

**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
MSP430FR2032IG48R	TSSOP	DGG	48	2000	330.0	24.4	8.6	13.0	1.8	12.0	24.0	Q1
MSP430FR2032IG56R	TSSOP	DGG	56	2000	330.0	24.4	8.6	15.6	1.8	12.0	24.0	Q1
MSP430FR2032IPMR	LQFP	PM	64	1000	330.0	24.4	13.0	13.0	2.1	16.0	24.0	Q2
MSP430FR2033IG48R	TSSOP	DGG	48	2000	330.0	24.4	8.6	13.0	1.8	12.0	24.0	Q1
MSP430FR2033IG56R	TSSOP	DGG	56	2000	330.0	24.4	8.6	15.6	1.8	12.0	24.0	Q1
MSP430FR2033IPMR	LQFP	PM	64	1000	330.0	24.4	13.0	13.0	2.1	16.0	24.0	Q2

**TAPE AND REEL BOX DIMENSIONS**


\*All dimensions are nominal

Device	Package Type	Package Drawing	Pins	SPQ	Length (mm)	Width (mm)	Height (mm)
MSP430FR2032IG48R	TSSOP	DGG	48	2000	350.0	350.0	43.0
MSP430FR2032IG56R	TSSOP	DGG	56	2000	350.0	350.0	43.0
MSP430FR2032IPMR	LQFP	PM	64	1000	350.0	350.0	43.0
MSP430FR2033IG48R	TSSOP	DGG	48	2000	350.0	350.0	43.0
MSP430FR2033IG56R	TSSOP	DGG	56	2000	350.0	350.0	43.0
MSP430FR2033IPMR	LQFP	PM	64	1000	350.0	350.0	43.0

**TUBE**


\*All dimensions are nominal

Device	Package Name	Package Type	Pins	SPQ	L (mm)	W (mm)	T (μm)	B (mm)
MSP430FR2032IG48	DGG	TSSOP	48	40	530	11.89	3600	4.9
MSP430FR2032IG56	DGG	TSSOP	56	35	530	11.89	3600	4.9
MSP430FR2033IG48	DGG	TSSOP	48	40	530	11.89	3600	4.9
MSP430FR2033IG56	DGG	TSSOP	56	35	530	11.89	3600	4.9

**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)
MSP430FR2033IPM	PM	LQFP	64	160	8 x 20	150	315	135.9	7620	15.2	13.1	13