

## Sound Advice

The addition of a sounder within a piece of electronic equipment offers the benefits of audio warning or alarm and can be used to supplement visual indicators such as flashing LEDs. Sounders, buzzers and sirens come in many shapes and sizes and can be as simple as a bare ceramic element, for inclusion in existing equipment or as a modular component with its own housing.

DMTL, the Berkshire based passive component specialist, offers a wide range of sounders and buzzers including those from **Kyocera**. The KBS range covers both piezo ceramic elements and discrete piezo components, both in leaded and non-leaded versions. Custom designs are also available for special applications and the DMTL technical team can help specify and design a product for most requirements from the most powerful siren to the smallest buzzer.



Bare ceramic elements are available in 2 electrode or 3 electrode versions and can be specified with or without terminations. The 2 electrode options have a resonant frequency range from 2.9 to 12kHz, whilst the 3 electrode version has a resonant frequency of 2.6kHz but can be driven by an external source when a specific frequency is required.

The KBS buzzer range of discrete components are all 2 electrode and offer frequencies of between 2.048kHz and 5kHz. Terminations can be specified with flying leads or terminal pin as required. Applications include smoke detectors, security devices, telephony equipment, office equipment and white goods. In fact almost all electronic equipment is likely to benefit from an audible warning device.

Call DMTL on **01276 33391**, email [sounders@dmtd.co.uk](mailto:sounders@dmtd.co.uk) or visit [www.dmtl.co.uk/buzzers](http://www.dmtl.co.uk/buzzers)

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## Sounders? Good Timing!

It may be that the humble resonator is taken for granted when engineers are designing circuits but a stable, quality timing source can often result in better circuit design and improved performance.

DMTL stock possibly the widest range of **Kyocera** Ceramic Chip Resonators in Europe! This means that engineers need not compromise on their product design. The range is broadly supported by the PBRC series of ceramic resonators; however, there are a number of variants to the range suitable for specific applications, including options for high reliability and high temperature specifications. For automotive applications DMTL can supply products to the AEC-200 standard (PBRV/PRQV).



Ceramic resonators are available in frequencies ranging from 2MHz to 60MHz, with SAW resonators (PARx ranges) extending the range further, 300MHz to 479MHz being available, with typical tolerances of between 0.1% and 0.5%. All products are in surface mount packages and are suitable for manual or reflow solder processes. Most components are washable and all are RoHS compliant.

Products from the miniature range (PRTC) are particularly suitable for use in mobile and handheld equipment, including phones and memory cards with standard and high specification products offering solutions for industrial and office equipment or automotive applications such as air bag controllers, ABS systems, air conditioning equipment etc.

All ceramic and SAW resonators are supported by DMTL's Application Design-In Team who are available by phone or email for specific advice on features or specifications.

Call **01276 33391**, email [pbrc@dmtd.co.uk](mailto:pbrc@dmtd.co.uk) Please also visit our website at [www.dmtl.co.uk/pbrc](http://www.dmtl.co.uk/pbrc)

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