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Product Expansion, Part 4: New Vishay Surface-Mount Crystals and Oscillators

To simplify your sourcing process, Vishay is adding a host of new frequency control products that compliment our broad portfolio with more device options for smaller packages, extended value ranges, and improved performance.

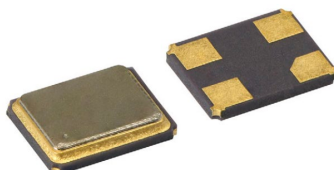
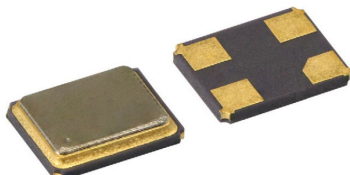
For our fourth release, we're extending our crystals and oscillators portfolio with Vishay alternatives for industry-standard surface-mount devices that offer significantly improved temperature stability over a wider operating temperature range. More devices will be available in 2025.

New Surface-Mount Crystals

We're expanding our product offering with new surface-mount crystals as small as 1.6 mm by 1.2 mm, a significant reduction from our current products, which start at 5 mm by 7 mm. These smaller packages align with the latest trends in development programs, bringing advanced packaging to the marketplace. Among the new products is the XT13, a tuning fork crystal operating at a 32.768 kHz real-time clock frequency. These new crystal families feature frequency tolerances at 25 °C of ± 20 ppm or better and temperature stabilities of ± 25 ppm or better, a marked improvement over the current ± 50 ppm specifications. While the industry-standard room temperature tolerance is typically ± 20 ppm, Vishay's standard offering is ± 10 ppm at 25 °C, at no added cost. Custom options for frequency tolerance, stability, and operating temperature ranges will also be available. Additionally, these crystals can offer up to 40 % cost savings over older, larger packages. Each new product has at least one improved feature not currently available in the market, enhancing Vishay's competitive stance in the crystal product segment. These devices offer Vishay alternatives to products from such suppliers as Abracon, AVX / Kyocera, ECS, Epson, Raltron, and TXC.

To learn more about product specifics, and to check availability at the Sample Order Center and our distributors, just click on the Vishay part numbers in the table below.

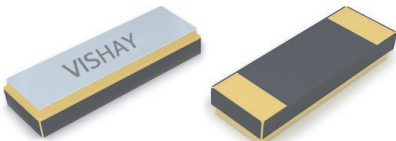
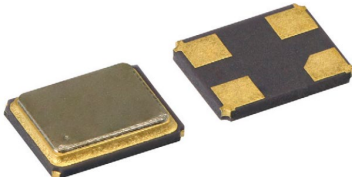
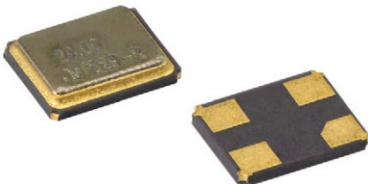
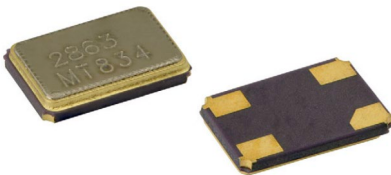
Surface-Mount Crystals Selection Table

Vishay part number	Size (mm)	Product photo	Frequency range
XT11	1.6 x 1.2 x 0.39		24 MHz to 60 MHz
XT12	2.0 x 1.6 x 0.55		16 MHz to 60 MHz



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XT13	3.2 x 1.5 x 0.8		32.786 kHz
XT22	2.5 x 2.0 x 0.65		12 MHz to 60 MHz
XT23	3.2 x 2.5 x 0.8		12 MHz to 54 MHz
XT35	5.0 x 3.2 x 0.8		12 MHz to 25 MHz

Surface-Mount Crystal Oscillators

Our new line of surface-mount crystal oscillators features packages as small as 2.0 mm by 1.6 mm, a significant reduction from our current offerings, which start at 5.0 mm by 7.0 mm. While industry-standard temperature stabilities are typically ± 100 ppm or ± 50 ppm over a commercial operating temperature range of 0 °C to +70 °C, Vishay's new oscillator families deliver ± 25 ppm over an industrial temperature range of -40 °C to +85 °C, at no cost premium. Additionally, we offer custom frequency stability and operating temperature ranges to meet specific customer requirements. These advanced oscillators come at a cost of up to 40 % lower than older, larger packages. The devices offer Vishay alternatives to products from such suppliers as Abracon, Epson, and Raltron.

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Vishay part number	Size (mm)	Product photo	Frequency range
XO12C	2.0 x 1.6 x 0.8		1.0 MHz to 60 MHz



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XO22C	: 2.5 x 2.0 x 0.9		1.0 MHz to 125 MHz
XO23C	3.2 x 2.5 x 0.8		1.0 MHz to 125 MHz

Contact Information

Director of Product Marketing, Standard Products
Jens Walther
jens.walther@vishay.com