PACKAGE OPTION ADDENDUM

PACKAGING INFORMATION

Orderable part number	Status (1)	Material type (2)	Package | Pins	Package qty | Carrier	RoHS (3)	Lead finish/ Ball material (4)	MSL rating/ Peak reflow (5)	Op temp (°C)	Part marking (6)
TLE2021ACD	Obsolete	Production	SOIC (D) | 8	-	-	Call TI	Call TI	-	2021AC
TLE2021ACDR	Last Time Buy	Production	SOIC (D) | 8	2500 | LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-	2021AC
TLE2021ACP	Active	Production	PDIP (P) | 8	50 | TUBE	Yes	NIPDAU	N/A for Pkg Type	-	TLE2021AC
TLE2021ACP.A	Active	Production	PDIP (P) | 8	50 | TUBE	Yes	NIPDAU	N/A for Pkg Type	-40 to 85	TLE2021AC
TLE2021AID	Obsolete	Production	SOIC (D) | 8	-	-	Call TI	Call TI	-40 to 85	2021AI
TLE2021AIDR	Active	Production	SOIC (D) | 8	2500 | LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-	2021AI
TLE2021AIDR.A	Active	Production	SOIC (D) | 8	2500 | LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	2021AI
TLE2021AIP	Active	Production	PDIP (P) | 8	50 | TUBE	Yes	NIPDAU	N/A for Pkg Type	-	TLE2021AI
TLE2021AIP.A	Active	Production	PDIP (P) | 8	50 | TUBE	Yes	NIPDAU	N/A for Pkg Type	-40 to 85	TLE2021AI
TLE2021CD	Obsolete	Production	SOIC (D) | 8	-	-	Call TI	Call TI	0 to 70	2021C
TLE2021CDR	Last Time Buy	Production	SOIC (D) | 8	2500 | LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	0 to 70	2021C
TLE2021CP	Active	Production	PDIP (P) | 8	50 | TUBE	Yes	NIPDAU	N/A for Pkg Type	0 to 70	TLE2021CP
TLE2021CP.A	Active	Production	PDIP (P) | 8	50 | TUBE	Yes	NIPDAU	N/A for Pkg Type	0 to 70	TLE2021CP
TLE2021CPE4	Active	Production	PDIP (P) | 8	50 | TUBE	Yes	NIPDAU	N/A for Pkg Type	0 to 70	TLE2021CP
TLE2021ID	Obsolete	Production	SOIC (D) | 8	-	-	Call TI	Call TI	-40 to 85	2021I
TLE2021IDR	Active	Production	SOIC (D) | 8	2500 | LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	2021I
TLE2021IDR.A	Active	Production	SOIC (D) | 8	2500 | LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	2021I
TLE2021IP	Active	Production	PDIP (P) | 8	50 | TUBE	Yes	NIPDAU	N/A for Pkg Type	-40 to 85	TLE2021IP
TLE2021IP.A	Active	Production	PDIP (P) | 8	50 | TUBE	Yes	NIPDAU	N/A for Pkg Type	-40 to 85	TLE2021IP
TLE2021MD	Active	Production	SOIC (D) | 8	75 | TUBE	Yes	NIPDAU	Level-1-260C-UNLIM	-55 to 125	2021M
TLE2021MD.A	Active	Production	SOIC (D) | 8	75 | TUBE	Yes	NIPDAU	Level-1-260C-UNLIM	-55 to 125	2021M
TLE2021MDG4	Active	Production	SOIC (D) | 8	75 | TUBE	Yes	NIPDAU	Level-1-260C-UNLIM	-	2021M
TLE2021MDG4.A	Active	Production	SOIC (D) | 8	75 | TUBE	Yes	NIPDAU	Level-1-260C-UNLIM	-55 to 125	2021M
TLE2022ACD	Obsolete	Production	SOIC (D) | 8	-	-	Call TI	Call TI	0 to 70	2022AC
TLE2022ACDR	Active	Production	SOIC (D) | 8	2500 | LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-	2022AC
TLE2022ACDR.A	Active	Production	SOIC (D) | 8	2500 | LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	2022AC
TLE2022ACP	Active	Production	PDIP (P) | 8	50 | TUBE	Yes	NIPDAU	N/A for Pkg Type	-	TLE2022AC
TLE2022ACP.A	Active	Production	PDIP (P) | 8	50 | TUBE	Yes	NIPDAU	N/A for Pkg Type	-40 to 85	TLE2022AC

Orderable part number (1)	Status (1)	Material type (2)	Package | Pins	Package qty | Carrier	RoHS (3)	Lead finish/ Ball material (4)	MSL rating/ Peak reflow (5)	Op temp (°C)	Part marking (6)
TLE2022AID	Obsolete	Production	SOIC (D) | 8	-	-	Call TI	Call TI	-40 to 85	2022AI
TLE2022AIDR	Active	Production	SOIC (D) | 8	2500 | LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-	2022AI
TLE2022AIDR.A	Active	Production	SOIC (D) | 8	2500 | LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	2022AI
TLE2022AIP	Active	Production	PDIP (P) | 8	50 | TUBE	Yes	NIPDAU	N/A for Pkg Type	-	TLE2022AI
TLE2022AIP.A	Active	Production	PDIP (P) | 8	50 | TUBE	Yes	NIPDAU	N/A for Pkg Type	-40 to 85	TLE2022AI
TLE2022AMD	Obsolete	Production	SOIC (D) | 8	-	-	Call TI	Call TI	-55 to 125	2022AM
TLE2022AMDG4	Active	Production	SOIC (D) | 8	75 | TUBE	Yes	NIPDAU	Level-1-260C-UNLIM	-	2022AM
TLE2022AMDG4.A	Active	Production	SOIC (D) | 8	75 | TUBE	Yes	NIPDAU	Level-1-260C-UNLIM	-55 to 125	2022AM
TLE2022AMDR	Active	Production	SOIC (D) | 8	2500 | LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-55 to 125	2022AM
TLE2022AMDR.A	Active	Production	SOIC (D) | 8	2500 | LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-55 to 125	2022AM
TLE2022AMDRG4	Active	Production	SOIC (D) | 8	2500 | LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-	2022AM
TLE2022AMDRG4.A	Active	Production	SOIC (D) | 8	2500 | LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-55 to 125	2022AM
TLE2022CD	Obsolete	Production	SOIC (D) | 8	-	-	Call TI	Call TI	-	2022C
TLE2022CDR	Active	Production	SOIC (D) | 8	2500 | LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	0 to 70	2022C
TLE2022CDR.A	Active	Production	SOIC (D) | 8	2500 | LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	0 to 70	2022C
TLE2022CP	Active	Production	PDIP (P) | 8	50 | TUBE	Yes	NIPDAU	N/A for Pkg Type	-	TLE2022CP
TLE2022CP.A	Active	Production	PDIP (P) | 8	50 | TUBE	Yes	NIPDAU	N/A for Pkg Type	-40 to 85	TLE2022CP
TLE2022CPE4	Active	Production	PDIP (P) | 8	50 | TUBE	Yes	NIPDAU	N/A for Pkg Type	See TLE2022CP	TLE2022CP
TLE2022ID	Obsolete	Production	SOIC (D) | 8	-	-	Call TI	Call TI	-40 to 85	2022I
TLE2022IDR	Active	Production	SOIC (D) | 8	2500 | LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	2022I
TLE2022IDR.A	Active	Production	SOIC (D) | 8	2500 | LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	2022I
TLE2022IP	Active	Production	PDIP (P) | 8	50 | TUBE	Yes	NIPDAU	N/A for Pkg Type	-	TLE2022IP
TLE2022IP.A	Active	Production	PDIP (P) | 8	50 | TUBE	Yes	NIPDAU	N/A for Pkg Type	-40 to 85	TLE2022IP
TLE2022IPE4	Active	Production	PDIP (P) | 8	50 | TUBE	Yes	NIPDAU	N/A for Pkg Type	See TLE2022IP	TLE2022IP
TLE2022MD	Obsolete	Production	SOIC (D) | 8	-	-	Call TI	Call TI	-55 to 125	2022M
TLE2022MDR	Active	Production	SOIC (D) | 8	2500 | LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-55 to 125	2022M
TLE2022MDR.A	Active	Production	SOIC (D) | 8	2500 | LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-55 to 125	2022M
TLE2022MDRG4	Active	Production	SOIC (D) | 8	2500 | LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-	2022M
TLE2022MDRG4.A	Active	Production	SOIC (D) | 8	2500 | LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-55 to 125	2022M
TLE2024ACDW	Obsolete	Production	SOIC (DW) | 16	-	-	Call TI	Call TI	-	TLE2024AC
TLE2024ACDWR	Active	Production	SOIC (DW) | 16	2000 | LARGE T&R	Yes	Call TI	Call TI	-	TLE2024AC

Orderable part number	Status (1)	Material type (2)	Package | Pins	Package qty | Carrier	RoHS (3)	Lead finish/ Ball material (4)	MSL rating/ Peak reflow (5)	Op temp (°C)	Part marking (6)
TLE2024ACDWR.A	Active	Production	SOIC (DW) | 16	2000 | LARGE T&R	Yes	Call TI	Call TI	-40 to 85	TLE2024AC
TLE2024ACN	Active	Production	PDIP (N) | 14	25 | TUBE	Yes	NIPDAU	N/A for Pkg Type	-	TLE2024ACN
TLE2024ACN.A	Active	Production	PDIP (N) | 14	25 | TUBE	Yes	NIPDAU	N/A for Pkg Type	-40 to 85	TLE2024ACN
TLE2024AIDW	Active	Production	SOIC (DW) | 16	40 | TUBE	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	TLE2024AI
TLE2024AIDW.A	Active	Production	SOIC (DW) | 16	40 | TUBE	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	TLE2024AI
TLE2024AIN	Active	Production	PDIP (N) | 14	25 | TUBE	Yes	NIPDAU	N/A for Pkg Type	-	TLE2024AIN
TLE2024AIN.A	Active	Production	PDIP (N) | 14	25 | TUBE	Yes	NIPDAU	N/A for Pkg Type	-40 to 85	TLE2024AIN
TLE2024BMDW	Obsolete	Production	SOIC (DW) | 16	-	-	Call TI	Call TI	-55 to 125	
TLE2024BMDWG4	Obsolete	Production	SOIC (DW) | 16	-	-	Call TI	Call TI	-55 to 125	TLE2024BM
TLE2024BMDWR	Active	Production	SOIC (DW) | 16	2000 | LARGE T&R	Yes	Call TI	Call TI	-55 to 125	TLE2024BM
TLE2024BMDWR.A	Active	Production	SOIC (DW) | 16	2000 | LARGE T&R	Yes	Call TI	Call TI	-55 to 125	TLE2024BM
TLE2024CDW	Obsolete	Production	SOIC (DW) | 16	-	-	Call TI	Call TI	-	TLE2024C
TLE2024CDWR	Active	Production	SOIC (DW) | 16	2000 | LARGE T&R	Yes	Call TI	Call TI	-	TLE2024C
TLE2024CDWR.A	Active	Production	SOIC (DW) | 16	2000 | LARGE T&R	Yes	Call TI	Call TI	See TLE2024CDWR	TLE2024C
TLE2024CN	Active	Production	PDIP (N) | 14	25 | TUBE	Yes	NIPDAU	N/A for Pkg Type	-	TLE2024CN
TLE2024CN.A	Active	Production	PDIP (N) | 14	25 | TUBE	Yes	NIPDAU	N/A for Pkg Type	See TLE2024CN	TLE2024CN
TLE2024CNE4	Active	Production	PDIP (N) | 14	25 | TUBE	Yes	NIPDAU	N/A for Pkg Type	See TLE2024CN	TLE2024CN
TLE2024IDW	Obsolete	Production	SOIC (DW) | 16	-	-	Call TI	Call TI	-	TLE2024I
TLE2024IN	Active	Production	PDIP (N) | 14	25 | TUBE	Yes	NIPDAU	N/A for Pkg Type	-	TLE2024IN
TLE2024IN.A	Active	Production	PDIP (N) | 14	25 | TUBE	Yes	NIPDAU	N/A for Pkg Type	See TLE2024IN	TLE2024IN
TLE2024MDW	Obsolete	Production	SOIC (DW) | 16	-	-	Call TI	Call TI	-55 to 125	TLE2024M

(1) **Status:** For more details on status, see our product life cycle.

(2) **Material type:** When designated, preproduction parts are prototypes/experimental devices, and are not yet approved or released for full production. Testing and final process, including without limitation quality assurance, reliability performance testing, and/or process qualification, may not yet be complete, and this item is subject to further changes or possible discontinuation. If available for ordering, purchases will be subject to an additional waiver at checkout, and are intended for early internal evaluation purposes only. These items are sold without warranties of any kind.

(3) **RoHS values:** Yes, No, RoHS Exempt. See the TI RoHS Statement for additional information and value definition.

(4) **Lead finish/Ball material:** Parts may have multiple material finish options. Finish options are separated by a vertical ruled line. Lead finish/Ball material values may wrap to two lines if the finish value exceeds the maximum column width.

(5) MSL rating/Peak reflow: The moisture sensitivity level ratings and peak solder (reflow) temperatures. In the event that a part has multiple moisture sensitivity ratings, only the lowest level per JEDEC standards is shown. Refer to the shipping label for the actual reflow temperature that will be used to mount the part to the printed circuit board.

(6) Part marking: There may be an additional marking, which relates to the logo, the lot trace code information, or the environmental category of the part.

Multiple part markings will be inside parentheses. Only one part marking contained in parentheses and separated by a "~" will appear on a part. If a line is indented then it is a continuation of the previous line and the two combined represent the entire part marking for that device.

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In no event shall TI's liability arising out of such information exceed the total purchase price of the TI part(s) at issue in this document sold by TI to Customer on an annual basis.

OTHER QUALIFIED VERSIONS OF TLE2021, TLE2021A, TLE2021M, TLE2022, TLE2022A, TLE2022AM, TLE2022M, TLE2024, TLE2024A, TLE2024B, TLE2024BM :

- Catalog : TLE2021, TLE2022A, TLE2022, TLE2024B

- Automotive : TLE2021-Q1, TLE2021A-Q1, TLE2021-Q1, TLE2022-Q1, TLE2022A-Q1, TLE2022A-Q1, TLE2022-Q1, TLE2024-Q1

- Enhanced Product : TLE2021-EP, TLE2021A-EP, TLE2021-EP, TLE2022-EP, TLE2022A-EP, TLE2022A-EP, TLE2022-EP, TLE2024-EP, TLE2024A-EP

- Military : TLE2021M, TLE2021AM, TLE2022M, TLE2022AM, TLE2024M, TLE2024AM, TLE2024BM

NOTE: Qualified Version Definitions:

- Catalog - TI's standard catalog product

- Automotive - Q100 devices qualified for high-reliability automotive applications targeting zero defects

- Enhanced Product - Supports Defense, Aerospace and Medical Applications

- Military - QML certified for Military and Defense Applications