



MHz RANGE CRYSTAL UNIT

FA-128

Product Number
Q22FA1280xxx18

- Nominal frequency range : 16 MHz to 54 MHz
- External dimensions : 2.0 × 1.6 × 0.5 mm
- Overtone order : Fundamental
- Applications : Mobile phone, Bluetooth, W-LAN
ISM band radio, Clock for MPU



Specifications (characteristics)

Item	Symbol	Specifications		Conditions / Remarks
		For RF Reference	For Clock	
Nominal frequency range	f_nom	16.000 MHz to 54.000 MHz		Fundamental Please contact us about available frequencies.
Storage temperature range	T_stg	-40 °C to +125 °C		Storage as single product.
Operating temperature range	T_use	-40 °C to +85 °C (+105 °C)		Please contact us about +85 °C < T_use
Level of drive	DL	100 µW Max.	200 µW Max.	Recommended: 1 to 100 µW
Frequency tolerance (standard)	f_tol	$\pm 10 \times 10^{-6}$ *1	$\pm 30 \times 10^{-6}$	+25 °C, please contact us for requirements not listed in this specification.
Frequency versus temperature characteristics. (standard)	f_tem	$\pm 10 \times 10^{-6}$ *1	$\pm 30 \times 10^{-6}$	-20 °C to +75 °C, please contact us for requirements not listed in this specification.
Load capacitance	CL	6 pF to ∞		Please specify.
Motional resistance (ESR)	R1	As per table below		-20 °C to +75 °C
Frequency aging	f_age	$\pm 1 \times 10^{-6}$ / year Max.	$\pm 5 \times 10^{-6}$ / year Max.	+25 °C, First year

*1 Please contact us for available frequency tolerances as they are dependent upon the nominal frequency.

Motional resistance (ESR)

Frequency	Motional resistance
16.0 MHz ≤ f_nom < 18.0 MHz	200 Ω Max.
18.0 MHz ≤ f_nom < 20.0 MHz	150 Ω Max.
20.0 MHz ≤ f_nom < 24.0 MHz	100 Ω Max.
24.0 MHz ≤ f_nom < 26.0 MHz	80 Ω Max.
26.0 MHz ≤ f_nom ≤ 54.0 MHz	60 Ω Max.

Product name FA-128 24.000000MHz 12.0 +10.0-10.0

(Standard form)

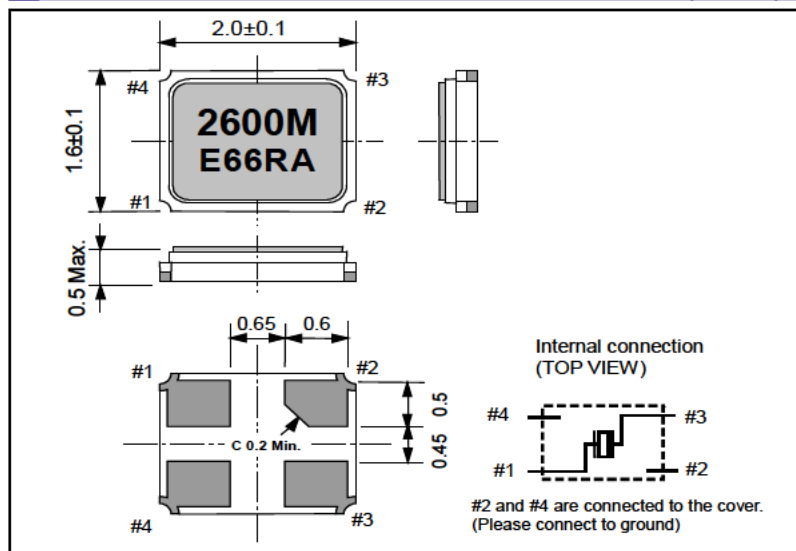
① ② ③ ④

①Model ②Frequency ③Load capacitance(pF) ④Frequency tolerance($\times 10^{-6}$, +25 °C)

In addition to the above mentioned specification item, please specify frequency temperature characteristics and operating temperature range in case of inquiry.

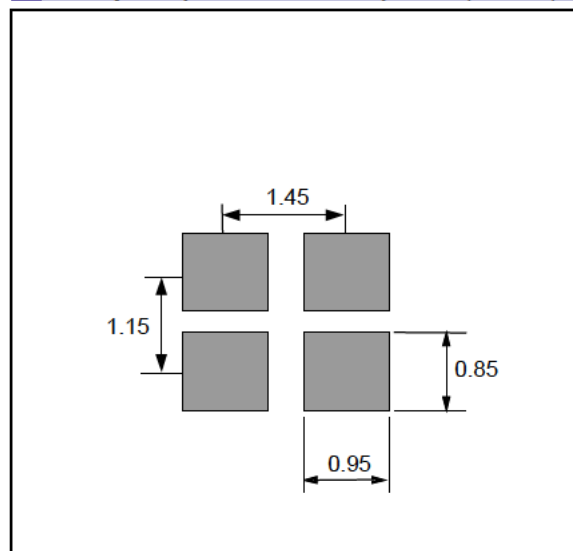
External dimensions

(Unit:mm)



Footprint (Recommended)

(Unit:mm)



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Epson:

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