

TID #: TIDA-080006\_Controller

Bill of Material

Item	QTY	DNI	Reference	Manuf Part Number	Manufacturer
1	4		C1,C4,C6,C50/	CGA2B2C0G1H102J050BA	TDK
2	3		C2,C3,C8	EEE-HA1H221P	Panasonic
3	4		C7,C84,C530,C543	GCM1555C1H331JA16D	Murata
			C10,C12,C14,C18,C19,C21,C27,C28,C31,C32		
			,C36,C37,C40,C41,C45,C47,C48,C49,C50,C5		
			2,C53,C55,C58,C59,C60,C66,C118,C119,C50		
			1,C512,C513,C524,C526,C528,C529,C531,C		
			533,C534,C536,C537,C538,C539,C540,C541		
			,C542,C545,C546,C548,C549,C550,C552,C5		
4	56		53,C557,C558,C559,C560	GCM155R71C104KA55D	Murata
5	9		C11,C22,C23,C24,C34,C42,C43,C56,C535	CGA4J1X7R0J106K125AC	TDK
			C13,C15,C16,C17,C20,C25,C26,C29,C30,C33		
6	18		,C35,C38,C39,C44,C46,C54,C112,C527	GCM155R71H103KA55D	Murata
7	1		C51	GCM1885C1H332JA16D	Murata
			C57,C61,C65,C70,C78,C81,C85,C89,C90,C91		
			,C104,C106,C111,C114,C525,C532,C544,C5		
8	18		47	CGA3E1X7R0J225K080AC	TDK
			C62,C71,C75,C77,C79,C86,C87,C88,C92,C94		
9	18		,C95,C97,C98,C99,C100,C102,C107,C109	GCM155R71C104KA55D	Murata
			C64,C67,C69,C72,C73,C76,C80,C82,C83,C93		
10	15		,C96,C101,C103,C105,C108	GCM155R71H103KA55D	Murata
11	1		C110	CGA3E2X7R1H103K080AA	TDK
12	1		C113	CGA3E2X7R1E104K080AA	TDK
13	5		C115,C117,C515,C516,C517	GCM31CR70J226KE23L	Murata
14	3		C116,C502,C523	CGA3E2C0G1H330J080AA	TDK
15	4		C503,C510,C514,C520	GCM32ER71H475KA55L	Murata
16	4		C504,C505,C508,C521	GCM21BR72A104KA37L	Murata
17	3		C506,C518,C519	C0603C223K1RACAUTO	Kemet
18	2	DNI	C509,C511	CGA2B2C0G1H102J050BA	TDK
19	3		C522,C551,C554	CGA3E1X7R1V105K080AC	TDK
20	2		C555,C556	CGA2B2C0G1H120J050BA	TDK
21	1		DN1	BAT54SFILMY	ST Micro
22	2		D2,D4	NSR0320MW2T1G	On Semi
23	1		D3	STPS1045BY-TR	ST Micro
24	1		D5	SML-LX0402SIC-TR	LUMEX OPTO
25	1		D6	SML-LX0402SUGC-TR	LUMEX OPTO
26	1		D501	SML4747-E3/61	Vishay
27	1		D502	SS3P3-M3/84A	Vishay
28	4		F1,F501,F502,F503	MMZ2012R601AT000	TDK
29	2		F2,F3	BLM15AG601SN1D	Murata

30	1	H1	95278-101A14LF	FCI
31	1 DNI	H2	68000-109HLF	FCI
32	1	J1	87438-0643	Molex
33	1	J2	5023520800	Molex
34	1	J3	87438-0443	Molex
35	1	J4	046288050000846+	Kyocera
36	1	J5	10029449-001RLF	FCI
37	1	J6	5600200720	Molex
38	1	J7	501940-0307	Molex
39	1	L1	XAL1010-153MEB	Coilcraft
40	6	L2,L3,L4,L5,L6,L501	MI0603J680R-10	Laird
41	2	L7,L8	XFL3010-332MEB	Coilcraft
42	1	L502	XAL5050-223ME	Coilcraft
43	4 DNI	MH1,MH2,MH3,MH4	Not a part	
44	1	Q1	SQD40131EL_GE3	Vishay
45	3	Q2,Q3,Q4	DMN4800LSS-13	Diodes Inc
46	1	Q5	MMBT4403LT3G	On Semi
47	2	Q6,Q7	MMBT4401LT3G	On Semi
48	1	Q501	NVD5C668NLT4G	On Semi
49	1	Q502	2N7002AQ-7	Diodes Inc
50	3	RN1,RN2,RN3	EXB-2HV330JV	Panasonic
51	3	R1,R2,R9	ERJ-2GEJ2R0X	Panasonic
52	4	R3,R74,R103,R525	ERJ-2GE0R00X	Panasonic
53	3	R4,R5,R504	ERJ-2RKF4990X	Panasonic
54	1	R6	ERJ-8GEYJ2R0V	Panasonic
55	1	R7	CRA2512-FZ-R020ELF	Bourns
56	1	R8	CRCW12060000Z0EAHP	Vishay
57	2	R10,R11	ERJ-3GEYJ1R0V	Panasonic
58	1	R12	ERJ-3EKF2491V	Panasonic
59	1	R13	ERJ-2RKF7153X	Panasonic
60	1	R14	ERJ-2RKF5622X	Panasonic
		R15,R16,R17,R18,R19,R20,R21,R23,R24,R25,R26,R27,R28,R29,R30,R32,R33,R34,R35,R36,R37,R38,R39,R40,R41,R42,R43,R45,R48,R49,R50,R51,R52,R53,R54,R56,R57,R58,R59,R60,R61		
61	41	R22,R537	ERJ-2GEJ560X	Panasonic
62	2	R31,R62,R64,R65,R66,R67,R75,R80,R82,R96,R106,R110,R505,R523,R528,R535,R541,R546	RMCF0402FT100R	Stackpole
63	18	R44,R47,R543,R544	ERJ-3GEYJ103V	Panasonic
64	4		RMCF0402FT10K0	Stackpole
65	1 DNI	R68	ERJ-3GEYJ103V	Panasonic

		R69,R70,R71,R72,R76,R78,R79,R81,R83,R84,R85,R86,R87,R88,R512,R513,R514,R515,R518,R519,R520,R521,R522,R524,R526,R527,R529	ERJ-2GEJ200X	Panasonic
66	27			
67	1	R73	ERJ-2RKF2400X	Panasonic
		R89,R90,R91,R92,R94,R98,R99,R100,R532,R533,R542	ERJ-2GEJ330X	Panasonic
68	11			
69	7	R93,R97,R101,R531,R534,R547,R548	ERJ-2GEJ102X	Panasonic
70	2	R95,R102	ERJ-2GEJ333X	Panasonic
71	1 DNI	R104	ERJ-2GE0R00X	Panasonic
72	3	R105,R108,R109	ERJ-2RKF2673X	Panasonic
73	1	R107	ERJ-2RKF5363X	Panasonic
74	1	R501	ERJ-2RKF1202X	Panasonic
75	1	R502	RC0805JR-0782RL	Yageo
76	1	R503	ERJ-3GEYJ152V	Panasonic
77	2	R506,R507	ERJ-3GEYJ332V	Panasonic
78	1	R508	ERJ-2GEJ514X	Panasonic
79	1 DNI	R509	ERJ-2RKF1543X	Panasonic
80	1	R510	CRCW040243K2FKED	Vishay
81	1	R511	CRCW0402100KFKED	Vishay
82	3	R516,R517,R545	ERJ-2GEJ750X	Panasonic
83	3	R530,R539,R540	ERJ-3GEYJ222V	Panasonic
84	1	R536	ERJ-2GEJ105X	Panasonic
85	1	R538	ERJ-3GEYJ473V	Panasonic
86	6	TP1,TP2,TP5,TP7,TP8,TP10 TP3,TP4,TP6,TP9,TP11,TP12,TP13,TP14,TP15,TP16	S1751-46R	Harwin
87	10 DNI	5,TP16	Not a part	
88	1	U1	OPA365AQDBVRQ1	Texas Instruments
89	1	U2	TPS3808G01QDBVRQ1	Texas Instruments
90	1	U3	TPS51200QDRCRQ1	Texas Instruments
91	2	U4,U504	SN74LVC1G17QDBVRQ1	Texas Instruments
92	1	U5	TFP401AIPZPRQ1	Texas Instruments
93	3	U6,U507,U508	TPD4E001QDBVRQ1	Texas Instruments
94	1	U7	TMS320F28023PTQ	Texas Instruments
95	1	U8	1P1G3157QDBVRQ1	Texas Instruments
96	1	U9	CAV24C02WE-GT3	On Semi
97	1	U10	SN74LVC08AQPWRQ1	Texas Instruments
98	1	U11	TPS62400QDRCRQ1	Texas Instruments
99	1	U501	LM74700QDBVTQ1	Texas Instruments
100	1	U502	IS46DR16320D-25DBLA2	ISSI
101	1	U503	LMR34215FAQRNX	Texas Instruments
102	1	U505	TLV70025QDDCRQ1	Texas Instruments
103	1	U506	DLPC120ZXSQRQ1	Texas Instruments
104	1	U509	74CBTLV3257BQ,115	Nexperia

105	1	U510	IS25LP064A-JMLE	ISSI
106	1	Y501	AB-16.000MALE-T	TXC
107	1	Z_PCB1	TIDA-080006	Any

## Texas Instruments

Description	Value
CAP CER 1000PF 50V 10% X7R 0402	1000pF
CAP ALUM 220UF 50V 20% SMD	220uF
CAP CER 330PF 50V COG 0402	330 pF
CAP CER .1UF 16V X7R 0402	0.1uF
CAP CER 10UF 6.3V X7R 10% 0805	10uF
CAP CER .01UF 50V X7R 0402	0.01uF
CAP CER 3300PF 50V 5% NP0 0603	3.3nF
CAP CER 2.2UF 6.3V X7R 10% 0603	2.2 uF
CAP CER .1UF 16V X7R 0402	0.1uF
CAP CER .01UF 50V X7R 0402	0.01uF
CAP 10000PF 25V CERM X7R 0603	0.01uF
CAP .1UF 25V CERAMIC X7R 0603	0.1uF
CAP CER 22UF 6.3V X7R 1206	22uF
CAP CER 33PF 50V 5% NP0 0603	33pF
CAP CER 4.7UF 50V 10% X7R 1210	4.7 uF
CAP CER 0.1UF 100V 10% X7R 0805	0.1uF
CAP CER 0.022UF 100V 10% X7R 0603	0.022uF
CAP CER 1000PF 50V 10% X7R 0402	1000pF
CAP 1UF 25V CERAMIC 0603 X7R	1uF
CAP CER 12PF 50V 5% NP0 0402	12pF
DIODE SCHOTTKY 40V 300MA SOT23	BAT54SFILMY
DIODE SCHOTTKY 1A 20V SOD-323	NSR0320MW2T1G
DIODE SCHOTTKY 45V 10A DPAK	STPS1045BY-TR
LED RED/CLEAR 636NM 0402 SMD	LED
LED, GREEN 0402	LED
DIODE ZENER 20V 1W SMA	SML4747-E3/61
DIODE SCHOTTKY 3A 30V SMP	SS3P3-M3/84A
FERRITE CHIP 600 OHM 500MA 0805	600 Ohm
FERRITE CHIP 600 OHM 300MA 0402	600 OHM

BERGSTIK HDR 14POS .100" DR SMT	95278-101A14LF
BERGSTIK II .100" SR STRAIGHT	68000-109HLF
CONN HEADER SMD R/A 6POS 1.5MM	87438-0643
CONN HEADER 8POS 2MM R/A SMD	5023520800
CONN HEADER SMD R/A 4POS 1.5MM	87438-0443
CONN FFC/FPC 50POS .5MM R/A SMD	046288050000846+
CONN RCPT HDMI TYPE A R/A SMD	HDMI CONN
CONN HEADER 7POS 2MM VERT SMD	5600200720
CONN 3POS 1MM VERT SMD	501940-0307
INDUCTOR POWER 15UH 13.8A SMD	15uH--XAL1010-153MEB
FERRITE 68 OHM 0603 SMD	68 OHM
Fixed Inductors Power Inductor 3.3 uH 20 % 1.2 A	3.3uH
Fixed Inductors Power Inductor 22 uH 20 %	22uH
Mounting Hole	MOUNTING_HOLE
MOSFET P-CH 40V 50A TO252	SQD40131EL_GE3
MOSFET N-CH 30V 9A 8SOP	DMN4800LSS-13
TRANS PNP 40V 600MA SOT-23	MMBT4403LT3G
TRANS NPN 40V 600MA SOT-23	MMBT4401LT3G
MOSFET N-CHANNEL 60V 49A DPAK	NVD5C668NLT4G
MOSFET N-CH 60V 180MA SOT23	2N7002AQ-7
RES ARRAY 33 OHM 5% 8 RES SMD	33
RESISTOR 2.0 OHM 1/10W 5% 0402	2
RES 0.0 OHM 1/10W 0402 SMD	0
RES 499 OHM 1/10W 1% 0402 SMD	499
RESISTOR 2.0 OHM 1/4W 5% 1206	2
RES 0.02 OHM 1.5W 2512 1% SMD	0.02
RESISTOR 0 OHM 3/4W 1206	0
RESISTOR 1.0 OHM 1/10W 5% 0603	1
RES 2.49K OHM 1/10W 1% 0603 SMD	2.49K
RES 715K OHM 1/10W 1% 0402 SMD	715K
RES 56.2K OHM 1/10W 1% 0402 SMD	56.2K

RES 56 OHM 1/10W 5% 0402 SMD	56
RES 100 OHM 1/10W 1% 0402 SMD	100

RES 10K OHM 1/10W 5% 0603 SMD	10K
RES 10K OHM 1/10W 1% 0402 SMD	10K
RES 10K OHM 1/10W 5% 0603 SMD	10K

RES 20 OHM 1/10W 5% 0402 SMD	20
RES 240 OHM 1/10W 1% 0402 SMD	240
RES 33 OHM 1/10W 5% 0402 SMD	33
RES 1.0K OHM 1/10W 5% 0402 SMD	1K
RES 33K OHM 1/10W 5% 0402 SMD	33K
RES 0.0 OHM 1/10W 0402 SMD	0
RES 267K OHM 1/10W 1% 0402 SMD	267K
RES 536K OHM 1/10W 1% 0402 SMD	536K
RES 12K OHM 1/10W 1% 0402 SMD	12K
RES 82 OHM 1/8W 5% 0805 SMD	82
RES 1.5K OHM 1/10W 5% 0603 SMD	1.5K
RES 3.3K OHM 1/10W 5% 0603 SMD	3.3K
RES 510K OHM 1/10W 5% 0402 SMD	510K
RES 154K OHM 1/10W 1% 0402 SMD	154K
RES 43.2K OHM 1/16W 1% 0402 SMD	43.2K
RES 100K OHM 1/16W 1% 0402 SMD	100K
RES 75 OHM 1/10W 5% 0402 SMD	75
RES 2.2K OHM 1/10W 5% 0603 SMD	2.2K
RES 1.0M OHM 1/10W 5% 0402 SMD	1M
RES 47K OHM 1/10W 5% 0603 SMD	47K
PC TEST POINT TIN SMD	Probe-Testpoint
Test Point	TESTPIN
IC OPAMP GP R-R 50MHZ LN SOT23-5	OPA365-Q1
IC VOLT SUPERVISOR ADJ SOT23-6	TPS3808G01QDBVRQ1
IC REG SINK/SOURCE DDR 10SON	TPS51200QDRCRQ1
IC BUFFER SCHMIT TRIG SOT23-5	SN74LVC1G17QDBVRQ1
IC PANELBUS DVI RCVR 100-HTQFP	TFP401AIPZPRQ1
TVS DIODE 5.5VWM 16VC WAFER	TPD4E001QDBVRQ1
IC MCU 32BIT 64KB FLASH 48LQFP	TMS320F28023
IC SWITCH SPDT SOT23-6	SN74LVC1G3157-Q1
IC EEPROM 2KBIT 400KHZ 8SOIC	CAV24C02WE-GT3
IC GATE AND 4CH 2-INP 14-TSSOP	SN74LVC08AQPWRQ1
IC REG BUCK SYNC ADJ DL 10SON	TPS62400QDRCRQ1
IC Ideal Diode Controller	LM74700Q1
512Mb: x16 Automotive DDR2 SDRAM	IS46DR16320D-25DBLA2
IC REGULATOR SYNC 1.5A 400KHZ	LMR34215FAQRNX
IC REG LDO 2.5V 0.2A 5SOT	TLV70025QDDCRQ1
IC Automotive DMD Controller	DLPC120
IC MUX/DEMUX DUAL 10F4 DHVQFN16	74CBTLV3257BQ,115

IC SPI FLASH 64MBIT 16SOIC  
CRYSTAL 16.000 MHZ 12 PF SMD  
PCB, DLP3034Q1 Controller

IS25LP064A-JMLE  
AB-16.000MALE-T  
PCB



PCB Footprint	Note
402	
CAP-HA-V-CASE-G_PAN	
402	

402  
805

402  
603

603

0402-1MM

0402-1MM

603

603

1206

603

1210

805

603

402

603

402

SOT23-3\_FC

SOD-323\_ONSEMI

REG-DPAK-STP\_ST

0402DIO-REV

0402DIO-REV

DO214AC\_SMA

DIO-DO220AA-SMP-REV\_VISH

805

0402-1MM

CONN14-95278\_FCI                      Cut off pin 6

HDR\_9

CON\_6\_P\_RA\_874380643

CONN8-502352\_MLX

CON\_4\_P\_RA\_87438-0443

CONN50-6288\_KYO

CONN19-HDMI-10029449-111RLF\_FCI

CONN7-560020\_MLX

CONN3-501940\_MLX

IND2-XAL1010-153\_COIL

603

IND2-XFL-3010\_COIL

IND-XAL5050

MH-8

TO\_252AA\_VIS

SOIC8

SOT23-3\_FC

SOT23-3\_FC

D-PAK

SOT23-3\_FC

RNET16-EXB-2HV\_PAN

402

402

402

1206

2512

1206

603

603

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603

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603

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0402-1MM

402

402

402

402

402

402

402

805

603

603

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402

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603

402

603

TP-S1751-81X144\_HAR

TP-40RD24

SOIC5-DBV\_TI

SOIC6-DBV\_TI

SOIC10-DRCA\_TI

SOIC5-DBV\_TI

PQFP100-PZP\_TI-MOD

SOIC6-DBV\_TI

PQFP48-PT\_TI

SOT23-6

SOIC8

SOIC14-PW\_TI

SOIC10-DRCA\_TI

SOT23-6

BGA84-8X14\_MICRON

VQFN-HR-12

SOIC5-DDC\_TI

BGA256

DHVQFN16\_NXP

SOIC16\_WIDE\_ST  
OSC4-50X32-A\_TXC