PCN Number:		20160606003B				PC	CN	Date:	Dec. 4	4, 2017						
Title: Qualify New		Assembly Material set for Selected Device(s)														
Customer Contact:		PCN Mana	PCN Manager Dept: Quality S			Ser	Services									
Char	nge Ty	/pe:														
		bly Site		Design					Bump S							
		bly Process		Data Sheet						Bump N						
		bly Material		Part number change						Bump P						
		nical Specifi			Test Si				╡╢		Fab Site					
	Раскіпс	g/Shipping/	_abeiing		Test Pr	ocess			╡╢		Fab Mat Fab Pro					
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Desc	rintio	n of Chang	<u>0'</u>		PCN	Detai	13									
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		continue to		actur	ed as pri	<mark>or and v</mark>	vill not b	<mark>e su</mark>	ıbje	cted to	the cha	inge				
descr	ribed ir	<mark>n this notific</mark>	ation.													
	<b></b>	Mater			<u> </u>	rrent			Dr							
	Wiro	e (mils)	a	0			ile Au		Proposed 0.96mils Cu							
	-		d	0.		6, 1.15mils Au 042500			4147858							
Mount compound Mold compound		u		4205694			4211880									
Mold compound								1211000								
Poad	Reason for Change:															
Reas										Continuity of supply.						
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# **Qualification Report**

## Universal BOM Mold 4211880 and Die Attach 4147858 for SOIC DW Packages in TITL and MLA Approve Date 12-May-2016

FIGUE					
Attributes	Qual Device: ADS1213U	Qual Device: ADS820U	Qual Device: ADS8504IBDW	Qual Device: MSP430F123IDWR	Qual Device: SN65LBC170DW
Assembly Site	TAI	TAI	TAI	TAI	MLA
Package Family	SOIC	SOIC	SOIC	SOIC	SOIC
Flammability Rating	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0
Wafer Fab Supplier	ОКІ	TSMC WF2	DMOS5	TSMC	DFAB
Wafer Fab Process	OKIDALSATFAB_BICMOS	0.60UM-TSMC	50HPA07	0.35UM-TSMC	LBC3S

### **Product Attributes**

Attributes	Qual Device: SN65LBC170DW_SSTN	Qual Device: SN74LVC541ADW	Qual Device: SN74LVC541ADW_SSTN	QBS Package Reference: TL494IDR	QBS Package Reference: ULQ2003AQDRQ1
Assembly Site	MLA	MLA	MLA	FMX	FMX
Package Family	SOIC	SOIC	SOIC	SOIC	SOIC
Flammability Rating	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V0	UL 94 V-0
Wafer Fab Supplier	DFAB	FFAB	FFAB	SFAB	SFAB
Wafer Fab Process	LBC3S	ASLC10	ASLC10	JI1	JI1-SLM

- QBS: Qual By Similarity

- Qual Devices qualified at LEVEL1-260C: SN65LBC170DW, SN74LVC541ADW, MSP430F123IDWR, TL494IDR, ULQ200AQDRQ1

- Qual Devices qualified at LEVEL2-260C: ADS1213U, ADS8504IBDW, ADS820U

#### **Qualification Results**

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

Туре	Test Name / Condition	Duration	Qual Device: ADS1213U	Qual Device: ADS820U	Qual Device: ADS8504IBDW	Qual Device: MSP430F123ID WR	Qual Device: SN65LBC170D W
AC	Autoclave 121C	96 Hours	1/77/0	-	1/77/0	1/77/0	1/77/0
ED	Electrical Characterization, side by side	Per datasheet parameters	Pass	Pass	Pass	-	Pass
HAST	Biased HAST, 130C/85%RH	192 Hours	-	-	-	-	-
HAST	Biased HAST, 130C/85%RH	96 Hours	-	-	-	-	-
HTSL	High Temp Storage Bake 170C	420 Hours	1/77/0	-	1/77/0	1/77/0	1/77/0
MQ	Manufacturability (Assembly)	(per mfg. Site specification)	Pass	Pass	Pass	Pass	Pass
тс	Temperature Cycle, -65/150C	500 Cycles	1/77/0	3/231/0	1/77/0	1/77/0	1/77/0

Туре	Test Name / Condition	Duration	Qual Device: SN65LBC170 DW_ SSTN	Qual Device: SN74LVC541A DW	Qual Device: SN74LVC541A DW_SSTN	QBS Package Reference: TL494IDR	QBS Package Reference: ULQ2003AQDR Q1_STDLF
AC	Autoclave 121C	96 Hours	3/231/0	3/231/0	3/231/0	-	3/231/0
ED	Electrical Characterization, side by side	Per datasheet parameters	Pass	Pass	Pass	-	-
HAST	Biased HAST, 130C/85%RH	192 Hours	-	-	-	3/231/0	3/217/0
HAST	Biased HAST, 130C/85%RH	96 Hours	-	-	-	3/231/0	3/231/0
HTSL	High Temp Storage Bake 170C	420 Hours	3/231/0	3/231/0	3/231/0	-	-
MQ	Manufacturability (Assembly)	(per mfg. Site specification)	Pass	Pass	Pass	-	-
TC	Temperature Cycle, -65/150C	500 Cycles	3/231/0	3/231/0	3/231/0	-	3/231/0

- 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

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