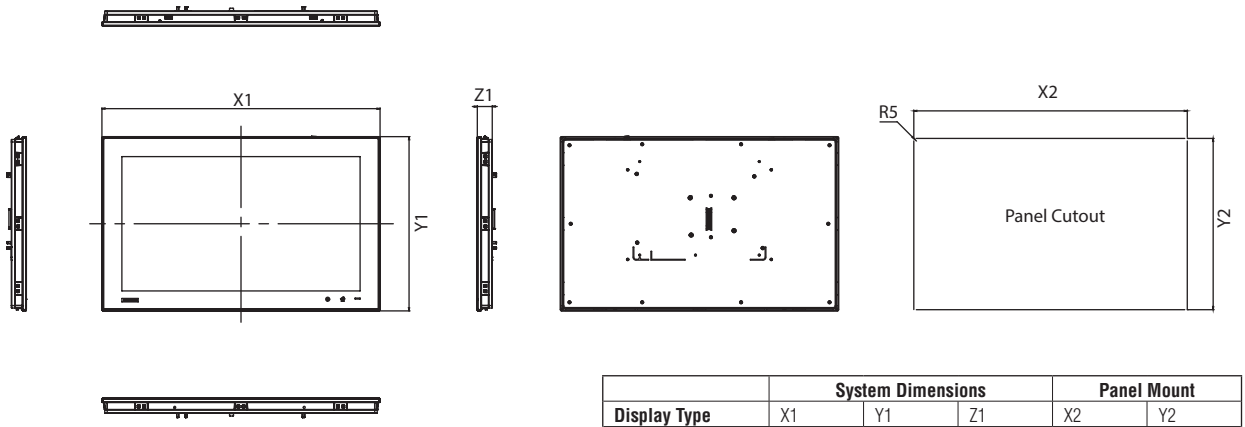
Part Number		FPM-D12T-BE	FPM-D15T-BE	FPM-D17T-BE
LCD Panel	Display Size	12"	15"	17"
	Display Type	XGA TFT LED LCD	XGA TFT LED LCD	SXGA TFT LED LCD
	Aspect Ratio	4:3		5:4
	Max. Resolution	1024 x 768	1024 x 768	1280 x 1024
	Max. Color	16.7M	16.2M	16.7M
	Luminance	600 cd/m²	300 cd/m²	350 cd/m²
	Viewing Angle (H/V)	178°/178°	176°/176°	160°/140°
	Backlight Life	50,000 hr	70,000 hr	50,000 hr
	Contrast Ratio	1000:1	2000:1	800:1
Touchscreen	Type	5-Wire resistive	PCAP	PCAP
	Light Transmission	Above 75%	Above 88%	Above 88%
	Anti-Glare Treatment	Yes	Yes	Yes
Environment	Operating Temperature	-20~60 °C (-4~140 °F)	-20~60 °C (-4~140 °F)	-20~60 °C (-4~140 °F)
	Storage Temperature	-20~60 °C (-4~140 °F)	-20~60 °C (-4~140 °F)	-20~60 °C (-4~140 °F)
	Ingress Protection	Font IP66	Font IP66	Font IP66
Housing Color	Panel Frame and Back Cover	UNO Silver	UNO Silver	UNO Silver

Part Number		FPM-D15W-FBE	FPM-D18W-BE	FPM-D21W-BE
LCD Panel	Display Size	15.6"	18.5"	21.5"
	Display Type	FHD TFT LED LCD	HD TFT LED LCD	FHD TFT LED LCD
	Aspect Ratio	16:9		
	Max. Resolution	1920 x 1080	1366 x 768	1920 x 1080
	Max. Color	16.7M	16.7M	16.7M
	Luminance	450 cd/m²	450 cd/m²	250 cd/m²
	Viewing Angle (H/V)	170°/170°	170°/160°	178°/178°
	Backlight Life	50,000 hr	50,000 hr	50,000 hr
	Contrast Ratio	800:1	1000:1	1000:1
Touchscreen	Type	PCAP	PCAP	PCAP
	Light Transmission	90% ± 3%	90% ± 3%	90% ± 3%
	Anti-Glare Treatment	Yes	Yes	Yes
Environment	Operating Temperature	-20~60 °C (-4~140 °F)	0~55 °C (32~131 °F)	0~55 °C (32~131 °F)
	Storage Temperature	-20~60 °C (-4~140 °F)	-20~60 °C (-4~140 °F)	-20~60 °C (-4~140 °F)
	Ingress Protection	Font IP66	Font IP66	Font IP66
Housing Color	Panel Frame and Back Cover	UNO Silver	UNO Silver	UNO Silver

All product specifications are subject to change without notice.

Dimensions

Unit: mm



	System Dimensions			Panel Mount	
Display Type	X1	Y1	Z1	X2	Y2
12" (XGA)	311.8	238	27.1	303	229
15" (XGA)	383.2	307.3	27.5	374.5	298.5
15.6" (HD)	419.7	269	30.	412.4	261.7
15.6" (FHD)	419.7	269	30.	412.4	261.7
17" (SXGA)	410.4	343.4	28.3	401.3	334.8
18.5" (HD)	488	309	30.3	479.3	300.3
21.5" (FHD)	558.4	349.8	30.3	550.3	341.8

Ordering Information

Panel Module P/N	**FPM-D12T-BE****	**FPM-D15T-BE**	**FPM-D17T-BE**	**FPM-D15W-FBE**	**FPM-D18W-BE**	**FPM-D21W-BE**
Description	12.1" XGA TFT LED LCD	15" XGA TFT LED LCD	17" SXGA TFT LED LCD	15.6" FHD TFT LED LCD	18.5" HD TFT LED LCD	21.5" FHD LED LCD

Note: Display modules **cannot** work independently. A computing box (TPC-B300/B510/B610) is compulsory to operate the display module.
**TPC-B610 does not support FPM-D12T-BE

Configurable Rear Computing Box

Box Module P/N	**Description**
TPC-B300-J20A	Intel® Celeron® J6412 2.6 GHz Processor (10W)
TPC-B300-E20A	Intel® Atom™ X6425E 3.0 GHz Processor (12W)
TPC-B510-833BE	Intel® Core™ i3-8145UE 2.20GHz Dual-core Processor, 8G DDR4 RAM
TPC-B510-873BE	Intel® Core™ i7-8665UE 1.70GHz Quad-core Processor, 8G DDR4 RAM
TPC-B510-853BE	Intel® Core™ i5-8365UE 1.60 GHz Quad-core Processor, 8G DDR4 RAM
TPC-B610H-A00A	Intel® 10th Gen. Core™ i CPU Socket (LGA1200), H420E, PCIex16, PCI
TPC-B610W-A00A	Intel® 10th Gen. Core™ i CPU Socket (LGA1200), W480E, PCIex16, PCIex4, NVMe, RAID 0/1, ECC

Please note: If some optional modules are offered with the system, additional system certificates may be required in certain regions/countries.
Please contact Advantech for certificate compliance.

Packing List

FPM-D12T-BE

Item	Part No.	Depiction	Qty
CLAMPER	1962055040	CLAMPER PPC-55 M1632611 A2	8
CLAMPER Screw	1935042520	Screw M4x25L R/S D=8.3 H=2.5 (2+) ST BZn	8
WARRANTY	2190000902	CARDBOARD-WARRANTY REV. A2	1

FPM-D15W-FBE

Item	Part No.	Depiction	Qty
CLAMPER	1960018986T000	Clamper-bezel M5 for TPC-1770 A1	10
CLAMPER Screw	1935052000	Screw M5x20L R/S D=9 H=3 (2+) ST N	10
WARRANTY	2190000902	CARDBOARD-WARRANTY REV. A2	1

FPM-D15T-BE

Item	Part No.	Depiction	Qty
CLAMPER	1962055040	CLAMPER PPC-55 M1632611 A2	10
CLAMPER Screw	1935042520	Screw M4x25L R/S D=8.3 H=2.5 (2+) ST BZn	10
WARRANTY	2190000902	CARDBOARD-WARRANTY REV. A2	1

FPM-D17T-BE

Item	Part No.	Depiction	Qty
CLAMPER	1960018986T000	Clamper-bezel M5 for TPC-1770 A1	10
CLAMPER Screw	1935052000	Screw M5x20L R/S D=9 H=3 (2+) ST Ni	10
WARRANTY	2190000902	CARDBOARD-WARRANTY REV. A2	1

FPM-D18W-BE

Item	Part No.	Depiction	Qty
CLAMPER	1960018986T000	Clamper-bezel M5 for TPC-1770 A1	12
CLAMPER Screw	1935052000	Screw M5x20L R/S D=9 H=3 (2+) ST Ni	12
WARRANTY	2190000902	CARDBOARD-WARRANTY REV. A2	1

FPM-D21W-BE

Item	Part No.	Depiction	Qty
CLAMPER	1960018986T000	Clamper-bezel M5 for TPC-1770 A1	12
CLAMPER Screw	1935052000	Screw M5x20L R/S D=9 H=3 (2+) ST Ni	12
WARRANTY	2190000902	CARDBOARD-WARRANTY REV. A2	1