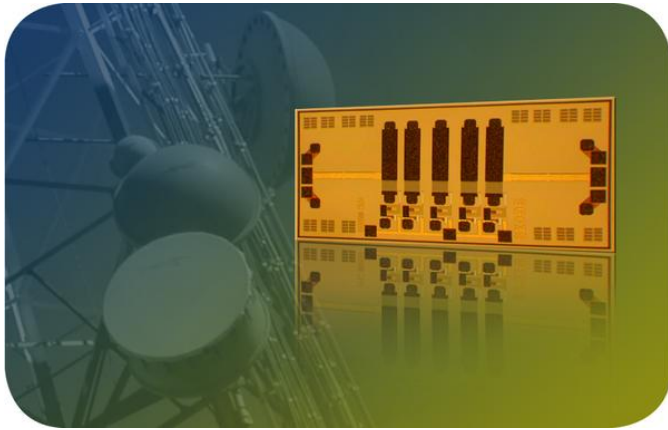


Band Pass Filter Chip with User Selectable Passband Frequency



Hittite Microwave Corporation, the world class supplier of complete MMIC based solutions for communication & military markets, has introduced the HMC897, a new band pass tunable filter chip which is ideal for pre-selection in advanced communications systems, military radar, EW/ECM, SATCOM, space, industrial and medical systems. Tunable over a 9 to 19 GHz frequency range, this new, ultra-compact, varactor-tuned MMIC filter is inherently stable and its small physical size and insensitivity to environmental conditions make it a superior alternative to competing resonant cavity tuned filters and large switched filter banks.

The center frequency of the HMC897 band pass filter chip is adjustable from 9 GHz to 19 GHz by applying an analog tune voltage between 0 and 14V with a tuning speed of 200 ns. The HMC897 exhibits excellent microphonic immunity due to the monolithic design, and provides a dynamically adjustable solution which makes it highly beneficial for use in advanced communications applications. The HMC897 also provides a 3 dB filter bandwidth of approximately 18%, while the 20 dB filter bandwidth is approximately 35%. Return loss is typically better than 10 dB across the operating frequency and wideband rejection is at least 30 dB out to 40 GHz. Residual phase noise is as low as -160 dBc/Hz at 100 KHz offset. For applications which require a surface mount compatible solution, this same filter is available in a RoHS compliant 4 x 4 mm QFN SMT package as the HMC897LP4E.

Die samples, SMT product samples and evaluation PC boards for all SMT packaged products are available from stock and can be ordered via the company's e-commerce site or via direct purchase order. Released data sheets are available on-line at www.hittite.com [1].

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[1] <http://www.hittite.com>