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	VDD	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-/$\overline{SS1}$/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	AVDD	30
11	AN18/ASCL1/RPI119/PMA4/RG7	11	31	AVSS	31
12	AN17/ASDA1/RP120/PMA3/RG8	12	32	OA3OUT/AN6/C3IN4-/C4IN4-/C4IN1+/RP48/OCFB/RC0	32
13	$\overline{MCLR}$	13	33	OA3IN-/AN7/C3IN1-/C4IN1-/RP49/RC1	33
14	AN16/RPI121/PMA2/RG9	14	34	OA3IN+/AN8/C3IN3-/C3IN1+/RPI50/$\overline{U1RTS}$/BCLK1/FLT3/RC2	34
15	VSS	15	35	AN11/C1IN2-/$\overline{U1CTS}$/FLT4/PMA12/RC11	35
16	VDD	16	36	VSS	36
17	AN22/RG10	17	37	VDD	37
18	AN21/RE8	18	38	AN35/RG11	38
20	AN10/RPI28/RA12	19	41	AN12/C2IN2-/C5IN2-/$\overline{U2RTS}$/BCLK2/FLT5/PMA11/RE12	39
19	AN20/RE9	20	42	AN13/C3IN2-/$\overline{U2CTS}$/FLT6/PMA10/RE13	40

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

Device Pin #	dsPIC33EP512GM710 Device Pin Descriptions	PIM Pin #
41	AN12/C2IN2-/C5IN2-/U2RTS/BCLK2/FLT5/PMA11/RE12	41
42	AN13/C3IN2-/U2CTS/FLT6/PMA10/RE13	42
43	AN14/RPI94/FLT7/PMA1/RE14	43
44	AN15/RPI95/FLT8/PMA0/RE15	44
45	VSS	45
46	VDD	46
47	AN38/RD14	47
48	AN39/RD15	48
49	SDA2/RPI24/PMA9/RA8	49
50	FLT32/SCL2/RP36/PMA8/RB4	50
53	AN41/RP81/RE1	51
52	AN40/RPI80/RE0	52
51	OA5IN+/AN24/C5IN3-/C5IN1+/SDO1/RP20/T1CK/RA4	53
54	AN28/SDI1/RPI25/RA9	54
55	AN29/SCK1/RPI51/RC3	55
56	AN30/SDA1/RPI52/RC4	56
57	AN31/SCL1/RPI53/RC5	57
58	AN42/RG2	58
59	AN43/RG3	59
60	AN44/RF4	60
61	AN45/RF5	61
62	VDD	62
63	AN49/OSC1/CLKI/RPI60/RC12	63
64	OSC2/CLKO/RPI63/RC15	64
65	VSS	65
66	AN46/INT3/RA14	66
67	AN47/INT4/RA15	67
68	RPI72/RD8	68
69	PGED2/ASDA2/RP37/RB5	69
70	PGEC2/ASCL2/RP38/PMCS2/RB6	70
71	AN48/CVREF2O/RPI58/PMCS1/RC10	71
72	OA5OUT/AN25/C5IN4-/RP39/INT0/RB7	72
73	SOSCI/RPI61/RC13	73
74	TCK/AN26/CVREF1O/SOSCO/RP40/T4CK/RB8	74
75	VSS	75
76	TMS/OA5IN-/AN27/C5IN1-/RP41/RB9	76
77	RP54/RC6	77
78	RP55/PMBE/RC7	78
79	RPI76/RD12	79
80	RPI77/RD13	80
81	RP56/PMWR/RC8	81
82	RP69/PMRD/RD5	82
83	RP70/RD6	83
84	RP57/RC9	84
85	VCAP	85
86	VDD	86
87	RPI96/RF0	87
88	RP97/RF1	88
89	RP113/RG1	89
90	RPI112/RG0	90
91	RF6	91
92	RF7	92
93	RP42/PWM3H/PMD0/RB10	93
94	RP43/PWM3L/PMD1/RB11	94
95	RP126/RG14	95
96	RPI124/RG12	96
97	RP125/RG13	97
98	RPI44/PWM2H/PMD2/RB12	98
99	RPI45/PWM2L/CTPLS/PMD3/RB13	99
100	TDO/PWM4H/PMD4/RA10	100

FIGURE 1: 100-PIN DEVICE SCHEMATIC

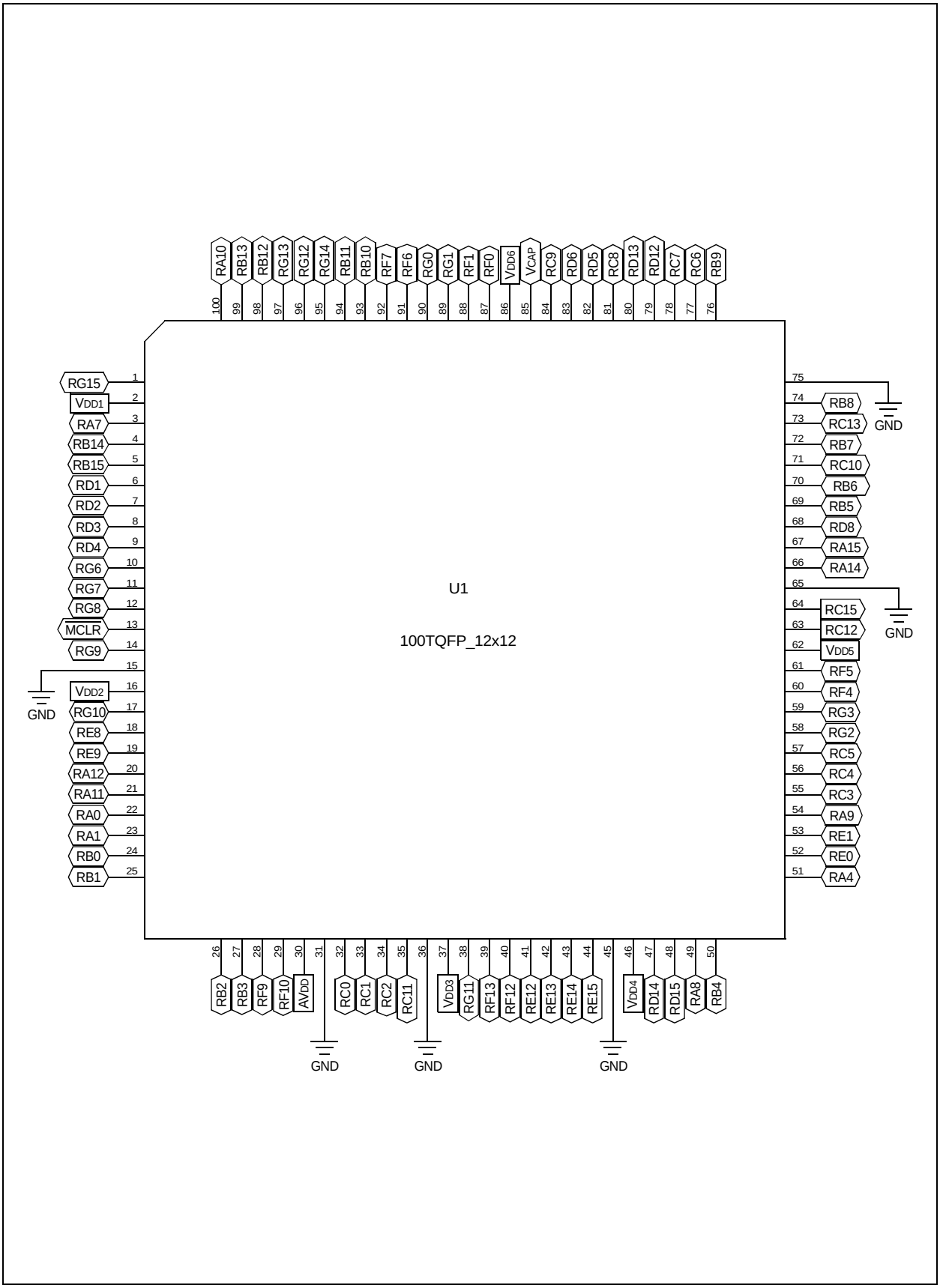
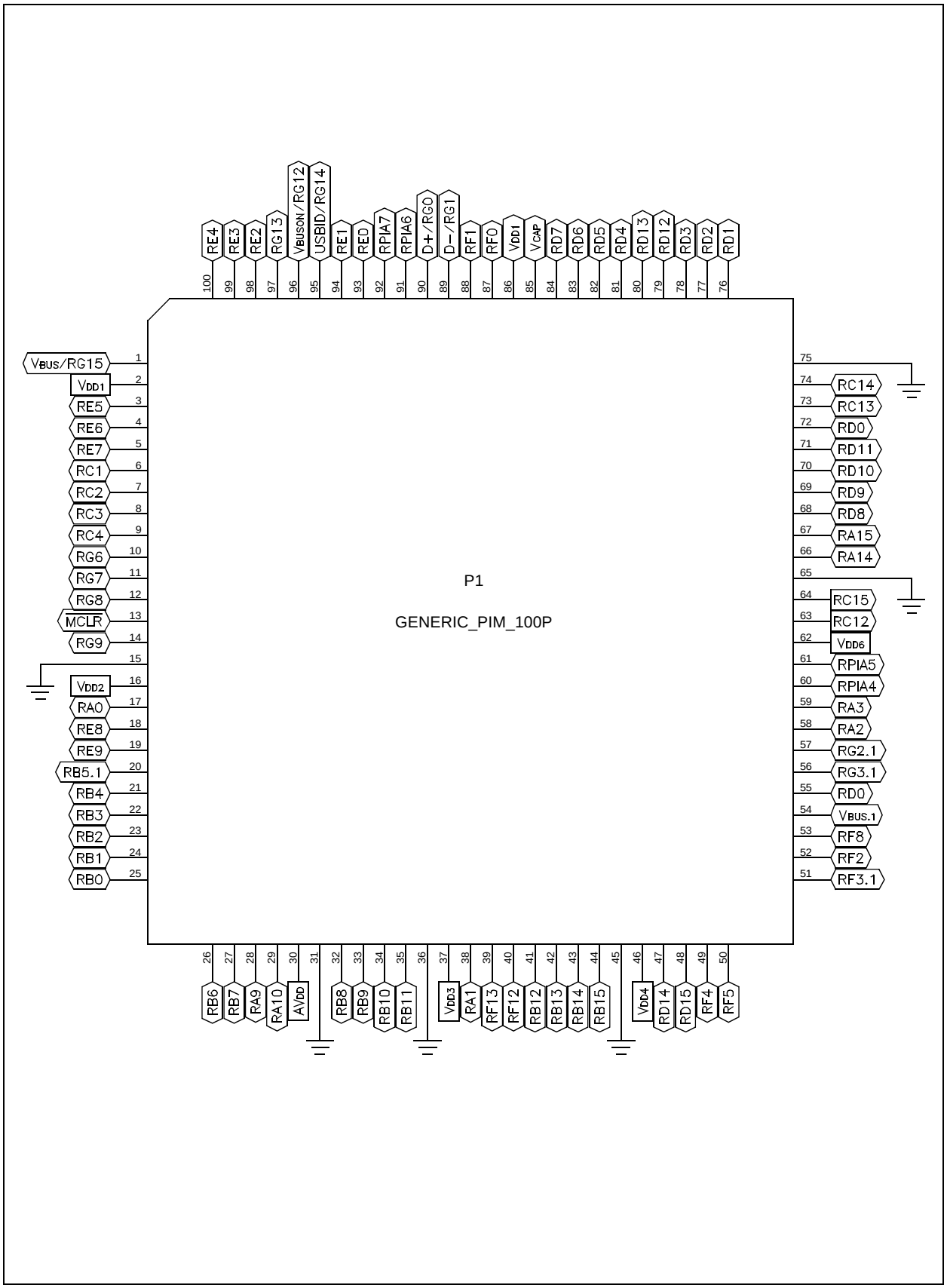


FIGURE 2: 100-PIN PIM SOCKET SCHEMATIC



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