

Mixer and Detector Capability

Millitech offers a complete line of millimeter wave signal translation and detection products for receiver and signal processing applications. These include detectors, mixers and upconverters spanning the 18 to 220 GHz range. Millitech's wide range of products provide the capability to satisfy virtually any requirement or system application. Please click on the Product Descriptions and Datasheets button in the Products tab for more information.

Mixers and Upconverters

Almost any application can be satisfied by selecting the appropriate product from our standard mixers, detectors or upconverters alone or in combination with various options. A complete choice of performance characteristics ranging from extremely low-noise to ultra-broadband operation is offered through out the millimeter-wave spectrum.

A number of optional features enhance the product line. These include local oscillators, matched sets, nonstandard waveguide inputs/outputs and cryogenic versions. The entire family of mixer, detector and upconverter products is characterized by state-of-the-art performance rugged construction, high reliability and environmental stability. Custom configurations and special electrical performance characteristics are readily produced upon request. Possible options include modularization or miniaturization. Millitech also has the capability to integrate these components into multi-function assemblies or subsystems.

Volume production of these components has been addressed by applying a high level of product engineering, resulting in reliable, high quality products. Millitech is the industry leader in small profile, high performance mixers. We have provided mixers for applications as diverse as radioastronomy and airborne direction-finding receivers.

Detectors

Millitech produces a wide range of millimeter-wave detectors with exceptional bandwidth and sensitivity for frequency bands between 18 and 220 GHz. These include broadband devices capable of covering full waveguide bandwidths, high sensitivity detectors with conventional waveguide detectors. Our detectors range from inexpensive units for simple applications such as power monitoring to units for demanding applications such as wide dynamic range antenna measurements. Screened, narrowband high performance units are also available.

For detectors requiring specialized millimeter-wave circuits such as integrated bandpass filters or fast rise time pulse preamplifiers, Millitech can develop new designs or adapt existing designs and deliver in prototype or production quantities.