

## 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	

# dsPIC33FJ64GS610

**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	—	

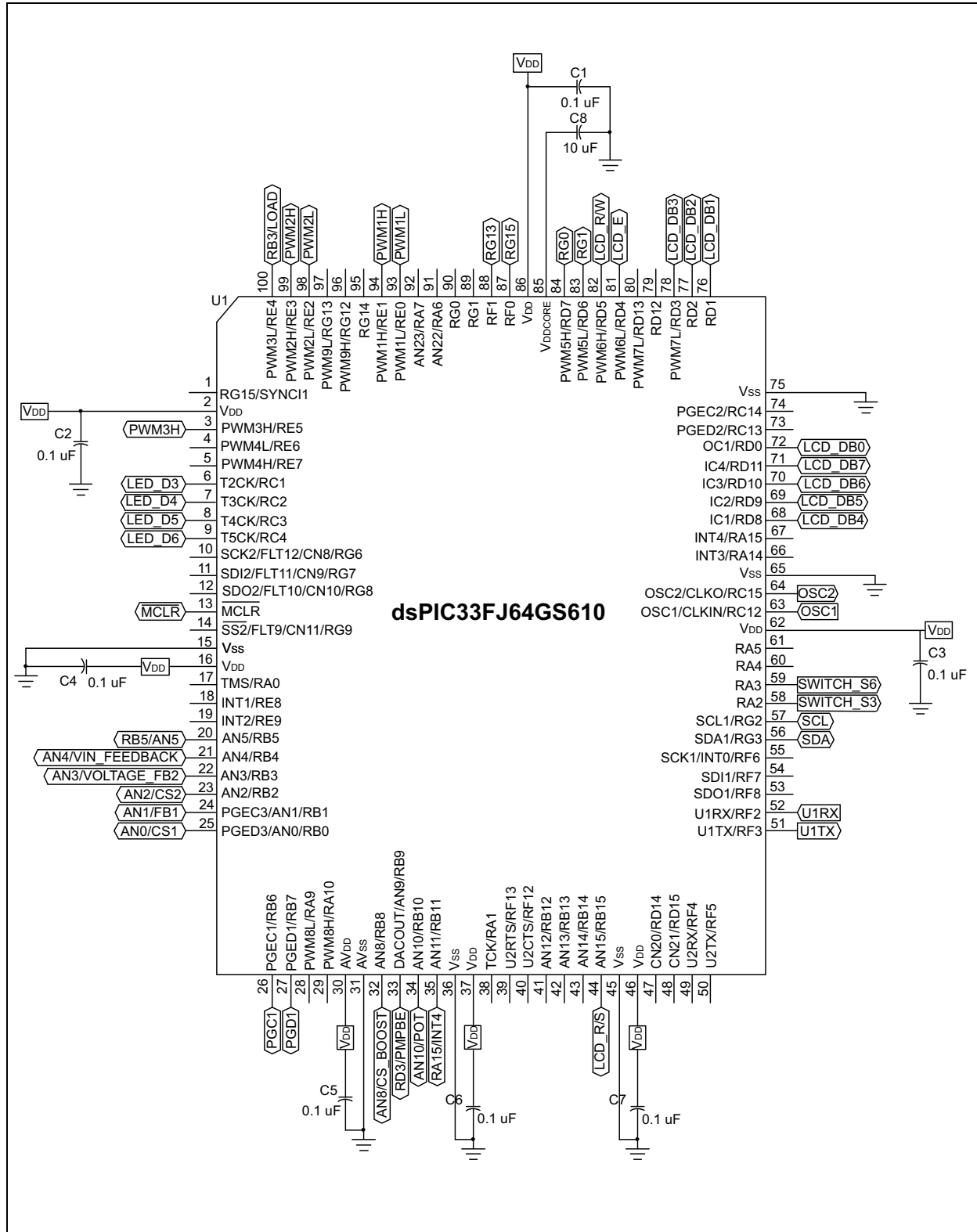
# dsPIC33FJ64GS610

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

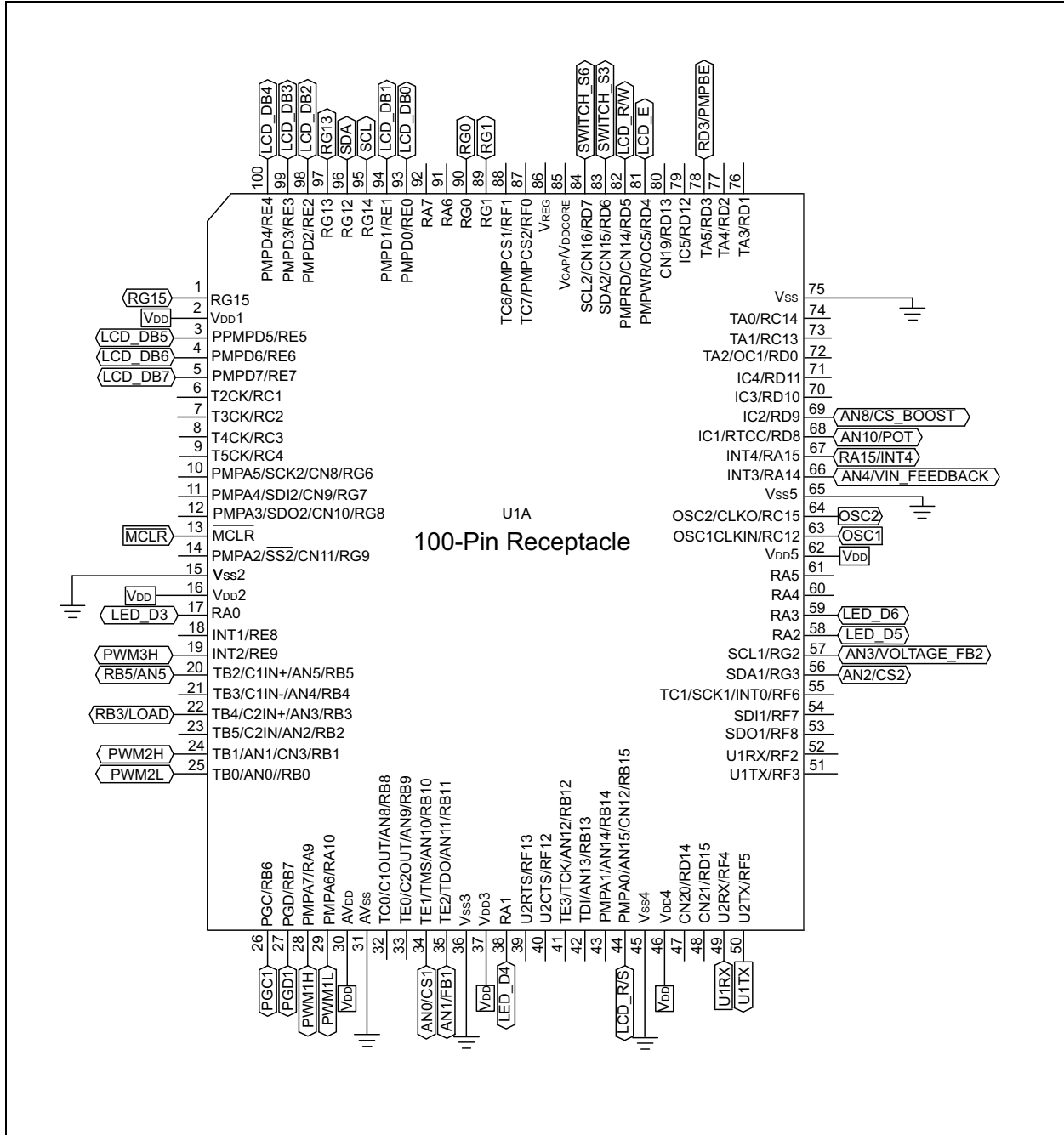
Device Pin Number	dsPIC33FJ64GS610 Pin	PIM Pin Number	Functional Description
75	Vss	75	
76	OC2/SYNCO2/FLT6/RD1	94	LCD (DB1)
77	OC3/FLT7/RD2	98	LCD (DB2)
78	PWM7H/OC4/FLT8/RD3	99	LCD (DB3)
79	QEA2/RD12	—	
80	PWM7L/CN19/RD13	—	
81	PWM6L/CN13/RD4	81	LCD (E)
82	PWM6H/CN14/RD5	82	LCD (R/W)
83	PWM5L/CN15/RD6	—	
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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NOTES:

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