

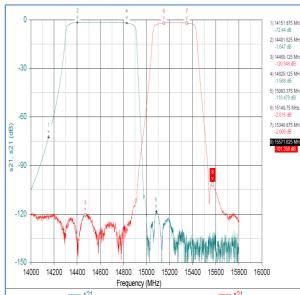
MtronPTI's RF Components and Solutions for Radar Applications

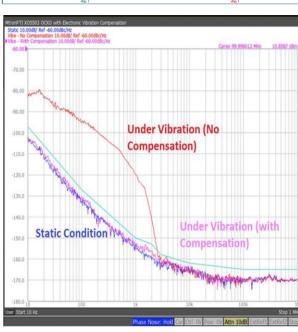
MtronPTI continues to develop new RF components and solutions that support all radar markets. The new product portfolio focuses on parameters such as low insertion loss, high power handling, band to band isolation, out of band rejection, phase linearity, low g-sensitivity and low phase noise that are critical in most radar applications.

MtronPTI uses unique cross coupling techniques in RF filter designs to facilitate superior band to band isolation and out of band rejection with less sections of filtering. Minimizing interference between Tx and Rx bands enhances signal integrity while the out of band rejection facilitates accurate target detection. The lower number of sections translates to smaller package footprints and less insertion loss. Lower insertion loss results in minimal signal power loss, which is critical for maintaining signal strength and radar sensitivity.

MtronPTI's high power handling filter capability compensates for losses in the environment, enhances radar range and provides better protection against interference. Employing low phase linearity topologies is essential for preserving the shape of modulated signals or pulses. Non-linear phase response can lead to signal distortion, affecting radar performance in terms of range accuracy and resolution.

MtronPTI's e-Vibe™ technology employed in our OCXO product line is supporting 1E-12 g-sensitivity in the industry's smallest package, which is a revolutionary leap in performance for dynamic radar environments. Low phase noise is critical to the radar's performance. Phase noise obscures data and degrades the system's ability to detect and track small targets. Low phase noise enhances signal stability and accuracy for improved radar resolution. The low g-sensitivity performance facilitates less sensitivity to acceleration forces, crucial for maintaining radar performance in dynamic environments.





MtronPTI is an AS9100D and ISO 9001:2015 organization

For inquiries and to learn more about our Radar solutions, please see https://www.mtronpti.com/radar/ or contact us: https://www.mtronpti.com/contact/