

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)
MSP430F477IPN	Active	Production	LQFP (PN) 80	119 JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	M430F477
MSP430F477IPN.A	Active	Production	LQFP (PN) 80	119 JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	M430F477
MSP430F477IPNR	Active	Production	LQFP (PN) 80	1000 LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	M430F477
MSP430F477IPNR.A	Active	Production	LQFP (PN) 80	1000 LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	M430F477
MSP430F477IZCA	Active	Production	NFBGA (ZCA) 113	260 JEDEC TRAY (10+1)	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 85	F477
MSP430F477IZCA.A	Active	Production	NFBGA (ZCA) 113	260 JEDEC TRAY (10+1)	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 85	F477
MSP430F477IZCAR	Active	Production	NFBGA (ZCA) 113	2500 LARGE T&R	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 85	F477
MSP430F477IZCAR.A	Active	Production	NFBGA (ZCA) 113	2500 LARGE T&R	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 85	F477
MSP430F477IZQW	Obsolete	Production	BGA MICROSTAR JUNIOR (ZQW) 113	-	-	Call TI	Call TI	-40 to 85	M430F477
MSP430F477IZQWR	Obsolete	Production	BGA MICROSTAR JUNIOR (ZQW) 113	-	-	Call TI	Call TI	-40 to 85	M430F477
MSP430F478IPN	Active	Production	LQFP (PN) 80	119 JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	M430F478
MSP430F478IPN.A	Active	Production	LQFP (PN) 80	119 JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	M430F478
MSP430F478IPNR	Active	Production	LQFP (PN) 80	1000 LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	M430F478
MSP430F478IPNR.A	Active	Production	LQFP (PN) 80	1000 LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	M430F478
MSP430F478IZCA	Active	Production	NFBGA (ZCA) 113	2500 JEDEC TRAY (10+1)	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 85	F478
MSP430F478IZCA.A	Active	Production	NFBGA (ZCA) 113	2500 JEDEC TRAY (10+1)	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 85	F478
MSP430F478IZCAR	Active	Production	NFBGA (ZCA) 113	2500 LARGE T&R	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 85	F478
MSP430F478IZCAR.A	Active	Production	NFBGA (ZCA) 113	2500 LARGE T&R	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 85	F478
MSP430F478IZQWR	Obsolete	Production	BGA MICROSTAR JUNIOR (ZQW) 113	-	-	Call TI	Call TI	-40 to 85	M430F478
MSP430F479IPN	Active	Production	LQFP (PN) 80	119 JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	M430F479

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)
MSP430F479IPN.A	Active	Production	LQFP (PN) 80	119 JEDEC TRAY (10+1)	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	M430F479
MSP430F479IPNR	Active	Production	LQFP (PN) 80	1000 LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	M430F479
MSP430F479IPNR.A	Active	Production	LQFP (PN) 80	1000 LARGE T&R	Yes	NIPDAU	Level-3-260C-168 HR	-40 to 85	M430F479
MSP430F479IZCAR	Active	Production	NFBGA (ZCA) 113	2500 LARGE T&R	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 85	F479
MSP430F479IZCAR.A	Active	Production	NFBGA (ZCA) 113	2500 LARGE T&R	Yes	SNAGCU	Level-3-260C-168 HR	-40 to 85	F479
MSP430F479IZQWR	Obsolete	Production	BGA MICROSTAR JUNIOR (ZQW) 113	-	-	Call TI	Call TI	-40 to 85	M430F479

(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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