	<b>Title:</b>	<b>Performance Report SiT8008B, 72MHz</b>			
	<b>Type:</b>	<b>Performance report</b>	<b>Rev:</b>	<b>1.0</b>	
	<b>Orig:</b>		<b>Date:</b>	<b>Mar 31, 2014</b>	

**This report contains sample performance data for SiT8008B-72MHz.**

**Conditions:**

- Frequency 72 MHz
- Vdd 1.8V, 2.5V, 2.8V, 3.0V, 3.3V
- Temperature 25 °C
- Termination:
  - o No load for IDD
  - o 50Ω to GND for phase noise
  - o 15pF for other tests

**Equipment:**


- Agilent DSA90604 oscilloscope (6GHz, 20Gsps)
  - o Period jitter, waveform, rise/fall time, duty cycle, amplitude
- Agilent E5052B Signal Source Analyzer
  - o Phase noise, integrated phase jitter
- Power supply current
  - o 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	0.56	0.58	0.58	0.58	0.58
Random Phase jitter (12kHz - 20MHz)	ps, rms	1.31	1.34	1.35	1.35	1.33
Period jitter	ps, rms	1.81	1.66	1.62	1.61	1.60
Period jitter (10,000 cycles)	ps, pk-pk	13.7	12.5	11.7	11.5	11.5
Duty cycle	%	49.8	49.7	50.1	50.7	51.1
Rise time (20% - 80%)	ns	1.23	1.05	0.96	1.00	0.96
Fall time (80% - 20%)	ns	1.24	1.01	0.92	0.99	0.95
Amplitude	V	1.76	2.48	2.77	2.98	3.30
Current consumption (no load, output enabled)	mA	4.23	4.53	4.68	4.74	4.90
Current consumption (no load, output disabled)	mA	3.48	3.56	3.61	3.65	3.72

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	<b>Type:</b>	Performance report	<b>Rev:</b>	1.0
	<b>Orig:</b>		<b>Date:</b>	Mar 31, 2014

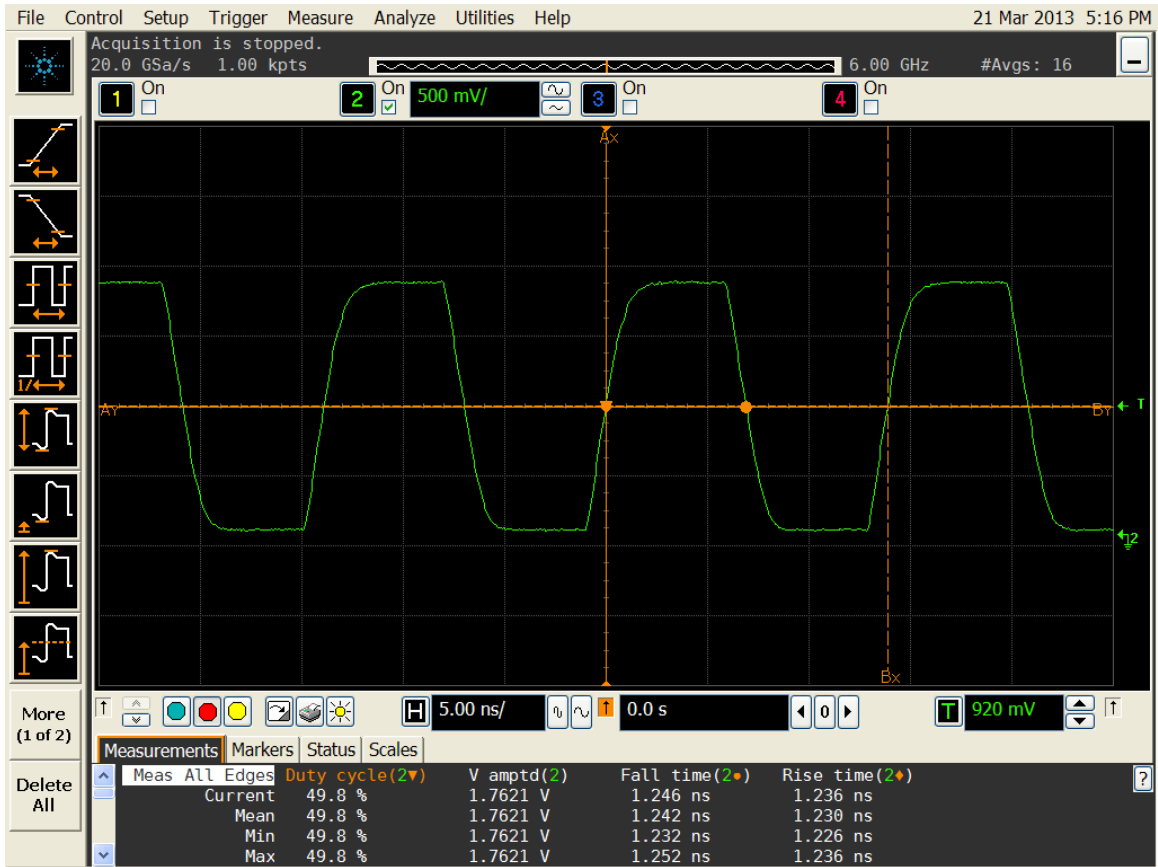



Figure 1. Duty cycle, Rise/Fall time and Amplitude 1.8V

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	<b>Title:</b>	Performance Report SiT8008B, 72MHz		
	<b>Type:</b>	Performance report	<b>Rev:</b>	1.0
	<b>Orig:</b>		<b>Date:</b>	Mar 31, 2014

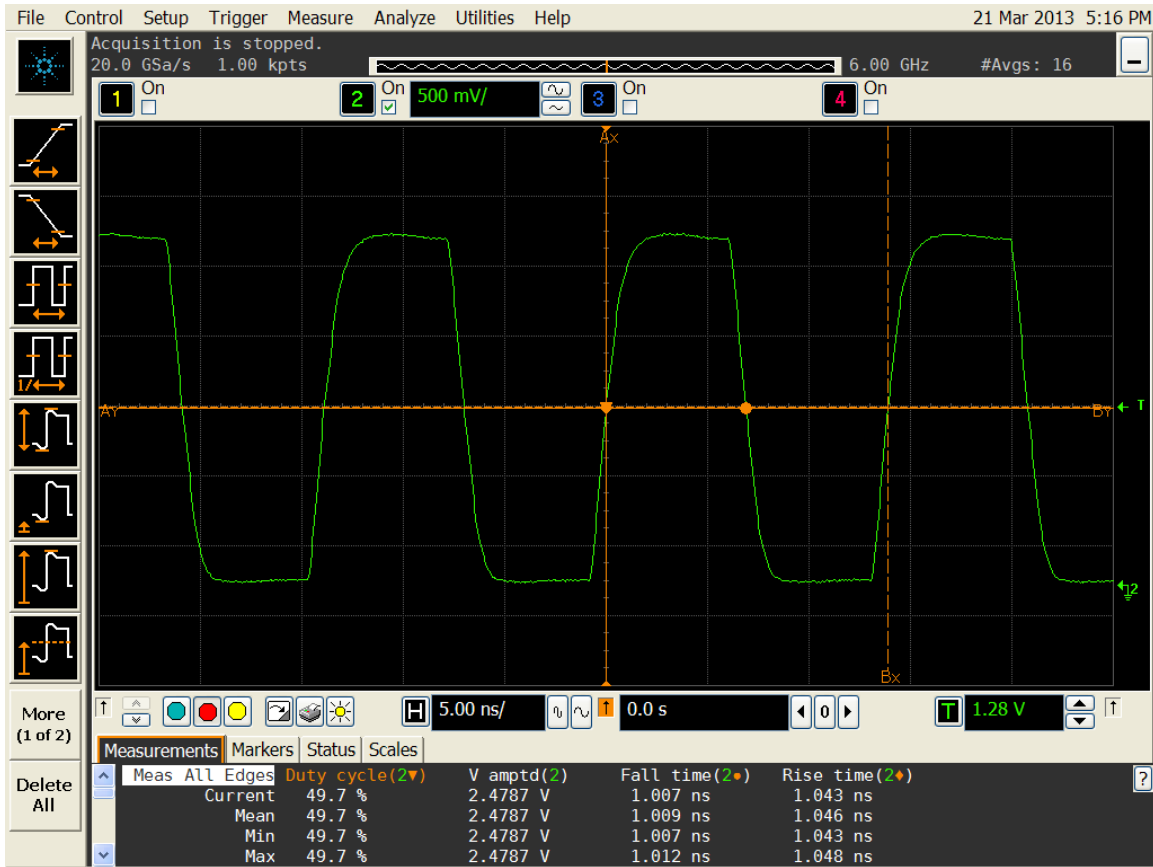



Figure 2. Duty cycle, Rise/Fall time and Amplitude 2.5V

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	<b>Orig:</b>		<b>Date:</b>	Mar 31, 2014

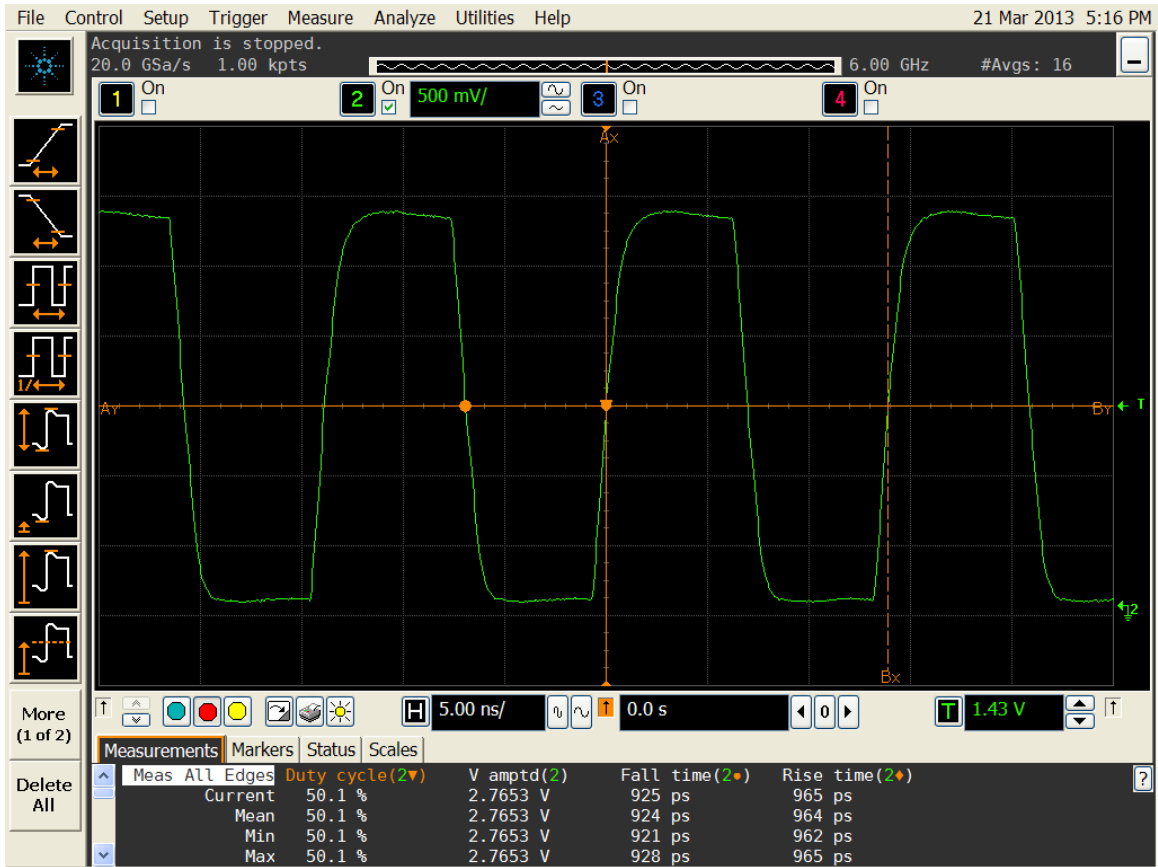


Figure 3. Duty cycle, Rise/Fall time and Amplitude 2.8V

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	<b>Type:</b>	Performance report	<b>Rev:</b>	1.0
	<b>Orig:</b>		<b>Date:</b>	Mar 31, 2014



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

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	<b>Orig:</b>		<b>Date:</b>	Mar 31, 2014



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

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	<b>Type:</b>	<b>Performance report</b>	<b>Rev: 1.0</b>
	<b>Orig:</b>		<b>Date: Mar 31, 2014</b>



Figure 6. Frequency stability\* versus temperature, 1.8 V

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


	<b>Title:</b>	Performance Report SiT8008B, 72MHz		
	<b>Type:</b>	Performance report	<b>Rev:</b>	1.0
	<b>Orig:</b>		<b>Date:</b>	Mar 31, 2014



Figure 7. Frequency stability versus temperature, 2.5 V

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	<b>Orig:</b>		<b>Date:</b>	<b>Mar 31, 2014</b>



Figure 8. Frequency stability versus temperature, 2.8 V

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	<b>Orig:</b>		<b>Date:</b>	<b>Mar 31, 2014</b>



Figure 9. Frequency stability versus temperature, 3.0 V

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	<b>Type:</b>	<b>Performance report</b>	<b>Rev:</b>	<b>1.0</b>
	<b>Orig:</b>		<b>Date:</b>	<b>Mar 31, 2014</b>



Figure 10. Frequency stability versus temperature, 3.3 V

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