SONET / SDH Continuously Variable Speed Clock Recovery

Series VSCR-192 | Preliminary Specifications

Features

- **Ultra Low Jitter, Superior Phase Stability**
- **Automaticaly Locks To Any Rate (within the frequency range)**
- **Wide Range of Data Rates**
- **NRZ or RZ Formats**
- **Low Input Level Sensitivity**
- **> 1 V p-p Data Output**
- **Small Size, Measures only 2.5" x 2" x 0.8"**
- **For Smaller Sizes Contact the Factory**

Applications

- **Sampling Oscilloscopes**
- **BER Tester**
- **Instrumentation**

2.5" x 2" x 0.8"

Description

Elcom Technologies, Inc. miniature Continuously Variable Speed Clock Recovery Module (VSCR-192), operate from 9.95 to 12.5 Gbps. The unit employs Elcom's proprietary low phase noise VCO that spans the full frequency band and a digital phase lock loop, that enable reliable phase/frequency acquisition.

Specifications

Parameter	Max (-5°C to +75°C)	Condition
Data Rates	9.95 to 10.75 Gbps*	(optional 9.95 to 12.5 Gbps)
Data Input Level	300 mV p-p	(Optional 100mV p-p)
Data Output Level	1 V p-p	Complementary
Output Jitter	0.005 UI RMS	PRBS 2^{31}-1
Clock Phase Stability	+/- 15 Degrees	Over Temp
Data Output Transition Times	30 psec	
Data Output Return Loss	-10 dB	
Jitter Transfer Bandwidth	5MHz	(optional 1 to 80 MHz)
Clock Output Level	1 Vp-p	VSWR 1.5.1
Clock Return Loss	-10dB	
Clock Phase Stability	+/- 5 ps	Over Temp
Spurious	-60 dBc	
Harmonics	-30 dBc	
Operating Temp	-5°C to +75°C	
DC Power(Max)	+5V/500mA, -5V/500mA	(Please contact the factory for lower current levels)

*20Gbps and 40 Gbps models are under development

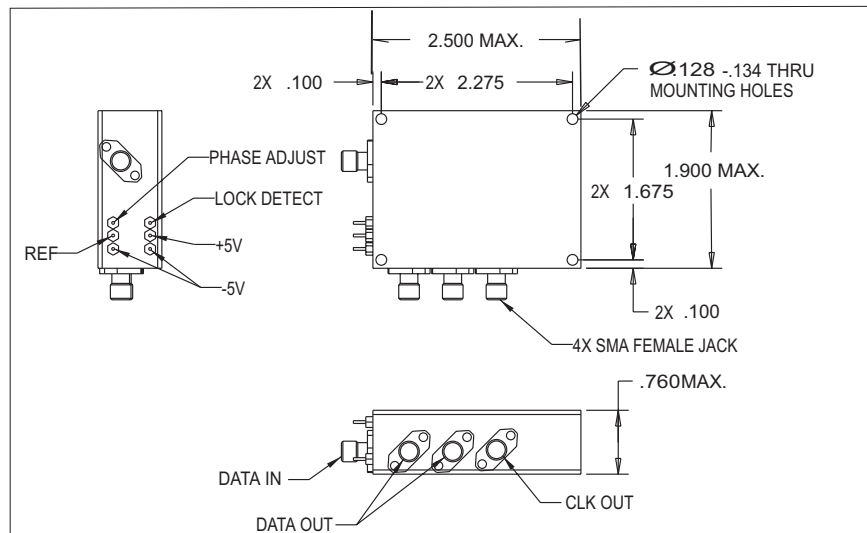# SONET / SDH Continuously Variable Speed Clock Recovery

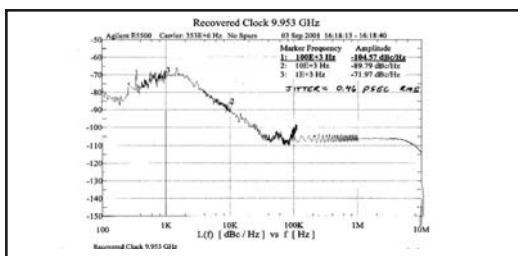## Series VSCR - 192

Ordering Information

VSCR-192-F[GHz]-F[GHz]

Example: VSCR-*192-9.95-10.75*

Outline drawing

2.500 MAX.

2X .100

2X 2.275

Ø.128 -.134 THRU MOUNTING HOLES

PHASE ADJUST

1.900 MAX.

LOCK DETECT

2X 1.675

REF

+5V

-5V

2X .100

4X SMA FEMALE JACK

.760MAX.

DATA IN

CLK OUT

DATA OUT
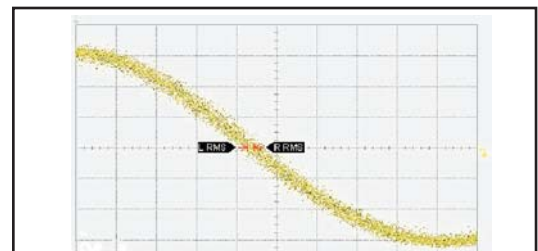
Recovered Clock

Clock Output (8.0 ps/div)

Additional Products for Fiber Optic

- **OC-192, OC 768 Low Jitter Clock Generators including Phase and Gain Adjustment**
- **RZ Clock Drivers (up to 30 dBm OC-192)**
- **Synthesized Clock Encoders and Decoders**
- **Phase Shifters**
- **Optical Injection Locking**