Revision History				
Rev	ECN #	Approved Date	Approved by	Notes
N/A	N/A	N/A	N/A	N/A

Cannot open file C:\Users\a0741410\Documents\AAA TI Files\DALLAS Assignment\Wearables TI Design\Block_diagram_pmp11311.png

Orderable: N/A		Designed for: Public Release	Mod. Date: 11/30/2015
TID #: PMP11311		Project Title: PMP11311	
Number: PMP11311	Rev: E1	Sheet Title:	
SVN Rev: Not in version control		Assembly Variant: Variant name not interpreted	Sheet: 1 of 3
Drawn By:		File: CoverSheet.SchDoc	Size: B
Engineer: Albert Marco		Contact: http://www.ti.com/support	

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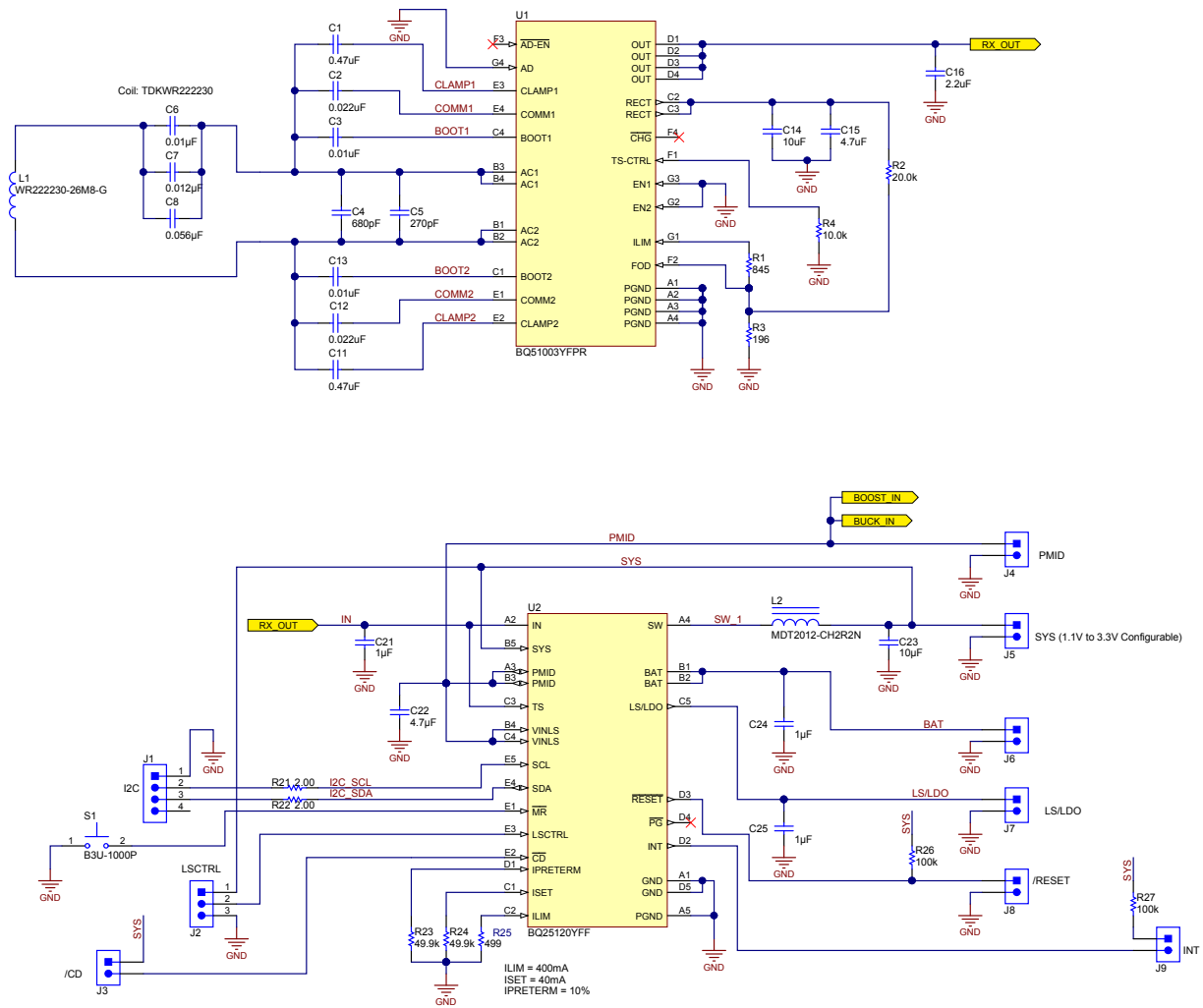

Orderable: N/A		Designed for: Public Release	Mod. Date: 11/17/2015
TID #: PMP11311		Project Title: PMP11311	
Number: PMP11311	Rev: E1	Sheet Title:	
SVN Rev: Not in version control		Assembly Variant: Variant name not interpreted	Sheet: 2 of 3
Drawn By:		File: PMP11311_charger.SchDoc	Size: B
Engineer: Albert Marco		Contact: http://www.ti.com/support	

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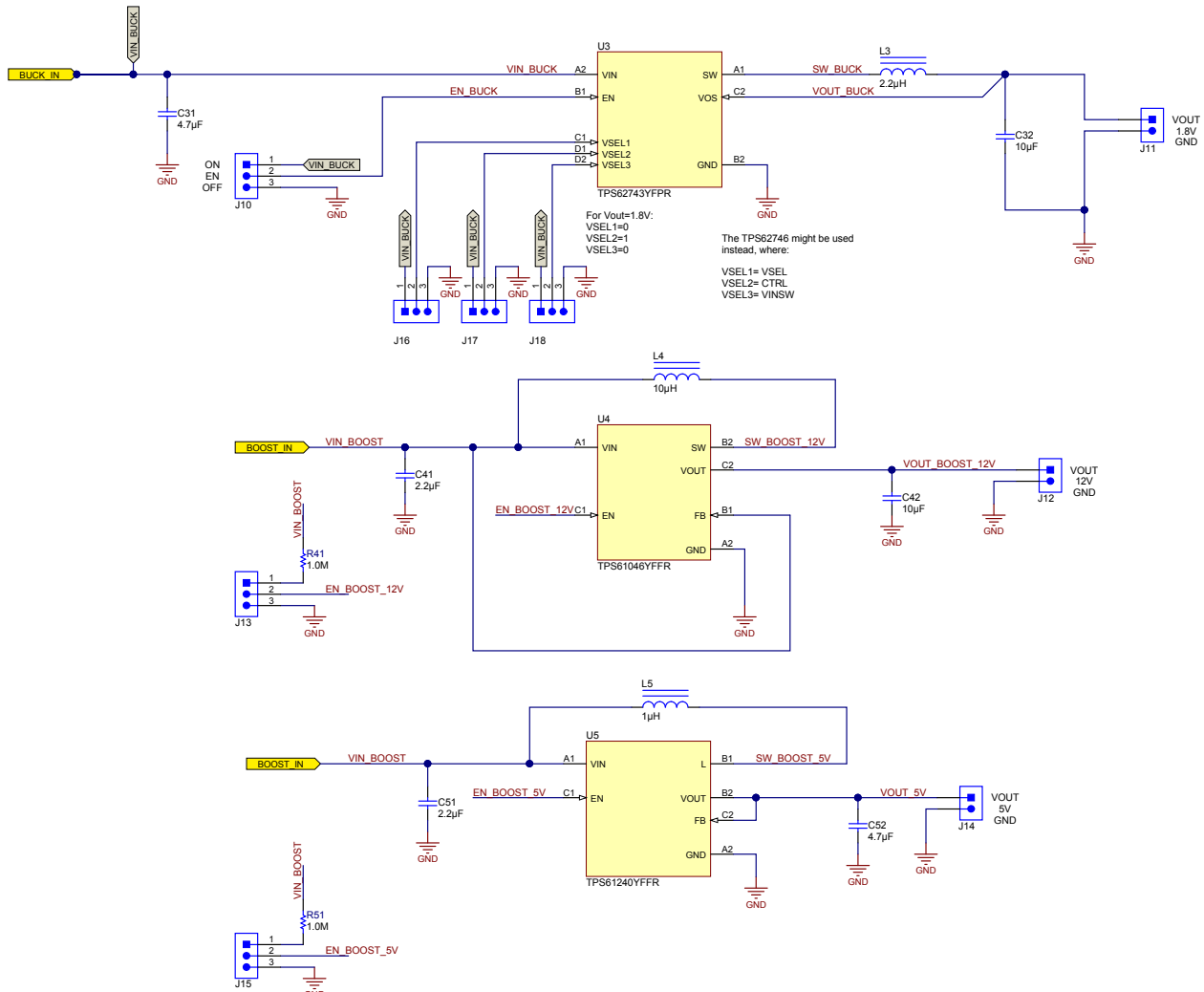

Orderable: N/A	Designed for: Public Release	Mod. Date: 11/13/2015
TID #: PMP11311	Project Title: PMP11311	
Number: PMP11311 Rev: E1	Sheet Title:	
SVN Rev: Not in version control	Assembly Variant: Variant name not interpreted	Sheet: 2 of 3
Drawn By:	File: PMP11311_SCH.SchDoc	Size: B
Engineer: Albert Marco	Contact: http://www.ti.com/support	

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SH-J1 SH-J2 SH-J3 SH-J4 SH-J5 SH-J6 SH-J7

FID1 FID2 FID3

PCB Number: PMP11311
PCB Rev: E1

PCB
LOGO
Texas Instruments

PCB
LOGO
Pb-Free Symbol

Label Table	
Variant	Label Text
001	ChangeMe!
002	ChangeMe!

ZZ1
Assembly Note
These assemblies are ESD sensitive, ESD precautions shall be observed.

ZZ2
Assembly Note
These assemblies must be clean and free from flux and all contaminants. Use of no clean flux is not acceptable.

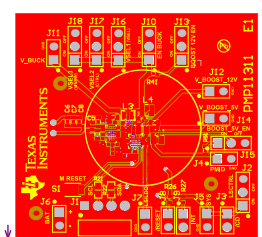
ZZ3
Assembly Note
These assemblies must comply with workmanship standards IPC-A-610 Class 2, unless otherwise specified.

Orderable: N/A	Designed for: Public Release	Mod. Date: 9/29/2015
TID #: PMP11311	Project Title: PMP11311	
Number: PMP11311 Rev: E1	Sheet Title:	
SVN Rev: Not in version control	Assembly Variant: Variant name not interpreted	Sheet: 3 of 3
Drawn By:	File: PMP11311_Hardware.SchDoc	Size: B
Engineer: Albert Marco	Contact: http://www.ti.com/support	

TEXAS INSTRUMENTS
http://www.ti.com

Layer	Name	Material	Thickness	Constant	Board Layer Stack	Board Layer Stack
1	Top Overlay					
2	Top Solder	Solder Resist	0.40mil	3.5		
3	Top Layer	Copper	1.40mil			
4	Dielectric1	FR-4	10.00mil	4.8		
5	Signal Layer 1	Copper	1.40mil			
6	Dielectric2	FR-4	20.00mil	4.8		
7	Signal Layer 2	Copper	1.40mil			
8	Dielectric3	FR-4	10.00mil	4.8		
9	Bottom Layer	Copper	1.40mil			
10	Bottom Solder	Solder Resist	0.40mil	3.5		
11	Bottom Overlay					

ZZ1 ■ These assemblies are ESD sensitive, ESD precautions shall be observed.
ZZ2 ■ These assemblies must be clean and free from flux and all contaminants. Use of no-clean flux is not acceptable.
ZZ3 ■ These assemblies must comply with workmanship standards IPC-A-610 Class 2, unless otherwise specified.



COMPONENTS MARKED 'DNP' SHOULD NOT BE POPULATED
ASSEMBLY VARIANT: [No Variations]

DESIGN INFORMATION	
MIN. TRACK WIDTH:	8 MIL
MIN. CLEARANCE:	0.2 mm
MIN. VIA PAD SIZE:	24 MIL
MINIMUM ANNULAR RING 0.05mm (2MIL) EXTERNAL	
PER IPC-D-275 CLASS 2 LEVEL C	
REGISTRATION TOLERANCES: METAL +/- 5 MIL, HOLES +/- 3 MIL	

MATERIAL:
[ ] FR-408 [X] FR-4 High Tg [ ] OTHER
THICKNESS: [X] 46.4 MIL (1.2mm) +/-10% [ ] OTHER
TOLERANCE: [X] ANSI IPC-6012 TYPE 3 CLASS 2 [ ] OTHER +/-
BOW & TWIST: [X] ANSI IPC-6012 TYPE 3 CLASS 2 [ ] OTHER +/-

DRILLING:
REFERENCE: [X] AS SHOWN [X] NC_DRILL FILES
PTH MIN COPPER THICKNESS: [X] 1MIL [ ] OTHER

BOARD FINISH:
SILKSCREEN: [X] TOP [X] BOTTOM
SILKSCREEN COLOR: [X] WHITE [ ] OTHER
SOLDER RESIST COLOR: [X] GREEN [ ] BLUE [ ] OTHER
SURFACE FINISH: [X] IMMERSION GOLD (ENIG) [ ] ENEPIG [ ] IMM. TIN/SILVER OR EQUIV [ ] OTHER
ARRAY/PANEL: [ ] CUT AND TRIM PER MECH LAYER 1 [ ] N.C. ROUTE [X] V. SCORE
CERTIFICATION: MATERIALS AND WORKMANSHIP FOR ALL PCBS TO MEET OR EXCEED THE REQUIREMENTS OF:
[X] ANSI IPC-A-600F CLASS -> [ ] 1 [X] 2 [ ] 3
[X] UL 94V-0 [X] RoHS [ ] OTHER PER ORDER
ADDITIONAL REQUIREMENTS:
MICROSECTION: [ ] YES
BARE BOARD ELEC. TEST: [ ] NONE [X] REQUIRED [ ] PER ORDER
MANUFACTURER'S UL: [ ] RAIL [ ] METAL [X] SILK

TEXAS INSTRUMENTS

PROJECT TITLE: PMP11311
DESIGNED FOR: Public Release
FILE NAME: PMP11311.PcbDoc

ENGINEER: Albert Marco	LAYOUT BY: Albert Marco
SCALE: 1.00	ALTIUM DESIGNER VERSION: 10.0.0.27009

Comment	Description	Designator	Footprint	LibRef	Quantity
Printed Circuit Board	Printed Circuit Board	IPCB1		PCB	1
GRM188R71E474KA12D	CAP, CERM, 0.47uF, 25V, +/-10%, X7R, 0603	C1, C11	0603S	GRM188R71E474KA12D	2
GRM155R71E223KA61D	CAP, CERM, 0.022uF, 25V, +/-10%, X7R, 0402	C2, C12	0402S	GRM155R71E223KA61D	2
GRM155R71E103KA01D	CAP, CERM, 0.010uF, 25V, +/-10%, X7R, 0402	C3, C13	0402S	GRM155R71E103KA01D	2
GRM155R71H681KA01D	CAP, CERM, 680 pF, 50 V, +/- 10%, X7R, 0402	C4	0402S	GRM155R71H681KA01D	1
GRM033R71E271KA01D	CAP, CERM, 270 pF, 25 V, +/- 10%, X7R, 0201	C5	0201	GRM033R71E271KA01D	1
GRM188R71H103KA01D	CAP, CERM, 0.01 µF, 50 V, +/- 10%, X7R, 0603	C6	0603S	GRM188R71H103KA01D	1
GRM188R71H123KA01D	CAP, CERM, 0.012 µF, 50 V, +/- 10%, X7R, 0603	C7	0603S	GRM188R71H123KA01D	1
GRM188R71H563KA93D	CAP, CERM, 0.056 µF, 50 V, +/- 10%, X7R, 0603	C8	0603S	GRM188R71H563KA93D	1
EMK107BBJ106MA-T	CAP, CERM, 10uF, 16V, +/-20%, X5R, 0603	C14	0603S	EMK107BBJ106MA-T	1
GRM188R61C475KAAJ	CAP, CERM, 4.7uF, 16V, +/-10%, X5R, 0603	C15	0402L	GRM188R61C475KAAJ	1
C1005X5R1A225K050BC	CAP, CERM, 2.2uF, 10V, +/-10%, X5R, 0402	C16	0402S	C1005X5R1A225K050BC	1
C1005X5R1E105K050BC	CAP, CERM, 1 µF, 25 V, +/- 10%, X5R, 0402	C21	0402S	C1005X5R1E105K050BC	1
GRM155R61C475ME11D	CAP, CERM, 4.7 µF, 16 V, +/- 20%, X5R, 0402	C22	0402S	GRM155R61C475ME11D	1
CL05A106MP5NUNC	CAP, CERM, 10 µF, 10 V, +/- 20%, X5R, 0402	C23	0402S	CL05A106MP5NUNC	1
GRM155R61A105KE15D	CAP, CERM, 1 µF, 10 V, +/- 10%, X5R, 0402	C24, C25	0402S	GRM155R61A105KE15D	2
GRM155R61C475ME15	CAP, CERM, 4.7 µF, 16 V, +/- 20%, X5R, 0402	C31	0402S	GRM155R61C475ME15	1
GRM155R60J106ME11	CAP, CERM, 10 µF, 6.3 V, +/- 20%, X5R, 0402	C32	0402S	GRM155R60J106ME11	1
GRM155R61A225ME95	CAP, CERM, 2.2 µF, 10 V, +/- 20%, X5R, 0402	C41	0402S	GRM155R61A225ME95	1
GRM188R61C106MAALD	CAP, CERM, 10 µF, 16 V, +/- 20%, X5R, 0603	C42	0603S	GRM188R61C106MAALD	1
CL05A225KQ5NNNC	CAP, CERM, 2.2 µF, 6.3 V, +/- 10%, X5R, 0402	C51	0402S	CL05A225KQ5NNNC	1
C1005X5R1A475K050BC	CAP, CERM, 4.7 µF, 10 V, +/- 10%, X5R, 0402	C52	0402S	C1005X5R1A475K050BC	1
Fiducial	Fiducial mark. There is nothing to buy or mount.	FID1, FID2, FID3	Fiducial10-20	Fiducial	3
	Header (friction lock), 100mil, 4x1, R/A, TH	J1	CONN_22-05-3041	22-05-3041	1
PEC03SAAN	Header, 100mil, 3x1, Tin, TH	J2, J10, J13, J15, J16, J17, J18	CONN_PEC03SAAN	PEC03SAAN	7
PEC02SAAN	Header, 100mil, 2x1, Tin plated, TH	J3, J4, J5, J6, J7, J8, J9, J11, J12, J14	CONN_PEC02SAAN	PEC02SAAN	10
WR222230-26M8-G	Wireless Power Charging Receiver Coil	L1	TDK_WR222230-26M8-G	WR222230-26M8-G	1
MDT2012-CH2R2N	Inductor, Multilayer, 2.2 µH, 1.3 A, 0.245 ohm, SMD	L2	MDT2012	MDT2012-CH2R2N	1
DFE201210U-2R2M=P2	Inductor, Shielded, Metal Composite, 2.2 µH, 1.4 A, 0.19 ohm, SMD	L3	DFE201210U	DFE201210U-2R2M=P2	1
VLS252010HBX-100M-1	Inductor, Wirewound, Ferrite, 10 µH, 0.68 A, 0.46 ohm, SMD	L4	VLS252010HBX	VLS252010HBX-100M-1	1
MDT2012-CH1R0M	Inductor, Multilayer, 1 µH, 1.4 A, 0.2 ohm, SMD	L5	MDT2012	MDT2012-CH1R0M	1
CRCW0201845RFKED	RES, 845, 1%, 0.05 W, 0201	R1	0201M	CRCW0201845RFKED	1
CRCW0201200KFKED	RES, 200 k, 1%, 0.05 W, 0201	R2	0201M	CRCW0201200KFKED	1
CRCW0201196RFKED	RES, 196, 1%, 0.05 W, 0201	R3	0201M	CRCW0201196RFKED	1
MCR006YRTF1002	RES, 10.0 k, 1%, 0.05 W, 0201	R4	0201M	MCRO06YRTF1002	1
CRCW0603ZR00FKEA	RES, 2.00 ohm, 1%, 0.1W, 0603	R21, R22	0603	CRCW0603ZR00FKEA	2
CRCW040249K9FKED	RES, 49.9 k, 1%, 0.063 W, 0402	R23, R24	0402S	CRCW040249K9FKED	2
CRCW0402499RFKED	RES, 499 ohm, 1%, 0.063W, 0402	R25	0402S	CRCW0402499RFKED	1
CRCW0402100KFKED	RES, 100 k, 1%, 0.063 W, 0402	R26, R27	0402S	CRCW0402100KFKED	2
CRCW06031M00JNEA	RES, 1.0 M, 5%, 0.1 W, 0603	R41, R51	0603S	CRCW06031M00JNEA	2
B3U-1000P	SWITCH TACTILE SPST-NO 0.05A 12V	S1	SW_B3U-1000P	B3U-1000P	1
SNT-100-BK-G	Shunt, 100mil, Gold plated, Black	SH-J1, SH-J2, SH-J3, SH-J4, SH-J5, SH-J6, SH-J7	SNT-100-BK-G	SNT-100-BK-G	7
BQ51003YFPR	Highly Integrated Wireless Receiver Qi (WPC v1.1) Compliant Power Supply, YFP0028APAL	U1	YFP0028APAL	BQ51003YFPR	1
BQ25120YFF	YFF0025AWAW	U2	YFF0025AWAW	BQ25120YFF	1
TPS62743YFPR	360nA IQ Chip-Scale Step Down Converter, YFP0008AGAC	U3	YFP0008AGAC	TPS62743YFPR	1
TPS61046YFFR	28-V Output Voltage Boost Converter in WCSP Package, YFF0006AAAA	U4	YFF0006AAAA	TPS61046YFFR	1
TPS61240YFFR	3.5-MHz High Efficiency	U5	YFF0006AEAE	TPS61240YFFR	1

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