



**12500 TI Boulevard, MS 8640, Dallas, Texas 75243**

**Notification# 20240229001.0  
Datasheet for LMG342xR030 and LMG342xR050  
Information Only**

**Date:** March 04, 2024  
**To:** MOUSER PCN

Dear Customer:

This is an information-only announcement of a change to a device that is currently offered by Texas Instruments.

The changes discussed within this notification are for your information only.

Any negotiated alternative change requirements will be provided via the customer's defined process. Customers with previously negotiated, special requirements will be handled separately. Any inquiries should be directed to your local Field Sales Representative.

For questions regarding this notice, contact your local Field Sales Representative or the Change Management team.

Sincerely,

Change Management Team  
SC Business Services

**20240229001.0**  
**Information Only Datasheet**  
**Attachments**

**Products Affected:**

The devices listed on this page are a subset of the complete list of affected devices. According to our records, you have recently purchased these devices. The corresponding customer part number is also listed, if available.

DEVICE	CUSTOMER PART NUMBER
LMG3422R030RQZT	NULL
LMG3422R050RQZT	NULL

Technical details of this Product Change follow on the next page(s).

<b>PCN Number:</b>	20240229001.0	<b>PCN Date:</b>	March 04, 2024
<b>Title:</b>	Datasheet for LMG342xR030 and LMG342xR050		
<b>Customer Contact:</b>	Change Management team	<b>Dept:</b>	Quality Services
<b>Change Type:</b>	Electrical Specification		

## PCN Details

### Description of Change:

Texas Instruments Incorporated is announcing an information only notification. The product datasheet(s) is being updated as summarized below. The following change history provides further details.



LMG3422R030, LMG3426R030

SNOSDA7E – SEPTEMBER 2020 – REVISED FEBRUARY 2024

Changes from Revision D (March 2022) to Revision E (February 2024)	Page
• Removed LMG3425R030 device from the data sheet .....	1
• Added LMG3426R030 device to the data sheet and set to Production Data.....	1
• Removed Switching Performance at >100V/ns graph.....	1
• Updated text in <i>Features</i> section.....	1
• Updated text and added table in the <i>Description</i> section. Removed <i>Device Comparison</i> section that was located after the <i>Table of Contents</i> section. Added table contains the information that was in the removed <i>Device Comparison</i> table.....	1
• Added Footnote (1) to the Recommended Operating Conditions section.....	5
• Updated Thermal Information section.....	5
• Changed 50mA to 40mA in the VNEG output voltage test condition in the Buck Boost Converter sub-section of the Electrical Characteristics section.....	5
• Changed $V_{RDRV} = 0V$ to $R_{RDRV} = 0\Omega$ in the Turn-on slew rate third test condition in the Gate Driver sub-section of the Electrical Characteristics section.....	5
• Removed the "Short-circuit current to overcurrent fault trip difference" specification in the Faults sub-section of the Switching Characteristics section. The specification is redundant since it only reports the typical difference of the first two specifications in the Faults sub-section.....	5
• Added Drain Current vs Drain-Source Voltage and Repetitive Safe Operation graphs in <i>Typical Characteristics</i> section.....	10
• Added the <i>Safe Operation Area (SOA)</i> section.....	15
• Updated text in the <i>Overview</i> section.....	16
• Updated text in the <i>GaN FET Operation Definitions</i> section.....	19
• Updated text in <i>Direct-Drive GaN Architecture</i> section.....	19
• Added sentence clarifying application usage in <i>Drain-Source Voltage Capability</i> section.....	20
• Updated text and added figures in the <i>Internal Buck-Boost DC-DC Converter</i> section.....	21
• Updated text in the <i>VDD Bias Supply</i> section.....	22
• Updated title and text in the <i>Fault Protection</i> section.....	22
• Updated text and <a href="#">Figure 7-5</a> in the <i>Overcurrent Protection and Short-Circuit Protection</i> section.....	22
• Updated title in the <i>Overtemperature Shutdown Protection</i> section.....	24
• Updated text in the <i>UVLO Protection</i> section.....	25
• Added the <i>High-Impedance RDRV Pin Protection</i> section.....	25
• Updated text and table, and added table in the <i>Fault Reporting</i> section.....	25
• Updated text and added note in the <i>Drive-Strength Adjustment</i> section.....	25



• Updated text, added equation, and added table in the <i>Temperature-Sensing Output</i> section.....	27
• Updated text in the <i>Overtemperature-Shutdown Ideal-Diode Mode</i> section.....	27
• Added the <i>Start-Up Sequence</i> section.....	31
• Removed Caution and replaced figure with two new figures in <i>Typical Application</i> section.....	34
• Updated text in the <i>Slew Rate Selection</i> section.....	36
• Removed the <i>Startup and Slew Rate with Bootstrap High-Side Supply</i> section.....	36
• Updated text in the <i>Signal Level-Shifting</i> section.....	36
• Updated text and replaced figure with two new figures in <i>Buck-Boost Converter Design</i> section.....	37
• Updated text in the <i>Power Supply Recommendations</i> section.....	38
• Updated text in the <i>Using an Isolated Power Supply</i> section.....	38
• Updated text in the <i>Using a Bootstrap Diode</i> section.....	38
• Added figure in the <i>Layout Guidelines</i> section.....	39
• Updated text and added equation in the <i>Power-Loop Inductance</i> section.....	40



Changes from Revision B (May 2022) to Revision C (February 2024)	Page
• Removed LMG3425R050 device from the data sheet .....	1
• Added LMG3426R050 device to the data sheet and set to Production Data.....	1
• Removed Switching Performance at >100V/ns graph.....	1
• Updated text and added table in the <i>Description</i> section. Removed <i>Device Comparison</i> section that was located after the <i>Table of Contents</i> section. Added table contains the information that was in the removed <i>Device Comparison</i> table.....	1
• Updated OC limit curve in Drain Current vs Drain-Source Voltage graph in <i>Typical Characteristics</i> section...	10
• Moved <i>Safe Operation Area (SOA)</i> section out of the <i>Feature Description</i> section.....	15
• Updated title and added sentence after figure in the <i>Repetitive SOA</i> section.....	15
• Updated text in the <i>Overview</i> section.....	16
• Updated text in <i>Direct-Drive GaN Architecture</i> section.....	19
• Added sentence clarifying application usage in <i>Drain-Source Voltage Capability</i> section.....	20
• Updated text in the <i>Internal Buck-Boost DC-DC Converter</i> section.....	21
• Updated text in the <i>VDD Bias Supply</i> section.....	22
• Updated title and text in the <i>Fault Protection</i> section.....	22
• Updated text and <a href="#">Figure 7-5</a> in the <i>Overcurrent Protection and Short-Circuit Protection</i> section.....	22
• Updated title in the <i>Overtemperature Shutdown Protection</i> section.....	24
• Added the <i>High-Impedance RDRV Pin Protection</i> section.....	25
• Updated text and table, and added table in the <i>Fault Reporting</i> section.....	25
• Converted text to a note in the <i>Drive-Strength Adjustment</i> section.....	25
• Updated text in the <i>Temperature-Sensing Output</i> section.....	27
• Updated text in the <i>Overtemperature-Shutdown Ideal-Diode Mode</i> section.....	27
• Replaced figure with two new figures in <i>Typical Application</i> section.....	34
• Removed the <i>Startup and Slew Rate with Bootstrap High-Side Supply</i> section.....	36
• Updated text in the <i>Signal Level-Shifting</i> section.....	36
• Updated text in the <i>Using an Isolated Power Supply</i> section.....	38
• Updated text in the <i>Using a Bootstrap Diode</i> section.....	38
• Added figure in the <i>Layout Guidelines</i> section.....	39

The datasheet number will be changing.

Device Family	Change From:	Change To:
LMG342xR030	SNOSDA7D	<b>SNOSDA7E</b>
LMG342xR050	SNOSDA8B	<b>SNOSDA8C</b>

These changes may be reviewed at the datasheet links provided.

<http://www.ti.com/product/LMG3422R030>

<http://www.ti.com/product/LMG3422R050>

<b>Reason for Change:</b>			
To accurately reflect device characteristics.			
<b>Anticipated impact on Fit, Form, Function, Quality or Reliability (positive / negative):</b>			
No anticipated impact. This is a specification change announcement only. There are no changes to the actual device			
<b>Changes to product identification resulting from this PCN:</b>			
None.			
<b>Product Affected:</b>			
LMG3422R030RQZR	LMG3422R030RQZT	LMG3422R050RQZR	LMG3422R050RQZT

For questions regarding this notice, e-mails can be sent to the Change Management team or your local Field Sales Representative.

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