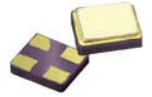


2205 SMX-4 Series

2.5 x 2.0mm Crystal unit



RoHS & REACH compliant
Small package size



| Parameters | | Specification | Remarks |
|--|-------|---|----------------------------|
| Frequency range | F_nom | 12.0MHz ~ 62.5MHz | Fundamental |
| Frequency tolerance | F_tol | ±10.0ppm ~ ±50.0ppm | |
| Frequency stability over operating temperature range | F_stb | ±10.0ppm ~ ±50.0ppm | Table 2 |
| Operating temperature range | T_use | -20°C ~ +70°C, -30°C ~ +85°C, -40°C ~ +85°C | Table 2 |
| Storage temperature | T_stg | -55°C ~ +125°C | |
| Load capacitance | CL | 8.0pF ~ 16.0pF | |
| Equivalent series resistance | ESR | Table 1 | |
| Shunt capacitance | CO | 3.0pF max | |
| Drive level | DL | 100µW max | 50µW typical |
| Frequency aging | F_age | ±2.0ppm at 25°C, 1 st Year | For ±1.0ppm please enquire |
| Moisture sensitivity level | MSL | 1 (unlimited) | |
| Electrostatic discharge | ESD | Not applicable | |
| Insulation resistance | IR | 500MΩ min | At 100V DC |

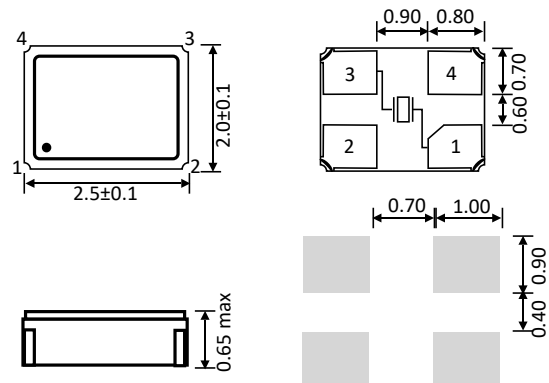
Table 1. Frequency range (MHz) vs ESR

| | |
|---------------------|------|
| 12.0MHz ~ 15.999MHz | 200Ω |
| 16.0MHz ~ 19.999MHz | 100Ω |
| 20.0MHz ~ 25.999MHz | 80Ω |
| 26.0MHz ~ 62.500MHz | 50Ω |

Table 2. Frequency Stability vs Temperature

| Temp. (°C) | Stability in ppm | | | | |
|--------------|------------------|-----|-----|-----|-----|
| | ±10 | ±15 | ±20 | ±30 | ±50 |
| -20°C ~ 70°C | ✓ | ✓ | ✓ | ✓ | ✓ |
| -30°C ~ 85°C | ✓ | ✓ | ✓ | ✓ | ✓ |
| -40°C ~ 85°C | Enquire | ✓ | ✓ | ✓ | ✓ |

Dimensions (mm)



Part number generation

| CW | 2700 | G | K | L | GO | F | L | -PF | |
|-----------------|---|---|---|---|---|-----------------------|--------------------------|---|------------------|
| ACT Series Code | Frequency (MHz) | Frequency Tolerance (±ppm) | Frequency stability over temperature range (±ppm) | Operating Temperature Range (°C) | Load capacitance (CL -pF) | Frequency Mode | Packaging (Tape & Reel) | Frequency aging | RoHS |
| CW | 8MHz = 0800 27MHz = 2700 Note: Use the first 4 characters of the frequency in Hz i.e. 27MHz = 27000000Hz If the frequency is 100MHz or higher then the first 5 characters are used | ±10 = E ±15 = F ±20 = G ±30 = I ±50 = L | ±10 = F ±15 = G ±20 = I ±30 = K ±50 = O | -20 ~ +70 = G -30 ~ +85 = L -40 ~ +85 = M | 6 = BO 8 = GO 9 = JO 10 = KO 11 = MO 12 = OO 13 = YO 14 = ZO 15 = PO 16 = RO | Fundamental = F | Loose = L 3000pcs = D | <u>Standard</u> ±2ppm = leave blank for standard aging <u>Non standard</u> ±1ppm = 1 | RoHS = -pF |

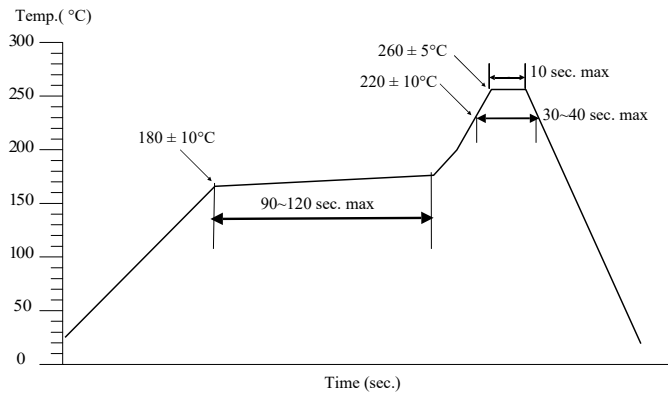
Note: It is important to suffix the above part number with full frequency required to give a completed part number as illustrated below.
Full Example Part Number : CW2700GKLGOF-L-PF [27.000MHz] , CW2457GKLGOF-L-PF [24.576MHz]

2205 SMX-4 Series

2.5 x 2.0mm Crystal unit



Solder Reflow Profile



Additional information

Drawing control: (Internal use only)
Commodity code: 854160 00 00
Issue number: N1
Date: 1/02/2017
Internal reference: H2

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