

# Reference



## **CTS 710 SONET Test Set & CTS 750 SDH Test Set Command List**

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This document applies to firmware version 1.40  
and above.



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Please refer to the *CTS 710 Programmer Manual* or the *CTS 750 Programmer Manual* for complete syntax information

**CALibrate**

:EXECute  
:RESults?  
:SElect

**DIAGnostic**

:BUFFer  
:DATA?  
:INDex  
:SIZE?  
:EXECute  
:LOOP  
:RESults?  
:SElect

**DISPlay**

:BRIGHtness

**HCOPy**

:ABORt  
:DEVice  
:LANGuage  
:IMMediate  
:ITEm  
:TITLe

**INITiate**

**INPUT1:TELeCom**

:LEVel  
:OPWR?  
:PVOLtage?  
:RATE  
:STATus?  
:TYPE

**INPUT2:TELeCom** *(Opt. 22, Opt. 36 only)*

:LEVel  
:STATus?  
:TERMinator

**INPUT3:TELeCom** *(Opt. 22, Opt. 36 only)*

:LEVel  
:RATE  
:STATus?

**INSTrument:COUPling**

**MMEMory:DELEte**

:JITter  
:OUTPUT *(CTS 750 Opt. 14 only)*  
:POINter *(CTS 750 Opt. 14 only)*  
:TOLerance *(CTS 750 Opt. 14 only)*  
:TRANSFer *(CTS 750 Opt. 14 only)*  
:RESults  
:SETTings  
:TEST

**MMEMory:LOAD**

:JITter  
:OUTPUT *(CTS 750 Opt. 14 only)*  
:POINter *(CTS 750 Opt. 14 only)*  
:TOLerance *(CTS 750 Opt. 14 only)*  
:TRANSFer *(CTS 750 Opt. 14 only)*  
:RESults  
:SETTings  
:TEST

**MMEMory:STORe**

:JITter  
:OUTPUT *(CTS 750 Opt. 14 only)*  
:POINter *(CTS 750 Opt. 14 only)*  
:TOLerance *(CTS 750 Opt. 14 only)*  
:TRANSFer *(CTS 750 Opt. 14 only)*  
:RESults  
:SETTings  
:TEST

**OUTPUT1:TELeCom**

:LEVel  
:RATE  
:TYPE

**OUTPUT2:TELeCom** *(Opt. 22, Opt. 36 only)*

:CODE  
:TERMinator

**OUTPUT3:TELeCom** *(Opt. 22, Opt. 36 only)*

:RATE

**SENSe:DATA:TELeCom**

:AUTOScan  
:CHANnel

**SENSe:DATA:TELEcom:JITter** *(CTS 750 Opt. 14 only)*

:CLOCK  
 :RATE  
 :FILTer  
   :FULLband  
     :HPASS  
   :HIGHBand  
   :TYPE  
 :FREQuency  
   :DELTA  
     :CURrent?  
   :RATE  
     :CURrent?  
 :MODE  
 :RANGe  
   :POINter  
     :THREshold  
 :SOURce  
 :THREshold

**SENSe:DATA:TELEcom:MEASure:ALARm**

?  
 :LAIS?  
 :LFErF?  
 :LOFrame?  
 :LOPointer?  
 :LOSignal?  
 :LPWR?  
 :OOFrame?  
 :PAIS?  
 :PFERf?  
 :VTAIS? *(Opt. 22, Opt. 36 only)*  
 :VTFERF? *(Opt. 22, Opt. 36 only)*  
 :VTLOM? *(Opt. 22, Opt. 36 only)*  
 :VTLOP? *(Opt. 22, Opt. 36 only)*

**SENSe:DATA:TELEcom:MEASure:ANALysis:BBError**

?  
 :LCV?  
 :LFEBe?  
 :PCV?  
 :PFEBe?  
 :SCV?  
 :VTBIP? *(Opt. 22, Opt. 36 only)*  
 :VTFEBe? *(Opt. 22, Opt. 36 only)*

**SENSe:DATA:TELEcom:MEASure:ANALysis:DMINutes**

?  
 :BIT?

**SENSe:DATA:TELEcom:MEASure:ANALysis:EBLock**

?  
 :LCV?  
 :LFEBe?  
 :PCV?  
 :PFEBe?  
 :SCV?  
 :VTBIP? *(Opt. 22, Opt. 36 only)*  
 :VTFEBe? *(Opt. 22, Opt. 36 only)*

**SENSe:DATA:TELEcom:MEASure:ANALysis:ECOunt**

?  
 :BIT?

**SENSe:DATA:TELEcom:MEASure:ANALysis:EFSEConds**

?  
 :BIT?

**SENSe:DATA:TELEcom:MEASure:ANALysis:ESEConds**

?  
 :BIT?  
 :LCV?  
 :LFEBe?  
 :PCV?  
 :PFEBe?  
 :SCV?  
 :VTBIP? *(Opt. 22, Opt. 36 only)*  
 :VTFEBe? *(Opt. 22, Opt. 36 only)*

**SENSe:DATA:TELEcom:MEASure:ANALysis:PBError**

?  
 :BIT?  
 :LCV?  
 :LFEBe?  
 :PCV?  
 :PFEBe?  
 :SCV?  
 :VTBIP? *(Opt. 22, Opt. 36 only)*  
 :VTFEBe? *(Opt. 22, Opt. 36 only)*

**SENSe:DATA:TELEcom:MEASure:ANALysis:PDMINutes**

?  
 :BIT?

**SENSe:DATA:TELEcom:MEASure:ANALysis:PEFSeconds**

?  
:BIT?

**SENSe:DATA:TELEcom:MEASure:ANALysis:PESeconds**

?  
:BIT?  
:LCV?  
:LFEBE?  
:PCV?  
:PFEBE?  
:SCV?  
:VTBIP? (Opt. 22, Opt. 36 only)  
:VTFEBE? (Opt. 22, Opt. 36 only)

**SENSe:DATA:TELEcom:MEASure:ANALysis:PSESeconds**

?  
:BIT?  
:LCV?  
:LFEBE?  
:PCV?  
:PFEBE?  
:SCV?  
:VTBIP? (Opt. 22, Opt. 36 only)  
:VTFEBE? (Opt. 22, Opt. 36 only)

**SENSe:DATA:TELEcom:MEASure:ANALysis:PUASeconds**

?  
:BIT?  
:LCV?  
:LFEBE?  
:PCV?  
:PFEBE?  
:SCV?  
:VTBIP? (Opt. 22, Opt. 36 only)  
:VTFEBE? (Opt. 22, Opt. 36 only)

**SENSe:DATA:TELEcom:MEASure:ANALysis:SESeconds**

?  
:BIT?  
:LCV?  
:LFEBE?  
:PCV?  
:PFEBE?  
:SCV?  
:VTBIP? (Opt. 22, Opt. 36 only)  
:VTFEBE? (Opt. 22, Opt. 36 only)

**SENSe:DATA:TELEcom:MEASure:ANALysis:UASeconds**

?  
:BIT?  
:LCV?  
:LFEBE?  
:PCV?  
:PFEBE?  
:SCV?  
:VTBIP? (Opt. 22, Opt. 36 only)  
:VTFEBE? (Opt. 22, Opt. 36 only)

**SENSe:DATA:TELEcom:MEASure:BUFFer**

:AVAILable

**SENSe:DATA:TELEcom:MEASure:ERROR?**

**SENSe:DATA:TELEcom:MEASure:ERROR:ECOUNT**

?  
:BIT?  
:LCV?  
:LFEBE?  
:PCV?  
:PFEBE?  
:SCV?  
:VTBIP? (Opt. 22, Opt. 36 only)  
:VTFEBE? (Opt. 22, Opt. 36 only)

**SENSe:DATA:TELEcom:MEASure:ERROR:ERATIo**

?  
:BIT?  
:LCV?  
:LFEBE?  
:PCV?  
:PFEBE?  
:SCV?  
:VTBIP? (Opt. 22, Opt. 36 only)  
:VTFEBE? (Opt. 22, Opt. 36 only)

**SENSe:DATA:TELEcom:MEASure:ERROR:ESEConds**

?  
:BIT?  
:LCV?  
:LFEBE?  
:PCV?  
:PFEBE?  
:SCV?  
:VTBIP? (Opt. 22, Opt. 36 only)  
:VTFEBE? (Opt. 22, Opt. 36 only)

**SENSE:DATA:TELEcom:MEASure:INFORMATION**

?  
 :DATE?  
 :DESCRiption?  
 :FRAMing?  
 :INSTrument?  
 :JITter  
     :CLOCK (CTS 750 Opt. 14 only)  
     :RATE? (CTS 750 Opt. 14 only)  
     :FILTer (CTS 750 Opt. 14 only)  
     :? (CTS 750 Opt. 14 only)  
     :FULLband:HPASs? (CTS 750 Opt. 14 only)  
     :MODE? (CTS 750 Opt. 14 only)  
     :RANGe? (CTS 750 Opt. 14 only)  
     :SOURce? (CTS 750 Opt. 14 only)  
 :LENGth?  
 :MAPPing?  
 :OPTions?  
 :OWNer?  
 :RATE?  
 :RESOLution?  
 :SOURce?  
 :STRUcture?  
 :TIME?  
 :USER?

**SENSE:DATA:TELEcom:MEASure:JITter:FREQuency**  
 (CTS 750 Opt. 14 only)

:CURrent  
 ?  
     :DELTA?  
 :DRIFT  
     :CURrent?  
     :MAXimum?  
 :MAXimum  
 ?  
     :DELTA?  
 :MINimum  
 ?  
     :DELTA?

**SENSE:DATA:TELEcom:MEASure:JITter:HSEConds?**  
 (CTS 750 Opt. 14 only)

**SENSE:DATA:TELEcom:MEASure:JITter:PEAK**  
 (CTS 750 Opt. 14 only)

:NEGATIVE  
     :CURrent?  
     :MAXimum?  
 :POSITIVE  
     :CURrent?  
     :MAXimum?

**SENSE:DATA:TELEcom:MEASure:JITter:POINter**  
 (CTS 750 Opt. 14 only)

:HSEConds?

**SENSE:DATA:TELEcom:MEASure:JITter:PTPeak**  
 (CTS 750 Opt. 14 only)

:CURrent?  
 :MAXimum?

**SENSE:DATA:TELEcom:MEASure:JITter:RMS**  
 (CTS 750 Opt. 14 only)

:CURrent?  
 :MAXimum?

**SENSE:DATA:TELEcom:MEASure:JITter:STATus?**  
 (CTS 750 Opt. 14 only)

**SENSE:DATA:TELEcom:MEASure:JITter:UNLSeconds?**  
 (CTS 750 Opt. 14 only)

**SENSE:DATA:TELEcom:MEASure:POINter**

?  
 :ICOUnt?  
 :IPSec?  
 :NDFSeconds?  
 :NPTR?  
 :PPTR?  
 :VTICount? (Opt. 22, Opt. 36 only)  
 :VTIPSec? (Opt. 22, Opt. 36 only)  
 :VTNDFSeconds? (Opt. 22, Opt. 36 only)  
 :VTNPTR? (Opt. 22, Opt. 36 only)  
 :VTPPTR? (Opt. 22, Opt. 36 only)

**SENSE:DATA:TELEcom:MEASure:STESts**

:DESCRiption  
 :DONE  
 :ENABLE  
 :RESults?  
 :THREshold

**SENSE:DATA:TELEcom:MEASure:TRIButary:ALARm**  
 (Opt. 22, Opt. 36 only)

?  
 :AIS?  
 :LOFrame?  
 :LOPS?  
 :LOSignal?  
 :RAI?

**SENSe:DATA:TELEcom:MEASure:TRIButary:ANALysis:G821**  
(Opt. 22, Opt. 36 only)

?  
:DMINutes?  
:ECOUnT?  
:EFSeconds?  
:ESEConds?  
:PDMinutes?  
:PEFSeconds?  
:PESeconds?  
:PSESeconds?  
:PUASeconds?  
:SESeconds?  
:UASeconds?

**SENSe:DATA:TELEcom:MEASure:TRIButary:ANALysis:M2100**  
(Opt. 22, Opt. 36 only)

?  
:IN  
?  
:EFSeconds?  
:ESEConds?  
:PEFSeconds?  
:PESeconds?  
:PSESeconds?  
:PUASeconds?  
:SESeconds?  
:UASeconds?  
:OUT  
?  
:EFSeconds?  
:ESEConds?  
:PEFSeconds?  
:PESeconds?  
:PSESeconds?  
:PUASeconds?  
:SESeconds?  
:UASeconds?

**SENSe:DATA:TELEcom:MEASure:TRIButary:ERRor?**  
(Opt. 22, Opt. 36 only)

**SENSe:DATA:TELEcom:MEASure:TRIButary:ERRor:ECOUnT**  
(Opt. 22, Opt. 36 only)

?  
:BIT?  
:CRC?  
:FRAME?

**SENSe:DATA:TELEcom:MEASure:TRIButary:ERRor:ERATIo**  
(Opt. 22, Opt. 36 only)

?  
:BIT?  
:CRC?  
:FRAME?

**SENSe:DATA:TELEcom:MEASure:TRIButary:ERRor:ESEConds**  
(Opt. 22, Opt. 36 only)

?  
:BIT?  
:CRC?  
:FRAME?

**SENSe:DATA:TELEcom:MEASure:WANDer** (CTS 750 Opt. 14 only)

:PTPeak  
:NS?  
:UI?  
:SLIPS  
:BIT?  
:FRAME?  
:TIE  
:NS?  
:UI?

**SENSe:DATA:TELEcom:OVERhead**

:DATA?  
:DROP  
:POINter?

**SENSe:DATA:TELEcom:PAYLoad**

:MAPPING  
:PATTERn:  
?  
:UBYTE

**SENSe:DATA:TELEcom:POVerhead**

:DATA?  
:DROP  
:TRACe?

**SENSe:DATA:TELEcom:SOURce**

**SENSe:DATA:TELEcom:STATus**

?  
:PRESet

**SENSe:DATA:TELEcom:STRUcture**

**SENSe:DATA:TELEcom:TEST:DURation**

**SENSe:DATA:TELEcom:TEST:HISTory:RESOLution**

**SENSe:DATA:TELEcom:TEST:JITter:OUTPUT**  
(CTS 750 Opt. 14 only)

:DURation  
:HIGHBand  
:DATA?  
:INFORmation  
:<info>?  
:WIDEBand  
:DATA?

**SENSe:DATA:TELEcom:TEST:JITter:POINter**

*(CTS 750 Opt. 14 only)*

:HIGHBand  
:DATA?  
:WIDEBand  
:DATA?  
:INfOrMation  
:<info>?  
:SEQuence  
:TYPE

**SENSe:DATA:TELEcom:TEST:JITter:STATus?**

*(CTS 750 Opt. 14 only)*

**SENSe:DATA:TELEcom:TEST:JITter:TOLerance**

*(CTS 750 Opt. 14 only)*

:ALLData?  
:DATA  
?  
:LENGth?  
:FREQuency  
:END  
:START  
:INfOrMation  
:<info>?  
:MASK  
:MEASure?  
:METHod?  
:SAMPles?  
:THREshold  
:DATA?  
:STANdard?

**SENSe:DATA:TELEcom:TEST:JITter:TRANSFer**

*(CTS 750 Opt. 14 only)*

:ALLData  
:CALibrate  
:STATus?  
:DATA  
?  
:LENGth?  
:FREQuency  
:END  
:START  
:INfOrMation  
:<info>?  
:MASK  
:SAMPles  
:STATE

**SENSe:DATA:TELEcom:TEST:JITter:TYPE** *(CTS 750 Opt. 14 only)*

**SENSe:DATA:TELEcom:TEST:MODE**

**SENSe:DATA:TELEcom:TEST:START**

**SENSe:DATA:TELEcom:TEST:STATus?**

**SENSe:DATA:TELEcom:TEST:STIME?**

**SENSe:DATA:TELEcom:TEST:STOP**

**SENSe:DATA:TELEcom:TRIButary** *(Opt. 22, Opt. 36 only)*

:CHANnel  
:DROP  
:FRAMing  
:MAPPing  
:PATtern  
?  
:UWORD  
?  
:LENGth  
:POINter?  
:POVerhead  
:DATA?  
:TRACe?  
:STATus?

**SOURce:CLOCK**

:OFFSet  
:LVALue  
:MODE  
:PVALue  
:SOURce  
:STATus?

**SOURce:DATA:TELEcom:ALARm**

**SOURce:DATA:TELEcom:CHANnel**

**SOURce:DATA:TELEcom:ERRor**

:ENABle  
:IMMediate  
:RATE  
:TYPE

**SOURce:DATA:TELEcom:FAILure:TYPE**

**SOURce:DATA:TELEcom:JITter** *(CTS 750 Opt. 14 only)*

:AMPLitude  
:CLOCK  
:OFFSet  
:RATE  
:FREQuency  
:MODE  
:SOURce



**SOURce:DATA:TELEcom:OVERhead**

:ALLData  
:APS  
:DATA  
:INSert  
:PRESet

**SOURce:DATA:TELEcom:PAYLoad**

:MAPPing  
:PATtern  
?  
:UBYTE

**SOURce:DATA:TELEcom:POINter**

:ACTion  
:DIRection  
:MODE  
:NBURst  
:NDFLag  
:RATE  
:SBITS

**SOURce:DATA:TELEcom:POINter:SEQuence**

:ANOMaly  
:BTIME?  
:NTIME?  
:CONTRol  
:CPERiod  
?  
:LENGth?  
:DIRection  
:IPERiod  
?  
:LENGth?  
:RATE  
:STATus?  
:TYPE

**SOURce:DATA:TELEcom:POINter:VALue**

**SOURce:DATA:TELEcom:POVerhead**

:DATA  
:INSert  
:PRESet  
:TRACe

**SOURce:DATA:TELEcom:SOURce**

**SOURce:DATA:TELEcom:STRUcture**

**SOURce:DATA:TELEcom:TRIButary** (Opt. 22, Opt. 36 only)

:ADD  
:ALARm  
:BACKground  
:PATtern  
:CHANnel  
:ERRor  
:FAILure  
:FRAMing  
:MAPPing  
:PATtern:  
?  
:UWORD  
?  
:LENGth

**SOURce:DATA:TELEcom:TRIButary:POINter:**

(Opt. 22, Opt. 36 only)

:DIRection  
:MODE  
:NBURst  
:NDFLag  
:RATE

**SOURce:DATA:TELEcom:TRIButary:POINter:SEQuence**

(Opt. 22, Opt. 36 only)

:ANOMaly  
:BTIME?  
:NTIME?  
:CPERiod  
?  
:LENGth?  
:DIRection  
:IPERiod  
?  
:LENGth?  
:RATE  
:TYPE

**SOURce:DATA:TELEcom:TRIButary:POINter:VALue**

(Opt. 22, Opt. 36 only)

**SOURce:DATA:TELEcom:TRIButary:POVerhead**

(Opt. 22, Opt. 36 only)

:DATA  
:TRACe?

**SYSTEM:ABStouch**

**SYSTEM:BEEPer**

:CONTRol  
:IMMEDIATE

<b>SYSTem:COMMunicate:SERial</b>	<b>*SRE?</b>
:BAUD	
:CONTRol	<b>*STB?</b>
:DCD	
:RTS	<b>*TST?</b>
:PACE	
:PARity	<b>*WAI</b>
:PRESet	
:SBITs	
:TRANsmit	
:DELay	
:TERMinator	

**SYSTem**  
:DATE  
:ERRor?  
:HEADers  
:KLOCK  
:MODE?  
:OWNer  
:SDEscription  
:SERial  
:SET?  
:TIME  
:USER  
:VERBose

**TRIGger**  
:IMMediate  
:STATus?

\*CLS  
\*ESE  
\*ESE?  
\*ESR?  
\*IDN?  
\*LRN?  
\*OPC  
\*OPC?  
\*OPT?  
\*RCL  
\*RST  
\*SAV  
\*SRE



