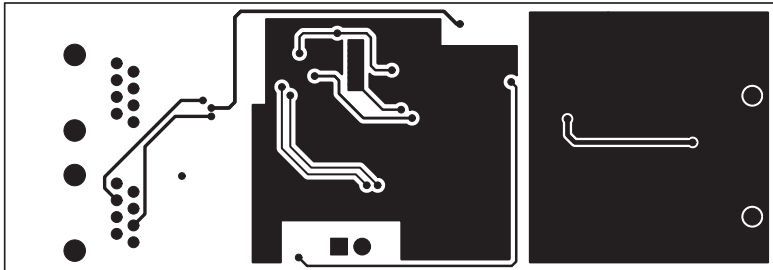
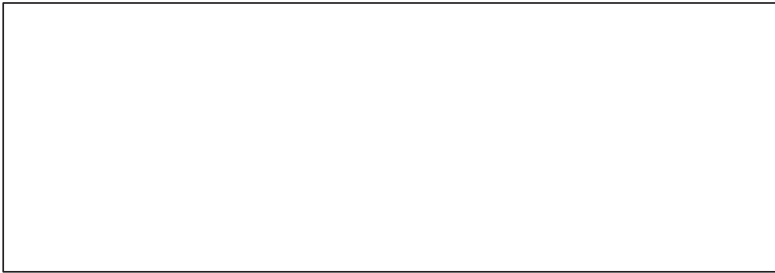


TEXAS INSTRUMENTS		Copper Layer Name		Silkscreen		S Mask		P Mask		Assembly		Fab Drawing
		Top	Bot	Top	Bot	Top	Bot	Top	Bot	Top	Bot	
Board No. PMP8454	Rev. D	L1										
Date: 01/03/13	Filename: PMP8454_RevD.PCB	Engineer: D.STRASSER	PCB Dsgnr: R.SMITH	Modified Date: (Modification Date)				Software: PADS v9.3				



TEXAS INSTRUMENTS		Copper Layer Name		Silkscreen		S Mask		P Mask		Assembly		Fab Drawing	
		Top	Bot	Top	Bot	Top	Bot	Top	Bot	Top	Bot		
Board No.	PMP8454	Rev.	D		L2								
Date:	01/03/13	Filename:	PMP8454_RevD.PCB	Engineer:	D.STRASSER	PCB Dsgnr:	R.SMITH	Modified Date: (Modification Date)				Software:	PADS v9.3

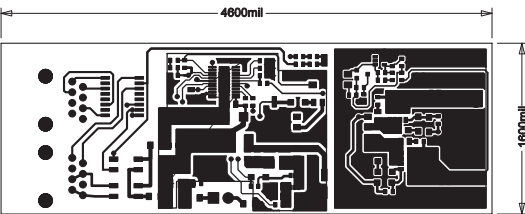


Date: 01102113		Title: PMP8424		Rev: D		Copper Layer 2		Mask 2		Mask 1		Assembly			
PMP8424_RevD PCB		PMP8424_RevD PCB		D		LS		Top		Bot		Top		Bot	
Author: R SMITH		Checked: D ZIRAZER		PCB Date: R SMITH		Modified Date: (Modification Date)		Zooming		BA		Top		Bot	

FABRICATION CHART			
FINISHED THICKNESS	SILKSCREEN	SOLDERMASK	FINISHED COPPER WEIGHT
<input type="checkbox"/> 0.031 <input checked="" type="checkbox"/> 0.062 <input type="checkbox"/> 0.093 <input type="checkbox"/> 0.125	<input checked="" type="checkbox"/> LAYER 1 <input checked="" type="checkbox"/> LAYER 2 <input type="checkbox"/> NONE	<input checked="" type="checkbox"/> LAYER 1 <input checked="" type="checkbox"/> LAYER 2 <input type="checkbox"/> NONE	<input type="checkbox"/> 1 OZ. <input checked="" type="checkbox"/> 2 OZ. <input type="checkbox"/> OTHER _____
DESIGN	TRACE/GAP SPACING	LAYER COUNT	
<input type="checkbox"/> SMD <input type="checkbox"/> THRU-HOLE <input checked="" type="checkbox"/> MIX	<input type="checkbox"/> 0.010/0.010 <input checked="" type="checkbox"/> 0.008/0.007 <input type="checkbox"/> 0.006/0.006	<input type="checkbox"/> SINGLE SIDED <input checked="" type="checkbox"/> 2 LAYER <input type="checkbox"/> 4 LAYER <input type="checkbox"/> OTHER _____	

NOTES: UNLESS OTHERWISE SPECIFIED

- MATERIAL:** ALL MATERIALS, INCLUDING BUT NOT LIMITED TO BASE LAMINATE, BONDING MATERIALS AND SOLDERMASK COATINGS FORMING THE FINISHED PRINTED CIRCUIT BOARD SHALL MEET UL-796 REQUIREMENTS AND BE RoHS COMPLIANT AND HAVE A FLAMMABILITY OF UL94V-0. PLASTIC SHEET, LAMINATED METAL CLAD, ONE OR TWO SIDES, BASE MATERIAL NEMA TYPE FR-4 OR
- BASE LAMINATE:** EQUIVALENT, W/Tg =140 Deg C OR HIGHER. MINIMUM DECOMPOSITION TEMP (Td) OF 320 Deg c. GLASS EPOXY RESIN, COPPER-CLAD IN ACCORDANCE WITH 2 LAYER STACK-UP, COMPLIANT WITH LEAD FREE PROCESS.
- SOLDERMASK:** SOLDERMASK OVER BARE COPPER (SMOBC) USING LIQUID PHOTO-IMAGEABLE SOLDERMASK IN ACCORDANCE WITH IPC-SM-840. COLOR: GREEN. MINOR SOLDERMASK ADJUSTMENTS TO FACILITATE PCB FAB AND OR ASSEMBLY IS ALLOWED PROVIDED NO DEFECTS ARE CREATED TO FINAL ASSEMBLY AS A RESULT.
- TOLERANCES:** UNLESS OTHERWISE SPECIFIED PCB TOLERANCES SHALL BE +/- .005 INCHES, HOLE DIAMETERS SHALL BE +/- .003 INCHES.
- PLATING:** HOLES REQUIRING PLATING, SEE HOLE CHART, TO HAVE 1 OZ. (0.0014) MIN. THK MIN. THICK COPPER.
- FINISH:** PLATE WITH RoHS COMPLIANT, IMMERSION SILVER PREFERRED, IMMERSION TIN OR Sn/Ag/Cu, WITH RMA FLUX, 0.0003" to .0005" THICK ALL EXPOSED AREAS AS COATED, NO ACTIVE FLUXES ARE ACCEPTABLE.
- LEGEND:** IF REQUIRED, SILKSCREEN LEGEND(S) WITH WHITE NON-CONDUCTIVE EPOXY INK.
- MARKINGS:** BOARD MUST BEAR VENDOR'S IDENTIFICATION CODE (ETCH OR WHITE NON-CONDUCTIVE INK). LOCATION OPTIONAL.
- WORKMANSHIP:** BOARD IS TO BE MANUFACTURED PER IPC-A-600 CLASS 2 REQUIREMENTS OR BETTER.
- DOCUMENTATION:** PCB VENDOR IS REQUIRED TO RETURN ANY AND ALL DOCUMENTS SUPPLIED OR ULTIMATELY PURCHASED BY TEXAS INSTRUMENTS UPON COMPLETION OF PURCHASE ORDER.
- DRILL SIZES:** HOLE DIAMETERS SHOWN ARE FINISHED SIZES AFTER PLATING UNLESS OTHERWISE NOTED.
- PANEL BORDER:** ANY METAL IN BORDER AREA INCLUDING PART NUMBER, DATECODE AND/OR REVISION LETTERS MUST BE COVERED WITH SOLDERMASK.
- PROCESS CHANGES:** NO DIMENSIONAL, MATERIAL, OR PROCESS CHANGES ARE ALLOWED WITHOUT PRIOR EXPLICIT WRITTEN PERMISSION FROM TEXAS INSTRUMENTS.



TEXAS INSTRUMENTS		Copper Layer Name		Silkscreen		S Mask		P Mask		Assembly		Fab Drawing
Top	Bot	Top	Bot	Top	Bot	Top	Bot	Top	Bot	Top	Bot	
		L1										FB
Part No:	PMP8454	Rev:	D	PCB Part:	0.28(76)	Released Date:	(at fabrication Date)	Doc No:	0320 v1.2			

STANDARD TERMS AND CONDITIONS FOR EVALUATION MODULES

1. *Delivery:* TI delivers TI evaluation boards, kits, or modules, including any accompanying demonstration software, components, or documentation (collectively, an "EVM" or "EVMs") to the User ("User") in accordance with the terms and conditions set forth herein. Acceptance of the EVM is expressly subject to the following terms and conditions.
 - 1.1 EVMs are intended solely for product or software developers for use in a research and development setting to facilitate feasibility evaluation, experimentation, or scientific analysis of TI semiconductor products. EVMs have no direct function and are not finished products. EVMs shall not be directly or indirectly assembled as a part or subassembly in any finished product. For clarification, any software or software tools provided with the EVM ("Software") shall not be subject to the terms and conditions set forth herein but rather shall be subject to the applicable terms and conditions that accompany such Software
 - 1.2 EVMs are not intended for consumer or household use. EVMs may not be sold, sublicensed, leased, rented, loaned, assigned, or otherwise distributed for commercial purposes by Users, in whole or in part, or used in any finished product or production system.
2. *Limited Warranty and Related Remedies/Disclaimers:*
 - 2.1 These terms and conditions do not apply to Software. The warranty, if any, for Software is covered in the applicable Software License Agreement.
 - 2.2 TI warrants that the TI EVM will conform to TI's published specifications for ninety (90) days after the date TI delivers such EVM to User. Notwithstanding the foregoing, TI shall not be liable for any defects that are caused by neglect, misuse or mistreatment by an entity other than TI, including improper installation or testing, or for any EVMs that have been altered or modified in any way by an entity other than TI. Moreover, TI shall not be liable for any defects that result from User's design, specifications or instructions for such EVMs. Testing and other quality control techniques are used to the extent TI deems necessary or as mandated by government requirements. TI does not test all parameters of each EVM.
 - 2.3 If any EVM fails to conform to the warranty set forth above, TI's sole liability shall be at its option to repair or replace such EVM, or credit User's account for such EVM. TI's liability under this warranty shall be limited to EVMs that are returned during the warranty period to the address designated by TI and that are determined by TI not to conform to such warranty. If TI elects to repair or replace such EVM, TI shall have a reasonable time to repair such EVM or provide replacements. Repaired EVMs shall be warranted for the remainder of the original warranty period. Replaced EVMs shall be warranted for a new full ninety (90) day warranty period.
3. *Regulatory Notices:*
 - 3.1 *United States*
 - 3.1.1 *Notice applicable to EVMs not FCC-Approved:*

This kit is designed to allow product developers to evaluate electronic components, circuitry, or software associated with the kit to determine whether to incorporate such items in a finished product and software developers to write software applications for use with the end product. This kit is not a finished product and when assembled may not be resold or otherwise marketed unless all required FCC equipment authorizations are first obtained. Operation is subject to the condition that this product not cause harmful interference to licensed radio stations and that this product accept harmful interference. Unless the assembled kit is designed to operate under part 15, part 18 or part 95 of this chapter, the operator of the kit must operate under the authority of an FCC license holder or must secure an experimental authorization under part 5 of this chapter.
 - 3.1.2 *For EVMs annotated as FCC – FEDERAL COMMUNICATIONS COMMISSION Part 15 Compliant:*

CAUTION

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC Interference Statement for Class A EVM devices

NOTE: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

FCC Interference Statement for Class B EVM devices

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

3.2 Canada

3.2.1 For EVMs issued with an Industry Canada Certificate of Conformance to RSS-210

Concerning EVMs Including Radio Transmitters:

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Concernant les EVMs avec appareils radio:

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes: (1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Concerning EVMs Including Detachable Antennas:

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication. This radio transmitter has been approved by Industry Canada to operate with the antenna types listed in the user guide with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Concernant les EVMs avec antennes détachables

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotrope rayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante. Le présent émetteur radio a été approuvé par Industrie Canada pour fonctionner avec les types d'antenne énumérés dans le manuel d'usage et ayant un gain admissible maximal et l'impédance requise pour chaque type d'antenne. Les types d'antenne non inclus dans cette liste, ou dont le gain est supérieur au gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur.

3.3 Japan

3.3.1 *Notice for EVMs delivered in Japan:* Please see http://www.tij.co.jp/lstds/ti_ja/general/eStore/notice_01.page 日本国内に輸入される評価用キット、ボードについては、次のところをご覧ください。
http://www.tij.co.jp/lstds/ti_ja/general/eStore/notice_01.page

3.3.2 *Notice for Users of EVMs Considered "Radio Frequency Products" in Japan:* EVMs entering Japan may not be certified by TI as conforming to Technical Regulations of Radio Law of Japan.

If User uses EVMs in Japan, not certified to Technical Regulations of Radio Law of Japan, User is required by Radio Law of Japan to follow the instructions below with respect to EVMs:

1. Use EVMs in a shielded room or any other test facility as defined in the notification #173 issued by Ministry of Internal Affairs and Communications on March 28, 2006, based on Sub-section 1.1 of Article 6 of the Ministry's Rule for Enforcement of Radio Law of Japan,
2. Use EVMs only after User obtains the license of Test Radio Station as provided in Radio Law of Japan with respect to EVMs, or
3. Use of EVMs only after User obtains the Technical Regulations Conformity Certification as provided in Radio Law of Japan with respect to EVMs. Also, do not transfer EVMs, unless User gives the same notice above to the transferee. Please note that if User does not follow the instructions above, User will be subject to penalties of Radio Law of Japan.

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4 *EVM Use Restrictions and Warnings:*

4.1 EVMS ARE NOT FOR USE IN FUNCTIONAL SAFETY AND/OR SAFETY CRITICAL EVALUATIONS, INCLUDING BUT NOT LIMITED TO EVALUATIONS OF LIFE SUPPORT APPLICATIONS.

4.2 User must read and apply the user guide and other available documentation provided by TI regarding the EVM prior to handling or using the EVM, including without limitation any warning or restriction notices. The notices contain important safety information related to, for example, temperatures and voltages.

4.3 *Safety-Related Warnings and Restrictions:*

4.3.1 User shall operate the EVM within TI's recommended specifications and environmental considerations stated in the user guide, other available documentation provided by TI, and any other applicable requirements and employ reasonable and customary safeguards. Exceeding the specified performance ratings and specifications (including but not limited to input and output voltage, current, power, and environmental ranges) for the EVM may cause personal injury or death, or property damage. If there are questions concerning performance ratings and specifications, User should contact a TI field representative prior to connecting interface electronics including input power and intended loads. Any loads applied outside of the specified output range may also result in unintended and/or inaccurate operation and/or possible permanent damage to the EVM and/or interface electronics. Please consult the EVM user guide prior to connecting any load to the EVM output. If there is uncertainty as to the load specification, please contact a TI field representative. During normal operation, even with the inputs and outputs kept within the specified allowable ranges, some circuit components may have elevated case temperatures. These components include but are not limited to linear regulators, switching transistors, pass transistors, current sense resistors, and heat sinks, which can be identified using the information in the associated documentation. When working with the EVM, please be aware that the EVM may become very warm.

4.3.2 EVMs are intended solely for use by technically qualified, professional electronics experts who are familiar with the dangers and application risks associated with handling electrical mechanical components, systems, and subsystems. User assumes all responsibility and liability for proper and safe handling and use of the EVM by User or its employees, affiliates, contractors or designees. User assumes all responsibility and liability to ensure that any interfaces (electronic and/or mechanical) between the EVM and any human body are designed with suitable isolation and means to safely limit accessible leakage currents to minimize the risk of electrical shock hazard. User assumes all responsibility and liability for any improper or unsafe handling or use of the EVM by User or its employees, affiliates, contractors or designees.

4.4 User assumes all responsibility and liability to determine whether the EVM is subject to any applicable international, federal, state, or local laws and regulations related to User's handling and use of the EVM and, if applicable, User assumes all responsibility and liability for compliance in all respects with such laws and regulations. User assumes all responsibility and liability for proper disposal and recycling of the EVM consistent with all applicable international, federal, state, and local requirements.

5. *Accuracy of Information:* To the extent TI provides information on the availability and function of EVMs, TI attempts to be as accurate as possible. However, TI does not warrant the accuracy of EVM descriptions, EVM availability or other information on its websites as accurate, complete, reliable, current, or error-free.

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- 8.2 *Specific Limitations.* IN NO EVENT SHALL TI'S AGGREGATE LIABILITY FROM ANY WARRANTY OR OTHER OBLIGATION ARISING OUT OF OR IN CONNECTION WITH THESE TERMS AND CONDITIONS, OR ANY USE OF ANY TI EVM PROVIDED HEREUNDER, EXCEED THE TOTAL AMOUNT PAID TO TI FOR THE PARTICULAR UNITS SOLD UNDER THESE TERMS AND CONDITIONS WITH RESPECT TO WHICH LOSSES OR DAMAGES ARE CLAIMED. THE EXISTENCE OF MORE THAN ONE CLAIM AGAINST THE PARTICULAR UNITS SOLD TO USER UNDER THESE TERMS AND CONDITIONS SHALL NOT ENLARGE OR EXTEND THIS LIMIT.
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In some cases, TI components may be promoted specifically to facilitate safety-related applications. With such components, TI's goal is to help enable customers to design and create their own end-product solutions that meet applicable functional safety standards and requirements. Nonetheless, such components are subject to these terms.

No TI components are authorized for use in FDA Class III (or similar life-critical medical equipment) unless authorized officers of the parties have executed a special agreement specifically governing such use.

Only those TI components which TI has specifically designated as military grade or "enhanced plastic" are designed and intended for use in military/aerospace applications or environments. Buyer acknowledges and agrees that any military or aerospace use of TI components which have **not** been so designated is solely at the Buyer's risk, and that Buyer is solely responsible for compliance with all legal and regulatory requirements in connection with such use.

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