

# Micro AT-Strip Crystals

*Cardinal micro crystals are small substitutes for the HC-49 package. They are perfect for applications involving tight board density.*

**Series CMS8**



**Part Numbering Example: CMS8 - Z - A1 B2 C2 150 - 3.579545 D18 - 3**

CMS8	Z	A1*	B2	C2	150	3.579545	D18	- 3
SERIES	ADDED FEATURES	OPERATING TEMP.	STABILITY	TOLERANCE	RESISTANCE	FREQUENCY	LOAD CAP.	OVERTONE
CMS8	F = FORMED LEADS W = VINYL SLEEVING Z = TAPE AND REEL	A0 = -10°C ~ +60°C A1 = -10°C ~ +70°C A2 = -40°C ~ +85°C A3 = -55°C ~ +125°C	B1 = ±100 B2 = ± 50 B3 = ± 30 B4 = ± 10	C1 = ±100 C2 = ± 50 C3 = ± 30 C4 = ± 10	SEE CHART BELOW		D16,18,20,ETC. DS = SERIES	BLANK: FUND. -3: 3rd OT

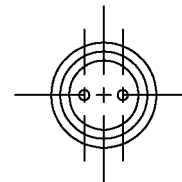
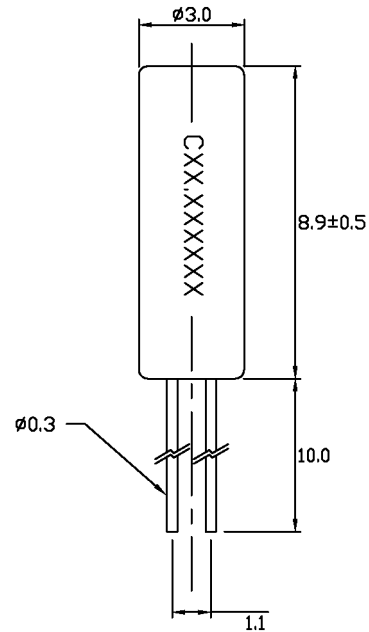
*\*NOTE: The above ABC combinations cover basic specification options. We tailor our crystal specifications to meet customer requirements. Please contact our sales department if you don't see exactly what you need.*

## Specifications:

<b>Frequency Range:</b>	3.579545 ~ 64.000 MHz
<b>Operating Temperature:</b>	-10°C ~ +60°C <i>Standard</i>
<b>Frequency Stability:</b>	± 100 ppm ± 50 ppm <i>Standard</i> ± 30 ppm
<b>Frequency Tolerance:</b> (at 25°C)	± 100 ppm ± 50 ppm <i>Standard</i> ± 30 ppm
<b>Load Capacitance:</b>	Standard 18 pF or series. Please specify your required load.
<b>Resistance:</b>	Maximum resistance corresponds to frequency. See chart below.
<b>Standard:</b>	Mode: Fundamental or 3rd Overtone Shunt Capacitance: 7 pF Max Aging: ± 5 ppm/year Drive Level: 1.0 mW Max
<b>Optional Features:</b>	Formed Leads Vinyl Sleeves

Note: Not all combinations of the above tolerances, stabilities, and temperature ranges are available. Consult the factory if your requirement is not standard.

## CMS8



## Resistance Chart: All resistances are maximum values.

CMS		
Frequency MHz	Mode of Operation	ESR (Ω)
3.579545 ~ 3.999999		200Ω
4.000000 ~ 4.999999		150Ω
5.000000 ~ 5.999999		120Ω
6.000000 ~ 6.999999		100Ω
7.000000 ~ 8.999999		80Ω
9.000000 ~ 12.999999		60Ω
13.000000 ~ 24.999999		50Ω
25.000000 ~ 42.000000	Fundamental	40Ω
25.000000 ~ 48.000000	Third Overtone	80Ω
48.000001 ~ 64.000000	Third Overtone	60Ω

