

# How to remotely retrieve measurements with an SDS X and XE series of Oscilloscope

October 23, 2017

The command sequence for returning measurements with a SIGLENT SDS X and XE series of oscilloscopes is as follows:

MEAD <type>, <source> Activate measurement type

Where <type> = {PHA, FRR, FRF, FFR, FFF, LRR, LRF, LFR, LFF}

The PHA is phase, the others are the same as the specified type of the instruments delay measure in the SDS programming guide.

<source> = {C1-C2, C1-C3, C1-C4, C2-C3, C2-C4, C3-C4}

<source>:MEAD? <type> Return measurement data

Where <source> = {C1-C2, C1-C3, C1-C4, C2-C3, C2-C4, C3-C4}

<type> = {PHA, FRR, FRF, FFR, FFF, LRR, LRF, LFR, LFF}

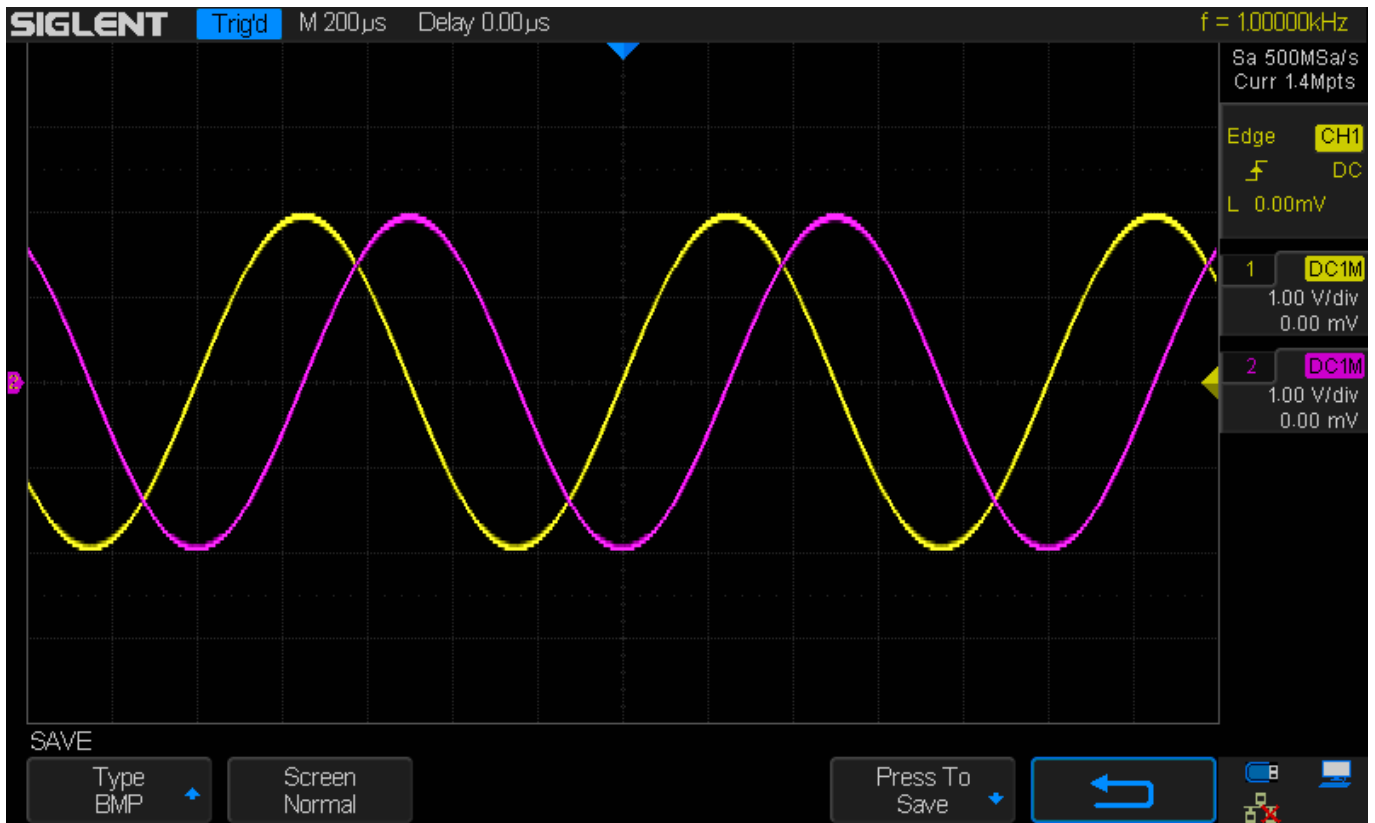
The PHA is phase, the others are the same as the specified type of the instruments delay measure in the SDS programming guide.

The following example shows the command sequence to enable phase measurements between CH1 and CH2 on an SDS1202X Oscilloscope.

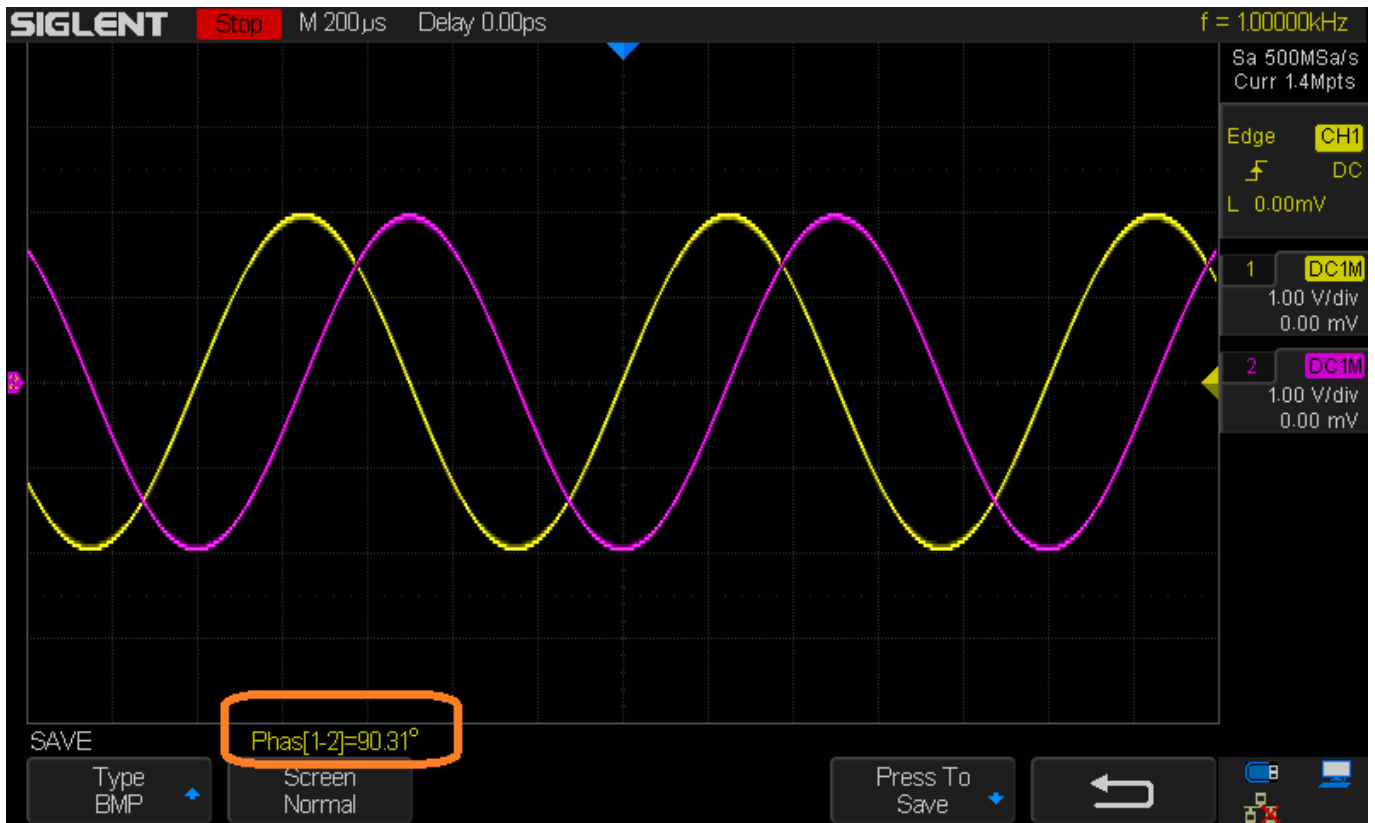
**NOTE:** The SDS1202X was set to default factory settings, CH2 was activated manually, and 2 sine waves with different phases were used as inputs to either channel.

The commands were sent using NI-MAX VISA Test Panel.

Here is the default display. Note, there are no measurements active on the display.



**Step 1:** Send "MEAD PHA,C1-C2" to activate phase measurements between CH1 and CH2.



**Step 2:** Send "C1-C2:MEAD? PHA" to activate phase measurements between CH1 and CH2.

USB0::0xF4EC::0xEE3A::SDS1XDB3150377::INSTR - VISA Test Panel  
 Configuration Input/Output Advanced NI I/O Trace Help NATIONAL INSTRUMENTS  
 Basic I/O Line Control USB Control  
 Select or Enter Command C1-C2:MEAD?\sPHA  
 C1-C2:MEAD?\sPHA Bytes to Read 1024  
 Write Query Read Read Status Byte Clear  
 View mixed ASCII/hexadecimal  
 2: Write Operation (C1-C2:MEAD?\sPHA)  
 Return Count: 15 bytes  
 3: Read Operation  
 Return Count: 30 bytes  
 C1-C2:MEAD\sPHA 9.13E+01degree\n  
 Copy to Clipboard Clear Buffer  
 Return Data  
 Read Operation  
 No Error



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