

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)
M430G2533IPW20RG4.Z	Active	Production	TSSOP (PW) 20	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2533
MSP430G2203IN20	Active	Production	PDIP (N) 20	20 TUBE	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	M430G2203
MSP430G2203IN20.Z	Active	Production	PDIP (N) 20	20 TUBE	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	M430G2203
MSP430G2203IPW20	Active	Production	TSSOP (PW) 20	70 TUBE	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2203
MSP430G2203IPW20.Z	Active	Production	TSSOP (PW) 20	70 TUBE	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2203
MSP430G2203IPW20R	Active	Production	TSSOP (PW) 20	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2203
MSP430G2203IPW20R.Z	Active	Production	TSSOP (PW) 20	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2203
MSP430G2203IPW28	Active	Production	TSSOP (PW) 28	50 TUBE	Yes	NIPDAU NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2203
MSP430G2203IPW28.Z	Active	Production	TSSOP (PW) 28	50 TUBE	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2203
MSP430G2203IPW28R	Active	Production	TSSOP (PW) 28	2000 LARGE T&R	Yes	NIPDAU NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2203
MSP430G2203IPW28R.Z	Active	Production	TSSOP (PW) 28	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2203
MSP430G2203IRHB32R	Active	Production	VQFN (RHB) 32	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 85	MSP430 G2203
MSP430G2203IRHB32R.Z	Active	Production	VQFN (RHB) 32	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 85	MSP430 G2203
MSP430G2203IRHB32T.Z	Active	Production	VQFN (RHB) 32	250 SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 85	MSP430 G2203
MSP430G2233IN20	Active	Production	PDIP (N) 20	20 TUBE	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	M430G2233
MSP430G2233IN20.Z	Active	Production	PDIP (N) 20	20 TUBE	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	M430G2233
MSP430G2233IPW20	Active	Production	TSSOP (PW) 20	70 TUBE	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2233
MSP430G2233IPW20.Z	Active	Production	TSSOP (PW) 20	70 TUBE	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2233
MSP430G2233IPW20R	Active	Production	TSSOP (PW) 20	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2233
MSP430G2233IPW20R.Z	Active	Production	TSSOP (PW) 20	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2233
MSP430G2233IPW28	Active	Production	TSSOP (PW) 28	50 TUBE	Yes	NIPDAU NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2233
MSP430G2233IPW28.Z	Active	Production	TSSOP (PW) 28	50 TUBE	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2233
MSP430G2233IPW28R	Active	Production	TSSOP (PW) 28	2000 LARGE T&R	Yes	NIPDAU NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2233
MSP430G2233IPW28R.Z	Active	Production	TSSOP (PW) 28	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2233
MSP430G2233IRHB32R	Active	Production	VQFN (RHB) 32	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 85	MSP430 G2233

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MSP430G2233IRHB32R.Z	Active	Production	VQFN (RHB) 32	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 85	MSP430 G2233
MSP430G2233IRHB32T	Active	Production	VQFN (RHB) 32	250 SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 85	MSP430 G2233
MSP430G2233IRHB32T.Z	Active	Production	VQFN (RHB) 32	250 SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 85	MSP430 G2233
MSP430G2303IPW20	Active	Production	TSSOP (PW) 20	70 TUBE	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2303
MSP430G2303IPW20.Z	Active	Production	TSSOP (PW) 20	70 TUBE	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2303
MSP430G2303IPW20R	Active	Production	TSSOP (PW) 20	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2303
MSP430G2303IPW20R.Z	Active	Production	TSSOP (PW) 20	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2303
MSP430G2303IPW28	Active	Production	TSSOP (PW) 28	50 TUBE	Yes	NIPDAU NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2303
MSP430G2303IPW28.Z	Active	Production	TSSOP (PW) 28	50 TUBE	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2303
MSP430G2303IPW28R	Active	Production	TSSOP (PW) 28	2000 LARGE T&R	Yes	NIPDAU NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2303
MSP430G2303IPW28R.Z	Active	Production	TSSOP (PW) 28	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2303
MSP430G2303IRHB32R	Active	Production	VQFN (RHB) 32	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 85	MSP430 G2303
MSP430G2303IRHB32R.Z	Active	Production	VQFN (RHB) 32	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 85	MSP430 G2303
MSP430G2303IRHB32T	Active	Production	VQFN (RHB) 32	250 SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 85	MSP430 G2303
MSP430G2303IRHB32T.Z	Active	Production	VQFN (RHB) 32	250 SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 85	MSP430 G2303
MSP430G2333IN20	Active	Production	PDIP (N) 20	20 TUBE	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	M430G2333
MSP430G2333IN20.Z	Active	Production	PDIP (N) 20	20 TUBE	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	M430G2333
MSP430G2333IPW20	Active	Production	TSSOP (PW) 20	70 TUBE	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2333
MSP430G2333IPW20.Z	Active	Production	TSSOP (PW) 20	70 TUBE	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2333
MSP430G2333IPW20R	Active	Production	TSSOP (PW) 20	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2333
MSP430G2333IPW20R.Z	Active	Production	TSSOP (PW) 20	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2333
MSP430G2333IPW28	Active	Production	TSSOP (PW) 28	50 TUBE	Yes	NIPDAU NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2333
MSP430G2333IPW28.Z	Active	Production	TSSOP (PW) 28	50 TUBE	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2333
MSP430G2333IPW28R	Active	Production	TSSOP (PW) 28	2000 LARGE T&R	Yes	NIPDAU NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2333
MSP430G2333IPW28R.Z	Active	Production	TSSOP (PW) 28	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2333

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MSP430G2333IRHB32R	Active	Production	VQFN (RHB) 32	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 85	MSP430 G2333
MSP430G2333IRHB32R.Z	Active	Production	VQFN (RHB) 32	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 85	MSP430 G2333
MSP430G2333IRHB32T	Active	Production	VQFN (RHB) 32	250 SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 85	MSP430 G2333
MSP430G2333IRHB32T.Z	Active	Production	VQFN (RHB) 32	250 SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 85	MSP430 G2333
MSP430G2403IN20	Active	Production	PDIP (N) 20	20 TUBE	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	M430G2403
MSP430G2403IN20.Z	Active	Production	PDIP (N) 20	20 TUBE	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	M430G2403
MSP430G2403IPW20	Active	Production	TSSOP (PW) 20	70 TUBE	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2403
MSP430G2403IPW20.Z	Active	Production	TSSOP (PW) 20	70 TUBE	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2403
MSP430G2403IPW20R	Active	Production	TSSOP (PW) 20	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2403
MSP430G2403IPW20R.Z	Active	Production	TSSOP (PW) 20	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2403
MSP430G2403IPW28	Active	Production	TSSOP (PW) 28	50 TUBE	Yes	NIPDAU NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2403
MSP430G2403IPW28.Z	Active	Production	TSSOP (PW) 28	50 TUBE	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2403
MSP430G2403IPW28R	Active	Production	TSSOP (PW) 28	2000 LARGE T&R	Yes	NIPDAU NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2403
MSP430G2403IPW28R.Z	Active	Production	TSSOP (PW) 28	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2403
MSP430G2403IRHB32R	Active	Production	VQFN (RHB) 32	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 85	MSP430 G2403
MSP430G2403IRHB32R.Z	Active	Production	VQFN (RHB) 32	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 85	MSP430 G2403
MSP430G2403IRHB32T	Active	Production	VQFN (RHB) 32	250 SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 85	MSP430 G2403
MSP430G2403IRHB32T.Z	Active	Production	VQFN (RHB) 32	250 SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 85	MSP430 G2403
MSP430G2433IN20	Active	Production	PDIP (N) 20	20 TUBE	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	M430G2433
MSP430G2433IN20.Z	Active	Production	PDIP (N) 20	20 TUBE	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	M430G2433
MSP430G2433IPW20	Active	Production	TSSOP (PW) 20	70 TUBE	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2433
MSP430G2433IPW20.Z	Active	Production	TSSOP (PW) 20	70 TUBE	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2433
MSP430G2433IPW20R	Active	Production	TSSOP (PW) 20	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2433
MSP430G2433IPW20R.Z	Active	Production	TSSOP (PW) 20	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2433
MSP430G2433IPW28	Active	Production	TSSOP (PW) 28	50 TUBE	Yes	NIPDAU NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2433

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MSP430G2433IPW28.Z	Active	Production	TSSOP (PW) 28	50 TUBE	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2433
MSP430G2433IPW28R	Active	Production	TSSOP (PW) 28	2000 LARGE T&R	Yes	NIPDAU NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2433
MSP430G2433IPW28R.Z	Active	Production	TSSOP (PW) 28	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2433
MSP430G2433IRHB32R	Active	Production	VQFN (RHB) 32	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 85	MSP430 G2433
MSP430G2433IRHB32R.Z	Active	Production	VQFN (RHB) 32	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 85	MSP430 G2433
MSP430G2433IRHB32T	Active	Production	VQFN (RHB) 32	250 SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 85	MSP430 G2433
MSP430G2433IRHB32T.Z	Active	Production	VQFN (RHB) 32	250 SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 85	MSP430 G2433
MSP430G2533IN20	Active	Production	PDIP (N) 20	20 TUBE	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	M430G2533
MSP430G2533IN20.Z	Active	Production	PDIP (N) 20	20 TUBE	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	M430G2533
MSP430G2533IPW20	Active	Production	TSSOP (PW) 20	70 TUBE	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2533
MSP430G2533IPW20.Z	Active	Production	TSSOP (PW) 20	70 TUBE	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2533
MSP430G2533IPW20R	Active	Production	TSSOP (PW) 20	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2533
MSP430G2533IPW20R.Z	Active	Production	TSSOP (PW) 20	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2533
MSP430G2533IPW28	Active	Production	TSSOP (PW) 28	50 TUBE	Yes	NIPDAU NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2533
MSP430G2533IPW28.Z	Active	Production	TSSOP (PW) 28	50 TUBE	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2533
MSP430G2533IPW28R	Active	Production	TSSOP (PW) 28	2000 LARGE T&R	Yes	NIPDAU NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2533
MSP430G2533IPW28R.Z	Active	Production	TSSOP (PW) 28	2000 LARGE T&R	Yes	NIPDAU	Level-1-260C-UNLIM	-40 to 85	430G2533
MSP430G2533IRHB32R	Active	Production	VQFN (RHB) 32	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 85	MSP430 G2533
MSP430G2533IRHB32R.Z	Active	Production	VQFN (RHB) 32	3000 LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 85	MSP430 G2533
MSP430G2533IRHB32T	Active	Production	VQFN (RHB) 32	250 SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 85	MSP430 G2533
MSP430G2533IRHB32T.Z	Active	Production	VQFN (RHB) 32	250 SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 85	MSP430 G2533

⁽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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