

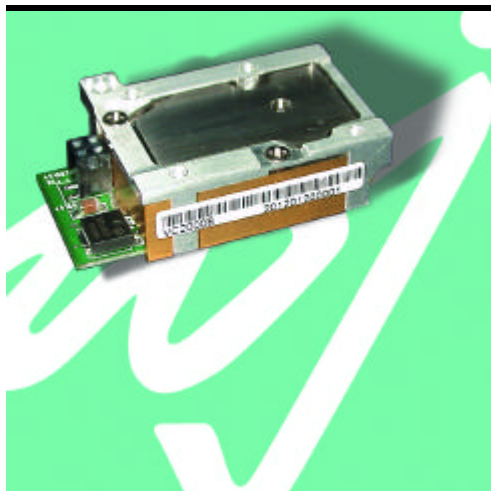
## WJ VC2001

DRO for OC-768

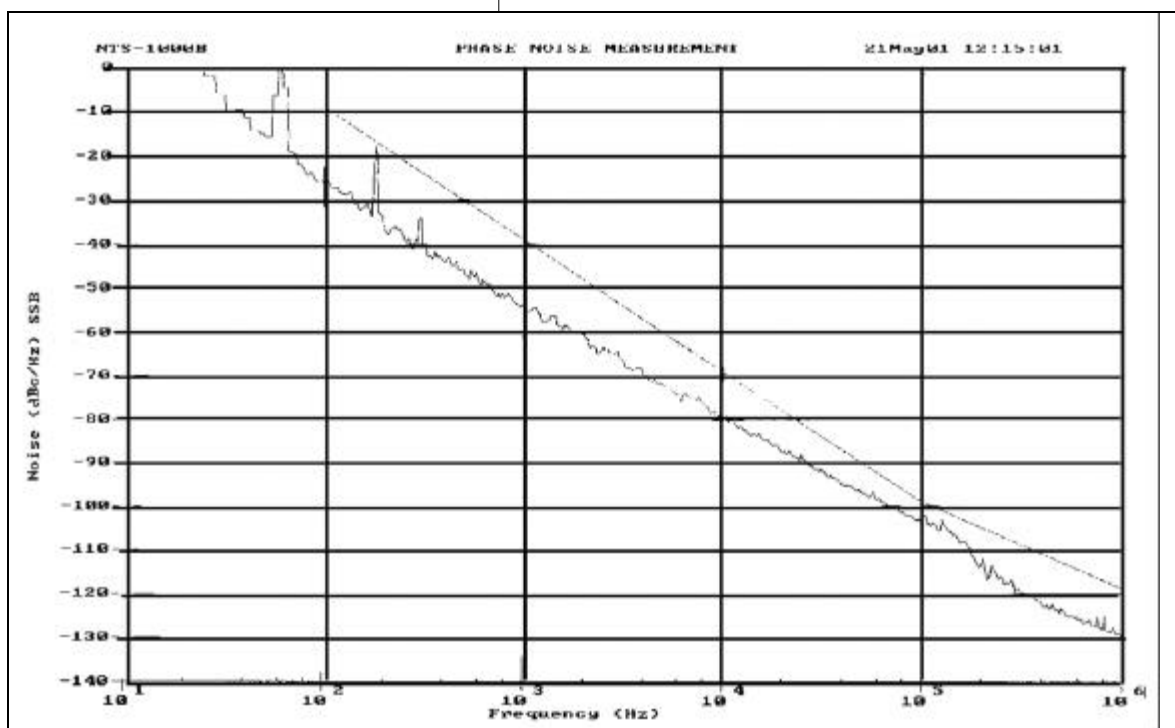
An RF evolution for OC-768

OC-768 Clock Oscillator for SONET/SDH Systems

The VC2001 provides an ultra-stable, fundamental 21233.7MHz sinewave output signal, suitable for critical timing applications such as those found in SONET/SDH. Typical performance characteristics include; phase noise of  $-80\text{dBc/Hz}$  at 10kHz offset with +4dBm nominal output power, and a 40MHz tuning range over a  $-5\text{V}$  to  $+5\text{V}$  control voltage. The unit requires  $+12\text{V}$  @ 100mA and  $-12\text{V}$  @ 25mA bias.



- 40 Gbps ( $f_o = 21233.7\text{ MHz}$ )
- Output Buffer Amplifier
- Phase Noise  $-80\text{dBc/Hz}$   
Typ. at 10 kHz offset



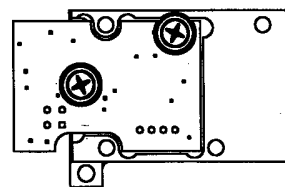
## SPECIFICATIONS

Characteristics	Typical	Guaranteed	
		+25°C	0°C to +70°C
Frequency <sup>(1)</sup> @ Tune Voltage of 0 Volts (MHz)	21233.7	21233.7±4	21233.7±8
Frequency Tuning Range (MHz)	40		
Phase Noise (dBc/Hz)			
1 kHz offset	-54		-39
10 kHz offset	-80		-69
100 kHz offset	-104		-99
1 MHz offset	-130		-119
10 MHz offset	-145		-139
Output Power (dBm)			
Max			+7
Min	+4		+1
Tuning Voltage (Volts)	-5 to +5	-5 to +5	-5 to +5
Modulation Sensitivity (MHz/Volt)	12.5		8-17
Modulation Bandwidth (MHz)			3
Harmonic Suppression (dBc)			
n <sub>f<sub>0</sub></sub>	-40		-30
n/2 <sub>f<sub>0</sub></sub>	-50		-40
In-Band Spurious Suppression(dBc)			-65
RF Output VSWR	1.3:1		2.0:1
Frequency Pushing (kHz/Volt)			40
Frequency Pulling <sup>(2)</sup> (kHz)			200
Bias Current (mA)			
+12V	70		100
-12V	6		25

### Absolute Maximum Ratings

Operating Temperature	0°C to +85°C
Storage Temperature	-55°C to +125°C
DC Voltage	0 to 15 V
Tune Voltage	-12 to +12 V

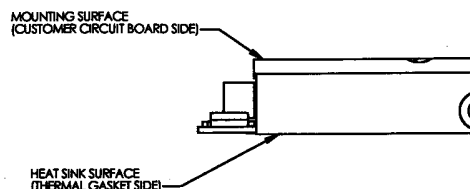
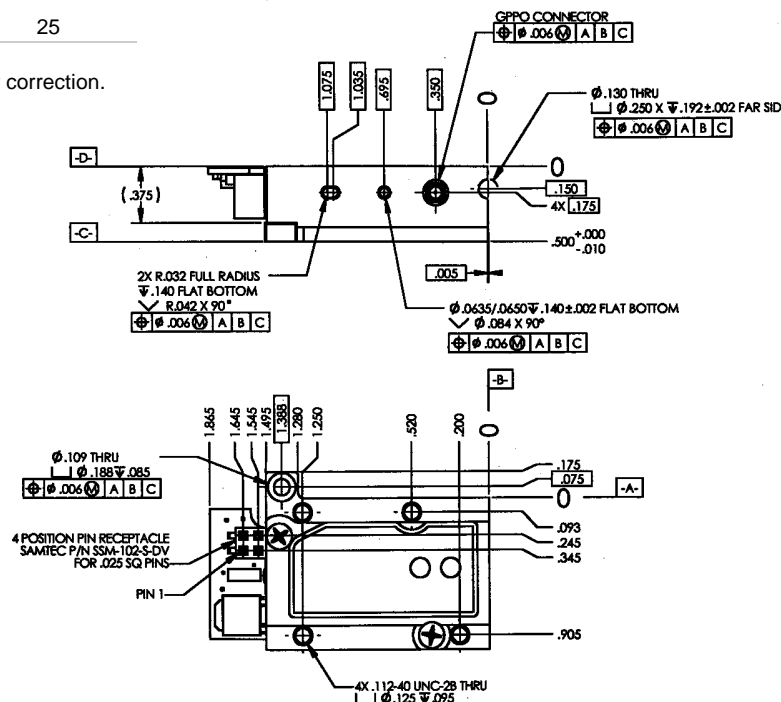
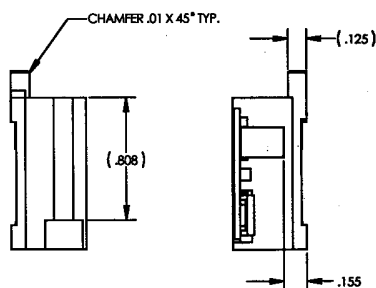
Weight: 4.0oz



- (1) Other frequency options available to support different forward error correction.  
 (2) Measured looking into a 2.0:1 load mismatch at all phase angles.

### Notes:

1. Dimensions are in inches
2. Tolerances are .xxx ± 0.15 and .xx ± 0.02
3. Dimensions given specify position #2-56 tapped holes for backside blind rear mount
4. Dimensions in parentheses are reference only



## THE COMMUNICATIONS EDGE™

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Revision: 1113V102