

PCN Number:	20131203000			PCN Date:	12/09/2013
Title:	Conversion to Cu bond wire				
Customer Contact:	PCN Manager	Phone:	+1(214)480-6037	Dept:	Quality Services
Proposed 1st Ship Date:	03/09/2014	Estimated Sample Availability:	12/05/2013		
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:					
Texas Instruments is pleased to announce the qualification of Cu as a bond wire option for the selected devices shown below. All listed devices will remain in current assembly facility and there will be no other BOM changes.					
Reason for Change:					
Continuity of supply. 1) To align with world technology trends and use wiring with enhanced mechanical and electrical properties 2) Maximize flexibility within our Assembly/Test production sites. 3) Cu is easier to obtain and stock					
Anticipated impact on Fit, Form, Function, Quality or Reliability (positive / negative):					
None					
Changes to product identification resulting from this PCN:					
None					
Product Affected					
TRF3705IRGER	TRF3705IRGET	TRF37T05IRGER	TRF37T05IRGET		

Qualification Data			
This qualification has been developed for the validation of this change. The qualification data validates that the proposed change meets the applicable released technical specifications.			
Qual Vehicle: TRF37T05IRGE (MSL 2-260C)			
Package Construction Details			
Assembly Site:	Clark-AT	Mold Compound:	4208625
# Pins-Designator, Family:	24-RGE, QFN	Mount Compound:	4207768
Lead Finish	NiPdAuAg	Bond Wire:	0.80Mil Cu

Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results		
Reliability Test	Conditions	Sample Size / Fail
Electrical Characterization	Side by Side (Au vs. Cu)	Pass
ESD CDM	+/- 250V, 500V	3/0
ESD HBM	+/- 500V, 1000V, 1500V	3/0
Latch-up	(per JESD78)	6/0

Reference Qualification Data				
This qualification has been developed for the validation of this change. The qualification data validates that the proposed change meets the applicable released technical specifications.				
Qual Vehicle: CDC750RGC (MSL 3-260C)				
Package Construction Details				
Assembly Site:	Clark AT	Mold Compound:	4208625	
# Pins-Designator, Family:	64-RGC, QFN	Mount Compound:	4207768	
Lead Finish	NiPdAu	Bond Wire:	0.8mil Cu/0.8mil Au	
Qualification: <input type="checkbox"/> Plan <input checked="" type="checkbox"/> Test Results				
Reliability Test	Conditions	Sample Size/Fail		
		Lot#1	Lot#2	Lot#3
**High Temp. Storage Bake	170C (420 hrs)	77/0	77/0	77/0
**Biased HAST	130C/85%RH (96 Hrs)	77/0	77/0	77/0
**Autoclave	121C, 2 atm (96 Hrs)	77/0	77/0	77/0
**T/C -65C/150C	-65C/+150C (500 Cyc)	77/0	77/0	77/0
Ball Bond Shear	76 balls, 3 units min	Pass	Pass	Pass
Bond Pad Cratering Check		Pass	Pass	Pass
Bond Pull	76 Wire, 3 units min	Pass	Pass	Pass
Notes ** - Preconditioning sequence: Level 3-260C.				

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
Japan	PCNJapanContact@list.ti.com