

## 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
MSP430FR6820IG56R	TSSOP	DGG	56	2000	330.0	24.4	8.6	15.6	1.8	12.0	24.0	Q1
MSP430FR6820IPMR	LQFP	PM	64	1000	330.0	24.4	13.0	13.0	2.1	16.0	24.0	Q2
MSP430FR6820IRGCR	VQFN	RGC	64	2000	330.0	16.4	9.3	9.3	1.1	12.0	16.0	Q2
MSP430FR68221IG56R	TSSOP	DGG	56	2000	330.0	24.4	8.6	15.6	1.8	12.0	24.0	Q1
MSP430FR68221IPMR	LQFP	PM	64	1000	330.0	24.4	13.0	13.0	2.1	16.0	24.0	Q2
MSP430FR68221IRGCR	VQFN	RGC	64	2000	330.0	16.4	9.3	9.3	1.1	12.0	16.0	Q2
MSP430FR6822IG56R	TSSOP	DGG	56	2000	330.0	24.4	8.6	15.6	1.8	12.0	24.0	Q1
MSP430FR6822IPMR	LQFP	PM	64	1000	330.0	24.4	13.0	13.0	2.1	16.0	24.0	Q2
MSP430FR6822IRGCR	VQFN	RGC	64	2000	330.0	16.4	9.3	9.3	1.1	12.0	16.0	Q2
MSP430FR6870IPMR	LQFP	PM	64	1000	330.0	24.4	13.0	13.0	2.1	16.0	24.0	Q2
MSP430FR6870IRGCR	VQFN	RGC	64	2000	330.0	16.4	9.3	9.3	1.1	12.0	16.0	Q2
MSP430FR68721IPMR	LQFP	PM	64	1000	330.0	24.4	13.0	13.0	2.1	16.0	24.0	Q2
MSP430FR68721IRGCR	VQFN	RGC	64	2000	330.0	16.4	9.3	9.3	1.1	12.0	16.0	Q2
MSP430FR6872IPMR	LQFP	PM	64	1000	330.0	24.4	13.0	13.0	2.1	16.0	24.0	Q2
MSP430FR6872IRGCR	VQFN	RGC	64	2000	330.0	16.4	9.3	9.3	1.1	12.0	16.0	Q2
MSP430FR6920IG56R	TSSOP	DGG	56	2000	330.0	24.4	8.6	15.6	1.8	12.0	24.0	Q1

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
MSP430FR6920IPMR	LQFP	PM	64	1000	330.0	24.4	13.0	13.0	2.1	16.0	24.0	Q2
MSP430FR6920IRGCR	VQFN	RGC	64	2000	330.0	16.4	9.3	9.3	1.1	12.0	16.0	Q2
MSP430FR69221IG56R	TSSOP	DGG	56	2000	330.0	24.4	8.6	15.6	1.8	12.0	24.0	Q1
MSP430FR69221IPMR	LQFP	PM	64	1000	330.0	24.4	13.0	13.0	2.1	16.0	24.0	Q2
MSP430FR69221IRGCR	VQFN	RGC	64	2000	330.0	16.4	9.3	9.3	1.1	12.0	16.0	Q2
MSP430FR69221IRGCT	VQFN	RGC	64	250	180.0	16.4	9.3	9.3	1.1	12.0	16.0	Q2
MSP430FR69221IG56R	TSSOP	DGG	56	2000	330.0	24.4	8.6	15.6	1.8	12.0	24.0	Q1
MSP430FR6922IPMR	LQFP	PM	64	1000	330.0	24.4	13.0	13.0	2.1	16.0	24.0	Q2
MSP430FR6922IRGCR	VQFN	RGC	64	2000	330.0	16.4	9.3	9.3	1.1	12.0	16.0	Q2
MSP430FR6922IRGCT	VQFN	RGC	64	250	180.0	16.4	9.3	9.3	1.1	12.0	16.0	Q2
MSP430FR6970IPMR	LQFP	PM	64	1000	330.0	24.4	13.0	13.0	2.1	16.0	24.0	Q2
MSP430FR6970IRGCR	VQFN	RGC	64	2000	330.0	16.4	9.3	9.3	1.1	12.0	16.0	Q2
MSP430FR69721IPMR	LQFP	PM	64	1000	330.0	24.4	13.0	13.0	2.1	16.0	24.0	Q2
MSP430FR69721IRGCR	VQFN	RGC	64	2000	330.0	16.4	9.3	9.3	1.1	12.0	16.0	Q2
MSP430FR69721IRGCT	VQFN	RGC	64	250	180.0	16.4	9.3	9.3	1.1	12.0	16.0	Q2
MSP430FR6972IPMR	LQFP	PM	64	1000	330.0	24.4	13.0	13.0	2.1	16.0	24.0	Q2
MSP430FR6972IRGCR	VQFN	RGC	64	2000	330.0	16.4	9.3	9.3	1.1	12.0	16.0	Q2
MSP430FR6972IRGCT	VQFN	RGC	64	250	180.0	16.4	9.3	9.3	1.1	12.0	16.0	Q2

**TAPE AND REEL BOX DIMENSIONS**


\*All dimensions are nominal

Device	Package Type	Package Drawing	Pins	SPQ	Length (mm)	Width (mm)	Height (mm)
MSP430FR6820IG56R	TSSOP	DGG	56	2000	350.0	350.0	43.0
MSP430FR6820IPMR	LQFP	PM	64	1000	336.6	336.6	41.3
MSP430FR6820IRGCR	VQFN	RGC	64	2000	367.0	367.0	38.0
MSP430FR68221IG56R	TSSOP	DGG	56	2000	350.0	350.0	43.0
MSP430FR68221IPMR	LQFP	PM	64	1000	336.6	336.6	41.3
MSP430FR68221IRGCR	VQFN	RGC	64	2000	367.0	367.0	38.0
MSP430FR6822IG56R	TSSOP	DGG	56	2000	350.0	350.0	43.0
MSP430FR6822IPMR	LQFP	PM	64	1000	336.6	336.6	41.3
MSP430FR6822IRGCR	VQFN	RGC	64	2000	367.0	367.0	38.0
MSP430FR6870IPMR	LQFP	PM	64	1000	336.6	336.6	41.3
MSP430FR6870IRGCR	VQFN	RGC	64	2000	367.0	367.0	38.0
MSP430FR68721IPMR	LQFP	PM	64	1000	336.6	336.6	41.3
MSP430FR68721IRGCR	VQFN	RGC	64	2000	367.0	367.0	38.0
MSP430FR6872IPMR	LQFP	PM	64	1000	336.6	336.6	41.3
MSP430FR6872IRGCR	VQFN	RGC	64	2000	367.0	367.0	38.0
MSP430FR6920IG56R	TSSOP	DGG	56	2000	350.0	350.0	43.0
MSP430FR6920IPMR	LQFP	PM	64	1000	336.6	336.6	41.3
MSP430FR6920IRGCR	VQFN	RGC	64	2000	367.0	367.0	38.0

Device	Package Type	Package Drawing	Pins	SPQ	Length (mm)	Width (mm)	Height (mm)
MSP430FR69221IG56R	TSSOP	DGG	56	2000	350.0	350.0	43.0
MSP430FR69221IPMR	LQFP	PM	64	1000	336.6	336.6	41.3
MSP430FR69221IRGCR	VQFN	RGC	64	2000	367.0	367.0	38.0
MSP430FR69221IRGCT	VQFN	RGC	64	250	210.0	185.0	35.0
MSP430FR6922IG56R	TSSOP	DGG	56	2000	350.0	350.0	43.0
MSP430FR6922IPMR	LQFP	PM	64	1000	336.6	336.6	41.3
MSP430FR6922IRGCR	VQFN	RGC	64	2000	367.0	367.0	38.0
MSP430FR6922IRGCT	VQFN	RGC	64	250	210.0	185.0	35.0
MSP430FR6970IPMR	LQFP	PM	64	1000	336.6	336.6	41.3
MSP430FR6970IRGCR	VQFN	RGC	64	2000	367.0	367.0	38.0
MSP430FR69721IPMR	LQFP	PM	64	1000	336.6	336.6	41.3
MSP430FR69721IRGCR	VQFN	RGC	64	2000	367.0	367.0	38.0
MSP430FR69721IRGCT	VQFN	RGC	64	250	210.0	185.0	35.0
MSP430FR6972IPMR	LQFP	PM	64	1000	336.6	336.6	41.3
MSP430FR6972IRGCR	VQFN	RGC	64	2000	367.0	367.0	38.0
MSP430FR6972IRGCT	VQFN	RGC	64	250	210.0	185.0	35.0

**TUBE**


\*All dimensions are nominal

Device	Package Name	Package Type	Pins	SPQ	L (mm)	W (mm)	T (μm)	B (mm)
MSP430FR69221IG56	DGG	TSSOP	56	35	530	11.89	3600	4.9
MSP430FR6922IG56	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)
MSP430FR69221IPM	PM	LQFP	64	160	8 X 20	150	315	135.9	7620	15.2	13.1	13
MSP430FR6922IPM	PM	LQFP	64	160	8 X 20	150	315	135.9	7620	15.2	13.1	13
MSP430FR69721IPM	PM	LQFP	64	160	8 X 20	150	315	135.9	7620	15.2	13.1	13
MSP430FR6972IPM	PM	LQFP	64	160	8 X 20	150	315	135.9	7620	15.2	13.1	13