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|---|-----------------------|--|--------------|------------------------|
|  | Title: | Performance Report SiT9122 at 622.08MHz | | |
| | Type: | Performance report | Rev: | 1.0 |
| | Datasheet Rev: | SiT9122 Advanced | Rev: | 0.1 |
| | Orig: | | Date: | January 3, 2012 |

This report contains frequency-related performance data for the differential LVPECL SiT9122 at 622.08MHz.

Conditions:

- Output Frequency 622.08MHz
- Vdd 3.3V
- Temperature 25°C
- Measurement Termination:
 - o Agilent EN5052B SSA, AC-coupled input, 50Ω termination to GND, VTT = 1.3V
 - o Matched (length and impedance) coaxial cables connected to SMA connectors

Equipment:

- Agilent DSA90604 oscilloscope (6GHz, 20Gps)
 - o Period jitter
- Agilent E5052B Signal Source Analyzer
 - o Phase noise, integrated phase jitter

Data:

Summarized in Table 1 below and captured in detailed plots.

- Phase Noise (Figure 1)
- Integrated Random Phase Jitter (Figure 1)
- Period Jitter (Figure 2)

Table 1. Performance Data Summary

| Parameter | Frequency (MHz) | Units | Vdd = 3.3V | |
|---|-----------------|---------|--------------|---------------------|
| | | | Measured Avg | Datasheet Typ Value |
| RMS Phase Jitter (Random) (50kHz - 80MHz) | 622.08 | ps, rms | 0.644 | NA |
| Period Jitter | | ps, rms | 1.02 | 1.5 |


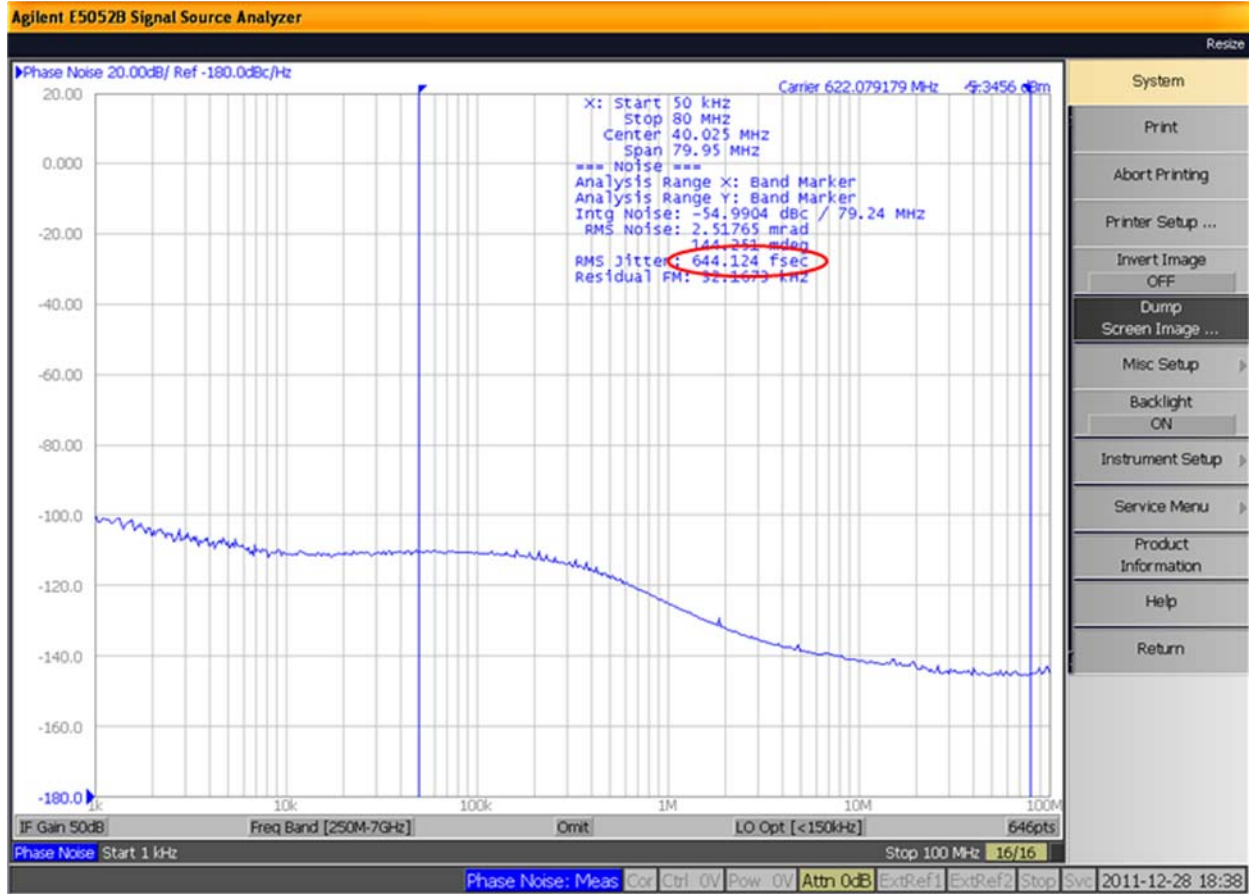
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Figure 1. Phase Noise and Random Phase Jitter at 622.08MHz Carrier, 50kHz to 80MHz Offset.




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Figure 2. Period Jitter at 622.08MHz.

