

TAPE AND REEL INFORMATION



QUADRANT ASSIGNMENTS FOR PIN 1 ORIENTATION IN TAPE



*All dimensions are nominal

Device	Package Type	Package Drawing	Pins	SPQ	Reel Diameter (mm)	Reel Width W1 (mm)	A0 (mm)	B0 (mm)	K0 (mm)	P1 (mm)	W (mm)	Pin1 Quadrant
MSP430F2416TPMR	LQFP	PM	64	1000	330.0	24.4	13.0	13.0	2.1	16.0	24.0	Q2
MSP430F2416TPMR	LQFP	PM	64	1000	330.0	24.4	13.0	13.0	2.1	16.0	24.0	Q2
MSP430F2416TPNR	LQFP	PN	80	1000	330.0	24.4	15.0	15.0	2.1	20.0	24.0	Q2
MSP430F2416TZCAR	NFBGA	ZCA	113	2500	330.0	16.4	7.3	7.3	1.5	12.0	16.0	Q1
MSP430F2416TZQWR	BGA MICROSTAR JUNIOR	ZQW	113	2500	330.0	16.4	7.3	7.3	1.5	12.0	16.0	Q1
MSP430F2417TPMR	LQFP	PM	64	1000	330.0	24.4	13.0	13.0	2.1	16.0	24.0	Q2
MSP430F2417TPMR	LQFP	PM	64	1000	330.0	24.4	13.0	13.0	2.1	16.0	24.0	Q2
MSP430F2417TPNR	LQFP	PN	80	1000	330.0	24.4	15.0	15.0	2.1	20.0	24.0	Q2
MSP430F2417TZCAR	NFBGA	ZCA	113	2500	330.0	16.4	7.3	7.3	1.5	12.0	16.0	Q1
MSP430F2417TZQWR	BGA MICROSTAR JUNIOR	ZQW	113	2500	330.0	16.4	7.3	7.3	1.5	12.0	16.0	Q1
MSP430F2418TPMR	LQFP	PM	64	1000	330.0	24.4	13.0	13.0	2.1	16.0	24.0	Q2
MSP430F2418TPMR	LQFP	PM	64	1000	330.0	24.4	13.0	13.0	2.1	16.0	24.0	Q2
MSP430F2418TPNR	LQFP	PN	80	1000	330.0	24.4	15.0	15.0	2.1	20.0	24.0	Q2
MSP430F2418TZCAR	NFBGA	ZCA	113	2500	330.0	16.4	7.3	7.3	1.5	12.0	16.0	Q1

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MSP430F2418TZQWR	BGA MICROSTANDARD	ZQW	113	2500	330.0	16.4	7.3	7.3	1.5	12.0	16.0	Q1
MSP430F2419TPMR	LQFP	PM	64	1000	330.0	24.4	13.0	13.0	2.1	16.0	24.0	Q2
MSP430F2419TPMR	LQFP	PM	64	1000	330.0	24.4	13.0	13.0	2.1	16.0	24.0	Q2
MSP430F2419TPNR	LQFP	PN	80	1000	330.0	24.4	15.0	15.0	2.1	20.0	24.0	Q2
MSP430F2419TZQWR	BGA MICROSTANDARD	ZQW	113	2500	330.0	16.4	7.3	7.3	1.5	12.0	16.0	Q1
MSP430F2616TPMR	LQFP	PM	64	1000	330.0	24.4	13.0	13.0	2.1	16.0	24.0	Q2
MSP430F2616TPMR	LQFP	PM	64	1000	330.0	24.4	13.0	13.0	2.1	16.0	24.0	Q2
MSP430F2616TPNR	LQFP	PN	80	1000	330.0	24.4	15.0	15.0	2.1	20.0	24.0	Q2
MSP430F2616TZCAR	NFBGA	ZCA	113	2500	330.0	16.4	7.3	7.3	1.5	12.0	16.0	Q1
MSP430F2616TZQWR	BGA MICROSTANDARD	ZQW	113	2500	330.0	16.4	7.3	7.3	1.5	12.0	16.0	Q1
MSP430F2617TPMR	LQFP	PM	64	1000	330.0	24.4	13.0	13.0	2.1	16.0	24.0	Q2
MSP430F2617TPMR	LQFP	PM	64	1000	330.0	24.4	13.0	13.0	2.1	16.0	24.0	Q2
MSP430F2617TPNR	LQFP	PN	80	1000	330.0	24.4	15.0	15.0	2.1	20.0	24.0	Q2
MSP430F2617TZCAR	NFBGA	ZCA	113	2500	330.0	16.4	7.3	7.3	1.5	12.0	16.0	Q1
MSP430F2617TZQWR	BGA MICROSTANDARD	ZQW	113	2500	330.0	16.4	7.3	7.3	1.5	12.0	16.0	Q1
MSP430F2618TPMR	LQFP	PM	64	1000	330.0	24.4	13.0	13.0	2.1	16.0	24.0	Q2
MSP430F2618TPMR	LQFP	PM	64	1000	330.0	24.4	13.0	13.0	2.1	16.0	24.0	Q2
MSP430F2618TPNR	LQFP	PN	80	1000	330.0	24.4	15.0	15.0	2.1	20.0	24.0	Q2
MSP430F2618TZCAR	NFBGA	ZCA	113	2500	330.0	16.4	7.3	7.3	1.5	12.0	16.0	Q1
MSP430F2618TZQWR	BGA MICROSTANDARD	ZQW	113	2500	330.0	16.4	7.3	7.3	1.5	12.0	16.0	Q1
MSP430F2619TPMR	LQFP	PM	64	1000	330.0	24.4	13.0	13.0	2.1	16.0	24.0	Q2
MSP430F2619TPMR	LQFP	PM	64	1000	330.0	24.4	13.0	13.0	2.1	16.0	24.0	Q2
MSP430F2619TPNR	LQFP	PN	80	1000	330.0	24.4	15.0	15.0	2.1	20.0	24.0	Q2
MSP430F2619TZQWR	BGA MICROSTANDARD	ZQW	113	2500	330.0	16.4	7.3	7.3	1.5	12.0	16.0	Q1

TAPE AND REEL BOX DIMENSIONS


*All dimensions are nominal

Device	Package Type	Package Drawing	Pins	SPQ	Length (mm)	Width (mm)	Height (mm)
MSP430F2416TPMR	LQFP	PM	64	1000	350.0	350.0	43.0
MSP430F2416TPMR	LQFP	PM	64	1000	336.6	336.6	41.3
MSP430F2416TPNR	LQFP	PN	80	1000	350.0	350.0	43.0
MSP430F2416TZCAR	NFBGA	ZCA	113	2500	350.0	350.0	43.0
MSP430F2416TZQWR	BGA MICROSTAR JUNIOR	ZQW	113	2500	350.0	350.0	43.0
MSP430F2417TPMR	LQFP	PM	64	1000	350.0	350.0	43.0
MSP430F2417TPMR	LQFP	PM	64	1000	336.6	336.6	41.3
MSP430F2417TPNR	LQFP	PN	80	1000	350.0	350.0	43.0
MSP430F2417TZCAR	NFBGA	ZCA	113	2500	350.0	350.0	43.0
MSP430F2417TZQWR	BGA MICROSTAR JUNIOR	ZQW	113	2500	350.0	350.0	43.0
MSP430F2418TPMR	LQFP	PM	64	1000	350.0	350.0	43.0
MSP430F2418TPMR	LQFP	PM	64	1000	336.6	336.6	41.3
MSP430F2418TPNR	LQFP	PN	80	1000	350.0	350.0	43.0
MSP430F2418TZCAR	NFBGA	ZCA	113	2500	350.0	350.0	43.0
MSP430F2418TZQWR	BGA MICROSTAR JUNIOR	ZQW	113	2500	350.0	350.0	43.0
MSP430F2419TPMR	LQFP	PM	64	1000	336.6	336.6	41.3
MSP430F2419TPMR	LQFP	PM	64	1000	350.0	350.0	43.0
MSP430F2419TPNR	LQFP	PN	80	1000	350.0	350.0	43.0

Device	Package Type	Package Drawing	Pins	SPQ	Length (mm)	Width (mm)	Height (mm)
MSP430F2419TZQWR	BGA MICROSTAR JUNIOR	ZQW	113	2500	350.0	350.0	43.0
MSP430F2616TPMR	LQFP	PM	64	1000	350.0	350.0	43.0
MSP430F2616TPMR	LQFP	PM	64	1000	336.6	336.6	41.3
MSP430F2616TPNR	LQFP	PN	80	1000	350.0	350.0	43.0
MSP430F2616TZCAR	NFBGA	ZCA	113	2500	350.0	350.0	43.0
MSP430F2616TZQWR	BGA MICROSTAR JUNIOR	ZQW	113	2500	350.0	350.0	43.0
MSP430F2617TPMR	LQFP	PM	64	1000	336.6	336.6	41.3
MSP430F2617TPMR	LQFP	PM	64	1000	350.0	350.0	43.0
MSP430F2617TPNR	LQFP	PN	80	1000	350.0	350.0	43.0
MSP430F2617TZCAR	NFBGA	ZCA	113	2500	350.0	350.0	43.0
MSP430F2617TZQWR	BGA MICROSTAR JUNIOR	ZQW	113	2500	350.0	350.0	43.0
MSP430F2618TPMR	LQFP	PM	64	1000	336.6	336.6	41.3
MSP430F2618TPMR	LQFP	PM	64	1000	350.0	350.0	43.0
MSP430F2618TPNR	LQFP	PN	80	1000	350.0	350.0	43.0
MSP430F2618TZCAR	NFBGA	ZCA	113	2500	350.0	350.0	43.0
MSP430F2618TZQWR	BGA MICROSTAR JUNIOR	ZQW	113	2500	350.0	350.0	43.0
MSP430F2619TPMR	LQFP	PM	64	1000	350.0	350.0	43.0
MSP430F2619TPMR	LQFP	PM	64	1000	336.6	336.6	41.3
MSP430F2619TPNR	LQFP	PN	80	1000	350.0	350.0	43.0
MSP430F2619TZQWR	BGA MICROSTAR JUNIOR	ZQW	113	2500	350.0	350.0	43.0