This report contains frequency-related performance data for the differential LVPECL SiT9120 at 150.00MHz.

Conditions:

- Data taken from two separate SiT9120 EVBs
- Output Frequency 150.00MHz
- Vdd 3.3V
- Temperature 25°C
- Measurement Termination:
  - Agilent DSA90404 DSA, AC-coupled input, 50Ω termination to GND, VTT = 1.3V
  - Agilent EN5052B SSA, AC-coupled input, 50Ω termination to GND, VTT = 1.3V
  - Matched (length and impendence) coaxial cables connected to SMA connectors

Equipment:

- Agilent DSA90604 oscilloscope (6GHz, 20Gsps)
  - Period jitter, waveform, rise/fall time
- Agilent E5052B Signal Source Analyzer
  - 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)
- RMS Period Jitter (Figure 2)
- Rise/Fall Time (Figure 3)
- Differential LVPECL Voltage Swing at 3.3V Supply

Table 1. Performance Data Summary

Parameter	Units	Vdd = 3.3V	
		Measured Avg	Datasheet Typ Value
RMS Phase Jitter (Random) (12kHz - 20MHz)	ps, rms	0.507	0.5
Period Jitter	ps, rms	1.06	2
Rise Time (10%-90%)[1]	ps	519	NA
Fall Time (10%-90%)[1]	ps	509	NA
Differential Output Swing	V	1.30	1.6

Note 1: Datasheet specification test condition is 20%-80% at 150ps typical. This data is intended for customers who require 10%-90% performance data.

Figure 1. Phase Jitter at 150MHz Carrier, 12kHz to 20MHz Offset.

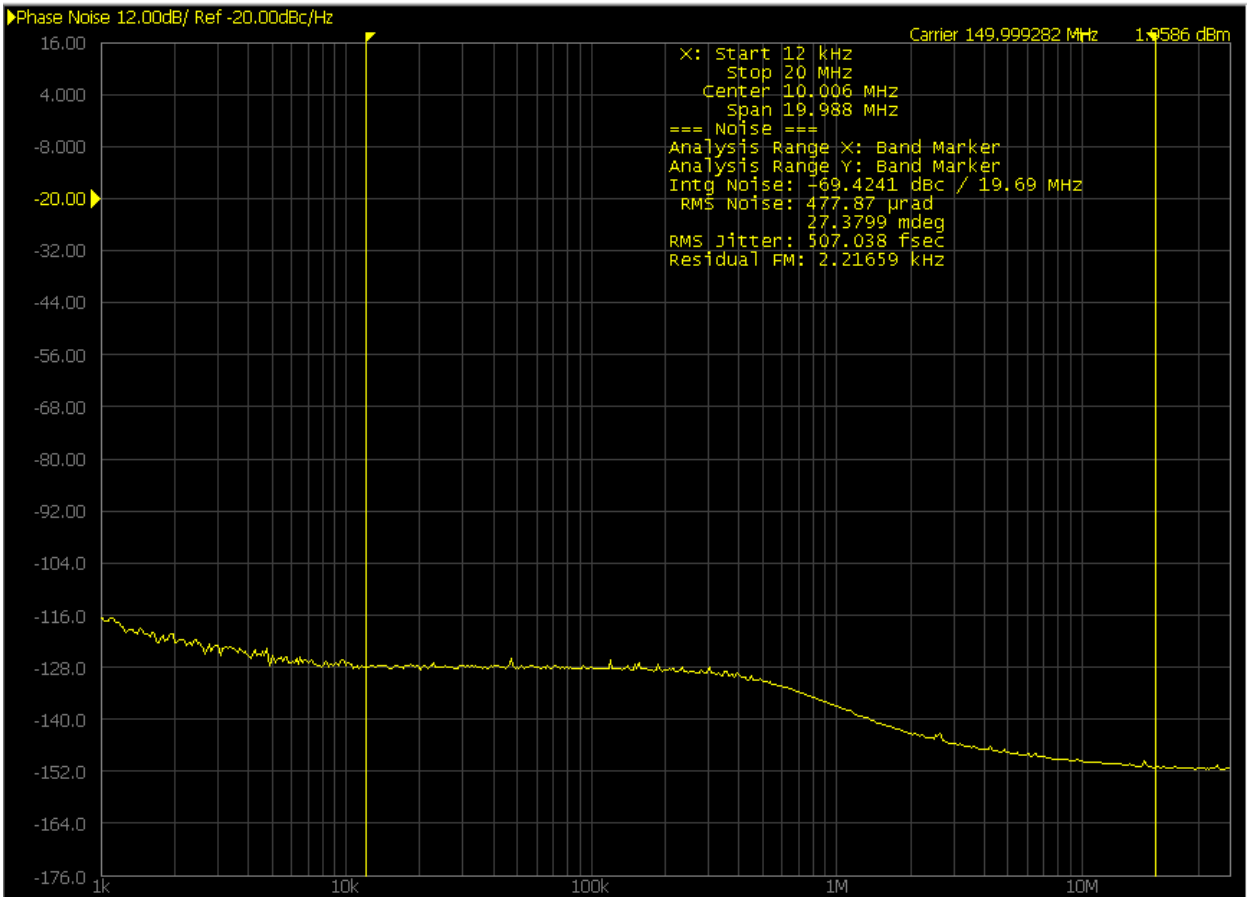

Figure 2. Period Jitter at 150MHz.

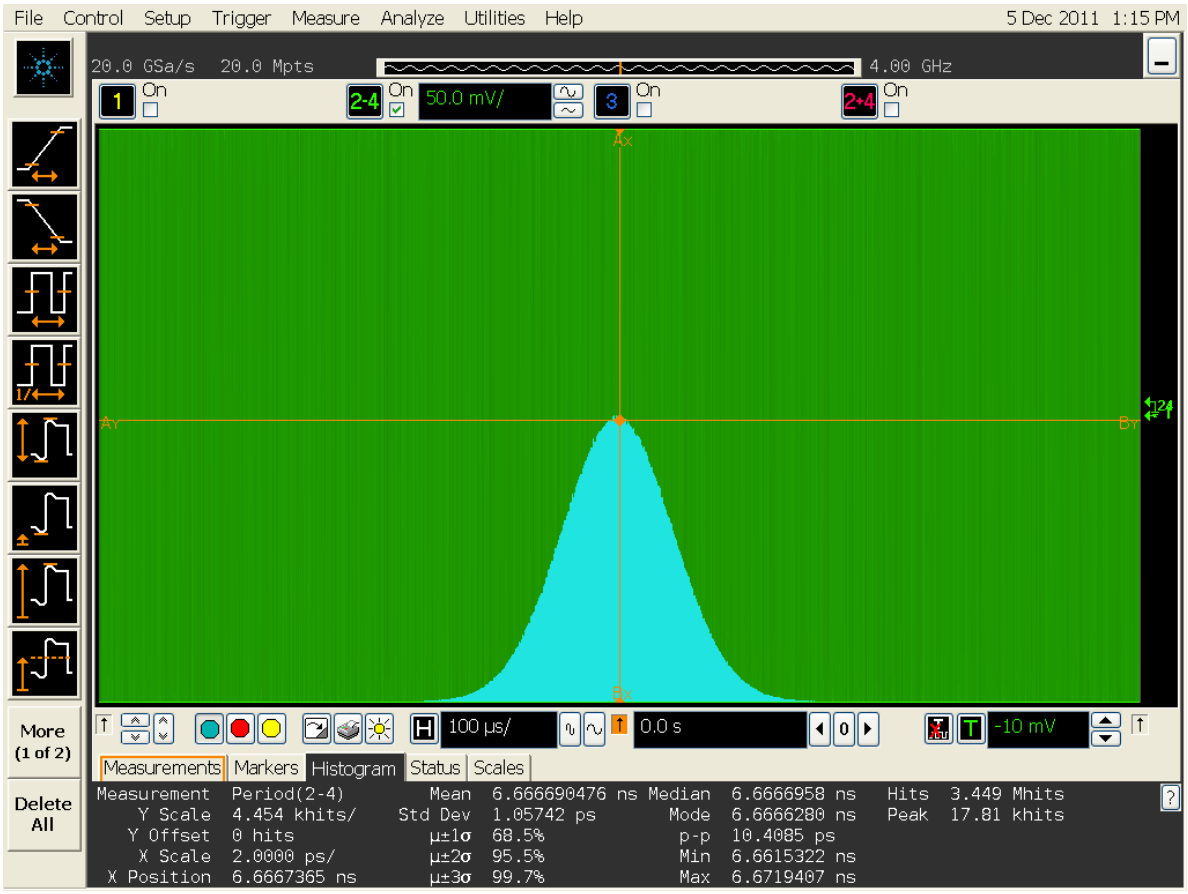

Figure 3. Single-Ended Rise and Fall Time at 150MHz.