

PCN Number:	20141217000			PCN Date:	12/18/2014						
Title:	Qualification of alternate Bond Wire Material (Au) for the LM43602/3PWP family of devices										
Customer Contact:	PCN Manager	Phone:	+1(214)480-6037	Dept:	Quality Services						
Proposed 1st Ship Date:	03/18/2015	Estimated Sample Availability:		Date provided upon request							
Change Type:											
<input type="checkbox"/>	Assembly Site	<input checked="" type="checkbox"/>	Assembly Process	<input checked="" type="checkbox"/>	Assembly Materials						
<input type="checkbox"/>	Design	<input type="checkbox"/>	Electrical Specification	<input type="checkbox"/>	Mechanical Specification						
<input type="checkbox"/>	Test Site	<input type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>	Test Process						
<input type="checkbox"/>	Wafer Bump Site	<input type="checkbox"/>	Wafer Bump Material	<input type="checkbox"/>	Wafer Bump Process						
<input type="checkbox"/>	Wafer Fab Site	<input type="checkbox"/>	Wafer Fab Materials	<input type="checkbox"/>	Wafer Fab Process						
	<input type="checkbox"/>	Part number change									
PCN Details											
Description of Change:											
<p>Texas Instruments is pleased to announce the qualification of Gold as an alternate bond wire for the LM43602/3PWP family of devices.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>What</th> <th>Current</th> <th>New</th> </tr> </thead> <tbody> <tr> <td>Bond Wire Composition/Diameter</td> <td>Cu/2.0 mils</td> <td>Au/2.0 mils & Cu/2.0 mils</td> </tr> </tbody> </table>						What	Current	New	Bond Wire Composition/Diameter	Cu/2.0 mils	Au/2.0 mils & Cu/2.0 mils
What	Current	New									
Bond Wire Composition/Diameter	Cu/2.0 mils	Au/2.0 mils & Cu/2.0 mils									
Reason for Change:											
Continuity of Supply											
Anticipated impact on Fit, Form, Function, Quality or Reliability (positive / negative):											
None											
Changes to product identification resulting from this PCN:											
None											
Product Affected											
LM43602PWP	LM43602PWPT	LM43603PWPR	LM43603PWPT								
LM43602PWPR	LM43603PWP										

Qualification Report

New Product Qualification LM43603PWP, LBC8+MetDCu (DMOS5) 16-pin HTSSOP (PWP) MSL2 260C, AU wire 2mil, TI-TL (Taiwan).
Approved 12/16/2014

Product Attributes

Attributes	Qual Device: LM43603PWP	QBS Product: LM43602PWP	QBS Product: LM46002PWP	QBS Product: LM46002PWP	QBS Process: LM43603PWP	QBS Package: BUF16821AIPWPRQ1	QBS Package: LM43603PWP
Assembly Site	TITL (TAI)	TITL (TAI)	TITL (TAI)	TITL (TAI)	TITL (TAI)	TITL (TAI)	TITL (TAI)
Package Family	PWP	PWP	PWP	PWP	PWP	TSSOP	PWP
Flammability Rating	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0
Wafer Fab Supplier	DMOS5	DMOS5	DMOS5	DMOS5	DMOS5	DMOS5	DMOS5
Wafer Fab Process	LBC8	LBC8	LBC8	LBC8	LBC8	50HPS07	LBC8

- QBS: Qual By Similarity
- Qual Device LM43603PWP is qualified at LEVEL2-260C

Qualification Results

Data Displayed as: Number of lots / Total sample size / Total failed

Type	Test Name / Condition	Duration	Qual Device: LM43603PWP	QBS Product: LM43602PWP	QBS Product: LM46002PWP	QBS Process: LM46002PWP	QBS Process: LM43603PWP	QBS Package: BUF16821AIPWPRQ1	QBS Package: LM43603PWP
HAST	Biased HAST, 110C/85%RH	264 hours	-	-	-	2/157/0	-	-	-
HAST	Biased HAST, 130C/85%RH	96 Hours	-	-	-	-	-	3/239/0	-
AC	Autoclave 121C	96 Hours	-	-	1/77/0	-	3/230/0	3/244/0	3/230/0
TC	Temperature Cycle, -65/150C	500 Cycles	-	-	1/77/0	-	3/230/0	3/244/0	3/230/0
HTSL	High Temp Storage Bake 150C	1000 Hours	-	-	-	-	1/76/0	-	1/76/0
HTSL	High Temp Storage Bake 170C	420 Hours	-	-	-	-	-	1/50/0	-
HTOL	Life Test, 150C	300 hours	-	1/77/0	-	3/240/0	-	-	-
HBM	ESD - HBM	2000 V	-	1/3/0	-	-	-	-	-
CDM	ESD - CDM	750 V	-	1/3/0	-	-	-	-	-
LU	Latch-up	(per JESD78)	-	1/6/0	-	-	-	-	-
ED	Electrical Characterization	--	Pass	Pass	-	-	-	-	-
MQ	Manufacturability (Assembly)	(per mfg. Site specification)	Pass	-	-	-	-	-	-

- Preconditioning was performed for Autoclave, Unbiased HAST, THB/Biased HAST, Temperature Cycle, Thermal Shock, and HTSL, as applicable

- The following are equivalent HTOL options based on an activation energy of 0.7eV : 125C/1k Hours, 140C/480 Hours, 150C/300 Hours, and 155C/240 Hours

- The following are equivalent HTSL options based on an activation energy of 0.7eV : 150C/1k Hours, and 170C/420 Hours

- The following are equivalent Temp Cycle options per JESD47 : -55C/125C/700 Cycles and -65C/150C/500 Cycles

Quality and Environmental data is available at TI's external Web site: <http://www.ti.com/>

Green/Pb-free Status:

Qualified Pb-Free(SMT) and Green

For questions regarding this notice, e-mails can be sent to the regional contacts shown below or your local Field Sales Representative.

Location	E-Mail
USA	PCNAmericasContact@list.ti.com
Europe	PCNEuropeContact@list.ti.com
Asia Pacific	PCNAsiaContact@list.ti.com
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