



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Low Profile Surface Mount Crystals

Cardinal "AT-Strip" surface mount crystals are among the most readily available on the market today. Many popular frequencies are kept in stock at our facility.

Series **CSM1**



Part Numbering Example: **CSM1 Z - A1 B2 C2 200 - 3.579545 D18 - 3**

CSM1	Z	A1*	B2	C2	200	3.579545	D18	-3
SERIES	ADDED FEATURES	OPERATING TEMP.	STABILITY	TOLERANCE	RESISTANCE	FREQUENCY	LOAD CAP.	OVERTONE
CSM1	BLANK = BULK PACK Z = TAPE AND REEL	A0 = -10°C ~ +60°C A1 = -10°C ~ +70°C A2 = -40°C ~ +85°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:

Frequency Range:

3.579545~36.000 MHz	AT Cut Fundamental
36.000000~80.000 MHz	AT Cut 3rd Overtone

Operating Temperature:	-10°C ~ +70°C	Standard
	-40°C ~ +85°C	

Frequency Stability:	±100 ppm	
	± 50 ppm	Standard
	± 30 ppm	
	± 15 ppm	

Frequency Tolerance: (at 25°C)	±100 ppm	
	± 50 ppm	Standard
	± 30 ppm	
	± 10 ppm	

Load Capacitance:	Standard 18 pF or series. Please specify your required load.
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Resistance:	Maximum resistance corresponds to frequency. See chart below.
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Standard:	Mode: Fundamental or 3rd Overtone Shunt Capacitance: 7 pF Max Aging: ± 5 ppm/year Drive Level: 1.0 mW Max
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Optional Features:	Tape and Reel (1K per Reel)
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Note: Not all combinations of the above tolerances, stabilities, and temperature ranges are available. Consult the factory if your requirement is not standard.

Resistance Chart: All resistances are maximum values.

Frequency Range	MODE	E.S.R
Fo ≤ 3.58 MHz	A1	<140 Ω
4 MHz < Fo < 5 MHz	A1	<120 Ω
5 MHz ≤ Fo < 7 MHz	A1	<80 Ω
7 MHz ≤ Fo < 9 MHz	A1	<45 Ω
9 MHz ≤ Fo < 13 MHz	A1	<40 Ω
13 MHz ≤ Fo < 16 MHz	A1	<35 Ω
16 MHz ≤ Fo < 20 MHz	A1	<30 Ω
20 MHz ≤ Fo < 30 MHz	A1	<25 Ω
30 MHz ≤ Fo < 36 MHz	A1	<25 Ω
30 MHz ≤ Fo < 36 MHz	A3	<80 Ω
36 MHz ≤ Fo ≤ 80 MHz	A3	<80 Ω

CSM1

