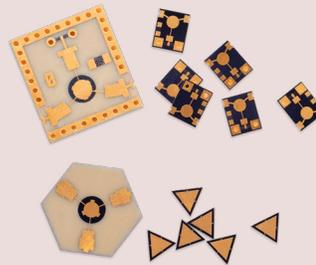


SELF-BIASED CIRCULATORS FOR 5G

The next generation in cellular is coming to help the insatiable global demand for data consumption. A singular unifying frequency is not yet established, but several key bands have already been allocated for testing; all of which are in the Ka-band and above frequency ranges. Traditional circulators at these higher frequencies are impractical due to their large physical size and many system engineers are struggling to find alternative solutions for their receivers.

Metamagnetics' self-biased circulators and isolators are going to be important players in 5G thanks to their revolutionary size reduction technology, ensuring maximum performance at 1/10th the size of a traditional microstrip circulator. Composed of advanced proprietary materials, which do not require biasing magnets, self-biased circulators are ideal for weight, size and cost constrained systems. Other applications include high frequency Wi-Fi, mm wave communications, and other SWAP constrained RF systems.

5G[📶]



Specifications

Frequency	26.6 - 29.2 GHz	38.4 - 40.0 GHz
Isolation	16 dB min	18 dB min
Insertion Loss	1.6 dB max	1.3 dB max
Return Loss	15 dB min	17 dB min
Power Handling	0.5 W avg	0.5 W avg
Package Size, Approximate	0.243" X 0.220" X 0.096" (6.2 mm X 5.6 mm X 2.4 mm)	0.085" X 0.069" X 0.007" (2.2 mm X 1.8 mm X 0.2 mm)
I/O Connections	PCB Surface Mount	PCB Surface Mount
Additional Notes	Shielded package	

Disclaimer: The information outlined above are not final specifications. The information outlined above is provided as example specifications and are not the extent of our full capabilities, nor does Metamagnetics believe that the specifications list above will work with every application. Metamagnetics takes pride in working with each customer's exact specifications and meeting those needs to benefit your project.

ABOUT METAMAGNETICS

U.S. based and veteran owned, Metamagnetics develops and markets advanced RF and microwave solutions to enhance the performance and effectiveness of mission-critical security, surveillance and communication systems. Our unparalleled knowledge of electromagnetism and materials science empowers break-through technologies that can bring significant value to defense and commercial projects. Efficient and agile, our team can help you rapidly design and deploy innovative solutions for current and next-generation radar, sensing and related systems.

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