



12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN Number:	20260910000.1	PCN Issued	September 14, 2026
Qualification of RFAB as an additional Wafer Fab site option, BOM, and Datasheet updates for select devices		Sample request deadline:	November 13, 2026
		Estimated 1st ship date:	December 13, 2026
Sample requests received after November 13, 2026 will not be supported.			

Change type(s)
Packing/Shipping/Labeling Wafer Fab Site Wafer Fab Process Wafer Fab Material Assembly Site Assembly Process

PCN Details

Description of Change:

Texas Instruments is pleased to announce the addition of RFAB as an additional Wafer Fab site option using LBC9 process technology, BOM and datasheet updates for the products listed in the “Product Affected” section.

Current Fab Site			Additional Fab Site		
Current Fab Site	Process Technology	Wafer Diameter	Additional Fab site	Process Technology	Wafer Diameter
SH-BIP-1	JI1	150mm	RFAB	LBC9	300mm

Construction differences are as follows:

Group 1

	Current Site	BOM- Updated	Additional Site
Assembly Site	FMX	FMX	MLA
Wire diam/type	Cu; 0.96mil	Cu; 0.8mil	Cu; 0.8mil

Group 2

	Current Site	Additional
Wire diam/type	Cu; 0.96mil	Cu; 0.8mil

Group 3

	Current Site	Current Site- Updated
Wire diam/type	Cu; 0.96mil	Cu; 0.8mil
Marking Appearance	TI Logo; Pin1 Dimple	TI Letters; Pin 1 Dot

The datasheets will be changing as a result of the above mentioned changes. The datasheet change details can be reviewed in the datasheet revision history shown below. The links to the revised datasheets are available in the table below.



Changes from Revision I (July 2022) to Revision J (September 2026)	Page
• Updated the numbering format for tables, figures, and cross-references throughout the document.....	1
• Updated output transistor description and symbols from BJT to MOSFET throughout the document.....	1
• Changed values in the <i>Thermal Information</i> table for all packages.....	4
• Changed output regulation typical value from 1mV to 6mV.....	5
• Changed short-circuit output current typical value from 25mA to 35mA.....	5
• Changed frequency change with temperature max value from 10Hz/kHz to 50Hz/kHz	5
• Changed open-loop voltage amplification typical value from 95dB to 80dB.....	5
• Changed common-mode rejection ratio typical value from 80dB to 100dB.....	5
• Changed output C1, C2 off-state current typical value from 2μA to 4μA.....	6
• Changed output C1E1, C2E2 saturation voltage in common source configuration typical value from 1.1V to 0.5V	6
• Changed output C1E1, C2E2 saturation voltage in source follower configuration typical value from 1.5V to 1.65V.....	6
• Changed input bias current (DEAD-TIME CTRL) typical value from -2μA to -0.006μA.....	6
• Changed input threshold voltage (DEAD-TIME CTRL) typical value from 3V to 2.5V.....	6
• Changed input threshold voltage (FEEDBACK) typical value from 4V to 3.4V.....	6
• Changed standby supply current for VCC = 15V typical value from 6mA to 1.62mA.....	6
• Changed standby supply current for VCC = 40V typical value from 9mA to 1.68mA.....	6
• Changed average supply current typical value from 7.5mA to 2.2mA.....	6
• Changed rise time in common source configuration typical value from 100ns to 70ns.....	6
• Changed fall time in common source configuration typical value from 25ns to 20ns.....	6
• Changed rise time in source follower configuration typical value from 100ns to 85ns.....	6
• Changed fall time in source follower configuration typical value from 40ns to 35ns.....	6
• Updated Oscillator Frequency vs Timing Resistance , Amplifier Voltage Amplification vs Frequency , and removed others.....	7
• Updated description to align VREF behavior changes for input voltages less than 7V.....	10
• Updated the formatting for inductor calculations.....	16
• Updated reference voltage vs input voltage application curve	19



Changes from Revision I (September 2016) to Revision J (September 2026)	Page
• Updated the numbering format for tables, figures, and cross-references throughout the document.....	1
• Updated output transistor description and symbols from BJT to MOSFET throughout the document.....	1
• Removed PDIP (16) package.....	1
• Updated values in the <i>Thermal Information</i> table for all packages.....	4
• Changed output regulation typical value from 14mV to 6mV.....	5
• Changed open-loop voltage amplification typical value from 95dB to 80dB.....	5
• Changed common-mode rejection ratio typical value from 80dB to 100dB.....	5
• Changed input bias current (DEAD-TIME CTRL) typical value from -2μA to -0.006μA.....	5
• Changed input threshold voltage (DEAD-TIME CTRL) typical value from 3V to 2.5V.....	5
• Changed output C1, C2 off-state current typical value from 2μA to 4μA, and 4μA to 2μA for other test condition	5
• Changed output C1E1, C2E2 saturation voltage in common source configuration typical value from 1.1V to 0.5V	5
• Changed output C1E1, C2E2 saturation voltage in source follower configuration typical value from 1.5V to 1.65V.....	5
• Changed input threshold voltage (FEEDBACK) typical value from 4V to 3.4V.....	5

• Changed standby supply current for VCC = 15V typical value from 9mA to 1.62mA.....	5
• Changed standby supply current for VCC = 40V typical value from 11mA to 1.68mA	5
• Changed average supply current typical value from 12.4mA to 2.2mA.....	5
• Changed rise time in common source configuration typical value from 100ns to 70ns.....	6
• Changed fall time in common source configuration typical value from 30ns to 20ns.....	6
• Changed rise time in source follower configuration typical value from 200ns to 85ns.....	6
• Changed fall time in source follower configuration typical value from 45ns to 35ns.....	6
• Updated Figure 5-1 and Amplifier Voltage Amplification vs Frequency	6
• Updated description to align VREF behavior changes for input voltages less than 7V.....	9
• Updated the formatting for inductor calculations.....	16
• Updated reference voltage vs input voltage application curve	18

Product Folder	Current Datasheet Number	New Datasheet Number	Link to full datasheet
TL494	SLVS074I	SLVS074J	http://www.ti.com/product/TL494
TL594	SLVS052I	SLVS052J	http://www.ti.com/product/TL594

Qual details are provided in the Qual Data Section.

Reason for Change:

These changes are part of our multiyear plan to transition products from our 150-millimeter factories to newer, more efficient manufacturing processes and technologies, underscoring our commitment to product longevity and supply continuity.

Anticipated impact on Form, Fit, Function, Quality or Reliability:

- Review updated datasheets and/or the Standard Data Packet for more details on the changes. Evaluating samples is encouraged.
- There are changes in the electrical tables.
- Physical aspects of the device have changed.

Impact on Environmental Ratings

Checked boxes indicate the status of environmental ratings following implementation of this change. If below boxes are checked, there are no changes to the associated environmental ratings.

RoHS	REACH	Green Status	IEC 62474
☒ No Change	☒ No Change	☒ No Change	☒ No Change

Changes to product identification resulting from this PCN:

Fab Site Information

Chip Site	Chip Site Origin Code (20L)	Chip Site Country Code (21L)	Chip Site City
SH-BIP-1	SHE	USA	SHERMAN
RFAB	RFB	USA	Richardson

Die Rev:

Current	New
Die Rev [2P]	Die Rev [2P]
C, H	B

	Assembly Site Information			
	Assembly Site	Assembly Site Origin Code (22L)	Assembly Site Country Code (23L)	Assembly Site City
	FMX	MEX	MEX	Aguascalientes
	MLA	MLA	MYS	KUALA LUMPUR
Sample product shipping label (not actual product label):				
				

Products Affected- Fab and Group 1:				
TL494CDR				

Products Affected- Fab and Group 2:				
TL494CNSR	TL594CNSR	TL594INSR	TL494CN	
TL494IDR	TL594CDR	TL594IDR	TL594IPWR	
TL594CPWR				

Products Affected- Fab and Group 3 :				
TL494CPWR				

Approve Date 31-July-2026

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: TL594IPWR	Qual Device: TL594INSR	Qual Device: TL494CDR	QBS Process Reference: BQ79600PWRQ1	QBS Package Reference: SN74LVC8T245NSR
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	-	3/231/0	-
UHA	A3	Autoclave	121C/15psig	96 Hours	-	-	-	3/231/0	-
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	-	3/231/0	3/231/0	3/231/0
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	-	-	3/135/0	3/231/0
HTOL	B1	Life Test	125C	1000 Hours	-	-	-	3/231/0	-
ELFR	B2	Early Life Failure Rate	125C	48 Hours	-	-	-	3/2400/0	-
SD	C3	PB Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	-	-	1/15/0	-
SD	C3	PB-Free Solderability	Precondition w.155C Dry Bake (4 hrs +/- 15 minutes)	-	-	-	-	1/15/0	-
PD	C4	Physical Dimensions	Cpk>1.67	-	-	-	-	3/30/0	-

- QBS: Qual By Similarity, also known as Generic Data
- Qual Device TL594IDR is qualified at MSL1 260C
- Qual Device TL594IPWR is qualified at MSL1 260C
- Qual Device TL594INSR is qualified at MSL1 260C
- Qual Device TL494CN is qualified at NOT CLASSIFIED NOT CLASSIFIED
- Qual Device TL494CDR is qualified at MSL1 260C

- 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/>

TI Qualification ID: R-CHG-2407-050

Approve Date 31-July-2026

Product Attributes

Attributes	Qual Device: TL594IPWR	Qual Device: TL594INSR	Qual Device: TL494CDR	QBS Process Reference: BQ79600PWRQ1	QBS Package Reference: SN74LVC8T245NSR
Die Attributes					
Wafer Fab Supplier	RFAB	RFAB	RFAB	RFAB	FR-BIP-1
Wafer Process	LBC9	LBC9	LBC9	LBC9	ASLNONC10
Die Size (L,W) (um)	940 x 1110	940 x 1110	940 x 1110	2140 x 2330	2482.0118 x 1527.9878
Passivation	Silicon Oxynitride	Silicon Oxynitride	Silicon Oxynitride	Silicon Oxynitride	Silicon Oxynitride
Package Attributes					
Assembly Site	MLA	MLA	MLA	MLA	MLA
Package Group	TSSOP	SOP	SOIC	TSSOP	SOP
Package Designator	PW	NS	D	PW	NS
Package Size (mm)	5 x 4.4	10.3 x 5.3	9.9 x 3.9	5 x 4.4	15 x 5.3
Body Thickness (mm)	1	1.95	1.58	1	1.95
Pin Count	16	16	16	16	24

Attributes	Qual Device: TL594IPWR	Qual Device: TL594INSR	Qual Device: TL494CDR	QBS Process Reference: BQ79600PWRQ1	QBS Package Reference: SN74LVC8T245NSR
Lead Finish	NIPDAU	NIPDAU	NIPDAU	NIPDAU	NIPDAU
Lead Pitch(mm)	0.65	1.27	1.27	0.65	1.27
Mount Compound Supplier	HENKEL	HENKEL	HENKEL	HENKEL	HENKEL
Mount Compound Supplier Number	QMI 505MT	QMI 505MT	QMI 505MT	QMI 505MT	QMI 505MT
Mold Compound Supplier	SUMITOMO	SUMITOMO	SUMITOMO	SUMITOMO	SUMITOMO
Mold Compound Supplier Number	EME-G610TA	EME-G633C	EME-G633C	EME-G610TA	EME-G633C
Bond Wire Composition	CU	CU	CU	CU	CU
Bond Wire Diameter(um)	20.32	20.32	20.32	25.4	22.86
Flammability Rating	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0	UL 94 V-0

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UHAST	A3	Autoclave	121C/15psig	96 Hours	-	-	-	3/231/0	-
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	-	3/231/0	3/231/0	3/231/0

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HTOL	B1	Life Test	125C	1000 Hours	-	-	-	3/231/0	-
ELFR	B2	Early Life Failure Rate	125C	48 Hours	-	-	-	3/2400/0	-
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PD	C4	Physical Dimensions	Cpk>1.67	-	-	-	-	3/30/0	-

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

TI Qualification ID: R-CHG-2407-050

In performing change qualifications, Texas Instruments follows integrated circuit industry standards in performing defect mechanism analysis and failure mechanism-based accelerated environmental testing to ensure wafer fab process, assembly process and product quality and reliability. As encouraged by these standards, TI uses both product-specific and generic

(family) data in qualifying its changes. For devices to be categorized as a 'product qualification family' for generic data purposes, they must share similar product, wafer fab process and assembly process elements. The applicability of generic data (also known at TI as Qualification by Similarity (QBS)) is determined by the Reliability Engineering function following these industry standards. Generic data is shown in the qualification report in columns titled "QBS Process" (for wafer fab process), "QBS Package" (for assembly process) and "QBS Product" (for product family).

For questions regarding this notice, e-mails can be sent to the Change Management team or your local Field Sales Representative.

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