

ADF4371

Product Change Notification Support Data



Reason for change.

▶ **Silicon:**

- Silicon revision: frequency range optimized within current datasheet limits.
 - Reason: To improve product manufacturability

▶ **Package manufacture:**

- The laminate supplier will change.
 - Reason: Improved manufacturability and security of supply.

Customer Impact

- ▶ Device_Revision readback: The readback code from register 0x0006 is;
 - **0x09** for current revision.
 - **0x0A** for new revision.

- ▶ No significant datasheet performance differences between the current revision silicon (*Device_Revision = 0x09*) to new revision silicon (*Device_Revision = 0x0A*)
 - Key datasheet specifications remain the same
 - Small change in max VCO current (5V) and ESD rating.

- ▶ The **0x0A** new revision silicon has some slight improvements over current **0x09** revision material:
 - Spurs: An improvement in typical spur performance achieved. (see plots below)

- ▶ No quality impact on new or current revision production parts.

- ▶ PCN samples available in May 2020.
- ▶ PCN release in from end August 2020.

Required Register Setting Changes.

- No package parametric changes from **0x09** for current revision to **0x0A** for new revision
- ▶ Minor adjustments are required in register setting for VCO ALC parameters.
 - New ALC values to be used with 5V VCO supply:

Bit Field	Bit Name	Old Setting for (for 0x09)	New Setting for (for 0x0A)
0x002E[2:0]	ALC_REF_DAC_NOM_VCO3	0x2	0x0
0x002F[2:0]	ALC_REF_DAC_NOM_VCO4	0x4	0x2

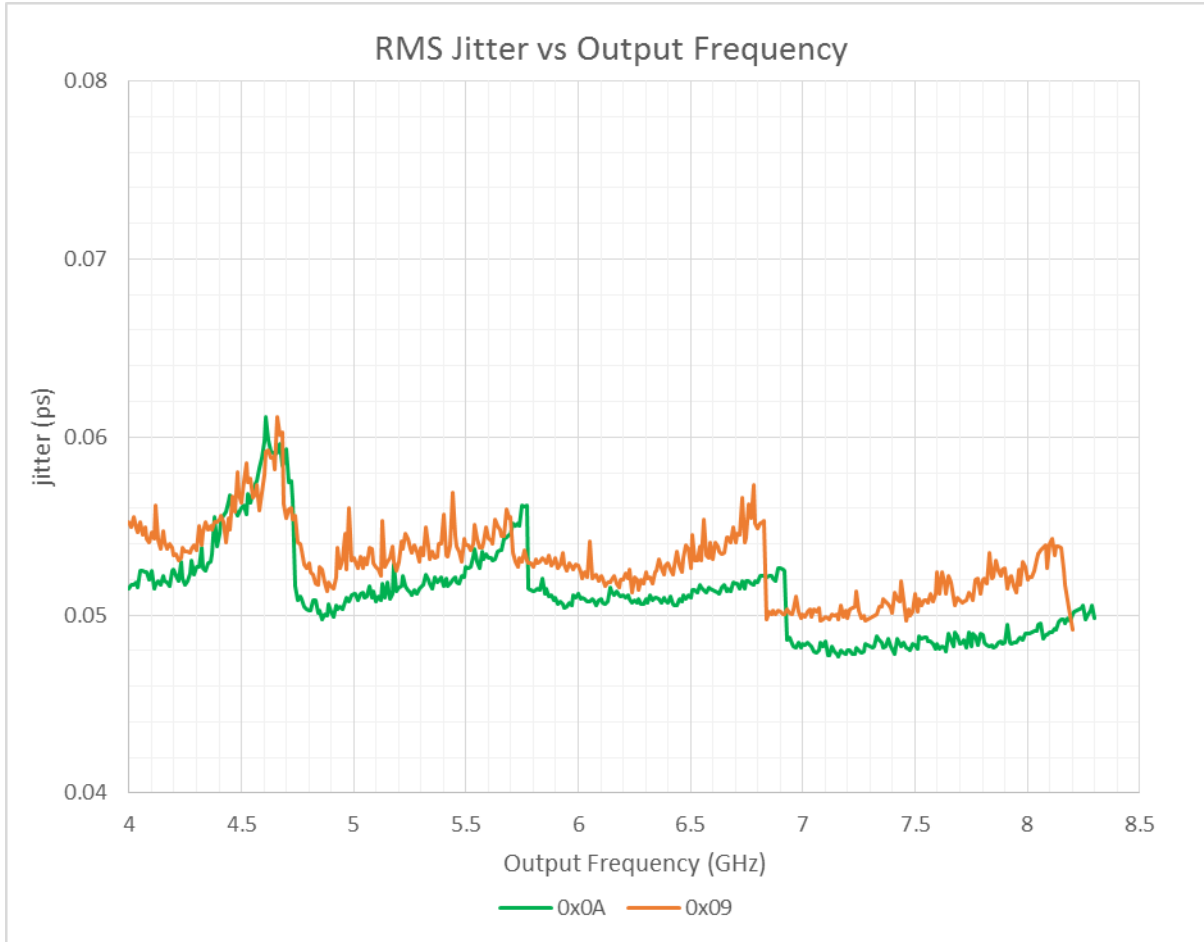
- New ALC values to be used with 3.3V VCO supply:

Bit Field	Bit Name	Old Setting for (for 0x09)	New Setting for (for 0x0A)
0x002D[2:0]	ALC_REF_DAC_NOM_VCO2	0x1	0x2

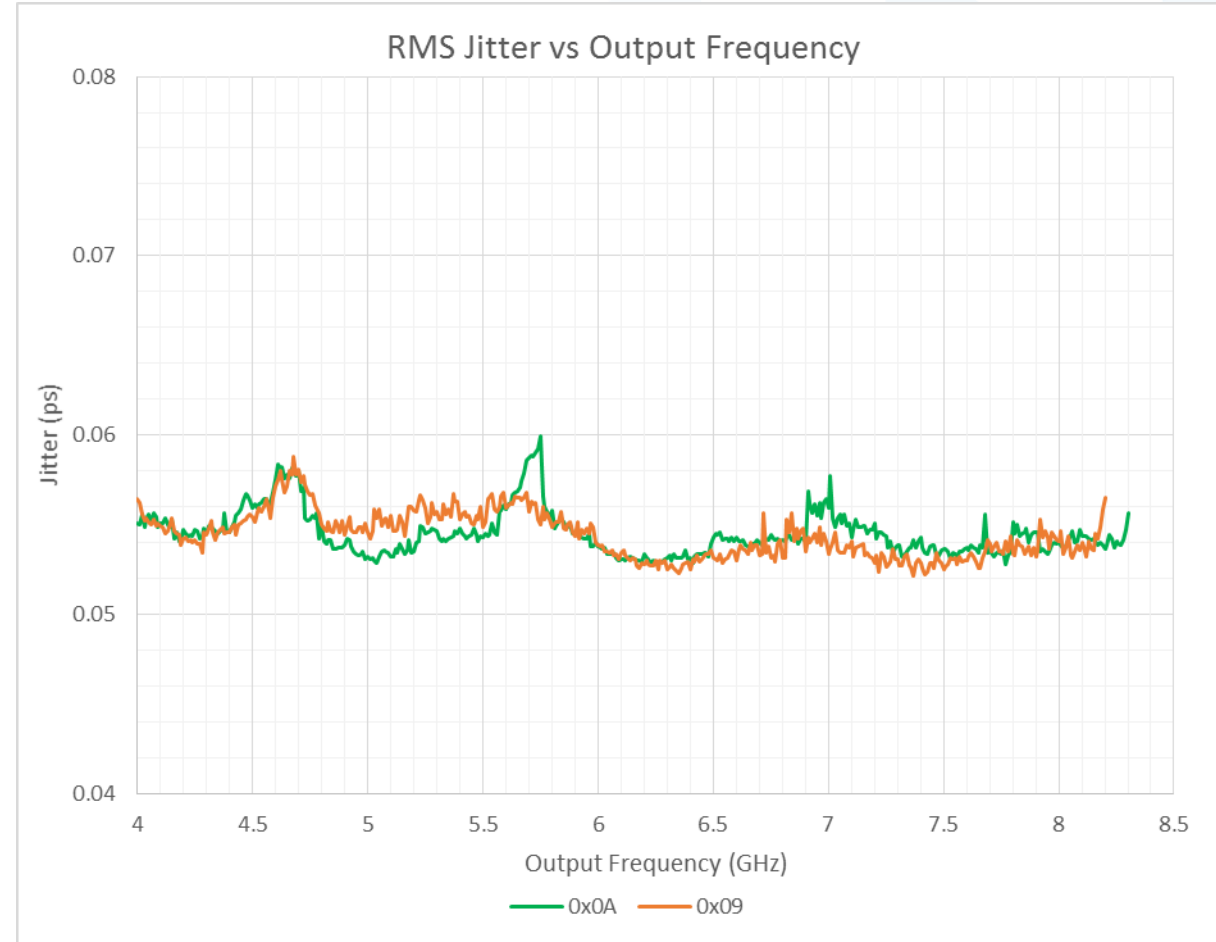
Typical Jitter Performance (1KHz to 100MHz)

No significant change from current revision to new revision

VCO Supply=5V

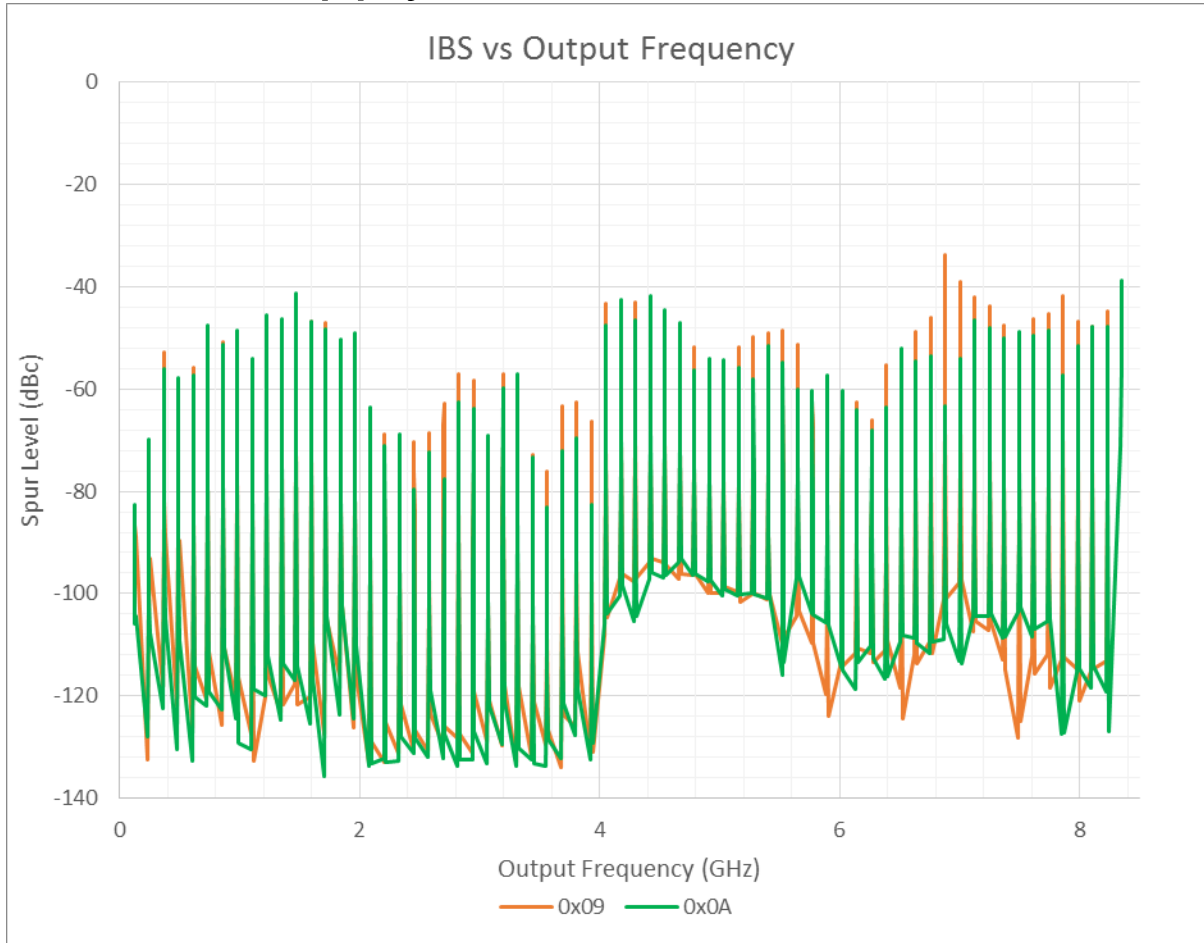


VCO Supply=3.3V

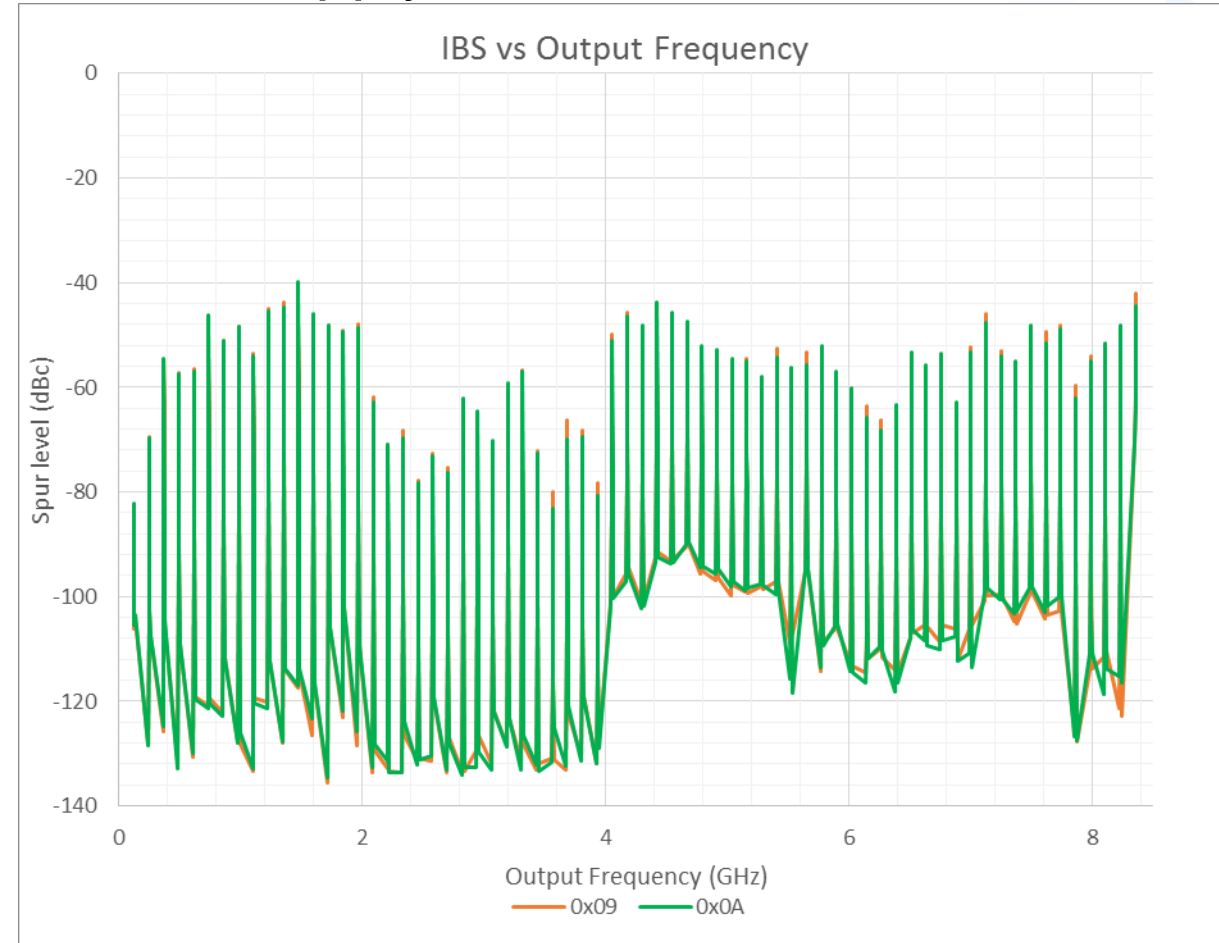


Typical Integer Boundary Spurs (IBS) – No significant change from current revision to new revision

VCO Supply=5V



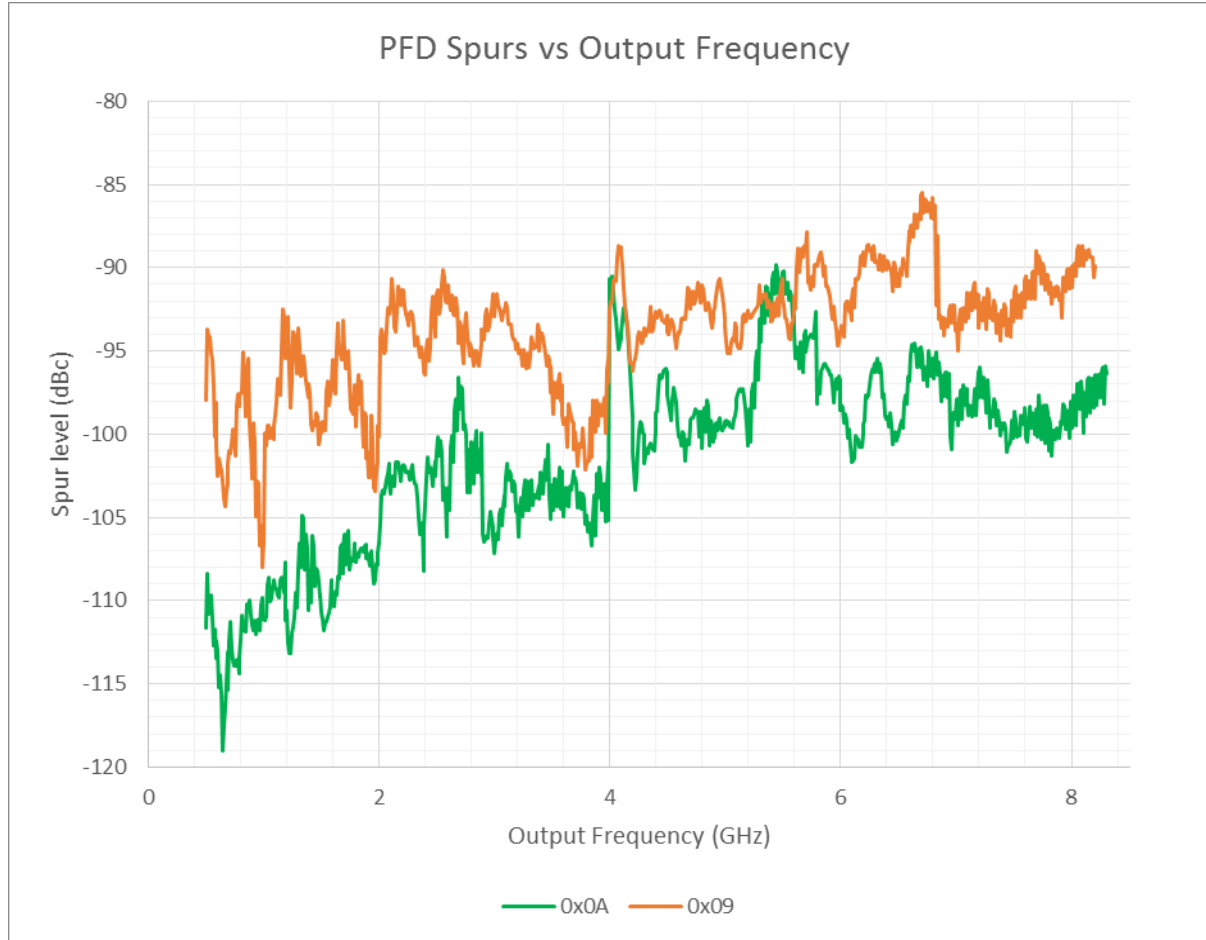
VCO Supply=3.3V



Typical PFD Spurs

No deterioration from current revision to new revision – slight improvement

VCO Supply=5V



VCO Supply=3.3V

