

**PACKAGING INFORMATION**

| Orderable Device | Status<br>(1) | Package Type | Package Drawing | Pins | Package Qty | Eco Plan<br>(2) | Lead finish/<br>Ball material<br>(6) | MSL Peak Temp<br>(3) | Op Temp (°C) | Device Marking<br>(4/5) | Samples                 |
|------------------|---------------|--------------|-----------------|------|-------------|-----------------|--------------------------------------|----------------------|--------------|-------------------------|-------------------------|
| MSP4301103IPWR   | ACTIVE        | TSSOP        | PW              | 24   | 2000        | RoHS & Green    | NIPDAU                               | Level-1-260C-UNLIM   | -40 to 85    | 430AFE253               | <a href="#">Samples</a> |
| MSP430AFE221IPW  | ACTIVE        | TSSOP        | PW              | 24   | 60          | RoHS & Green    | NIPDAU                               | Level-1-260C-UNLIM   | -40 to 85    | 430AFE221               | <a href="#">Samples</a> |
| MSP430AFE221IPWR | ACTIVE        | TSSOP        | PW              | 24   | 2000        | RoHS & Green    | NIPDAU                               | Level-1-260C-UNLIM   | -40 to 85    | 430AFE221               | <a href="#">Samples</a> |
| MSP430AFE222IPW  | ACTIVE        | TSSOP        | PW              | 24   | 60          | RoHS & Green    | NIPDAU                               | Level-1-260C-UNLIM   | -40 to 85    | 430AFE222               | <a href="#">Samples</a> |
| MSP430AFE222IPWR | ACTIVE        | TSSOP        | PW              | 24   | 2000        | RoHS & Green    | NIPDAU                               | Level-1-260C-UNLIM   | -40 to 85    | 430AFE222               | <a href="#">Samples</a> |
| MSP430AFE223IPW  | ACTIVE        | TSSOP        | PW              | 24   | 60          | RoHS & Green    | NIPDAU                               | Level-1-260C-UNLIM   | -40 to 85    | 430AFE223               | <a href="#">Samples</a> |
| MSP430AFE223IPWR | ACTIVE        | TSSOP        | PW              | 24   | 2000        | RoHS & Green    | NIPDAU                               | Level-1-260C-UNLIM   | -40 to 85    | 430AFE223               | <a href="#">Samples</a> |
| MSP430AFE231IPW  | ACTIVE        | TSSOP        | PW              | 24   | 60          | RoHS & Green    | NIPDAU                               | Level-1-260C-UNLIM   | -40 to 85    | 430AFE231               | <a href="#">Samples</a> |
| MSP430AFE231IPWR | ACTIVE        | TSSOP        | PW              | 24   | 2000        | RoHS & Green    | NIPDAU                               | Level-1-260C-UNLIM   | -40 to 85    | 430AFE231               | <a href="#">Samples</a> |
| MSP430AFE232IPW  | ACTIVE        | TSSOP        | PW              | 24   | 60          | RoHS & Green    | NIPDAU                               | Level-1-260C-UNLIM   | -40 to 85    | 430AFE232               | <a href="#">Samples</a> |
| MSP430AFE232IPWR | ACTIVE        | TSSOP        | PW              | 24   | 2000        | RoHS & Green    | NIPDAU                               | Level-1-260C-UNLIM   | -40 to 85    | 430AFE232               | <a href="#">Samples</a> |
| MSP430AFE233IPW  | ACTIVE        | TSSOP        | PW              | 24   | 60          | RoHS & Green    | NIPDAU                               | Level-1-260C-UNLIM   | -40 to 85    | 430AFE233               | <a href="#">Samples</a> |
| MSP430AFE233IPWR | ACTIVE        | TSSOP        | PW              | 24   | 2000        | RoHS & Green    | NIPDAU                               | Level-1-260C-UNLIM   | -40 to 85    | 430AFE233               | <a href="#">Samples</a> |
| MSP430AFE251IPW  | ACTIVE        | TSSOP        | PW              | 24   | 60          | RoHS & Green    | NIPDAU                               | Level-1-260C-UNLIM   | -40 to 85    | 430AFE251               | <a href="#">Samples</a> |
| MSP430AFE251IPWR | ACTIVE        | TSSOP        | PW              | 24   | 2000        | RoHS & Green    | NIPDAU                               | Level-1-260C-UNLIM   | -40 to 85    | 430AFE251               | <a href="#">Samples</a> |
| MSP430AFE252IPW  | ACTIVE        | TSSOP        | PW              | 24   | 60          | RoHS & Green    | NIPDAU                               | Level-1-260C-UNLIM   | -40 to 85    | 430AFE252               | <a href="#">Samples</a> |
| MSP430AFE252IPWR | ACTIVE        | TSSOP        | PW              | 24   | 2000        | RoHS & Green    | NIPDAU                               | Level-1-260C-UNLIM   | -40 to 85    | 430AFE252               | <a href="#">Samples</a> |
| MSP430AFE253IPW  | ACTIVE        | TSSOP        | PW              | 24   | 60          | RoHS & Green    | NIPDAU                               | Level-1-260C-UNLIM   | -40 to 85    | 430AFE253               | <a href="#">Samples</a> |
| MSP430AFE253IPWR | ACTIVE        | TSSOP        | PW              | 24   | 2000        | RoHS & Green    | NIPDAU                               | Level-1-260C-UNLIM   | -40 to 85    | 430AFE253               | <a href="#">Samples</a> |

(1) The marketing status values are defined as follows:

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**ACTIVE:** Product device recommended for new designs.

**LIFEBUY:** TI has announced that the device will be discontinued, and a lifetime-buy period is in effect.

**NRND:** Not recommended for new designs. Device is in production to support existing customers, but TI does not recommend using this part in a new design.

**PREVIEW:** Device has been announced but is not in production. Samples may or may not be available.

**OBSOLETE:** TI has discontinued the production of the device.

<sup>(2)</sup> **RoHS:** TI defines "RoHS" to mean semiconductor products that are compliant with the current EU RoHS requirements for all 10 RoHS substances, including the requirement that RoHS substance do not exceed 0.1% by weight in homogeneous materials. Where designed to be soldered at high temperatures, "RoHS" products are suitable for use in specified lead-free processes. TI may reference these types of products as "Pb-Free".

**RoHS Exempt:** TI defines "RoHS Exempt" to mean products that contain lead but are compliant with EU RoHS pursuant to a specific EU RoHS exemption.

**Green:** TI defines "Green" to mean the content of Chlorine (Cl) and Bromine (Br) based flame retardants meet JS709B low halogen requirements of  $\leq 1000$ ppm threshold. Antimony trioxide based flame retardants must also meet the  $\leq 1000$ ppm threshold requirement.

<sup>(3)</sup> **MSL, Peak Temp.** - The Moisture Sensitivity Level rating according to the JEDEC industry standard classifications, and peak solder temperature.

<sup>(4)</sup> There may be additional marking, which relates to the logo, the lot trace code information, or the environmental category on the device.

<sup>(5)</sup> Multiple Device Markings will be inside parentheses. Only one Device Marking contained in parentheses and separated by a "~" will appear on a device. If a line is indented then it is a continuation of the previous line and the two combined represent the entire Device Marking for that device.

<sup>(6)</sup> **Lead finish/Ball material** - Orderable Devices may have multiple material finish options. Finish options are separated by a vertical ruled line. Lead finish/Ball material values may wrap to two lines if the finish value exceeds the maximum column width.

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