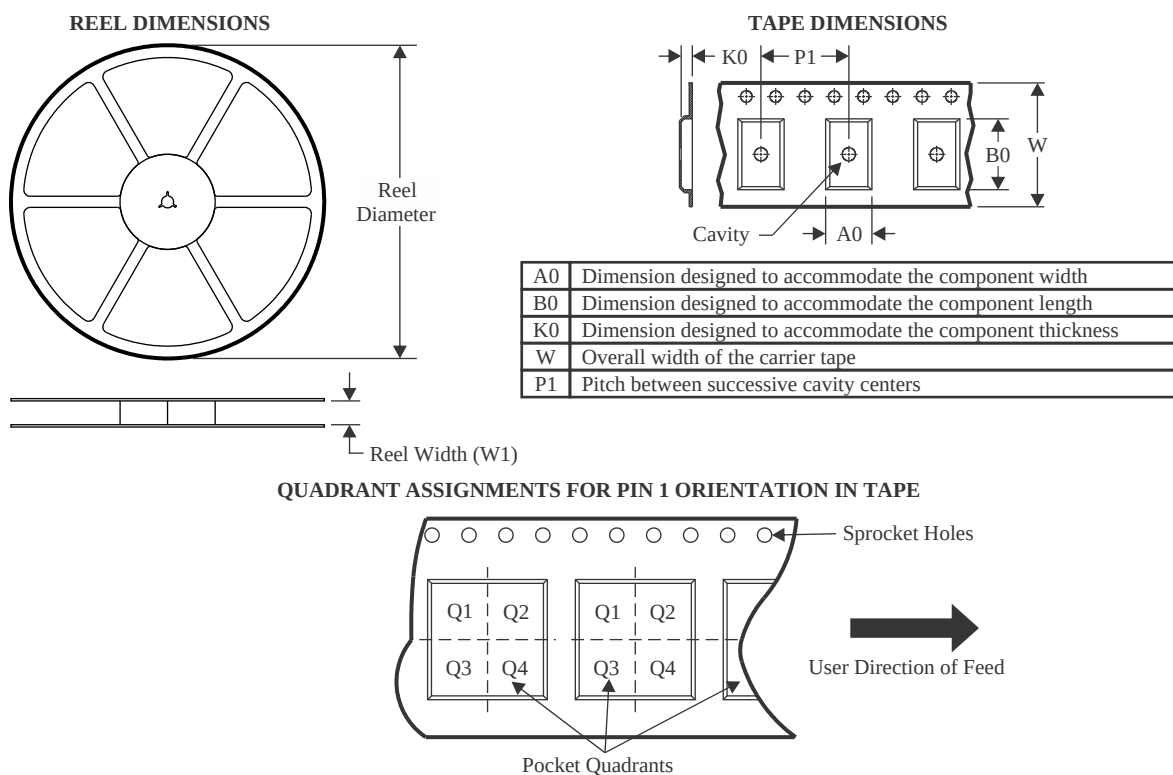


## TAPE AND REEL INFORMATION

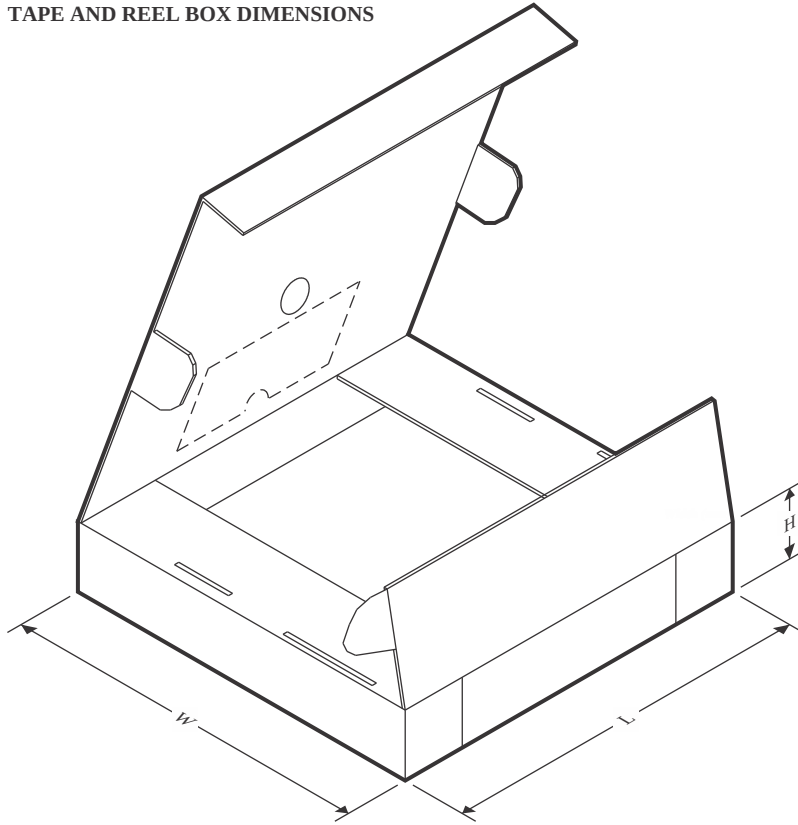


\*All dimensions are nominal

| 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               | 12.5    | 12.5    | 2.2     | 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               | 12.5    | 12.5    | 2.2     | 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               | 12.5    | 12.5    | 2.2     | 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               | 12.5    | 12.5    | 2.2     | 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               | 12.5    | 12.5    | 2.2     | 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               | 12.5    | 12.5    | 2.2     | 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               | 12.5    | 12.5    | 2.2     | 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               | 12.5    | 12.5    | 2.2     | 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               | 12.5    | 12.5    | 2.2     | 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               | 12.5    | 12.5    | 2.2     | 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               | 12.5    | 12.5    | 2.2     | 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               | 12.5    | 12.5    | 2.2     | 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            |

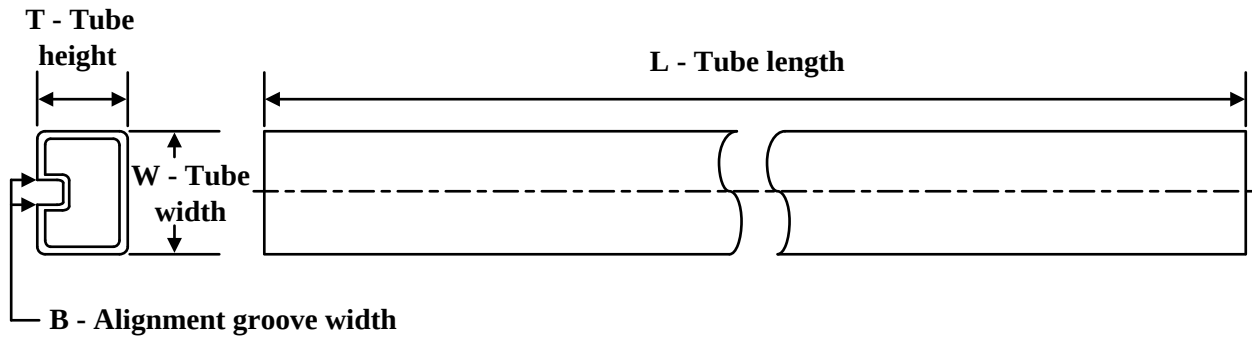
## TAPE AND REEL BOX DIMENSIONS



\*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        |

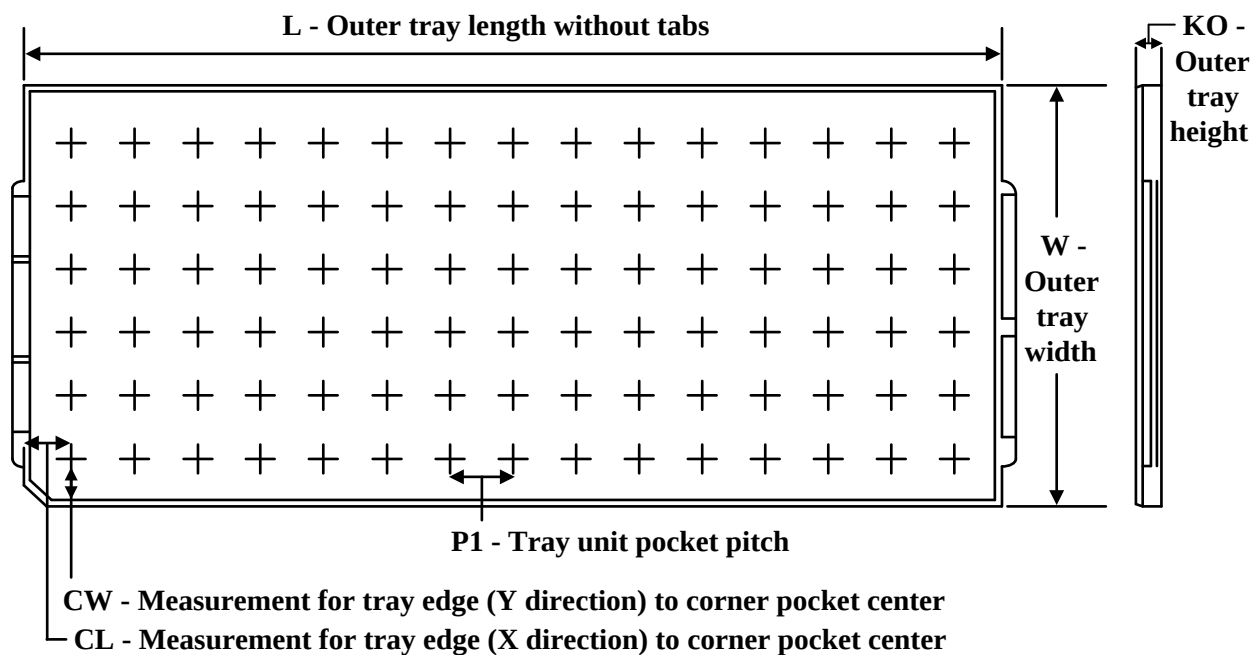
| Device             | Package Type | Package Drawing | Pins | SPQ  | Length (mm) | Width (mm) | Height (mm) |
|--------------------|--------------|-----------------|------|------|-------------|------------|-------------|
| MSP430FR69221IG56R | TSSOP        | DGG             | 56   | 2000 | 350.0       | 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    |
| MSP430FR69221IG56.A | DGG          | TSSOP        | 56   | 35  | 530    | 11.89  | 3600   | 4.9    |
| MSP430FR6922IG56    | DGG          | TSSOP        | 56   | 35  | 530    | 11.89  | 3600   | 4.9    |
| MSP430FR6922IG56.A  | 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      |
| MSP430FR69221IPM.A | 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      |
| MSP430FR6922IPM.A  | 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      |
| MSP430FR69721IPM.A | 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      |
| MSP430FR6972IPM.A  | PM           | LQFP         | 64   | 160 | 8 X 20            | 150                  | 315    | 135.9  | 7620    | 15.2    | 13.1    | 13      |