

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, 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.

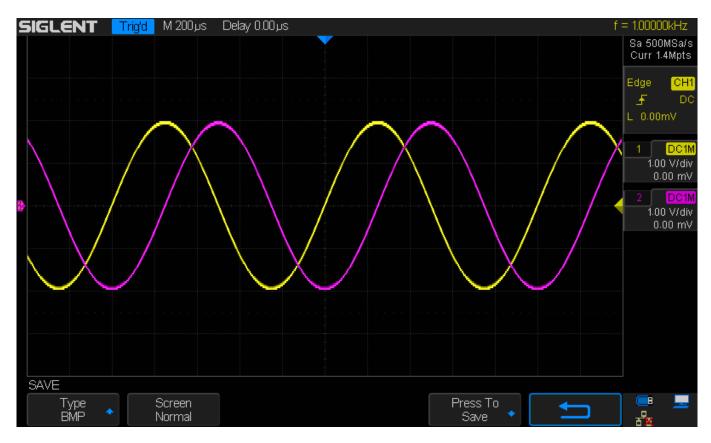
The following example shows the command sequence to enable phase measurements between CH1 and CH2 on an SDS1202X Oscilloscope.

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.

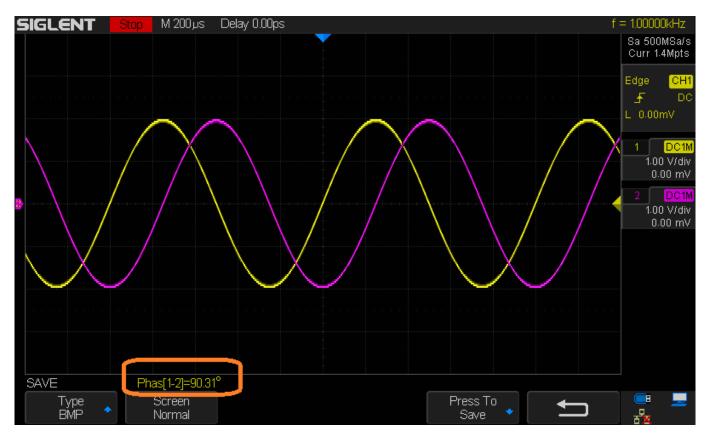
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Step 1: Se	nd "MEAD PHA	,C1-C2" to activate	phase measurements	between CH1 and CH2.
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💥 USB0::0xF4EC::0xEE3A::SDS1XDB3150377::INSTR - VISA Te		_	×		
Configuration	Advanced	NI I/O Trace	Help	INST	ONAL RUMENTS
Basic I/O Line Control USB Control Select or Enter Command MEAD\sPHA,C1-C2 MEAD\sPHA,C1-C2 Write Query Read View mi 1: Write Operation (MEAD\sPHA,C1-C2) Return Count: 14 bytes	Read Status Byte xed ASCII/hexadecimal	Bytes to Read 1024 Clear	Return Data Write Oper C1-C2) No Error	a ration (MEAD	\sPHA,

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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	INST	TIONA RUME	L NTS
Write Query Read Read Status Byte 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	tes to Read	Return Data Read Operatic No Error	on		



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