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## **PACKAGING INFORMATION**

Orderable part number	Status (1)	Material type	Package   Pins	Package qty   Carrier	RoHS (3)	Lead finish/ Ball material	MSL rating/ Peak reflow	Op temp (°C)	Part marking (6)
MSP430I2020TPW	Active	Production	TSSOP (PW)   28	50   TUBE	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2020T
MSP430I2020TPW.Z	Active	Production	TSSOP (PW)   28	50   TUBE	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2020T
MSP430I2020TPWR	Active	Production	TSSOP (PW)   28	2000   LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2020T
MSP430I2020TPWR.Z	Active	Production	TSSOP (PW)   28	2000   LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2020T
MSP430I2020TRHBR	Active	Production	VQFN (RHB)   32	3000   LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2020T
MSP430I2020TRHBR.Z	Active	Production	VQFN (RHB)   32	3000   LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2020T
MSP430I2020TRHBT	Active	Production	VQFN (RHB)   32	250   SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2020T
MSP430I2020TRHBT.Z	Active	Production	VQFN (RHB)   32	250   SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2020T
MSP430I2021TPW	Active	Production	TSSOP (PW)   28	50   TUBE	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2021T
MSP430I2021TPW.Z	Active	Production	TSSOP (PW)   28	50   TUBE	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2021T
MSP430I2021TPWR	Active	Production	TSSOP (PW)   28	2000   LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2021T
MSP430I2021TPWR.Z	Active	Production	TSSOP (PW)   28	2000   LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2021T
MSP430I2021TRHBR	Active	Production	VQFN (RHB)   32	3000   LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2021T
MSP430I2021TRHBR.Z	Active	Production	VQFN (RHB)   32	3000   LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2021T
MSP430I2021TRHBRG4.Z	Active	Production	VQFN (RHB)   32	3000   LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2021T
MSP430I2021TRHBT	Active	Production	VQFN (RHB)   32	250   SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2021T
MSP430I2021TRHBT.Z	Active	Production	VQFN (RHB)   32	250   SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2021T
MSP430I2030TPW	Active	Production	TSSOP (PW)   28	50   TUBE	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2030T
MSP430I2030TPW.Z	Active	Production	TSSOP (PW)   28	50   TUBE	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2030T
MSP430I2030TPWR	Active	Production	TSSOP (PW)   28	2000   LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2030T
MSP430I2030TPWR.Z	Active	Production	TSSOP (PW)   28	2000   LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2030T
MSP430I2030TRHBR	Active	Production	VQFN (RHB)   32	3000   LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2030T
MSP430I2030TRHBR.Z	Active	Production	VQFN (RHB)   32	3000   LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2030T
MSP430I2030TRHBT	Active	Production	VQFN (RHB)   32	250   SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2030T
MSP430I2030TRHBT.Z	Active	Production	VQFN (RHB)   32	250   SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2030T
MSP430I2031TPW	Active	Production	TSSOP (PW)   28	50   TUBE	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2031T
MSP430I2031TPW.Z	Active	Production	TSSOP (PW)   28	50   TUBE	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2031T
MSP430I2031TPWR	Active	Production	TSSOP (PW)   28	2000   LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2031T
MSP430I2031TPWR.Z	Active	Production	TSSOP (PW)   28	2000   LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2031T





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Orderable part number	Status	Material type	Package   Pins	Package qty   Carrier	RoHS	Lead finish/ Ball material	MSL rating/ Peak reflow	Op temp (°C)	Part marking (6)
						(4)	(5)		
MSP430I2031TRHBR	Active	Production	VQFN (RHB)   32	3000   LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2031T
MSP430I2031TRHBR.Z	Active	Production	VQFN (RHB)   32	3000   LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2031T
MSP430I2031TRHBT	Active	Production	VQFN (RHB)   32	250   SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2031T
MSP430I2031TRHBT.Z	Active	Production	VQFN (RHB)   32	250   SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2031T
MSP430I2040TPW	Active	Production	TSSOP (PW)   28	50   TUBE	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2040T
MSP430I2040TPW.Z	Active	Production	TSSOP (PW)   28	50   TUBE	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2040T
MSP430I2040TPWR	Active	Production	TSSOP (PW)   28	2000   LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2040T
MSP430I2040TPWR.Z	Active	Production	TSSOP (PW)   28	2000   LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2040T
MSP430I2040TRHBR	Active	Production	VQFN (RHB)   32	3000   LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2040T
MSP430I2040TRHBR.Z	Active	Production	VQFN (RHB)   32	3000   LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2040T
MSP430I2040TRHBT	Active	Production	VQFN (RHB)   32	250   SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2040T
MSP430I2040TRHBT.Z	Active	Production	VQFN (RHB)   32	250   SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2040T
MSP430I2041TPW	Active	Production	TSSOP (PW)   28	50   TUBE	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2041T
MSP430I2041TPW.Z	Active	Production	TSSOP (PW)   28	50   TUBE	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2041T
MSP430I2041TPWR	Active	Production	TSSOP (PW)   28	2000   LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2041T
MSP430I2041TPWR.Z	Active	Production	TSSOP (PW)   28	2000   LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2041T
MSP430I2041TRHBR	Active	Production	VQFN (RHB)   32	3000   LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2041T
MSP430I2041TRHBR.Z	Active	Production	VQFN (RHB)   32	3000   LARGE T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2041T
MSP430I2041TRHBT	Active	Production	VQFN (RHB)   32	250   SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2041T
MSP430I2041TRHBT.Z	Active	Production	VQFN (RHB)   32	250   SMALL T&R	Yes	NIPDAU	Level-2-260C-1 YEAR	-40 to 105	I2041T

<sup>(1)</sup> Status: For more details on status, see our product life cycle.

<sup>(2)</sup> 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.

<sup>(3)</sup> RoHS values: Yes, No, RoHS Exempt. See the TI RoHS Statement for additional information and value definition.

<sup>(4)</sup> 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.



## **PACKAGE OPTION ADDENDUM**

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(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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