

Tektronix DPO7000C vs Keysight Technologies S-Series

Competitive Fact Sheet

Analog-to-Digital Converter

Tektronix DPO7000C

- ✗ 8-bit ADC at 40GS/s to 10GS/s
- ✓ 8-bit ADC at 5GS/s and below
- ✓ 8-bit ADC data used for Peak Detect and High Resolution
- ✓ Up to 12-bits in HiRes mode

Keysight S-Series

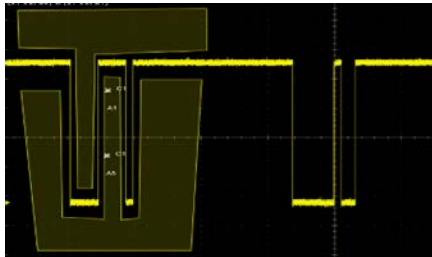
- ✓ 10-bit ADC Only at 20GS/s and 10GS/s
- ✓ 8-bit ADC at 5GS/s and below
- ✓ 8-bit ADC data used for Peak Detect and High Resolution
- ✓ Up to 12-bits in HiRes mode

Sampling Mode	Peak Detect
Capture Time	50.0 μ s
Effective Resolution	50.0 ps/pt
Bits of Resolution	8 bits

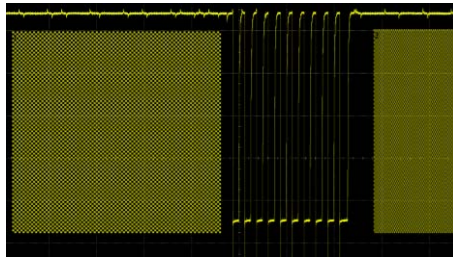
Keysight claims the S-Series is a 10-bit scope, but it really has more 8-bit ADC modes than 10-bit ADC modes!

Visual Trigger vs Zone Trigger

Tektronix DPO7000C



Keysight S-Series

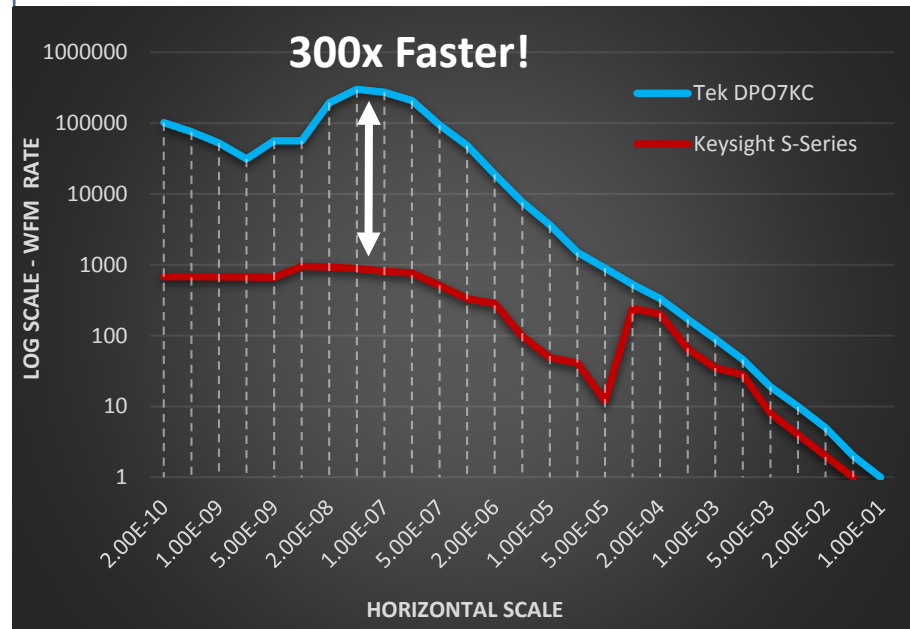


- ✓ Draw 8 Visual Triggers
- ✓ Customizable/editable shapes
- ✓ Search for Visual Trigger events
- ✓ Included with DPO7000C

- ✓ Draw 8 Zone Triggers
- ✗ Can't customize/ edit shapes
- ✗ No search for Zone Trigger events
- ✗ Cost \$2,000 on S-Series

Waveform Capture Rate* – DPO7000C vs S-Series

DPO7000C DPX Technology is faster in every horizontal scale



* Tek and Keysight wfm rates are typical data as of August 2015

Automated Search

Tektronix DPO7000C

- ✓ Search serial decodes
- ✓ Mark serial decodes
- ✓ Search & mark trigger events
- ✓ Search for Visual Trigger events

Keysight S-Series

- ✓ Search serial decodes
- ✗ No marking of serial decode
- ✗ No search or mark on trigger events
- ✗ No search on Zone Trigger

Tektronix DPO7000C vs Keysight Technologies S-Series

Competitive Fact Sheet

	Tektronix DPO7000C Series		Keysight S-Series	
Max bandwidth	Up to 3.5GHz	✗	Up to 8GHz	✓
Max bandwidth all CHs	Up to 3.5GHz	✓	Up to 4GHz	✓
Trigger bandwidth	Full Bandwidth	✓	Limited to 3GHz on 4GHz+ scopes	✗
Max sample rate	40GS/s*	✓	20GS/s	✗
Max sample rate all CHs	10GS/s*	✓	10GS/s	✓
Max memory	500M	✗	800M	✓
Max waveform update rate**	300,000 wfms/sec	✓	1,100 wfms/sec	✗
ADC resolution in HiRes/ Peak Detect	8-bits	✓	8-bits	✓
ADC resolution at 5GS/s and lower.	8-bits	✓	8-bits	✓
Max ADC resolution	8-bits	✗	10-bits <u>Only</u> at 20GS/s & 10GS/s	✓
Max vertical resolution	Up to 12 bits with HiRes	✓	Up to 12 bits with HiRes	✓
ENOB*** @ 1GHz	6.7 bits	✗	7.4 bits	✓
Lowest HW vertical setting	1mV/div = 10mV Full Scale	✓	2mv/div = 16mV Full Scale	✗
DC gain accuracy	1.0%	✓	2.0%	✗
Graphical trigger	Visual Trigger	✓	Zone Trigger – Limited functionality	✗
Automated Search and mark	Search & Mark on Visual Trigger, Standard Triggers and Serial Decode events	✓	<u>Only</u> Search on Serial Decode events	✗
CPU	Intel i7 Quad Core	✓	Intel i5 Quad Core	✗
Offline Scope Viewer	Yes	✓	Yes	✓

*Standard on DPO7354C, DPO7254C, and DPO7104C with opt. 2SR

**Keysight not specified, but max rate measured by Tektronix

***ENOB tested by Tektronix, at 500mV Full Scale at 1GHz and 20GS/s on both scopes