



Bill of Materials

TI DESIGNS

Board Name & Rev No
Revision

TMDXICE3359 - 2.1A

7

Date of Release

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Schematics File & Revision TMDXICE3359_3H0013_REV2_1A_SCH.dsn

Item	Qty	Reference	Value	Part Description	Manufacturer	Manufacturer Part Number	Alternate Part	PCB Footprint	Note
1	1	A1	OSD-9616	LCD Passive Matrix Monochrome	OSD Displays	OSD9616P0899-10		-	
2	83	C1 C2 C3 C5 C9 C10 C11 C12	0.01uF	Capacitor 0.01uF 16V 10% 0402	Panasonic	ECJ-0YB1C103K		SM-7351-CAP-0402	
3	53	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		SM-7351-CAP-0402	
4	0	C8	DNI	DNI	DNI	DNI		DNI	
5	0	C13	DNI	DNI	DNI	DNI		DNI	
6	32	C23 C27 C28 C29 C38 C39 C4	10uF	Capacitor 10uF 16V 10% Ceramic 0805	AVX	0805YD106KAT2A		SM-7351-CAP-0805	
7	2	C24 C191	4.7uF	Capacitor 4.7uF 16V 20% Tantalum Low ESR	Nichicon	F951C475MRAAQ2		sm-7351-cap-0805	
8	32	C25 C26 C30 C31 C103 C105	0.1uF, 6.3V	Capacitor 0.1uF 6.3V 10% 0201 X5R	Murata	GRM033R60J104KE19D		SMD0201	
9	3	C33 C216 C273	0.001uF	Capacitor 0.001uF 50V 5% 0402	AVX	04025C102JAT2A		SM-7351-CAP-0402	
10	2	C40 C42	22pF	Capacitor 22pF 50V 10% 0402	Panasonic	ECJ-0EC1H220J		SM-7351-CAP-0402	
11	9	C44 C45 C57 C58 C59 C66 C1	4.7uF	Capacitor Ceramic 4.7uF 16V 10% 0603	Taiyo Yuden	EMK107ABJ475KA-T		SM-7351-CAP-0603	
12	1	C48	47uF	Capacitor 47uF 10V 10% Tantalum 2917	AVX	TAJD476K010RNJ		7343	
13	0	C49	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		SM-7351-CAP-0402	
15	3	C51 C52 C237	2.2uF, 10V	Capacitor 2.2uF 10V 20% Ceramic 0402	Taiyo Yuden	LMK105BJ225MV-F		SM-7351-CAP-0402	
16	5	C60 C97 C217 C234 C258	2.2uF	Capacitor 2.2uF 16V 10% 0805	Kemet	C0805C225K4RACTU		SM-7351-CAP-0805	

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17	2	C62 C63	2.2uF	Capacitor 2.2uF 35V 20% Ceramic 0805	TDK	C2012X7R1V225M		SM-7351-CAP-0805	
18	13	C76 C195 C198 C199 C200 C	1uF	Capacitor 1uF 10V Ceramic 10% 0402	AVX	0402ZD105KAT2A		SM-7351-CAP-0402	
19	4	C89 C90 C211 C222	18pF, 50V	Capacitor NPO 18pF 50V 5% 0402	TDK	CGA2B2C0G1H180J		SM-7351-CAP-0402	
20	2	C99 C100	24pF	Capacitor 24pF 50V 5% 0402	TDK	C1005C0G1H240J		SM-7351-CAP-0402	
21	2	C145 C184	100pF25V10%	Capacitor 100pF 25V 10% 0402	Panasonic	ECJ-0EB1E101K		SM-7351-CAP-0402	
22	1	C224	4.7uF	Capacitor 4.7uF Ceramic, 6.3V,	Taiyo Yuden	JMK107BJ475KA-T		SM-7351-CAP-0603	
23	4	C233 C248 C249 C262	10uF	Capacitor 10uF 50V 10% Ceramic	TDK	C3216X5R1H106K		SM-7351-CAP-1206	
24	0	C235	DNI	DNI	DNI	DNI		DNI	
25	9	C239 C241 C246 C247 C250	0.022uF	Capacitor 0.022uF 16V 10%	TDK	C1005X7R1C223K		SM-7351-CAP-0402	
26	2	C242 C243	0.1uF	Capacitor 0.1uF 50V 10% 0402 X7R	TDK	C1005X7R1H104K		SM-7351-CAP-0402	
27	1	C252	1uF	Capacitor 1uF 50V 10% Ceramic	Taiyo Yuden	UMK107BJ105KA-T		SM-7351-CAP-0603	
28	1	C255	10pF	Capacitor 10pF 50V 1% Ceramic	AVX	04025U100FAT2A		SM-7351-CAP-0402	
29	2	D1 D2	Red_Green_Yellow_LED	LED RedGreenYellow Tricolor	Bivar	SM1210RGY		LED-SM1210	
30	10	D3 D6 D7 D8 D9 D10 D12	Green LED	LED Green SMD 20mA 2V 0805	Dialight	598-8170-107F		sm_led_0805	
31	2	D4 D5	LED Yellow	LED Yellow SMD 20mA 2V	LiteOn	LTST-S220KSKT		LEDLTST-S220	
32	3	D11 D13 D20	MBR0520LT1	Diode 500mA 20V 0.3V Forward	On Semiconductor	MBR0520LT1		mbr0520L	
33	1	D17	B340A-13-F	Diode Power Rectifier 3A 40V	Diodes Inc	B340A-13-F		DO157LS_116X220SMA	
34	1	D18	MBRS140T	Diode 1A 40V 600mV Forward	On Semiconductor	MBRS140T3G		mbrs140t	
35	1	D19	SMCJ26CA	Voltage Suppressor 26.0V	LittleFuse	SMCJ26CA		SMCJ36CA	
36	1	F1	Fuse 4A	Fuse Block with 4A Fuse	Littelfuse	O154004.DRT		smdfuseblk	
37	7	FB2 FB3 FB9 FB10 FB11	150OHM800mA	Ferrite Bead 150 Ohm 800mA	Laird-Signal Integrity Pr	LI0805H151R-10		sm-7351-ind-0805	
38	2	J1 J2	RJ-45 10_100Mb	Connector RJ-45 Jack	Link	LPJ16183A107NL		CNRJ45-1X1WLED	
39	1	J3	Header 9x2 Female	Header 9x2 0.1in pitch female	FCI	66953-009LF		HDR2X9VER_335M	
40	1	J4	Header 15x2 Female	Header 15x2 0.1in pitch female	FCI	66953-015LF		HDR2X15-344M	
41	2	J5 J8	TMS-103-01	Header 1.27mm pitch 3pin	Samtec	TMS-103-01-G-S		SIP3_50LS	
42	3	J6 J7 J10	TMS-102-01	Header 1.27mm pitch 2pin	Samtec	TMS-102-01-G-S		SIP2_50LS	
43	1	J9	Conn_DB9F	Connector DB9 Female RA SMD	Norcomp	190-009-263R001		NorComp_db9F_SMD	
44	1	J11	Power Jack RAPC722X	Jack Power Right Angle	Switchcraft	RAPC722X		CNRAPC722	
45	0	J12	DNI	DNI	DNI	DNI		DNI	
46	1	J13	USB_MicroAB	Connector Micro USB AB RA	Hirose	ZX62-AB-5PA(11)		ZX62-AB-5PA	
47	1	J14	Header 20x2 Female	Header 20x2 0.1in pitch female	FCI	66953-020LF		HDR2X20-335M	
48	0	J15	DNI	DNI	DNI	DNI		DNI	
49	1	J16	SCHA5B0200	Connector compact low-profile	ALPS	SCHA5B0200		SD-MICRO-SCHA5B0300	
50	1	J17	10051922-1410ELF	Connector 0.5mm pitch, 14 Pin,	FCI	10051922-1410ELF		CON14_P5MM_3P75X9P5SMD	
51	2	J18 J19	HEADER 3	Single Line Header 3pin Tin 0.1in	Sullins	PEC03SAAN		header_3x1	
52	1	L1	DA2304-AL	Power Transformer 45uH RS-485	Coilcraft	DA2304-ALB		DA2304	
53	1	L2	2.2uH	Inductor 2.2uH smt 1A 20%	TDK	VL3010AT-2R2M1R0		IND108SMD_110X102	
54	1	L3	68uH	Inductor 68uH smt 1A 20%	TDK	VL10040T-680M1R4		IND_354SMD_400SQ	
55	3	L4 L5 L7	2.2uH	Inductor 2.2uH smt 2.6A, 58	TDK	VLCF5020T-2R2N2R6-3		VLCF5020T	
56	1	L6	ACM2012	Common Mode Filter for	TDK	ACM2012H-900-2P		ACM2012H	
57	1	PCB1	AM335x ICE V2.0Board Bare P	AM335x ICE V2.0 EVM PCB Bare	TI	3H0013		DNP	
58	4	Q1 Q2 Q3 Q4	DMC564040R	Dual Transistor NPN 50V 100mA	Panasonic	DMC564040R		SMINI6-F3-B	
59	13	R1 R2 R3 R4 R5 R6 R89 R93	330	Resistor 330ohm 1/16W 5% 0402	Stackpole Electronics	RMCF0402JT330R		SM-7351-RES-0402	

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60	25	R7 R8 R15 R16 R18 R19 R61	2.2K	Resistor 2.2Kohm 1/16W 5% 0402	VishayDale	CRCW04022K20JNED		sm-7351-res-0402	
61	2	R9 R10	4.87K	Resistor 4.87Kohm 1/10W 1%	Panasonic	ERJ-2RKF4871X		SM-7351-RES-0402	
62	13	R11 R37 R44 R45 R50 R54	10K, 1%	Resistor 10Kohm 1/10W 1% 0402	Panasonic-ECG	ERJ-2RKF1002X		SM-7351-RES-0402	
63	9	R12 R13 R42 R154 R179	33	Resistor 33ohm 1/16W 5% 0402	Panasonic	ERJ-2GEJ330X		SM-7351-RES-0402	
64	9	R14 R24 R25 R39 R70 R71	4.7K	Resistor 4.7Kohm 1/16W 5% 0402	Stackpole Electronics	RMCF0402JT4K70		SM-7351-RES-0402	
65	0	R17 R22 R23 R26 R35 R36	DNI	DNI	DNI	DNI		DNI	
66	0	R20	DNI	DNI	DNI	DNI		DNI	
67	20	R21 R65 R67 R75 R101 R111	10K	Resistor 10Kohm 1/16W 5% 0402	Rohm	MCR01MZPJ103		SM-7351-RES-0402	
68	0	R27 R28 R29 R30 R31 R32	DNI	DNI	DNI	DNI		DNI	
69	14	R38 R152 R153 R157 R158	100K	Resistor 100Kohm 1/16W 1% 0402	Stackpole Electronics	RMCF0402FT100K		SM-7351-RES-0402	
70	17	R40 R41 R59 R87 R88 R99	1K	Resistor 1Kohm 1/16W 5% 0402	Panasonic	ERJ-2GEJ102X		SM-7351-RES-0402	
71	0	R43 R46 R47 R48 R49 R51	DNI	DNI	DNI	DNI		DNI	
72	1	R58	22	Resistor 22 ohm 1/16W 1% 0402	ROHM	MCR01MZPF22R0		SM-7351-RES-0402	
73	27	R60 R64 R69 R72 R91 R96	0	Resistor Zero ohm Jumper 0402	Panasonic	ERJ-2GE0R00X		SM-7351-RES-0402	
74	0	R62	DNI	DNI	DNI	DNI		DNI	
75	1	R66	3.24K	Resistor 3.24Kohm 1/10W 1%	Panasonic	ERJ-2RKF3241X		SM-7351-RES-0402	
76	8	R68 R74 R79 R80 R81 R83	1.2K, MELF	Resistor 1.2Kohm 1/3W 1%	Vishay	MMU01020C1201FB300		smd_melf0102	
77	17	R73 R76 R77 R78 R85 R86	0	Resistor Zero ohm Jumper 0603	Panasonic	ERJ-3GEY0R00V		SM-7351-RES-0603	
78	1	R82	25K	Resistor 25Kohm 1/10W 0.1%	Vishay	PNM0603E2502BST5		SM-7351-RES-0603	
79	9	R116 R117 R118 R119 R120	49.9	Resistor 49.9ohm 1/16W 1% 0402	Panasonic	ERA-2AEB49R9X		SM-7351-RES-0402	
80	9	R132 R133 R136 R140 R143	150	Resistor 150ohm 1/16W 5% 0402	Stackpole Electronics	RMCF0402JT150R		SM-7351-RES-0402	
81	0	R141	DNI	DNI	DNI	DNI		DNI	
82	0	R144	DNI	DNI	DNI	DNI		DNI	
83	0	R172	DNI	DNI	DNI	DNI		DNI	
84	1	R183	240, 1%	Resistor 240 OHM 1/10W 1% 0402	Panasonic-ECG	ERJ-2RKF2400X		SM-7351-RES-0402	
85	1	R189	4.75K, 1%	Resistor 4.75KOHM 1/10W 1%	Panasonic-ECG	ERJ-2RKF4751X		SM-7351-RES-0402	
86	1	R193	12.1K, 1%	Resistor 12.1K OHM 1/16W 1%	Yageo	RC0402FR-0712K1L		SM-7351-RES-0402	
87	2	R212 R219	0.05ohm1% Sense	Resistor 0.05ohm 0.5W Sense 1%	Ohmite	LVK12R050FER		SM_RES_LVK12	
88	0	R218	DNI	DNI	DNI	DNI		DNI	
89	1	R220	1.62M	Resistor 1.62Mohm 1/16W 1%	Vishay/Dale	CRCW04021M62FKED		SM-7351-RES-0402	
90	1	R221	180K	Resistor 180Kohm 1/16W 1% 0402	Stackpole Electronics	RMCF0402JT180K		SM-7351-RES-0402	
91	1	R227	49.9	MELF Resistor 49.9ohm 1/3W 1%	Vishay	MMU01020C4999FB300		smd_melf0102	
92	1	R232	392K	Resistor 392Kohm 1/10W 1% 0402	Panasonic	ERJ-2RKF3923X		SM-7351-RES-0402	
93	1	R238	120	Resistor 120ohm 1/16W 1% 0402	Vishay_Dale	CRCW0402120RFKED		SM-7351-RES-0402	
94	3	RP1 RP2 RP3	33x8	Resistor 33ohmx8 1/16W 5% Array	Panasonic	EXB-2HV330JV		EXB-2HV330JV	
95	1	S1	SwitchTactile3Pos	Tactile switch 3 position smd	Omron	B3U-1100P		SW3_4X2P5	
96	1	SW1	Rotary Switch	Rotary Switch, Screw Driver	Nikkai	ND3FR10P		SW-ND3FR10	
97	4	TP17 TP18 TP19 TP20	TP		Keystone Electronics	5002		TH_TP_5002	
98	1	U1	M29W160EB	Flash Memory 16Mbit	Micron	M29W160EB70ZA6E		TFBGA48	
99	1	U13	SN74AUP2G08	Low Power Dual AND Gate	TI	SN74AUP2G08DCU		U_8_DCU	
100	1	U14	AM335X_15x15		TI	AM3359ZCZ		am33xx_15x15	
101	2	U2 U3	TLK110	Industrial Ethernet 10/100 Mb/s	TI	TLK110PT		HTQFP_48pin	
102	1	U4	SN74CB3Q3306APWR	Dual FET Bus Switch	TI	SN74CB3Q3306APWR		PW8	
103	1	U5	SN74LVC1G08	Single logic AND Gate	TI	SN74LVC1G08DCK		sm-so-sc70-5	
104	1	U6	CAT24C256W	EEPROM 256Kb I2C SOIC8	On Semiconductor	CAT24C256W1-G		soic8_208	
105	2	U7 U8	SN74LVC1G32DCK	Single 2input positive OR gate	TI	SN74LVC1G32DCK		SC70-5-43M	
106	2	U9 U11	SN74CBTLV3257RGY	4bit 1-4 FET Mux/Demux	TI	SN74CBTLV3257RGY		QFN4X3P5-16-39M	

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107	1	U10	SN74LVC1G06DCK	Single inverter buffer/driver	TI	SN74LVC1G06DCK		DCK5	
108	1	U12	CDCE913	Programmable 1-PLL VCXO Clock	TI	CDCE913PWR		TSSOP5X4-14-47M	
109	1	U15	MT41J128M16JT-125	DDR3 SDRAM 2Gb (128Mx16) 1.5V	Micron	MT41J128M16JT-125		BGA14X10-96	
110	1	U16	ISO1050	Isolated CAN Transceiver	TI	ISO1050DUB		so8_w_dub	
111	1	U17	W25Q64	Flash Memory SPI 64Mb	Winbond	W25Q64CVSSIG		SOIC8_265	
112	1	U18	FT2232HL	USBHS Dual UART/FIFO	FTDI	FT2232HL-REEL		LQFP64_10X10	
113	1	U19	LM94022	Multi-Gain Analog Temperature	TI	LM94022QBIMG/NOPB		SC70-5	
114	1	U20	SN74LVC1G07	Driver Open Drain output	TI	SN74LVC1G07DCK		DCK5	
115	1	U21	TPS5420D	Step down power switch	TI	TPS5420D		SOIC-8	
116	1	U22	TPS65910A3	Integrated Power Management	TI	TPS65910A3A1RSL		U_48_RSL	
117	1	U23	TPD4S012	ESD 4channel USB Interface	TI	TPD4S012DRY		U_6_DRY	
118	1	U24	TPD6E001	ESD Protection Array 6Chan +-	TI	TPD6E001RSE		U_10_RSE	
119	1	U25	PCA9536DGK	I2C to IO Expander 4 bit	TI	PCA9536DGK		MSOP3X3-8-43M	
120	1	U26	SN74ALVCH16374DGV	16-Bit Edge-Triggered D-TYPE Flip-	TI	SN74ALVCH16374DGV		TVSOP-48	
121	1	U27	TPS76650	Low Dropout Voltage Regulator	TI	TPS76650D		soic_8	
122	1	U28	ISO1176T	Isolated Profibus RS-485	TI	ISO1176TDW		u_16_dw	
123	1	U29	TPS51200	DDR Termination Regulator	TI	TPS51200DRC		drcpso_10pin	
124	1	U30	TPS71718	Low Dropout 1.8V 150mA Linear	TI	TPS71718DCK		smdsc70-5	
125	1	U31	TPIC2810	8bit LED Driver with I2C Interface	TI	TPIC2810D		u_16_d	
126	1	U32	TPS78633	Linear Power Regulator 3.3V 1.5A	TI	TPS78633DCQ		sot223_6pin	
127	1	U33	93LC56B	2K Microwire-Compatible Serial	Microchip	93LC56B-I/OT		SOT23-6	
128	1	U34	TPS61041	DC to DC Boost Converter 1.8V to	TI	TPS61041DBV		DBV5	
129	1	U35	SN65HVS882	Industrial 8digit Input Serializer	TI	SN65HVS882PWP		u_28_pwp	
130	2	U37 U38	SN74LV244A	Octal Line Buffer	TI	SN74LV244APWRG3		TSSOP4X6-20	
131	1	Y1	25MHz	Crystal 25MHz	Abracon	ABM3-25.000MHz-B2-T		SM_OSC_ABM3	
132	1	Y2	12MHz,+/-50ppm	CRYSTAL 12.000 MHZ 20PF SMD	ECS Inc	ECS-120-20-30B-TR		XTAL4_3P2X5SMD	
133	1	Y3	24MHz	Crystal 24MHz 30ppm load cap	Citizen	CS325-24.000MABJ-UT		XTAL4_3P2X2P5_SMD	
134	1	Y4	32.768KHz MC-306	Crystal 32.768KHz	Epson	MC-30632.7680k-A		MC-306	

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