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COM Express



Разработчик: PICMG <https://www.picmg.org/>

Страничка стандарта: <https://www.picmg.org/openstandards/com-express/>

Два типоразмера:

Разъём -

Версии стандарта:

link	ext	description	manufacturer	version	date	lang
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
Производители

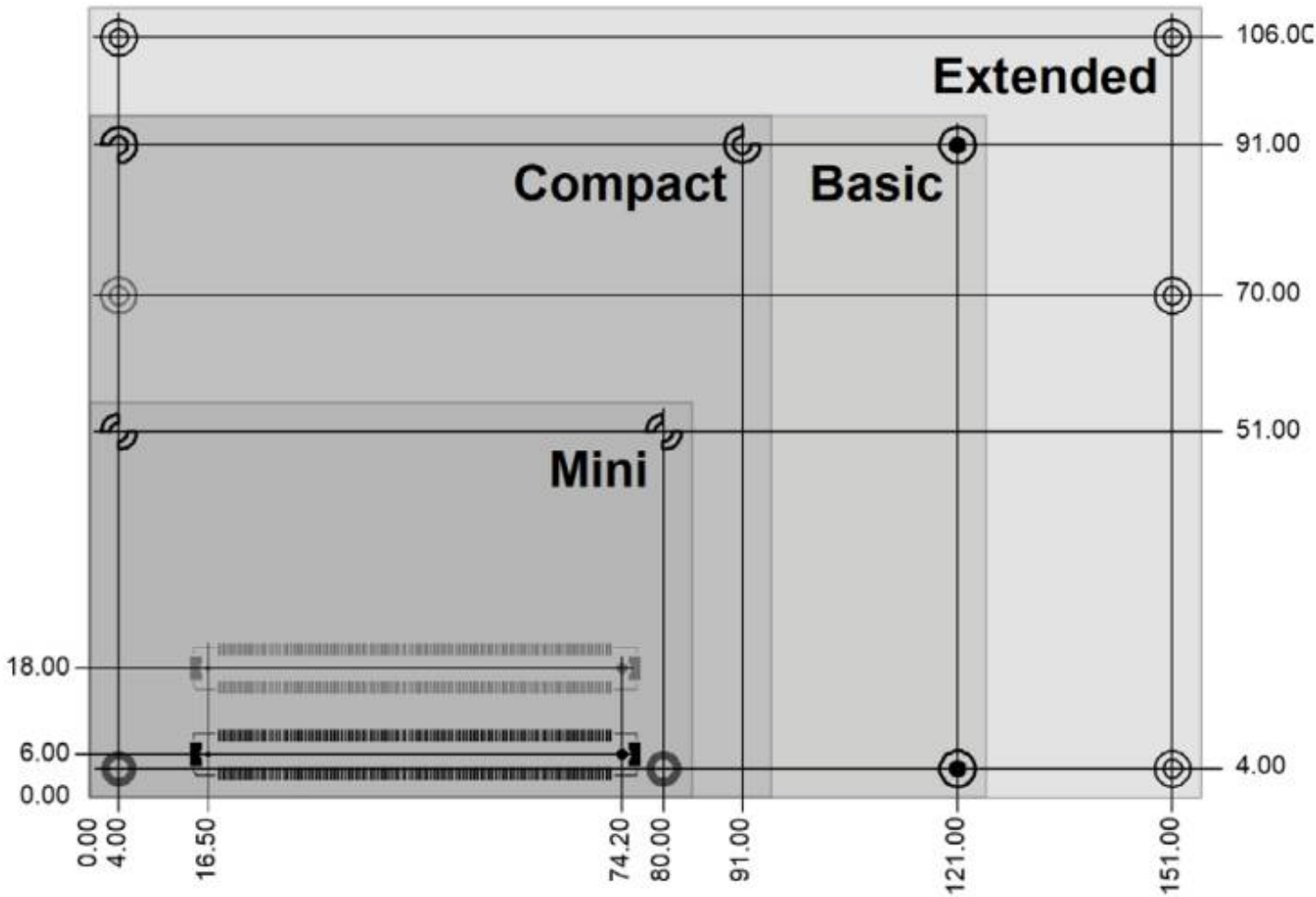
[Portwell](#)

Продукты

PCOM-B634VG	link	Portwell	Intel® new gen. Xeon Processor D based Type VI COM Express 2.0 module with DDR4 ECC SDRAM on three SO-DIMM slots, VGA, 10 Gigabit Ethernet, SATA and USB 3.0
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Размеры

-  Common for all Form Factors
-  Extended only
-  Basic only
-  Compact only
-  Compact and Basic only
-  Mini only



Толщина платы, фаска:

Модуль

Модуль

KeepOut area:

Ответная часть на материнской плате:

Power

Разъём

Pin #	Name	Group	I/O Type	I/O Level	PU / PD	Description	Power Domain	Comments
A1	GND (FIXED)		Power			GND		
A2	GBE0_MDI3-		I/O			GBE Port 0 (P1B)		
A3	GBE0_MDI3+		I/O			GBE Port 0 (P1B)		
A4	GBE0_LINK100#		Output			GBE Port 0 (P1B)		
A5	GBE0_LINK1000#		Output			GBE Port 0 (P1B)		
A6	GBE0_MDI2-		I/O			GBE Port 0 (P1B)		
A7	GBE0_MDI2+		I/O			GBE Port 0 (P1B)		
A8	GBE0_LINK#		Output			GBE Port 0 (P1B)		
A9	GBE0_MDI1-		I/O			GBE Port 0 (P1B)		
A10	GBE0_MDI1+		I/O			GBE Port 0 (P1B)		
A11	GND (FIXED)		Power			GND		
A12	GBE0_MDI0-		I/O			GBE Port 0 (P1B)		
A13	GBE0_MDI0+		I/O			GBE Port 0 (P1B)		
A14	GBE0_CTREF		Output			GBE Port 0 (P1B)		
A15	SUS_S3#		Output			System Header (P12)		
A16	SATA0_TX+		Output			mSATA (U12)		
A17	SATA0_TX-		Output			mSATA (U12)		
A18	SUS_S4#		Output			NC		
A19	SATA0_RX+		Input			mSATA (U12)		
A20	SATA0_RX-		Input			mSATA (U12)		
A21	GND (FIXED)		Power			GND		
A22	USB_SSRX0-		Input			USB 3.0 Port 0 (P6)		
A23	USB_SSRX0+		Input			USB 3.0 Port 0 (P6)		
A24	SUS_S5#		Output			NC		
A25	USB_SSRX1-		Input			USB 3.0 Port 1 (P6)		
A26	USB_SSRX1+		Input			USB 3.0 Port 1 (P6)		
A27	BATLOW#		Input			System Header (P12)		
A28	SATA_ACT#		Output			NC		
A29	HDA_SYNC		Output			HD Audio (P13)		
A30	HDA_RST#		Output			HD Audio (P13)		
A31	GND (FIXED)		Power			GND		
A32	HDA_BITCLK		Output			HD Audio (P13)		
A33	HDA_SDOUT		Output			HD Audio (P13)		
A34	BIOS_DISABLE#		Input			NC		
A35	THRMTRIP#		Output			NC		

Pin #	Name	Group	I/O Type	I/O Level	PU / PD	Description	Power Domain	Comments
A36	USB6-		I/O			NC		
A37	USB6+		I/O			NC		
A38	USB_6_7_OC#		Input			PU		
A39	USB4-		I/O			miniPCle Slot 0 (U12)		
A40	USB4+		I/O			miniPCle Slot 0 (U12)		
A41	GND (FIXED)		Power			GND		
A42	USB2-		I/O			USB 2.0 Port 2 (P14)		
A43	USB2+		I/O			USB 2.0 Port 2 (P14)		
A44	USB_2_3_OC#		Input			USB 2.0 Port 2/3 Overcurrent		
A45	USB0-		I/O			USB 2.0 Port 0 (P6)		
A46	USB0+		I/O			USB 2.0 Port 0 (P6)		
A47	VCC_RTC		Power			RTC Battery (P5)		
A48	EXCD0_PERST#		Output			NC		
A49	EXCD0_CPPE#		Input			NC		
A50	LPC_SERIRQ		I/O			NC		
A51	GND (FIXED)		Power			GND		
A52	RSVD		Passive			NC		
A53	RSVD		Passive			NC		
A54	GPI0		I/O			MISC (P12) OR SD Card (P3)		
A55	RSVD		Passive			NC		
A56	RSVD		Passive			NC		
A57	GND		Power			GND		
A58	PCIE_TX3+		Output			NC		
A59	PCIE_TX3-		Output			NC		
A60	GND (FIXED)		Power			GND		
A61	PCIE_TX2+		Output			miniPCle Slot 1 (U19)		
A62	PCIE_TX2-		Output			miniPCle Slot 1 (U19)		
A63	GPI1		I/O			MISC (P12) OR SD Card (P3)		
A64	PCIE_TX1+		Output			miniPCle Slot 0 (U12)		
A65	PCIE_TX1-		Output			miniPCle Slot 0 (U12)		
A66	GND		Power			GND		

Pin #	Name	Group	I/O Type	I/O Level	PU / PD	Description	Power Domain	Comments
A67	GPI2		I/O			MISC (P12) OR SD Card (P3)		
A68	PCIE_TX0+		Output			GBE PHY Controller		
A69	PCIE_TX0-		Output			GBE PHY Controller		
A70	GND (FIXED)		Power			GND		
A71	LVDS_A0+		Output			LVDS Video (P9)		
A72	LVDS_A0-		Output			LVDS Video (P9)		
A73	LVDS_A1+		Output			LVDS Video (P9)		
A74	LVDS_A1-		Output			LVDS Video (P9)		
A75	LVDS_A2+		Output			LVDS Video (P9)		
A76	LVDS_A2-		Output			LVDS Video (P9)		
A77	LVDS_VDD_EN		Output			LVDS Video (P9)		
A78	LVDS_A3+		Power			NC		
A79	LVDS_A3-		Power			NC		
A80	GND (FIXED)		Power			GND		
A81	LVDS_A_CK+		Output			LVDS Video (P9)		
A82	LVDS_A_CK-		Output			LVDS Video (P9)		
A83	LVDS_I2C_CK		Output			NC		
A84	LVDS_I2C_DAT		I/O			NC		
A85	GPI3		I/O			MISC (P12) OR SD Card (P3)		
A86	RSVD		Passive			NC		
A87	EDP_HPD		Passive			NC		
A88	PCIE_CLK_REF+		Output			Main Carrier PCIe Clock		
A89	PCIE_CLK_REF-		Output			Main Carrier PCIe Clock		
A90	GND (FIXED)		Power			GND		
A91	SPI_PWR		Power			NC		
A92	SPI_MISO		Power			NC		
A93	GPO0		I/O			GPIO (P12) OR SD Card (P3)		
A94	SPI_CLK		Power			NC		
A95	SPI_MOSI		Power			NC		
A96	TPM_PP		Input			NC		
A97	TYPE10#		Power			NC		
A98	SER0_TX		Output			Serial Port 0 (P7)		
A99	SER0_RX		Input			Serial Port 0 (P7)		
A100	GND (FIXED)		Power			GND		
A101	SER1_TX/CAN_TX		Output			Serial Port 1 (P7)		
A102	SER1_RX/CAN_RX		Input			Serial Port 1 (P7)		

Pin #	Name	Group	I/O Type	I/O Level	PU / PD	Description	Power Domain	Comments
A103	LID#		Input			NC		
A104	VCC_12V		Power			Input Power +VIN (P4)		
A105	VCC_12V		Power			Input Power +VIN (P4)		
A106	VCC_12V		Power			Input Power +VIN (P4)		
A107	VCC_12V		Power			Input Power +VIN (P4)		
A108	VCC_12V		Power			Input Power +VIN (P4)		
A109	VCC_12V		Power			Input Power +VIN (P4)		
A110	GND (FIXED)		Power			GND		
B1	GND (FIXED)		Power			GND		
B2	GBE0_ACT#		Output			GBE Port 0 (P1B)		
B3	LPC_FRAME#		Output			NC		
B4	LPC_AD0		I/O			NC		
B5	LPC_AD1		I/O			NC		
B6	LPC_AD2		I/O			NC		
B7	LPC_AD3		I/O			NC		
B8	LPC_DRQ0#		Input			NC		
B9	LPC_DRQ1#		Input			NC		
B10	LPC_CLK		Output			NC		
B11	GND (FIXED)		Power			GND		
B12	PWRBTN#		Input			System Header (P12)		
B13	SMB_CK		I/O			System Header (P12)		
B14	SMB_DAT		I/O			System Header (P12)		
B15	SMB_ALERT#		Input			System Header (P12)		
B16	SATA1_TX+		Output			NC		
B17	SATA1_TX-		Output			NC		
B18	SUS_STAT#		Output			NC		
B19	SATA1_RX+		Input			NC		
B20	SATA1_RX-		Input			NC		
B21	GND (FIXED)		Power			GND		
B22	USB_SSTX0-		Output			USB 3.0 Port 0 (P6)		
B23	USB_SSTX0+		Output			USB 3.0 Port 0 (P6)		

Pin #	Name	Group	I/O Type	I/O Level	PU / PD	Description	Power Domain	Comments
B24	PWR_OK		Input			Carrier Board Internal Circuitry		
B25	USB_SSTX1-		Output			USB 3.0 Port 1 (P6)		
B26	USB_SSTX1+		Output			USB 3.0 Port 1 (P6)		
B27	WDT		Output			NC		
B28	HDA_SDIN2		Input			PD		
B29	HDA_SDIN1		Input			PD		
B30	HDA_SDIN0		Input			HD Audio (P13)		
B31	GND (FIXED)		Power			GND		
B32	SPKR		Output			NC		
B33	I2C_CK		Output			System Header (P12)		
B34	I2C_DAT		I/O			System Header (P12)		
B35	THRM#		Input			PU		
B36	USB7-		I/O			NC		
B37	USB7+		I/O			NC		
B38	USB_4_5_OC#		Input			PU		
B39	USB5-		I/O			miniPCIe Slot 1 (U19)		
B40	USB5+		I/O			miniPCIe Slot 1 (U19)		
B41	GND (FIXED)		Power			GND		
B42	USB3-		I/O			USB 2.0 Port 3 (P14)		
B43	USB3+		I/O			USB 2.0 Port 3 (P14)		
B44	USB_0_1_OC#		Input			USB 2.0 Port 0/1 Overcurrent		
B45	USB1-		I/O			USB 2.0 Port 1 (P14)		
B46	USB1+		I/O			USB 2.0 Port 1 (P14)		
B47	EXCD1_PERST#		Output			NC		
B48	EXCD1_CPPE#		Input			NC		
B49	SYS_RESET#		Input			System Header (P12)		
B50	CB_RESET#		Output			Carrier Board Internal Circuitry		
B51	GND (FIXED)		Power			GND		
B52	RSVD		Passive			NC		
B53	RSVD		Passive			NC		

Pin #	Name	Group	I/O Type	I/O Level	PU / PD	Description	Power Domain	Comments
B54	GPO1		I/O			MISC (P12) OR SD Card (P3)		
B55	RSVD		Passive			NC		
B56	RSVD		Passive			NC		
B57	GPO2		I/O			MISC (P12) OR SD Card (P3)		
B58	PCIE_RX3+		Input			NC		
B59	PCIE_RX3-		Input			NC		
B60	GND (FIXED)		Power			GND		
B61	PCIE_RX2+		Input			miniPCle Slot 1 (U19)		
B62	PCIE_RX2-		Input			miniPCle Slot 1 (U19)		
B63	GPO3		I/O			MISC (P12) OR SD Card (P3)		
B64	PCIE_RX1+		Input			miniPCle Slot 0 (U12)		
B65	PCIE_RX1-		Input			miniPCle Slot 0 (U12)		
B66	WAKE0#		Input			PU		
B67	WAKE1#		Input			PU		
B68	PCIE_RX0+		Input			GBE Port 1 (P1B)		
B69	PCIE_RX0-		Input			GBE Port 1 (P1B)		
B70	GND (FIXED)		Power			GND		
B71	DDIO_PAIR0+		Output			HDMI (P11)		
B72	DDIO_PAIR0-		Output			HDMI (P11)		
B73	DDIO_PAIR1+		Output			HDMI (P11)		
B74	DDIO_PAIR1-		Output			HDMI (P11)		
B75	DDIO_PAIR2+		Output			HDMI (P11)		
B76	DDIO_PAIR2-		Output			HDMI (P11)		
B77	DDIO_PAIR4+		Output			NC		
B78	DDIO_PAIR4-		Output			NC		
B79	LVDS_BKLT_EN		Output			LVDS Backlight Power (P10)		
B80	GND (FIXED)		Power			GND		
B81	DDIO_PAIR3+		Output			HDMI (P11)		
B82	DDIO_PAIR3-		Output			HDMI (P11)		
B83	LVDS_BKLT_CTRL		Output			LVDS Video (P9)		
B84	VCC_5V_SBY		Power			Carrier Board Internal Circuitry		
B85	VCC_5V_SBY		Power			Carrier Board Internal Circuitry		
B86	VCC_5V_SBY		Power			Carrier Board Internal Circuitry		

Pin #	Name	Group	I/O Type	I/O Level	PU / PD	Description	Power Domain	Comments
B87	VCC_5V_SBY		Power			Carrier Board Internal Circuitry		
B88	BIOS_DIS1#		Input			NC		
B89	DDI0_HPD		Output			HDMI (P11)		
B90	GND (FIXED)		Power			GND		
B91	DDI0_PAIR5+		Output			NC		
B92	DDI0_PAIR5-		Output			NC		
B93	DDI0_PAIR6+		Output			NC		
B94	DDI0_PAIR6-		Output			NC		
B95	DDI0_DDC_AUX_SEL		Input			HDMI (P11)		
B96	USB_HOST_PRSN		Input			PU		
B97	SPI_CS#		Passive			NC		
B98	DDI0_CTRLCLK_AUX+		I/O			HDMI (P11)		
B99	DDI0_CTRLCLK_AUX-		I/O			HDMI (P11)		
B100	GND (FIXED)		Power			GND		
B101	FAN_PWMOUT		Output			NC		
B102	FAN_TACHIN		Input			NC		
B103	SLEEP#		Input			NC		
B104	VCC_12V		Power			Input Power +VIN (P4)		
B105	VCC_12V		Power			Input Power +VIN (P4)		
B106	VCC_12V		Power			Input Power +VIN (P4)		
B107	VCC_12V		Power			Input Power +VIN (P4)		
B108	VCC_12V		Power			Input Power +VIN (P4)		
B109	VCC_12V		Power			Input Power +VIN (P4)		
B110	GND (FIXED)		Power			GND		