

## Oscilloscope Specifications: What does “div” mean in the specifications?

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The term “div” for most SIGLENT specifications is equal to the Vertical Scale value (Commonly shown in units of Volts/div).

Take the specification for the DC Gain Accuracy of a SIGLENT SDS1052DL+

For ranges  $\leq 100$  mV/div, the DC Gain Accuracy is given as

$$\pm [3\% \times (|\text{reading}| + |\text{offset}|) + 1\% \times |\text{offset}| + 0.2 \times \text{div} + 2 \text{ mV}]$$

If:

$$\text{Reading} = 0.5 \text{ V}$$

$$\text{Offset is } 0.1 \text{ V}$$

$$\text{Vertical scale (div)} = 100 \text{ mV/div} = 0.1 \text{ V/div,}$$

Then DC Gain is calculated as follows:

$$\pm [3\% \times (|\text{reading}| + |\text{offset}|) + 1\% \times |\text{offset}| + 0.2 \times \text{div} + 2 \text{ mV}] =$$

$$\pm [3\% \times (|0.5 \text{ V}| + |0.1 \text{ V}|) + 1\% \times |0.1 \text{ V}| + 0.2 \text{ div} \times (0.1 \text{ V/div}) + 0.002 \text{ V}] =$$

$$\pm [3\% \times (0.6 \text{ V}) + 0.0001 \text{ V} + 0.02 \text{ V} + 0.002 \text{ V}] = 0.018 \text{ V} + 0.0001 \text{ V} + 0.02 \text{ V} + 0.002 \text{ V} = 0.0401 \text{ V}$$

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