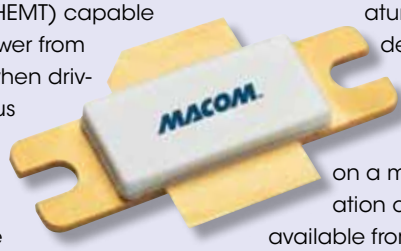
GaN-on-SiC HEMT Pushes Pulses To 1090 MHz

DESIGNED FOR high-power pulsed avionics applications, model MAGX-001090-600L00 is a gold-metalized, GaN-on-SiC high-electron-mobility transistor (HEMT) capable of 600 W output power from 1030 to 1090 MHz when driving signals with 32 µs pulse width at 2% pulse duty cycle. Suitable for secondary surveillance radar in air traffic control systems, the high-power pulsed transistor offers 21.4-dB typical gain with 63% drain efficiency. It handles load mismatches as severe as a 5.0:1 VSWR. The device is rated for a mean time to failure (MTTF) of more than 600 years when operating at a maximum junction temperature of +200°C. It is designed for use with a +50-VDC supply and suffers pulse droop on a mere 0.2 dB. Evaluation circuit boards are available from stock.



MACOM TECHNOLOGY SOLUTIONS, INC., 100 Chelmsford St., Lowell, MA 01851; (800) 366-2266, (978) 656-2896, *www.macomtech.com*

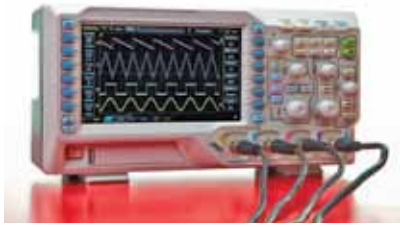
Compact Filter Passes 3.875 GHz

MODEL BPF3D875-2D25-CD-SFF is a bandpass filter with a center frequency of 3.875 GHz and a passband of 2.25 GHz. The coaxial filter exhibits maximum VSWR of 2.0:1 across the full passband. The maximum passband insertion loss is 2 dB. The filter, which measures only 2.50 × 0.8 × 0.5 in. with SMA female connectors, is rated for input power levels as high as 2 W (+33 dBm) CW. The filter is designed for use across an operating temperature range of –55 to +90°C.

PLANAR MONOLITHICS INDUSTRIES, INC., 7311-F Grove Rd., Frederick, MD 21704; (301) 662-5019, FAX: (301) 662-1731, e-mail: sales@pmi-rf.com, *www.pmi-rf.com*

Four-Channel Scope Fits On Desktop

THE DS1000Z series of digital oscilloscopes is a low-cost line of four-channel instruments available with 70- and 100-MHz measurement bandwidths. These easy-to-use instruments feature standard memory depth of 12 Mpoints, which can be extended to 24 Mpoints as an option. The standard sampling rate is 1 GSamples/s for a single channel, and a model is available with two built-in 25-MHz waveform-generator channels to facilitate testing. The instruments offer a fast waveform capture rate of 30,000 waveforms/s. The scopes can capture as many as 60,000 frames of real-time waveform information and show results on a 7-in. WVGA screen with a wide range of intensity levels. Numerous interfaces are available, including local-area-network (LAN), General-Purpose-Interface-Bus (GPIB), and Universal-Serial-Bus (USB) connections. P&A: starting at less than $600.



RIGOL TECHNOLOGIES, INC., 7401 First Pl., Ste. N, Oakwood Village, OH 44146; (440) 232-4488, e-mail: info@rigol.com, *www.rigol.com*

Right-Angle Connector Links DC To 32 GHz

QUALIFIED FOR spaceflight applications from DC through 32 GHz, the model ZQA low-profile right-angle connector from W.L. Gore & Associates employs a non-bifurcated swept contact design for use with low-loss microwave cables. The new connector offers the physical advantages of right-angle connectors, including low profile and compact size, but with the excellent electrical performance of conventional straight connectors. The ZQA connector achieves typically better than 1.20:1 VSWR from DC to 32 GHz. The 2.92-mm instrument-grade ZQA connector adheres to IEEE 287 standards for precision coaxial connectors with respect to inner-conductor, outer-conductor, and contact-height dimensions. It offers the capability to mate with a variety of other connectors, including SMA, 3.5-mm, and 2.92-mm air interface connector types, without concern for adverse electrical or mechanical effects.

W.L. GORE & ASSOCIATES, INC., 555 Paper Mill Rd., Newark, DE 19711; (888) 914-4673, (410) 506-7787, *www.gore.com*