

# Definition and Dimensions of Beelink Multi-Functional EX Docking Station Gold Fingers

## 1. Definition of EX Docking Station Gold Fingers Signal

The signals within the green box on the left represent PCIe × 16 signals, while those within the blue box on the right represent PCIe × 1 signals. The top of the gold fingers represents the B-group signals, and the bottom represents the A-group signals.



The PCIe × 16 gold fingers support PCIe × 8 signals. The B1, B2, B3, A2, and A3 gold fingers do not require a 12V power supply, as the 12V is supplied by the internal power supply unit of the EX docking station. The +3.3V supply needs to provide a current of 5.5A, and the 3.3Vaux supply needs to provide a current of 0.375A. The specific signal definitions are as follows:

PCIe×16 Gold Fingers Definition					
Pin No.	Pin Name	Description	Pin No.	Pin Name	Description
B1	/	NC	A1	PRSNT1#	Hot-plug presence detection 1#
B2	/	NC	A2	/	NC
B3	/	NC	A3	/	NC
B4	GND	Ground	A4	GND	Ground
B5	SMCLK	SMBus Clock	A5	/	NC
B6	SMDAT	SMBus Data	A6	/	NC
B7	GND	Ground	A7	/	NC
B8	+3.3V	3.3V Power	A8	/	NC
B9	/	NC	A9	+3.3V	3.3V Power
B10	3.3Vaux	3.3V Auxiliary Power	A10	+3.3V	3.3V Power
B11	WAKE#	Wake-up signal	A11	PERST#	Reset signal

B12	CLKREQ#	Clock request signal	A12	GND	Ground
B13	GND	Ground	A13	REFCLK+	Differential Clock+
B14	PETp0	Transmit differential pair, Lane 0	A14	REFCLK-	Differential Clock-
B15	PETn0	Transmit differential pair, Lane 0	A15	GND	Ground
B16	GND	Ground	A16	PERp0	Receive differential pair, Lane 0
B17	/	NC	A17	PERn0	Receive differential pair, Lane 0
B18	GND	Ground	A18	GND	Ground
B19	PETp1	Transmit differential pair, Lane 1	A19	/	NC
B20	PETn1	Transmit differential pair, Lane 1	A20	GND	Ground
B21	GND	Ground	A21	PERp1	Receive differential pair, Lane 1
B22	GND	Ground	A22	PERn1	Receive differential pair, Lane 1
B23	PETp2	Transmit differential pair, Lane 2	A23	GND	Ground
B24	PETn2	Transmit differential pair, Lane 2	A24	GND	Ground
B25	GND	Ground	A25	PERp2	Receive differential pair, Lane 2
B26	GND	Ground	A26	PERn2	Receive differential pair, Lane 2
B27	PETp3	Transmit differential pair Lane3	A27	GND	Ground
B28	PETn3	Transmit differential pair, Lane 3	A28	GND	Ground
B29	GND	Ground	A29	PERp3	Receive differential pair, Lane 3
B30	/	NC	A30	PERn3	Receive differential pair, Lane 3

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B31	/	NC	A31	GND	Ground
B32	GND	Ground	A32	/	NC
B33	PETp4	Transmit differential pair, Lane 4	A33	/	NC
B34	PETn4	Transmit differential pair, Lane 4	A34	GND	Ground
B35	GND	Ground	A35	PERp4	Receive differential pair, Lane 4
B36	GND	Ground	A36	PERn4	Receive differential pair, Lane 4
B37	PETp5	Transmit differential pair, Lane 5	A37	GND	Ground
B38	PETn5	Transmit differential pair, Lane 5	A38	GND	Ground
B39	GND	Ground	A39	PERp5	Receive differential pair, Lane 5
B40	GND	Ground	A40	PERn5	Receive differential pair, Lane 5
B41	PETp6	Transmit differential pair, Lane 6	A41	GND	Ground
B42	PETn6	Transmit differential pair, Lane 6	A42	GND	Ground
B43	GND	Ground	A43	PERp6	Receive differential pair, Lane 6
B44	GND	Ground	A44	PERn6	Receive differential pair, Lane 6
B45	PETp7	Transmit differential pair, Lane 7	A45	GND	Ground
B46	PETn7	Transmit differential pair, Lane 7	A46	GND	Ground
B47	GND	Ground	A47	PERp7	Receive differential pair, Lane 7
B48	/	NC	A48	PERn7	Receive differential pair, Lane 7
B49	GND	Ground	A49	GND	Ground
B50	/	NC	A50	/	NC

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B51	/	NC	A51	GND	Ground
B52	GND	Ground	A52	/	NC
B53	GND	Ground	A53	/	NC
B54	/	NC	A54	GND	Ground
B55	/	NC	A55	GND	Ground
B56	GND	Ground	A56	/	NC
B57	GND	Ground	A57	/	NC
B58	/	NC	A58	GND	Ground
B59	/	NC	A59	GND	Ground
B60	GND	Ground	A60	/	NC
B61	GND	Ground	A61	/	NC
B62	/	NC	A62	GND	Ground
B63	/	NC	A63	GND	Ground
B64	GND	Ground	A64	/	NC
B65	GND	Ground	A65	/	NC
B66	/	NC	A66	GND	Ground
B67	/	NC	A67	GND	Ground
B68	GND	Ground	A68	/	NC
B69	GND	Ground	A69	/	NC
B70	/	NC	A70	GND	Ground
B71	/	NC	A71	GND	Ground
B72	GND	Ground	A72	/	NC
B73	GND	Ground	A73	/	NC
B74	/	NC	A74	GND	Ground
B75	/	NC	A75	GND	Ground
B76	GND	Ground	A76	/	NC
B77	GND	Ground	A77	/	NC
B78	/	NC	A78	GND	Ground
B79	/	NC	A79	GND	Ground
B80	GND	Ground	A80	/	NC
B81	PRSNT2#	Hot-plug presence detection 2#	A81	/	NC
B82	/	NC	A82	GND	Ground

The PCIe×1 gold fingers are defined as non-standard, supporting one set of PCIe×1 signals and one set of USB 2.0 signals. Details are as follows:

PCIe×1 Gold Fingers Definition					
Pin No.	Pin Name	Description	Pin No.	Pin Name	Description
B1	GND	Ground	A1	GND	Ground
B2	REFCLK+	Differential Clock	A2	USB2 DP	USB 2.0 signal differential pair
B3	REFCLK-	Differential Clock	A3	USB2 DN	USB 2.0 signal differential pair
B4	GND	Ground	A4	GND	Ground
B5	PETp0	Transmit differential pair, Lane 0	A5	/	NC
B6	PETn0	Transmit differential pair, Lane 0	A6	/	NC
B7	GND	Ground	A7	/	NC
B8	PERp0	Receive differential pair, Lane 0	A8	/	NC
B9	PERn0	Receive differential pair, Lane 0	A9	/	NC
B10	GND	Ground	A10	/	NC
B11	CLKREQ#	Clock request signal	A11	PERST#	Reset signal

## 2. Dimensions Diagram of EX Docking Station Gold Fingers (Unit: mm)



