TEXAS INSTRUMENTS

Bill of Materials

TI DESIGNS
TI Designs # TIDM-INDUSTRIAL-PLC
PLC Docking Station BOM

Module	Res.	Value	Digikey Part #	Mouser Part #	Newark Part #	Other Distributor
PLC Dock	C1	100uF	493-3284-nd			
PLC Dock	C10	100n	PCC1812CT-ND			
PLC Dock	C11	10n	399-4669-1-ND			
PLC Dock	C12	330n	490-3294-1-ND			
PLC Dock	C13	0.47u	EF4474-ND			
PLC Dock	C14	100n	pcc1828ct-nd			
PLC Dock	C15	100n	pcc1828ct-nd			
PLC Dock	C16	4u7F	digikey EF2475-ND			
PLC Dock	C2	10uF	490-3382-1-ND			
PLC Dock	C3	100n	pcc1828ct-nd			
PLC Dock	C4	10uF	490-3382-1-ND			
PLC Dock	C40	100n	pcc1828ct-nd			
PLC Dock	C41	100n	pcc1828ct-nd			
PLC Dock	C42	100n	pcc1828ct-nd			
PLC Dock	C43	100n	pcc1828ct-nd			
PLC Dock	C44	100n	pcc1828ct-nd			
PLC Dock	C45	100n	pcc1828ct-nd			
PLC Dock	C46	100n	pcc1828ct-nd			
PLC Dock	C5	100n	pcc1828ct-nd			
PLC Dock	C6	2u2	399-3084-1-ND			
PLC Dock	C7	2u2	399-3084-1-ND			
PLC Dock	C8	2u2	399-3084-1-ND			
PLC Dock	C9	100uF	511-1498-1-ND			
PLC Dock	D1	BZV55-C5V6	568-3797-1-ND			
PLC Dock	D2	PMLL4148L	568-1749-1-ND			
PLC Dock	J1	100 pin DIMM socket - Molex 0876301001		538-87630-1001		
PLC Dock	J10	Standard 0.1" SIL headers, 2 position	WM6536-ND			
PLC Dock	J12	Standard 0.1" SIL headers, 3 position	WM6536-ND			
PLC Dock	J13	Standard 0.1" SIL headers, 3 position	WM6536-ND			
PLC Dock	J14	Standard 0.1" SIL headers, 3 position	WM6536-ND			
PLC Dock	J15	Standard 0.1" SIL headers, 3 position	WM6536-ND			
PLC Dock	J16	Standard 0.1" SIL headers, 3 position	WM6536-ND			
PLC Dock	J17	Standard 0.1" SIL headers, cut to fit	WM6536-ND			
PLC Dock	J18	Standard 0.1" SIL headers, 3 position	WM6536-ND			
PLC Dock	J19	Standard 0.1" SIL headers, 3 position	WM6536-ND			
PLC Dock	J2	db9	A35105-ND			

PLC Dock	J20	Standard 0.1" SIL headers, 3 position	WM6536-ND		
PLC Dock	J21	Standard 0.1" SIL headers, 3 position	WM6536-ND		
PLC Dock	J22	Standard 0.1" SIL headers, 3 position	WM6536-ND		
PLC Dock	J23	Standard 0.1" DIL headers, 4 position 2x2			
PLC Dock	J24	Standard 0.1" DIL headers, 8 position,2x4			
PLC Dock	J25	Standard 0.1" DIL headers, 4 position 2x2			
PLC Dock	J3	Standard 0.1" SIL headers, 3 position	WM6536-ND		
PLC Dock	J5	Standard 0.1" SIL headers, cut to fit	WM6536-ND		
PLC Dock	J6	Standard 0.1" DIL headers, 4 position 2x2			
PLC Dock	J7	Standard 0.1" DIL headers, 8 position,2x4			
PLC Dock	J8	Standard 0.1" SIL headers, 2 position	WM6536-ND		
PLC Dock	J9	do not populate			
PLC Dock	JP1	DC jack	PJ-002AH		
PLC Dock	L1	BEAD			2773037447
PLC Dock	L2	BEAD			2773037447
PLC Dock	L3	3u8H	513-1395-1-ND		
PLC Dock	L4	600nH	PCD2022TR-ND		
PLC Dock	L5	15uH (DR1040-150-R)	513-1400-1-ND		
PLC Dock	L6	47uH	513-1403-2-ND		
PLC Dock	LD1	LED	404-1021-1-nd		
PLC Dock	LD4	LED	404-1021-1-nd		
PLC Dock	LD5	LED	404-1021-1-nd		
PLC Dock	M2	DNP			
PLC Dock	M3	Standard 0.1" SIL headers, cut to fit	WM6536-ND		
PLC Dock	PM1	PTH08080	296-20432-ND		
PLC Dock	Q1	BC817-40LT1G	BC817-40LT1GOSCT-ND		
PLC Dock	R1	330R	p330ACT-nd		
PLC Dock	R13	0R	P0.0ACT-ND		
PLC Dock	R14	NoPop*			
PLC Dock	R15	NoPop*			
PLC Dock	R16	1M	p1.0mact-nd		
PLC Dock	R18	0R	P0.0ACT-ND	108-2AS1T1203-EVX	
PLC Dock	R19	1K0	P1.00KCCT-ND		
PLC Dock	R2	470R	rhm470crct-nd		
PLC Dock	R20	1K0	P1.00KCCT-ND		
PLC Dock	R21	1K0, NO POP			
PLC Dock	R22	1K0, NO POP			
PLC Dock	R23	100K	P100KECT-ND		
PLC Dock	R24	100K	P100KECT-ND		
PLC Dock	R25	100K	P100KECT-ND		
PLC Dock	R26	270R	311-270GRCT-ND		
PLC Dock	R27	240K	P240KGCT-ND		
PLC Dock	R28	5K	311-5.1KARCT-ND		

Board	Ref	Description	Part No 1	Part No 2	Part No 3
PLC Dock	R29	5K	311-5.1KARCT-ND		
PLC Dock	R3	0R	P0.0ACT-ND		
PLC Dock	R30	1K5	311-1.5KARCT-ND		
PLC Dock	R31	0R	P0.0ACT-ND		
PLC Dock	R32	0R	P0.0ACT-ND		
PLC Dock	R33	1K	P1.00KCCT-ND		
PLC Dock	R34	1K	P1.00KCCT-ND		
PLC Dock	R35	1K	P1.00KCCT-ND		
PLC Dock	R4	NoPop*			
PLC Dock	R5	4R7	P4.7BCT-ND		
PLC Dock	R6	3K0	P3.0KACT-ND		
PLC Dock	R7	680R	311-680CRCT-ND		
PLC Dock	R8	680R	311-680CRCT-ND		
PLC Dock	R9	1K0	P1.00KCCT-ND		
PLC Dock	SW1	SPDT		108-2AS1T1203-EVX	
PLC Dock	T1	AF5277A_083110, No POP			
PLC Dock	T2	AF5112			AF5112
PLC Dock	TB1	Power plug	Q218-nd		
PLC Dock	U1	ISO7221	296-21955-1	595-ISO7221ADR	
PLC Dock	U2	MAX3221	296-19825-1-ND		
PLC Dock	U3	TPS79533	296-13810-1		
PLC Dock	U4	AT24C1024B	AT24C1024B-TH-B-ND		
PLC Dock	U5	SN74LVC2G07	digikey 296-13494-1-ND		
PLC Dock	U6	AT24C1024B, DO NOT POP			
PLC Dock	U7	FOD817BSD		512-FOD817BSD	
PLC Dock	U8	SN74LVC1G57	296-15574-1-ND		
PLC Dock	Z1	DO-214AB	497-6488-1-ND		
jtag-usb	C4	Cer. Cap - 1u, 6.3V, X5R, 0603	490-1550-1-ND		
jtag-usb	C5	Cer. Cap - 1u, 6.3V, X5R, 0603	490-1550-1-ND		
jtag-usb	C6	Cer. Cap - 100n, 10V, X5R, 0603	399-1095-1-ND		
jtag-usb	C7	Cer. Cap - 100n, 10V, X5R, 0603	399-1095-1-ND		
jtag-usb	C8	Cer. Cap - 100n, 10V, X5R, 0603	399-1095-1-ND		
jtag-usb	C9	Cer. Cap - 100n, 10V, X5R, 0603	399-1095-1-ND		
jtag-usb	C10	Cer. Cap - 100n, 10V, X5R, 0603	399-1095-1-ND		
jtag-usb	C11	Cer. Cap - 100n, 10V, X5R, 0603	399-1095-1-ND		
jtag-usb	C12	Cer. Cap - 100n, 10V, X5R, 0603	399-1095-1-ND		
jtag-usb	DA1	Diode*4 array	BAW567DW-FDICT-ND		
jtag-usb	J1	standard 0.1" pin (SIL) headers cut to length	490-3335-1-ND		
jtag-usb	J3	standard 0.1" pin (SIL) headers cut to length	490-3335-1-ND		
jtag-usb	J4	standard 0.1" pin (SIL) headers cut to length	490-3335-1-ND		
jtag-usb	J5	standard 0.1" pin (SIL) headers cut to length	490-3335-1-ND		
jtag-usb	J2	standard 0.1" pin (DIL) header (note remove pin 6)	587-1375-1-ND		
jtag-usb	JP1	USB-TypeB receptacle	ED90064-ND		
jtag-usb	L1	Inductor 22uH SMD, 0805	490-4030-1		
jtag-usb	R1	Res. - 470R, 5%, 0.1W, 0603	RHM470GCT-ND		
jtag-usb	R2	Res. - 27R, 5%, 0.1W, 0603	RHM27GCT-ND		

jtag-usb	R3	Res. - 27R, 5%, 0.1W, 0603	RHM27GCT-ND
jtag-usb	R4	Res. - 2K2, 5%, 0.1W, 0603	P2.2KGCT-ND
jtag-usb	R6	Res. - 2K2, 5%, 0.1W, 0603	P2.2KGCT-ND
jtag-usb	R5	Res. - 1M, 1%, 0.1W, 0603	RHM1.0MGCT-ND
jtag-usb	R7	Res. - 10K, 5%, 0.1W, 0603	P10KGCT-nd
jtag-usb	R8	Res. - 1K, 5%, 0.1W, 0603	RHM1.0KGCT-ND
jtag-usb	R9	Res. - 2K7, 5%, 0.1W, 0603	RHM2.7KGCT-ND
jtag-usb	R10	Res. - 2K7, 5%, 0.1W, 0603	RHM2.7KGCT-ND
jtag-usb	R13	Res. - 47K, 5%, 0.1W, 0603	RHM47KGCT-ND
jtag-usb	R14	Res. - 2K0, 5%, 0.1W, 0603	RHM2.0KGCT-ND
jtag-usb	U1	FT2232D - USB to Serial, Dual port	768-1010-1-ND
jtag-usb	U2	Serial EEPROM - 93LC46B - SOT23-6	93LC46BT-I/OTCT-ND
jtag-usb	U3	D-FlipFlop - SN74LVC2G7	296-13273-1-ND
jtag-usb	X1	Resonator - 6MHz	490-1218-1-ND

Item Number	Quantity	Part Number	Part Type	Part Reference	Vendor	Vendor PN	Description	Value	PCB Footprint	Tolerance	Voltage	Distributo	Distributor Part Number
1	1	300-00032	CAP	C13			Cap Ceramic SMT 04	82pf	C0402	0			
2	1	300-00014	CAP	C14			Cap Ceramic SMT 04	100nF	C0402	0	10V		
3	1	300-00025	CAP	C15			Cap Ceramic SMT 04	150pf	C0402	0			
4	3	300-00013	CAP	C16 C24 C86			Cap Ceramic SMT 04	10nF	C0402	0	10V		
5	1	100-00108	CAP	C17	KEMET	C0402C104K4RACTU	Capacitor,0.1UF, X7F	0.1UF	C0402	0.1	16V		
6	1	300-00015	CAP	C18			Cap Ceramic SMT 04	1uF	C0402	0	10V		
7	1	300-00031	CAP	C19			Cap Ceramic SMT 04	820pf	C0402	0			
8	1	300-00028	CAP	C25			Cap Ceramic SMT 04	33nf	C0402	0			
9	1	300-00026	CAP	C26			Cap Ceramic SMT 04	22nf	C0402	0			
10	3	300-00039	CAP	C38 C72 C76	Taiyo Yuden	GMK316F106ZL-T	Cap Ceramic SMT 12	10UF	C1206	0	35V	digikey	587-1352-1-ND
11	4	300-00041	CAP	C65 C67 C69 C7	MURATA	GRM155F51E104ZA01D	CAP CER .1UF (100	100nF	C0402	0	25V	digikey	490-3271-1-ND
12	4	300-00044	CAP	C66 C87 C88 C8	MURATA	GRM155R61A104KA01D	CAP CER .1UF 10V	0.1uf	C0402	0	10V	digikey	490-1318-1-ND
13	2	300-00042	CAP	C73 C74	TDK	C5750Y5V1E476Z	CAP CER 47UF 25V	47uf	C2220	0	25V	digikey	445-3486-2-ND
14	1	300-00033	CAP	C78			Cap Ceramic SMT 06	910pf	C0603	0			
15	1	300-00034	CAP	C79			Cap Ceramic SMT 06	300pf	C0603	0			
16	3	100-00107	CAP	C81 C82 C83	TI	CAP_0603_DNP	Capacitor, DNP, 060	DNP	C0603	0			
17	1	300-00035	CAP	C84	Murata	GRM188R71H104KA93D	Cap Ceramic SMT 06	100nF	C0603	0	50V	digikey	490-1519-1-ND
18	1	300-00038	CAP	C85	PANASONIC	ECH-U1H332JX5	CAP .0033UF 50V PI	3n3F	C1206	0	50V	digikey	PCF1334CT-ND
19	1	200-00002	FET_DIODE	D1	Stanley	BR1112H-TR	DIODE,0.54 VF,80 A	LED_RED	LED0805	0			
20	2	320-00006	CONN	J2 J3			12 pin 100mill standa	SILH-12	HDR_1x12_100MIL	0			
21	5	320-00008	CONN	J4 J6 J7 J8 J9			3 pin 100mill standar	SILH-3	HDR_1x3_100MILL	0			
22	1	330-00013	MAGNETICS	L1	Taiyo Yuden	LB3218T1R0M	INDUCTOR 1.0UH 1	LB 3218T1	IND1207	0		Digikey	587-2032-1
23	1	330-00009	MAGNETICS	L2	Panasonic - I	ELJ-EA331KF	INDUCTOR 330UH 1	330uH	IND1210	0		Digikey	PCD1432CT
24	1	330-00012	MAGNETICS	L3	Taiyo Yuden	CB2518T471K	INDUCTOR POWER 1	470uH	IND1007	0		Digikey	587-2194-1
25	1	490-00001	Heat_Sink	P1	AAVID	573400D00000G	AAVID heat sink for (	HS	custom	0		mouser	
26	3	310-00029	RES	R2 R3 R51			Resistors, 0R, 5% - S	0R	R0402	0			
27	1	310-00055	RES	R23			Resistor 2K67 5% - S	2K67	R0402	0			
28	1	310-00057	RES	R24			Resistor 3K3 5% - SI	3K3	R0402	0			
29	1	310-00048	RES	R25			Resistor 1K47 5% - S	1K47	R0402	0			
30	1	310-00052	RES	R26			Resistor 15K 5% - SI	15K	R0402	0			
31	2	310-00059	RES	R28 R30			Resistor 30K 5% - SI	30K	R0402	0			
32	1	310-00061	RES	R31			Resistor 6K8 5% - SI	6K8	R0402	0			
33	2	310-00051	RES	R36 R37			Resistor 150R 5% - S	150R	R0402	0			
34	7	310-00049	RES	R71 R72 R73 R7			Resistor 10K 5% - SI	10K	R0402	0			
35	2	310-00063	RES	R79 R82	vishay	CRCW0402330RJNED	RES 330 OHM 1/16V	330R	R0402	0		digikey	541-330JCT-ND
36	2	110-00179	RES	R80 R81	Panasonic	ERJ-3GEYJ104V	RESISTOR,100K, 0.	100K	R0603	0.05	0.1W		
37	6	280-00005	MTG_HOLE_T	TP2 TP4 TP5 TP	TI	5015	PC TEST POINT MII	TP_CLIP_	TP_5015	0			
38	2	400-00003	FET_DIODE	U4 U6	Diodes Inc	B350A-13-F	DIODE SCHOTTKY :	B350A-13-	DO-214AB	0		digikey	B350A-FDICT-ND
39	2	400-00004	FET_DIODE	U10 U12	STMicroelect	STPS1L40A	DIODE SCHOTTKY	STPS1L40	DO-214AC	0		digikey	497-3753-1-ND
40	1	402-00028	IC	U17	TI	AFE031	AFE031 TI PLC Intec	AFE031	RGZ	0			
41	1	400-00007	FET_DIODE	U19	On Semi	1SMB5931BT3	DIODE ZENER 3W 1	18V	DO-214AA	0		Digikey	1SMB5931BT3GOSCT-ND
42	1	402-00031	IC	U20	TI	OPA2365	IC, dual, High-Speed	OPA2365A	SOIC-8(D)	0			

Bill of Materials

Item	Description	Digikey Part #	Comments
U1	F28035 (TI) SMD (LQFP-80)		**Texas Instruments**
C1, C14, C22-C29	CAP ceramic 100n X5R, SMD 0603 (decoupling)		
C2-C9	CAP ceramic 3300p X7R, SMD 0603		
C10-C12, C19-C21	CAP ceramic 2u2 X7R, SMD 0603		
C13	CAP Tant 47u 10V SMD (3216-12)	511-1500-2	
C15	CAP ceramic 10u X5R, SMD 0603		
C16, C18	CAP ceramic 1u X7R, SMD 0603		
C17	CAP ceramic 0.01u X7R, SMD 0603		
L1, L2	Inductor 60Ω impedence, 100MHz, SMD 0805	587-1932-1-ND	
L3, L4	Inductor 220Ω impedence, 100MHz, SMD 0805	490-1054-1-ND	
R1, R13	Resistors 2K2, 5% - SMD, 0603		
R2, R5,R6	Resistors 0R, 5% - SMD, 0805		
R3, R7, R8	Resistors 680R, 5% - SMD, 0603		
R4	**Do NOT populate - SMD, 0805**	---	
R9, R10	Resistors 3K3, 5% - SMD, 0603		
R11, R12	Resistors 820R, 5% - SMD, 0603		
RN1, RN2	Resistor network 56R 5%	Y1560CT	
RN3	Resistor network 33R 5%	Y1330CT	
X1	**Do NOT populate - SMD**	---	
LD1	LED SMD 0805 - Green	404-1021-1	
LD2,LD3	LEDs SMD 0805 - Red	404-1017-1	
U2, U3	Diodes, clamping, NUP4201MR6 TSOP-6	NUP4201MR6T1GOSTR	
U4	TPS73033 (TI) - SOT23-5	296-2652-5	
U6	ISO7221CDR	296-21955-1	
U5	MAX3221 (TI)	296-19825-2	
U7	SN74LVC2G07 (TI)	296-13494-2	
SW1	CHS-01TB	563-1004-1-ND	
SW2	CT2182LPST	CT2182LPST-ND	

| SW3 | CAS-D20TA - 2xSPDT | CASD20JCT-ND |