PIC32MX570F512L 100-pin to 100-pin TQFP CAN-USB Plug-In Module (PIM) Information Sheet

OVERVIEW

The PIC32MX570F512L PIM is designed to demonstrate the capabilities of the PIC32MX570F512L family of devices using development boards such as the Explorer 16 Development Board, which supports 100-pin PIM interfaces, in conjunction with CAN and USB PICtail™ Plus Daughter Boards.

The PIC32MX570F512L is a high performance 32-bit CAN-USB microcontroller in a 100-pin TQFP package.

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

Figure 1 through Figure 3 provide schematics for the device and the PIM.

TABLE 1: 100-PIN TO 100-PIN PIM MAPPING

Device Pin #	PIC32MX570F512L Functional Description	PIM Pin #	Explorer 16 Development Board Signal Name
1	AN28/RG15	51	RF3/U1TX
2	VDD	2	VDD
3	AN22/RPE5/PMD5/RE5	3	RE5/PMD5
4	AN23/PMD6/RE6	4	RE6/PMD6
5	AN27/PMD7/RE7	5	RE7/PMD7
6	AN29/RPC1/RC1	6	RC1
7	AN30/RPC2/RC2	7	RC2
8	AN31/RPC3/RC3	8	RC3
9	RPC4/CTED7/RC4	9	RC4
10	AN16/C1IND/RPG6/SCK2/PMA5/RG6	10	RG6/PMA5/SCK2
11	AN17/C1INC/RPG7/PMA4/RG7	11	RG7/PMA4/SDI2
12	AN18/C2IND/RPG8/PMA3/RG8	12	RG8/PMA3/SDO2
13	$\overline{\text{MCLR}}$	13	$\overline{\text{MCLR}}$
14	AN19/C2INC/RPG9/PMA2/RG9	14	RG9/PMA2/$\overline{\text{SS2}}$
15	VSS	15	VSS
16	VDD	16	VDD
17	TMS/CTED1/RA0	17	RA0/TMS
18	AN32/RPE8/RE8	18	RE8/INT1
19	AN33/RPE9/RE9	19	RE9/INT2
20	AN5/C1INA/RPB5/RB5/VBUSON	20	RB5/AN5
21	AN4/C1INB/USBOEN/RB4	21	RB4/AN4
22	AN3/C2INA/RPB3/RB3/PGD3	22	RB3/AN3
23	AN2/CTCMP/C2INB/RPB2/CTED13/RB2/PGC3	23	RB2/$\overline{\text{SS1}}$/AN2
24	AN1/RPB1/CTED12/RB1/PGC1	24	RB1/AN1
25	AN0/RPB0/RB0/PGD1	25	RB0/AN0
26	AN6/RPB6/RB6/PGC2	26	RB6/AN6
27	AN7/RPB7/CTED3/RB7/PGD2	27	RB7/AN7
28	VREF-/PMA7/RA9	28	RA9/PMA7
29	VREF+/PMA6/RA10	29	RA10/PMA6

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

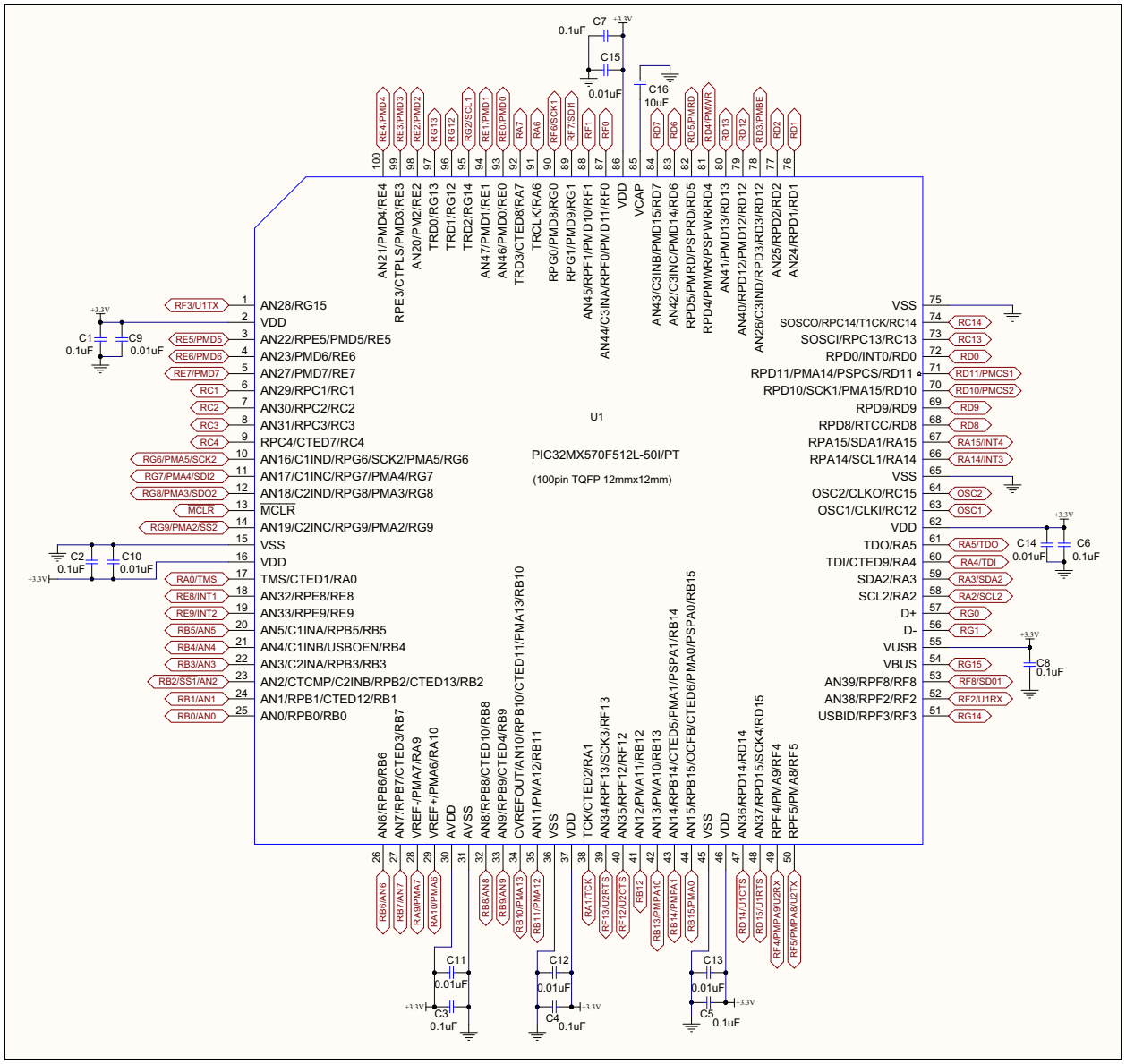
Device Pin #	PIC32MX570F512L Functional Description	PIM Pin #	Explorer 16 Development Board Signal Name
30	AVDD	30	AVDD
31	AVSS	31	AVSS
32	AN8/RPB8/CTED10/RB8	32	RB8/AN8
33	AN9/RPB9/CTED4/RB9	33	RB9/AN9
34	CVREFOUT/AN10/RPB10/CTED11/PMA13/RB10	34	RB10/PMA13
35	AN11/PMA12/RB11	35	RB11/PMA12
36	VSS	36	VSS
37	VDD	37	VDD
38	TCK/CTED2/RA1	38	RA1/TCK
39	AN34/RPF13/SCK3/RF13	39	RF13/$\overline{\text{U2RTS}}$
40	AN35/RPF12/RF12	40	RF12/$\overline{\text{U2CTS}}$
41	AN12/PMA11/RB12	41	RB12
42	AN13/PMA10/RB13	42	RB13/PMPA10
43	AN14/RPB14/CTED5/PMA1/PSPA1/RB14	43	RB14/PMPA1
44	AN15/RPB15/OCFB/CTED6/PMA0/PSPA0/RB15	44	RB15/PMA0
45	VSS	45	VSS
46	VDD	46	VDD
47	AN36/RPD14/RD14	47	RD14/$\overline{\text{U1CTS}}$
48	AN37/RPD15/SCK4/RD15	48	RD15/$\overline{\text{U1RTS}}$
49	RPF4/PMA9/RF4	49	RF4/PMPA9/U2RX
50	RPF5/PMA8/RF5	50	RF5/PMPA8/U2TX
51	USBID/RPF3/RF3	95	RG14
52	AN38/RPF2/RF2	52	RF2/U1RX
53	AN39/RPF8/RF8	53	RF8/SD01
54	VBUS	1	RG15
55	VUSB	62	VDD
56	D-	89	RG1
57	D+	90	RG0
58	SCL2/RA2	58	RA2/SCL2
59	SDA2/RA3	59	RA3/SDA2
60	TDI/CTED9/RA4	60	RA4/TDI
61	TDO/RA5	61	RA5/TDO
62	VDD	62	VDD
63	OSC1/CLKI/RC12	63	OSC1
64	OSC2/CLKO/RC15	64	OSC2
65	VSS	65	VSS
66	RPA14/SCL1/RA14	66	RA14/INT3
67	RPA15/SDA1/RA15	67	RA15/INT4
68	RPD8/RTCC/RD8	68	RD8
69	RPD9/RD9	69	RD9
70	RPD10/SCK1/PMA15/RD10	70	RD10/PMCS2
71	RPD11/PMA14/PSPCS/RD11	71	RD11/PMCS1
72	RPD0/INT0/RD0	72	RD0
73	SOSCI/RPC13/RC13	73	RC13

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

Device Pin #	PIC32MX570F512L Functional Description	PIM Pin #	Explorer 16 Development Board Signal Name
74	SOSCO/RPC14/T1CK/RC14	74	RC14
75	VSS	75	VSS
76	AN24/RPD1/RD1	76	RD1
77	AN25/RPD2/RD2	77	RD2
78	AN26/C3IND/RPD3/RD3	78	RD3/PMBE
79	AN40/RPD12/PMD12/RD12	79	RD12
80	AN41/PMD13/RD13	80	RD13
81	RPD4/PMWR/PSPWR/RD4	81	RD4/PMWR
82	RPD5/PMRD/PSPRD/RD5	82	RD5/PMRD
83	AN42/C3INC/PMD14/RD6	83	RD6
84	AN43/C3INB/PMD15/RD7	84	RD7
85	VCAP	85	No Connection
86	VDD	86	VDD
87	AN44/C3INA/RPF0/PMD11/RF0	87	RF0
88	AN45/RPF1/PMD10/RF1	88	RF1
89	RPG1/PMD9/RG1	54	RF7/SDI1
90	RPG0/PMD8/RG0	55	RF6/SCK1
91	TRCLK/RA6	91	RA6
92	TRD3/CTED8/RA7	92	RA7
93	AN46/PMD0/RE0	93	RE0/PMD0
94	AN47/PMD1/RE1	94	RE1/PMD1
95	TRD2/RG14	57	RG2/SCL1
96	TRD1/RG12	96	RG12
97	TRD0/RG13	97	RG13
98	AN20/PMD2/RE2	98	RE2/PMD2
99	RPE3/CTPLS/PMD3/RE3	99	RE3/PMD3
100	AN21/PMD4/RE4	100	RE4/PMD4
—	No Connection	56	RG3/SDA1

FIGURE 1: 100-PIN DEVICE SCHEMATIC



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FIGURE 2: 100-PIN PIM SOCKET SCHEMATIC

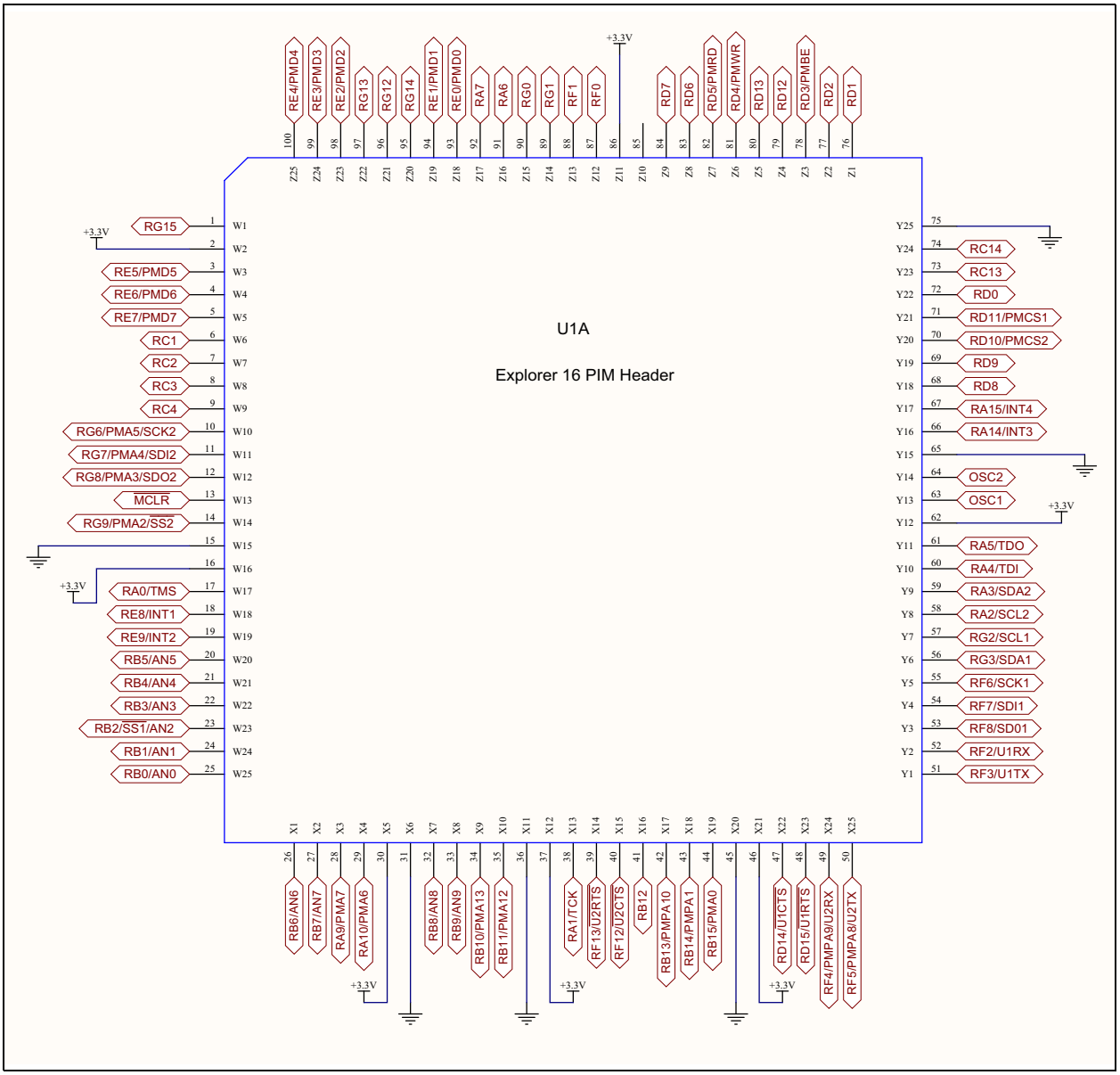
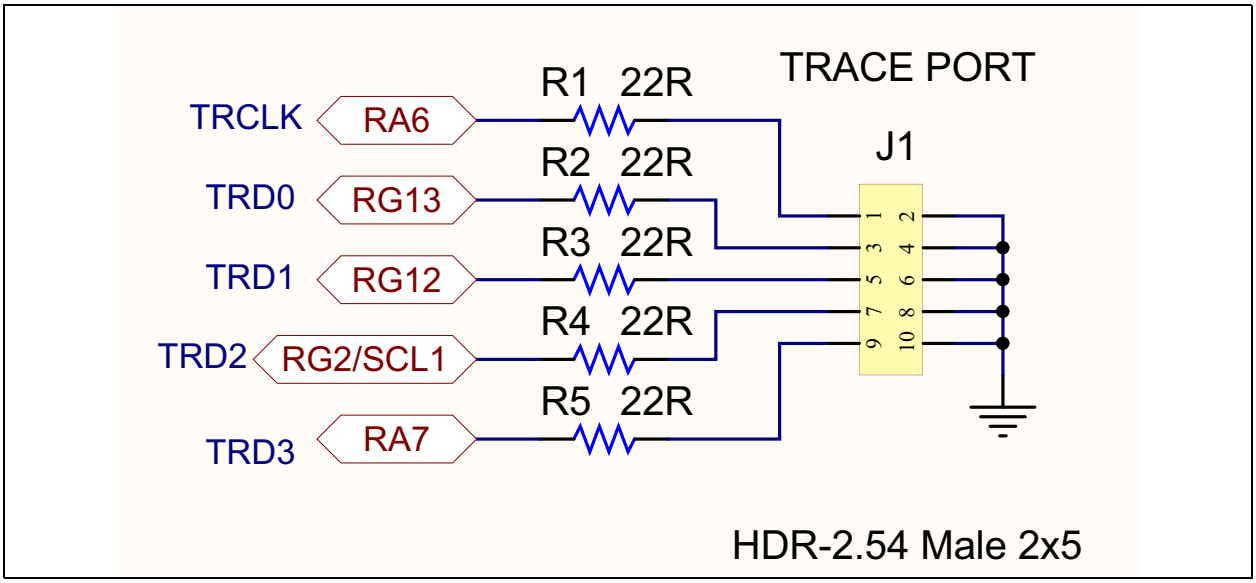


FIGURE 3: TRACE PORT SCHEMATIC



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