Bias-T achieves 1.0 GHz to 18.0 GHz

API Technologies announced the availability of its new CMD837, 1.0 GHz to 18.0 GHz highpass / lowpass diplexer, Bias-T from its CMT Filters product group. The CMD837, 1.0 GHz to 18.0 GHz Bias-T, is an ideal solution when RF modulation or DC injection is essential.

“Manufacturing a diplexer with this broad of a highpass frequency range that also maintains a good return loss and insertion loss is a challenge,” said Jerry Roberds, Vice President of Engineering, CMT Filters Commercial, Defense and Space Filter Product Group of API Technologies. “Our design and manufacturing expertise enabled us to produce a repeatable result that meets our long standing commitment to high-quality and high-reliability.”

The operational frequency range of the lowpass section is DC to 500 MHz and the highpass section is 1.0 GHz to 18.0 GHz. The unit has a return loss of -10.0 dB minimum for both the lowpass and highpass sections. The insertion loss is -0.7 dB maximum for the lowpass and -1.25 dB maximum for the highpass. “Equally impressive to the electrical performance is the extremely compact size of the CMD837,” added Roberds. The filter measures only 1.5”L x 0.8”W x 0.5”H.

Each of the channels is comprised of a seven section Chebychev filter. The individual filters are diplexed to provide for a common port that passes DC to 500 MHz and 1.0 GHz to 18.0 GHz. The low frequency port allows for injection of a DC to 500 MHz bias, or control signal onto the 1.0 GHz to 18.0 GHz band. The diplexing function of the filter provides -30 dB of isolation channel to channel.

For more information about the CMT line of RF & Microwave Filters from API Technologies, including complete specs on the 1.0 GHz to 18.0 GHz Diplexer / Bias-T, please visit www.apitech.com/cmt [1].

Source URL (retrieved on *07/26/2014 - 6:33am*):
http://www.ecnmag.com/product-releases/2012/02/bias-t-achieves-10-ghz-180-ghz?qt-video_of_the_day=0

Links:
[1] http://www.apitech.com/cmt