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> Compatible with Eu Directive 2002/EC - RoHS



Specification

°C

300

250

200

150

100

50

Parameter	Symbol	Specification	Condition
Frequency Range	fo	16.00 ~ 48.00 MHz AT Fundamental	Please specify
Frequency Tolerance	∆f/fo	±10ppm (standard) and ±30ppm (25°C±2degC)	Please Specify
Stability over Temp Range	Тс	±10ppm (standard), ±20ppm and ±30ppm	Please specify
Temp Operating Range	Topr	-20 ~ +70°C Standard	Please specify
Temp Storage Range	Tstg	-40 ~ +85°C	
Equivalent Series Resistance	ESR	Please refer to Table 1	
Load Capacitance	CL	8 pF min	Please specify
Shunt Capacitance	C0	5pF max	
Drive Level	DL	100μW max	
FDLD		10ppm max	6 steps minimum
DLD2		Refer to table 1	6 steps minimum
Insulation Resistance	IR	500MΩ min	@100V DC
Reflow Process		20 Seconds @ 270°C (max)	Refer to profile below
Aging	Fa	±2ppm / 1st year max (±1ppm option*)	@25°C
*			

The ACT2208SMX-4 is an extremely compact, high quality, low aging, seam welded crystal. Utilising a ceramic base with a metal lid, it provides for the durability and reliability, necessary for strenuous processes like infrared and vapour reflow. The lid is grounded through the package, to assist with EMC Issues, and the pads are gold plated. The device is very suitable for automatic placement on PCB's. With an excellent range of frequencies it is an optimum choice for designs where PCB space is at a premium. Applications include: PDA, Cellular, MPU Clocks, ISM, Bluetooth, WLan, and

consummer electronics. Available loose or on reels (Standard 3,000 pieces / reel.).

* Tolerance +aging 1st yr= Tolerance plus ±1ppm

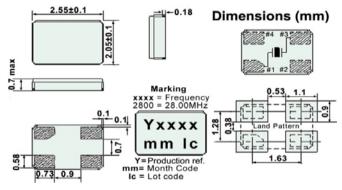
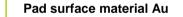
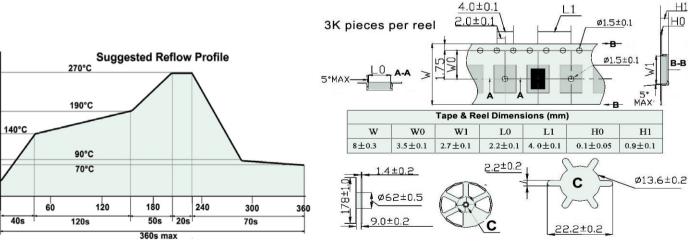


Table 1

Frequency(MHz)	ESR Ω max	Mode	DLD2
16.0~17.999	120	Fundamental	<15Ω
18.0~19.999	100	Fundamental	<12Ω
20.0~24.999	80	Fundamental	<10Ω
25.0~31.999	60	Fundamental	<10Ω
32.0~48.0	40	Fundamental	<10Ω





Please note that all parameters can not necessarily be specified in the same device Customer to specify : Frequency, Frequency Tolerance, Temperature Stability, Operating Temperature & Load Capacitance In line with our ongoing policy of product evolvement and improvement, the above specification may be subject to change without notice

ISO9001:2000 Registered

For quotations or further information please contact us at: 3 The Business Centre, Molly Millars Lane, Wokingham, Berkshire, RG41 2EY, UK http://www.actcrystals.com

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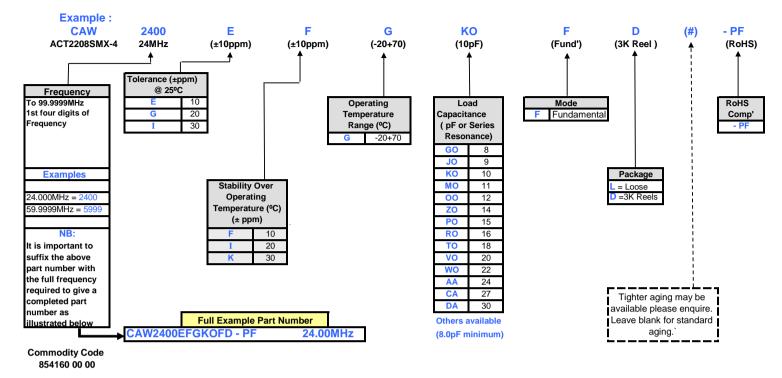


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SERIES : ACT2208SMX-4 Part numbering code is CAW



NOTES :

- Tighter Tolerances and Stabilities and other Operating Temperature Ranges may be available. As each of these specification parameters impact on each other, it is not always possible to combine all options in one device. Therefore, if a specification not catered for above is required, please contact us directly for the relevant part number code(s).
- 2) ACT are always happy to consider truly custom specification parts which may require non-standard specification parameters, specific testing, customer requested AQL requirements, non standard packaging or taping and reeling and custom marking. Such devices would normally be allocated a custom specification part number which is wholly customer specific.

(EG : A24MHz custom ACT2208SMX-4 device may have a part number such as CAW2400C- C1133-PF)

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