

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)
TMS320F28232PGFA	Active	Production	LQFP (PGF) 176	40 JEDEC TRAY (5+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F28232PGFA TMS320
TMS320F28232PGFA.Z	Active	Production	LQFP (PGF) 176	40 JEDEC TRAY (5+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 125	F28232PGFA TMS320
TMS320F28232PTPQ	Last Time Buy	Production	HLQFP (PTP) 176	40 JEDEC TRAY (5+1)	Yes	NIPDAU	Level-4-260C-72 HR	-40 to 125	TMS320 F28232PTPQ
TMS320F28232PTPS	Last Time Buy	Production	HLQFP (PTP) 176	40 JEDEC TRAY (5+1)	Yes	NIPDAU	Level-4-260C-72 HR	-40 to 125	TMS320 F28232PTPS
TMS320F28232ZAYA	Active	Production	NFBGA (ZAY) 179	160 EIAJ TRAY (5+1)	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 85	TMS320 F28232ZAYA
TMS320F28232ZAYA.Z	Active	Production	NFBGA (ZAY) 179	160 EIAJ TRAY (5+1)	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 125	TMS320 F28232ZAYA
TMS320F28234PGFA	Active	Production	LQFP (PGF) 176	40 JEDEC TRAY (5+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F28234PGFA TMS320
TMS320F28234PGFA.Z	Active	Production	LQFP (PGF) 176	40 JEDEC TRAY (5+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 125	F28234PGFA TMS320
TMS320F28234PTPQ	Active	Production	HLQFP (PTP) 176	40 JEDEC TRAY (5+1)	Yes	NIPDAU	Level-4-260C-72 HR	-40 to 125	TMS320 F28234PTPQ
TMS320F28234PTPS	Active	Production	HLQFP (PTP) 176	40 JEDEC TRAY (5+1)	Yes	NIPDAU	Level-4-260C-72 HR	-40 to 125	TMS320 F28234PTPS
TMS320F28234PTPS.Z	Active	Production	HLQFP (PTP) 176	40 JEDEC TRAY (5+1)	Yes	NIPDAU	Level-4-260C-72 HR	-40 to 125	TMS320 F28234PTPS
TMS320F28234ZAYA	Active	Production	NFBGA (ZAY) 179	160 EIAJ TRAY (5+1)	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 85	TMS320 F28234ZAYA
TMS320F28234ZAYA.Z	Active	Production	NFBGA (ZAY) 179	160 EIAJ TRAY (5+1)	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 125	TMS320 F28234ZAYA
TMS320F28234ZJZA	Active	Production	BGA (ZJZ) 176	126 JEDEC TRAY (5+1)	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 85	320F28234ZJZA TMS
TMS320F28234ZJZA.Z	Active	Production	BGA (ZJZ) 176	126 JEDEC TRAY (5+1)	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 125	320F28234ZJZA TMS
TMS320F28234ZJZQ	Active	Production	BGA (ZJZ) 176	126 JEDEC TRAY (5+1)	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 125	320F28234ZJZQ TMS

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)
TMS320F28234ZJZS	Active	Production	BGA (ZJZ) 176	126 JEDEC TRAY (5+1)	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 125	320F28234ZJZS TMS
TMS320F28234ZJZS.Z	Active	Production	BGA (ZJZ) 176	126 JEDEC TRAY (5+1)	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 125	320F28234ZJZS TMS
TMS320F28235PGFA	Active	Production	LQFP (PGF) 176	40 JEDEC TRAY (5+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F28235PGFA TMS320
TMS320F28235PGFA.Z	Active	Production	LQFP (PGF) 176	40 JEDEC TRAY (5+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 125	F28235PGFA TMS320
TMS320F28235PTPQ	Active	Production	HLQFP (PTP) 176	40 JEDEC TRAY (5+1)	Yes	NIPDAU	Level-4-260C-72 HR	-40 to 125	TMS320 F28235PTPQ
TMS320F28235PTPS	Active	Production	HLQFP (PTP) 176	40 JEDEC TRAY (5+1)	Yes	NIPDAU	Level-4-260C-72 HR	-40 to 125	TMS320 F28235PTPS
TMS320F28235PTPS.Z	Active	Production	HLQFP (PTP) 176	40 JEDEC TRAY (5+1)	Yes	NIPDAU	Level-4-260C-72 HR	-40 to 125	TMS320 F28235PTPS
TMS320F28235ZJZA	Active	Production	BGA (ZJZ) 176	126 JEDEC TRAY (5+1)	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 85	320F28235ZJZA TMS
TMS320F28235ZJZA.Z	Active	Production	BGA (ZJZ) 176	126 JEDEC TRAY (5+1)	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 125	320F28235ZJZA TMS
TMS320F28235ZJZQ	Active	Production	BGA (ZJZ) 176	126 JEDEC TRAY (5+1)	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 125	320F28235ZJZQ TMS
TMS320F28235ZJZR	Active	Production	BGA (ZJZ) 176	1000 LARGE T&R	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 125	320F28235ZJZR TMS
TMS320F28235ZJZS	Active	Production	BGA (ZJZ) 176	126 JEDEC TRAY (5+1)	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 125	320F28235ZJZS TMS
TMS320F28235ZJZS.Z	Active	Production	BGA (ZJZ) 176	126 JEDEC TRAY (5+1)	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 125	320F28235ZJZS TMS
TMS320F28332PGFA	Active	Production	LQFP (PGF) 176	40 JEDEC TRAY (5+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F28332PGFA TMS320
TMS320F28332PGFA.Z	Active	Production	LQFP (PGF) 176	40 JEDEC TRAY (5+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 125	F28332PGFA TMS320
TMS320F28332PTPS	Active	Production	HLQFP (PTP) 176	40 JEDEC TRAY (5+1)	Yes	NIPDAU	Level-4-260C-72 HR	-40 to 125	TMS320 F28332PTPS
TMS320F28332PTPS.Z	Active	Production	HLQFP (PTP) 176	40 JEDEC TRAY (5+1)	Yes	NIPDAU	Level-4-260C-72 HR	-40 to 125	TMS320 F28332PTPS

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)
TMS320F28333PGFA	Active	Production	LQFP (PGF) 176	40 JEDEC TRAY (5+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F28333PGFA TMS320
TMS320F28333PGFA.Z	Active	Production	LQFP (PGF) 176	40 JEDEC TRAY (5+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F28333PGFA TMS320
TMS320F28334PGFA	Active	Production	LQFP (PGF) 176	40 JEDEC TRAY (5+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F28334PGFA TMS320
TMS320F28334PGFA.Z	Active	Production	LQFP (PGF) 176	40 JEDEC TRAY (5+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 125	F28334PGFA TMS320
TMS320F28334PTPS	Active	Production	HLQFP (PTP) 176	40 JEDEC TRAY (5+1)	Yes	NIPDAU	Level-4-260C-72 HR	-	TMS320 F28334PTPS
TMS320F28334PTPS.Z	Active	Production	HLQFP (PTP) 176	40 JEDEC TRAY (5+1)	Yes	NIPDAU	Level-4-260C-72 HR	-40 to 125	TMS320 F28334PTPS
TMS320F28334ZAYA	Active	Production	NFBGA (ZAY) 179	160 EIAJ TRAY (5+1)	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 85	TMS320 F28334ZAYA
TMS320F28334ZAYA.Z	Active	Production	NFBGA (ZAY) 179	160 EIAJ TRAY (5+1)	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 125	TMS320 F28334ZAYA
TMS320F28334ZJZA	Active	Production	BGA (ZJZ) 176	126 JEDEC TRAY (5+1)	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 85	320F28334ZJZA TMS
TMS320F28334ZJZA.Z	Active	Production	BGA (ZJZ) 176	126 JEDEC TRAY (5+1)	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 125	320F28334ZJZA TMS
TMS320F28334ZJZS	Active	Production	BGA (ZJZ) 176	126 JEDEC TRAY (5+1)	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 125	320F28334ZJZS TMS
TMS320F28334ZJZS.Z	Active	Production	BGA (ZJZ) 176	126 JEDEC TRAY (5+1)	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 125	320F28334ZJZS TMS
TMS320F28335PGFA	Active	Production	LQFP (PGF) 176	40 JEDEC TRAY (5+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F28335PGFA TMS320
TMS320F28335PGFA.Z	Active	Production	LQFP (PGF) 176	40 JEDEC TRAY (5+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 125	F28335PGFA TMS320
TMS320F28335PGFAG4.Z	Active	Production	LQFP (PGF) 176	40 JEDEC TRAY (5+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 125	F28335PGFA TMS320
TMS320F28335PTPQ	Active	Production	HLQFP (PTP) 176	40 JEDEC TRAY (5+1)	Yes	NIPDAU	Level-4-260C-72 HR	-40 to 125	TMS320 F28335PTPQ
TMS320F28335PTPS	Active	Production	HLQFP (PTP) 176	40 JEDEC TRAY (5+1)	Yes	NIPDAU	Level-4-260C-72 HR	-40 to 125	TMS320 F28335PTPS

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)
TMS320F28335PTPS.Z	Active	Production	HLQFP (PTP) 176	40 JEDEC TRAY (5+1)	Yes	NIPDAU	Level-4-260C-72 HR	-40 to 125	TMS320 F28335PTPS
TMS320F28335PTPSG4.Z	Active	Production	HLQFP (PTP) 176	40 JEDEC TRAY (5+1)	Yes	NIPDAU	Level-4-260C-72 HR	-40 to 125	TMS320 F28335PTPS
TMS320F28335ZAYA	Active	Production	NFBGA (ZAY) 179	160 EIAJ TRAY (5+1)	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 85	TMS320 F28335ZAYA
TMS320F28335ZAYA.Z	Active	Production	NFBGA (ZAY) 179	160 EIAJ TRAY (5+1)	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 125	TMS320 F28335ZAYA
TMS320F28335ZAYAR	Active	Production	NFBGA (ZAY) 179	1000 LARGE T&R	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 85	TMS320 F28335ZAYA
TMS320F28335ZAYAR.Z	Active	Production	NFBGA (ZAY) 179	1000 LARGE T&R	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 125	TMS320 F28335ZAYA
TMS320F28335ZJZA	Active	Production	BGA (ZJZ) 176	126 JEDEC TRAY (5+1)	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 85	320F28335ZJZA TMS
TMS320F28335ZJZA.Z	Active	Production	BGA (ZJZ) 176	126 JEDEC TRAY (5+1)	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 125	320F28335ZJZA TMS
TMS320F28335ZJZQ	Active	Production	BGA (ZJZ) 176	126 JEDEC TRAY (5+1)	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 125	320F28335ZJZQ TMS
TMS320F28335ZJZQR	Active	Production	BGA (ZJZ) 176	1000 LARGE T&R	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 125	320F28335ZJZQ TMS
TMS320F28335ZJZS	Active	Production	BGA (ZJZ) 176	126 JEDEC TRAY (5+1)	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 125	320F28335ZJZS TMS
TMS320F28335ZJZS.Z	Active	Production	BGA (ZJZ) 176	126 JEDEC TRAY (5+1)	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 125	320F28335ZJZS TMS

⁽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.

Important Information and Disclaimer:The information provided on this page represents TI's knowledge and belief as of the date that it is provided. TI bases its knowledge and belief on information provided by third parties, and makes no representation or warranty as to the accuracy of such information. Efforts are underway to better integrate information from third parties. TI has taken and continues to take reasonable steps to provide representative and accurate information but may not have conducted destructive testing or chemical analysis on incoming materials and chemicals. TI and TI suppliers consider certain information to be proprietary, and thus CAS numbers and other limited information may not be available for release.

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 TMS320F28232, TMS320F28232-Q1, TMS320F28234, TMS320F28234-Q1, TMS320F28235, TMS320F28235-Q1, TMS320F28335, TMS320F28335-Q1 :

- Catalog : [TMS320F28232](#), [TMS320F28234](#), [TMS320F28235](#), [TMS320F28335](#)
- Automotive : [TMS320F28232-Q1](#), [TMS320F28234-Q1](#), [TMS320F28235-Q1](#), [TMS320F28335-Q1](#)

NOTE: Qualified Version Definitions:

- Catalog - TI's standard catalog product
- Automotive - Q100 devices qualified for high-reliability automotive applications targeting zero defects