

Overview

The PIC32MM0256GPM064 Plug-In Module is designed to demonstrate the capabilities of the PIC32MM0256GPM064 family using the Explorer 16/32 Development Board. Refer to [Table 1](#) and [Table 2](#) for the mapping of the physical pins on the PIC32MM0256GPM064 to the 100 pins on the PIM connector. Not all predefined PIM signals found on the Explorer 16/32 Development Board are connected due to the limited number of I/O pins available.

Asia/Pacific

Australia - Sydney - 61-2-9868-6733
China - Beijing - 86-10-8569-7000
China - Chengdu - 86-28-8665-5511
China - Chongqing - 86-23-8980-9588
China - Dongguan - 86-769-8702-9880
China - Guangzhou - 86-20-8755-8029
China - Hangzhou - 86-571-8792-8115
China - Hong Kong SAR - 852-2943-5100
China - Nanjing - 86-25-8473-2460
China - Qingdao - 86-532-8502-7355
China - Shanghai - 86-21-3326-8000
China - Shenyang - 86-24-2334-2829
China - Shenzhen - 86-755-8864-2200
China - Wuhan - 86-27-5980-5300
China - Xiamen - 86-592-2388138
China - Xian - 86-29-8833-7252
China - Zhuhai - 86-756-3210040
India - Bangalore - 91-80-3090-4444
India - New Delhi - 91-11-4160-8631
India - Pune - 91-20-3019-1500
Japan - Tokyo - 81-3-6880-3770
Korea - Daegu - 82-53-744-4301
Korea - Seoul - 82-2-554-7200
Malaysia - Kuala Lumpur - 60-3-6201-9857
Malaysia - Penang - 60-4-227-8870
Philippines - Manila - 63-2-634-9065
Singapore - 65-6334-8870
Taiwan - Hsin Chu - 886-3-5778-366
Taiwan - Kaohsiung - 886-7-213-7830
Taiwan - Taipei - 886-2-2508-8600
Thailand - Bangkok - 66-2-694-1351

Americas

Atlanta - 678-957-9614
Austin - 512-257-3370
Boston - 774-760-0087
Chicago - 630-285-0071
Dallas - 972-818-7423
Detroit - 248-848-4000
Houston - 281-894-5983
Indianapolis - 317-773-8323
Los Angeles - 949-462-9523
New York - 631-435-6000
Phoenix - 480-792-7200
Raleigh - 919-844-7510
San Jose - 408-735-9110
Toronto - 905-695-1980

Europe

Austria - Wels - 43-7242-2244-39
Denmark - Copenhagen - 45-4450-2828
Finland - Espoo - 358-9-4520-820
France - Paris - 33-1-69-53-63-20
France - Saint Cloud - 33-1-30-60-70-00
Germany - Garching - 49-8931-9700
Germany - Haan - 49-2129-3766400
Germany - Heilbronn - 49-7131-67-3636
Germany - Karlsruhe - 49-721-625370
Germany - Munich - 49-89-627-144-0
Germany - Rosenheim - 49-8031-354-560
Israel - Ra'anana - 972-9-744-7705
Italy - Milan - 39-0331-742611
Italy - Padova - 39-049-7625286
Netherlands - Drunen - 31-416-690399
Norway - Trondheim - 47-7289-7561
Poland - Warsaw - 48-22-3325737
Romania - Bucharest - 40-21-407-87-50
Spain - Madrid - 34-91-708-08-90
Sweden - Gothenberg - 46-31-704-60-40
Sweden - Stockholm - 46-8-5090-4654
UK - Wokingham - 44-118-921-5800

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Table 1: PIC32MM0256GPM064 PIM Mapping⁽¹⁾

PIM Pin #	Device Pin #	PIC32MM0256GPM064 I/Os	Function	Explorer 16/32 Net Name
1	44	VBus via R5	USB Type-C™ VBus Sense Pin	P1_VBUS
2	5, 17, 23, 39, 57, 62	VDD + AVDD + VUSB3V3	VDD	VDD_PIM
3	6	RA13	LCD D5	P3_LCDD5
4	59	RA14	LCD D6	P4_LCDD6
5	58	RA15	LCD D7	P5_LCDD7
6	—	—	General Purpose I/O	P6
7	—	—	General Purpose I/O	P7
8	—	—	General Purpose I/O	P8
9	—	—	General Purpose I/O	P9
10	48	RB8/RP13	EEPROM (SCK) and mikroBUS™ A SCK	P10_SCKA
11	30	RA9/RP24	EEPROM (MISO) and mikroBUS A MISO	P11_MISOA
12	16	RB3/RP9	EEPROM (MOSI) and mikroBUS A MOSI	P12_MOSIA
13	9	MCLR	MCLR	P13_MCLR
14	15	RB2	mikroBUS A Chip Select	P14_CSAP48
15	4, 18, 24, 38	VSS + AVSS	VSS + AVSS	VSS
16	5, 17, 23, 39, 57, 62	VDD + AVDD + VUSB3V3	VDD	VDD_PIM
17	34	RD0	LED D3	P17_LED3
18	55	RC9/RP18	mikroBUS B Interrupt	P18_INTB/P22
19	21	RC2/RP19	mikroBUS B Reset	P19_RSTB
20	52	RC8/AN14	10k Potentiometer	P20_POT
21	8	RA11/AN18	TC1047A Temperature Sensor	P21_TEMP
22	55	RC9/RP18	General Purpose I/O	P22/P18_INTB
23	22	RC11	mikroBUS B Chip Select	P23_CSB
24	7	RA1/AN17	mikroBUS B Analog	P24_ANB
25	19	RC0/AN12	mikroBUS A Analog or USB Overcurrent Sense	P25_ANA_USBOC
26	11	RA0/PGE2	ICSP™ PGC	P26_PGC
27	12	RA1/PGED2	ICSP PGD	P27_PGD
28	—	—	General Purpose I/O	P28
29	—	—	General Purpose I/O	P29
30	5, 17, 23, 39, 57, 62	VDD + AVDD + VUSB3V3	VDD	VDD_PIM
31	—	—	VSS	VSS
32	37	RC5/AN15	USB Type-C CC2 Sense Line	P32_CC2
33	20	RC1/AN13	USB Type-C CC1 Sense Line	P33_CC1
34	—	—	General Purpose I/O	P34
35	—	—	General Purpose I/O	P35
36	—	—	—	VSS
37	5, 17, 23, 39, 57, 62	VDD + AVDD + VUSB3V3	VDD	VDD_PIM
38	53	RD1	LED D4	P38_LED4
39	—	—	General Purpose I/O	P39
40	—	—	General Purpose I/O	P40
41	—	—	General Purpose I/O	P41
42	—	—	General Purpose I/O	P42
43	—	—	General Purpose I/O	P43
44	45	RC10	LCD RS	P44_LCDDRS
45	4, 18, 24, 38	VSS + AVSS	VSS	VSS
46	5, 17, 23, 39, 57, 62	VDD + AVDD + VUSB3V3	VDD	VDD_PIM
47	14	RB1/RP7	General Purpose I/O	P47/P67_INTA
48	15	RB2	General Purpose I/O	P48/P14_CSA
49	10	RA6/URX	MCP2221A and mikroBUS B RX	P49_RXB
50	40	RC12/UITX	MCP2221A and mikroBUS B TX	P50_TXB

Note 1: Shaded cells denote "double duty" pins (where one microcontroller pin connects to two PIM pins).

Table 1: PIC32MM0256GPM064 PIM Mapping⁽¹⁾ (Continued)

PIM Pin #	Device Pin #	PIC32MM0256GPM064 I/Os	Function	Explorer 16/32 Net Name
51	50	RC6/RP23	mikroBUS A TX	P51_TXA
52	51	RC7/RP20	mikroBUS A RX	P52_RXA
53	27	RA8/SDO3	mikroBUS B MOSI	P53_MOSIB
54	1	RA7/RP21	mikroBUS B MISO	P54_MISOB
55	64	RA10/SCK3	mikroBUS B SCKB	P55_SCKB
56	46	RB7/SDA3	Shared I ² C SDA	P56_SDA
57	63	RB13/SCL3	Shared I ² C SCL	P57_SCL
58	32	RD2	LED D5	P58_LED5
59	33	RD3	LED D6	P59_LED6
60	31	RD4	LED D7	P60_LED7
61	—	—	LED D8	P61_LED8
62	5, 17, 23, 39, 57, 62	VDD + AVDD + VUSB3V3	VDD	VDD_PIM
63	25	OSC1	Primary Oscillator In	P63_OSCI
64	26	OSC2	Primary Oscillator Out	P64_OSOC
65	4, 18, 24, 38	VSS + AVSS	VSS	VSS
66	—	—	General Purpose I/O	P66
67	14	RB1/RP7	mikroBUS A Interrupt	P67_INTA/P47
68	—	—	General Purpose I/O	P68
69	—	—	General Purpose I/O	P69
70	—	—	General Purpose I/O	P70
71	—	—	General Purpose I/O	P71
72	3	RB15/PWMMA	mikroBUS A PWM	P72_PWMMA
73	28	SOSCI	Secondary Oscillator In	P73_SOSCI
74	29	SOSCO	Secondary Oscillator Out	P74_SOSCO
75	4, 18, 24, 38	VSS + AVSS	VSS	VSS
76	3	RB15/PWMMA	General Purpose I/O	P76/P72_PWMMA
77	—	—	General Purpose I/O	P77
78	13	RB0/RP6	mikroBUS B PWM	P78_PWMMA/P88
79	42	RC15	EEPROM Chip Select	P79_EECS
80	36	RC4	Switch S4	P80_S4
81	54	RA5	LCD E	P81_LCDE
82	—	—	LCD R/W	P82_LCDDRW
83	49	RB9	Switch S3	P83_S3
84	35	RC3	Switch S6	P84_S6
85	56	VCAP	VCAP, 10 uF Capacitor	P85_VDDCORE
86	—	—	ENVREG	P86_ENVREG
87	43	RB5	General Purpose I/O	P87/P95_RSTA
88	13	RB0/RP6	General Purpose I/O	P88/P78_PWMMA
89	60	D-	USB D- to Type-C/A Connectors	P89_USBDN
90	61	D+	USB D+ to Type-C/A Connectors	P90_USBDP
91	2	RB14/VBUSON	LED D9	P91_LED9/P96_VBUSON
92	47	RC13	LED D10, Switch S5	P92_S5_LED10
93	—	—	LCD D0	P93_LCDD0
94	—	—	LCD D1	P94_LCDD1
95	43	RB5	mikroBUS A Reset Pin	P95_RSTA/P87
96	2	RB14/VBUSON	VBus Output Enable for USB Type-C Conn	P96_VBUSON/P91_LED9
97	—	—	General Purpose I/O	P97
98	—	—	LCD D2	P98_LCDD2
99	—	—	LCD D3	P99_LCDD3
100	41	RC14	LCD D4	P100_LCDD4

Note 1: Shaded cells denote "double duty" pins (where one microcontroller pin connects to two PIM pins).

Table 2: PIC32MM0256GPM064 PIC® MCU Mapping⁽¹⁾

Device Pin #	PIC32MM0256GPM064 I/Os	Function	Explorer 16/32 Net Name
1	RA7/RP21	mikroBUS™ B MISO	P84_MISOB
2	RB14/VBUSON	LED D9	P91_LED9
2	RB14/VBUSON	Vbus Output Enable for USB Type-C™ Conn	P96_VBUSON
3	RB15/PWMA	mikroBUS A PWM	P72_PWMA
3	RB15/PWMA	General Purpose I/O	P76
4	15, 36, 45, 65, 75	AVSS	VSS
5	2, 16, 30, 37, 46, 62	VDD	VDD_PIM
6	RA13	LCD D5	P9_LCDD5
7	RA1/AN17	mikroBUS B Analog	P24_ANB
8	RA1/AN18	TC1047A Temperature Sensor	P21_TEMP
9	MCLR	MCLR	P13_MCLR
10	RA6/URX	MCP2221A and mikroBUS B RX	P49_RXB
11	RA0/PGED2	ICSP™ PGC	P26_PGC
12	RA1/PGED2	ICSP PGD	P27_PGD
13	RB0/RP6	mikroBUS B PWM	P78_PWM B
13	RB0/RP6	General Purpose I/O	P88
14	RB1/RP7	General Purpose I/O	P47
14	RB1/RP7	mikroBUS A Interrupt	P87_INTA
15	RB2	mikroBUS A Chip Select	P14_CSA
15	RB2	General Purpose I/O	P48
16	RB3/RP9	EEPROM (MOSI) and mikroBUS A MOSI	P12_MOSIA
17	2, 16, 30, 37, 46, 62	VDD	VDD_PIM
18	15, 36, 45, 65, 75	VSS	VSS
19	RC0/AN12	mikroBUS A Analog or USB Overcurrent Sense	P25_ANA_USB OC
20	RC1/AN13	USB Type-C CC1 Sense Line	P93_CC1
21	RC2/RP19	mikroBUS B Reset	P19_RSTB
22	RC11	mikroBUS B Chip Select	P23_CSB
23	2, 16, 30, 37, 46, 62	VDD	VDD_PIM
24	15, 36, 45, 65, 75	VSS	VSS
25	OSC1	Primary Oscillator In	P63_OSCI
26	OSC2	Primary Oscillator Out	P64_OS CO
27	RA8/SDO3	mikroBUS B MOSI	P53_MOSIB
28	SOSCI	SOSC In	P73_SOSCI
29	SOSCO	SOSC Out	P74_SOS CO
30	RA9/RP24	EEPROM (MISO) and mikroBUS A MISO	P11_MISOA
31	RD4	LED D7	P60_LED7
32	RD2	LED D5	P58_LED5
33	RD3	LED D6	P59_LED6
34	RD0	LED D3	P17_LED3
35	RC3	Switch S6	P84_S6
36	RC4	Switch S4	P80_S4
37	RC5/AN15	USB Type-C CC2 Sense Line	P32_CC2
38	15, 36, 45, 65, 75	VSS	VSS
39	2, 16, 30, 37, 46, 62	VDD	VDD_PIM
40	RC12/UTX	MCP2221A and mikroBUS B TX	P50_TXB
41	RC14	LCD D4	P100_LCDD4
42	RC15	EEPROM Chip Select	P79_FECS
43	RB5	General Purpose I/O	P87
43	RB5	mikroBUS A Reset Pin	P95_RSTA

Note 1: Shaded cells denote "double duty" pins (where one microcontroller pin connects to two PIM pins).

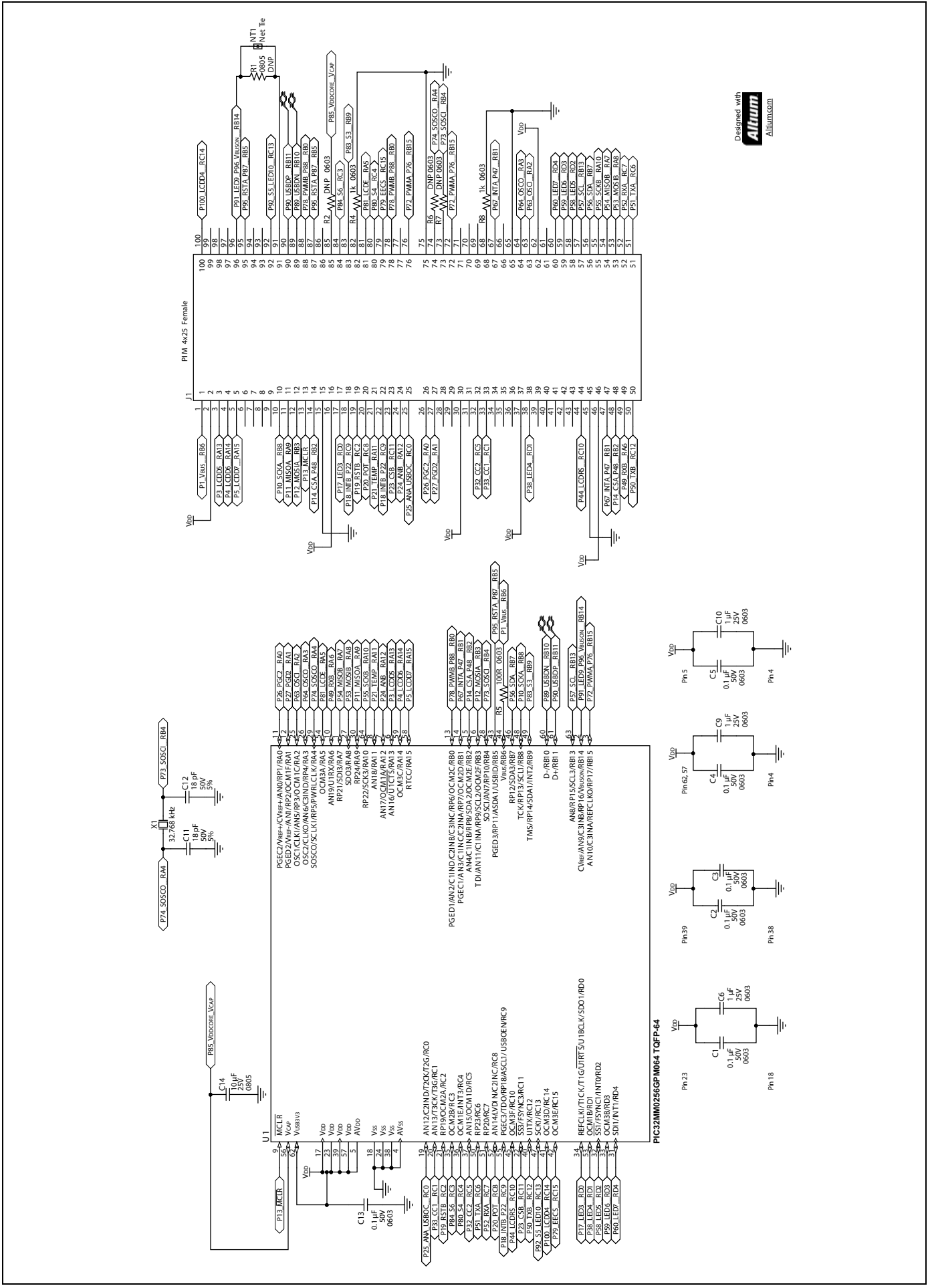
Table 2: PIC32MM0256GPM064 PIC® MCU Mapping⁽¹⁾ (Continued)

Device Pin #	PIC32MM0256GPM064 I/Os	Function	Explorer 16/32 Net Name
44	Vbus Via R5	USB Type-C™ Vbus Sense Pin	P1_VBUS
45	RC10	LCD RS	P44_LCDRS
46	RB7/SDA3	Shared I ² C SDA	P56_SDA
47	RC13	LED D10, Switch S5	P92_S5_LED10
48	RB8/RP13	EEPROM (SCK) and mikroBUS A SCK	P10_SCKA
49	RB9	Switch S3	P83_S3
50	RC6/RP23	mikroBUS A TX	P51_TXA
51	RC7/RP20	mikroBUS A RX	P52_RXA
52	RC8/AN14	10k Potentiometer	P20_POT
53	RD1	LED D4	P38_LED4
54	RA5	LCD E	P81_LCDE
55	RC9/RP18	mikroBUS B Interrupt	P18_INTB
55	RC9/RP18	General Purpose I/O	P22
56	VCAP	VCAP, 10 µF Capacitor	P85_VDDCORE
57	2, 16, 30, 37, 46, 62	VDD	VDD_PIM
58	RA15	LCD D7	P5_LCDD7
59	RA14	LCD D6	P4_LCDD6
60	D-	USB D- to Type-C/A Connectors	P89_USBDN
61	D+	USB D+ to Type-C/A Connectors	P90_USBDP
62	2, 16, 30, 37, 46, 62	VBUS3V3	VDD_PIM
63	RB13/SCL3	Shared I ² C SCL	P57_SCL
64	RA10/SCK3	mikroBUS B SCKB	P55_SCKB
—	6	General Purpose I/O	P6
—	7	General Purpose I/O	P7
—	8	General Purpose I/O	P8
—	9	General Purpose I/O	P9
—	28	General Purpose I/O	P28
—	29	General Purpose I/O	P29
—	34	General Purpose I/O	P34
—	35	General Purpose I/O	P35
—	39	General Purpose I/O	P39
—	40	General Purpose I/O	P40
—	41	General Purpose I/O	P41
—	42	General Purpose I/O	P42
—	43	General Purpose I/O	P43
—	61	LED D8	P61_LED8
—	66	General Purpose I/O	P66
—	68	General Purpose I/O	P68
—	69	General Purpose I/O	P69
—	70	General Purpose I/O	P70
—	71	General Purpose I/O	P71
—	77	General Purpose I/O	P77
—	82	LCD RW	P82_LC DRW
—	86	VDD	P86_ENVREG
—	93	LCD D0	P93_LCDD0
—	94	LCD D1	P94_LCDD1
—	97	General Purpose I/O	P97
—	98	LCD D2	P98_LCDD2
—	99	LCD D3	P99_LCDD3

Note 1: Shaded cells denote "double duty" pins (where one microcontroller pin connects to two PIM pins).

PIC32MM0256GPM064 Plug-In Module (PIM) Information Sheet

Schematic Revision 1.0



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