Competitive Comparison
Keysight Technologies Infiniium 9000 Series vs. Tektronix 7000C Series

Keysight 9000 Series
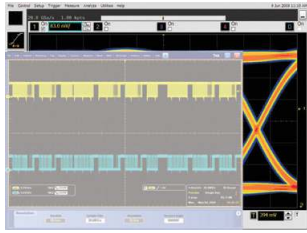
Tektronix 7000C Series

	Tektronix DPO 7000C Series		Keysight Infiniium 9000 Series	
Bandwidths Offered	500MHz, 1 GHz, 2.5 GHz, 3.5 GHz (DSP boosted)	√	600 MHz, 1 GHz, 2.5 GHz, 4 GHz	√
Upgradeable bandwidth	No	X	Yes	√
Max sample rate (2-ch)	up to 20 GSa/s	√	up to 20 GSa/s	√
Standard/Max memory (2-ch)	25 Mpts/250 Mpts	X	40Mpts/1 Gpts	√
Scope update rate (table on reverse side)	FastAcq mode to 250k wf/s (limitations)	√	No DPX mode	X
	36 wf/s with 1 Kpts	X	1000 wf/s with 1 Kpts	√
	13 wf/s with 1 Mpts	X	500 wf/s with 1 Mpt	√
Biggest Display	12"	X	15" (40% more display area)	√
Vertical/horizontal knobs: Pushable vernier control	Not offered	X	Yes. All four vertical channel & horizontal knobs.	√
Drag and drop measurements	Not available	X	Yes	√
Triggering stages	2 HW	√	1 HW + 1 SW	X
InfiniiScan Zone Triggering	Not available	X	Option. Up to 8 zones	√
Standard Probes	500 MHz passive	√	500 MHz passive	√
Protocol features	decode on waveforms, limited lister only	X	lister, decode on waveforms, multi-tab view, decode entire record, segmented memory support	√

MSO Comparison	Tektronix DPO 7000C Series		Keysight Infiniium 9000	
MSO Sample Rate	No MSO	X	2 GSa/s	√
MSO memory depth (std/max)		X	128 Mpts/128 Mpts	√

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Benefits of Large Display Size
15" VS 12" display

Tek Display

1. Easier to see signal detail
2. Easier to drive (font size)
3. Easier for multiple people to see
4. Bigger touch screen field for easier control

Keysight has
40% more display area

Benefits of fast update rate

– See infrequent events
– Better view of signal detail
– Responsive controls
– Faster post-processing/analysis

Tek DPX limitations:
Isn't on normally. Doesn't work when MSO channels or protocol is on. Doesn't work with real time mode (switches scope to equivalent time mode). User can't adjust horizontal or vertical controls when stopped (can't zoom in on signal detail). Memory depth limited to 250 kpts. Doesn't work with Math. Doesn't work with Fast Frame.

Scope (Memory depth)	Tek 7000C		Keysight 9000	
	Waveform/Sec			
100 Kpts	34	X	550	√
1 Mpts	14	X	500	√
10 Mpts	2	X	300	√
DPX special mode	250,000*	√		√

* tradeoffs listed on left

Ease-of-Use Front Panel Differences

Capabilities not on Tek 7000C front panel

– Push to Zero delay (horizontal)

– Multi-purpose button (user customizable)
– Push for vernier control
  – Vernier horizontal scaling
  – Vernier vertical scaling

– Channel coupling, impedance, BW limit display

AC 50Ω BW

– No pushable knobs.
– No vernier scaling.
– Limited view of channel setup

Protocol Comparison

	Tektronix 7000C		Keysight Infiniium 9000 Series	
Low-speed protocols	I^{2}C, SPI, RS-232/UART	√	I2C, SPI, RS-232/UART, JTAG	√
Industrial/auto	CAN/LIN (no LIN triggering)	X	CAN, LIN, FlexRay	√
Higher-speed buses	8B/10B, USB (no high-speed triggering)	X	8B/10B, USB, PCIe, SATA, MIPI	√
Decode on waveforms	YES	√	YES	√
Lister	YES (limited)	X	YES	√
Multi-tab viewer	NO	X	Yes. Header, payload, details, packets	√
Auto-setup	NO	X	YES	√
Segmented memory (Fast Frame)	No protocol support	X	YES	
Multiple bus decode	YES	X	YES	√

www.keysight.com/find/9000

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