

BOOTH

848

Explore the 5G/IoT Pavilion

Ultra-low PIM, low loss, and moisture resistance, highlight San-tron's capabilities.

San-tron, a US-based manufacturer of RF coaxial connectors and cable assemblies, is continually advancing their quick-turn cable assembly service. Advanced, custom-built assemblies can be built to spec to meet a variety of application requirements for handling higher frequencies than normal, minimizing PIM, and providing reliability in harsh or damp environments.

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santron.com



If there's one name to get on your vendor list, it has to be SemiGen.

SemiGen is pulling out the stops to be your full-service microwave provider. Their state-of-the-art hybrid and PCB assembly center is augmented with a complete high frequency (up to 50 GHz) test lab, and a stockroom full of your most desperately needed devices and bonding supplies. Their high performance diodes, such as: PINs, Limiters, Schottkys, Attenuator Pads, and

Capacitors, are solving supply chain problems; and their manufacturing and test teams are solving delivery problems for RF manufacturers across the US.

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semigen.net



Lab Bricks set a new standard for creating nimble and efficient wireless test stands.

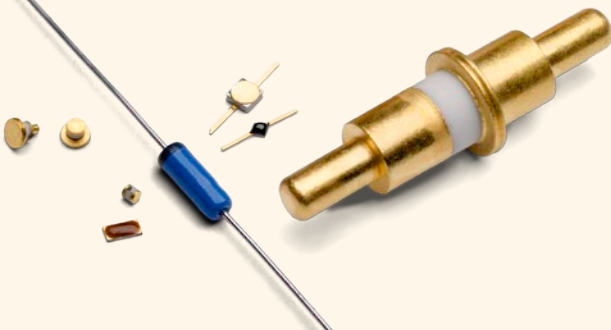
4 Channel attenuator adds versatility to your test bench. Capable of bidirectional attenuation, swept attenuation ramps, and fading profiles, the Vaunix LDA-602Q Lab Brick Attenuator provides up to 120 dB of control range with a 0.1 dB step size from 200 MHz to 6 GHz. Each of the four RF channels has a 50 Ohm impedance with a typical VSWR of 1.3:1 and a switching speed of 15 μ sec. Price is \$2,900.

6-18 GHz signal generator offers up to 80 dB of power control. The LMS-183DX Lab Brick has a power control range at mid-band of 80 dB. It also features a typical VSWR of 1.4:1 and harmonics of -38 dBc when the LMS-183DX is set to +10 dBm output power. Price is \$3,499.

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www.vaunix.com

vaunix



Polymer coating process eliminates need for hermetic housings.



GVD Corporation has developed a high reliability environmental coating for microwave electronics that eliminates the need for hermetic packaging/housing. It meets military standards for harsh environmental exposure, shock, and vibration testing. The innovative polymer coating is applied by GVD through a dry, room-temperature vapor deposition process that gently encapsulates boards and/or components in a micron-thin polymer. The coating's low dielectric constant and low thickness has been demonstrated to have negligible impact on signal integrity when applied directly to the surface of Monolithic Microwave Integrated Circuits (MMICs) operating in Ku, Ka, and W bands. The coating's high thermal stability also makes it compatible with hot-running semiconductor technologies, such as gallium nitride (GaN) components.

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gvdcorp.com



Simple. Functional. Radical.

For a circuit that won't flinch, or one that's ready to bend, contract with the thin film experts at Metrigraphics.

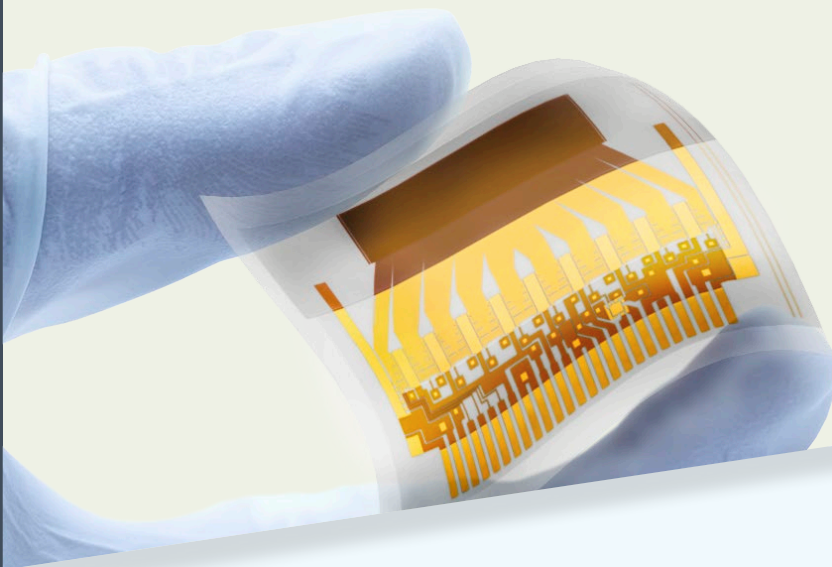
Metrigraphics is your manufacturing partner for ultra-small circuits and components. Micron-scale thin film circuits can be achieved with six or more layers high and with traces as narrow as 10-15 microns. Using photolithography techniques, circuits can be applied to a number of substrates from durable ceramic to flexible polyimide. Flex circuits can be bent to fit in tubes or formed around structures as small as a pencil. Any combination of coils, resistors, inductors,

conductors, and bridges can be achieved. Applications include high performance microwave assemblies, mobile antennas, bio-sensors and electrodes.

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metrigraphicsllc.com

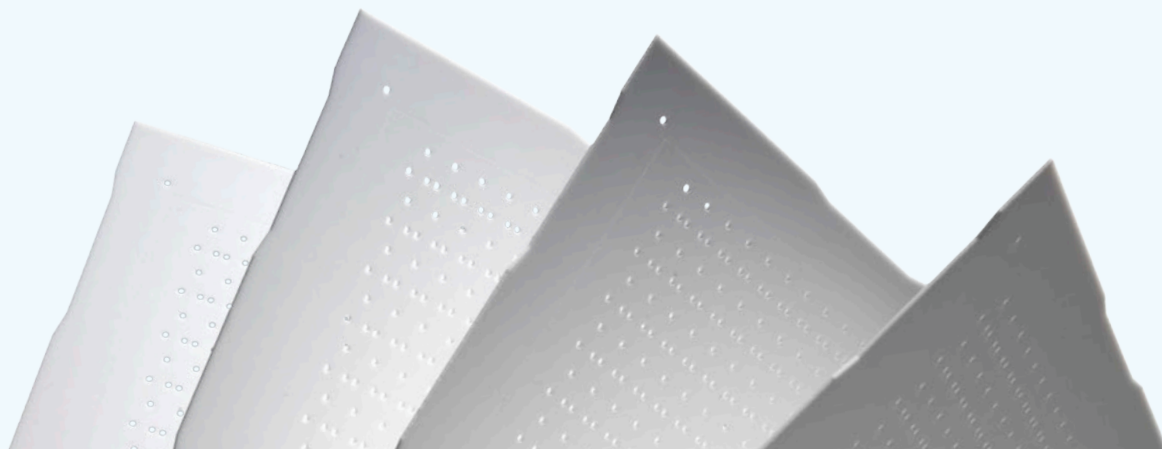
METRIGRAPHICS®



Lapping, polishing, and precision laser processing of ceramics and metals.

Microcircuit designers looking to reduce the cost, time, and materials needed to fabricate their microelectronic circuits will find Laser Services a handy ally. Stocking all major brands of substrate

material, Laser Services is an expert at cutting and scribing. As compared to water-jet cutting which allows for +/- 0.010" feature tolerance, laser cutting can achieve +/- 0.001". A Tech Brief



250 MHz to 16 GHz frequency synthesizer fits in PXI slot.

Leading YiG technology provider Micro Lambda Wireless announces a new lower cost frequency synthesizer designed to fit into a single slot PXI chassis. Models are available covering 250 MHz to 6 GHz, 2 to 8 GHz, 6 to 13 GHz and 8 to 16 GHz. Standard models are specified to operate

over the 0 to +65° C temperature range, but extended temperature versions covering -40 to +85° C are available on special order. Units come with a 9 pin Molex connector for all input voltages and signals, as well as a standard USB mini-b connector. Applications include wideband receivers, automated test systems, telecom, SatCom, and UAVs.

Micro Lambda Wireless is also in booth 1101.
microlambdawireless.com



 **MICRO LAMBDA WIRELESS, INC.**

is available on their website which advises designers on locating circuit features, singulation methods, metallization steps, and material properties.

Sister company, Accumet, provides ultra-precise lapping, polishing, and diamond cutting of ferrous and non-ferrous metals and ceramics. Lapping can be completed from 6 μ m to 60 μ m and polishing of materials is from 0.1 μ m to 5 μ m. Accumet can also scribe or dice rectangular or other shaped parts up to 0.150" thick in geometries and as small as 0.005" x 0.005". Accuracy

can be held to ± 0.0003 "; repeatability to within 0.0001". Diamond machined edges/ bevels and chamfers can be machined within 0.0005".

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accumet.com

LASER
SERVICES

 **Accumet**
ENGINEERING INCORPORATED



**Speed up
prototyping
with a laser
of your own.**

The LPKF ProtoLaser S4 is a valuable tool in any electronics lab. It produces precise geometries on a range of substrates such as copper-clad FR4, aluminum-coated PET films, ceramics, Duroid and PTFE. The laser process requires no masks or tools. You can go from CAD data to a completed PCB in minutes.

**Look for LPKF USA also
in booth 1338.**

lpkfusa.com

LPKF

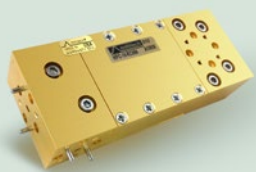
Laser & Electronics

Smiths Interconnect has your high frequency module needs covered.

Smiths Interconnect is a leading provider of technically differentiated electronic components, subsystems, microwave and radio frequency products used in commercial aviation, defense, space, medical, rail, semiconductor test, wireless telecommunications, and industrial markets. Representatives from Smiths Interconnect's **TRAK Microwave and Millitech brands will also be on hand in booth 1441** to field time/frequency and signal transmission challenges from DC to 110 GHz.



This commercial airborne 25W transceiver employs a GaN SSPA for supreme reliability.



This circulator provides up to 200W of power handling for critical military applications from 18 to 110 GHz.

smithsinterconnect.com

smiths interconnect
bringing technology to life

Military/aerospace MMIC catalog now exceeds over 100 models.

Custom MMIC has been releasing new products for military/aerospace applications at a rapid pace over the last eleven years, recently eclipsing 100 models in their standard device catalog. Their amplifier products provide industry-leading gain flatness, stability, noise figures, phase noise, and linearity, and also offer unique benefits such as positive gain slope, positive biasing, and 50 ohm matching. Their switching and frequency conversion MMICs offer state-of-the-art insertion/conversion loss, bandwidth, and isolation. Their gain and phase control products provide the highest accuracy, along with low loss.

Custom MMIC is focused on the unique requirements of military and aerospace systems, offering full screening to all Mil-Std and space requirements.



They're also in booth 1355 and excited to be debuting their latest additions, including low phase noise amplifiers, high linearity mixers, and broadband power amps.

custommmic.com



Microwave "blocks" speed design and delivery of high performance modules.

X-Microwave is enabling RF engineers to easily simulate and produce microwave circuits using a rapidly expanding line of physically compatible, drop-in or drop-on components that come highly characterized and modeled with X-Parameters and S-Parameters. To create a modular design, X-Microwave provides a free, non-linear online simulation tool. After simulation, X-MWblock drop-in components are used to prototype systems through an innovative prototype station for testing, aligning and configuring assemblies up to 50 GHz. Finally, the same X-MWblock

components can be moved from the prototype station directly to machined housings for production hardware, eliminating the need for custom layouts. Custom MMIC is one of many leading-edge suppliers of ICs to the system.

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xmicrowave.com

