



12500 TI Boulevard, MS 8640, Dallas, Texas 75243

PCN#20240610000.1

**Qualification of TI Malaysia as an additional assembly site for select devices
Change Notification / Sample Request**

Date: June 10, 2024

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 **30** days of the date of this notice. Lack of acknowledgement of this notice within 30 days constitutes acceptance and approval of this change. If samples or additional data are required, requests must be received within **30 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.

Sincerely,

Change Management Team
SC Business Services

20240610000.1
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
INA226AIDGSR	NULL
INA226AIDGST	NULL
INA230AIDGST	NULL

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

PCN Number:	20240610000.1		PCN Date:	June 10, 2024
Title:	Qualification of TI Malaysia as an additional assembly site for select devices			
Customer Contact:	Change Management Team		Dept:	Quality Services
Proposed 1st Ship Date:	September 08, 2024	Sample requests accepted until:	July 10, 2024*	
*Sample requests received after July 10, 2024 will not be supported.				
Change Type:				
<input checked="" type="checkbox"/>	Assembly Site	<input type="checkbox"/>	Design	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Assembly Process	<input type="checkbox"/>	Data Sheet	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Assembly Materials	<input type="checkbox"/>	Part number change	<input type="checkbox"/>
<input type="checkbox"/>	Mechanical Specification	<input type="checkbox"/>	Test Site	<input type="checkbox"/>
<input checked="" type="checkbox"/>	Packing/Shipping/Labeling	<input type="checkbox"/>	Test Process	<input type="checkbox"/>
PCN Details				
Description of Change:				
Texas Instruments is pleased to announce the qualification of TI Malaysia as an additional Assembly site for the list of devices below:				
Constructions differences are as follows:				
	ASESH	HFTF	MLA	
Mold Compound	SID#EN2000515	SID#R-30	4211880	
Mount Compound	SID#EY1000063	SID#A-18	4147858	
Bond Wire composition/diameter	Au, 1.0 mil	Au, 1.0 mil	Au, 0.96 or Cu, 1.0 mil	
Qual details are provided in the Qual Data Section.				
Reason for Change:				
Continuity of Supply				
Anticipated impact on Form, Fit, Function, Quality or Reliability (positive / negative):				
None				
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	
<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change	<input checked="" type="checkbox"/> No Change	
Changes to product identification resulting from this PCN:				

Assembly Site Information:

Assembly Site	Assembly Site Origin (22L)	Assembly Country Code (23L)	Assembly City
ASESH	ASH	CHN	Shanghai
HFTF	HFT	CHN	Hefei
MLA	MLA	MYS	KUALA LUMPUR

Sample product shipping label (not actual product label):

**TEXAS
INSTRUMENTS**
MADE IN: Malaysia
2DC: 20:
MSL '2 /260C/1 YEAR
MSL 1 /235C/UNLIM
OPT:
ITEM:
LBL: 5A (L)T0:1750

**G4**



(1P) SN74LS07NSR
(Q) 2000 (D) 0336
(31T) LOT: 3959047MLA
(4W) TKY(1T) 7523483SI2
(P)
(2P) REV: (V) 0033317
(20L) CSO: SHE (21L) CCO: USA
(22) ASO: MLA (23L) ACO: MYS

Product Affected:

INA226AIDGSR	INA226AIDGST	INA230AIDGSR	INA230AIDGST
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Information
Selective Disclosure

Qualification Report

MLA/TIM 10DGS A/T Offroad - HPA07 Commercial AU & PCC wire
Approve Date 16-May-2024

Qualification Results

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

Type	#	Test Name	Condition	Duration	Qual Device: INA226AIDGSR	Qual Device: INA226AIDGST	QES Reference: QMS1740400001	QES Reference: INA181A2000K001	QES Reference: INA181A2000K001	QES Reference: INA181A2000K001	QES Reference: SN74LS07NSR	QES Reference: CLM08T2400000001	QES Reference: INA6LV01750001	QES Reference: THV0241000001	QES Reference: LPM6480000001	QES Reference: PCM174A000001	QES Reference: INA181A2000K001	QES Reference: INA181A2000K001
HAST	A2	Biasd HAST	130C/85%RH	250 Hours	-	-	-	-	-	-	-	-	-	-	-	-	-	-
HAST	A2	Biasd HAST	130C/85%RH	96 Hours	-	-	30310	17710	17710	-	17710	-	-	-	-	-	30310	-
UNHAST	A3	Autoclave	121C/55%RH	96 Hours	-	-	-	17710	17710	17710	17710	-	17710	-	-	-	30310	-
UNHAST	A3	Unbiased HAST	130C/85%RH	96 Hours	17710	17710	30310	-	-	-	17710	-	-	17710	30310	-	-	-
TC	A4	Temperature Cycle	-45C/150C	800 Cycles	17710	17710	30310	17710	17710	17710	30310	17710	30310	17710	30310	30310	-	-
HTSL	A6	High Temperature Storage Life	150C	1000 Hours	-	-	-	-	1450	-	-	1450	-	-	-	-	-	-
HTSL	A6	High Temperature Storage Life	170C	400 Hours	-	-	-	-	-	-	-	-	-	17710	-	-	-	-
HTSL	A6	High Temperature Storage Life	175C	500 Hours	-	-	1450	-	-	-	-	-	-	-	-	1450	-	-
HTSL	A6	High Temperature Storage Life	175C	840 Hours	-	-	-	-	-	-	-	-	-	-	30310	-	-	-
HTOL	B1	Life Test	125C	1000 Hours	-	-	-	-	17710	-	-	17710	-	-	-	30310	30310	-
HTOL	B1	Life Test	135C 75%RH	408 Hours	-	-	30310	-	-	-	-	-	-	-	-	-	-	-
HTOL	B1	Life Test	150C	408 Hours	-	-	-	17710	17710	17710	-	-	-	-	-	-	-	-
ELFR	B2	Early Life Failure Rate	125C	48 Hours	-	-	-	-	-	-	-	-	-	-	-	-	304000	-
ELFR	B2	Early Life Failure Rate	150C	24 Hours	-	-	-	18000	18000	18000	-	-	-	-	-	-	-	-
WBS	C1	Ball Shear	75 balls, 3 units min	Wires	-	-	-	-	-	17610	-	-	-	-	-	-	-	-
WBP	C2	Bond Pull	75 Wires, 3 units min	Wires	-	-	-	-	-	17610	-	-	-	-	-	-	-	-
SD	C3	PB Solderability	Precondition +135C Dry Bake (4 hrs + 15 minutes)	-	-	-	1150	-	-	-	1050	-	-	-	-	-	-	-
SD	C3	PB-Free Solderability	Precondition +135C Dry Bake (4 hrs + 15 minutes)	-	-	-	1150	-	-	-	1050	-	-	-	-	-	-	-
SD	C3	PB-Free Solderability	Precondition +135C Dry Bake (4 hrs + 15 minutes)	-	1020	1020	-	-	-	-	-	-	-	1020	3660	-	-	-
PD	C4	Physical Dimensions	Cpk>1.67	-	-	-	3900	1000	1000	1000	-	3900	-	-	-	3900	-	-
ESD	E2	ESD CDM	-	350 Volts	1/50	1/50	-	-	-	1/50	-	-	-	1/50	1/50	-	-	1/50
ESD	E2	ESD CDM	-	500 Volts	-	-	-	1/50	1/50	1/50	-	1/50	-	-	-	1/50	-	-

Type	#	Test Name	Condition	Duration	Qual Device: NA228ADGSR	Qual Device: NA228ADGSR	QES Reference: QP11710CUMRQ1	QES Reference: NA21A20D0K1Q1	QES Reference: NA21A10D0K1Q1	QES Reference: NA21A10D0K1Q1	QES Reference: SN74VCGT244D0GSR	QES Reference: CLMCE2450D0SRQ1	QES Reference: SN74VCGT244D0GSR	QES Reference: THVD243D0GSR	QES Reference: L9610B0GSR	QES Reference: LM4880G0GSRP	QES Reference: PCM173A00SRQ1	QES Reference: NA228ADGSR	QES Reference: NA228ADGSR
ESD	E2	ESD CDM	-	750 Vds	-	-	-	1/50	-	1/50	-	-	-	-	-	-	-	-	-
ESD	E2	ESD HBM	-	1000 Vds	1/50	1/50	-	-	-	-	-	-	-	-	1/50	1/50	-	-	1/50
ESD	E2	ESD HBM	-	2000 Vds	-	-	-	1/50	1/50	1/50	-	1/50	-	-	-	-	1/50	-	-
LU	E4	Latch-Up	Per JEDEC78	-	1/50	1/50	1/50	1/50	1/50	1/50	-	1/50	-	-	1/50	1/50	1/50	-	1/50
CHAR	E5	Electrical Characterization Parameters	-	1/500	1/500	-	-	-	-	-	-	-	-	-	1/500	1/500	-	1/500	1/500
CHAR	E5	Electrical Distributions	Coupled Room, hot and cold	-	-	-	3/500	1/500	1/500	1/500	-	3/500	-	-	-	-	3/500	-	-
FTY	E5	Final Test Yield	-	-	-	-	-	-	-	-	-	-	-	1/10	1/10	-	-	-	-

- QES: Qual By Similarity
- Qual Device NA228ADGSR is qualified at MIL-STD 200C
- Qual Device NA228ADGSR is qualified at MIL-STD 200C
- Preconditioning was performed for Autoclave, Unbiased HAST, ThermoCycled HAST, Temperature Cycle, Thermal Shock, and HTOL as applicable
- The following are equivalent HTOL options based on an activation energy of 0.7eV: 125C/24 Hours, 140C/480 Hours, 150C/900 Hours, and 165C/240 Hours
- The following are equivalent HTOL options based on an activation energy of 0.7eV: 150C/24 Hours, and 170C/420 Hours
- The following are equivalent Temp Cycle options per JEDEC47: -55C/125C/700 Cycles and -45C/150C/500 Cycles

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

TI Qualification ID: R-CHG-2305-029

For alternate parts with similar or improved performance, please visit the product page on [TI.com](http://ti.com)

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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