

Bill of Materials

TI DESIGNS
TIDA-00149
Automotive Capacitive Pressure Sensor Interface

Item #	Quantity	Designator	Comment	Description	Footprint	PN	P/N (DIGIKEY)	REMARKS	P/N (NEWARK)
CAPACITORS									
1	5	C1, C35, C42, C52, C53		1uF 0805 16V 10% X7R	0805	C2012X7R1C105K	445-1358-1-ND		
2	13	C2, C3, C4, C5, C34, C36, C37, C39, C40, C46, C48, C68		0.1uF 16V X7R	0603	399-1096-1-ND, C0603C104K4RACTU	399-1096-1-ND, C0603C104K4RACTU		
3	2	C6		366F 50V COG	0603	GRM1885E1H362QA01D	450-1416-1-ND		
4	1	C8		0.1uF 0805 16V 10% X7R	0805	C0603C104K4RACTU	399-1096-1-ND	603 VS 805 PACKAGE USE 805 package	
5	12	C9, C17, C43, C45, C49, C51, C54, C60, C61, C62, C63, C64		0.1uF 805V 50V 10% X7R	0805	C2012X7R1H104K	445-1349-2-ND		
6	4	C10, C15, C26, C31		0.01uF 0805 50V 10% X7R	0805	C2012X7R1H103K	445-1348-1-ND		
7	1	C12		10uF 16V Tantal	1206	B45196H3104K109	495-2236-1-ND		
8	1	C14		22uF 16V Tantal	1210	TC1AL1C226M8R	511-1502-1-ND		
9	2	C18, C21		Cap Var	7-50uF 50V	TZB4R500BA10R00	490-1903-6-ND		
10	2	C19, C22		30pF	0805	08051A300JA72A	478-3738-1-ND		
11	2	C20, C23		56pF 0805 100V 5% COG	0805	08051A560JA72A	478-5023-1-ND		
12	4	C24, C27, C28, C32		10pF	0805	C2012X7R1H102K	445-1347-1-ND		
13	4	C30, C33, C38, C41		2.2nF 0603 16V 10% X7R	0603	C0603C223K4RACTU	399-1093-1-ND	2.2NF VS .22NF USE 2.2NF	
14	2	C44, C47		100pF 50V X7R	0805	C2012C0G1H101J1	445-1329-1-ND	5% VS .10% USE Either Tolerance	
15	1	C50		100pF 250V COG	0603	C1408C0G2E101J	445-2314-1-ND		
16	1	CBuk1		100uF 16V AL	100uF 16V 20% AL	CAP 6.6 X 6.6 MM SMD	EEV1G1C101P	PCE361RCT-ND	
JUMPERS / HEADERS									
17	1	J1	Female	Receptacle Assembly, 9 Position, RAJF	D5UB1-385-RAJF	A35109-ND	1734348-1		
The Following Four Parts (Item # 18-21) Will Be Cut from the Larger Part (A26513-40) to the Appropriate Number of Pins									
18	19	JP1, JP2, JP3, JP4, JP5, JP6, JP7, JP8, JP9, JP11, JP13, JP14, JP15, JP16, JP18, JP22, JP23, JP28, JP29	JUMPER 2 PIN	Two Pin Jumper	JMPO 2	4-103185-0	A36513-40-ND		
19	6	JP10, JP12, JP17, JP19, JP26, JP27	JUMPER 3 PIN	Three Pin Jumper	JMPO 3	4-103185-0	A36513-40-ND		
20	1	H1	Header 4	Header, 4 Pin	HDR1X4				
21	1	H2	Header 6	Header, 6 Pin	HDR1X6				
22	1	P1, P3	END, VPWR	BANANA STACK (FEMALE END)	BANANA LARGX HEX / R2D2	39F845			66856-1
23	1	P2	2 Pos Term Block	2 Pos Term Block	1229018		277-1236-ND		
24	1	H4	Header 20X2	Header, 20 Pin, Dual row	HDR2X20	4-103240-0	A36528-40-ND		
25	1	P6	TIGER - A	TIGER - A	HDR-2x15-M	TSW-115-08-T-D-RA	SAM1049-15-ND		
INDUCTORS, COILS, ETC.									
26	4	L1, L2, L3, L4	DR		0805	MCR10E2P1000	RHM0.GARCT-ND		
RESISTORS									
27	6	R1, R2, R12, R13, R22, R23	DR	0.0 0603 1/10W 5%	0603	MCR03E2P1000	RHM0.GCCT-ND		
28	1	R5	1M	1M 0603 1/10W 5%	0603	MCR03E2P1105	RHM1.0MGCT-ND		
29	1	R6	200R	200 0805 1/8W 1%	0805	MCR10E2P201	RHM200ARCT-ND		
30	1	R7	1k	1k 0805 1/4 1%	0805	MCR10E2PF1001	RHM1.00KCRCT-ND		
31	1	R8	47k	47k 0805 1/10W 5%	0805 x4 Concave (2012 metric)	743C081473JPTFR	743C081473JPCCT-ND		
32	4	R9, R10, R19, R20	10k	10k 0805 1/8W 5%	0805	MCR10E2PF1002	RHM10.0KCRCT-ND		
33	4	R14, R15, R27, R28	R50k	50k 427X502	0805_murata	SMA427X502	SMA427X502CT-ND		
34	4	R17, R18, R29, R30	7.5k	7.5k 0805 1/8W 5%	0805	MCR10E2H752, RHM7.5KACT-ND	MCR10E2H752, RHM7.5KACT-ND		
35	8	R24, R25, R31, R32, R35, R36, R40, R41	1k	1k 0603 1/10W 1%	0603	MCR03E2PF1001	RHM1.00KICT-ND		
36	19	R33, R34, R37, R38, R39, R42, R43, R49, R50, R51, R52, R60, R76, R77, R78, R79, R80, R89, R91	49.9k	49.9k 0603 5% 1/10W	0603	MCR03E2PFX4992, RHM49.9KCHCT-ND	MCR03E2PFX4992, RHM49.9KCHCT-ND		
37	4	R44, R45, R47, R48	49k	49k 0805 1/8W 5%	0805	MCR03E2PFX4992	RHM49.9KCHCT-ND	49.9k VS 49k OR 403 VS 805 USE 805 49.9k	
38	1	R46	200R	200 0805 1/8W 5%	0805	MCR10E2P201	RHM200ARCT-ND		
39	2	R53, R55	4.99k	4.99k 0603 1/10W 1%	0603	MCR03E2PFX4991	RHM4.99KCHCT-ND		
40	1	R54	200R	200 0805 1/8W 1%	0805	MCR10E2P201	RHM200ARCT-ND		
41	1	R44	1k	1k 0603 1/10W 5%	0603	MCR03E2PF1001	RHM1.00KICT-ND		
42	1	R56	220k	220k 0603 1/10W 5%	0603	MCR03E2P1224	RHM220KCGCT-ND		
43	1	R68	5R	5R 1206 1/3W 5%	1206	ESR1E2P15R1	RHM5.1ICT-ND	5 VS 5.1" USE 5.1 Ohms	
44	1	R70	10R	10R 0603 1/10W 1%	0805	MCR03E2PFX10R0	RHM10.0HCT-ND	603 VS 805 USE 805	
45	4	R75, R81, R87, R94	100 0805 1/10W 5%	100 0805 1/10W 5% - NETWORK	0805 x4 Concave (2012 metric)	743C081101JPTFR	743C081101JPCCT-ND		
46	1	R88	332 0805 1/8W 5%	332 0805 1/8W 5%	0805	MCR10E2PF3320	RHM332CRCT-ND		
47	1	R93, R99	110 0805 1/8W 5%	110 0805 1/8W 5%	0805	MCR03E2PF1101	RHM33.0ARCT-ND		
48	1	R93	11k	1100 0805 1/8W 5%	0805	MCR10E2P112	RHM1.1KARCT-ND		
TI - SEMICONDUCTORS									
The Following Parts (Item # 49-64) Will Be Provided By Texas Instruments									
49	1	U1	PSA400 - PSSC OFN			790-41036-101T		QFN ICs are not available from standard inventory. They are orderable here: http://www.ti.com/psa/cisevm.nsf/Request?OpenForm	
50	1	U2	TLV1117	TLV1117CDCYR	PG-SOT-223	296-17598-1-ND	296-17598-1-ND		
51	1	U4	REG102-5	REG102NA-5/250	DBV (R-PD50-G5)	REG102NA-5/250	REG102NA-5CT-ND		
52	3	U5, U10, U19	OPA2335UA	OPA2335AIDR	183H-L	OPA2335AIDR	296-14170-5-ND should be 296-13462-1-ND	MPN & DIGIKEY PART NOT SAME	
53	4	U6, U7, U9, U11	TSSA3359	TSSA3359DCUR	MSOHR (D2CU)	TSSA3359DCUR	296-21193-1-ND		
54	1	U8	DAC8574	DAC8574IDR	PNV (R-PD50-G)-16	DAC8574IDR	296-14170-5-ND		
55	2	U12, U13	SN74LVC1G07	SN74LVC1G07DBVR	DBV (R-PD50-G)	SN74LVC1G07DBVR	296-8485-1-ND		
56	1	U14	ADS1100A2	ADS1100A2IDBVT	DBV (R-PD50-G)	ADS1100A2IDBVT	296-12966-1-ND should be 296-14239-1-ND	MPN & DIGIKEY PART NOT SAME	

Item #	Quantity	Designator	Comment	Description	Footprint	P/N	P/N (DIGIKEY)	REMARKS	P/N (NEWARK)
57	1	U15		TS12A44514	PW (R-PD50-G)-14	TS12A44514PWR			
58	1	U16		ADS1100A3	DBV (R-PD50-G)6	ADS1100A3DBVT			
59	2	U17, U27		TS5A23159	MSOP10 (R)5	TS5A23159DCSR			
60	1	U18		ADS1100A4	DBV (R-PD50-G)6	ADS1100A4DBVT			
61	1	U20		ADS1100A5	DBV (R-PD50-G)6	ADS1100A5DBVT			
62	1	U23		MAX3221ECAF	S5DP16	MAX3221DBR			
63	1	U25		SN74LVC1G240	DCK (R-PD50-G)5	SN74LVC1G240DCKR			
64	1	U26		SN74CBTLV257	P/W (R-PD50-G)-18	SN74CBT257CPWR			
SEMICONDUCTORS									
65	1	D1		Diode Schottky	DO-214AA	5SR44 E3R2T	5SR44 E3R2T0ICT-ND		
66	4	D2, D3, D30, D31		Typical RED, GREEN, YELLOW, AMBER GaAs LED	1805 - Lumileds	67-1553-2 SML-LXT0805GW-TR	67-1553-2 SML-LXT0805GW-TR		
67	1	DZ1		13V Zener	DO-214aa	SMBJ5350B-TP	SMBJ5350B-TPMSCT-ND		
68	1	DZ4		5.1V Zener	SOT-23	BZX84C5V1-7-F	BZX84C5V1-FDICT-ND		
69	1	D3		SU2319DS-T1-E3	SOT-23	SU2319DS-T1-E3	SU2319DS-T1-E3CT-ND		
70	1	D4		2N2222	SOT-23	SMBT2222AE6327	SMBT2222AICT-ND		
71	1	X1		EC5-400-20-30B-DU	Crystal 4	EC5-400-20-30B-DU	XC1520CT-ND		
TESTPOINTS AND SWITCHES									
72	3	T1, T2, T3		-5V, +7.5V, VPWR	TEST POINT 0.042	151-107-RC		151-107-RC	
73	29	TP11, TP12, TP13, TP14, TP15, TP16, TP17, TP18, TP19		GPIO5, GPIO6, ICAP1, ICAP2, MISO, MOSI, OWI, RX	TEST POINT 0.042	151-201-RC		151-201-RC	
74									
75	5	TP1, TP2, TP3, TP4, TP200		+2.5V, AVDD, DVDD, VDD, VP_OTP	TEST POINT 0.042	151-207-RC		151-207-RC	
76	1	TP29		GND	TEST POINT 0.042	151-203-RC		151-203-RC	
77	15	TP39, TP40, TP41, TP42, TP44, TP45		GND	TEST POINT 0.052	151-103-RC		151-103-RC	
STANDOFFS and HARDWARE									
78	4	SPC TECHNOLOGY - 2401 - Spacer		n/a		2401			22N4906
79	4	SPC TECHNOLOGY - 80-705 - Open Crimmel		n/a		80-705			13F475
80	8	KEYSTONE - 09300 - Machine Screw		n/a		9300			10M0258
SHUNTS									
SHUNTS Will Be Installed According to the "Hardware Assembly" Document									
81	24	CONN JUMPER SHORTING GOLD FLASH		N/A	N/A	SPC025YAN	59001-ND		
NOT INSTALLED COMPONENTS									
82	2	R3, R4		0.0R	0603	MCROSE 2P090	01M0 DCCT-ND		
83	2	C25, C29		100F - X2Y	180F - X2Y	50BX14W10MVA7	206-1008-1-ND		
84	1	C59		3300F 16V X7R	3300F 0603 16V 10% X7R	9603	C1608XR1C334K	445-5126-1-ND	

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