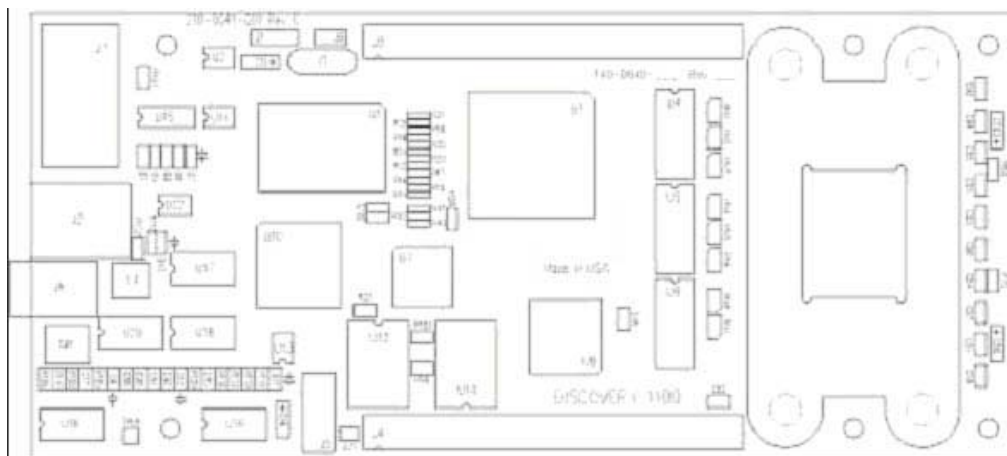


## Discovery 1100 Circuit Card Assembly V2

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This document provides an alternative bill of material and assembly view of the DMD Discovery 1100 Controller Board.



[illegible]

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## 1 Configuration Summary

The Discovery Controller Board combines hardware, software, firmware and documentation to form a stand-alone platform for use in developing and testing applications designed for using the Texas Instruments 0,7 XGA DDR DMD.

## 2 Bill of Material

ITEM	Qty	PART NUMBER	DESCRIPTION	MANUFACTURER
1	71	ECJ-1VF1H104Z	CAP .1UF,50V,+80-20% Y5V,CER,0603,SMT	PANASONIC
2	3	F931C106MBA	CAP 10UF, 16V,TANT,B CASE	Nichicon
3	2	ECJ-1VC1H220J	CAP 22PF,50V,5% NPO,CER,0603,SMT	PANASONIC
4	4	ECS-T1VC335R	CAP 3.3UF,35V,20%,TE,C CASE,SMT	PANASONIC
5	3	F931C105MAA	CAP 1UF,16V,20%,TE,A CASE,SMT	Nichicon
6	1	ECJ-1VB1A224K	CAP .22UF,10V,10%,X7R,CER,0603,SMT	PANASONIC
7	2	F931A107MNC	CAP 100UF,10V,20%,TE,N CASE,SMT	Nichicon
8	1	ECJ-1VB1H473K	CAP .047UF,25V,10%,X7R,CER,0603,SMT	PANASONIC
9	1	ECJ-1VB1H102K	CAP 1000PF,50V,10% X7R,CER,0603,SMT	PANASONIC
10	9	LNJ308G8TRA	LED, LNJ308G8, GREEN DIFFUSED,0603,SMT	PANASONIC
11	2	STPS0560Z	RECT, STPS0560Z,SCHOTTKY,0.5A,60V,SOD-123 ST	S T MICRO
12	1	SS12	TR RECT, SS12GICT, SCHOTTKY,1A, 20V,D0-214AC	GENERAL Semiconductor
13	1	XG8W-0331	CONN, HDR, 3 PIN,SINGLE ROW, .1PITCH	OMRON
14	1	787780-2	CONN, 4PIN,USB B,R/A ,TH	AMP/TYCO
15	2	TFM-145-32-S-D-LC	HEADER,45 PIN,D/ROW,05X.05,SHROUDED,SMT	SAMTEC
16	1	XG8T-1031	HEADER 10pole	OMRON
17	1	XG8S-0231	HEADER 2pole	OMRON
18	1	15-24-4041	CONN, 4 PIN,RT/ANG,POWER PLUG,200 CEN	MOLEX
19	1	PJ-002AH	CONN, DC POWER JACK, R/A, 3 PIN 2.0mm,TH CUI	STACK
20	2	DT1608C-223	IND.22uH,.160 OHMS@25 MHz,20%,2PIN SMT	COILCRAFT
21	1	ELL-6SH180M	IND,COIL 18 uH,1000 mA,2 PIN, SMT	PANASONIC
22	8	EXB-2HV220JV	RES NET,22 OHMS,5%,8 RES ISOLATED,0402X8,SMT	PANASONIC
23	4	ERJ-3EKF1002V	RES 10K OHMS,1/16W,1%,0603,SMT	PANASONIC
24	8	ERJ-3EKF1500V	RES 150 OHMS,1/16W,1%,0603,SMT	PANASONIC
25	36	ERJ-3GEYJ220V	RES 22 OHMS,1/16W,5%,0603,SMT	PANASONIC
26	10	9C06031A0R00JLHFT	RES 0 OHMS,1/16W,5%,0603,SMT	PHYCOMP
27	34	ERJ-3EKF1001V	RES 1K OHMS,1/16W,1%,0603,SMT	PANASONIC
28	2	ERJ-3EKF1004V	RES 1M OHMS,1/16W,1%,0603,SMT	PANASONIC
29	3	ERJ-3EKF2493V	RES 249K OHMS,1/16W,1%,.0603 SMT	PANASONIC
30	2	ERJ-3EKF3093V	RES 309K OHMS,1/16W,1%,0603,SMT	PANASONIC
31	3	ERJ-3EKF1693V	RES 169K OHMS,1/16W,1%,0603,MT	PANASONIC
32	1	ERJ-3EKF1913V	RES 191K OHMS,1/16W,1%,0603,SMT	PANASONIC
33	1	ERJ-3EKF3900V	RES 390 OHMS,1/16W,1%,0603,SMT	PANASONIC
34	1	KT11P2CM	SWITCH, PUSH BUTTON.093 ACT.HT,SPST,4PIN,TH	C&K
35	1	CY7C68013-128AC	IC, CY7C68013,CONTROLLER,USB PERIPHERAL,128 PIN TQFP	CYPRESS
36	1	24LC256I/SM	IC, E2PROM,24LC256,32KX8,SERIAL,8 PIN SOIC	MICROCHIP

ITEM	Qty	PART NUMBER	DESCRIPTION	MANUFACTURER
37	1	SN295-0009-001	IC, PGRM PART, DISCOVERY 1100 , USB IF CNTRL	TI
38	3	SN74CBTLV16211GR	IC, TTL,74CBTLV16211,24 BIT-FET BUS SW,56PIN TSSOP	TI
39	1	SN295-0007-001	IC,PGRM PART, DISC 1100 CNTRL, DMD HS CNTRL	TI
40	1	2503253-0003N	IC, TI DAD1000	TI
41	1	SN295-0008-001	IC,PGRM PART, DISC 1100 CNTRL, DAD RST CNTRL	TI
42	1	UCC3946D	IC, UCC3946,SUPERVISOR.W/WD TIMER,8 PIN SOP	TI
43	1	SG-8002JA-PHB 60MHZ	OSC. PRGM,60 MHz,50PPM,CMOS,5.0V,4PIN SMT	EPSON
44	1	CDCVF2505D	IC, CDCVF2505,3.3V CLKDRV,PHASE LKLP,8PIN SOP	TI
45	1	SN74LVC125AD	IC, TTL,74LVC125,QUAD BUS BUFFER, 14 PIN SOIC	TI
46	3	TPS7101QP	IC, REG,7101,ADJ.1.2V-9.75V,LDO,8 PIN PDIP,TH	TI
47	1	TL7705ACP	IC, 7705,MICRO-SUPPLY VOLTAGE SUPER,8 PIN TH	TI
48	1	TPS6734IP	IC, TPS6734IP,12V 120mA, BOOST CONV, 8 PIN TH	TI
49	1	SN74LVC2G17DBVR	IC, 2GATE,TTL,74LVC2G17,BUFFER,D/SHMT,6 PIN SOP	TI
50	1	SN74LVC32APWR	IC, TTL 74LVC32,QUAD,2 INPUT OR GATE,14 PIN TSSOP	TI
51	1	ECS-240-16-4	CRYSTAL, 24.000MHz,16PF,2 PIN TH	ECS INC.
52	1	ECJ-1VB1H103K*	CAP .01UF,50V,10%X7R,CER,0603,SMT	PANASONIC
53	1	SG-8002JA-PWT 120MHZ	OSC.PRGM, 120.00MHz,50PPM,CMOS,5.0V,4 PIN SMT	EPSON
54	2	ERJ-3GEYJ104V	RES 100K OHMS,1/16W,5%,0603,SMT	PANASONIC
55	1	ERJ3GSYJ203V	RES 20K OHMS,1/16W,5%,0603,SMT	PANASONIC
56	2	9C06031A2201FKHFT	RES 2.2K OHMS,1/16W,1%,0603,SMT	Yageo America
57	1	SMAZ8V2	DIO, SMAZ8V2, ZENER, 8.2V,1W,5%, SMA PKG, SMT	DIODES INC.
58	1	T491C336K016AS	CAP 33UF,16V,10%,TE,C CASE	KEMET
59	10	T491A106M016AS	CAP 10UF, 16V,20%,TANT,A CASE	KEMET
60	1	T491A105M016AS	CAP 1UF, 16V,20%,TANT,A CASE	KEMET

### 3 Cross Reference

ITEM	QUANTITY
1	C1-C10, C16, C18-C21, C23-C30, C32, C33, C35-C38, C40, C41, C43, C45, C46, C48, C51-C55, C59-C64, C66-C68, C70-C72, C75-C77, C81, C84, C85, C88, C93-C102, C104, C105
2	C17, C22, C49
3	C14, C15
4	C39, C42, C44, C47
5	C56, C83, C87
6	C69
7	C79, C80
8	C91
9	C92
10	D1, D5-D11, D13
11	D2-D3
12	D12
13	J1
14	J2
15	J3, J4
16	J5
17	J6
18	J7
19	J8
20	L1,L2
21	L4
22	RN1-RN8
23	R1, R2, R115, R134
24	R3, R102-R105, R109, R113, R118
25	<b>Note1</b> R4, R6-R25, R28, R41, R42, R71-R75, R77, R78, R94-R98,R101
26	R5,R26, R27, R29, R43, R49, R69, R70, R79, R88
27	<b>Note2</b> <b>Note3</b> R30-R40, R44-R48, R50, R60, R80-R87, R90,R92,R93,R121-R128,R135,R136
28	R89, R91
29	R106, R111, R116
30	R108, R112
31	R110, R114, R119
32	R117
33	R120
34	SW1
35	U1
36	U2
37	U3
38	U4-U6
39	U7
40	U8

ITEM	QUANTITY
41	U10
42	U11
43	U12
44	U13
45	U15
46	U16, U17, U19
47	U18
48	U20
49	U21
50	U22
51	Y1
52	C90
53	U14
54	R129, R133
55	R132
56	R130, R131
57	D18
58	C89
59	C11, C31, C34, C50, C58, C65, C78, C82, C86, C103

**Note1: Clock source selection**

External Clock R95(Unmounted:R94,R97)

Internal Clock R94,97(Unmounted:R95) default

**Note2: Clock frequency selection resistors**

Frequency 10MHz R47,R48(Unmounted:R45,R46)

Frequency 30MHz R45,R48(Unmounted:R46,R47)

Frequency 60MHz R46,R47(Unmounted:R45,R48)

Frequency 120MHz R45,R46(Unmounted:R47,R48) default

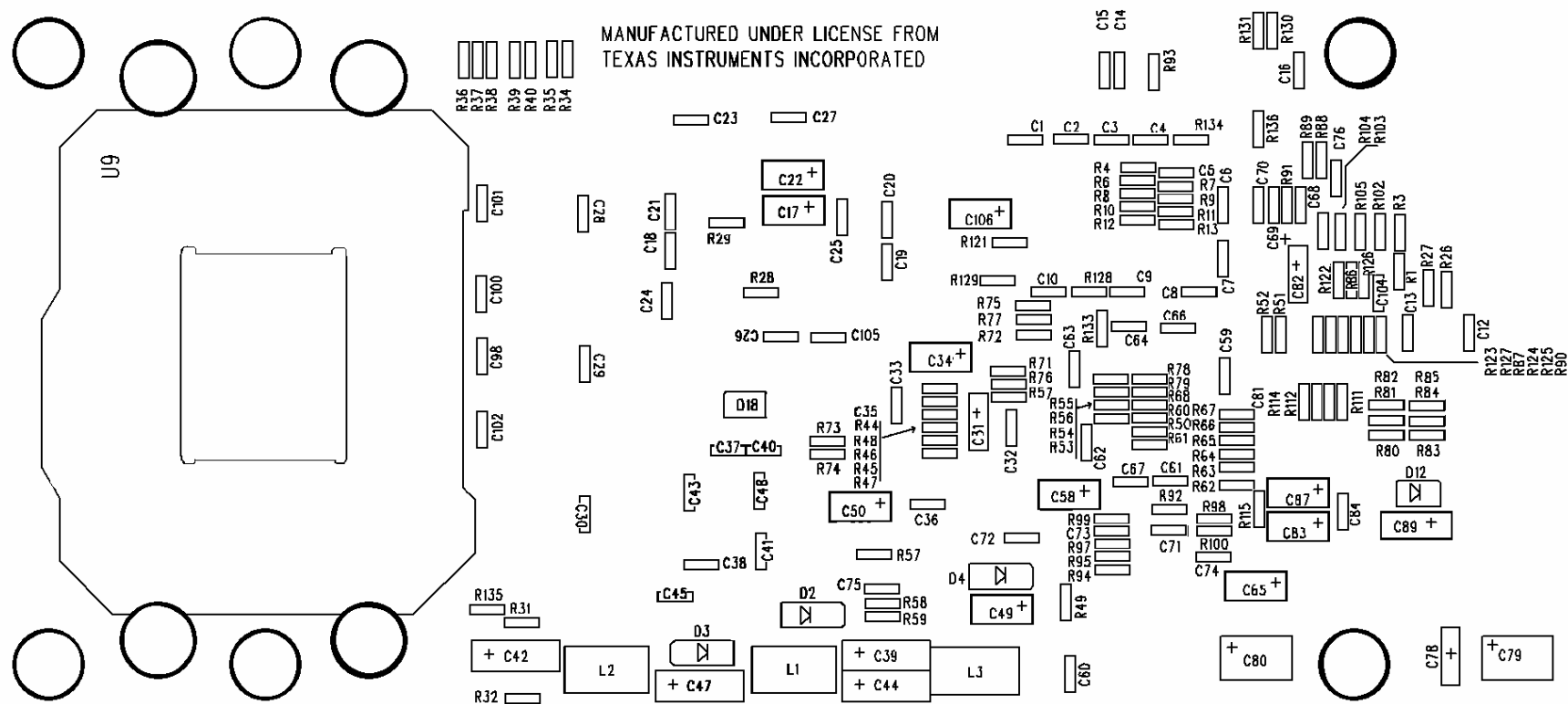
**Note3: DAD BIN SETTING REGISTERS**

Bin Designation E R81,R82,R83 (Unmounted:R84,R85,R86) default



## 4 Assembly View

#### 4.1 Secondary Side



## 4.2 Primary Side

