



*Partners from RF to Light*

M/A-COM Technology Solutions Inc. ("MACOM"), a leading supplier of high performance analog RF, microwave, millimeterwave and photonic semiconductor products, released a Digi-Key product training module featuring their new family of mixers: the MAMX-011021, the MAMX-011022, and the MAMX-011023. This new trio is an extension to MACOM's established industry-leading catalog featuring a broad variety of semiconductor components, servicing multi-market applications.

MACOM's new family of mixers showcase the widest frequency range currently available on the market, achieving new levels of design versatility to support a diverse range of broadband applications. Today's industry demands wider bandwidth, high performance, flexible and versatile mixer solutions that occupy a small footprint. MACOM has the experience and expertise to deliver these solutions with the latest additions to our portfolio, thereby supporting a broad array of multi-market applications, including test and measurement, electronic warfare, satellite communications, point to point and wireless backhaul.

The MAMX-011021, a high IP3 mixer, supports high linearity for multiple applications, including high bit rate transmitters and receivers. This passive "engine" mixer provides customers with 23 dBm of input intercept point (IIP3) and RF, LO and IF frequencies of 5-35 GHz, 3-33 GHz, and DC 4.5 GHz, respectively. Featuring 8 dB conversion loss, a single end cold FET structure and diplexer, and no required biasing, this mixer is an easy-to-use, compact solution. It can be used for either lower sideband (LSB) or upper sideband (USB) mixing, and can be combined with a second mixer in a quadrature configuration for optimal image rejection.

The MAMX-011022, an image reject mixer targeted at medium to high data rates, long haul, low noise and wide IF systems, features an RF frequency of 5-27 GHz, LO frequency of 2-27 GHz, and IF frequency of DC-5 GHz. With 18dB image rejection, this mixer can be optimized for upconversion or downconversion, but is primarily designed for downconversion and integrates a 90° balun into a balanced subminiature mixing core for an ultra wide band image reject mixer. It requires no DC bias.

The MAMX-011023, a low noise active mixer, features the widest bandwidth coverage available today: 5-25 GHz RF, 4-23 GHz LO, and DC-8 GHz IF. The mixer was fabricated using a GaAs process, which includes full passivation for increased performance and reliability. With an ultra low noise figure of 7 dB and 9 dB conversion gain, this mixer features unconditional stability, a very low LO drive and low DC bias.

MACOM's family of mixers are available in ultra compact, 1.5mm x 1.2mm surface mount plastic packaging, providing a real-estate friendly solution for customers. All three mixers are assembled in a lead-free, halogen-free "green" mold compound.

Combined with its industry-leading performance features and superior packaging, MACOM's new family of discrete mixers are the advanced solutions required to support today's industry demands. The RF frequencies of these high linearity, image reject and low noise mixers are the best available on the market, and these new additions to our mixer portfolio have continued to position MACOM as the leading supplier of high performance semiconductor content to customers worldwide.

For more information and to access MACOM's Family of Mixers Product Training Module, click here: <http://www.digikey.com/suppliers/us/macom.page?lang=en>