This report contains sample performance data for SiT8920B-74.176MHz.

Conditions:

- Frequency 74.176 MHz
- Vdd 1.8V, 2.5V, 2.8V, 3.0V, 3.3V
- Temperature 25℃
- Termination:
  - No load for IDD
  - 50Ω to GND for phase noise
  - 15pF for other tests

Equipment:

- Agilent DSA90604 oscilloscope (6GHz, 20Gsps)
  - Period jitter, waveform, rise/fall time, duty cycle, amplitude
- Agilent E5052B Signal Source Analyzer
  - Phase noise, integrated phase jitter
- Power supply current
  - Agilent 34401A DMM

Data:

- Random Phase jitter, Period Jitter, Duty cycle, Rise/Fall time, Amplitude, Idd
- Output waveforms
- Frequency stability versus temperature

Table 1. Performance data

Parameter	Units	Voltage				
		1.8 V	2.5 V	2.8 V	3.0 V	3.3 V
Random Phase jitter (900kHz - 20MHz)	ps, rms	0.58	0.63	0.60	0.61	0.61
Random Phase jitter (12kHz - 20MHz)	ps, rms	1.28	1.29	1.27	1.28	1.28
Period jitter	ps, rms	2.15	1.74	1.72	1.68	1.64
Period jitter (10,000 cycles)	ps, pk-pk	15.3	12.4	12.3	12.0	11.7
Duty cycle	%	49.8	50.0	50.2	50.8	51.2
Rise time (20% - 80%)	ns	1.22	0.99	0.92	0.97	0.91
Fall time (80% - 20%)	ns	1.24	0.97	0.90	0.96	0.92
Amplitude	V	1.77	2.45	2.80	3.00	3.32
Current consumption (no load, output enabled)	mA	4.27	4.58	4.73	4.79	4.96
Current consumption (no load, output disabled)	mA	3.50	3.57	3.62	3.66	3.74

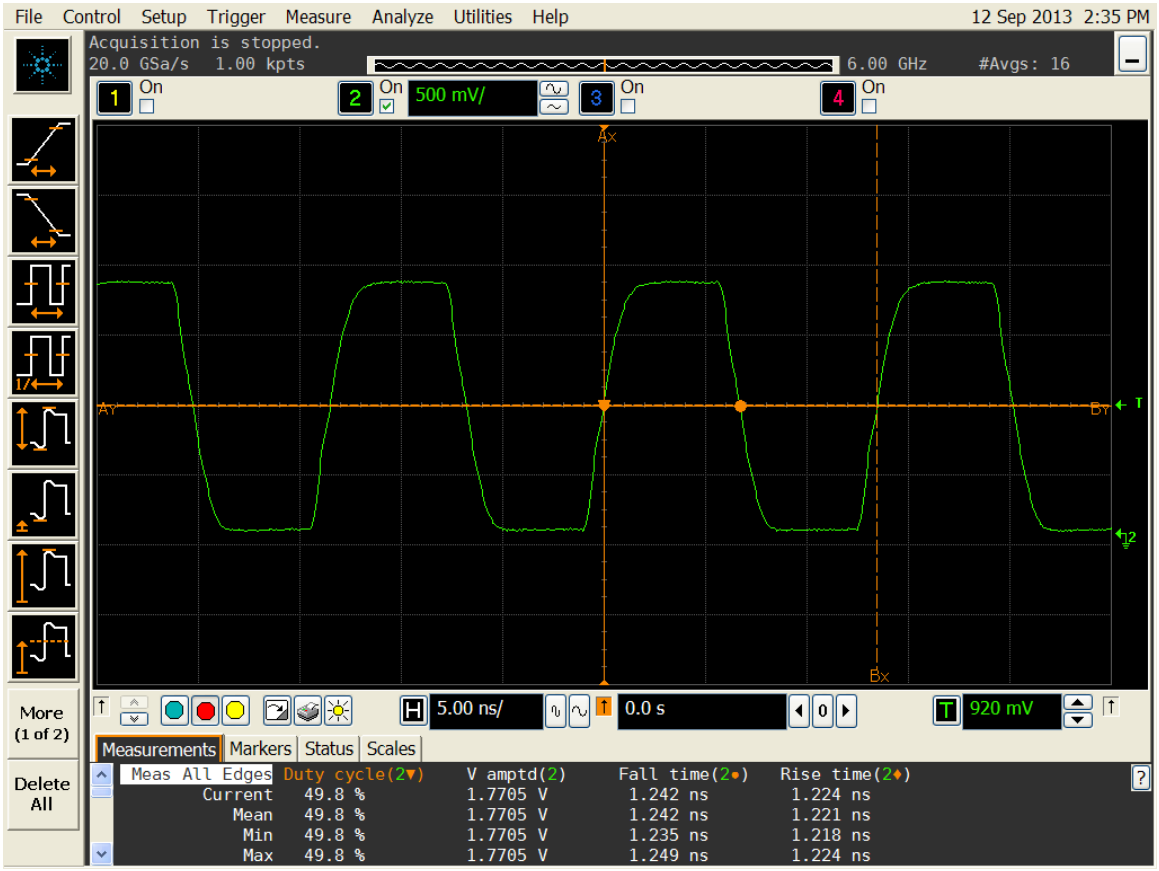

Figure 1. Duty cycle, Rise/Fall time and Amplitude 1.8V

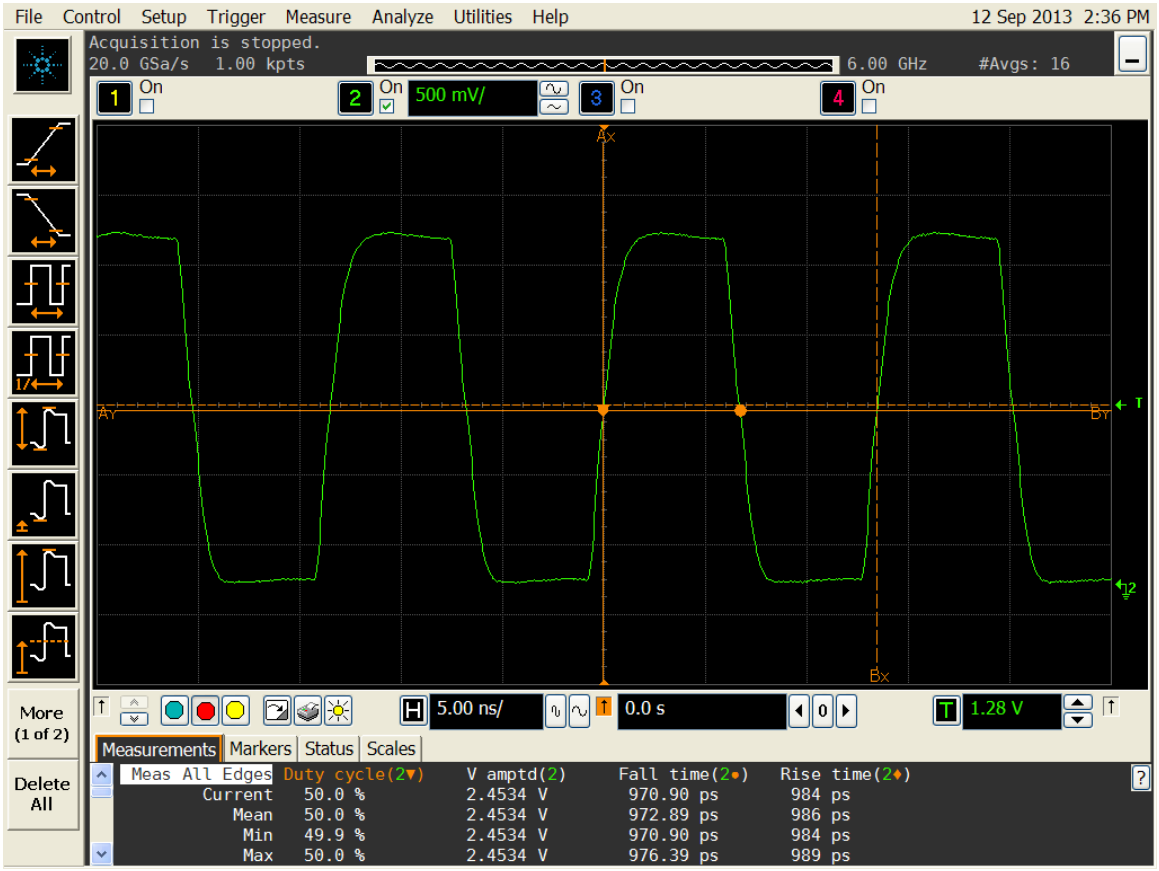

Figure 2. Duty cycle, Rise/Fall time and Amplitude 2.5V

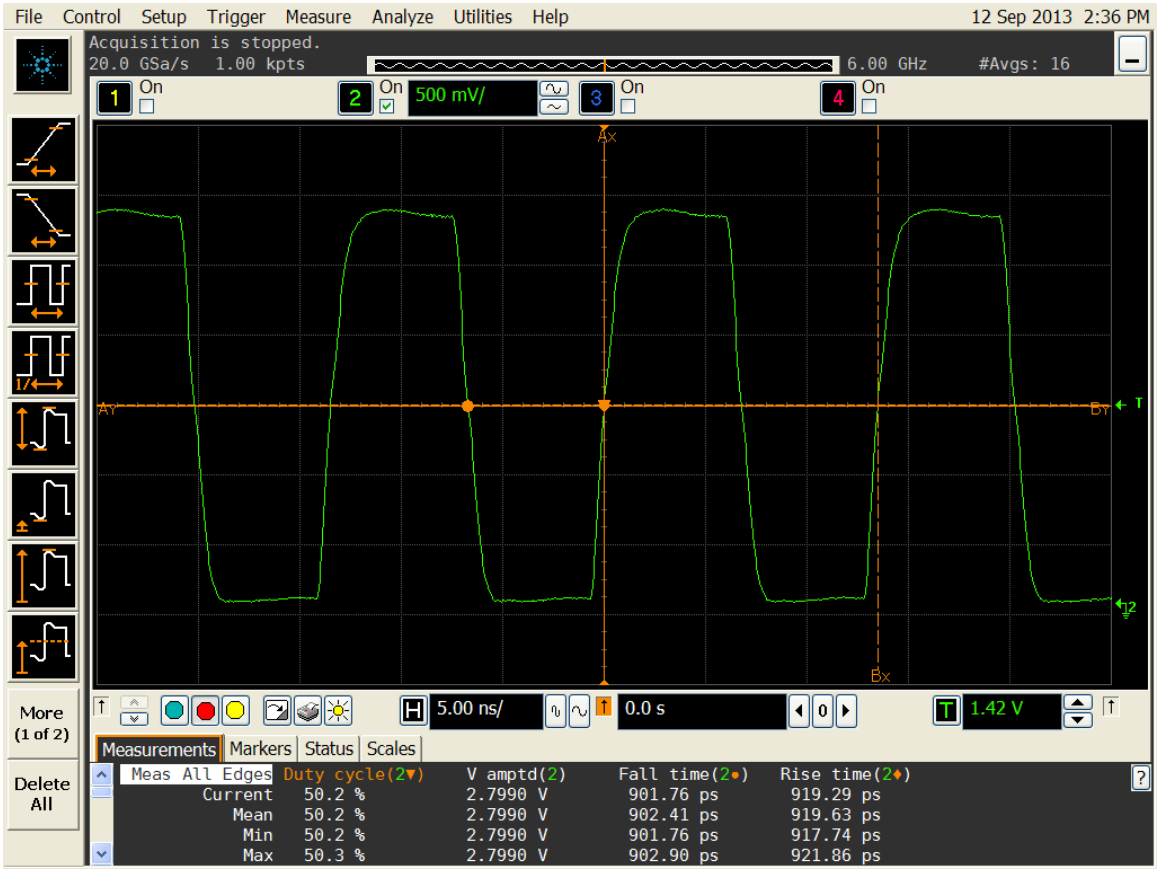

Figure 3. Duty cycle, Rise/Fall time and Amplitude 2.8V

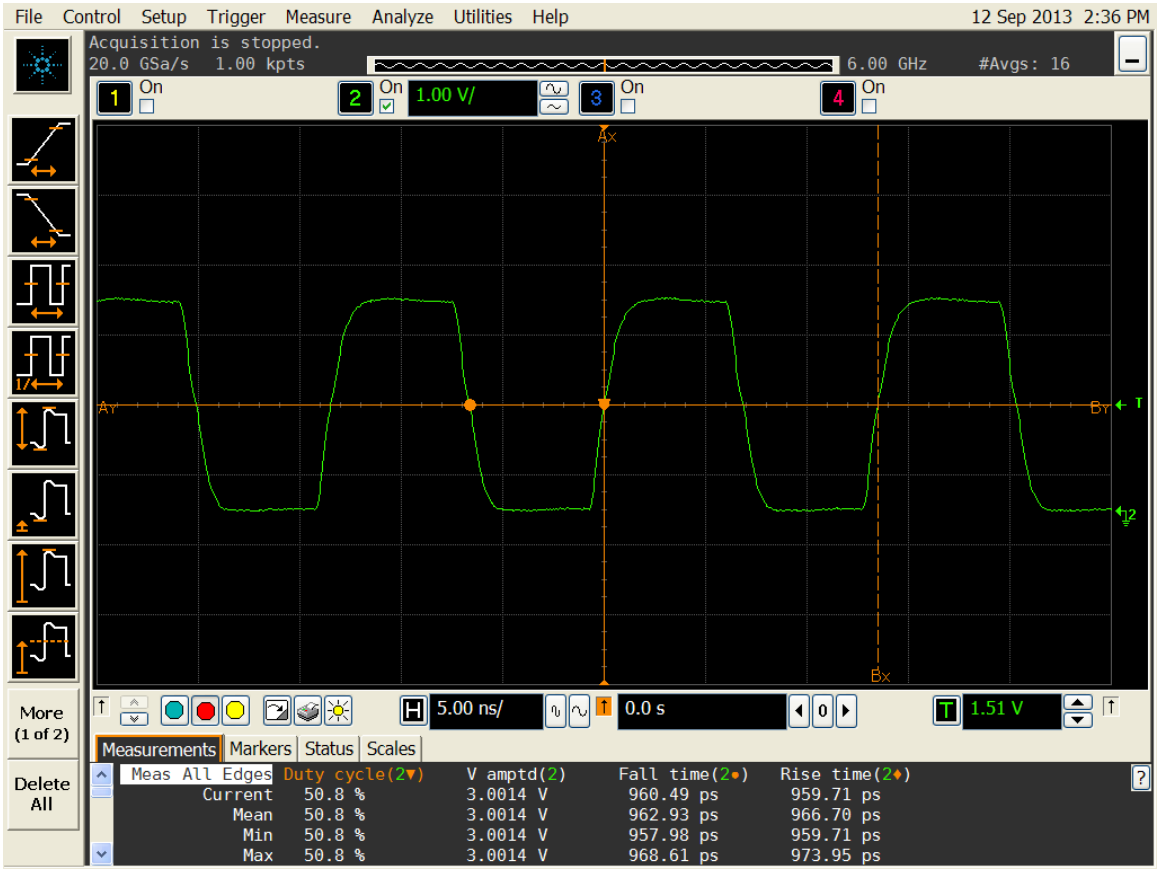

Figure 4. Duty cycle, Rise/Fall time and Amplitude 3.0V

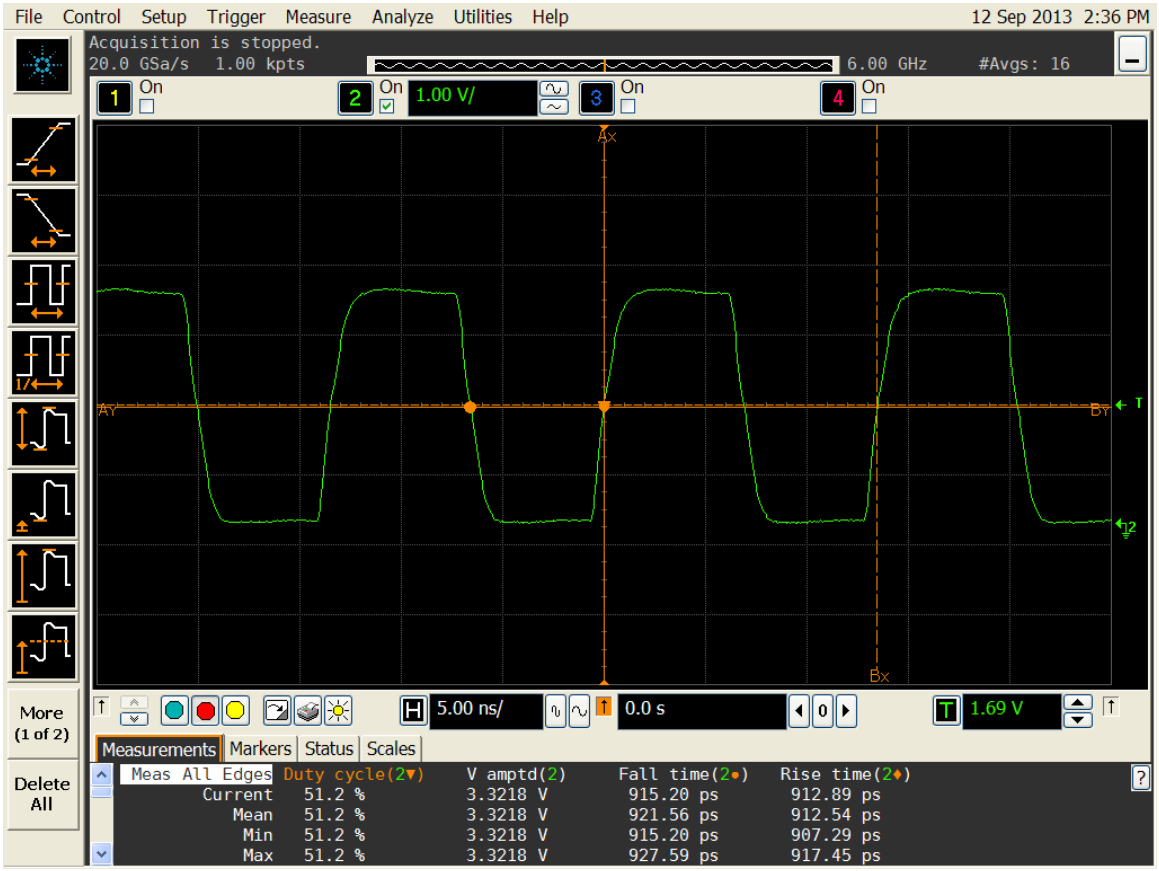

Figure 5. Duty cycle, Rise/Fall time and Amplitude 3.3V

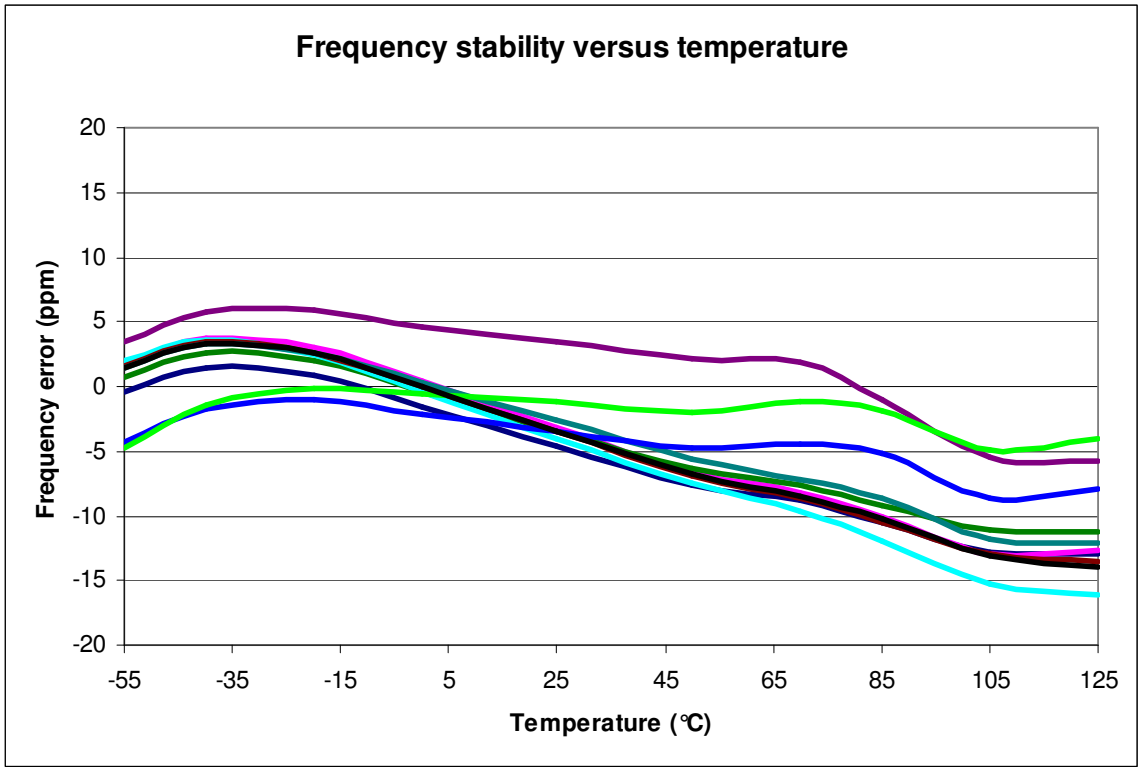

Figure 6. Frequency stability* versus temperature

*Please note that frequency stability in SiTime devices is not depended on output frequency.