

# SCPI Command Reference

## Agilent Technologies E4438C and E8267C, Options 003 and 004

**Date: December 2003**

### Digital Subsystem

#### [STATe]

```
:DIGital[:STATe] 0|1|OFF|ON
```

```
:DIGital[:STATe]?
```

```
*RST: OFF
```

Associated keys: Digital I/O Off On, N5102A Off On

#### CLOCK:CPS

```
:DIGital:CLOCK:CPS 1|2|4
```

```
:DIGital:CLOCK:CPS?
```

```
*RST: 1
```

Associated key: Clocks Per Sample

#### CLOCK:PHASe

```
:DIGital:CLOCK:PHASe <value>
```

```
:DIGital:CLOCK:PHASe?
```

```
*RST: +0.00000000E+000 Range: 0 - 360 deg
```

Associated keys: 0 deg, 180 deg, 270 deg, 90 deg, Clock Phase

#### CLOCK:POLarity

```
:DIGital:CLOCK:POLarity POSitive|NEGative
```

```
:DIGital:CLOCK:POLarity?
```

```
*RST: POS
```

Associated key: Clock Polarity Neg Pos

## **CLOCK:RATE**

:DIGital:CLOCK:RATE <value>

:DIGital:CLOCK:RATE?

\*RST: +1.00000000E+008 Range: 1 kHz - 400 MHz

Associated key: Clock Rate

## **CLOCK:REFERENCE:FREQUENCY**

:DIGital:CLOCK:REFERENCE:FREQUENCY <value>

:DIGital:CLOCK:REFERENCE:FREQUENCY?

\*RST: +1.00000000E+007 Range: 1 - 100 MHz

Associated key: Reference Frequency

## **CLOCK:SKEW**

:DIGital:CLOCK:SKEW <value>

:DIGital:CLOCK:SKEW?

\*RST: +0.00000000E+000 Range: -5 through 5 ns

Associated key: Clock Skew

## **CLOCK:SOURCE**

:DIGital:CLOCK:SOURCE INTERNAL|EXTERNAL|DEVICE

:DIGital:CLOCK:SOURCE?

\*RST: INT

Associated keys: Clock Source, DUT, Device, External, Internal

## **DATA:ALIGNment**

:DIGital:DATA:ALIGNment MSB|LSB

:DIGital:DATA:ALIGNment?

\*RST: LSB

Associated key: Word Alignment

### **DATA:BORDER**

:DIGital:DATA:BORDER MSB|LSB

:DIGital:DATA:BORDER?

\*RST: LSB

Associated key: Bit Order MSB LSB

### **DATA:DIRection**

:DIGital:DATA:DIRection OUTPut|INPut

:DIGital:DATA:DIRection?

\*RST: Output\*\*

\*\*Unless only Option 004 is installed

Associated key: Direction Input Output

### **DATA:IGain**

:DIGital:DATA:IGain <value>

:DIGital:DATA:IGain?

\*RST: +0.00000000E+000 Range: -12.5 through 12.5

Associated key: I Gain

### **DATA:INEGate**

:DIGital:DATA:INEGate OFF|ON|0|1

:DIGital:DATA:INEGate?

\*RST: 0

Associated key: Negate I Data Off On

### **DATA:IOFFset**

:DIGital:DATA:IOFFset <value>

:DIGital:DATA:IOFFset?

\*RST: +0.00000000E+000 Range: -100 through 100

Associated key: I Offset

### **DATA:IQSWap**

:DIGital:DATA:IQSWap OFF|ON|0|1

:DIGital:DATA:IQSWap?

\*RST: 0

Associated key: Swap IQ Off On

### **DATA:NFORmat**

:DIGital:DATA:NFORmat OBINary|TCOMplement

:DIGital:DATA:NFORmat?

\*RST: TCOM

Associated keys: 2's Complement, Data Format, Numeric Format, Offset Binary

### **DATA:POLarity:FRAMe**

:DIGital:DATA:POLarity:FRAMe POSitive|NEGative

:DIGital:DATA:POLarity:FRAMe?

\*RST: POS

Associated key: Frame Polarity Neg Pos

### **DATA:POLarity:IQ**

:DIGital:DATA:POLarity:IQ POSitive|NEGative

:DIGital:DATA:POLarity:IQ?

\*RST: POS

Associated key: IQ Polarity Neg Pos

### **DATA:QGain**

:DIGital:DATA:QGain <value>

:DIGital:DATA:QGain?

\*RST: +0.00000000E+000 Range: -12.5 through 12.5

Associated key: Q Gain

### **DATA:QNEGate**

:DIGital:DATA:QNEGate OFF|ON|0|1

:DIGital:DATA:QNEGate?

\*RST: 0

Associated key: Negate Q Data Off On

### **DATA:QOFFset**

:DIGital:DATA:QOFFset <value>

:DIGital:DATA:QOFFset?

\*RST: +0.00000000E+000 Range: -100 through 100

Associated key: Q Offset

### **DATA:ROTation**

:DIGital:DATA:ROTation <value>

:DIGital:DATA:ROTation?

\*RST: +0.00000000E+000 Range: 0 - 360

Associated key: Rotation

### **DATA:SCALing**

:DIGital:DATA:SCALing <value>

:DIGital:DATA:SCALing?

\*RST: +1.00000000E+002 Range: -100 through 100

Associated key: Scaling

### **DATA:SIZE**

:DIGital:DATA:SIZE <value>

:DIGital:DATA:SIZE?

\*RST: +1.60000000E+001 Range: 4 - 16

Associated key: Word Size

## **DATA:STYPe**

:DIGital:DATA:STYPe IQ|IF

:DIGital:DATA:STYPe?

\*RST: IQ

Associated key: Signal Type IQ IF

## **DATA:TYPE**

:DIGital:DATA:TYPE SAMPlEs|PFsAMPlEs

:DIGital:DATA:TYPE?

\*RST: SAMP

Associated keys: DAC Samples, Data Type, Pre-FIR Samples, Samples

## **DIAGnostic:LOOPback**

:DIGital:DIAGnostic:LOOPback? DIGBus|CABLe|N5102A|DEVIce

Associated keys: Device Intfc, Dig Bus Cable, Digital Bus, Digital I/O, Loop Back Test Type, N5102A Dig Bus, Run Loop Back Test, SigGen Dig Bus

## **LOGic**

:DIGital:LOGic[:TYPE] LVDS|LVTT1|CMOS15|CMOS18|CMOS25|CMOS33

:DIGital:LOGic[:TYPE]?

\*RST: LVDS

Associated keys: 1.5V CMOS, 1.8V CMOS, 2.5V CMOS, 3.3V CMOS, LVDS, LVTTL, Logic Type

## **PCONFig**

:DIGital:PCONFig PARAllel|SERial|PINTIQ|PINTQI

:DIGital:PCONFig?

\*RST: PAR

Associated keys: Connection Type, Par IQ Intrlvd, Par QI Intrlvd, Parallel, Port Config, Serial

## **PRESet:PTHROUGH**

:DIGital:PRESet:PTHROUGH

Associated key: Pass Through Preset