12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN# 20260402000.1
TLC556x Design Change

Change Notification / Sample Request

Date: April 07, 2026
To: MOUSER PCN

Dear Customer:

This is an announcement of a change to a device that is currently offered by Texas Instruments. The details of this change are on the following pages.

Texas Instruments requires acknowledgement of receipt of this notification within 60 days of the date of this notice. Lack of acknowledgement of this notice within 60 days constitutes acceptance and approval of this change. If samples or additional data are required, requests must be received within 60 days of this notification.

The changes discussed within this PCN will not take effect any earlier than the proposed first ship date on Page 3 of this notification, unless customer agreement has been reached on an earlier implementation of the change.

This notice does not change the end-of-life status of any product. Should product affected be on a previously issued product withdrawal/discontinuance notice, this notification does not extend the life of that product or change the life time buy offering/discontinuance plan.

For questions regarding this notice or to provide acknowledgement of this PCN, you may contact your local Field Sales Representative or the change management team.

For sample requests or sample related questions, contact your local Field Sales Representative.

TI values customer engagement and feedback related to TI changes. Customers should contact TI if there are questions or concerns regarding a change notification.

Change Management Team
SC Business Services

20260402000.1
Attachment: 1

Products Affected:

The devices listed on this page are a subset of the complete list of affected devices. According to our records, you have recently purchased these devices. The corresponding customer part number is also listed, if available.

DEVICE	CUSTOMER PART NUMBER
TLC556CDR	NULL
TLC556IDR	NULL
TLC556IN	NULL

Technical details of this Product Change follow on the next page(s).

PCN Number:	20260402000.1	PCN Date:	April 07, 2026
Title:	TLC556x Design Change		
Customer Contact:	Change Management Team	Dept:	Quality Services
Proposed 1st Ship Date:	July 06, 2026	Sample requests accepted until:	June 06, 2026*

***Sample requests received after June 06, 2026 will not be supported.**

Change Type:

☐	Assembly Site	☒	Design	☐	Wafer Bump Material
☐	Assembly Process	☒	Data Sheet	☐	Wafer Bump Process
☐	Assembly Materials	☐	Part number change	☐	Wafer Fab Site
☐	Mechanical Specification	☐	Test Site	☐	Wafer Fab Material
☒	Packing/Shipping/Labeling	☐	Test Process	☐	Wafer Fab Process

PCN Details

Description of Change:

Texas Instruments Incorporated is announcing a design change for TLC556x. The change includes a die redesign to address customer concerns on previous changes made to the 556 Timers.

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. The links to the revised datasheets are available in the table below.

TEXAS INSTRUMENTS

TLC556, TLC556M

SLFS047D – FEBRUARY 1984 – REVISED MARCH 2026

Changes from Revision C (December 2024) to Revision D (March 2026) **Page**

- Removed LinCMOS™ terminology from data sheet 0
- The specifications for the TLC55M devices are unchanged under revision D 1
- Removed the test condition of V_{RESET} = V_{DD} from reset current ($I_{(reset)}$) in *Electrical Characteristics: V_{DD} = 2V for TLC556C, V_{DD} = 3V for TLC556I*, *Electrical Characteristics: V_{DD} = 5V*, and *Electrical Characteristics: V_{DD} = 15V* 6
- Changed the discharge switch off-stage current typical value at 25°C from 0.1nA to 0.33nA in *Electrical Characteristics: V_{DD} = 2V for TLC556C, V_{DD} = 3V for TLC556I* 6
- Changes the discharge switch off-stage current typical value for TLC556C across temperature from 0.5nA to 11nA in *Electrical Characteristics: V_{DD} = 2V for TLC556C, V_{DD} = 3V for TLC556I* 6
- Changes the discharge switch off-stage current typical value for TLC556I across temperature from 120nA to 30nA in *Electrical Characteristics: V_{DD} = 2V for TLC556C, V_{DD} = 3V for TLC556I* 6
- Removed reset current (I_{RESET}) typical specification with test condition V_{RESET} = 0V in *Electrical Characteristics: V_{DD} = 5V* and *Electrical Characteristics: VDD = 15V* 7
- Changed the typical value of discharge switch off-stage current at 25°C for TLC556C and TLC556I from 0.1nA to 0.3nA in *Electrical Characteristics: V_{DD} = 5V* 7
- Changed the typical value of discharge switch off-stage current for TLC556C at max temperature range from 0.5nA to 11nA in *Electrical Characteristics: V_{DD} = 5V* 7
- Changed the typical value of discharge switch off-stage current for TLC556I at max temperature range from 2nA to 30nA in *Electrical Characteristics: V_{DD} = 5V* 7
- Changed the typical value of discharge switch on-stage voltage at 25°C for TLC556C and TLC556I from 0.15V to 0.06V in *Electrical Characteristics: V_{DD} = 5V* 7
- Changed the typical value of discarge switch off-stage current at 25°C for TLC556C and TLC556I from 0.1nA to 0.75nA in *Electrical Characteristics: VDD = 15V* 8
- Changed the typical value of discarge switch off-stage current for TLC556C at max temperature range from 0.5nA to 13nA in *Electrical Characteristics: VDD = 15V* 8
- Added a typical value of 30nA to the discarge switch off-stage current for TLC556I at max temperature range in *Electrical Characteristics: VDD = 15V* 8
- Changed the typical value of supply current at 25°C for TLC556C and TLC556I from 0.72mA to 0.47mA in *Electrical Characteristics: VDD = 15V* 8
- Added the *Typical Characteristics* section with updated typical characterstic curves for TLC556C and TLC556I 10

Product Folder	Current Datasheet	New Datasheet	Link to full datasheet

	Number	Number	
TLC556x	SLFS047C	**SLFS047D**	http://www.ti.com/product/TLC556IN

Qual details are provided in the Qual Data Section.

Reason for Change:

Redesign the device to memic the behavior of the legacy device.

Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):

Review the SDP and datasheet for full evaluation of the change based on the customer use case.

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:

Current Die Rev [2P]	**New Die Rev [2P]**
A, B	**B**

Sample product shipping label (not actual product label):

Product Affected:

TLC556IN TLC556CDR TLC556IDR

Qualification Results

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

Attributes	Qual Device: TLC556IN	QBS Package Reference: NE5532P	QBS Package Reference: TS12A4514P	QBS Process Reference: OPA391DCKT	QBS Package Reference: OPA2277P	QBS Package Reference: ULN2003AN	QBS Package Reference: NE556N	QBS Product Reference: TLC556IDR
Die Attributes								
Wafer Fab Supplier	RFAB	SH-BIP-1	DL-LIN	RFAB	FR-BIP-1	RFAB	RFAB	RFAB
Wafer Process	HPA9	JI1	LBC3S	HPA9	BICOM3-HV	TIB	TIB	HPA9
Die Size (L,W) (um)	1022 x 1082	2166.62 x 2113.28	613.6386 x 576.961	676 x 760	1464 x 1074	1068 x 1100	1038 x 1336	1022 x 1082
Passivation	Silicon Oxynitride	Silicon Oxynitride	Silicon Oxynitride	Silicon Oxynitride	Silicon Oxynitride	Silicon Oxynitride	Silicon Oxynitride	Silicon Oxynitride
Package Attributes								
Assembly Site	FMX	FMX	FMX	HFTFAT	FMX	FMX	FMX	MLA
Package Group	PDIP	PDIP	PDIP	SOT-SC70	PDIP	PDIP	PDIP	SOIC
Package Designator	N	P	P	DCK	P	N	N	D
Package Size (mm)	19.3 x 6.35	9.81 x 6.35	9.81 x 6.35	2 x 1.25	9.81 x 6.35	19.3 x 6.35	19.3 x 6.35	8.65 x 3.9
Body Thickness (mm)	3.9	3.9	3.9	0.9	3.9	3.9	3.9	1.58
Pin Count	14	8	8	5	8	16	14	14

Attributes	Qual Device: TLC556IN	QBS Package Reference: NE5532P	QBS Package Reference: TS12A4514P	QBS Process Reference: OPA391DCKT	QBS Package Reference: OPA2277P	QBS Package Reference: ULN2003AN	QBS Package Reference: NE556N	QBS Product Reference: TLC556IDR
Lead Finish	NIPDAU	NIPDAU	NIPDAU	NIPDAU	NIPDAU	NIPDAU	NIPDAU	NIPDAU
Lead Pitch(mm)	2.54	2.54	2.54	0.65	2.54	2.54	2.54	1.27
Mount Compound Supplier	HENKEL	HENKEL	HENKEL	SUMITOMO	HENKEL	HENKEL	HENKEL	HENKEL
Mount Compound Supplier Number	QMI 505MT	QMI 505MT	QMI 505MT	CRM-1076NS	QMI 505MT	QMI 505MT	QMI 505MT	QMI 505MT
Mold Compound Supplier	SUMITOMO	SUMITOMO	SUMITOMO	SUMITOMO	SUMITOMO	SUMITOMO	SUMITOMO	SUMITOMO
Mold Compound Supplier Number	EME-G633C	EME-G633C	EME-G633C	EME-G700LTD	EME-G633C	EME-G633C	EME-G633C	EME-G633C
Bond Wire Composition	CU	CU	CU	CU	CU	CU	CU	CU
Bond Wire Diameter(um)	20.32	24.384	24.384	20.32	20.32	25.4	20.3	20.32
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	UL 94 V-0

- QBS: Qual By Similarity, also known as Generic Data
- Qual Device TLC556IN is qualified at NOT CLASSIFIED NOT CLASSIFIED

- 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-2509-078

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: TLC556IDR	Qual Device: TLC556CDR	QBS Package Reference: TLV1814QDRQ1	QBS Process Reference: OPA391DCKT	QBS Package Reference: SN74HCS08QDRQ1	QBS Package Reference: OPA2991QDRQ1
HAST	A2	Biased HAST	130C/85%RH	96 Hours	-	-	1/77/0	-	-	3/231/0
UHAST	A3	Autoclave	121C/15psig	96 Hours	-	-	-	-	3/231/0	-
UHAST	A3	Unbiased HAST	130C/85%RH	96 Hours	-	-	1/77/0	-	-	3/231/0
TC	A4	Temperature Cycle	-65C/150C	500 Cycles	-	-	1/77/0	-	3/231/0	3/231/0
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	-	-	-	-	3/135/0
HTSL	A6	High Temperature Storage Life	175C	500 Hours	-	-	1/77/0	-	-	-
HTOL	B1	Life Test	125C	1000 Hours	-	-	-	3/231/0	-	-
ELFR	B2	Early Life Failure Rate	125C	48 Hours	-	-	-	3/2400/0	-	-

Type	#	Test Name	Condition	Duration	Qual Device: TLC556IDR	Qual Device: TLC556CDR	QBS Package Reference: TLV1814QDRQ1	QBS Process Reference: OPA391DCKT	QBS Package Reference: SN74HCS08QDRQ1	QBS Package Reference: OPA2991QDRQ1
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	-	3/66/0	-
PD	C4	Physical Dimensions	Cpk>1.67	-	-	-	1/10/0	-	3/30/0	3/30/0
ESD	E2	ESD CDM	-	1000 Volts	1/3/0	-	-	-	-	-
ESD	E2	ESD HBM	-	1000 Volts	1/3/0	-	-	-	-	-
LU	E4	Latch-Up	Per JESD78	-	1/3/0	-	-	-	-	-
CHAR	E5	Electrical Characterization	Per Datasheet Parameters	-	1/30/0	-	-	-	-	-

- QBS: Qual By Similarity, also known as Generic Data
- Qual Device TLC556IDR is qualified at MSL1 260C
- Qual Device TLC556CDR 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-2509-077

For alternate parts with similar or improved performance, please visit the product page on TI.com

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.