

## CMP502-SERIES



- 0.6 ps RMS Phase Jitter over 12 kHz to 20 MHz bandwidth
- 31 Standard frequencies from 25 MHz to 212.5 MHz
- LVPECL and LVDS Output types
- SMD package 5.0 x 3.2 mm

### ELECTRICAL SPECIFICATIONS

PARAMETER	SYMBOL	CONDITION	VALUE			UNIT
			Min.	Typ.	Max.	
Frequency Range	$f_0$	31 standard frequencies, see table 1	25		212.5	MHz
Supply Voltage	$V_s$	$V_s \pm 5\%$	2.25	-	3.63	V
		$V_s \pm 5\%$	2.25	2.5	2.75	V
		$V_s \pm 5\%$	2.97	3.3	3.63	V
Operating Temperature	$T_a$		-20		+70	°C
			-40		+85	°C
Frequency Stability	$\Delta f/f_0$	Including First Year aging, initial frequency tolerance at 25°C, Frequency stability over temperature range, supply variation, load variation	-10 -20 -25 -50		+10 +20 +25 +50	ppm ppm ppm ppm
Long Term stability ( Aging )	$\Delta f/\Delta t_y$ $\Delta f/\Delta t_y$	First Year @ 25°C	-2		+2	ppm
		10 Years @ 25°C	-5		+5	ppm
Input Voltage High	$V_{IH}$	Pin 1 , E/D or STBY	70% $V_s$			V
Input Voltage Low	$V_{IL}$	Pin 1 , E/D or STBY			30% $V_s$	V
Input Pull-up Impedance	$Z_{in}$	Pin 1 , E/D=High or Low or STBY=High Pin 1 , STBY = Low	2	100	250	kΩ MΩ
Start-up Time	$T_{st}$	Measured from the time $V_s$ reaches its rated minimum value		6	10	ms
Resume Time	$T_{res}$	Measured from the time STBY pin crosses 50% threshold		6	10	ms
Duty Cycle	DC		45		55	%

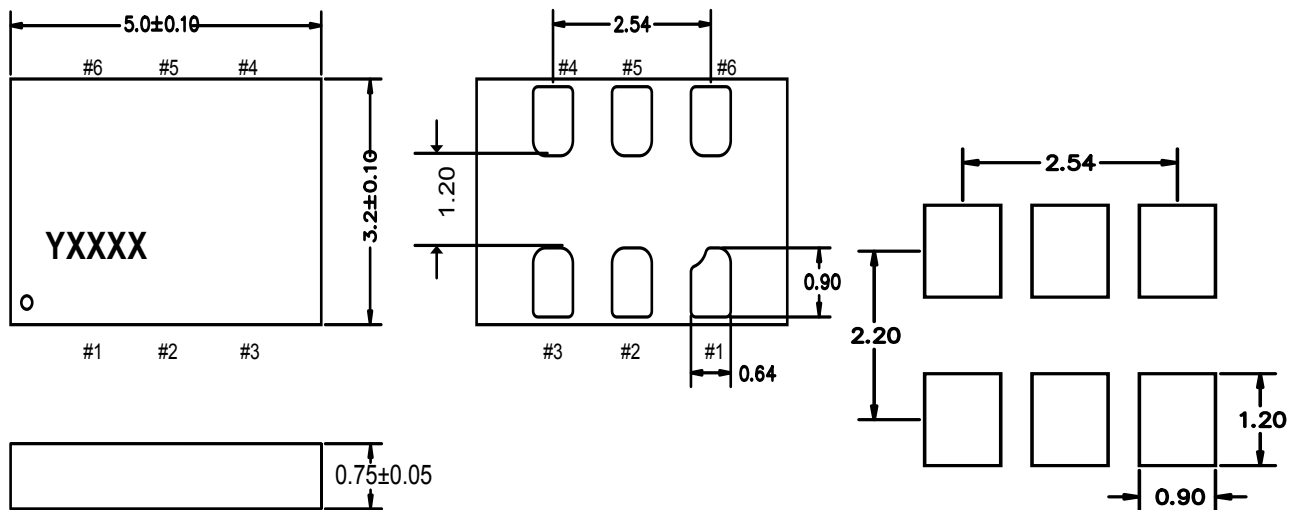
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Table 1. List of Supported Frequencies

25 MHz	50 MHz	74.175824 MHz	74.250 MHz	75 MHz	98.304 MHz	100 MHz	106.250MHz
125 MHz	133 MHz	133.3 MHz	133.33 MHz	133.333 MHz	133.3333 MHz	133.33333MHz	133.333333 MHz
148.351648 MHz	148.5 MHz	150 MHz	155.520 MHz	156.250 MHz	161.13280 MHz	166 MHz	166.6 MHz
166.66 MHz	166.666 MHz	166.6666 MHz	166.66666 MHz	166.666666MHz	200 MHz	212.5MHz	

### MECHANICAL DIMENSIONS AND PIN FUNCTIONING

Recommended land pattern



PIN	SYMBOL	FUNCTION
1	E/D	H or Open: Oscillator frequency output L: Output is high impedance
	STBY	H or Open: Oscillator frequency output L: Device goes to sleep mode. Supply current reduces to I <sub>STBY</sub>
2	GND	Electrical Ground
3	NC	No connect, leave it floating or connect to GND for better heat dissipation
4	OUT+	Oscillator Output Signal
5	OUT-	Complementary Oscillator Output signal
6	Vs	Supply Voltage