

## dsPIC33FJ16GP102 PIM Information Sheet

The dsPIC33FJ16GP102 plug-in module (PIM) (Part No. DM3300029) is designed to demonstrate the capabilities of the dsPIC33FJ16GP102 family of general purpose devices using the Explorer 16 Development Board and the PICtail™ Plus daughter boards.

The dsPIC33FJ16GP102 device is a high-performance 16-bit digital signal controller within a small 28-pin 6x6 mm QFN package.

The dsPIC33FJ16GP102 device is equipped with Peripheral Pin Select (PPS), which allows many of the digital peripherals to be remapped to use any number of pins on the device.

The PIM takes advantage of PPS by using zero ohm resistors to connect the I/O to the 100-pin Explorer 16 Development Board. Simply removing the zero ohm resistors and using the test points associated with each I/O pin (i.e., RP0, RP1, etc.), allows the designer to reroute the pin to any of the available pins on the Explorer 16 Development Board. This capability enables easier and faster design times.

Table 1 shows the mapping between the Explorer 16 functions and the device pins.

**TABLE 1: 28-PIN TO 100-PIN PINOUT**

Device Pin #	dsPIC33FJ16GP102	PIM Pin #	Functional Description
1	PGED1/AN2/C2INA/C1INC/CTCMP/RP0/CN4 RB0	79	EEPROM CS
2	PGEC1/AN3/CVREFIN/CVREFOUT/C2INB/C1IND/RP1/CN5/RB1	83	SW3
3	AN4/C3INC/C2INC/RP2/CN6/RB2	21	Temp Sensor
4	AN5/C3IND/C2IND/RP3/CN7/RB3	20	POT
5	Vss	15	Ground reference for logic and I/O pins
6	OSCI/CLKI/CN30/RA2	63	OSCI
7	OSCO/CLKO/CN29/RA3	64	OSCO
8	PGED3/SOSCI/RP4/CN1/RB4	27	Debug
9	PGEC3/SOSCO/T1CK/CN0/RA4	26	Debug
10	VDD	16	Positive supply for peripheral logic and I/O pins
11	ASDA1/RP5/CN27/RB5	49	U1RX
12	ASCL1/RP6/CN24/RB6	50	U1TX
13	SCK1/INT0/RP7/CN23/RB7	10	EEPROM_SCK
14	SCL1/SDO1/RP8/CN22/RB8	12	EEPROM SDO
15	SDA1/SDI1/RP9/CN21/RB9	11	EEPROM SDI
16	Vss	36	Ground reference for logic and I/O pins
17	VCAP	—	CPU logic filter capacitor connection
18	RP10/CN16/RB10	39	U1RTS
19	RP11/CN15/RB11	40	U1CTS
20	RP12/CN14/RB12	17	LED D3
21	RP13/CN13/RB13	38	LED D4
22	RTCC//RP14/CN12/RB14	58	LED D5
23	RP15/CN11/RB15	59	LED D6
24	AVss	31	Ground reference for analog modules
25	AVDD	30	Positive supply for analog modules
26	MCLR	13	Master Clear
27	PGED2/AN0/C3INB/C1INA/CTED1/CN2/RA0	84	SW6
28	PGEC2/AN1/C3INA/C1INB/CTED2/CN3/RA1	—	Test point only; not connected to header

FIGURE 1: 100-PIN HEADER SCHEMATIC

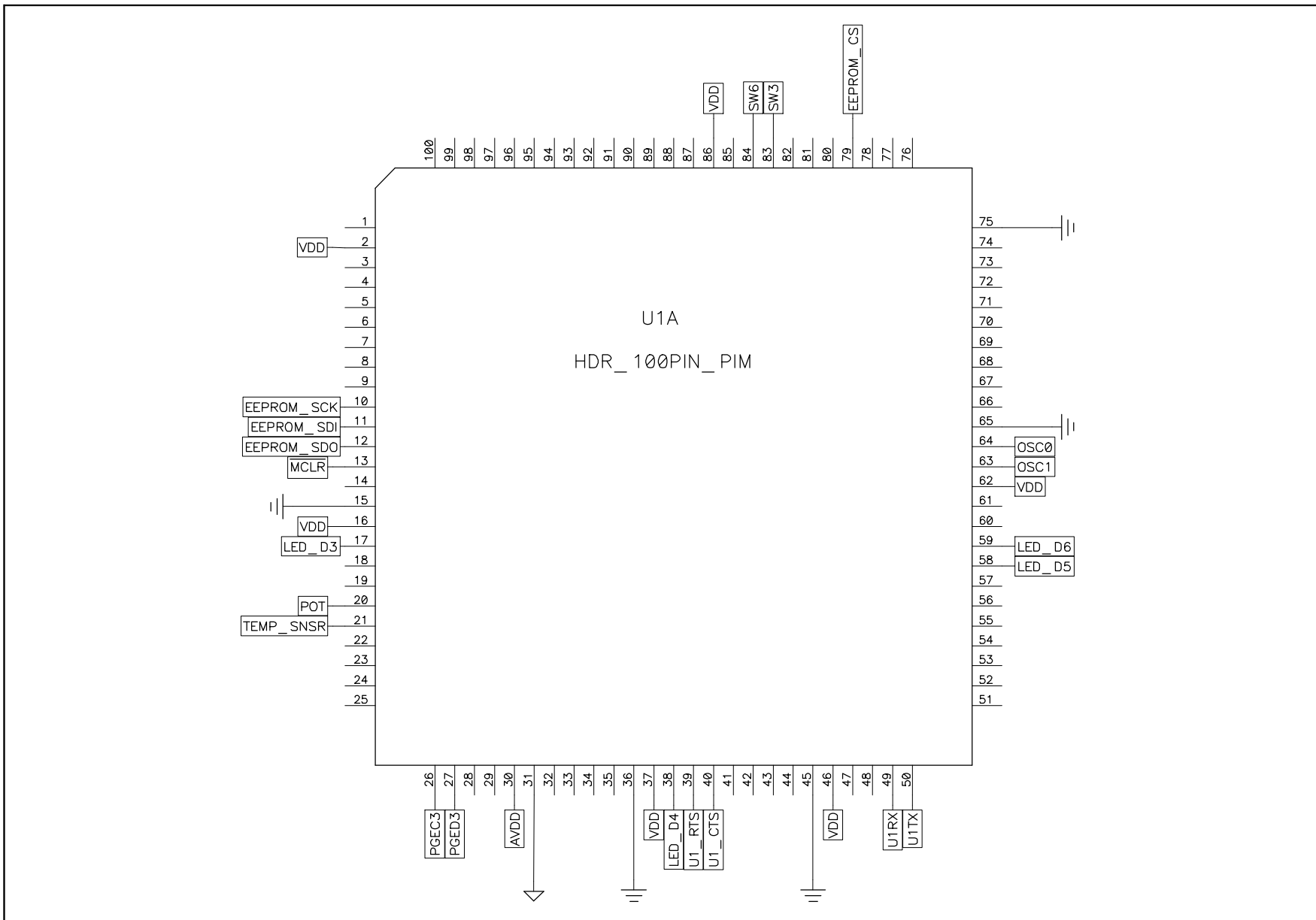
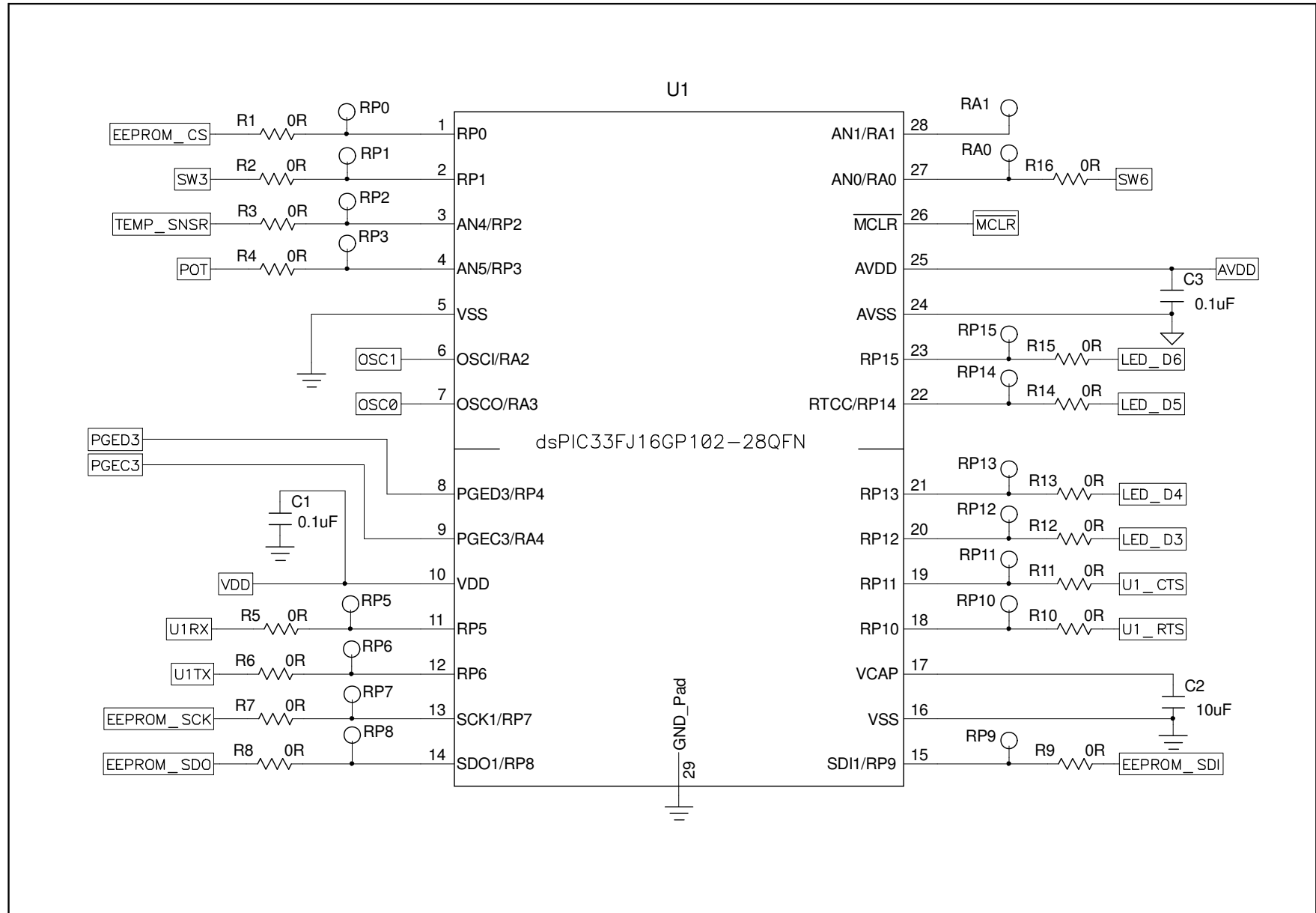


FIGURE 2: 28-PIN DEVICE SCHEMATIC



# dsPIC33FJ16GP102

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NOTES:

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