| Notification Number: | 20200728004 | Notification Date: | Aug. 28, 2020 |
|---|---|---|---|
| Title: | Datasheet for LMK04821, LMK04826, LMK04828 | | |
| Customer Contact: | PCN Manager | Dept: | Quality Services |

## Notification 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.

TEXAS INSTRUMENTS

LMK04821, LMK04826, LMK04828

SNAS605AS – MARCH 2013 – REVISED MAY 2020

| Changes from Revision AR (December 2015) to Revision AS | Page |
|---|---|
| • Deleted references to "LMK0482xB" and replaced with device names | 1 |
| • Updated Pin Configuration and Functions table with expanded descriptions | 8 |
| • Changed mVpp to \|mV\| for 10-mA HSDS $V_{OD}$ in Electrical Characteristics. | 22 |
| • Added requirements for OSCout LVPECL emitter resistors to Detailed Description | 30 |
| • Changed Overview to provide more detail. | 30 |
| • Changed Three PLL1 Redundant Reference Inputs to provide more detail. | 31 |
| • Changed Frequency Holdover wording for added clarity. | 31 |
| • Moved VCO1 Divider (LMK04821 only) to within Internal VCOs. | 31 |
| • Changed all instances of '0-delay' to 'zero-delay' and added reference to *Multi-Clock Synchronization* app note. | 33 |
| • Changed Figure 10 and Figure 11 to show *OSCout_MUX*, SYNC/SYSREF detail, and color. | 35 |
| • Changed Figure 13 to show distribution path reclocking, other *FB_MUX* targets. | 38 |
| • Added *SYSREF_DDLY_PD* and *DCLKoutX_DDLY_PD* conditions for added power savings in SYNC/SYSREF | 39 |
| • Added reference to *Recommended Programming Sequence* | 40 |
| • Changed _CNTH/_CNTL register values to 0, representing delay value of 16, in Table 3. | 43 |
| • Added timing alignment figure, alignment equations to SYSREF to Device Clock Alignment | 45 |
| • Added LOS register requirements to Input Clock Switching - Automatic Mode. | 47 |
| • Merged redundant paragraph into Digital Lock Detect. | 47 |
| • Added note clarifying PLL1 phase detector frequency effect on *PLL1_WND_SIZE* in Digital Lock Detect. | 47 |
| • Added holdover entry conditions and clarifications in Holdover. | 48 |
| • Added Single-Loop Mode, Single-Loop Mode With External VCO, Distribution Mode to Device Functional Modes. | 50 |

- Added RESET Pin to Recommended Programming Sequence ..... 56
- Changed CLKoutX_Y_ODL, CLKoutX_Y_IDL, DCLKoutX_DIV descriptions to add more detail. ..... 63
- Changed *DCLKoutX_ADLY* description in DCLKoutX_ADLY, DCLKoutX_ADLY_MUX, DCLKout_MUX. ..... 64
- Changed *SDCLKoutY_ADLY* description in SDCLKoutY_ADLY_EN, SDCLKoutY_ADLY. ..... 65
- Added OSCout LVPECL format instructions in VCO_MUX, OSCout_MUX, OSCout_FMT. ..... 68
- Changed *SYSREF_CLR* description in SYSREF_CLR, SYNC_1SHOT_EN, SYNC_POL, SYNC_EN, SYNC_PLL2_DLD, SYNC_PLL1_DLD, SYNC_MODE to add more detail. ..... 74
- Added time alongside frequency for *LOS_TIMEOUT* in Table 45 ..... 80
- Changed *LOS_EN* description to clarify requirements in Table 45 ..... 80
- Changed Table 53, Table 55, Table 56 register text from "N counter" to "R divider" ..... 84
- Changed Table 57 maximum field value to match register size. ..... 85
- Changed Table 75 headers from **Resistance** to **Capacitance**. ..... 96
- Changed Application Information to reference current TI tools. ..... 102
- Changed all images in Driving CLKin and OSCin Inputs to include OSCin. ..... 103
- Changed *CLKinX_BUF_TYPE* to *CLKinX_TYPE* in Driving CLKin and OSCin Pins With a Single-Ended Source. ..... 104
- Added Output Termination and Biasing section. ..... 105
- Changed Typical Applications to reference up-to-date tools. ..... 107
- Added System Examples ..... 110
- Added OSCout, LVDS/HSDS, and RESET pin recommendations to Do's and Don'ts. ..... 113
- Added Pin Connection Recommendations ..... 114
- Deleted empty column in Table 87 and redirected to TICS Pro current calculator. ..... 116
- Changed tools listed in Device Support . ..... 119

The datasheet number will be changing.

| Device Family | Change From: | Change To: |
|---|---|---|
| LMK04821, LMK04826, LMK04828 | SNAS605AR | SNAS605AS |

These changes may be reviewed at the datasheet links provided.

http://www.ti.com/product/LMK04821

**Reason for Change:**

To accurately reflect device characteristics.

**Anticipated impact on Fit, Form, Function, Quality or Reliability (positive / negative):**

No anticipated impact. This is a specification change announcement only. There are no changes to the actual device.

**Changes to product identification resulting from this notification:**

None.

**Product Affected:**

| | | | |
|---|---|---|---|
| LMK04821NKDR | LMK04821NKDT | LMK04826BISQ/NOPB | LMK04826BISQE/NOPB |
| LMK04826BISQX/NOPB | LMK04828BISQ/NOPB | LMK04828BISQE/NOPB | LMK04828BISQX/NOPB |

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