

**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
F280033SPM	ACTIVE	LQFP	PM	64	160	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280033SPM	<a href="#">Samples</a>
F280033SPN	ACTIVE	LQFP	PN	80	119	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280033SPN	<a href="#">Samples</a>
F280033SPT	ACTIVE	LQFP	PT	48	250	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280033S PT	<a href="#">Samples</a>
F280033SPZ	ACTIVE	LQFP	PZ	100	90	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280033SPZ	<a href="#">Samples</a>
F280034PTRQ1	ACTIVE	LQFP	PT	48	1000	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280034 PTQ	<a href="#">Samples</a>
F280034SPM	ACTIVE	LQFP	PM	64	160	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280034SPM	<a href="#">Samples</a>
F280034SPN	ACTIVE	LQFP	PN	80	119	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280034SPN	<a href="#">Samples</a>
F280034SPT	ACTIVE	LQFP	PT	48	250	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280034S PT	<a href="#">Samples</a>
F280034SPZ	ACTIVE	LQFP	PZ	100	90	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280034SPZ	<a href="#">Samples</a>
F280036CPMRQ1	ACTIVE	LQFP	PM	64	1000	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280036CPMQ	<a href="#">Samples</a>
F280036PMRQ1	ACTIVE	LQFP	PM	64	1000	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280036PMQ	<a href="#">Samples</a>
F280037CPTQ1	ACTIVE	LQFP	PT	48	250	RoHS & Green	Call TI   NIPDAU	Level-3-260C-168 HR	-40 to 125	F280037C PTQ	<a href="#">Samples</a>
F280037CPTRQ1	ACTIVE	LQFP	PT	48	1000	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280037C PTQ	<a href="#">Samples</a>
F280037CPZRQ1	ACTIVE	LQFP	PZ	100	1000	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280037CPZQ	<a href="#">Samples</a>
F280037CSPM	ACTIVE	LQFP	PM	64	160	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280037CSPM	<a href="#">Samples</a>
F280037CSPN	ACTIVE	LQFP	PN	80	119	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280037CSPN	<a href="#">Samples</a>
F280037CSPT	ACTIVE	LQFP	PT	48	250	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280037CS PT	<a href="#">Samples</a>
F280037CSPTR	ACTIVE	LQFP	PT	48	1000	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280037CS PT	<a href="#">Samples</a>

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F280037CSPZ	ACTIVE	LQFP	PZ	100	90	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280037CSPZ	<a href="#">Samples</a>
F280037PTRQ1	ACTIVE	LQFP	PT	48	1000	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280037 PTQ	<a href="#">Samples</a>
F280037PZRQ1	ACTIVE	LQFP	PZ	100	1000	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280037PZQ	<a href="#">Samples</a>
F280037SPM	ACTIVE	LQFP	PM	64	160	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280037SPM	<a href="#">Samples</a>
F280037SPMR	ACTIVE	LQFP	PM	64	1000	RoHS & Green	NIPDAU	Level-3-260C-168 HR		F280037SPM	<a href="#">Samples</a>
F280037SPN	ACTIVE	LQFP	PN	80	119	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280037SPN	<a href="#">Samples</a>
F280037SPNR	ACTIVE	LQFP	PN	80	1000	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280037SPN	<a href="#">Samples</a>
F280037SPT	ACTIVE	LQFP	PT	48	250	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280037S PT	<a href="#">Samples</a>
F280037SPZ	ACTIVE	LQFP	PZ	100	90	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280037SPZ	<a href="#">Samples</a>
F280038CPMQ1	ACTIVE	LQFP	PM	64	160	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280038CPMQ	<a href="#">Samples</a>
F280038CPMRQ1	ACTIVE	LQFP	PM	64	1000	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280038CPMQ	<a href="#">Samples</a>
F280038PMRQ1	ACTIVE	LQFP	PM	64	1000	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280038PMQ	<a href="#">Samples</a>
F280039CPNQ1	ACTIVE	LQFP	PN	80	119	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280039CPNQ	<a href="#">Samples</a>
F280039CPZQ1	ACTIVE	LQFP	PZ	100	90	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280039CPZQ	<a href="#">Samples</a>
F280039CPZRQ1	ACTIVE	LQFP	PZ	100	1000	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280039CPZQ	<a href="#">Samples</a>
F280039CSPM	ACTIVE	LQFP	PM	64	160	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280039CSPM	<a href="#">Samples</a>
F280039CSPMR	ACTIVE	LQFP	PM	64	1000	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280039CSPM	<a href="#">Samples</a>
F280039CSPN	ACTIVE	LQFP	PN	80	119	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280039CSPN	<a href="#">Samples</a>
F280039CSPNR	ACTIVE	LQFP	PN	80	1000	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280039CSPN	<a href="#">Samples</a>
F280039CSPZ	ACTIVE	LQFP	PZ	100	90	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280039CSPZ	<a href="#">Samples</a>
F280039CSPZR	ACTIVE	LQFP	PZ	100	1000	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280039CSPZ	<a href="#">Samples</a>

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F280039PZRQ1	ACTIVE	LQFP	PZ	100	1000	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280039PZQ	<a href="#">Samples</a>
F280039SPM	ACTIVE	LQFP	PM	64	160	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280039SPM	<a href="#">Samples</a>
F280039SPN	ACTIVE	LQFP	PN	80	119	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280039SPN	<a href="#">Samples</a>
F280039SPZ	ACTIVE	LQFP	PZ	100	90	RoHS & Green	NIPDAU	Level-3-260C-168 HR	-40 to 125	F280039SPZ	<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.

**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.

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**OTHER QUALIFIED VERSIONS OF TMS320F280034, TMS320F280034-Q1, TMS320F280037, TMS320F280037-Q1, TMS320F280037C, TMS320F280037C-Q1, TMS320F280039, TMS320F280039-Q1, TMS320F280039C, TMS320F280039C-Q1 :**

- Catalog : [TMS320F280034](#), [TMS320F280037](#), [TMS320F280037C](#), [TMS320F280039](#), [TMS320F280039C](#)
- Automotive : [TMS320F280034-Q1](#), [TMS320F280037-Q1](#), [TMS320F280037C-Q1](#), [TMS320F280039-Q1](#), [TMS320F280039C-Q1](#)

NOTE: Qualified Version Definitions:

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