

<b>PCN Number:</b>	20180918001			<b>PCN Date:</b>	Sept 20, 2018
<b>Title:</b>	Qualify 0.8mil Cu wire diameter for select devices				
<b>Customer Contact:</b>	<a href="#">PCN Manager</a>	<b>Dept:</b>	Quality Services		
<b>Proposed 1<sup>st</sup> Ship Date:</b>	Dec 20, 2018	<b>Estimated Sample Availability:</b>	Date Provided at Sample request		
<b>Change Type:</b>					
<input type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Design	<input type="checkbox"/>	Wafer Bump Site
<input type="checkbox"/>	Assembly Process	<input type="checkbox"/>	Data Sheet	<input type="checkbox"/>	Wafer Bump Material
<input checked="" type="checkbox"/>	Assembly Materials	<input type="checkbox"/>	Part number change	<input type="checkbox"/>	Wafer Bump Process
<input type="checkbox"/>	Mechanical Specification	<input type="checkbox"/>	Test Site	<input type="checkbox"/>	Wafer Fab Site
<input type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>	Test Process	<input type="checkbox"/>	Wafer Fab Materials
				<input type="checkbox"/>	Wafer Fab Process
<b>PCN Details</b>					
<b>Description of Change:</b>					
Texas Instruments Incorporated is announcing the qualification of 0.8mil Cu wire diameter for select devices listed in the "Product Affected" Section.					
<b>Wire Diameter:</b>					
	<b>Current</b>	<b>Proposed</b>			
Wire Diameter	1.0mil Cu wire	0.8mil Cu wire			
<b>Reason for Change:</b>					
Continuity of supply.					
<b>Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):</b>					
None					
<b>Anticipated impact on Material Declaration</b>					
<input checked="" type="checkbox"/>	No Impact to the Material Declaration	<input type="checkbox"/>	Material Declarations or Product Content reports are driven from production data and will be available following the production release. Upon production release the revised reports can be obtained from the <a href="#">TI Eco-Info website</a> . There is no impact to the material meeting current regulatory compliance requirements with this PCN change.		
<b>Changes to product identification resulting from this PCN:</b>					
None					
<b>Product Affected:</b>					
LM358LVDR	MCP6292IDR	SN1711004DR	TLV9062IDR		
LMV358AIDR	SN1605025DR	TLV9002IDR	TSV912AIDR		

# Qualification Report

## TLV9062IDR - New Capillary & Wire Diam

Approve Date 04-Sep-2018

### Product Attributes

Attributes	Qual Device: <u>TLV9062ID</u>	QBS Product Reference: <u>TLV9062ID</u>	QBS Process Reference: <u>TLV9002ID</u>
Assembly Site	AMK P1	AP1	AP1
Package Family	SOIC	SOIC	SOIC
Flammability Rating	UL 94 V-0	UL 94 V-0	UL 94 V-0
Wafer Fab Supplier	RFAB	RFAB	RFAB
Wafer Process	LBC9	LBC9	LBC9

- QBS: Qual By Similarity
- Qual Device TLV9062ID 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: <u>TLV9062ID</u>	QBS Product Reference: <u>TLV9062ID</u>	QBS Process Reference: <u>TLV9002ID</u>
ED	Electrical Characterization	Per Datasheet Parameters	-	Pass	Pass
ELFR	Early Life Failure Rate, 125C	48 Hours	-	3/2400/0	-
HAST	Biased HAST, 130C/85%RH	96 Hours	-	3/231/0	1/77/0
HBM	ESD - HBM	4000 V	-	3/18/0	-
CDM	ESD - CDM	1500 V	-	3/9/0	1/3/0
HTOL	Life Test, 150C	300 Hours	-	3/231/0	1/77/0
HTSL	High Temp. Storage Bake, 170C	420 Hours	3/231/0	3/231/0	1/77/0
LU	Latch-up	(per JESD78)	-	3/18/0	1/6/0
SD	Solderability	Pb Free	-	3/66/0	-
TC	Temperature Cycle, -65/150C	500 Cycles	3/231/0	3/231/0	1/77/0
UHAST	Unbiased HAST, 130C/85%RH	96 Hours	3/231/0	3/231/0	1/77/0

- 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

THIS INFORMATION RELATING TO QUALITY AND RELIABILITY IS PROVIDED "AS IS." Product information detailed in this report may not accurately reflect TI's current product materials, processes and testing used in the construction of the TI products. Customers are solely responsible to conduct sufficient engineering and additional qualification testing to determine whether a device is suitable for use in their applications. Using TI products outside limits stated in TI's datasheet may void TI's warranty. See TI's Terms of Sale at <http://www.ti.com/lsds/ti/legal/termsofsale.page>

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