This report contains sample performance data for SiT8008B-6MHz.

Conditions:

- Frequency 6 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:

- 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
Period jitter	ps, rms	2.01	1.90	1.85	1.82	1.78
Period jitter (10,000 cycles)	ps, pk-pk	15.1	14.1	14.1	13.9	13.4
Duty cycle	%	50.0	50.0	50.0	50.1	50.1
Rise time	ns	1.26	1.02	0.94	0.99	0.93
Fall time	ns	1.26	0.98	0.91	0.97	0.92
Amplitude	V	1.80	2.49	2.79	3.02	3.32
Current consumption (no load, output enabled)	mA	3.09	3.13	3.16	3.17	3.21
Current consumption (no load, output disabled)	mA	3.09	3.13	3.18	3.22	3.29

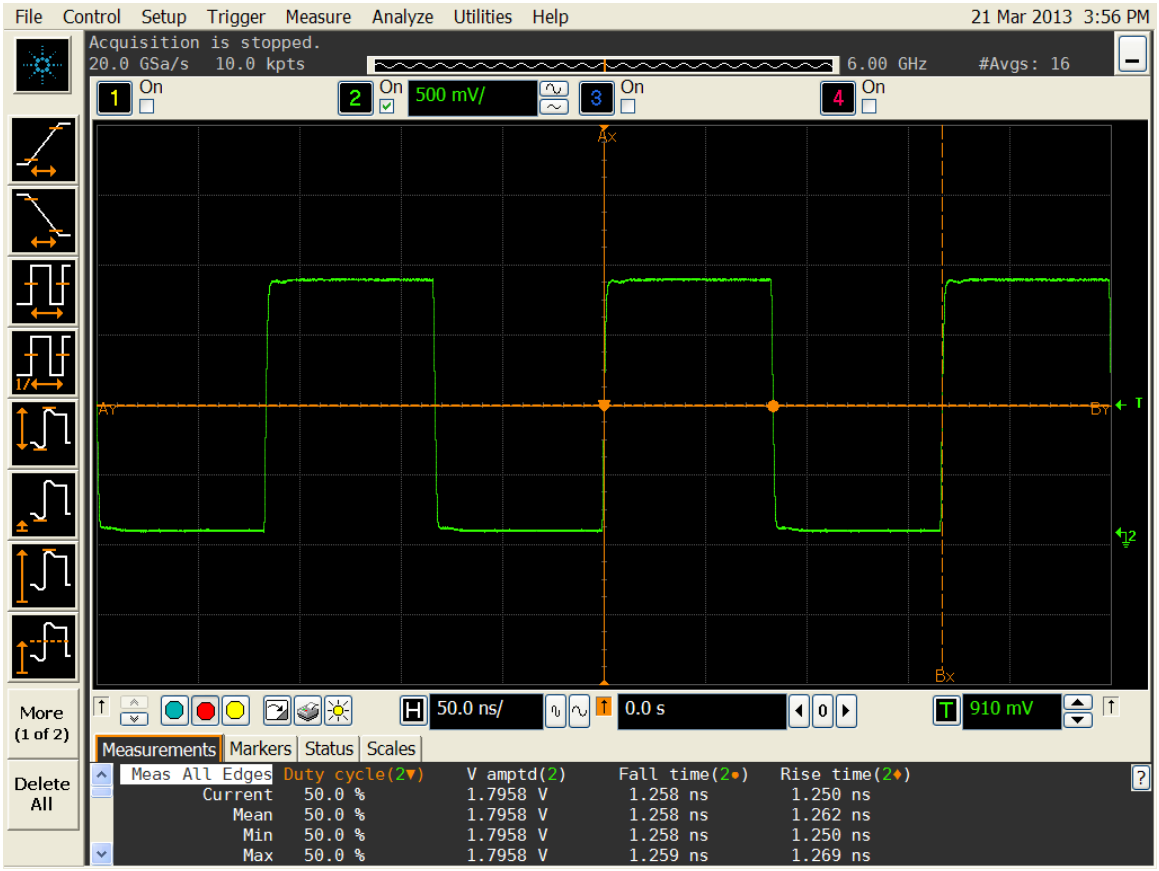

Figure 1. Duty cycle, Rise/Fall time and Amplitude 1.8V

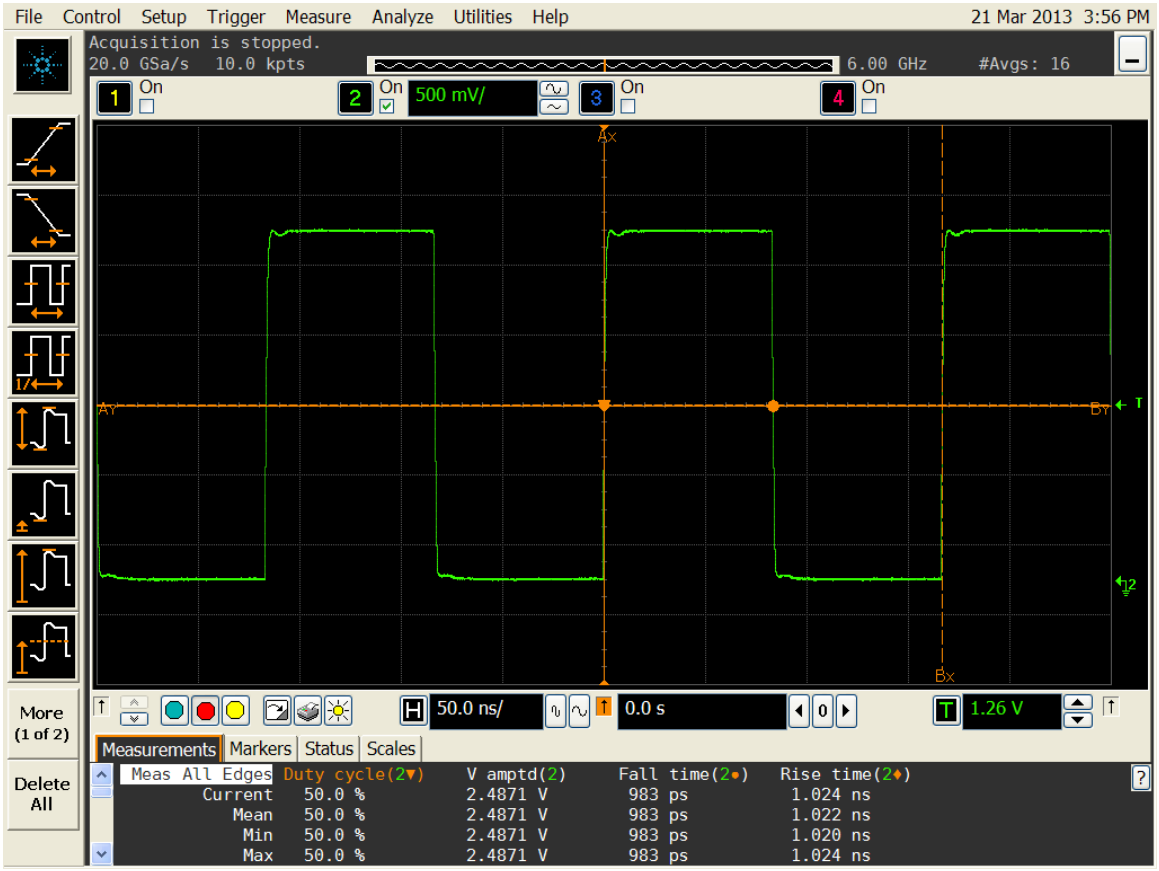

Figure 2. Duty cycle, Rise/Fall time and Amplitude 2.5V

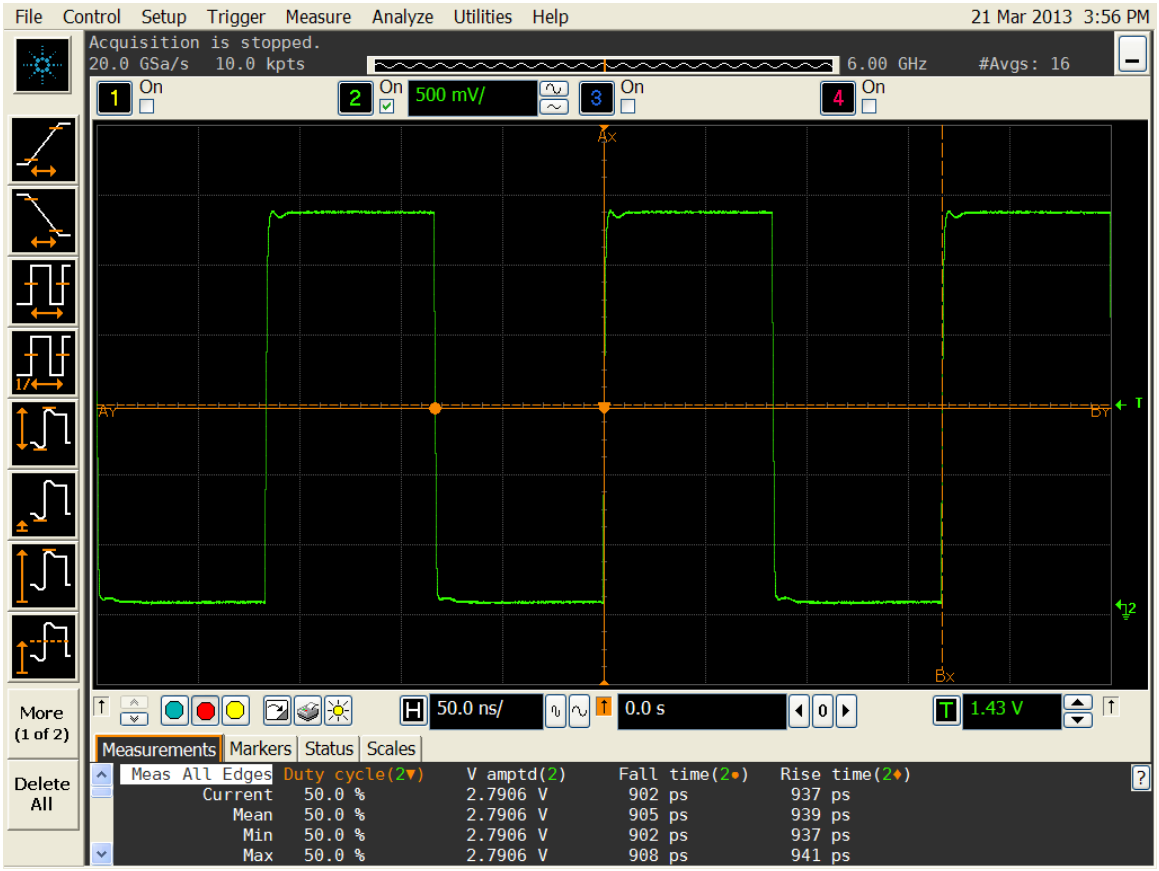

Figure 3. Duty cycle, Rise/Fall time and Amplitude 2.8V

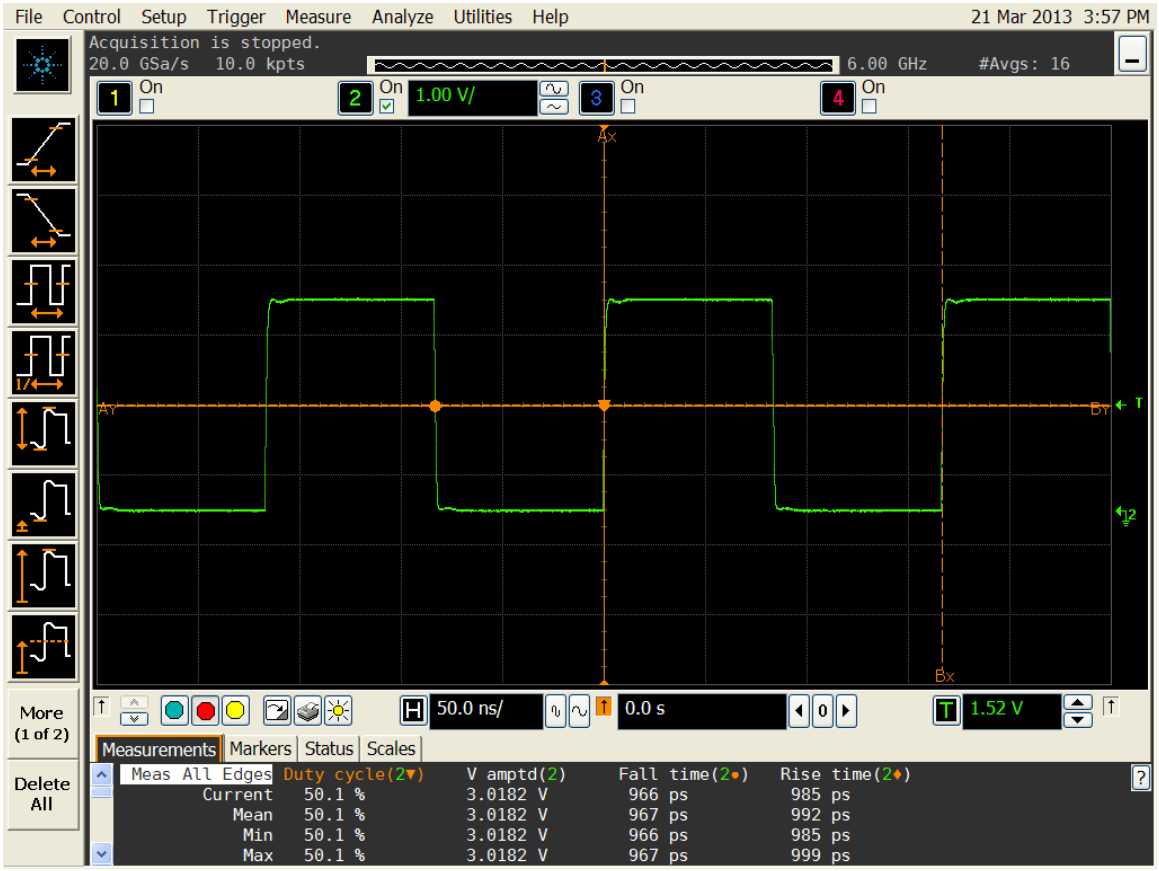

Figure 4. Duty cycle, Rise/Fall time and Amplitude 3.0V

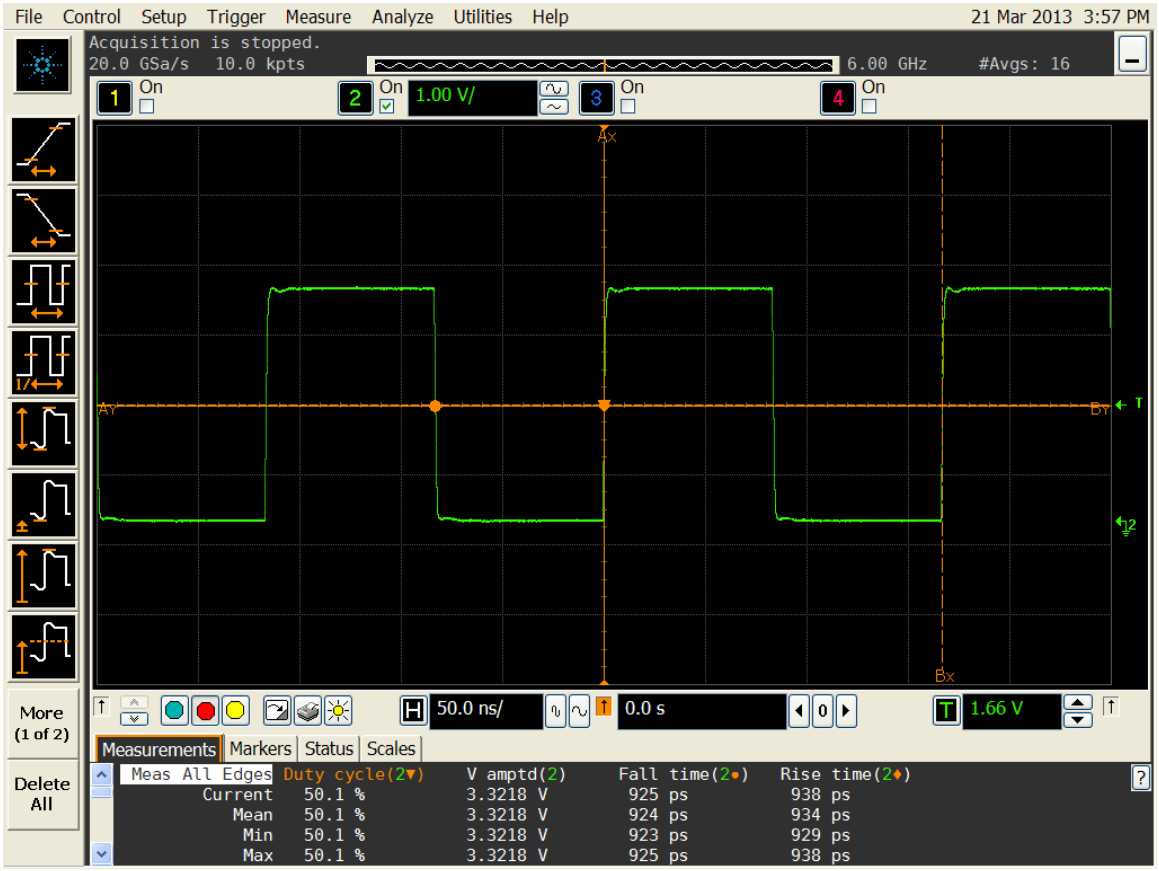

Figure 5. Duty cycle, Rise/Fall time and Amplitude 3.3V

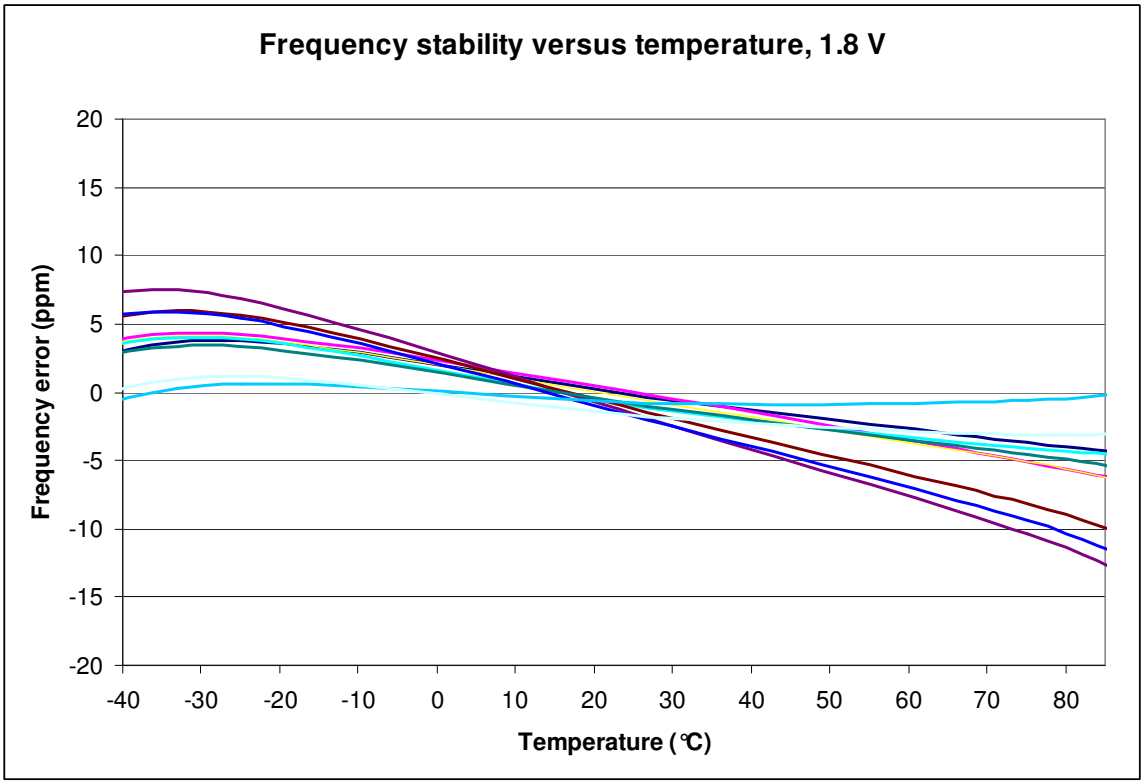

Figure 6. Frequency stability* versus temperature, 1.8 V

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

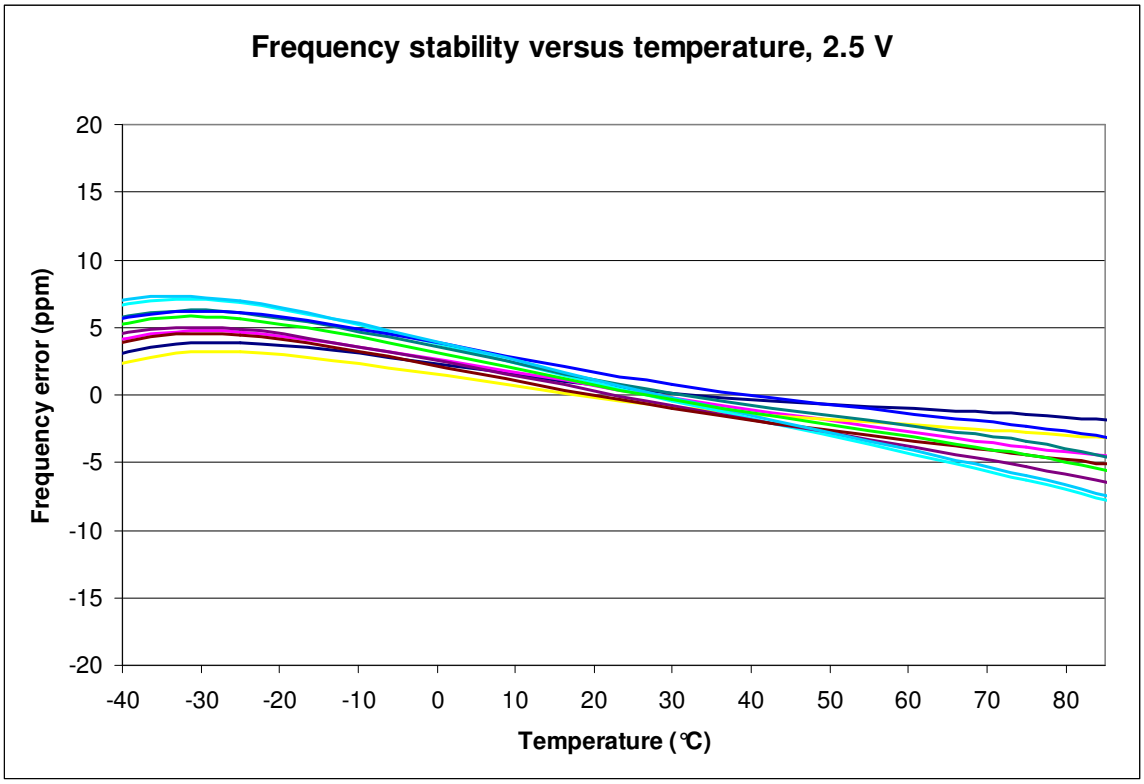

Figure 7. Frequency stability versus temperature, 2.5 V

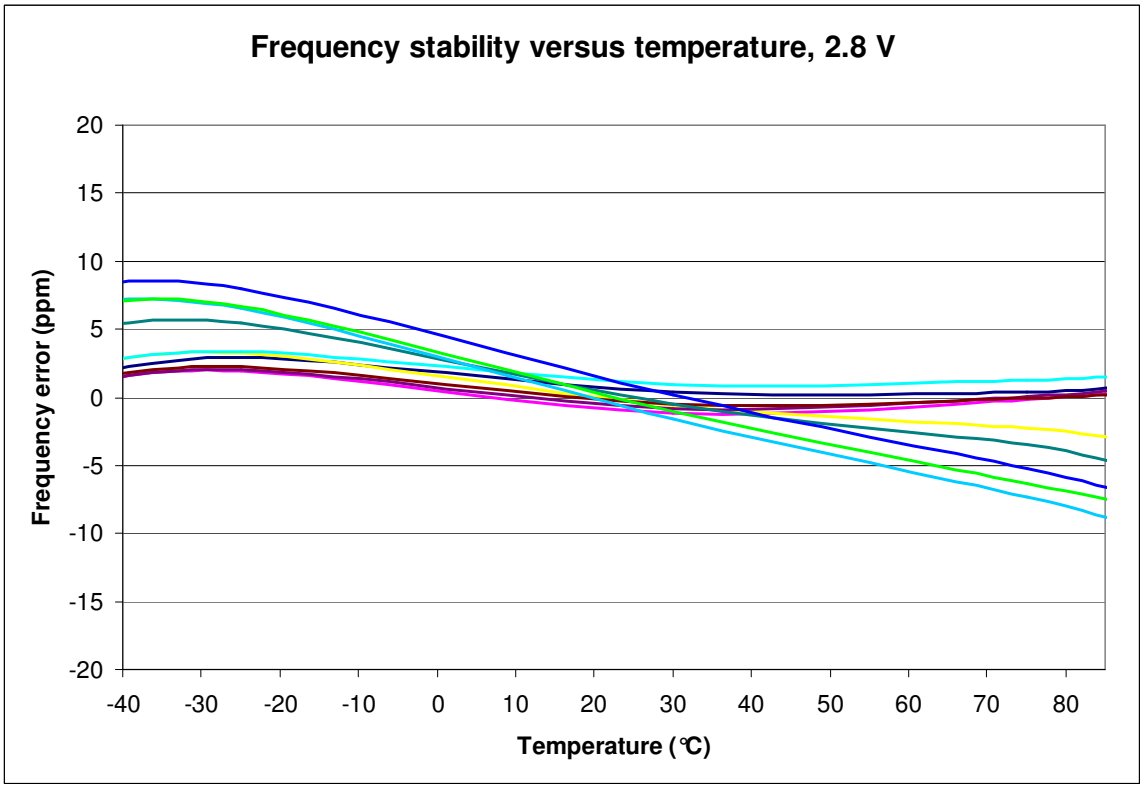

Figure 8. Frequency stability versus temperature, 2.8 V

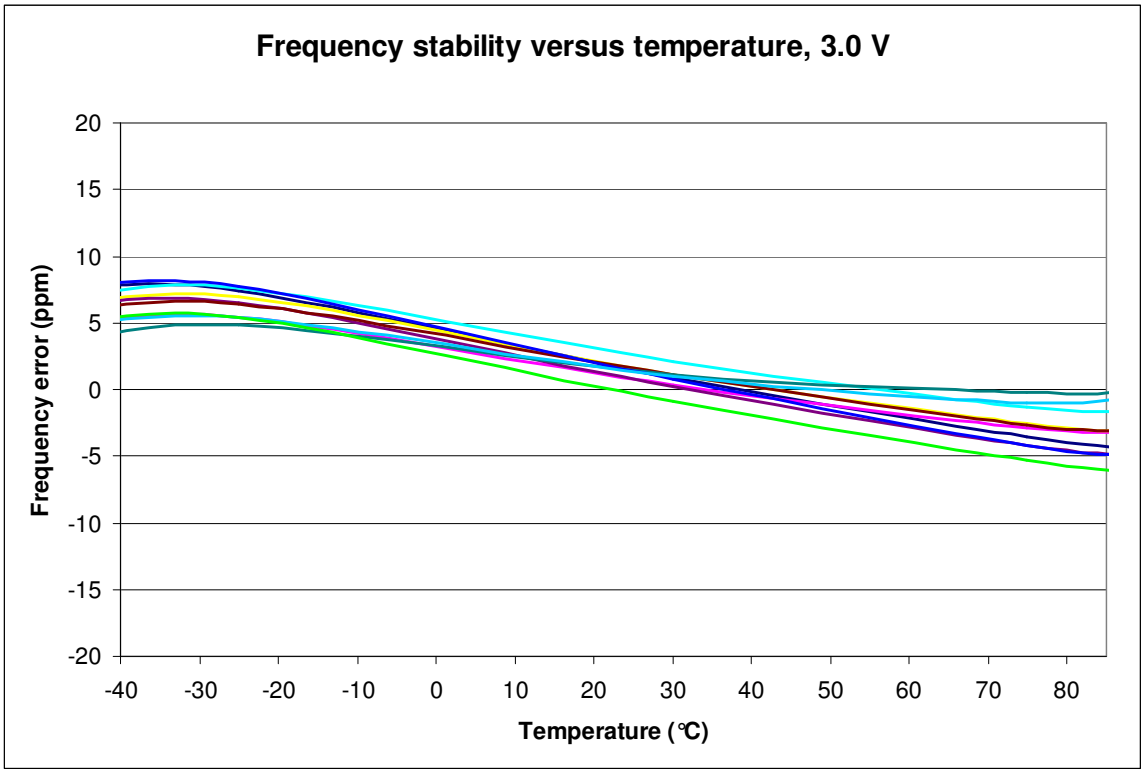

Figure 9. Frequency stability versus temperature, 3.0 V

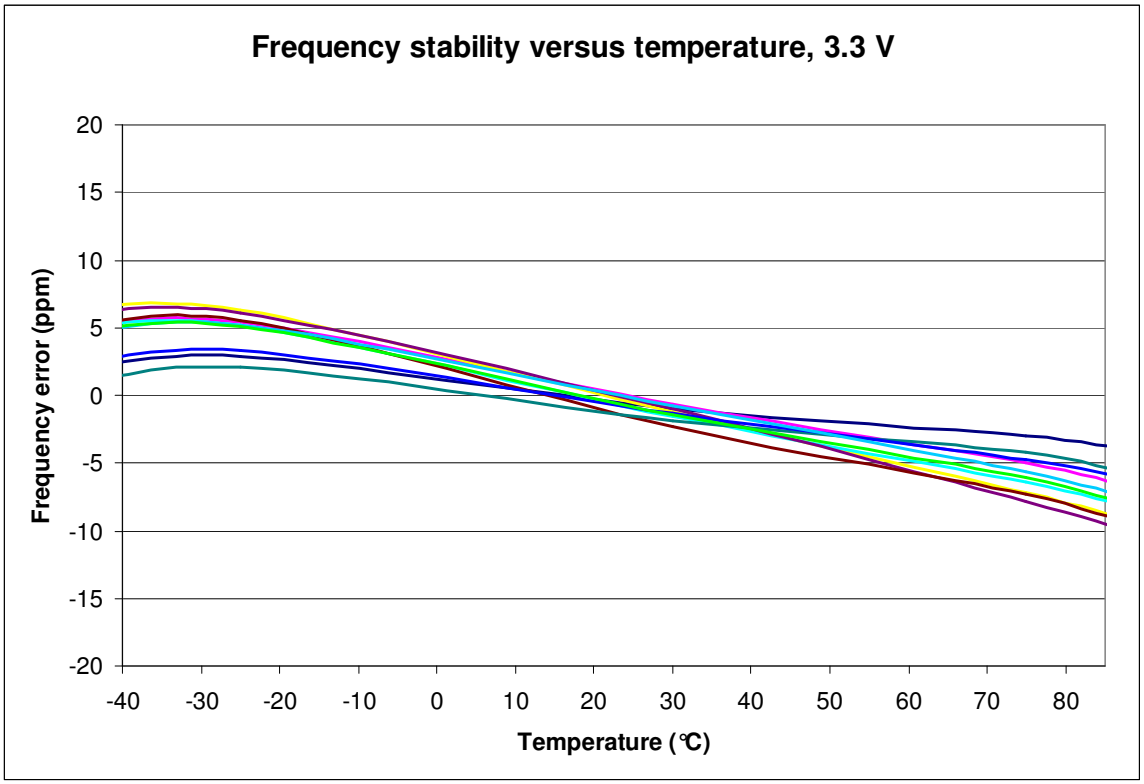

Figure 10. Frequency stability versus temperature, 3.3 V