

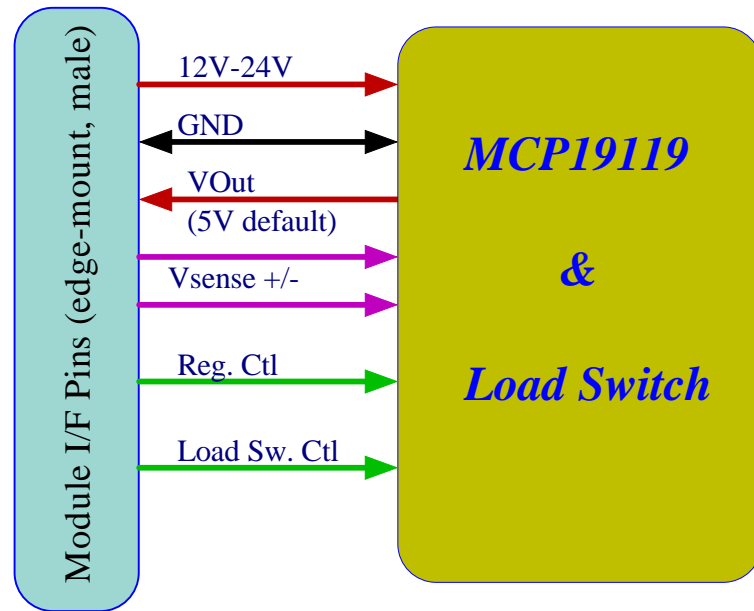
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Sheet	Description
1	Table of Contents and Block Diagram
2	PM-PD I/F

Revision History

Revision	Date	Revision Summary	Author
00A	20170411	Initial release	Carl Johnson
01A	201705xx	Review release	Carl Johnson
1	20170929	Final release	Jennifer Hancock
2	20180131	Swap PMPD i/f signals, remove Q3, pop Pickit, moved VSEN ckt to PD_REG, replaced C7 & C12 with TH caps. Added rework wire onto VSEN_P.	Jennifer Hancock
2.1	20180914	Shorted GPA6 to GPB7 (TP4) on MCP19119. Also shorted GPA7 to GPB6 (TP1) on MCP19119.	Jennifer Hancock
4.0	20200420	Wired in Rev B1 changes. Changed i/f header to HM by default. Release to DevTools	Mick Davis
5	20210126	RoHS BOM Changes.	Mick Davis

Block Diagram



I/F Pinout				
Pin	Name	Type	Logic	
2	VIN	P		B A S I C
3	VIN	P		
13	VOUT	P		
14	VOUT	P		
1	GND	P		
15	GND	P		L o a d S w i t c h
4	FAULTn_OUT	Open Drain	Active Low	
5	VBUS_SRC_EN	Input	Active High	
9	DC/DC_EN	Output	Active High	A d v a n c e d
7	VBUS_DISCHG	Input	Active High	
10	FRS_EN	Input	Active High	
12	ISENSE	Input		
8	VSEL0/EN_15V/SCL	Input	Active High	
11	VSEL1/EN_20V/SDA/ADC	Input	Active High	
6	VSEL2/EN_9V/ALERT_n	Input	Active Low	

Notes	
1	All resistors are 1% unless specified otherwise
2	Shunt jumper default selections are marked with an asterisk [*].

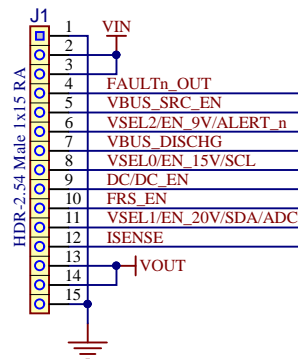
PM-PD I/F 12V-24V, 3A

3V3 4.7K PU on Target unit

For Horizontal Mount:

- Populate -HM support pin
- Replace PMPD I/F header with Vertical Samtec P/N TSW-115-07-G-S and solder through Top Side.

-HM support pin



Firmware Configuration Modes

One Hot Encoding (default)

EN	V2	V1	V0	PD_REG
0	x	x	x	0V
1	0	0	0	5V
1	0	0	1	15V
1	0	1	0	20V
1	1	0	0	9V

DAC Mode

EN	V1	PD_REG
0	x	High Z
1	<0.4V	0V
1	>0.4V and <2.5V	8.4*V1

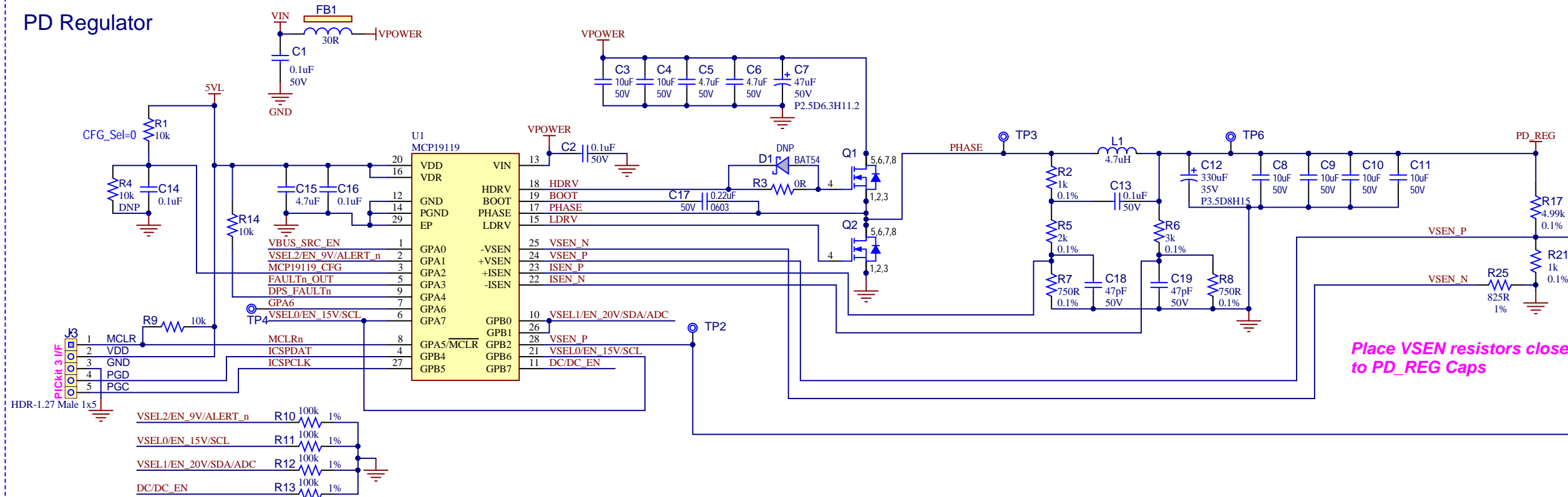
EN = DC/DC_EN
V2 = VSEL2
V1 = VSEL1
V0 = VSEL0

Notes:

1. V2, V0 not used
2. Maximum input voltage at V1 is 2.5V
3. Output voltage will not increase above 21.0V

Note: Actual voltage is set approximately 350mV above nominal voltage to help offset IR voltage drop on the cable

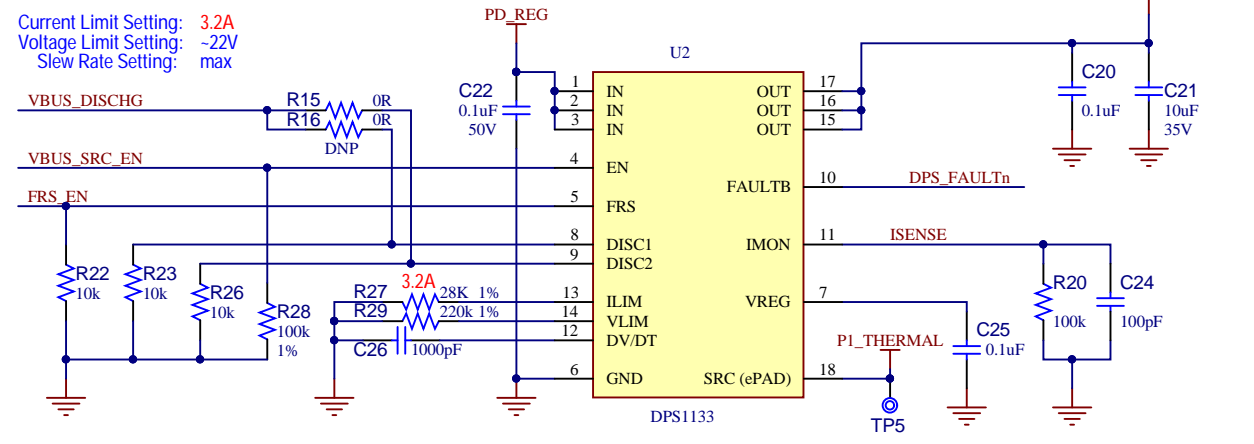
PD Regulator



Place VSEN resistors close to PD_REG Caps

Load Switch

Current Limit Setting: 3.2A
Voltage Limit Setting: -22V
Slew Rate Setting: max



Drawn By: Mick Davis		
Engineer: Mick Davis		
PartNumber: 11034	Project Title PM-PD	Variant: [No Variations]
Sheet Title PM-PD I/F		
Size Tabloid	SCH #: 03-00066	Rev:5
File: 11034-PM-PD.SchDoc	PCB #: 04-11034	Date: 2/11/2021
		Rev:5
		Sheet 2 of 2
		Designed with

LABEL1
Product number/revision
Serial number
PCBA LABEL 18X6mm