



MICROCHIP

dsPIC33FJ16GS504

dsPIC33FJ16GS504 PIM Information Sheet

The dsPIC33FJ16GS504 PIM is designed to demonstrate the capabilities of the dsPIC33FJ16GS504 family of Switch Mode Power Supply devices using the Explorer 16 Development Board and the PICtail™ Plus daughter boards.

The dsPIC33FJ16GS504 is a high-performance 16-bit Digital Signal Controller within a small 44-pin QFN package.

The dsPIC33FJ16GS504 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 the 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., Pin 1, Pin 2 and so on), allows the designer to re-route 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: 44-PIN TO 100-PIN PINOUT

Device Pin Number	dsPIC33FJ16GS504	PIM Pin Number	Functional Description
1	PGC1/EMUC1/SDA/RP7/CN7/RB7	1	SDA/RX
2	RP20/CN20/RC4	58	LED5
3	RP21/CN21/RC5	59	LED6
4	RP22/RN22/RC6	60	LED7
5	RP19/CN19/RC3	61	LED8
6	Vss	15	
7	Vcap/VDDCORE	85	
8	TMS/PWM3H/RP11/CN11/RB11	19	PWM3H
9	TCK/PWM3L/RP12/CN12/RB12	22	LOAD
10	PWM2H/RP13/CN13/RB13	24	PWM2H
11	PWM2L/RP14/CN14/RB14	25	PWM2L
12	PWM1H/RA4	28	PWM1H
13	PWM1L/RA3	29	PWM1L
14	RP16/CN16/RC0		
15	RP29/CN29/RC13		
16	AVss	31	
17	AVDD	30	
18	MCLR	13	
19	RP27/CN27/RC11		
20	RP28/CN28/RC12		
21	AN0/CMP1A/RA0	34	Current Sense 1
22	AN1/CMP1B/RA1	35	Voltage FB1

Device Pin Number	dsPIC33FJ16GS504	PIM Pin Number	Functional Description
23	AN2/CMP1C/CMP2A/RA2	56	Current Sense 2
24	AN3/CMP1D/CMP2B/RP0/CN0/RB0	57	Voltage FB2
25	AN4/CMP2C/CMP3A/RP9/CN9/RB9	66	VIN_Feedback
26	AN5/CMP2D/CMP3B/RP10/CN10/RB10	20	Exp_POT
27	AN11/RP25/CN25/RC9		
28	AN10/RP26/CN26/RC10	68	POT
29	VDD	62	
30	Vss	65	
31	AN8/CMP4C/RP17/CN17/RC1	69	Current Sense Boost
32	OSCI/CLKI/AN6/CMP3C/CMP4A/RP1/CN1/RB1	63	OSCI
33	OSCO/CLKO/AN7/CMP3D/CMP4B/RP2/CN2/RB2	64	OSCO
34	PGD2/EMUD2/DACOUT/PWM4H/INT0/RP3/CN3/RB3	27	PGD2
35	PGC2/EMUC2/PWM4L/RP4/CN4/RB4	26	PGC2
36	AN9/EXTREF/CMP4D/RP18/CN18/RC2	78	Voltage Feedback Boost
37	RP23/CN23/RC7		
38	RP24/CN24/RC8		
39	Vss	75	
40	VDD	46	
41	PGD3/EMUD3/RP8/CN8/RB8	83	Switch
42	PGC3/EMUC3/RP15/CN15/RB15	95	PMB AUX2
43	TDO/RP5/CN5/RB5	96	PMB AUX1
44	PGD1/EMUD1/TDI/SCL/RP6/CN6/RB6	97	SCL/TX

FIGURE 1: 100-PIN HEADER SCHEMATIC

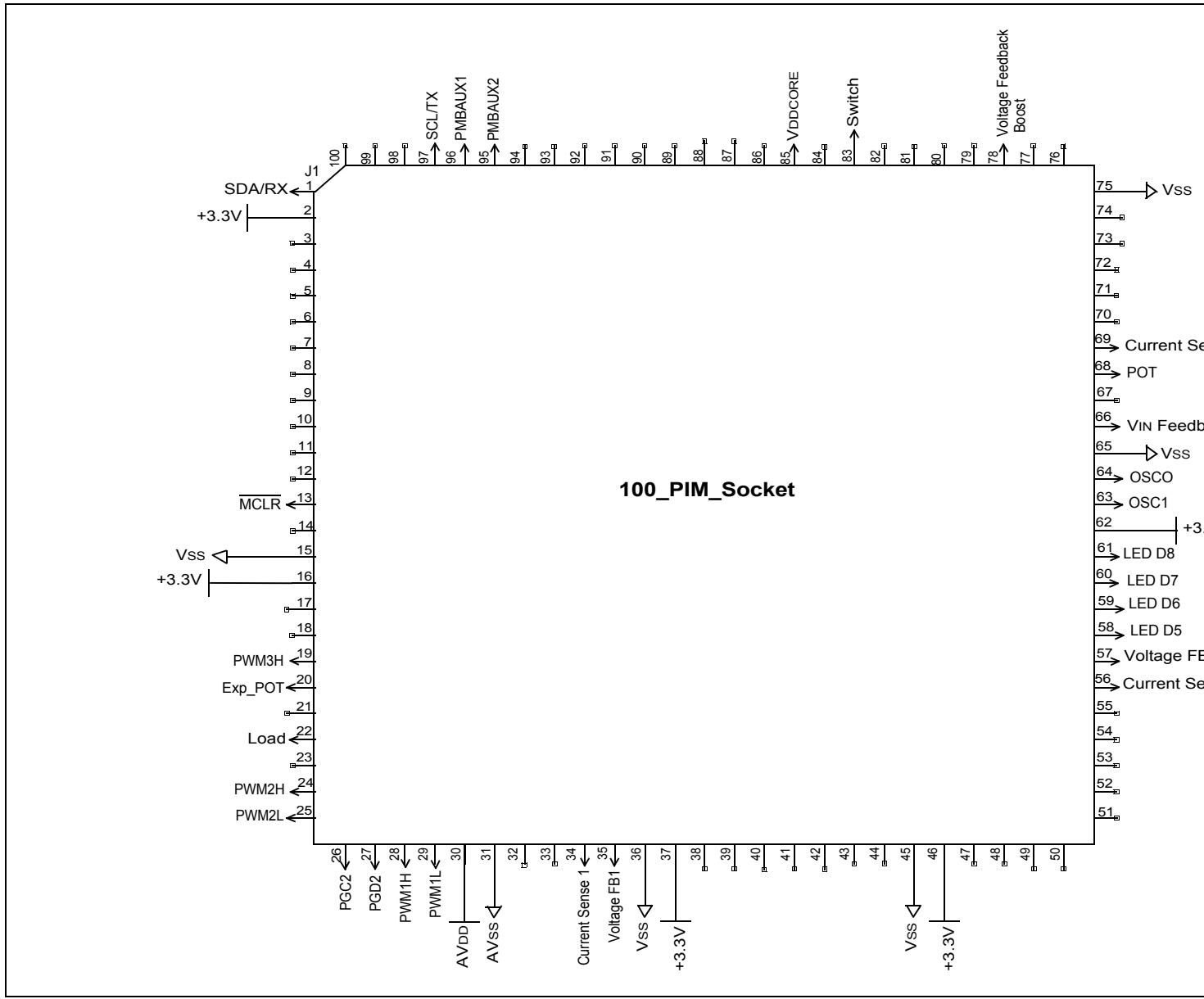
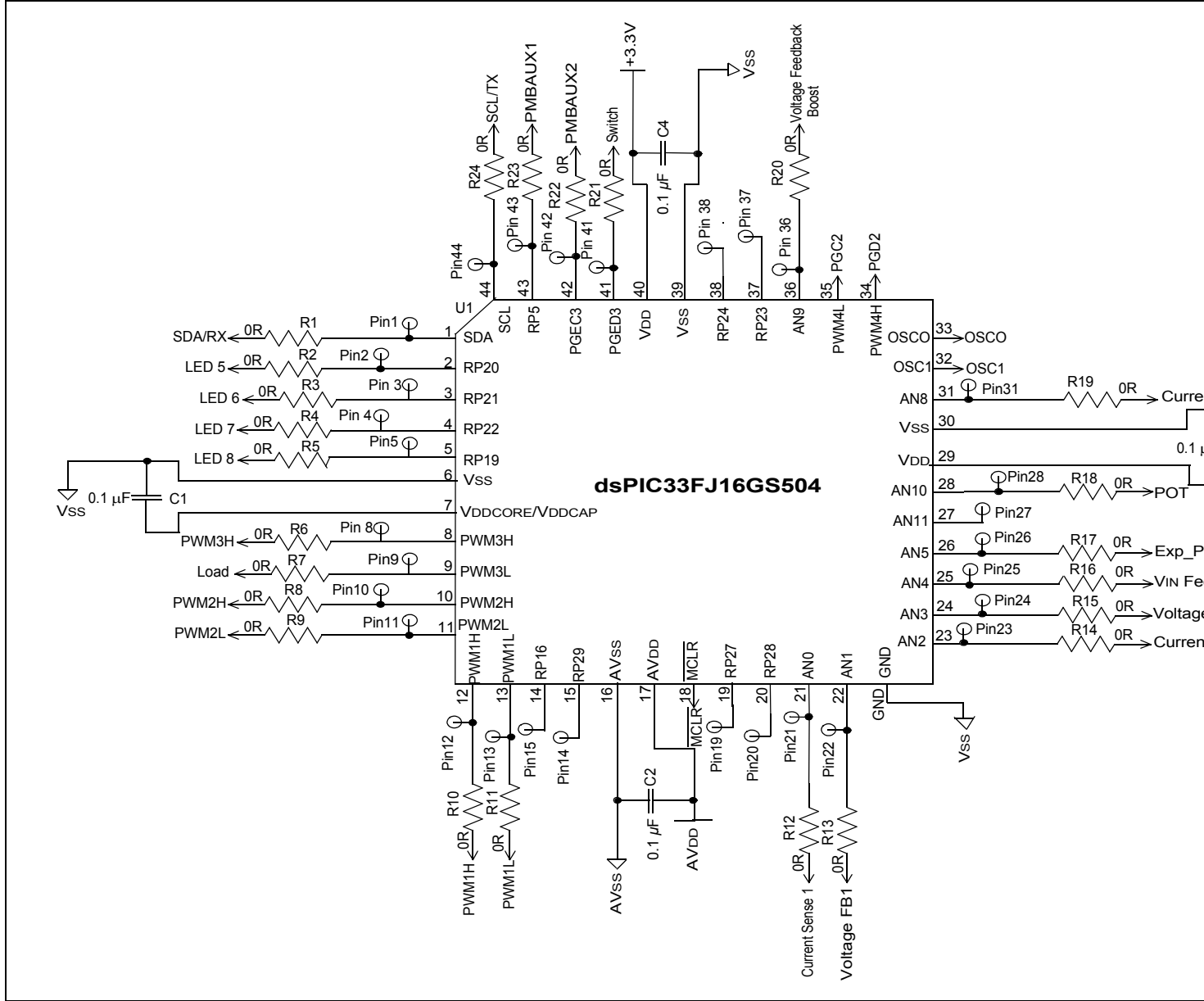


FIGURE 2: 44-PIN DEVICE SCHEMATIC





WORLDWIDE SALES AND SERVICE

AMERICAS

Corporate Office
2355 West Chandler Blvd.
Chandler, AZ 85224-6199
Tel: 480-792-7200
Fax: 480-792-7277
Technical Support:
<http://support.microchip.com>
Web Address:
www.microchip.com

Atlanta

Duluth, GA
Tel: 678-957-9614
Fax: 678-957-1455

Boston

Westborough, MA
Tel: 774-760-0087
Fax: 774-760-0088

Chicago

Itasca, IL
Tel: 630-285-0071
Fax: 630-285-0075

Dallas

Addison, TX
Tel: 972-818-7423
Fax: 972-818-2924

Detroit

Farmington Hills, MI
Tel: 248-538-2250
Fax: 248-538-2260

Kokomo

Kokomo, IN
Tel: 765-864-8360
Fax: 765-864-8387

Los Angeles

Mission Viejo, CA
Tel: 949-462-9523
Fax: 949-462-9608

Santa Clara

Santa Clara, CA
Tel: 408-961-6444
Fax: 408-961-6445

Toronto

Mississauga, Ontario,
Canada
Tel: 905-673-0699
Fax: 905-673-6509

ASIA/PACIFIC

Asia Pacific Office
Suites 3707-14, 37th Floor
Tower 6, The Gateway
Harbour City, Kowloon
Hong Kong
Tel: 852-2401-1200
Fax: 852-2401-3431

Australia - Sydney

Tel: 61-2-9868-6733
Fax: 61-2-9868-6755

China - Beijing

Tel: 86-10-8528-2100
Fax: 86-10-8528-2104

China - Chengdu

Tel: 86-28-8665-5511
Fax: 86-28-8665-7889

China - Hong Kong SAR

Tel: 852-2401-1200
Fax: 852-2401-3431

China - Nanjing

Tel: 86-25-8473-2460
Fax: 86-25-8473-2470

China - Qingdao

Tel: 86-532-8502-7355
Fax: 86-532-8502-7205

China - Shanghai

Tel: 86-21-5407-5533
Fax: 86-21-5407-5066

China - Shenyang

Tel: 86-24-2334-2829
Fax: 86-24-2334-2393

China - Shenzhen

Tel: 86-755-8203-2660
Fax: 86-755-8203-1760

China - Wuhan

Tel: 86-27-5980-5300
Fax: 86-27-5980-5118

China - Xiamen

Tel: 86-592-2388138
Fax: 86-592-2388130

China - Xian

Tel: 86-29-8833-7252
Fax: 86-29-8833-7256

China - Zhuhai

Tel: 86-756-3210040
Fax: 86-756-3210049

ASIA/PACIFIC

India - Bangalore
Tel: 91-80-4182-8400
Fax: 91-80-4182-8422

India - New Delhi

Tel: 91-11-4160-8631
Fax: 91-11-4160-8632

India - Pune

Tel: 91-20-2566-1512
Fax: 91-20-2566-1513

Japan - Yokohama

Tel: 81-45-471- 6166
Fax: 81-45-471-6122

Korea - Daegu

Tel: 82-53-744-4301
Fax: 82-53-744-4302

Korea - Seoul

Tel: 82-2-554-7200
Fax: 82-2-558-5932 or
82-2-558-5934

Malaysia - Kuala Lumpur

Tel: 60-3-6201-9857
Fax: 60-3-6201-9859

Malaysia - Penang

Tel: 60-4-227-8870
Fax: 60-4-227-4068

Philippines - Manila

Tel: 63-2-634-9065
Fax: 63-2-634-9069

Singapore

Tel: 65-6334-8870
Fax: 65-6334-8850

Taiwan - Hsin Chu

Tel: 886-3-572-9526
Fax: 886-3-572-6459

Taiwan - Kaohsiung

Tel: 886-7-536-4818
Fax: 886-7-536-4803

Taiwan - Taipei

Tel: 886-2-2500-6610
Fax: 886-2-2508-0102

Thailand - Bangkok

Tel: 66-2-694-1351
Fax: 66-2-694-1350

EUROPE

Austria - Wels
Tel: 43-7242-2244-39
Fax: 43-7242-2244-393

Denmark - Copenhagen

Tel: 45-4450-2828
Fax: 45-4485-2829

France - Paris

Tel: 33-1-69-53-63-20
Fax: 33-1-69-30-90-79

Germany - Munich

Tel: 49-89-627-144-0
Fax: 49-89-627-144-44

Italy - Milan

Tel: 39-0331-742611
Fax: 39-0331-466781

Netherlands - Drunen

Tel: 31-416-690399
Fax: 31-416-690340

Spain - Madrid

Tel: 34-91-708-08-90
Fax: 34-91-708-08-91

UK - Wokingham

Tel: 44-118-921-5869
Fax: 44-118-921-5820

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Daughter Cards & OEM Boards](#) category:

Click to view products by [Microchip](#) manufacturer:

Other Similar products are found below :

[ADZS-21262-1-EZEXT](#) [27911](#) [SPC56ELADPT144S](#) [TMDXRM46CNCD](#) [DM160216](#) [EV-ADUCM350GPIOHZ](#) [EV-ADUCM350-BIO3Z](#)
[ATSTK521](#) [1130](#) [MA160015](#) [MA180033](#) [MA240013](#) [MA240026](#) [MA320014](#) [MA330014](#) [MA330017](#) [TLK10034SMAEVM](#) [MIKROE-](#)
[2152](#) [MIKROE-2154](#) [MIKROE-2381](#) [TSSOP20EV](#) [DEV-11723](#) [MIKROE-1108](#) [MIKROE-1516](#) [SPS-READER-GEVK](#) [AC244049](#)
[AC244050](#) [AC320004-3](#) [2077](#) [ATSMARTCARD-XPRO](#) [EIC - Q600 -230](#) [ATZB-212B-XPRO](#) [SPC560PADPT100S](#) [SPC560BADPT64S](#)
[MA180018](#) [EIC - Q600 -220](#) [AC164134-1](#) [BOB-12035](#) [STM8/128-D/RAIS](#) [AC164127-6](#) [AC164127-4](#) [AC164134-3](#) [AC164156](#) [MA320021](#)
[MA320024](#) [DFR0285](#) [DFR0312](#) [DFR0356](#) [MA320023](#) [MIKROE-2564](#)