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dsPIC33FJ64GS610 100-pin TQFP to 100-pin Plug-In Module (PIM) Information Sheet

OVERVIEW

The dsPIC33FJ64GS610 PIM is designed to demonstrate the capabilities of the dsPIC33FJ64GS610 family of Switch Mode Power Supply (SMPS) devices using the Explorer 16 Development Board and the PICtail™ Plus Daughter Board.

The dsPIC33FJ64GS610 is a high-performance 16-bit Digital Signal Controller in a 100-pin TQFP package.

Table 1 shows the mapping between the 100-pin PIM interface board functions and the device pins.

TABLE 1: 100-PIN TQFP TO 100-PIN PIM PINOUT

Device Pin Number	dsPIC33FJ64GS610 Pin	PIM Pin Number	Functional Description
1	SYNCI1/RG15	—	
2	VDD	2	
3	PWM3H/RE5	19	PWM3H
4	PWM4L/RE6	—	
5	PWM4H/RE7	—	
6	AN16/T2CK/RC1	17	LED3
7	AN17/T3CK/RC2	38	LED4
8	AN18/T4CK/RC3	58	LED5
9	AN19/T5CK/RC4	59	LED6
10	SCK2/FLT12/CN8/RG6	—	
11	SDI2/FLT11/CN9/RG7	—	
12	SDO2/FLT10/CN10/RG8	—	
13	MCLR	13	
14	SS2/FLT9/CN11/RG9	—	
15	Vss	15	
16	VDD	16	
17	TMS/RA0	—	
18	AN20/FLT13/INT1/RE8	—	
19	AN21/FLT14/INT2/RE9	—	
20	AN5/CMP3B/QEB1A/CN7/RB5	20	Exp_ POT
21	AN4/CMP2C/CMP3A/QEA1A/CN6/RB4	66	VIN_Feedback
22	AN3/CMP2B/INDX1A/CN5/RB3	57	Voltage FB2
23	AN2/CMP1C/CMP2A/SS1A/CN4/RB2	56	Current Sense 2
24	PGEC3/AN1/CMP1B/CN3/RB1	35	Voltage FB1
25	PGED3/AN0/CMP1A/CMP4C/CN2/RB0	34	Current Sense 1
26	PGEC1/AN6/CMP3C/CMP4A/OCFA/RB6	26	PGEC1
27	PGED1/AN7/CMP4B/RB7	27	PGED1
28	PWM8L/RA9	—	
29	PWM8H/RA10	—	
30	AVDD	30	

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TABLE 1: 100-PIN TQFP TO 100-PIN PIM PINOUT (CONTINUED)

Device Pin Number	dsPIC33FJ64GS610 Pin	PIM Pin Number	Functional Description
31	AVss	31	
32	AN8/RB8	69	Current Sense Boost
33	AN9/DACOUT/RB9	78	Voltage Feedback Boost
34	AN10/RB10	68	POT
35	AN11/EXTREF/RB11	—	
36	Vss	36	
37	VDD	37	
38	TCK/RA1	—	
39	U2RTS/RF13	—	
40	U2CTS/RF12	—	
41	AN12/CMP1D/RB12	—	
42	AN13/CMP2D/RB13	—	
43	AN14/CMP3D/SS1/RB14	—	
44	AN15/CMP4D/OCFB/CN12/RB15	44	LCD (R/S)
45	Vss	45	
46	VDD	46	
47	U1CTS/FLT15/SYNCI3/CN20/RD14	—	
48	U1RTS/FLT16/SYNCI2/CN21/RD15	—	
49	U2RX/FLT17/CN17/RF4	—	
50	U2TX/FLT18/CN18/RF5	—	
51	U1TX/RF3	50	UART TX
52	U1RX/RF2	49	UART RX
53	SDO1/RF8	—	
54	SDI1/RF7	—	
55	SCK1/INT0/RF6	—	
56	SDA1/RG3	96	SDA/RX
57	SCL1/RG2	95	SCL/TX
58	SCL2/FLT22/RA2	83	Switch S3
59	SDA2/FLT21/RA3	84	Switch S6
60	TDI/RA4	—	
61	TDO/RA5	—	
62	VDD	62	
63	OSC1/CLKIN/RC12	63	OSC1
64	OSC2/REFCLKO/CLKO/RC15	64	OSC2
65	Vss	65	
66	INT3/FLT20/RA14	—	
67	INT4/FLT19/SYNCI4/RA15	—	
68	IC1/FLT1/RD8	100	LCD (DB4)
69	IC2/FLT2/RD9	3	LCD (DB5)
70	IC3/INDX1/FLT3/RD10	4	LCD (DB6)
71	IC4/QEA1/FLT4/RD11	5	LCD (DB7)
72	OC1/QEB1/FLT5/RD0	93	LCD (DB0)
73	PGED2/SOSCI/CN1/RC13	—	
74	PGEC2/SOSCO/T1CK/CN0/RC14	—	

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TABLE 1: 100-PIN TQFP TO 100-PIN PIM PINOUT (CONTINUED)

Device Pin Number	dsPIC33FJ64GS610 Pin	PIM Pin Number	Functional Description
75	Vss	75	
76	OC2/SYNCO2/FLT6/RD1	94	LCD (DB1)
77	OC3/FLT7/RD2	98	LCD (DB2)
78	PWM7H/OC4/FLT8/RD3	99	LCD (DB3)
79	QEA2/RD12	—	
80	PWM7L/CN19/RD13	—	
81	PWM6L/CN13/RD4	81	LCD (E)
82	PWM6H/CN14/RD5	82	LCD (R/W)
83	PWM5L/CN15/RD6	—	
84	PWM5H/UPDN1/CN16/RD7	—	
85	VCAP/VDDCORE	—	
86	VDD	86	
87	C1RX/RF0	1	PMBAUX1
88	C1TX/RF1	97	PMBAUX2
89	QEB2/RG1	—	
90	INDX2/RG0	—	
91	AN22/CN22/RA6	—	
92	AN23/CN23/RA7	—	
93	PWM1L/RE0	29	PWM1L
94	PWM1H/RE1	28	PWM1H
95	FLT23/RG14	—	
96	PWM9H/RG12	—	
97	PWM9L/RG13	—	
98	PWM2L/RE2	25	PWM2L
99	PWM2H/RE3	24	PWM2H
100	PWM3L/RE4	22	LOAD

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FIGURE 1: 100-PIN DEVICE SCHEMATIC

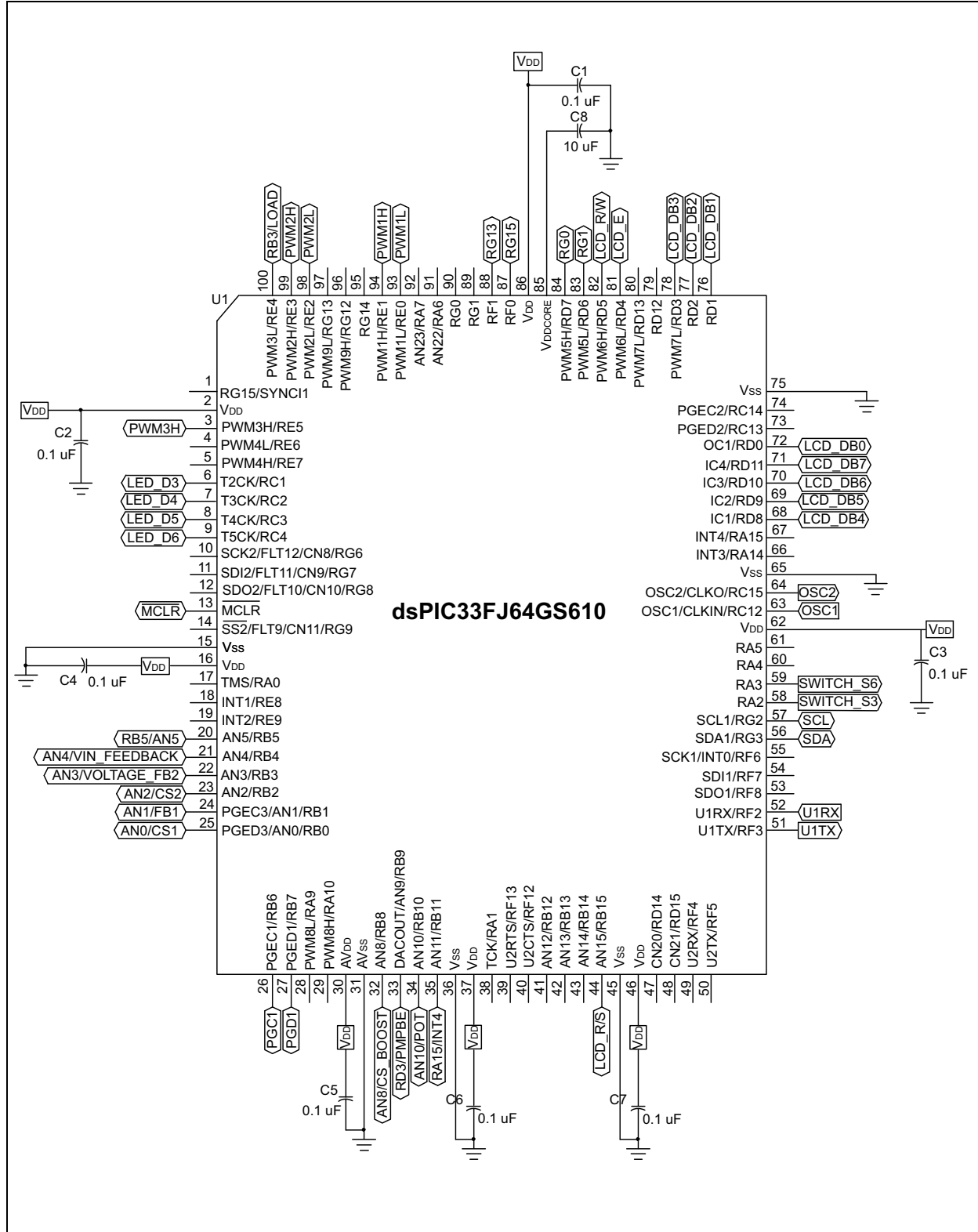
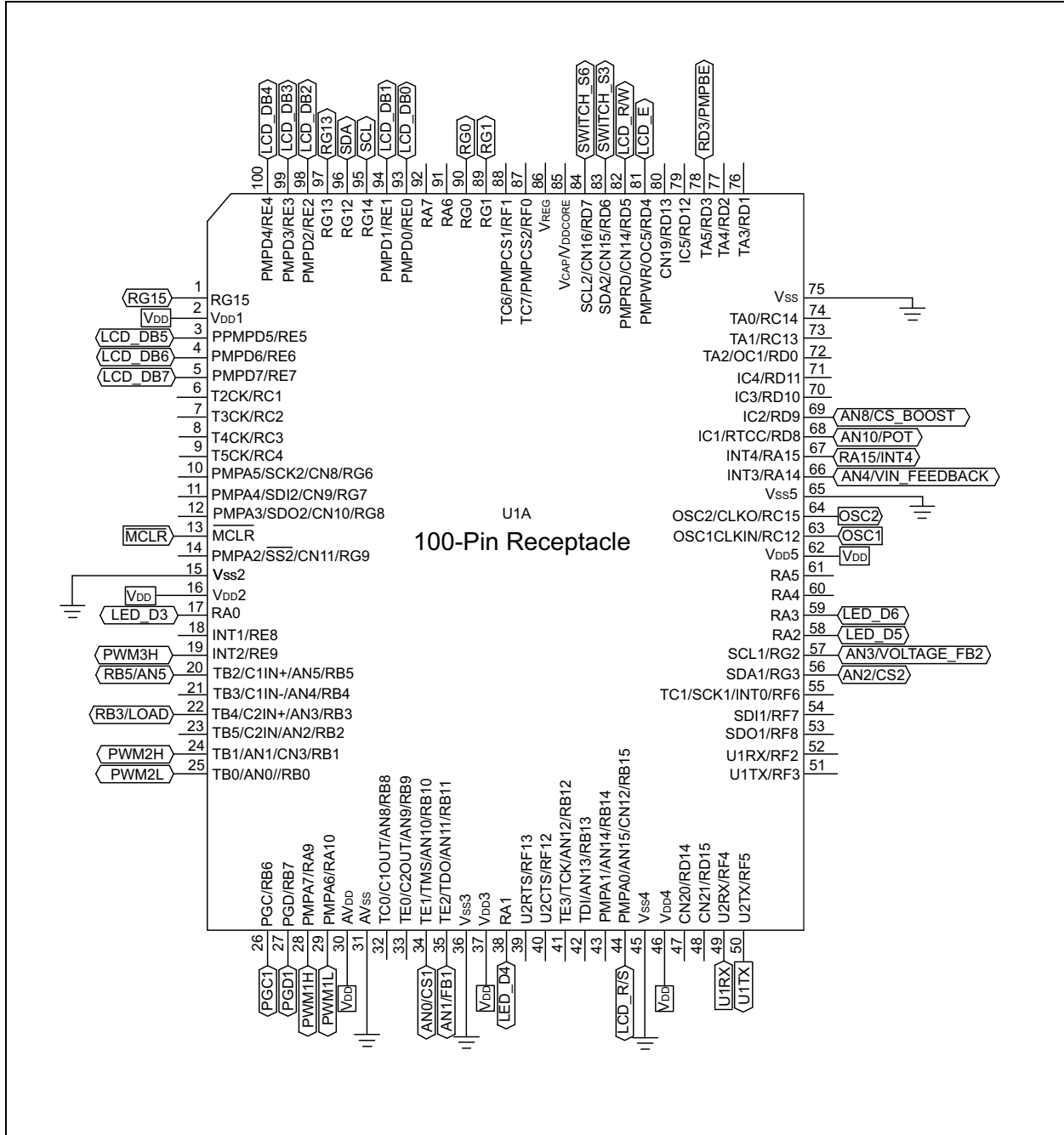


FIGURE 2: 100-PIN SOCKET SCHEMATIC



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