

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)
MSP430F5358IPZ	Active	Production	LQFP (PZ) 100	90 JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F5358
MSP430F5358IPZ.B	Active	Production	LQFP (PZ) 100	90 JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F5358
MSP430F5358IPZR	Active	Production	LQFP (PZ) 100	1000 LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F5358
MSP430F5358IPZR.B	Active	Production	LQFP (PZ) 100	1000 LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F5358
MSP430F5358IZCAR	Active	Production	NFBGA (ZCA) 113	2500 LARGE T&R	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 85	F5358
MSP430F5358IZCAR.B	Active	Production	NFBGA (ZCA) 113	2500 LARGE T&R	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 85	F5358
MSP430F5358IZCAT	Active	Production	NFBGA (ZCA) 113	250 SMALL T&R	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 85	F5358
MSP430F5358IZCAT.B	Active	Production	NFBGA (ZCA) 113	250 SMALL T&R	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 85	F5358
MSP430F5359IPZ	Active	Production	LQFP (PZ) 100	90 JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F5359
MSP430F5359IPZ.B	Active	Production	LQFP (PZ) 100	90 JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F5359
MSP430F5359IPZR	Active	Production	LQFP (PZ) 100	1000 LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F5359
MSP430F5359IPZR.B	Active	Production	LQFP (PZ) 100	1000 LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F5359
MSP430F5359IZCAR	Active	Production	NFBGA (ZCA) 113	2500 LARGE T&R	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 85	F5359
MSP430F5359IZCAR.B	Active	Production	NFBGA (ZCA) 113	2500 LARGE T&R	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 85	F5359
MSP430F5359IZCAT	Active	Production	NFBGA (ZCA) 113	250 SMALL T&R	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 85	F5359
MSP430F5359IZCAT.B	Active	Production	NFBGA (ZCA) 113	250 SMALL T&R	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 85	F5359
MSP430F5658IPZ	Active	Production	LQFP (PZ) 100	90 JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F5658
MSP430F5658IPZ.B	Active	Production	LQFP (PZ) 100	90 JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F5658
MSP430F5658IPZR	Active	Production	LQFP (PZ) 100	1000 LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F5658
MSP430F5658IPZR.B	Active	Production	LQFP (PZ) 100	1000 LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F5658
MSP430F5659IPZ	Active	Production	LQFP (PZ) 100	90 JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F5659
MSP430F5659IPZ.B	Active	Production	LQFP (PZ) 100	90 JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F5659
MSP430F5659IPZR	Active	Production	LQFP (PZ) 100	1000 LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F5659

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)
MSP430F5659IPZR.B	Active	Production	LQFP (PZ) 100	1000 LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F5659
MSP430F5659IZCAR	Active	Production	NFBGA (ZCA) 113	2500 LARGE T&R	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 85	F5659
MSP430F5659IZCAR.B	Active	Production	NFBGA (ZCA) 113	2500 LARGE T&R	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 85	F5659
MSP430F5659IZCAT	Active	Production	NFBGA (ZCA) 113	250 SMALL T&R	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 85	F5659
MSP430F5659IZCAT.B	Active	Production	NFBGA (ZCA) 113	250 SMALL T&R	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 85	F5659
MSP430F6458IPZ	Active	Production	LQFP (PZ) 100	90 JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F6458
MSP430F6458IPZ.B	Active	Production	LQFP (PZ) 100	90 JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F6458
MSP430F6459IPZ	Active	Production	LQFP (PZ) 100	90 JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F6459
MSP430F6459IPZ.B	Active	Production	LQFP (PZ) 100	90 JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F6459
MSP430F6459IPZR	Active	Production	LQFP (PZ) 100	1000 LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F6459
MSP430F6459IPZR.B	Active	Production	LQFP (PZ) 100	1000 LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F6459
MSP430F6658IPZ	Active	Production	LQFP (PZ) 100	90 JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F6658
MSP430F6658IPZ.B	Active	Production	LQFP (PZ) 100	90 JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F6658
MSP430F6659IPZ	Active	Production	LQFP (PZ) 100	90 JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F6659
MSP430F6659IPZ.B	Active	Production	LQFP (PZ) 100	90 JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F6659
MSP430F6659IPZR	Active	Production	LQFP (PZ) 100	1000 LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F6659
MSP430F6659IPZR.B	Active	Production	LQFP (PZ) 100	1000 LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	F6659
MSP430F6659IZCAR	Active	Production	NFBGA (ZCA) 113	2500 LARGE T&R	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 85	F6659
MSP430F6659IZCAR.B	Active	Production	NFBGA (ZCA) 113	2500 LARGE T&R	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 85	F6659
MSP430F6659IZCAT	Active	Production	NFBGA (ZCA) 113	250 SMALL T&R	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 85	F6659
MSP430F6659IZCAT.B	Active	Production	NFBGA (ZCA) 113	250 SMALL T&R	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 85	F6659

(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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