

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

February 27, 2019

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:

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

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

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

<span style=""></span>



### **North American Headquarters**

SIGLENT Technologies America, Inc  
6557 Cochran Rd Solon, Ohio 44139  
Tel: 440-398-5800  
Toll Free: 877-515-5551  
Fax: 440-399-1211  
[info@siglent.com](mailto:info@siglent.com)  
[www.siglentamerica.com/](http://www.siglentamerica.com/)

### **European Sales Offices**

SIGLENT TECHNOLOGIES EUROPE GmbH  
Staetzlinger Str. 70  
86165 Augsburg, Germany  
Tel: +49(0)-821-666 0 111 0  
Fax: +49(0)-821-666 0 111 22  
[info-eu@siglent.com](mailto:info-eu@siglent.com)  
[www.siglenteu.com](http://www.siglenteu.com)

### **Asian Headquarters**

SIGLENT TECHNOLOGIES CO., LTD.  
Blog No.4 & No.5, Antongda Industrial Zone,  
3rd Liuxian Road, Bao'an District,  
Shenzhen, 518101, China.  
Tel: + 86 755 3661 5186  
Fax: + 86 755 3359 1582  
[sales@siglent.com](mailto:sales@siglent.com)  
[www.siglent.com/ens](http://www.siglent.com/ens)