

## dsPIC33EP512GM710 100-Pin TQFP to 100-Pin Plug-In Module (PIM) Information Sheet

### OVERVIEW

The dsPIC33EP512GM710 100-Pin TQFP to 100-Pin Plug-In Module (PIM) (MA330035) is designed to demonstrate the capabilities of the dsPIC33EP512GM710 device, which is a high-performance, 16-bit Digital Signal Controller (DSC). Refer to [Figure 1](#) for the device schematics and [Figure 2](#) for the PIM connector schematics.

This PIM can be used for many general purpose applications along with the Explorer 16 Development Board. This routing is intended to maximize the compatibility of the PIM with the Explorer 16 Development Board (DM240001) and its related PICtail™ Plus Daughter Boards.

[Table 1](#) shows the mapping between the 100-pin PIM interface board and the device pins.

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

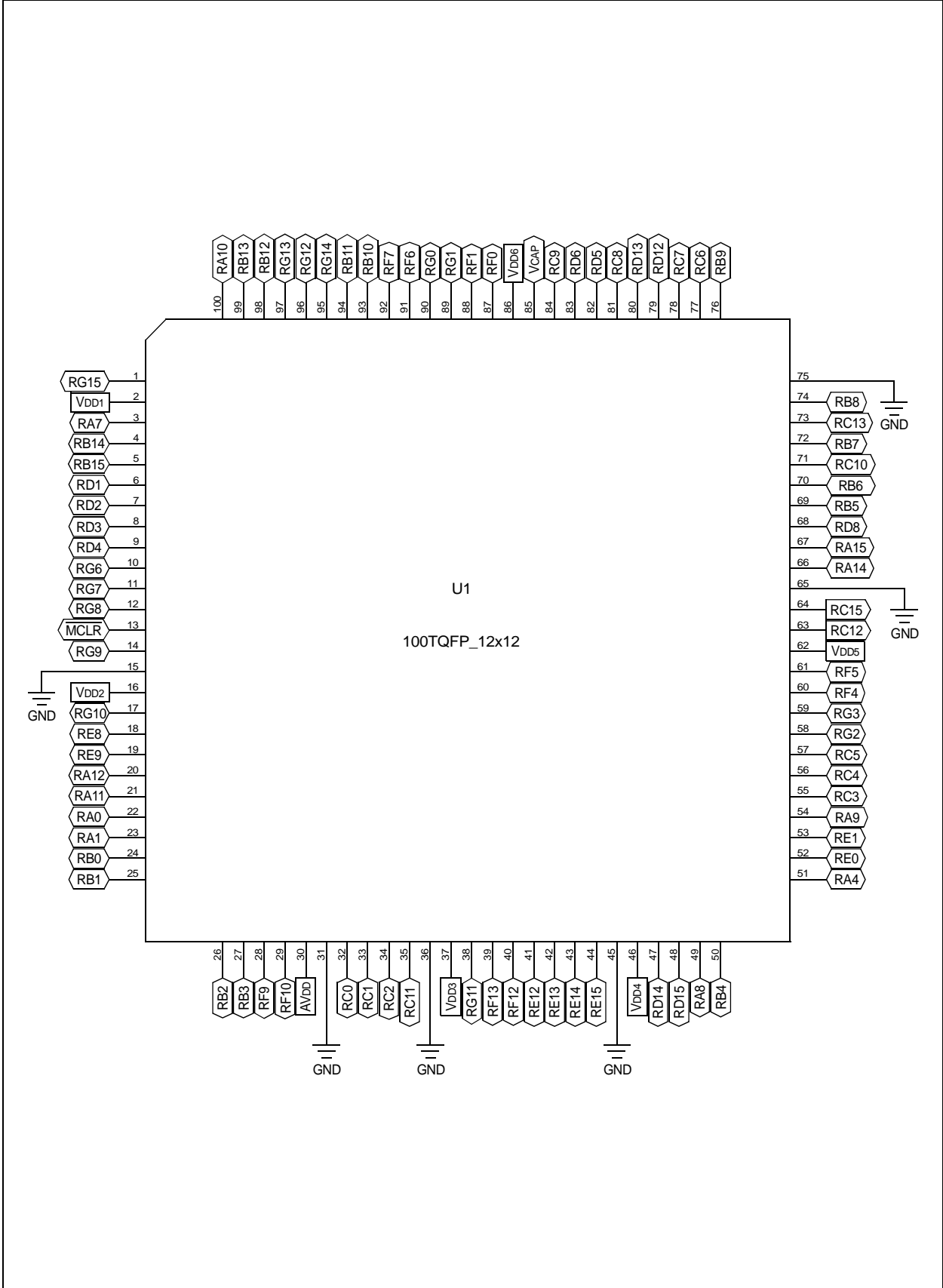
Device Pin #	dsPIC33EP512GM710 Device Pin Descriptions	PIM Pin #	Device Pin #	dsPIC33EP512GM710 Device Pin Descriptions	PIM Pin #
1	AN23/RP127/RG15	1	21	AN9/RPI27/RA11	21
2	V <sub>DD</sub>	2	22	OA2OUT/AN0/C2IN4-/C4IN3-/RPI16/RA0	22
3	TDI/PWM4L/PMD5/RA7	3	23	OA2IN+/AN1/C2IN1+/RPI17/RA1	23
4	RPI46/PWM1H/T3CK/T7CK/PMD6/RB14	4	24	PGED3/OA2IN-/AN2/C2IN1-/SS1/RPI32/CTED2/RB0	24
5	RPI47/PWM1L/T5CK/T6CK/PMD7/RB15	5	25	PGEC3/VREF+/(CVREF+)/OA1OUT/AN3/C1IN4-/C4IN2-/RPI33/CTED1/RB1	25
6	PWM5L/RD1	6	26	PGEC1/OA1IN+/AN4/C1IN3-/C1IN1+/C2IN3-/RPI34/RB2	26
7	PWM5H/RD2	7	27	PGED1/OA1IN-/AN5/C1IN1-/(CTMUC)/RP35/RTCC/RB3	27
8	PWM6L/T9CK/RD3	8	29	VREF1+/AN34/PMA7/RF10	28
9	PWM6H/T8CK/RD4	9	28	VREF1-/AN33/PMA6/RF9	29
10	AN19/RP118/PMA5/RG6	10	30	AV <sub>DD</sub>	30
11	AN18/ASCL1/RPI119/PMA4/RG7	11	31	AV <sub>SS</sub>	31
12	AN17/ASDA1/RP120/PMA3/RG8	12	32	OA3OUT/AN6/C3IN4-/C4IN4-/C4IN1+/RP48/OCFB/RC0	32
13	MCLR	13	33	OA3IN-/AN7/C3IN1-/C4IN1-/RP49/RC1	33
14	AN16/RPI121/PMA2/RG9	14	34	OA3IN+/AN8/C3IN3-/C3IN1+/RPI50/U1RTS/BCLK1/FLT3/RC2	34
15	V <sub>SS</sub>	15	35	AN11/C1IN2-/U1CTS/FLT4/PMA12/RC11	35
16	V <sub>DD</sub>	16	36	V <sub>SS</sub>	36
17	AN22/RG10	17	37	V <sub>DD</sub>	37
18	AN21/RE8	18	38	AN35/RG11	38
20	AN10/RPI28/RA12	19	41	AN12/C2IN2-/C5IN2-/U2RTS/BCLK2/FLT5/PMA11/RE12	39
19	AN20/RE9	20	42	AN13/C3IN2-/U2CTS/FLT6/PMA10/RE13	40

# dsPIC33EP512GM710

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

Device Pin #	dsPIC33EP512GM710 Device Pin Descriptions	PIM Pin #	Device Pin #	dsPIC33EP512GM710 Device Pin Descriptions	PIM Pin #
41	AN12/C2IN2-/C5IN2-/U2RTS/BCLK2/FLT5/PMA11/RE12	41	71	AN48/CVREF20/RPI58/PMCS1/RC10	71
42	AN13/C3IN2-/U2CTS/FLT6/PMA10/RE13	42	72	OA5OUT/AN25/C5IN4-/RP39/INT0/RB7	72
43	AN14/RPI94/FLT7/PMA1/RE14	43	73	SOSCI/RPI61/RC13	73
44	AN15/RPI95/FLT8/PMA0/RE15	44	74	TCK/AN26/CVREF10/SOSCO/RP40/T4CK/RB8	74
45	Vss	45	75	Vss	75
46	VDD	46	76	TMS/OA5IN-/AN27/C5IN1-/RP41/RB9	76
47	AN38/RD14	47	77	RP54/RC6	77
48	AN39/RD15	48	78	RP55/PMBE/RC7	78
49	SDA2/RPI24/PMA9/RA8	49	79	RPI76/RD12	79
50	FLT32/SCL2/RP36/PMA8/RB4	50	80	RPI77/RD13	80
53	AN41/RP81/RE1	51	81	RP56/PMWR/RC8	81
52	AN40/RPI80/RE0	52	82	RP69/PMRD/RD5	82
51	OA5IN+/AN24/C5IN3-/C5IN1+/SDO1/RP20/T1CK/RA4	53	83	RP70/RD6	83
54	AN28/SDI1/RPI25/RA9	54	84	RP57/RC9	84
55	AN29/SCK1/RPI51/RC3	55	85	VCAP	85
56	AN30/SDA1/RPI52/RC4	56	86	VDD	86
57	AN31/SCL1/RPI53/RC5	57	87	RPI96/RF0	87
58	AN42/RG2	58	88	RP97/RF1	88
59	AN43/RG3	59	89	RP113/RG1	89
60	AN44/RF4	60	90	RPI112/RG0	90
61	AN45/RF5	61	91	RF6	91
62	VDD	62	92	RF7	92
63	AN49/OSC1/CLKI/RPI60/RC12	63	93	RP42/PWM3H/PMD0/RB10	93
64	OSC2/CLKO/RPI63/RC15	64	94	RP43/PWM3L/PMD1/RB11	94
65	Vss	65	95	RP126/RG14	95
66	AN46/INT3/RA14	66	96	RPI124/RG12	96
67	AN47/INT4/RA15	67	97	RP125/RG13	97
68	RPI72/RD8	68	98	RPI44/PWM2H/PMD2/RB12	98
69	PGED2/ASDA2/RP37/RB5	69	99	RPI45/PWM2L/CTPLS/PMD3/RB13	99
70	PGEC2/ASCL2/RP38/PMCS2/RB6	70	100	TDO/PWM4H/PMD4/RA10	100

FIGURE 1: 100-PIN DEVICE SCHEMATIC





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