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Find the *Tektronix VX4610* at our website: ***Click HERE***

Reference

Tektronix

VX4610
SDH/SONET Generator/Receiver
Command List

070-8974-03

This document applies to firmware version 1.30
and above.

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Refer to the *VX4610 SDH/SONET Generator/Receiver User Manual* for the complete list of valid parameter values.

```
ABORt
```

```
DIAGnostic
   :BUFFer
      :DATA?
      :INDex <buffer number>
      :INDex?
      :SIZE?
      :TYPE
      :TYPE?
      :CLEAR
   :EXECute
   :LOOP <loop control>
   :LOOP?
   :RESults?
   :SELect <diagnostic group>
      ROUTINE
   :SELect?
   :CALibrate
      :CDATe
      :CDATe?
      :CLOCk
      :CLOCk?
   TRIButary
      :LOOPBack
      :LOOPBack?
```

```
INITiate
```

```
INPUT1
   :TELecom
      :ECL
         :LEVel?
         :TYPE?
      :LEVel <level>
      :LEVel?
      :OPWR?
      :PVOLtage?
      :RATE <rate>
      :RATE?
      :STATus?
      :TYPE <type>
      :TYPE?
```

```
INSTrument
   :COUPling <coupling>
   :COUPling?
   :TRIButary
      :PORT
      :NRZ
         :INPut
            :DATA
               :POLARity
            :CLOCK
               :EDGE
         :ENAble
         :OUTPut
            :DATA:
               :POLARity
            :CLOCK
               :EDGE
      :ECL
         :LEVel
         :TYPE
```

```
OUTPUT1
   :TELecom
      :ECL
         :LEVel?
         :TYPE?
      :LEVel <level>
      :LEVel?
      :RATE <rate>
      :RATE?
      :TYPE <type>
      :TYPE?
```


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```
SENSe
   :DATA
      :TELecom
         :AUTOscan
         :CHANnel <channel>
         :CHANnel?
         :MEASure
            :ALARm
               :LAIS?
               :LFERF?
               :LOFrame?
               :LOPointer?
               :LOSignal?
               :LPWR?
               :OOFrame?
               :PAIS?
               :PFERF?
            :ANALysis?
               :AESeconds? (SONET only)
                  :BIT?
                  :LCV?
                  :PCV?
                  :SCV?
               :BBError? (SDH only)
                  :LCV?
                  :LFEBE?
                  :PCV?
                  :PFEBE?
                  :SCV?
            :BESeconds? (SONET only)
               :BIT?
               :LCV?
               :PCV?
               :SCV?
            :DMINutes? (SDH only)
               :BIT?
            :EBLock? (SDH only)
               :LCV?
               :LFEBE?
               :PCV?
               :PFEBE?
               :SCV?
            :ECOUnt?
               :BIT?
               :LCV? (SONET only)
               :LFEBE? (SONET only)
               :PCV? (SONET only)
               :PFEBE? (SONET only)
               :SCV? (SONET only)
```

```
SENSe
   :DATA
      :TELecom
         :MEASure
            :ANALysis?
               :EFSeconds?
                  :BIT?
                  :LCV? (SONET only)
                  :LFEBE? (SONET only)
                  :PCV? (SONET only)
                  :PFEBE? (SONET only)
                  :SCV? (SONET only)
               :ESEConds?
                  :BIT?
                  :LCV?
                  :LFEBE?
                  :PCV?
                  :PFEBE?
                  :SCV?
               :PAESeconds? (SONET only)
                  :BIT?
                  :LCV?
                  :PCV?
                  :SCV?
               :PBBError? (SDH only)
                  :LCV?
                  :LFEBE?
                  :PCV?
                  :PFEBE?
                  :SCV?
            :PBESeconds? (SONET only)
               :BIT?
               :LCV?
               :PCV?
               :SCV?
            :PDMINutes? (SDH only)
               :BIT?
            :PEFSeconds?
               :BIT?
               :LCV? (SONET only)
               :LFEBE? (SONET only)
               :PCV? (SONET only)
               :PFEBE? (SONET only)
               :SCV? (SONET only)
            :PESeconds?
               :BIT?
               :LCV?
               :LFEBE?
               :PCV?
               :PFEBE?
               :SCV?
            :PSEFseconds?
```


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```
SENSe
   :DATA
      :TELecom
         :MEASure
            :ANALysis?
               :PSESeconds?
                  :BIT?
                  :LCV?
                  :LFEBE?
                  :PCV?
                  :PFEBE?
                  :SCV?
               :PUASeconds?
                  :BIT?
                  :LCV?
                  :LFEBE?
                  :PCV?
                  :PFEBE?
               :SEFSeconds? (SONET only)
               :SESeconds?
                  :BIT?
                  :LCV?
                  :LFEBE?
                  :PCV?
                  :PFEBE?
                  :SCV?
               :UASeconds?
                  :BIT?
                  :LCV?
                  :LFEBE?
                  :PCV?
                  :PFEBE?
SENSe
   :DATA
      :TELecom
         :MEASure
            :BUFFer <results buffer>
               :AVAIlable?
            :BUFFer?
            :ERRor?
               :ECOUnt?
                  :BIT?
                  :LCV?
                  :LFEBE?
                  :PCV?
                  :PFEBE?
                  :SCV?
               :ERATio?
                  :BIT?
                  :LCV?
                  :LFEBE?
                  :PCV?
                  :PFEBE?
                  :SCV?
```

```
SENSe
   :DATA
      :TELecom
         :MEASure
            :ERRor?
               :ESEConds?
                  :BIT?
                  :LCV?
                  :LFEBE?
                  :PCV?
                  :PFEBE?
                  :SCV?
            :HISTory
               :ALARm?
               :BEGin <history begin>
               :BEGin?
               :ERRor?
                  :ECOUnt?
                     :BIT?
                     :LCV?
                     :LFEBE?
                     :PCV?
                     :PFEBE?
                     :SCV?
                  :ESEConds?
                     :BIT?
                     :LCV?
                     :PCV?
                     :SCV?
               :POINter?
                  :PV?
                  :TPJ?
               :SIZE <history size>
               :SIZe?
            :INFOrmation?
               :DATE?
               :DESCription?
               :FRAMing?
               :INSTrument?
               :LENGth?
               :MAPPing?
               :OPTIons?
               :OWNer?
               :RATE?
               :RESolution?
               :SOURce?
               :STATus?
               :STRUcture?
               :TIME?
               :USER?
```


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```
SENSe
   :DATA
      :TELecom
         :MEASure
            :POINter?
               :ICOunt?
               :IPSeconds?
               :NDFSeconds?
               :NPTR?
               :PPTR?
SENSe
   :DATA
      :TELecom
         :MEASure
            :STESts
               :DESCription <description>,<start
                  prompt>,<end prompt>
               :DESCription?
               :ENABle <stests enable>
               :ENABle?
               :RESUlts?
               :THREshold <criteria number>,
                  <type>,<source>,<threshold>
               :THREshold? <criteria number>
SENSe
   :DATA
      :TELecom
         :OVERhead
            :DATA? <channel>,<byte>,<offset>
            :DROP <dropped overhead>
            :DROP?
            :POINter?
         :PAYLoad
            :CUSTom
               :BDATA?
               :DATA? <custom row>,<custom
                  column>
               :FRAMe <custom frame>
               :FRAMe?
            :MAPPing <mapping>
            :MAPPing?
            :PATTern <pattern>
               :UBYTe <fixed pattern>
               :UBYTe?
            :PATTern?
         :POVerhead
            :DATA? <byte>
            :DROP <dropped overhead>
            :DROP?
            :TRACe?
         :SCRambling <signal scrambling>
         :SCRambling?
         :SOURce <source>
         :SOURce?
SENSe
   :DATA
      :TELecom
         :STATus?
            :PRESet
         :STRUcture <input structure>
         :STRUcture?
         :TEST
            :DURation
               <days>,<hours>,<minutes>,<seconds>
            :DURation?
            :STARt
            :STATus?
            :STIMe?
            :STOP
```

```
SOURce
   :CLOCk
      :OFFSet
         :LVALue <line clock offset>
         :LVALue?
         :MODE <clock offset mode>
         :MODE?
         :PVALue <payload clock offset>
         :PVALue?
      :SOURce <clock source>
      :SOURce?
      :STATus?
SOURce
   :DATA
      :TELecom
         :ALARm <alarm>
         :ALARm?
         :CHANnel <channel>
         :CHANnel?
         :ERRor
            :ENABle <error rate state>
            :ENABle?
            :FEBEvalue <FEBE value>
            :FEBEvalue?
            :IMMediate
            :MASK <error mask>
            :MASK?
            :RATE <error rate>
            :RATE?
            :TYPE <error type>
            :TYPE?
         :FAILure
            :TYPE <failure>
            :TYPE?
         :ICHannels <inactive channel>,<pattern>
         :ICHannels? <inactive channel>
```


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```
SOURce
   :DATA
      :TELecom
         :OVERhead
            :ALLData <channel>,<offset>,<A1>,
               <A2>,<C1>,<E1>,<F1>,<D1>,<D2>,
               <D3>,<K1>,<K2>,<D4>,<D5>,<D6>,
               <D7>,<D8>,<D9>,<D10>,<D11>,<D12>,
               <S1/Z1>,<M1/Z2>,<E2>
            :ALLData? <channel>,<offset>
            :APS <APS value>
            :APS?
            :DATA <channel>,<byte>,<offset>,
               <value>
            :DATA? <channel>,<byte>,<offset>
            :INSert <insert>
            :INSert?
            :PRESet
SOURce
   :DATA
      :TELecom
         :PAYLOAD
            :CUSTom
               :BDATA <custom frame data>
               :BDATA?
               :DATA <custom row>,<custom
                  column>,<byte value>
               :DATA? <custom row>,<custom
                  column>
               :FRAME <custom frame>
               :FRAME?
               :LENGth <custom length>
               :LENGth?
               :PRESet <preset pattern>
                  :UWORd <user pattern>
                  :UWORd?
            :MAPPing <mapping>
            :MAPPing?
            :PATTern <pattern>
               :UBYTe <fixed pattern>
               :UBYTe?
            :PATTern?
SOURce
   :DATA
      :TELecom
         :POINter
            :ACTion
            :DIRection <direction>
            :DIRection?
            :MODE <mode>
            :MODE?
            :NBURst <pointer burst number>
            :NBURst?
            :NDFLag <NDF state>
            :NDFLag?
            :RATE <rate>
```

```
SOURce
   :DATA
      :TELecom
         :POINter
            :RATE?
            :SBITs <pointer sbits>
            :SBITs?
            :VALue <pointer value>
            :VALue?
            :SEQuence
               :ANOMaly
                  :BTIMe?
                  :NTIMe?
               :CONTrol <pointer seq control>
               :CONTrol?
               :CPERiod <pointer seq init>
                  :LENGth?
               :CPERiod?
               :DIRection <pointer seq direction>
               :DIRection?
               :IPERiod <pointer seq init>
                  :LENGth?
               :IPERiod?
               :RATE <pointer seq rate>
               :RATE?
               :STATus?
               :TYPE <pointer seq type>
               :TYPE?
SOURce
   :DATA
      :TELecom
         :POVerhead
            :DATA <byte>,<value>
            :DATA? <byte>
            :INSert <path insert>
            :INSert?
            :PRESet
            :TRACe <path trace>
            :TRACe?
         :SCRambling <output scrambling>
         :SCRambling?
         :SOURce <source>
         :SOURce?
         :STRUcture <output structure>
         :STRUcture?
```

```
SYSTem
   :DATE <year>,<month>,<day>
   :DATE?
   :ERRor?
   :HEADers <system headers>
   :HEADers?
   :MODE <system mode>
   :MODE?
   :OWNer <system owner>
```


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```
SYSTem
   :OWNer?
   :SDEScription <description>
   :SDEScription?
   :SERIal <serial number>
   :SERIal?
   :SET?
   :TIME <hour>,<minute>,<second>
   :TIME?
   :USER <operator name>
   :USER?
   :VERBose <system verbose>
   :VERBose?
```

```
TRIGger
   :IMMediate
   :POSition <trigger position>
   :POSition?
   :SENSe
      :FPPolarity <trigger fpanel polarity>
      :FPPolarity?
      :TPOLarity <trigger TTL polarity>
      :TPOLarity?
   :SOURce <trigger source>
   :SOURce?
      :SENSe <trigger sense>
      :SENSe?
      :TTLTRG <trigger VXI input>
      :TTLTRG?
   :STATus?
TRIGger2
   :SOURce <trigger source>
   :SOURce?
   :TTLTRG <trigger VXI input>
   :TTLTRG?
```

```
*CLS
*ESE <decimal value>
*ESE?
*ESR?
*IDN?
*LRN?
*OPC
*OPC?
*OPT?
*RCL <buffer number>
*RST
*SAV <buffer number>
*SRE <decimal value>
*SRE?
*STB?
*TST?
*WAI
```

The following commands and queries are valid for Option 22 (DS1/DS3 Add/Drop/Test) Option 36 (2, 34, and 140 Mb/s Add/Drop/Test), and Option 58.

```
INPUT2
   :TELecom
      :LEVel <trib1 input level>
      :LEVel?
      :STATus?
      :TERMinator <trib1 input termin>
      :TERMinator?
```

```
INPUT3
   :TELecom
      :LEVel <trib2 input level>
      :LEVel?
      :RATE <trib2 input rate>
      :RATE?
      :STATus?
```

```
OUTPUT2
   :TELecom
      :CODE <trib1 output code>
      :CODE?
      :TERMinator <trib1 output termin>
      :TERMinator?
```

```
OUTPUT3
   :TELecom
      :RATE <trib2 output rate>
      :RATE?
      :CODE <linecode>
      :CODE?
```

```
SENSe
   :DATA
      :TELecom
         :MEASure
            :ALARm?
               :VTAIS?
               :VTFERF?
               :VTLOM?
               :VTLOP?
```


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```
SENSe
   :DATA
      :TELecom
         :MEASure
            :ANALysis?
               :AESeconds? (DS1/DS3 only)
                  :VTBIP?
               :BBError? (PDH only)
                  :VTBIP?
                  :VTFEBe?
               :BESeconds? (DS1/DS3 only)
                  :VTBIP?
               :EBLock? (PDH only)
                  :VTBIP?
                  :VTFEBe?
               :ECOUnt? (DS1/DS3 only)
                  :VTBIP?
                  :VTFEBe?
               :EFSeconds? (DS1/DS3 only)
                  :VTBIP?
                  :VTFEBe?
               :ESEConds?
                  :VTBIP?
                  :VTFEBe?
               :PAESeconds? (DS1/DS3 only)
                  :VTBIP?
               :PBBError? (PDH only)
                  :VTBIP?
                  :VTFEBe?
               :PBESeconds? (DS1/DS3 only)
                  :VTBIP?
               :PEFSeconds? (DS1/DS3 only)
                  :VTBIP?
                  :VTFEBe?
               :PESeconds?
                  :VTBIP?
                  :VTFEBe?
               :PSESeconds?
                  :VTBIP?
                  :VTFEBe? (PDH only)
               :PUASeconds?
                  :VTBIP?
                  :VTFEBe?
               :SESeconds?
                  :VTBIP?
                  :VTFEBe? (PDH only)
               :UASeconds?
                  :VTBIP?
                  :VTFEBe?
```

```
SENSe
   :DATA
      :TELecom
         :MEASure
            :ERRor?
               :ECOUnt?
                  :VTBIP?
                  :VTFEBe?
               :ERATio?
                  :VTBIP?
                  :VTFEBe?
               :ESEConds?
                  :VTBIP?
                  :VTFEBe?
            :POINter?
               :VTICOunt?
               :VTIPSeconds?
               :VTNDFSeconds?
               :VTNPTR?
               :VTPPTR?
SENSe
   :DATA
      :TELecom
         :MEASure
            :TRIButary
               :ALARm?
               :AIS?
               :IDLE? (DS3 only)
               :LOFrame?
               :LOPS?
               :LOSignal?
               :RAI? (PDH only)
               :YELlow? (DS1/DS3 only)
:ANALysis
   :G821? (PDH only)
      :DMINutes?
      :ECOUnt?
      :EFSeconds?
      :ESEConds?
      :PDMinutes?
      :PEFSeconds?
      :PESeconds?
      :PSESeconds?
      :PUASeconds?
      :SESeconds?
      :UASeconds?
```


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```
SENSe
   :DATA
      :TELecom
         :MEASure
            :TRIButary
               :ANALysis
                  :M2100? (PDH only)
                     :IN?
                        :EFSeconds?
                        :ESEConds?
                        :PEFSeconds?
                        :PESeconds?
                        :PSESeconds?
                        :PUASeconds?
                        :SESeconds?
                        :UASeconds?
                     :OUT?
                        :EFSeconds?
                        :ESEConds?
                        :PEFSeconds?
                        :PESeconds?
                        :PSESeconds?
                        :PUASeconds?
                        :SESeconds?
                        :UASeconds?
                  :T1M1? (DS1/DS3 only)
                     :BIT?
                        :AESeconds?
                        :BESeconds?
                        :ECOUnt?
                        :EFSeconds?
                        :ESEConds?
                        :PAESeconds?
                        :PBESeconds?
                        :PEFSeconds?
                        :PESeconds?
                        :PSESeconds?
                        :PUASeconds?
                        :SESeconds?
                        :UASeconds?
                  :PATH?
                        :AESeconds?
                        :BESeconds?
                        :ECOUnt?
                        :EFSeconds?
                        :ESEConds?
                        :PAESeconds?
                        :PBESeconds?
                        :PEFSeconds?
                        :PESeconds?
                        :PSESeconds?
                        :PUASeconds?
                        :SESeconds?
                        :UASeconds?
```

```
SENSe
   :DATA
      :TELecom
         :MEASure
            :TRIButary
               :ERRor?
                  :ECOUnt?
                     :BIT?
                     :CRC?
                     :FRAME?
                     :PARITY? (DS1/DS3 only)
                  :ERATio?
                     :BIT?
                     :CRC?
                     :FRAME?
                     :PARITY? (DS1/DS3 only)
                  :ESEConds?
                     :BIT?
                     :CRC?
                     :FRAME?
                     :PARITY? (DS1/DS3 only)
SENSe
   :DATA
      :TELecom
         :TRIButary
            :CHANnel <trib channel>
            :CHANnel?
            :DROP <trib drop>
            :DROP?
            :FRAMing <trib framing>
            :FRAMing?
            :MAPPing <trib mapping>
            :MAPPing?
            :PATTern <trib pattern>
               :UWORd <trib user pattern>
                  :LENGth <trib user pattern
                     length>
                  :LENGth?
               :UWORd?
            :PATTern?
            :POINter?
            :POVerhead
               :DATA? <byte name>
               :TRACe? (SDH/PDH only)
            :STATus?
```


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```
SOURce
   :DATA
      :TELecom
         :TRIButary
            :ADD <trib add>
            :ADD?
            :ALARm <trib alarm>
            :ALARm?
            :BACKground
               :PATTern <trib background pattern>
               :PATTern?
            :CHANnel <trib channel>
            :CHANnel?
            :ERRor <trib error>
            :ERRor?
            :FAILure <trib failure>
            :FAILure?
            :FRAMing <trib framing>
            :FRAMing?
            :MAPPing <trib mapping>
            :MAPPing?
            :PATTern <trib pattern>
               :UWORd <trib user pattern>
                  :LENGth <trib user pattern
                     length>
                  :LENGth?
               :UWORd?
            :PATTern?
            :POVerhead
               :DATA <byte name>,<value>
               :DATA? <byte>
               :TRAce? (SDH/PDH only)
```

```
SOURce
   :DATA
      :TELecom
         :TRIButary
            :POINter
               :DIRection <trib pointer
                  direction>
               :DIRection?
               :MODE <trib pointer mode>
               :MODE?
               :NBURst <trib pointer burst>
               :NBURst?
               :NDFLag <trib NDF state>
               :NDFLag?
               :RATE <trib pointer rate>
               :RATE?
               :SEQuence
                  :ANOMaly
                     :BTIMe?
                     :NTIMe?
                  :CPERiod <pointer seq init>
                     :LENGth?
                  :CPERiod?
                  :DIRection <pointer seq
                     direction>
                  :DIRection?
                  :IPERiod <pointer seq init>
                     :LENGth?
                  :IPERiod?
                  :RATE <pointer seq rate>
                  :RATE?
                  :TYPE <pointer seq type>
                  :TYPE?
               :VALue <trib pointer value>
               :VALue?
```


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