mmWave Transmit Beamforming IC

3/2/2022 – San Jose, California: RFMW announces design and sales support for a beamforming IC from Renesas. The F6522 is an 8-channel transmit active beamforming RFIC designed for application in Ka-Band SATCOM planar phased array antennas from 27.5 to 31 GHz. The IC has a single common RF input port and eight independently controlled output channels which can drive eight single-polarized elements or four dual-polarized elements of an electronically scanned array (ESA). Each channel has 6-bits of digital phase control covering 360° and 25 dB of gain control with a minimum step size of 0.2 dB, enabling precise beam pattern and polarization control. Operating from a single supply of 2.1–2.5V, the RFIC has 28 dB of nominal small signal gain with a typical P1dB of 11 dBm per channel. SPI bus and control pins operate from standard 1.8V logic at speeds up to 50 MHz. Advanced digital modes and large on-chip memory allows for < 100 ns beam position switching times at the array level, greatly reducing dead time and latency.

Samples are available for qualified requirements through RFMW at 1-877-FOR RFMW (367-7369) within North America; or please find your local sales engineer (worldwide) at the contact page on the RFMW web site.

About RFMW

RFMW is a specialty electronics distribution company focused exclusively on serving customers that require RF and microwave components and semiconductors, as well as component engineering support. The company continues to expand its list of products from selective suppliers with RF/microwave expertise. RFMW deploys a highly experienced, technically skilled team to assist customers with component selection and fulfillment.

To learn more about RFMW, visit their Website at www.rfmw.com, or call us at 1.877.FOR.RFMW (367-7369), or via e-mail at info@rfmw.com.

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