

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	12.5	12.5	2.2	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
MSP430F2417TPMR	LQFP	PM	64	1000	330.0	24.4	12.5	12.5	2.2	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
MSP430F2418TPMR	LQFP	PM	64	1000	330.0	24.4	12.5	12.5	2.2	16.0	24.0	Q2
MSP430F2418TPMRG4	LQFP	PM	64	1000	330.0	24.4	12.5	12.5	2.2	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
MSP430F2419TPMR	LQFP	PM	64	1000	330.0	24.4	12.5	12.5	2.2	16.0	24.0	Q2
MSP430F2419TPMRG4	LQFP	PM	64	1000	330.0	24.4	12.5	12.5	2.2	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
MSP430F2419TPNRG4	LQFP	PN	80	1000	330.0	24.4	15.0	15.0	2.1	20.0	24.0	Q2
MSP430F2616TPMR	LQFP	PM	64	1000	330.0	24.4	12.5	12.5	2.2	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

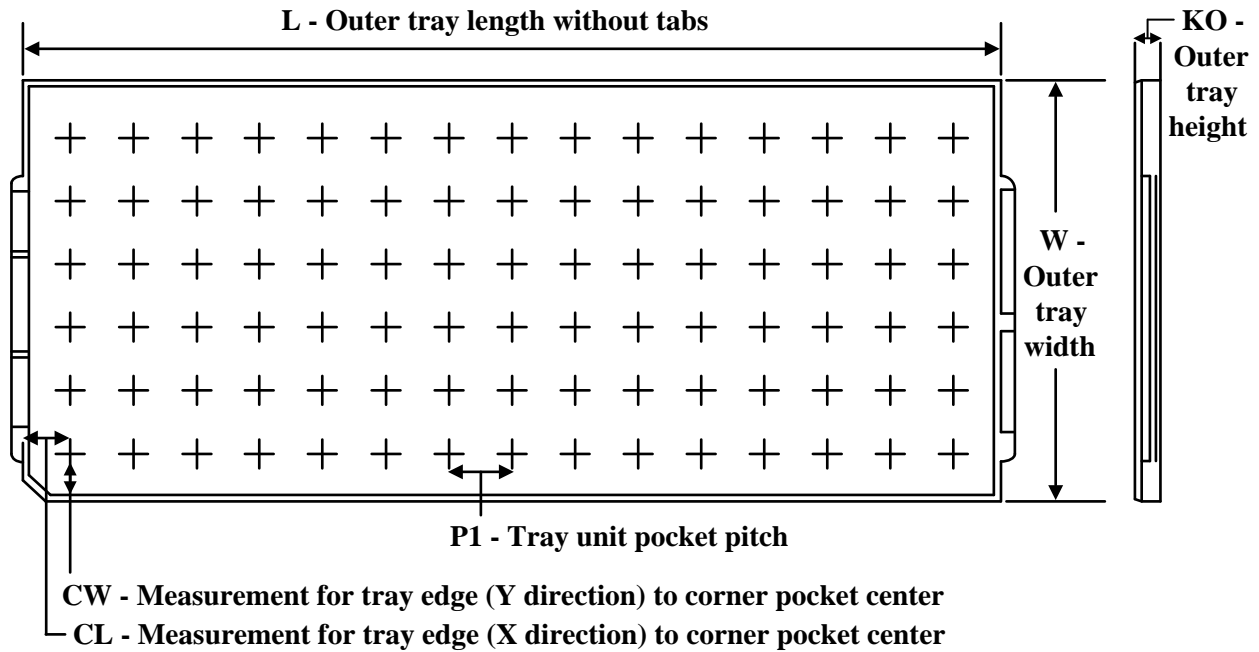
Device	Package Type	Package Drawing	Pins	SPQ	Reel Diameter (mm)	Reel Width W1 (mm)	A0 (mm)	B0 (mm)	K0 (mm)	P1 (mm)	W (mm)	Pin1 Quadrant
MSP430F2616TZCAR	NFBGA	ZCA	113	2500	330.0	16.4	7.3	7.3	1.5	12.0	16.0	Q1
MSP430F2617TPMR	LQFP	PM	64	1000	330.0	24.4	12.5	12.5	2.2	16.0	24.0	Q2
MSP430F2617TPMRG4	LQFP	PM	64	1000	330.0	24.4	12.5	12.5	2.2	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
MSP430F2618TPMR	LQFP	PM	64	1000	330.0	24.4	12.5	12.5	2.2	16.0	24.0	Q2
MSP430F2618TPMRG4	LQFP	PM	64	1000	330.0	24.4	12.5	12.5	2.2	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
MSP430F2618TPNRG4	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
MSP430F2619TPMR	LQFP	PM	64	1000	330.0	24.4	12.5	12.5	2.2	16.0	24.0	Q2
MSP430F2619TPMRG4	LQFP	PM	64	1000	330.0	24.4	12.5	12.5	2.2	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
MSP430F2619TZCAR	NFBGA	ZCA	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	336.6	336.6	41.3
MSP430F2416TPNR	LQFP	PN	80	1000	350.0	350.0	43.0
MSP430F2416TZCAR	NFBGA	ZCA	113	2500	336.6	336.6	31.8
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	336.6	336.6	31.8
MSP430F2418TPMR	LQFP	PM	64	1000	336.6	336.6	41.3
MSP430F2418TPMRG4	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	336.6	336.6	31.8
MSP430F2419TPMR	LQFP	PM	64	1000	336.6	336.6	41.3
MSP430F2419TPMRG4	LQFP	PM	64	1000	336.6	336.6	41.3
MSP430F2419TPNR	LQFP	PN	80	1000	350.0	350.0	43.0
MSP430F2419TPNRG4	LQFP	PN	80	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	336.6	336.6	31.8
MSP430F2617TPMR	LQFP	PM	64	1000	336.6	336.6	41.3

Device	Package Type	Package Drawing	Pins	SPQ	Length (mm)	Width (mm)	Height (mm)
MSP430F2617TPMRG4	LQFP	PM	64	1000	336.6	336.6	41.3
MSP430F2617TPNR	LQFP	PN	80	1000	350.0	350.0	43.0
MSP430F2617TZCAR	NFBGA	ZCA	113	2500	336.6	336.6	31.8
MSP430F2618TPMR	LQFP	PM	64	1000	336.6	336.6	41.3
MSP430F2618TPMRG4	LQFP	PM	64	1000	336.6	336.6	41.3
MSP430F2618TPNR	LQFP	PN	80	1000	350.0	350.0	43.0
MSP430F2618TPNRG4	LQFP	PN	80	1000	350.0	350.0	43.0
MSP430F2618TZCAR	NFBGA	ZCA	113	2500	336.6	336.6	31.8
MSP430F2619TPMR	LQFP	PM	64	1000	336.6	336.6	41.3
MSP430F2619TPMRG4	LQFP	PM	64	1000	336.6	336.6	41.3
MSP430F2619TPNR	LQFP	PN	80	1000	350.0	350.0	43.0
MSP430F2619TZCAR	NFBGA	ZCA	113	2500	336.6	336.6	31.8

TRAY


Chamfer on Tray corner indicates Pin 1 orientation of packed units.

*All dimensions are nominal

Device	Package Name	Package Type	Pins	SPQ	Unit array matrix	Max temperature (°C)	L (mm)	W (mm)	K0 (µm)	P1 (mm)	CL (mm)	CW (mm)
MSP430F2416TPM	PM	LQFP	64	160	8 X 20	150	315	135.9	7620	15.2	13.1	13
MSP430F2416TPM	PM	LQFP	64	160	8 x 20	150	315	135.9	7620	15.2	13.1	13
MSP430F2416TPM.A	PM	LQFP	64	160	8 x 20	150	315	135.9	7620	15.2	13.1	13
MSP430F2416TPM.A	PM	LQFP	64	160	8 X 20	150	315	135.9	7620	15.2	13.1	13
MSP430F2416TPN	PN	LQFP	80	119	7 x 17	150	315	135.9	7620	17.9	14.3	13.95
MSP430F2416TPN.A	PN	LQFP	80	119	7 x 17	150	315	135.9	7620	17.9	14.3	13.95
MSP430F2416TZCA	ZCA	NFBGA	113	260	10 x 26	150	315	135.9	7620	11.8	10	10.35
MSP430F2416TZCA	ZCA	NFBGA	113	260	10 x 26	150	315	135.9	7620	11.8	10	10.35
MSP430F2416TZCA.A	ZCA	NFBGA	113	260	10 x 26	150	315	135.9	7620	11.8	10	10.35
MSP430F2416TZCA.A	ZCA	NFBGA	113	260	10 x 26	150	315	135.9	7620	11.8	10	10.35
MSP430F2417TPM	PM	LQFP	64	160	8 X 20	150	315	135.9	7620	15.2	13.1	13
MSP430F2417TPM	PM	LQFP	64	160	8 x 20	150	315	135.9	7620	15.2	13.1	13
MSP430F2417TPM.A	PM	LQFP	64	160	8 x 20	150	315	135.9	7620	15.2	13.1	13
MSP430F2417TPM.A	PM	LQFP	64	160	8 X 20	150	315	135.9	7620	15.2	13.1	13
MSP430F2417TPN	PN	LQFP	80	119	7 x 17	150	315	135.9	7620	17.9	14.3	13.95
MSP430F2417TPN.A	PN	LQFP	80	119	7 x 17	150	315	135.9	7620	17.9	14.3	13.95
MSP430F2418TPM	PM	LQFP	64	160	8 X 20	150	315	135.9	7620	15.2	13.1	13

Device	Package Name	Package Type	Pins	SPQ	Unit array matrix	Max temperature (°C)	L (mm)	W (mm)	K0 (µm)	P1 (mm)	CL (mm)	CW (mm)
MSP430F2418TPM	PM	LQFP	64	160	8 x 20	150	315	135.9	7620	15.2	13.1	13
MSP430F2418TPM.A	PM	LQFP	64	160	8 X 20	150	315	135.9	7620	15.2	13.1	13
MSP430F2418TPM.A	PM	LQFP	64	160	8 x 20	150	315	135.9	7620	15.2	13.1	13
MSP430F2418TPN	PN	LQFP	80	119	7 x 17	150	315	135.9	7620	17.9	14.3	13.95
MSP430F2418TPN.A	PN	LQFP	80	119	7 x 17	150	315	135.9	7620	17.9	14.3	13.95
MSP430F2418TZCA	ZCA	NFBGA	113	260	10 x 26	150	315	135.9	7620	11.8	10	10.35
MSP430F2418TZCA	ZCA	NFBGA	113	260	10 x 26	150	315	135.9	7620	11.8	10	10.35
MSP430F2418TZCA.A	ZCA	NFBGA	113	260	10 x 26	150	315	135.9	7620	11.8	10	10.35
MSP430F2418TZCA.A	ZCA	NFBGA	113	260	10 x 26	150	315	135.9	7620	11.8	10	10.35
MSP430F2419TPM	PM	LQFP	64	160	8 X 20	150	315	135.9	7620	15.2	13.1	13
MSP430F2419TPM	PM	LQFP	64	160	8 x 20	150	315	135.9	7620	15.2	13.1	13
MSP430F2419TPM.A	PM	LQFP	64	160	8 X 20	150	315	135.9	7620	15.2	13.1	13
MSP430F2419TPM.A	PM	LQFP	64	160	8 x 20	150	315	135.9	7620	15.2	13.1	13
MSP430F2419TPN	PN	LQFP	80	119	7 x 17	150	315	135.9	7620	17.9	14.3	13.95
MSP430F2419TPN.A	PN	LQFP	80	119	7 x 17	150	315	135.9	7620	17.9	14.3	13.95
MSP430F2616TPM	PM	LQFP	64	160	8 x 20	150	315	135.9	7620	15.2	13.1	13
MSP430F2616TPM	PM	LQFP	64	160	8 X 20	150	315	135.9	7620	15.2	13.1	13
MSP430F2616TPM.A	PM	LQFP	64	160	8 X 20	150	315	135.9	7620	15.2	13.1	13
MSP430F2616TPM.A	PM	LQFP	64	160	8 x 20	150	315	135.9	7620	15.2	13.1	13
MSP430F2616TPN	PN	LQFP	80	119	7 x 17	150	315	135.9	7620	17.9	14.3	13.95
MSP430F2616TPN.A	PN	LQFP	80	119	7 x 17	150	315	135.9	7620	17.9	14.3	13.95
MSP430F2616TZCA	ZCA	NFBGA	113	260	10 x 26	150	315	135.9	7620	11.8	10	10.35
MSP430F2616TZCA	ZCA	NFBGA	113	260	10 x 26	150	315	135.9	7620	11.8	10	10.35
MSP430F2616TZCA.A	ZCA	NFBGA	113	260	10 x 26	150	315	135.9	7620	11.8	10	10.35
MSP430F2616TZCA.A	ZCA	NFBGA	113	260	10 x 26	150	315	135.9	7620	11.8	10	10.35
MSP430F2617TPM	PM	LQFP	64	160	8 X 20	150	315	135.9	7620	15.2	13.1	13
MSP430F2617TPM	PM	LQFP	64	160	8 x 20	150	315	135.9	7620	15.2	13.1	13
MSP430F2617TPM.A	PM	LQFP	64	160	8 X 20	150	315	135.9	7620	15.2	13.1	13
MSP430F2617TPM.A	PM	LQFP	64	160	8 x 20	150	315	135.9	7620	15.2	13.1	13
MSP430F2617TPN	PN	LQFP	80	119	7 x 17	150	315	135.9	7620	17.9	14.3	13.95
MSP430F2617TPN.A	PN	LQFP	80	119	7 x 17	150	315	135.9	7620	17.9	14.3	13.95
MSP430F2617TZCA	ZCA	NFBGA	113	260	10 x 26	150	315	135.9	7620	11.8	10	10.35
MSP430F2617TZCA	ZCA	NFBGA	113	260	10 x 26	150	315	135.9	7620	11.8	10	10.35
MSP430F2617TZCA.A	ZCA	NFBGA	113	260	10 x 26	150	315	135.9	7620	11.8	10	10.35
MSP430F2617TZCA.A	ZCA	NFBGA	113	260	10 x 26	150	315	135.9	7620	11.8	10	10.35
MSP430F2618TPM	PM	LQFP	64	160	8 x 20	150	315	135.9	7620	15.2	13.1	13
MSP430F2618TPM	PM	LQFP	64	160	8 X 20	150	315	135.9	7620	15.2	13.1	13
MSP430F2618TPM.A	PM	LQFP	64	160	8 x 20	150	315	135.9	7620	15.2	13.1	13
MSP430F2618TPM.A	PM	LQFP	64	160	8 X 20	150	315	135.9	7620	15.2	13.1	13
MSP430F2618TPN	PN	LQFP	80	119	7 x 17	150	315	135.9	7620	17.9	14.3	13.95
MSP430F2618TPN.A	PN	LQFP	80	119	7 x 17	150	315	135.9	7620	17.9	14.3	13.95

Device	Package Name	Package Type	Pins	SPQ	Unit array matrix	Max temperature (°C)	L (mm)	W (mm)	K0 (µm)	P1 (mm)	CL (mm)	CW (mm)
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MSP430F2618TZCA	ZCA	NFBGA	113	260	10 x 26	150	315	135.9	7620	11.8	10	10.35
MSP430F2618TZCA.A	ZCA	NFBGA	113	260	10 x 26	150	315	135.9	7620	11.8	10	10.35
MSP430F2618TZCA.A	ZCA	NFBGA	113	260	10 x 26	150	315	135.9	7620	11.8	10	10.35
MSP430F2619TPM	PM	LQFP	64	160	8 X 20	150	315	135.9	7620	15.2	13.1	13
MSP430F2619TPM	PM	LQFP	64	160	8 x 20	150	315	135.9	7620	15.2	13.1	13
MSP430F2619TPM.A	PM	LQFP	64	160	8 X 20	150	315	135.9	7620	15.2	13.1	13
MSP430F2619TPM.A	PM	LQFP	64	160	8 x 20	150	315	135.9	7620	15.2	13.1	13
MSP430F2619TPN	PN	LQFP	80	119	7 x 17	150	315	135.9	7620	17.9	14.3	13.95
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MSP430F2619TZCA	ZCA	NFBGA	113	260	10 x 26	150	315	135.9	7620	11.8	10	10.35
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