

**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)
<a href="#">MSP430F67451AIPEU</a>	Active	Production	LQFP (PEU)   128	72   JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67451A
MSP430F67451AIPEU.Z	Active	Production	LQFP (PEU)   128	72   JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67451A
<a href="#">MSP430F67451AIPEUR</a>	Active	Production	LQFP (PEU)   128	750   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67451A
MSP430F67451AIPEUR.Z	Active	Production	LQFP (PEU)   128	750   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67451A
<a href="#">MSP430F67451AIPZ</a>	Active	Production	LQFP (PZ)   100	90   JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67451A
<a href="#">MSP430F67451AIPZR</a>	Active	Production	LQFP (PZ)   100	1000   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67451A
MSP430F67451AIPZR.Z	Active	Production	LQFP (PZ)   100	1000   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67451A
<a href="#">MSP430F67461AIPEU</a>	Active	Production	LQFP (PEU)   128	72   JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67461A
<a href="#">MSP430F67461AIPEUR</a>	Active	Production	LQFP (PEU)   128	750   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67461A
<a href="#">MSP430F67461AIPZ</a>	Active	Production	LQFP (PZ)   100	90   JEDEC TRAY (5+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67461A
MSP430F67461AIPZ.Z	Active	Production	LQFP (PZ)   100	90   JEDEC TRAY (5+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67461A
<a href="#">MSP430F67461AIPZR</a>	Active	Production	LQFP (PZ)   100	1000   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67461A
MSP430F67461AIPZR.Z	Active	Production	LQFP (PZ)   100	1000   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67461A
<a href="#">MSP430F67471AIPEU</a>	Active	Production	LQFP (PEU)   128	72   JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67471A
MSP430F67471AIPEU.Z	Active	Production	LQFP (PEU)   128	72   JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67471A
<a href="#">MSP430F67471AIPEUR</a>	Active	Production	LQFP (PEU)   128	750   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67471A
MSP430F67471AIPEUR.Z	Active	Production	LQFP (PEU)   128	750   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67471A
<a href="#">MSP430F67471AIPZ</a>	Active	Production	LQFP (PZ)   100	90   JEDEC TRAY (5+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67471A
MSP430F67471AIPZ.Z	Active	Production	LQFP (PZ)   100	90   JEDEC TRAY (5+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67471A
<a href="#">MSP430F67471AIPZR</a>	Active	Production	LQFP (PZ)   100	1000   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67471A
MSP430F67471AIPZR.Z	Active	Production	LQFP (PZ)   100	1000   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67471A

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)
<a href="#">MSP430F67481AIPEU</a>	Active	Production	LQFP (PEU)   128	72   JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67481A
<a href="#">MSP430F67481AIPEUR</a>	Active	Production	LQFP (PEU)   128	750   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67481A
<a href="#">MSP430F67481AIPZ</a>	Active	Production	LQFP (PZ)   100	90   JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67481A
<a href="#">MSP430F67481AIPZR</a>	Active	Production	LQFP (PZ)   100	1000   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67481A
<a href="#">MSP430F67491AIPEU</a>	Active	Production	LQFP (PEU)   128	72   JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67491A
<a href="#">MSP430F67491AIPEU.Z</a>	Active	Production	LQFP (PEU)   128	72   JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67491A
<a href="#">MSP430F67491AIPEUR</a>	Active	Production	LQFP (PEU)   128	750   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67491A
<a href="#">MSP430F67491AIPEUR.Z</a>	Active	Production	LQFP (PEU)   128	750   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67491A
<a href="#">MSP430F67491AIPZ</a>	Active	Production	LQFP (PZ)   100	90   JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67491A
<a href="#">MSP430F67491AIPZ.Z</a>	Active	Production	LQFP (PZ)   100	90   JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67491A
<a href="#">MSP430F67491AIPZR</a>	Active	Production	LQFP (PZ)   100	1000   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67491A
<a href="#">MSP430F67491AIPZR.Z</a>	Active	Production	LQFP (PZ)   100	1000   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67491A
<a href="#">MSP430F67651AIPEU</a>	Active	Production	LQFP (PEU)   128	72   JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67651A
<a href="#">MSP430F67651AIPEU.Z</a>	Active	Production	LQFP (PEU)   128	72   JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67651A
<a href="#">MSP430F67651AIPEUR</a>	Active	Production	LQFP (PEU)   128	750   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67651A
<a href="#">MSP430F67651AIPZ</a>	Active	Production	LQFP (PZ)   100	90   JEDEC TRAY (5+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67651A
<a href="#">MSP430F67651AIPZ.Z</a>	Active	Production	LQFP (PZ)   100	90   JEDEC TRAY (5+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67651A
<a href="#">MSP430F67651AIPZR</a>	Active	Production	LQFP (PZ)   100	1000   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67651A
<a href="#">MSP430F67651AIPZR.Z</a>	Active	Production	LQFP (PZ)   100	1000   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67651A
<a href="#">MSP430F67661AIPEU</a>	Active	Production	LQFP (PEU)   128	72   JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67661A
<a href="#">MSP430F67661AIPEUR</a>	Active	Production	LQFP (PEU)   128	750   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67661A
<a href="#">MSP430F67661AIPZ</a>	Active	Production	LQFP (PZ)   100	90   JEDEC TRAY (5+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67661A

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)
MSP430F67661AIPZ.Z	Active	Production	LQFP (PZ)   100	90   JEDEC TRAY (5+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67661A
<a href="#">MSP430F67661AIPZR</a>	Active	Production	LQFP (PZ)   100	1000   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67661A
MSP430F67661AIPZR.Z	Active	Production	LQFP (PZ)   100	1000   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67661A
<a href="#">MSP430F67671AIP EU</a>	Active	Production	LQFP (PEU)   128	72   JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67671A
<a href="#">MSP430F67671AIP EUR</a>	Active	Production	LQFP (PEU)   128	750   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67671A
<a href="#">MSP430F67671AIP Z</a>	Active	Production	LQFP (PZ)   100	90   JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67671A
<a href="#">MSP430F67671AIP ZR</a>	Active	Production	LQFP (PZ)   100	1000   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67671A
MSP430F67671AIPZR.Z	Active	Production	LQFP (PZ)   100	1000   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67671A
<a href="#">MSP430F67681AIP EU</a>	Active	Production	LQFP (PEU)   128	72   JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67681A
<a href="#">MSP430F67681AIP EUR</a>	Active	Production	LQFP (PEU)   128	750   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67681A
<a href="#">MSP430F67681AIP Z</a>	Active	Production	LQFP (PZ)   100	90   JEDEC TRAY (5+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67681A
MSP430F67681AIPZ.Z	Active	Production	LQFP (PZ)   100	90   JEDEC TRAY (5+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67681A
<a href="#">MSP430F67681AIP ZR</a>	Active	Production	LQFP (PZ)   100	1000   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67681A
<a href="#">MSP430F67691AIP EU</a>	Active	Production	LQFP (PEU)   128	72   JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67691A
MSP430F67691AIP EU.Z	Active	Production	LQFP (PEU)   128	72   JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67691A
<a href="#">MSP430F67691AIP EUR</a>	Active	Production	LQFP (PEU)   128	750   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67691A
<a href="#">MSP430F67691AIP Z</a>	Active	Production	LQFP (PZ)   100	90   JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67691A
MSP430F67691AIPZ.Z	Active	Production	LQFP (PZ)   100	90   JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67691A
<a href="#">MSP430F67691AIP ZR</a>	Active	Production	LQFP (PZ)   100	1000   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67691A
MSP430F67691AIPZR.Z	Active	Production	LQFP (PZ)   100	1000   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67691A
<a href="#">MSP430F67751AIP EU</a>	Active	Production	LQFP (PEU)   128	72   JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67751A
MSP430F67751AIP EU.Z	Active	Production	LQFP (PEU)   128	72   JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67751A

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)
<a href="#">MSP430F67751AIPZUR</a>	Active	Production	LQFP (PEU)   128	750   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67751A
<a href="#">MSP430F67751AIPZUR.Z</a>	Active	Production	LQFP (PEU)   128	750   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67751A
<a href="#">MSP430F67751AIPZ</a>	Active	Production	LQFP (PZ)   100	90   JEDEC TRAY (5+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67751A
<a href="#">MSP430F67751AIPZ.Z</a>	Active	Production	LQFP (PZ)   100	90   JEDEC TRAY (5+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67751A
<a href="#">MSP430F67751AIPZR</a>	Active	Production	LQFP (PZ)   100	1000   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67751A
<a href="#">MSP430F67751AIPZR.Z</a>	Active	Production	LQFP (PZ)   100	1000   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67751A
<a href="#">MSP430F67761AIPZUR</a>	Active	Production	LQFP (PEU)   128	72   JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67761A
<a href="#">MSP430F67761AIPZUR.Z</a>	Active	Production	LQFP (PEU)   128	72   JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67761A
<a href="#">MSP430F67761AIPZ</a>	Active	Production	LQFP (PZ)   100	90   JEDEC TRAY (5+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67761A
<a href="#">MSP430F67761AIPZ.Z</a>	Active	Production	LQFP (PZ)   100	90   JEDEC TRAY (5+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67761A
<a href="#">MSP430F67761AIPZR</a>	Active	Production	LQFP (PZ)   100	1000   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67761A
<a href="#">MSP430F67761AIPZR.Z</a>	Active	Production	LQFP (PZ)   100	1000   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67761A
<a href="#">MSP430F67771AIPZUR</a>	Active	Production	LQFP (PEU)   128	72   JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67771A
<a href="#">MSP430F67771AIPZUR.Z</a>	Active	Production	LQFP (PEU)   128	72   JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67771A
<a href="#">MSP430F67771AIPZ</a>	Active	Production	LQFP (PZ)   100	90   JEDEC TRAY (5+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67771A
<a href="#">MSP430F67771AIPZ.Z</a>	Active	Production	LQFP (PZ)   100	90   JEDEC TRAY (5+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67771A
<a href="#">MSP430F67771AIPZR</a>	Active	Production	LQFP (PZ)   100	1000   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67771A
<a href="#">MSP430F67771AIPZR.Z</a>	Active	Production	LQFP (PZ)   100	1000   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67771A
<a href="#">MSP430F67781AIPZUR</a>	Active	Production	LQFP (PEU)   128	72   JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67781A

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)
MSP430F67781AIP EU.Z	Active	Production	LQFP (PEU)   128	72   JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67781A
<a href="#">MSP430F67781AIP EUR</a>	Active	Production	LQFP (PEU)   128	750   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67781A
MSP430F67781AIP EUR.Z	Active	Production	LQFP (PEU)   128	750   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67781A
<a href="#">MSP430F67781AIP Z</a>	Active	Production	LQFP (PZ)   100	90   JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67781A
<a href="#">MSP430F67781AIP ZR</a>	Active	Production	LQFP (PZ)   100	1000   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67781A
<a href="#">MSP430F67791AIP EU</a>	Active	Production	LQFP (PEU)   128	72   JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67791A
MSP430F67791AIP EU.Z	Active	Production	LQFP (PEU)   128	72   JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67791A
<a href="#">MSP430F67791AIP EUR</a>	Active	Production	LQFP (PEU)   128	750   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67791A
MSP430F67791AIP EUR.Z	Active	Production	LQFP (PEU)   128	750   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67791A
<a href="#">MSP430F67791AIP Z</a>	Active	Production	LQFP (PZ)   100	90   JEDEC TRAY (5+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67791A
MSP430F67791AIP Z.Z	Active	Production	LQFP (PZ)   100	90   JEDEC TRAY (5+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67791A
<a href="#">MSP430F67791AIP ZR</a>	Active	Production	LQFP (PZ)   100	1000   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67791A
MSP430F67791AIP ZR.Z	Active	Production	LQFP (PZ)   100	1000   LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F67791A

(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.

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