

LVC MOS
SC-B1440 Series *Rev J*
Frequency Range: 70.0 MHz to 220.0 MHz

Operating Conditions and Output Characteristics

Electrical Characteristics

Parameter	Symbol	Conditions	Min	Typical	Max
Frequency	—	—	70.0 MHz	—	220.0 MHz
Duty Cycle	—	@ $V_{DD}/2$	45/55%	—	55/45%
Logic 0	V_{OL}	@ 600 μA	—	—	0.2 V
Logic 1	V_{OH}	@ 600 μA	$V_{DD} - 0.2 V$	—	—
Rise & Fall Time	t_r, t_f	10-90% V_O	—	—	2.0 ns
Jitter, RMS ⁽²⁾	—	Overtone	—	—	3 psec
T_{pz}	—	—	—	—	100 ns
Enable Voltage	—	—	1.6 V	—	—
Disable Voltage	—	—	—	—	0.4 V
Frequency Stability ⁽¹⁾	dF/F	Overall conditions including: voltage, calibration, temp., 10 yr aging, shock, vibration	-100 ppm	—	+100 ppm

General Characteristics

Parameter	Symbol	Conditions	Min	Typical	Max
Supply Voltage ⁽³⁾	V_{DD}	—	2.375 V	2.5 V	2.625 V
Supply Current	I_{DD}	No Load	0.0 mA	40 mA	60 mA
Output Current	I_O	Low level Output Current	0.0 mA	—	± 25.0 mA
Operating Temperature	T_A	—	0°C	—	70°C
Storage Temperature	T_S	—	-55°C	—	125°C
Power Dissipation	P_D	—	—	—	158 mW
Lead Temperature	T_L	Soldering, 10 sec.	—	—	300°C
Load	—	—	—	—	15 pF
Start-up Time	t_s	—	—	—	10 ms

Environmental and Mechanical Characteristics

Mechanical Shock	Per MIL-STD-202, Method 213, Condition E
Thermal Shock	Per MIL-STD-833, Method 1011, Condition A
Vibration	0.060" double amplitude 10 Hz to 55 Hz, 35g's 55 Hz to 2000 Hz
Soldering Condition	300°C for 10 seconds
Hermetic Seal	Leak rate less than 1×10^{-8} atm.cc/sec of helium

Footnotes:

- 1) Standard frequency stability (± 20 , ± 25 , ± 50 ppm & others available).
- 2) Jitter performance is frequency dependent. Please contact factory for full Wavecrest characterization.
RMS jitter bandwidth of 12kHz to 20MHz.
- 3) Internal high frequency power source decoupling.

Test Load

