

Bill of Materials

TI DESIGNS

TIDEP0053

Item	Qty	Reference	Value	Part Description	Manufacturer	Manufacturer Part Number	Alternate Part (TI internal Part #)	PCB Footprint	Note
1	1	A1	OSD-9616	LCD Passive Matrix Monochrome	OSD Displays	OSD9616P0899-10	4P0034	-	
		C1 C2 C3 C5 C9 C10 C11 C12 C15 C34 C35 C36 C37 C43 C46 C56 C68 C69 C98 C106 C108 C109 C110 C111 C112 C113 C114 C116 C119 C120 C123 C124 C125 C130 C131 C132 C134 C135 C137 C139 C142 C143 C148 C149 C150 C151 C152 C155 C157 C160 C163 C164 C166 C169 C170 C171 C172 C173 C175 C177 C181 C182 C187 C189 C190 C192 C193 C194 C196 C197 C201 C202 C203 C204 C218 C219 C229 C236 C240 C254 C264 C275 C277	0.01uF	Capacitor 0.01uF 16V 10% 0402	Panasonic	ECJ-0YB1C103K	1C0012	SM-7351-CAP-0402	
		C4 C6 C7 C14 C16 C17 C18 C19 C20 C21 C22 C32 C41 C55 C70 C71 C72 C73 C74 C75 C77 C78 C79 C80 C82 C83 C85 C86 C87 C88 C91 C93 C96 C159 C162 C167 C185 C188 C206 C207 C208 C213 C214 C220 C221 C225 C227 C230 C231 C232 C265 C269 C272	0.1uF	Capacitor 0.1uF 16V 10% 0402 X7R	Kemet	C0402C104K4RACT	1C0089	SM-7351-CAP-0402	
4	0	C8	DNI	DNI	DNI	DNI	DNI	DNI	
5	0	C13	DNI	DNI	DNI	DNI	DNI	DNI	
		C23 C27 C28 C29 C38 C39 C47 C54 C61 C64 C65 C67 C81 C84 C92 C94 C95 C101 C102 C104 C107 C121 C154 C178 C179 C205 C209 C210 C212 C215 C251 C260	10uF	Capacitor 10uF 16V 10% Ceramic 0805	AVX	0805YD106KAT2A	1C0085	SM-7351-CAP-0805	

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7	2	C24 C191	4.7uF	Capacitor 4.7uF 16V 20% Tantalum Low ESR	Nichicon	F951C475MRAAQ2	1C0109	sm-7351-cap-0805	
8	32	C25 C26 C30 C31 C103 C105 C115 C117 C118 C122 C126 C127 C128 C129 C133 C136 C138 C140 C141 C144 C146 C147 C153 C156 C158 C161 C165 C168 C174 C176 C180 C183	0.1uF, 6.3V	Capacitor 0.1uF 6.3V 10% 0201 X5R	Murata	GRM033R60J104KE19D	1C0122	SMD0201	
9	3	C33 C216 C273	0.001uF	Capacitor 0.001uF 50V 5% 0402	AVX	04025C102JAT2A	1C0093	SM-7351-CAP-0402	
10	2	C40 C42	22pF	Capacitor 22pF 50V 10% 0402	Panasonic	ECJ-0EC1H220J	1C0020	SM-7351-CAP-0402	
11	9	C44 C45 C57 C58 C59 C66 C186 C257 C263	4.7uF	Capacitor Ceramic 4.7uF 16V 10% 0603	Taiyo Yuden	EMK107ABJ475KA-T	1C0103	SM-7351-CAP-0603	
12	1	C48	47uF	Capacitor 47uF 10V 10% Tantalum 2917	AVX	TAJD476K010RNJ	1C0126	7343	
13	0	C49	DNI	DNI	DNI	DNI	DNI	DNI	
14	5	C50 C53 C244 C245 C261	2.2uF	Capacitor 2.2uF Ceramic, 6.3V, X5R, 20%	Taiyo Yuden	JMK105BJ225MV-F	1C0091	SM-7351-CAP-0402	
15	3	C51 C52 C237	2.2uF, 10V	Capacitor 2.2uF 10V 20% Ceramic 0402	Taiyo Yuden	LMK105BJ225MV-F	1C0123	SM-7351-CAP-0402	
16	5	C60 C97 C217 C234 C258	2.2uF	Capacitor 2.2uF 16V 10% 0805	Kemet	C0805C225K4RACTU	1C0097	SM-7351-CAP-0805	
17	2	C62 C63	2.2uF	Capacitor 2.2uF 35V 20% Ceramic 0805	TDK	C2012X7R1V225M	1C0118	SM-7351-CAP-0805	
18	13	C76 C195 C198 C199 C200 C223 C226 C228 C238 C266 C268 C270 C271	1uF	Capacitor 1uF 10V Ceramic 10% 0402	AVX	0402ZD105KAT2A	1C0084	SM-7351-CAP-0402	
19	4	C89 C90 C211 C222	18pF, 50V	Capacitor NPO 18pF 50V 5% 0402	TDK	CGA2B2C0G1H180J	1C0119	SM-7351-CAP-0402	
20	2	C99 C100	24pF	Capacitor 24pF 50V 5% 0402	TDK	C1005C0G1H240J	1C0128	SM-7351-CAP-0402	
21	2	C145 C184	100pF25V10%	Capacitor 100pF 25V 10% 0402	Panasonic	ECJ-0EB1E101K	1C0010	SM-7351-CAP-	
22	1	C224	4.7uF	Capacitor 4.7uF Ceramic, 6.3V,	Taiyo Yuden	JMK107BJ475KA-T	1C0092	SM-7351-CAP-	
23	4	C233 C248 C249 C262	10uF	Capacitor 10uF 50V 10% Ceramic	TDK	C3216X5R1H106K	1C0113	SM-7351-CAP-	
24	0	C235	DNI	DNI	DNI	DNI	DNI	DNI	
25	9	C239 C241 C246 C247 C250	0.022uF	Capacitor 0.022uF 16V 10%	TDK	C1005X7R1C223K	1C0125	SM-7351-CAP-	
26	2	C242 C243	0.1uF	Capacitor 0.1uF 50V 10% 0402 X7R	TDK	C1005X7R1H104K	1C0105	SM-7351-CAP-	
27	1	C252	1uF	Capacitor 1uF 50V 10% Ceramic	Taiyo Yuden	UMK107BJ105KA-T	1C0114	SM-7351-CAP-	
28	1	C255	10pF	Capacitor 10pF 50V 1% Ceramic	AVX	04025U100FAT2A	1C0115	SM-7351-CAP-	
29	2	D1 D2	Red_Green_Yellow_LE	LED RedGreenYellow Tricolor	Bivar	SM1210RGY	1F0012	LED-SM1210	
30	10	D3 D6 D7 D8 D9 D10 D12	Green LED	LED Green SMD 20mA 2V 0805	Dialight	598-8170-107F	1F0008	sm_led_0805	
31	2	D4 D5	LED Yellow	LED Yellow SMD 20mA 2V	LiteOn	LTST-S220KSKT	1F0000	LEDLST-S220	

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32	3	D11 D13 D20	MBR0520LT1	Diode 500mA 20V 0.3V Forward	On Semiconductor	MBR0520LT1	1E0007	mbr0520L	
33	1	D17	B340A-13-F	Diode Power Rectifier 3A 40V	Diodes Inc	B340A-13-F	1E0024	DO157LS_116X2	
34	1	D18	MBRS140T	Diode 1A 40V 600mV Forward	On Semiconductor	MBRS140T3G	1E0017	mbrs140t	
35	1	D19	SMCJ26CA	Voltage Surpressor 26.0V	LittleFuse	SMCJ26CA	1E0021	SMCJ36CA	
36	1	F1	Fuse 4A	Fuse Block with 4A Fuse	Littelfuse	0154004.DRT	1P0004	smdfuseblk	
37	7	FB2 FB3 FB9 FB10 FB11	150OHM800mA	Ferrite Bead 150 Ohm 800mA	Laird-Signal Integrity	LI0805H151R-10	1L0010	sm-7351-ind-	
38	2	J1 J2	RJ-45 10_100Mb	Connector RJ-45 Jack	Link	LPJ16183A107NL	2J0023	CNRJ45-	
39	1	J3	Header 9x2 Female	Header 9x2 0.1in pitch female	FCI	66953-009LF	2H0069	HDR2X9VER_335	
40	1	J4	Header 15x2 Female	Header 15x2 0.1in pitch female	FCI	66953-015LF	2H0067	HDR2X15-344M	
41	2	J5 J8	TMS-103-01	Header 1.27mm pitch 3pin	Samtec	TMS-103-01-G-S	2H0066	SIP3_50LS	
42	3	J6 J7 J10	TMS-102-01	Header 1.27mm pitch 2pin	Samtec	TMS-102-01-G-S	2H0065	SIP2_50LS	
43	1	J9	Conn_DB9F	Connector DB9 Female RA SMD	Norcomp	190-009-263R001	2C0086	NorComp_db9F_	
44	1	J11	Power Jack RAPC722X	Jack Power Right Angle	Switchcraft	RAPC722X	2J0021	CNRAPC722	
45	0	J12	DNI	DNI	DNI	DNI	DNI	DNI	
46	1	J13	USB_MicroAB	Connector Micro USB AB RA	Hirose	ZX62-AB-5PA(11)	2C0088	ZX62-AB-5PA	
47	1	J14	Header 20x2 Female	Header 20x2 0.1in pitch female	FCI	66953-020LF	2H0068	HDR2X20-335M	
48	0	J15	DNI	DNI	DNI	DNI	DNI	DNI	
49	1	J16	SCHA5B0200	Connector compact low-profile	ALPS	SCHA5B0200	2C0102	SD-MICRO-	
50	1	J17	10051922-1410ELF	Connector 0.5mm pitch, 14 Pin,	FCI	10051922-1410ELF	2C0109	CON14_P5MM_	
51	2	J18 J19	HEADER 3	Single Line Header 3pin Tin 0.1in	Sullins	PEC03SAAN	2H0001	header_3x1	
52	1	L1	DA2304-AL	Power Transformer 45uH RS-485	Coilcraft	DA2304-ALB	1L0037	DA2304	
53	1	L2	2.2uH	Inductor 2.2uH smt 1A 20%	TDK	VLF3010AT-2R2M1R0	1L0044	IND108SMD_11	
54	1	L3	68uH	Inductor 68uH smt 1A 20%	TDK	VLF10040T-680M1R4	1L0045	IND_354SMD_40	
55	3	L4 L5 L7	2.2uH	Inductor 2.2uH smt 2.6A, 58	TDK	VLCF5020T-2R2N2R6-3	1L0025	VLCF5020T	
56	1	L6	ACM2012	Common Mode Filter for	TDK	ACM2012H-900-2P	1M0003	ACM2012H	
57	1	PCB1	AM335x ICE	AM335x ICE V2.0 EVM PCB Bare	TI	3H0013	3H0013	DNP	
58	4	Q1 Q2 Q3 Q4	DMC564040R	Dual Transistor NPN 50V 100mA	Panasonic	DMC564040R	1Q0023	SMIN16-F3-B	
59	13	R1 R2 R3 R4 R5 R6 R89 R93	330	Resistor 330ohm 1/16W 5% 0402	Stackpole Electronics	RMCF0402JT330R	1R0194	SM-7351-RES-	
60	25	R7 R8 R15 R16 R18 R19 R61	2.2K	Resistor 2.2Kohm 1/16W 5% 0402	VishayDale	CRCW0402K20JNED	1R0169	sm-7351-res-	
61	2	R9 R10	4.87K	Resistor 4.87Kohm 1/10W 1%	Panasonic	ERJ-2RKF4871X	-	SM-7351-RES-	
62	13	R11 R37 R44 R45 R50 R54	10K, 1%	Resistor 10Kohm 1/10W 1% 0402	Panasonic-ECG	ERJ-2RKF1002X	1R0254	SM-7351-RES-	
63	9	R12 R13 R42 R154 R179	33	Resistor 33ohm 1/16W 5% 0402	Panasonic	ERJ-2GEJ330X	1R0008	SM-7351-RES-	
64	9	R14 R24 R25 R39 R70 R71	4.7K	Resistor 4.7Kohm 1/16W 5% 0402	Stackpole Electronics	RMCF0402JT4K70	1R0183	SM-7351-RES-	
65	0	R17 R22 R23 R26 R35 R36	DNI	DNI	DNI	DNI	DNI	DNI	
66	0	R20	DNI	DNI	DNI	DNI	DNI	DNI	
67	20	R21 R65 R67 R75 R101 R111	10K	Resistor 10Kohm 1/16W 5% 0402	Rohm	MCR01MZPJ103	1R0168	SM-7351-RES-	
68	0	R27 R28 R29 R30 R31 R32	DNI	DNI	DNI	DNI	DNI	DNI	
69	14	R38 R152 R153 R157 R158	100K	Resistor 100Kohm 1/16W 1% 0402	Stackpole Electronics	RMCF0402FT100K	1R0181	SM-7351-RES-	
70	17	R40 R41 R59 R87 R88 R99	1K	Resistor 1Kohm 1/16W 5% 0402	Panasonic	ERJ-2GEJ102X	1R0027	SM-7351-RES-	
71	0	R43 R46 R47 R48 R49 R51	DNI	DNI	DNI	DNI	DNI	DNI	
72	1	R58	22	Resistor 22 ohm 1/16W 1% 0402	ROHM	MCR01MZPF22R0	1R0175	SM-7351-RES-	
73	27	R60 R64 R69 R72 R91 R96	0	Resistor Zero ohm Jumper 0402	Panasonic	ERJ-2GEOR00X	1R0098	SM-7351-RES-	
74	0	R62	DNI	DNI	DNI	DNI	DNI	DNI	
75	1	R66	3.24K	Resistor 3.24Kohm 1/10W 1%	Panasonic	ERJ-2RKF3241X	1R0266	SM-7351-RES-	
76	8	R68 R74 R79 R80 R81 R83	1.2K, MELF	Resistor 1.2Kohm 1/3W 1%	Vishay	MMU01020C1201FB300	1R0265	smd_melf0102	
77	17	R73 R76 R77 R78 R85 R86	0	Resistor Zero ohm Jumper 0603	Panasonic	ERJ-3GEV0R00V	1R0096	SM-7351-RES-	
78	1	R82	25K	Resistor 25Kohm 1/10W 0.1%	Vishay	PNM0603E2502BST5	1R0223	SM-7351-RES-	

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79	9	R116 R117 R118 R119 R120	49.9	Resistor 49.9ohm 1/16W 1% 0402	Panasonic	ERA-2AEB49R9X	1R0171	SM-7351-RES-	
80	9	R132 R133 R136 R140 R143	150	Resistor 150ohm 1/16W 5% 0402	Stackpole Electronics	RMCF0402JT150R	1R0179	SM-7351-RES-	
81	0	R141	DNI	DNI	DNI	DNI	DNI	DNI	
82	0	R144	DNI	DNI	DNI	DNI	DNI	DNI	
83	0	R172	DNI	DNI	DNI	DNI	DNI	DNI	
84	1	R183	240, 1%	Resistor 240 OHM 1/10W 1% 0402	Panasonic-ECG	ERJ-2RKF2400X	1R0249	SM-7351-RES-	
85	1	R189	4.75K, 1%	Resistor 4.75KOHM 1/10W 1%	Panasonic-ECG	ERJ-2RKF4751X	1R0250	SM-7351-RES-	
86	1	R193	12.1K, 1%	Resistor 12.1K OHM 1/16W 1%	Yageo	RC0402FR-0712K1L	1R0247	SM-7351-RES-	
87	2	R212 R219	0.05ohm1% Sense	Resistor 0.05ohm 0.5W Sense 1%	Ohmite	LVK12R050FER	1R0189	SM_RES_LVK12	
88	0	R218	DNI	DNI	DNI	DNI	DNI	DNI	
89	1	R220	1.62M	Resistor 1.62Mohm 1/16W 1%	Vishay/Dale	CRCW04021M62FKED	1R0210	SM-7351-RES-	
90	1	R221	180K	Resistor 180Kohm 1/16W 1% 0402	Stackpole Electronics	RMCF0402JT180K	1R0209	SM-7351-RES-	
91	1	R227	49.9	MELF Resistor 49.9ohm 1/3W 1%	Vishay	MMU01020C4999FB300	1R0243	smd_melf0102	
92	1	R232	392K	Resistor 392Kohm 1/10W 1% 0402	Panasonic	ERJ-2RKF3923X	1R0267	SM-7351-RES-	
93	1	R238	120	Resistor 120ohm 1/16W 1% 0402	Vishay_Dale	CRCW0402120RKFED	1R0244	SM-7351-RES-	
94	3	RP1 RP2 RP3	33x8	Resistor 33ohmx8 1/16W 5% Array	Panasonic	EXB-2HV330JV	1R0196	EXB-2HV330JV	
95	1	S1	SwitchTactile3Pos	Tactile switch 3 position smd	Omron	B3U-1100P	2W0022	SW3_4X2P5	
96	1	SW1	Rotary Switch	Rotary Switch, Screw Driver	Nikkai	ND3FR10P	2W0021	SW-ND3FR10	
97	4	TP17 TP18 TP19 TP20	TP		Keystone Electronics	5002	2H0026	TH_TP_5002	
98	1	U1	M29W160EB	Flash Memory 16Mbit	Micron	M29W160EB70ZA6E	1A0328	TFBGA48	
99	1	U13	SN74AUP2G08	Low Power Dual AND Gate	TI	SN74AUP2G08DCU	1A0249	U_8_DCU	
100	1	U14	AM335X_15x15		TI	AM3359ZCZ	1A0242	am33xx_15x15	
101	2	U2 U3	TLK110	Industrial Ethernet 10/100 Mb/s	TI	TLK110PT	1A0291	HTQFP_48pin	
102	1	U4	SN74CB3Q3306APWR	Dual FET Bus Switch	TI	SN74CB3Q3306APWR	1A0331	PW8	
103	1	U5	SN74LVC1G08	Single logic AND Gate	TI	SN74LVC1G08DCK	1A0257	sm-so-sc70-5	
104	1	U6	CAT24C256W	EEPROM 256Kb I2C SOIC8	On Semiconductor	CAT24C256WI-G	1A0225	soic8_208	
105	2	U7 U8	SN74LVC1G32DCK	Single 2input positive OR gate	TI	SN74LVC1G32DCK	1A0334	SC70-5-43M	
106	2	U9 U11	SN74CBTLV3257RGY	4bit 1-4 FET Mux/Demux	TI	SN74CBTLV3257RGY	1A0332	QFN4X3P5-16-	
107	1	U10	SN74LVC1G06DCK	Single inverter buffer/driver	TI	SN74LVC1G06DCK	1A0333	DCK5	
108	1	U12	CDCE913	Programmable 1-PLL VCXO Clock	TI	CDCE913PWR	1A0326	TSSOP5X4-14-	
109	1	U15	MT41J128M16JT-125	DDR3 SDRAM 2Gb (128Mx16) 1.5V	Micron	MT41J128M16JT-125	1A0317	BGA14X10-96	
110	1	U16	ISO1050	Isolated CAN Transceiver	TI	ISO1050DUB	1A0214	so8_w_dub	
111	1	U17	W25Q64	Flash Memory SPI 64Mb	Winbond	W25Q64CVSSIG	1A0223	SOIC8_265	
112	1	U18	FT232HL	USBHS Dual UART/FIFO	FTDI	FT232HL-REEL	1A0294	LQFP64_10X10	
113	1	U19	LM94022	Multi-Gain Analog Temperature	TI	LM94022QBIMG/NOPB	1A0327	SC70-5	
114	1	U20	SN74LVC1G07	Driver Open Drain output	TI	SN74LVC1G07DCK	1A0269	DCK5	
115	1	U21	TPS5420D	Step down power switch	TI	TPS5420D	-	SOIC-8	
116	1	U22	TPS65910A3	Integrated Power Management	TI	TPS65910A3A1RSL	1A0303	U_48_RSL	
117	1	U23	TPD4S012	ESD 4channel USB Interface	TI	TPD4S012DRY	1A0233	U_6_DRY	
118	1	U24	TPD6E001	ESD Protection Array 6Chan +-	TI	TPD6E001RSE	1A0248	U_10_RSE	
119	1	U25	PCA9536DGK	I2C to IO Expander 4 bit	TI	PCA9536DGK	1A0329	MSOP3X3-8-	
120	1	U26	SN74ALVCH16374DGV	16-Bit Edge-Triggered D-TYPE Flip-	TI	SN74ALVCH16374DGV	1A0330	TVSOP-48	
121	1	U27	TPS76650	Low Dropout Voltage Regulator	TI	TPS76650D	1A0284	soic_8	
122	1	U28	ISO1176T	Isolated Profibus RS-485	TI	ISO1176TDW	1A0239	u_16_dw	
123	1	U29	TPS51200	DDR Termination Regulator	TI	TPS51200DRC	1A0297	drpso_10pin	
124	1	U30	TPS71718	Low Dropout 1.8V 150mA Linear	TI	TPS71718DCK	1A0262	smdsc70-5	
125	1	U31	TPIC2810	8bit LED Driver with I2C Interface	TI	TPIC2810D	1A0282	u_16_d	

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126	1	U32	TPS78633	Linear Power Regulator 3.3V 1.5A	TI	TPS78633DCQ	1A0094	sot223_6pin	
127	1	U33	93LC56B	2K Microwire-Compatible Serial	Microchip	93LC56B-I/OT	1A0298	SOT23-6	
128	1	U34	TPS61041	DC to DC Boost Converter 1.8V to	TI	TPS61041DBV	1A0343	DBV5	
129	1	U35	SN65HVS882	Industrial 8digit Input Serializer	TI	SN65HVS882PWP	1A0234	u_28_pwp	
130	2	U37 U38	SN74LV244A	Octal Line Buffer	TI	SN74LV244APWRG3	1A0368	TSSOP4X6-20	
131	1	Y1	25MHz	Crystal 25MHz	Abracon	ABM3-25.000MHz-B2-T	1Y0030	SM_OSC_ABM3	
132	1	Y2	12MHz,+/-50ppm	CRYSTAL 12.000 MHZ 20PF SMD	ECS Inc	ECS-120-20-30B-TR		XTAL4_3P2X5SM	
133	1	Y3	24MHz	Crystal 24MHz 30ppm load cap	Citizen	CS325-24.000MABJ-UT	1Y0039	XTAL4_3P2X2P5	
134	1	Y4	32.768KHz MC-306	Crystal 32.768KHz	Epson	MC-30632.7680k-A	1Y0029	MC-306	

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