Specialists in DC-mmW

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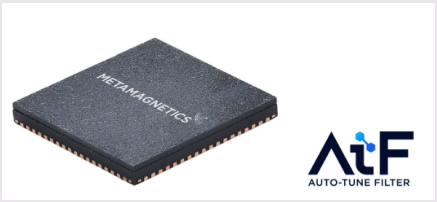
METAMAGNETICS
Protect. Connect. Succeed.

- Auto-tune Filters (AtFs)
- Self biased Circulators & Isolators
- Non-linear Transmission Lines (NLTLs)

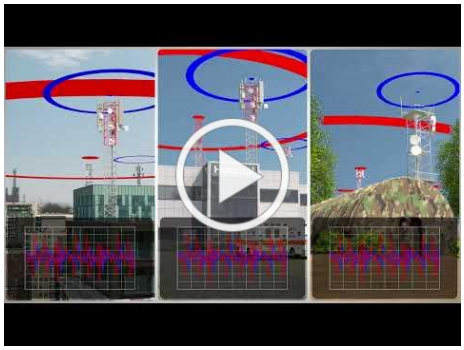
Auto-tune Filters



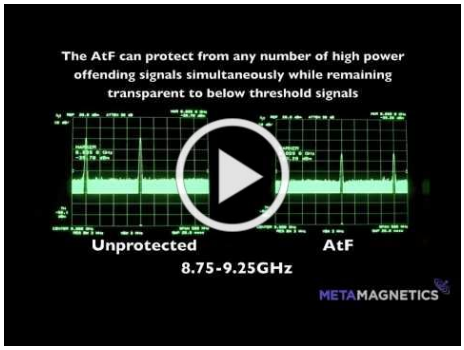
Auto-tune Filters™ (AtFs) are a purely passive absorptive or reflective broadband device that dynamically filters unwanted incoming signals, ideal for protecting receivers from electromagnetic interference (EMI) and ensures that signals-of-interest are detected.

- Coax connectorised modules or SMT
- Adapts to mitigate interferers above a preset power level without attenuating desired below threshold signals at other frequencies
- Requires less than 50 nano-seconds to attenuate a high power signal to half its original power level

Click on Auto-tune Filter™ (AtF) Overview video below

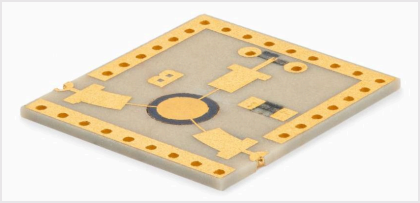


Video below demonstrates Real-time Impact of Interference on an Unprotected System vs. One Protected by an Auto-tune Filter™ (AtF)



Click here for datasheet

Self-biased Circulators and Isolators



Self-biased Circulators and Isolators™ for Self-biased Circulators and 5G Applications up to 110 GHz applications.
Enables developers to produce high power, broadband radar systems to achieve their goals for size, weight, power & cost reductions while also enabling a variety of novel system design and surface mount installation approaches.

- These planar devices are 90% lighter than legacy designs and optimise SWAP
- Offer high isolation and low insertion loss from Ku-band and above
- Shock tested to 50,000 g. This eliminates risk of failure in demanding applications

Click on video below for Self-biased Circulators and Isolators™ Overview

Click here for datasheet

Non-linear transmission lines (NLTLs)

Non-linear transmission lines (NLTLs) a solid-state solution comprised of a planar design and compact footprint, offering a superior solution and true alternative to large and costly vacuum-based high power radio frequency (HPRF) sources.

Unlike traditional HPRF systems, Metamagnetics' ferrimagnetic NLTLs are drastically smaller and lightweight; enabling employment of practical HPRF systems on ground vehicles and aircraft that achieve various size, weight, power, and cost (SWaP-C) efficiencies. Signals can be tailored to more effectively and dynamically disrupt a variety of targets.

- Modern Alternative to Vacuum-based RF Sources
- Capable of generating over 10 MW power from VHF to S band
- The output frequency of the NLTL can be altered in real-time, enabling a single system to be used for a broad range of targets and operational scenarios
- Cost-effective, solid-state componentry increases reliability and eliminates large vacuum components utilised in legacy HPRF system designs

Click here for datasheet

Learn more about Metamagnetics

Contact Melcom - for detailed specification, pricing & availability

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