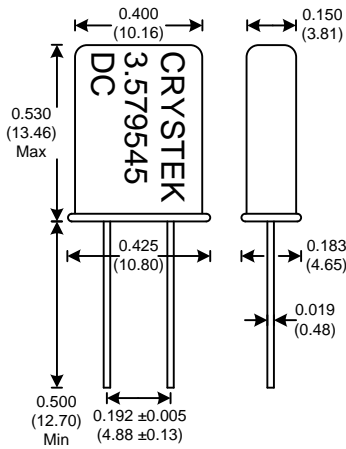




**CYxx Model**  
Leaded HC49 Crystal



Resistance at series resonance	
Freq. (MHz)	Max ESR
1.8432 - 1.999	700
2.0 - 2.09	500
2.1 - 2.5	320
2.501 - 4.0	175
4.1 - 4.9	100
5.0 - 5.9	50
6.0 - 11.9	40
12.0 - 22.9	30
30.0 - 50.0	40
50.1 - 100.0	90
100.1 - 150.0	120

Table 1



Part number	Freq. (MHz)	CL	Max ESR
CY2BM	2.457600	32pF	320
CY3DM	3.579545	18pF	175
CY3J	3.686400	series	175
CY3JM	3.686400	18pF	175
CY3JN	3.686400	20pF	175
CY3A	4.000	series	100
CY3AP	4.000	20pF	100
CY4F	4.096	20pF	100
CY4E	4.194304	12pF	75
CY4D	4.915200	series	75
CY7A	5.000	series	50
CY7AP	5.000	20pF	50
CY5B	5.068800	series	50
CY6B	6.000	series	40
CY6BP	6.000	20pF	40
CY6C	6.144	30pF	40
CY6CP	6.144	20pF	40
CY6G	6.400	20pF	40
CY7B	7.372800	series	30
CY7BP	7.372800	20pF	30
CY8G	8.000	series	30
CY8GP	8.000	20pF	30
CY8J	8.192	series	30
CY8JP	8.192	20pF	30
CY9B	9.830400	series	30
CY12A	10.000	series	30
CY11B	11.059200	series	30
CY11BP	11.059200	20pF	30
CY12B	12.000	series	30
CY12BP	12.000	20pF	30
CY14A	14.318180	series	30
CY14AC	14.318180	18pF	30
CY14AP	14.318180	20pF	30
CY14B	14.745600	series	30
CY14BP	14.745600	20pF	30
CY15A	15.000	series	30
CY16B	16.000	series	30
CY16BP	16.000	20pF	30
CY19A	18.000	series	30
CY19B	18.432	series	30
CY19BP	18.432	20pF	30
CY20A	19.660800	series	30
CY20AP	19.660800	20pF	30
CY22A	20.000	series	30
CY22AP	20.000	20pF	30
CY22B	22.118400	series	30
CY22BP	22.118400	20pF	30
CY24A	24.000	series	40
CY24AP	24.000	20pF	40
CY25A	25.000	series	40
CY27A	27.000	3 <sup>rd</sup>	series 40
CY30B	32.000	3 <sup>rd</sup>	series 40
CY36A	36.000	3 <sup>rd</sup>	series 40
CY48A	48.000	3 <sup>rd</sup>	series 40
CY100A	100.000	3 <sup>rd</sup>	series 90

Frequency Range: 1.843200 MHz to 40 MHz (fund)  
40 MHz to 100 MHz (3<sup>rd</sup> O/T)  
100 MHz to 150 MHz (5<sup>th</sup> O/T)

Calibration Tolerance: ±50ppm (Standard p/n)  
(Option) ±10ppm to ±100ppm

Frequency Stability: ±100ppm (Standard p/n)  
(Option) ±15ppm to ±100ppm

Operating Temp. range: 0 to 70°C (Standard p/n)  
(Option) -20 to 70°C  
(Option) -40°C to 85°C

Storage Temp. range: -45°C to 90°C

Shunt Capacitance: 7.0pF Max

Drive level: 100uW Typical

ESR: See table 1

Aging: <3ppm 1<sup>st</sup> year Max

Insulation Resistance: 500 Megaohms Min at 100Vdc

Optional spacer available

**Build Your Own P/N**

CY X X X X X - Freq

Frequency Tolerance at 25°C	
1	±10 ppm
2	±15 ppm
3	±20 ppm
4	±25 ppm
5	±30 ppm
6	±50 ppm
7	±100 ppm

Frequency Stability over Temp Range					
B	±15 ppm	(0 to 70°C)	J	±30ppm	(-20 to 70°C)
C	±20 ppm	(0 to 70°C)	K	±50 ppm	(-20 to 70°C)
D	±25 ppm	(0 to 70°C)	L	±100 ppm	(-20 to 70°C)
E	±30 ppm	(0 to 70°C)	M	±20 ppm	(-40 to 85°C)
F	±50 ppm	(0 to 70°C)	N	±25 ppm	(-40 to 85°C)
G	±100 ppm	(0 to 70°C)	O	±30 ppm	(-40 to 85°C)
H	±15 ppm	(-20 to 70°C)	P	±50 ppm	(-40 to 85°C)
I	±20 ppm	(-20 to 70°C)	Q	±100 ppm	(-40 to 85°C)

Load Capacitance	
1	Series
2	14 pF
3	16 pF
4	18 pF
5	20 pF
6	22 pF
7	25 pF
8	32 pF

Options	
S	Spacer

Mode	
1	Fundamental 1.8432-40 MHz
3	3 <sup>rd</sup> Overtone 40-100 MHz
5	5 <sup>th</sup> Overtone 100-150 MHz

**Example:**

CY4F51S-20.000 = ±25ppm at 25°C, ±50ppm 0 to 70°C, 20pF Load Cap, Fundamental, with Spacer, 20.000 MHz

Specifications subject to change without notice.

TD-021008 Rev. L