

**PACKAGING INFORMATION**

Orderable Device	Status (1)	Package Type	Package Drawing	Pins	Package Qty	Eco Plan (2)	Lead finish/ Ball material (6)	MSL Peak Temp (3)	Op Temp (°C)	Device Marking (4/5)	Samples
TMS320F28232PGFA	ACTIVE	LQFP	PGF	176	40	Green (RoHS & no Sb/Br)	NIPDAU	Level-3-260C-168 HR	-40 to 85	F28232PGFA TMS320	<a href="#">Samples</a>
TMS320F28232PTPQ	ACTIVE	HLQFP	PTP	176	40	Green (RoHS & no Sb/Br)	NIPDAU	Level-4-260C-72 HR		TMS320 F28232PTPQ	<a href="#">Samples</a>
TMS320F28232PTPS	ACTIVE	HLQFP	PTP	176	40	Green (RoHS & no Sb/Br)	NIPDAU	Level-4-260C-72 HR		TMS320 F28232PTPS	<a href="#">Samples</a>
TMS320F28232ZAYA	ACTIVE	NFBGA	ZAY	179	160	Green (RoHS & no Sb/Br)	SNAGCU	Level-3-260C-168 HR	-40 to 85	TMS320 F28232ZAYA	<a href="#">Samples</a>
TMS320F28232ZHHA	ACTIVE	BGA MICROSTAR	ZHH	179	160	Green (RoHS & no Sb/Br)	SNAGCU	Level-3-260C-168 HR	-40 to 85	F28232ZHHA TMS320	<a href="#">Samples</a>
TMS320F28234PGFA	ACTIVE	LQFP	PGF	176	40	Green (RoHS & no Sb/Br)	NIPDAU	Level-3-260C-168 HR	-40 to 85	F28234PGFA TMS320	<a href="#">Samples</a>
TMS320F28234PTPQ	ACTIVE	HLQFP	PTP	176	40	Green (RoHS & no Sb/Br)	NIPDAU	Level-4-260C-72 HR	-40 to 125	TMS320 F28234PTPQ	<a href="#">Samples</a>
TMS320F28234PTPS	ACTIVE	HLQFP	PTP	176	40	Green (RoHS & no Sb/Br)	NIPDAU	Level-4-260C-72 HR	-40 to 125	TMS320 F28234PTPS	<a href="#">Samples</a>
TMS320F28234ZAYA	ACTIVE	NFBGA	ZAY	179	160	Green (RoHS & no Sb/Br)	SNAGCU	Level-3-260C-168 HR	-40 to 85	TMS320 F28234ZAYA	<a href="#">Samples</a>
TMS320F28234ZHHA	ACTIVE	BGA MICROSTAR	ZHH	179	160	Green (RoHS & no Sb/Br)	SNAGCU	Level-3-260C-168 HR	-40 to 85	F28234ZHHA TMS320	<a href="#">Samples</a>
TMS320F28234ZJZA	ACTIVE	BGA	ZJZ	176	126	Green (RoHS & no Sb/Br)	SNAGCU	Level-3-260C-168 HR	-40 to 85	320F28234ZJZA TMS	<a href="#">Samples</a>
TMS320F28234ZJZQ	ACTIVE	BGA	ZJZ	176	126	Green (RoHS & no Sb/Br)	SNAGCU	Level-3-260C-168 HR	-40 to 125	320F28234ZJZQ TMS	<a href="#">Samples</a>
TMS320F28234ZJZS	ACTIVE	BGA	ZJZ	176	126	Green (RoHS & no Sb/Br)	SNAGCU	Level-3-260C-168 HR	-40 to 125	320F28234ZJZS TMS	<a href="#">Samples</a>
TMS320F28235PGFA	ACTIVE	LQFP	PGF	176	40	Green (RoHS & no Sb/Br)	NIPDAU	Level-3-260C-168 HR	-40 to 85	F28235PGFA TMS320	<a href="#">Samples</a>
TMS320F28235PTPQ	ACTIVE	HLQFP	PTP	176	40	Green (RoHS & no Sb/Br)	NIPDAU	Level-4-260C-72 HR		TMS320 F28235PTPQ	<a href="#">Samples</a>
TMS320F28235PTPS	ACTIVE	HLQFP	PTP	176	40	Green (RoHS & no Sb/Br)	NIPDAU	Level-4-260C-72 HR		TMS320 F28235PTPS	<a href="#">Samples</a>

Orderable Device	Status (1)	Package Type	Package Drawing	Pins	Package Qty	Eco Plan (2)	Lead finish/ Ball material (6)	MSL Peak Temp (3)	Op Temp (°C)	Device Marking (4/5)	Samples
TMS320F28235ZJZA	ACTIVE	BGA	ZJZ	176	126	Green (RoHS & no Sb/Br)	SNAGCU	Level-3-260C-168 HR	-40 to 85	320F28235ZJZA TMS	<a href="#">Samples</a>
TMS320F28235ZJZQ	ACTIVE	BGA	ZJZ	176	126	Green (RoHS & no Sb/Br)	SNAGCU	Level-3-260C-168 HR	-40 to 125	320F28235ZJZQ TMS	<a href="#">Samples</a>
TMS320F28235ZJZQR	ACTIVE	BGA	ZJZ	176	1000	Green (RoHS & no Sb/Br)	SNAGCU	Level-3-260C-168 HR	-40 to 125	320F28235ZJZQ TMS	<a href="#">Samples</a>
TMS320F28235ZJZS	ACTIVE	BGA	ZJZ	176	126	Green (RoHS & no Sb/Br)	SNAGCU	Level-3-260C-168 HR	-40 to 125	320F28235ZJZS TMS	<a href="#">Samples</a>
TMS320F28332PGFA	ACTIVE	LQFP	PGF	176	40	Green (RoHS & no Sb/Br)	NIPDAU	Level-3-260C-168 HR	-40 to 85	F28332PGFA TMS320	<a href="#">Samples</a>
TMS320F28332PTPS	ACTIVE	HLQFP	PTP	176	40	Green (RoHS & no Sb/Br)	NIPDAU	Level-4-260C-72 HR		TMS320 F28332PTPS	<a href="#">Samples</a>
TMS320F28333PGFA	ACTIVE	LQFP	PGF	176	40	Green (RoHS & no Sb/Br)	NIPDAU	Level-3-260C-168 HR	-40 to 85	F28333PGFA TMS320	<a href="#">Samples</a>
TMS320F28334PGFA	ACTIVE	LQFP	PGF	176	40	Green (RoHS & no Sb/Br)	NIPDAU	Level-3-260C-168 HR	-40 to 85	F28334PGFA TMS320	<a href="#">Samples</a>
TMS320F28334PTPS	ACTIVE	HLQFP	PTP	176	40	Green (RoHS & no Sb/Br)	NIPDAU	Level-4-260C-72 HR		TMS320 F28334PTPS	<a href="#">Samples</a>
TMS320F28334ZAYA	ACTIVE	NFBGA	ZAY	179	160	Green (RoHS & no Sb/Br)	SNAGCU	Level-3-260C-168 HR	-40 to 85	TMS320 F28334ZAYA	<a href="#">Samples</a>
TMS320F28334ZHHA	ACTIVE	BGA MICROSTAR	ZHH	179	160	Green (RoHS & no Sb/Br)	SNAGCU	Level-3-260C-168 HR	-40 to 85	F28334ZHHA TMS320	<a href="#">Samples</a>
TMS320F28334ZJZA	ACTIVE	BGA	ZJZ	176	126	Green (RoHS & no Sb/Br)	SNAGCU	Level-3-260C-168 HR	-40 to 85	320F28334ZJZA TMS	<a href="#">Samples</a>
TMS320F28334ZJZS	ACTIVE	BGA	ZJZ	176	126	Green (RoHS & no Sb/Br)	SNAGCU	Level-3-260C-168 HR	-40 to 125	320F28334ZJZS TMS	<a href="#">Samples</a>
TMS320F28335PGFA	ACTIVE	LQFP	PGF	176	40	Green (RoHS & no Sb/Br)	NIPDAU	Level-3-260C-168 HR	-40 to 85	F28335PGFA TMS320	<a href="#">Samples</a>
TMS320F28335PTPQ	ACTIVE	HLQFP	PTP	176	40	Green (RoHS & no Sb/Br)	NIPDAU	Level-4-260C-72 HR	-40 to 125	TMS320 F28335PTPQ	<a href="#">Samples</a>
TMS320F28335PTPS	ACTIVE	HLQFP	PTP	176	40	Green (RoHS & no Sb/Br)	NIPDAU	Level-4-260C-72 HR	-40 to 125	TMS320 F28335PTPS	<a href="#">Samples</a>
TMS320F28335ZAYA	ACTIVE	NFBGA	ZAY	179	160	Green (RoHS & no Sb/Br)	SNAGCU	Level-3-260C-168 HR	-40 to 85	TMS320 F28335ZAYA	<a href="#">Samples</a>

Orderable Device	Status (1)	Package Type	Package Drawing	Pins	Package Qty	Eco Plan (2)	Lead finish/ Ball material (6)	MSL Peak Temp (3)	Op Temp (°C)	Device Marking (4/5)	Samples
TMS320F28335ZHHA	ACTIVE	BGA MICROSTAR	ZHH	179	160	Green (RoHS & no Sb/Br)	SNAGCU	Level-3-260C-168 HR	-40 to 85	F28335ZHHA TMS320	<a href="#">Samples</a>
TMS320F28335ZJZA	ACTIVE	BGA	ZJZ	176	126	Green (RoHS & no Sb/Br)	SNAGCU	Level-3-260C-168 HR	-40 to 85	320F28335ZJZA TMS	<a href="#">Samples</a>
TMS320F28335ZJZQ	ACTIVE	BGA	ZJZ	176	126	Green (RoHS & no Sb/Br)	SNAGCU	Level-3-260C-168 HR	-40 to 125	320F28335ZJZQ TMS	<a href="#">Samples</a>
TMS320F28335ZJZQR	ACTIVE	BGA	ZJZ	176	1000	Green (RoHS & no Sb/Br)	SNAGCU	Level-3-260C-168 HR	-40 to 125	320F28335ZJZQ TMS	<a href="#">Samples</a>
TMS320F28335ZJZS	ACTIVE	BGA	ZJZ	176	126	Green (RoHS & no Sb/Br)	SNAGCU	Level-3-260C-168 HR	-40 to 125	320F28335ZJZS TMS	<a href="#">Samples</a>

(1) The marketing status values are defined as follows:

**ACTIVE:** Product device recommended for new designs.

**LIFEBUY:** TI has announced that the device will be discontinued, and a lifetime-buy period is in effect.

**NRND:** Not recommended for new designs. Device is in production to support existing customers, but TI does not recommend using this part in a new design.

**PREVIEW:** Device has been announced but is not in production. Samples may or may not be available.

**OBSOLETE:** TI has discontinued the production of the device.

(2) **RoHS:** TI defines "RoHS" to mean semiconductor products that are compliant with the current EU RoHS requirements for all 10 RoHS substances, including the requirement that RoHS substance do not exceed 0.1% by weight in homogeneous materials. Where designed to be soldered at high temperatures, "RoHS" products are suitable for use in specified lead-free processes. TI may reference these types of products as "Pb-Free".

**RoHS Exempt:** TI defines "RoHS Exempt" to mean products that contain lead but are compliant with EU RoHS pursuant to a specific EU RoHS exemption.

**Green:** TI defines "Green" to mean the content of Chlorine (Cl) and Bromine (Br) based flame retardants meet JS709B low halogen requirements of <=1000ppm threshold. Antimony trioxide based flame retardants must also meet the <=1000ppm threshold requirement.

(3) MSL, Peak Temp. - The Moisture Sensitivity Level rating according to the JEDEC industry standard classifications, and peak solder temperature.

(4) There may be additional marking, which relates to the logo, the lot trace code information, or the environmental category on the device.

(5) Multiple Device Markings will be inside parentheses. Only one Device Marking contained in parentheses and separated by a "~" will appear on a device. If a line is indented then it is a continuation of the previous line and the two combined represent the entire Device Marking for that device.

(6) Lead finish/Ball material - Orderable Devices 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.

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