

STANDARD SPECIFICATIONS

1. Package type 22SMX
2. Frequency range 16.000 MHz to 80.000 MHz
3. Frequency tolerance ±50 ppm at +25°C ±3°C
4. Temperature stability (referred to +25°C) ±50 ppm over -20°C to +70°C
5. Load capacitance (CL) 8 pF, Typical
6. Shunt capacitance (Co) 5 pF max.
7. Drive level (P) 100 µW max. (10 µW for testing)
8. Aging ± 5 ppm max. at +25°C ±3°C per year
9. Cut/Oscillation mode AT-Cut/Fundamental
10. Reflow condition 10 seconds max. at +250°C ±10°C

PART NUMBERING GUIDE

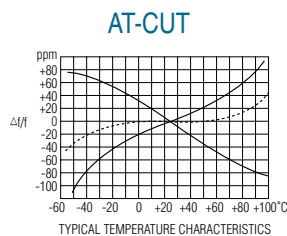


EXAMPLE

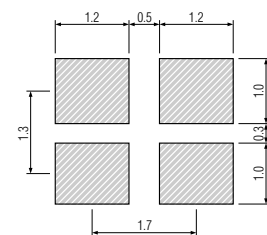
SMI PART NO.	Package	Circuit Calibration Condition	Frequency
22M480-8	22 = 22SMX	M = Parallel resonance CL = 8 pF	480 = 48.000 MHz
22S320	22 = 22SMX	S = Series resonance	320 = 32.000 MHz

PACKAGE DATA

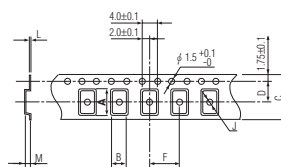
Item	Package	22SMX
Lid		Metal
Base		Ceramic
Sealing		Seam / EB
Terminal		Tungsten (metalized)
Terminal plating		Gold / Nickel (surface) / (under)
RoHS		Compliant (Pb-free)



SOLDERING PATTERN



TAPE SPECIFICATIONS



A	B	C	D	F	J	L	M	Reel Dia.	Qty/Reel
2.8	2.3	8.0	3.5	4.0	1.0	0.25	0.75	180	3000pcs

22SMX STANDARD FREQUENCIES

FREQUENCY MHz	FREQUENCY DESIGNATOR	MAX EQUIVALENT SERIES RESISTANCE OHMS(Ω) ESR
16.000000	160	80
16.254000	162	80
16.384000	163	80
18.000000	180	80
19.200000	192	80
20.000000	200	80
20.250000	2025	70
22.000000	220	70
22.579200	2257	70
24.000000	240	70
24.545400	2454	70
24.576000	245	70
25.000000	250	70
26.000000	260	70
27.000000	270	70
27.120000	271	70
28.636360	2863	70
30.000000	300	70
32.000000	320	50
33.868800	338	50
36.000000	360	50
40.000000	400	50
44.000000	440	50
45.000000	450	50
48.000000	480	50
54.000000	540	50
74.100000	741	50
80.000000	800	50