

**FEATURES**

- Wide Frequency Range up to 160MHz
- Frequency Stability  $\pm 5$ PPM
- High Reliability
- TTL, HCMOS, AC MOS, Clipping Sine Wave, Sine Wave

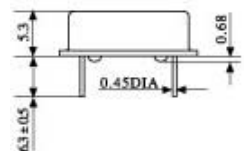
**APPLICATIONS**

- SDH/SONET
- ATM
- WLL
- Measurement Equipment
- PLL Circuits



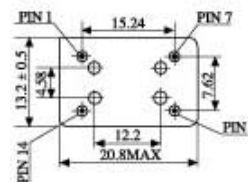
**SPECIFICATIONS**

Frequency Range	1~160MHz
Frequency Stability (FS)	See Table 1
Absolute Pull Range (APR)	See Table 1
Output Waveform and Load Characteristics	Clipping Sine Wave, TTL, HCMOS, AC MOS, PECL (See Table 2)
Control Voltage Range	0.5VDC~4.5VDC
Center Frequency	+2.5VDC, $\pm 0.25$ VDC
Linearity	$< \pm 10\%$
Input Impedance	$\geq 50k$ ohm
Modulation Bandwidth	$< 15kHz$
Supply Voltage	+3.3VDC, +5.0VDC, $\pm 5\%$
Supply Current	$< 50MHz$ , 25mA (max.) $< 90MHz$ , 40mA (max.) $< 125MHz$ , 60mA (max.)
Package	DIP14
Storage Temperature Range	-40~+100°C



**PIN FUNCTION:**

- PIN1 – Control Voltage
- PIN7 – GND/Case
- PIN8 – Output
- PIN14 – Power Supply



**ABSOLUTE PULL RANGE AND TEMPERATURE-FREQUENCY CHARACTERISTICS (TFC) – TABLE 1**

Code	Temperature	Pull Range	TFC	Code	Temperature	Pull Range	TFC
A	0 – +70°C	$\pm 100$ PPM Min.	$\pm 5$ PPM	N	0 – +70°C	$\pm 250$ PPM Min.	$\pm 30$ PPM
B	0 – +70°C	$\pm 100$ PPM Min.	$\pm 10$ PPM	O	-20 – +70°C	$\pm 100$ PPM Min.	$\pm 10$ PPM
C	0 – +70°C	$\pm 100$ PPM Min.	$\pm 20$ PPM	P	-20 – +70°C	$\pm 100$ PPM Min.	$\pm 20$ PPM
D	0 – +70°C	$\pm 100$ PPM Min.	$\pm 30$ PPM	Q	-20 – +70°C	$\pm 100$ PPM Min.	$\pm 30$ PPM
E	0 – +70°C	$\pm 150$ PPM Min.	$\pm 5$ PPM	R	-20 – +70°C	$\pm 150$ PPM Min.	$\pm 10$ PPM
F	0 – +70°C	$\pm 150$ PPM Min.	$\pm 10$ PPM	S	-20 – +70°C	$\pm 150$ PPM Min.	$\pm 20$ PPM
G	0 – +70°C	$\pm 150$ PPM Min.	$\pm 20$ PPM	T	-20 – +70°C	$\pm 150$ PPM Min.	$\pm 30$ PPM
H	0 – +70°C	$\pm 150$ PPM Min.	$\pm 30$ PPM	U	-20 – +70°C	$\pm 200$ PPM Min.	$\pm 20$ PPM
I	0 – +70°C	$\pm 200$ PPM Min.	$\pm 10$ PPM	V	-20 – +70°C	$\pm 200$ PPM Min.	$\pm 30$ PPM
J	0 – +70°C	$\pm 200$ PPM Min.	$\pm 20$ PPM	W	-20 – +70°C	$\pm 200$ PPM Min.	$\pm 40$ PPM
K	0 – +70°C	$\pm 200$ PPM Min.	$\pm 30$ PPM	X	-20 – +70°C	$\pm 250$ PPM Min.	$\pm 20$ PPM
L	0 – +70°C	$\pm 250$ PPM Min.	$\pm 10$ PPM	Y	-20 – +70°C	$\pm 250$ PPM Min.	$\pm 30$ PPM
M	0 – +70°C	$\pm 250$ PPM Min.	$\pm 20$ PPM	Z	-20 – +70°C	$\pm 250$ PPM Min.	$\pm 40$ PPM

**OUTPUT WAVEFORM AND LOAD CHARACTERISTICS – TABLE 2**

Output Waveform	Output Type Code	Frequency Range	Oscillation State	Output Characteristics
Clipping Sine Wave	0	8MHz – 40MHz 40MHz – 160MHz	F: Fundamental 0: Overtone	Load: 10k $\Omega$ /10pF Output level: $> 1V_{p-p}$
TTL	1	1MHz – 40MHz 40MHz – 160MHz	F: Fundamental 0: Overtone	Load: Max. 10 low power consumption TTL gates “1” level: $> +2.4VDC$ ; “0” level: $< +0.2VDC$ Duty cycle: 45/55 Rise/fall time: $< 6ns$
HCMOS	2	1MHz – 40MHz 40MHz – 160MHz	F: Fundamental 0: Overtone	Load: Max. 10 low power consumption TTL/HCMOS “1” level: $> +4.5VDC$ ; “0” level: $< +0.5VDC$ Duty cycle: 45/55 Rise/fall time: $< 6ns$
ACMOS	3	1MHz – 40MHz 40MHz – 160MHz	F: Fundamental 0: Overtone	Load: Max. 10 low power consumption TTL/ACMOS “1” level: $> +4.5VDC$ ; “0” level: $< +0.5VDC$ Duty cycle: 45/55 Rise/fall time: $< 6ns$
Sine Wave	4	8MHz – 40MHz 40MHz – 160MHz	F: Fundamental 0: Overtone	负载: 标称值 50 $\Omega$ 输出电平: 大于 2dBm 谐波抑制: 大于 -25dB 杂波抑制: 大于 -75dB

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