



Bill of Materials

TI DESIGNS

TIDA-00890 USB Type-A Plug to USB TypeC™ Receptacle SuperSpeed (SS) MUX with DFP controller reference design

Item	Quantity	Reference	Part	Manufacturer	Manufacturer Part Number	Digi-Key Part Number	PCB Footprint	Description
1	1	C1	0.01uF	Murata Electronics North America	GRM155R71H102KA01D	490-1303-1-ND		402 CAP CER 1000PF 50V X7R 0402
2	4	C2,C3,C4,C15	0.1uF	Samsung Electro-Mechanics America, Inc.	CL05A104MP5N9NC	1276-1443-1-ND		402 CAP CER 0.1UF 10V X5R 0402
3	0	C5	NC, 10uF	Samsung Electro-Mechanics America, Inc.	CL10A106MP8N9NC	1276-1871-1-ND		603 CAP CER 10UF 10V X5R 0603
4	0	C7	NC, 10uF	Murata Electronics North America	GRM219R60J106KE19D	490-3340-1-ND		805 CAP CER 10UF 6.3V X5R 0805
5	1	C10	47uF	TDK Corporation	C2012X5R1A476M125AC	445-8239-1-ND		805 CAP CER 47UF 10V X5R 0805
6	1	C11	47nF	Yageo	CC0402KRX7R88B472	311-1039-1-ND		402 CAP CER 4700PF 25V X7R 0402
7	2	C12,C13	10uF	Murata Electronics North America	GRM219R60J106KE19D	490-3340-1-ND		805 CAP CER 10UF 6.3V X5R 0805
8	1	C14	22uF	Samsung Electro-Mechanics America, Inc.	CL12A226MQLQNC	1276-2412-1-ND		805 CAP CER 22UF 6.3V X5R 0805
9	1	C16	47uF	TDK Corporation	C2012X5R1A476M125AC	445-8239-1-ND		805 CAP CER 47UF 6.3V X5R 0805
10	6	C17,C18,C19,C20,C21,C22	0.5uF	TDK Corporation	C0603X5R1A474M030BC	445-13666-1-ND		201 CAP CER 0.47UF 10V X5R 0201
11	1	D2	LED Green 0402	Lumex	SML-LX0402SUGC-TR	67-1881-1-ND	LED_0402	Green LED
12	1	D6	ESD5Z6.0T1G	ON Semi	ESD5Z6.0T1G	ESD5Z6.0T1G0SCF-ND	SOD_523	TVS Diode
13	1	D7	LED Orange 0805	Lumex	SML-LX0402S0C-TR	67-1879-1-ND	LED_0402	Orange LED
14	1	FB1	220 @ 100MHZ	MuRata	BLM18E62215N1D	490-3992-1-ND		603 FB EAD 1000@100MHZ
15	0	J2	NC, HDR2x2 M 1mm	Sullins			CONN4-SMH4_SUL	
16	1	J3	USB3 STANDARD TYPE A PLUG	Würth Electronics	6.92112E+11	732-3157-ND	usb3_plug_wurth_elektronik	Connector Plug USB TypeA 3.0, Super Speed 9 Position Surface Mount, Right Angle, Horizontal
17	1	J4	TypeC Receptacle_DualSMT_TOP	Foxconn	UT12113-11601-7H		USB_TYPEC_UT1211	USB Type C Surface Mount Connector
18	1	L1	1uH	Taiyo Yuden	NR3015T1R0N	587-1647-1-ND	IND_NR3015	FIXED IND 1UH 2.1A 36 MOHM SMD
19	1	Q1	MOS_P_4D_3S	Texas Instruments	CSD17313Q2	296-27233-1-ND	Q2_SON-6	MOSFET N-CH 30V 5A 6SON
20	1	R4	1.6K	Panasonic Electronic Components	ERJ-2GEJ162X	P1.6KJCT-ND		402 RES SMD 1.6K OHM 5% 1/10W 0402
21	4	R5,R6,R38,R44	0	Yageo	RC0402JR-070RL	311-0.0JRCT-ND		402 RES SMD 0.0OHM JUMPER 1/16W 0402
22	1	R7	0	Yageo	RC0805JR-070RL	311-0.0ARCT-ND		805 RES SMD 0.0 OHM JUMPER 1/8W 0805
23	1	R8	330	Panasonic	ERJ-XGNJ331Y	Mouser667-ERJ-XGNJ331Y		402 Distributed by Mouser. SMD 01005 330ohms 5% Halogen-free
24	1	R23	200K	Panasonic Electronic Components	ERJ-2RKF2003X	P200KLCF-ND		402 RES SMD 200K OHM 1% 1/10W 0402
25	1	R24	10K	Yageo	RC0402JR-0710KL	311-10KJRCT-ND		402 RES SMD 10K OHM 5% 1/16W 0402
26	1	R25	1M	Yageo	RC0402JR-071ML	311-1.0MJRCT-ND		402 RES SMD 1M OHM 5% 1/16W 0402
27	1	R26	47K	Yageo	RC0402FR-0747KL	311-47.0KLRCT-ND		402 RES SMD 47K OHM 1% 1/16W 0402
28	1	R27	178K	Yageo	RC0402FR-07178KL	YAG3010CT-ND		402 RES SMD 178K OHM 1% 1/16W 0402
29	0	R28,R29,R43	NC, 0	Yageo	RC0402JR-070RL	311-0.0JRCT-ND		402 RES SMD 0.0OHM JUMPER 1/16W 0402
30	0	R34	NC, 0	Panasonic Electronic Components	ERJ-1GNOR00C	P15979CT-ND		201 RES SMD 0.0OHM JUMPER 1/20W 0201
31	1	R35	900K	Panasonic Electronic Components	ERJ-2RKF9093X	P909KLCF-ND		402 RES SMD 909K OHM 1% 1/10W 0402
32	1	R36	4.7K	Yageo	RC0402JR-074K7L	311-4.7KJRCT-ND		402 RES SMD 4.7K OHM 5% 1/16W 0402
33	0	R37	NC, 10K	Yageo	RC0402JR-0710KL	311-10KJRCT-ND		402 RES SMD 10K OHM 5% 1/16W 0402
34	4	R39,R40,R41,R42	100K	Yageo	RC0201JR-07100KL	311-100KNCT-ND		201 RES SMD 100K OHM 5% 1/20W 0201
35	2	R45,R46	200K	Panasonic Electronic Components	ERJ-1GEF2003C	P200KABCT-ND		201 RES SMD 200K OHM 1% 1/20W 0201
36	2	R47,R48	2.2K	Yageo	RC0201JR-072K2L	311-2.2KNCT-ND		201 RES SMD 2.2K OHM 5% 1/20W 0201
37	0	R49,R50	NC, 10K	Yageo	RC0201JR-0710KL	311-10KNCT-ND		201 RES SMD 10K OHM 5% 1/20W 0201
38	1	R51	499	Panasonic Electronic Components	ERJ-2RKF4990X	P499LCT-ND		402 RES SMD 499 OHM 1% 1/10W 0402
39	0	TP1,TP2,TP4,TP5,TP6,TP7,TP8,TP9	15-mil TEST PAD				15_mil_Round_Probe_Point	15 mil Round Pad
40	1	U1	TUSB211RWB	Texas Instruments	TUSB211RWB		RWB	USB 2.0 480Mbps High Speed Signal Conditioner
41	1	U2	HD3SS3220	Texas Instruments	HD3SS3220RNHR		RNH_QFN-30	USB Type-C DRP Port Controller with SuperSpeed 2:1 MUX
42	2	U3,U4	TPD4E05U06	Texas Instruments	TPD4E05U06Q0AR	296-35765-1-ND	DQA	DISTRIBUTED BY TI 4 Channel Ultra Low Capacitance IEC ESD Protection Diodes
43	1	U5	TPD6E05U06	Texas Instruments	TPD6E05U06RVZR	TPD6E05U06RVZR-ND	RVZ	6-Channel Ultra low capacitance IEC ESD protection diodes
44	1	U7	TPS25910RSA	Texas Instruments	TPS25910RSAR		QFN_16_161x161_26	20V, 6.5A, 30mΩ eFuse with Adjustable +/-15% Accurate Current Limit
45	1	U8	TPS62082DSGT	Texas Instruments	TPS62082DSGT	296-29647-1-ND	dsg	1.2A High Efficient Step Down Converter in 2x2mm SON Package. 3.3 Vout (Min)
46	1	PCB		ANY	INT026			PCB board

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