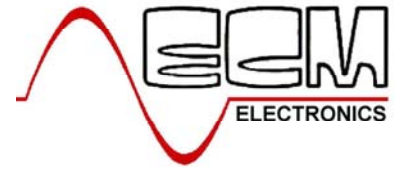


Standard Crystal Specifications



ECM Specifications

There are many permutations of adjustment tolerance and temperature coefficient and since, in practice, many combinations are unlikely it maybe convenient to use, where possible, the following standard specifications for AT-Cut crystals.

ECM Code	Adjustment Tolerance At 25°C	Temperature Tolerance	Temperature Range
ECM 9	+50ppm	+100ppm	0°C to +70°C
ECM 10	+30ppm	+50ppm	-10°C to +60°C
ECM 11*	+20ppm	+50ppm	-10°C to +60°C
ECM 12	+20ppm	+30ppm	-10°C to +60°C
ECM 13	+20ppm	+20ppm	-20°C to +70°C
ECM 14	+20ppm	+10ppm	-10°C to +60°C
ECM 15	+10ppm	+10ppm	-20°C to +70°C
ECM 16	+10ppm	+5ppm	0°C to +50°C
ECM 17	+10ppm	+10ppm	-10°C to +60°C
ECM 18	+30ppm	+20ppm	-20°C to +70°C
ECM 19	+30ppm	+20ppm	-30°C to +80°C
ECM 30	+30ppm	+30ppm	-20°C to +70°C
ECM 31	+50ppm	+100ppm	0°C to +50°C
ECM 32	+500ppm	+500ppm	0°C to +50°C
ECM 40	+20ppm	+7.5ppm	0°C to +50°C
ECM 41	+20ppm	+7.5ppm	-10°C to +60°C
ECM 42	+20ppm	+7.5ppm	-20°C to +70°C
ECM 43	+10ppm	+7.5ppm	0°C to +50°C
ECM 44	+10ppm	+7.5ppm	-10°C to +60°C
ECM 45	+10ppm	+7.5ppm	-20°C to +70°C
ECM 46	+10ppm	+30ppm	0°C to +50°C
ECM 47	+10ppm	+30ppm	-10°C to +60°C
ECM 48	+10ppm	+30ppm	-20°C to +70°C
ECM 50	+20ppm	+10ppm	0°C to +50°C
ECM 51	+20ppm	+10ppm	-10°C to +70°C
ECM 52	+10ppm	+20ppm	0°C to +50°C
ECM 53	+10ppm	+20ppm	-10°C to +70°C
ECM 54	+10ppm	+20ppm	-20°C to +70°C

Load / Matching Impedance

The following table shows a list of load values represented by a letter code.

Letter	A	B	C	D	E
	10	15	20	25	30
Load Condition	Parallel Capacitance				
Letter	F				S
	32				Series
Load condition	Parallel Capacitance				

Additional Requirements

The ECM standard specifications suit the majority of customer's needs. However availability is not limited to their standard types and where other applications are sought customers may specify to their own circuit requirements.