DSO X 2024 Oscilloscope Quick Reference

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Abstract. Short introduction to get started with DSO X 2024 Oscilloscopes

1   Introduction

This quick reference for DSO X 2024 Oscilloscope is very incomplete. See [1], [2], [3] for more detailed information.

2   Getting Started DSO X 2024 Oscilloscopes

Switching an input channel on or off
- If channel # (CH#), #=1…4, of the oscilloscope is off, press to turn it on.
- If it is in the background behind an other signal, press to get it in front.
- If a signal is in front of all other signals, press to turn it off.

Select trigger input
- Press hardkey *Trigger* on the oscilloscope.
- Slections can now be made by turning the knob below HK *Trigger*.
- Presse softkey (SK) *Channel*. Turn the knob to trigger CH3. Press on the knob.
- If a signal is in front of all other signals, press to turn it off.

Save a screen copy on a USB stick.
- Use a FAT32 formatted USB memory stick (memory not too big)and push it into the USB slot below the oscilloscope's screen.
- Press hard-key (HK) *Save/Recall*.
- Press SK's Speichern > Einstellungen > Gitter invertiert
- Press softkey (SK) Durch Drücken Speichern.
- Remove memory stick.

3   Measuring an Average Voltage

Fig. 3:
Averaging over full screen averages over all 10 horizontal divisions yielding an average voltage of 3/10. Averaging over 2 cycles of the fundamental wave yields an average of $2/8 = 1/4$, which is the correct value when considering the entire periodic signal.
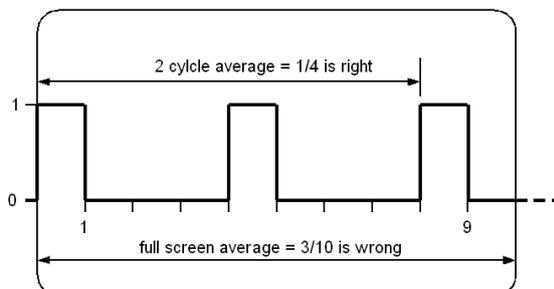
Hereinafter selections can be done with by the buttons under the screen and/or the round rotary-knob under push-button *Trigger*:

To measure the average voltage of channel # press button *Meas*, select the *Source*, i.e. # for channel #. Then push the *Type* button under the screen and select *Average – N Cycles*. The scope will determine the wavelength and average over the maximum number of integral wavelengths, that fit into the screen.

4   References

[1] Agilent InfiniiVision 2000 X-Series Oscilloscopes, User's Guide, Available https://www.brown.edu/Departments/Engineering/Courses/En163/2000_series_users_guide.pdf.

[2] *Keysight InfiniiVision 2000 X-Seris Oszilloskope*, Benutzerhandbuch, Available https://www.hs-kempten.de/fileadmin/fh-kempten/E_I/Labore/Biechl/2000_series_users_guide_de.pdf

[3] Using the Keysight InfiniiVision 2000 X-Series in Your Lab, Available: https://www.youtube.com/watch?v=WvtMsS2VUYs.