



# 1991 MTT-S Exhibition Guide

The following list is complete as of press time and may not include all companies.

**Accumet Engineering Corp.** **125**  
**Hudson, MA**

*C. Haering, H. Muffoletto, L. Voyer*  
Lapped and polished ceramic, BeO, silica and other dielectric substrates.

**Adams Russell** **1005**  
See M/A-Com

**Addelco Corp.** **808**  
Anthony RF Products  
Microwave Oscillator Corp.  
**Needham, MA**  
*D. Moreau, W. MacNeil, T. Polayes, M. Polayes, W. Anthony, W. Rischpater*

RF and microwave filters, including highpass, lowpass, bandpass and bandreject in both fixed frequency and tunable options. Configurations include miniature lumped component, combline, cavity, helical and tubular construction. Miniature and surface mount options are featured. Phase-locked, free running and voltage-tuned DROs, crystal multipliers and fundamental cavity oscillators.

**Advance Reproductions Corp.** **119**  
**North Andover, MA**

*G. Stoll, C. Losanno, S. Alaimo, M. Crowley, I. Nigrelli, P. Nigrelli, D. Rokes, K. Lavin, M. DeBruyckere*

High precision photomasks, phototools and services, including circuit and graphic scanning, computer-aided drafting and data conversion, same-day and overnight photoplotting, full reprographic and photomask-making, and custom photoplotting.

**Advanced Technology Group Inc.** **1519**  
**Rockaway, NJ**

*L. Tao, F. McIver-Hanus, E. Maier*  
Glass-to-metal seals, including flat packs, dual-in-line headers, SAW, power and microwave packages, TO-headers, feedthroughs and a wide variety of custom designed packages.

**Advantech** **405**  
**Montreal, Quebec, Canada**

*D. Gelerman, D. Brace, S. Gelerman, J. Kusek*  
Digital and microwave components and subsystems, power amplifiers, both high power and low noise for commercial microwave, terrestrial and satellite systems in military application; bandpass filters; oscillators, including free run and phase-locked loop models; and intermodulation distortion test sets.

**Advantest America Inc.** **210**  
**Lincolnshire, IL**

*B. Dentinger, J. Heitman, A. Kintaka, T. Takenaka, P. Bazan*  
26.5 GHz, 8 GHz and 2.6/3/6 GHz spectrum analyzers, 3.6 GHz network analyzer, signal generators and frequency counters.

**AEL Defense Corp.** **1310**  
**Lansdale, PA**

*D. Ritchie, A. Gross*  
Control products, including switches and attenuators; antennas, including spirals, horns, log periodic, blades, helix and arrays; and log amps, including DLVAs, SDLAs, IF logs, and front-end converters and receivers.

**Aerowave Inc.** **700**  
**Medford, MA**

*T. Kozul, M. Kozul, L. Kahn, R. Kahn*

Millimeter-wave components in the frequency range of 18 to 325 GHz.

**A.J. Tuck Co.** **1015**  
**Brookfield, CT**

*A. Tuck, D. Tuck, L. Hunt*  
Customized precision electroformed components; waveguide transitions, filters, cavities, polarizers, OMTs, horns, corrugated horns and waveguide, miniature bends, miniature double ridge and mm-wave components, and air dielectric coaxial cables.

**Akon Inc.** **816**  
**San Jose, CA**

*F. Brewer, S. Sareen, R. Sanders*  
Detector log video amplifiers, sequential detection log video amplifiers, IF log amplifiers, compressive amplifiers and IF/video amplifiers and subsystems.

**Alan Industries Inc.** **1224**  
**Columbus, IN**

*W. Kennedy, S. Kennedy, B. Kennedy, C. Shofner*  
Programmable, continuously variable, rotary, fixed cam actuated, toggle switch, rocker switch and push button attenuators; terminations, directional couplers, RF fuses, resistive dividers and impedance matching pads.

**Albacom plc** **518**  
**Dundee, Scotland**

*M.J. Wood, B. O'Donnell*  
Low, medium, high and very high power ferrite circulators, isolators and terminations for radar, communications, industrial microwave heating, accelerator and fusion applications; receiver protectors combining TR cell and solid-state limiters and incorporating STC techniques for radar and communication systems.

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<b>Alessi, Inc.</b> <b>Irvine, CA</b>	1417	<b>D. Shepherd, E. Shepherd, L. Pokorny</b> Broadband 10 kHz to 1 GHz RF power amplifiers and accessories for laboratory and industrial uses, including RF susceptibility testing, wattmeter calibration, NMR/MRI, particle accelerators, EMP simulation, and RF plasma research and heating.	<b>Applied Systems Engineering</b> <b>Fort Worth, TX</b>	1036
<i>D. Miller, T. Reese, E. Brewer, S. Wanger</i>			<i>B. Jostrand</i>	
Manual and semi-automatic microwave probe stations and micropositioners that accommodate Tektronix, Cascade or Design Technique probe heads and address frequencies up to 60 GHz; and the Alessi laser cutter.			Microwave amplifiers, transmitters and subsystems covering the frequency range from 400 MHz to greater than 100 GHz; pulse/CW cavity oscillators, amplifiers and transmitters, helix, ring loop and coupled-cavity TWTs; klystrons; magnetrons; solid-state modulators; and mm-wave amplifiers and transmitters.	
<b>Alpha Industries Inc.</b> <b>Components and Subsystems Division</b> <b>Woburn, MA</b>	915	<b>A. Riben, R. Dubois, J. Grotzinger, M. Sonstein</b> Bipolar and GaAs FET amplifiers, MMIC and PIN diode switches, digital attenuators, voltage controlled oscillators and custom hybrid circuits in the frequency range of kHz to 3000 MHz.	<b>ARC Technologies</b> <b>Amesbury, MA</b>	822
<i>R. Hebert, B. Harris, D. Fein, B. Sharkey, D. Emerick, M. Walsh, R. Cooley, K. Perry</i>			<i>T. Durant, D. Healey, B. Perkins, S. Heitmann</i>	
Microwave and mm-wave switches, attenuators, amplifiers, oscillators, antennas, power sources, and multifunction assemblies and systems.			Microwave absorbing materials for the low observable industry and antenna industry that include carbon impregnated honeycomb, lossy plastic open cell foam, magnetic particle loading of silicones, urethane and nitrile sheets and iron loaded epoxy coatings and sheets.	
<b>Alpha Industries Inc.</b> <b>Devices Group</b> <b>Woburn, MA</b>	915	<b>Anadigics Inc.</b> <b>Warren, NJ</b>	<b>Arlon Inc.</b> <b>Microwave Materials Division</b> <b>Bear, DE</b>	821
<i>G. Llewellyn, R. Koons, M. Reid, D. Gallagher, C. Genzabella, D. Barker, A. Sakalarious</i>		<i>C. Armour, R. Von Gerichten, C. Huang, J. Patel, R. Rosenzweig, P. Wallace</i> GaAs integrated circuits for RF, microwave and fiber-optic transceiver applications, such as satellite TV, SONET, HIPPI, FDDI, BISDN, PCN, LAN and wireless, in the commercial and consumer electronics field.	<i>R. Fuller, M. Carlson, D. Watt, R. LeSage, S. Newton, J. Goheen, N. Wells, K. Husted, T. Tschida, J. Frankosky, P. Sanza</i>	
RF, microwave and mm-wave products, including PINs, limiters, varactors, GUNNs, point contact and Schottky diodes; MMIC products, including FETs, switches, analog and digital attenuators, mixers and downconverters covering DC to 6 GHz and microwave frequencies.		<b>Anderson Software Associates</b> <b>Los Gatos, CA</b>	PTFE and specialty composite laminates for low loss, frequency dependent microwave applications, including DiClad® and Cu-Clad®, woven glass/PTFE and ceramic filled/PTFE substrates, and Isoclad, non-woven glass/PTFE and non-woven ceramic filled/PTFE substrate; and a variety of bonding films.	
<b>American Technical Ceramics</b> <b>Huntington Station, NY</b>	608	<b>Anghel Laboratories Inc.</b> <b>Rockaway, NJ</b>	<b>Armatek Inc.</b> <b>Richardson, TX</b>	1712
<i>D. Davis, J. Wright, K. Levine</i>		<i>H. Lester, D. Deck, E. Williams, R. Beniers, L. Kemp</i>	<i>H. Lester, D. Deck, E. Williams, R. Beniers, L. Kemp</i>	
Ceramic and porcelain RF/microwave multilayer and single layer capacitors for high performance applications.		<b>Anritsu America Inc.</b> <b>Oakland, NJ</b>	Customized 100 kHz to 26 GHz amplifiers, DLVAs, threshold detectors and microwave subassemblies; microwave integrated circuits utilizing hybrid chip and wire techniques and the latest MMIC circuits; lumped-element microwave integrated circuits using hybrid and lumped element circuit topologies; and DISCRETE circuits.	
<b>Amitron</b> <b>North Andover, MA</b>	1515	<b>Anzac</b> <i>See M/A-Com</i>	<b>Arrowsmith Shelburne</b> <b>Shelburne, VT</b>	806
<i>R. Simione, R. Sharkey, H. Sparks, J. Simione, A. Campbell</i>		<b>Apollo Microwaves Ltd.</b> <b>Dorval, Quebec, Canada</b>	<i>R. Stevens, P. Alinovi, K. Rossner</i>	
Thick-film microelectronic circuits; chip resistor components, including microwave chip attenuators; surface mounted assemblies; custom single and multilayer printed, metalized holes and edge metalization.		<i>N. Vouloumanos, L. Schatt</i> 1 to 60 GHz microwave components and subsystems, including filters, switches, terminations, couplers, circulators, isolators, adaptors, front end assemblies and switching combining, for satellite earth stations, telecommunications and military applications ranging from mW to MW.	DC to 26.5 GHz RF and microwave switches and RF cable assemblies.	
<b>AML Inc.</b> <b>Camarillo, CA</b>	1318	<b>Applied Dielectrics Inc.</b> <b>San Francisco, CA</b>	<b>Artech House Inc.</b> <b>Norwood, MA</b>	625
<i>N. Buonanno, J. Makuch, P. Ladolcetta, B. Neill, R. Terrel</i>		<i>C. Goff, B. Trivelli</i> Subminiature coaxial connectors and cable assemblies.	<i>E. Higgins, R. Warren</i>	
RF and microwave coaxial, triaxial and twin-axial connectors and cable assemblies.		<b>Applied Microwave Magazine</b> <b>Lexington, MA</b>	Technical books and software on microwave applications and techniques.	
<b>Amplica Inc.</b> <b>Newbury Park, CA</b>	810	<i>J. White, E. White, P.J. Barry, K. Barry, E. Angelakis, J. Angelakis, B. Cohen, C. White</i>	<b>Artwork Conversion Software</b> <b>Santa Cruz, CA</b>	112
<i>A. DiBartolomeo, A. Morawski</i>		<i>Applied Microwave</i> is a quarterly magazine written for professionals in the RF microwave and optical fields with articles and advertising that span the 1 MHz to light frequencies.	<i>S. DiBartolomeo, A. Morawski</i>	
<b>Amplidyne Inc.</b> <b>Belle Mead, NJ</b>	1607		CAD translators and postprocessors for microwave and RF photomasks; and translators between major CAD systems.	
<b>Amplifier Research</b> <b>Souderton, PA</b>	1406			

<b>Aspe Inc.</b> Towaco, NJ	1115	Custom power supplies for military and aerospace applications. See <i>RF Associates Inc.</i>	RF and microwave semiconductors, including small signal and power bipolar transistors; GaAs and silicon MMICs and prescalers; low noise and power GaAs FETs and diodes.
<b>Astrolab Inc.</b> Warren, NJ	103	<b>Balo Hermetics Co.</b> Butler, NJ	<b>Cardiff Publishing</b> 1716, 1718 <b>Englewood, CO</b> See <i>Defense Electronics and RF Design</i>
<i>J. Toma, M. Ceres, O. Johnson, S. Toma, M. Keating</i>		<i>E. Rapoza, M. Byrnes</i>	
Microwave components, including cable, cable assemblies, adaptors, connectors, waveguide adaptors, delay lines and antennas.		Hermetic, high rel packages for microwave hybrid applications; glass-to-metal and ceramic-to-metal packages using Kovar, stainless, high strength copper, moly, copper/moly, copper/tungsten and BeO materials, and using high current capacity leads.	
<b>ATN Microwave Inc.</b> Billerica, MA	1129	<b>Barnard Microsystems Ltd.</b> St. Albans, Herts, UK	<b>Cascade Microtech Inc.</b> 818 <b>Beaverton, OR</b>
<i>V. Adamian, J. Caruso, M. Fennelly, D. Mandrei, C. Woodin, V. Zohrabian</i>		<i>J. Barnard, P. Abrie, R. Jansen</i>	<i>E. Strid, R. Gleason, D. Carlton, J. Ladwig, T. Burcham, D. D'Almeida, P. Andrews</i>
NP5B semiconductor device characterization system, NP6 low cost, high speed transistor noise parameter tester; and DC1 intermodulation vs. impedance tester.		Microwave circuit design software, including multimatch for the synthesis of impedance matching networks and wideband amplifier circuit topologies; wavemaker for the layout and schematic capture of MMICs and hybrid microwave circuits; and LINMIC+ for the prediction of electrical response of microwave circuits up to and including mm-wave frequencies.	Summit series probe stations, noise parameter test systems, V-band wafer probes and calibration substrates, and package probe heads and package test fixtures.
<b>A.T. Wall Co.</b> Warwick, RI	1707	<b>Boonton Electronics Corp.</b> Randolph, NJ	<b>Celeritek Inc.</b> 924 <b>San Jose, CA</b>
<i>J. Matzen, J. Deinert, B. Diggett, R. Huntsman, C. Gibbs</i>		<i>M. O'Donnell, R. Sickles, D. Spencer, B. Spiney, M. Devane, K. O'Connell, K. Dambruck</i>	<i>R. Jones, G. Koker, T. Herdt, S. Fujisaka, R. Chou, D. Tuccori, J. Mahler, G. Policky, B. Tucker, E. Chase, B. DeBoo</i>
Precision rigid waveguide tubing manufactured from aluminum, copper, brass, silver, copper clad invar and copper clad aluminum.		RF and microwave test and measurement instrumentation; CW and peak power meters, voltmeters, sweep generators, scalar network analyzers, modulation analyzers, meters and signal generators; and audio test and impedance instruments.	GaAs FET amplifiers, MMICs, GaAs FETs and converters for commercial communication and VSAT transmitters.
<b>Automatic Connector Inc.</b> Commack NY	1211	<b>Brush Wellman Ceramics</b> Cleveland, OH	<b>Cinetic Technologies Inc.</b> 905 <b>St. Laurent, Quebec, Canada</b>
<i>J. Morelli, D. Lowrey, B. Metcalf, D. Armstrong</i>		<i>M. Anderson, E. Cooke, D. Dewire, G. Chesmar</i>	<i>D. Geller, C. Weldon, B. Coté</i>
RF connectors, adapters, terminations and switches; and SMA BNC, N, TNC, HN, LC LT connector series available in standard and special design configurations.		Beryllia ceramic packaging, including substrates, packages, metallized and machined components.	Cable manufacturing equipment.
<b>Avantek Inc.</b> Santa Clara, CA	603	<b>Buckbee-Mears/St. Paul</b> St. Paul, MN	<b>Coleman Microwave Co.</b> 805 <b>Edinburg, VA</b>
<i>R. Atwater, J. Woods, L. Angelus, B. Angelini, M. Clifford, S. Wichtendahl, M. Corolla</i>		<b>Cablewave Systems,</b> Div. of <b>Radio Frequency Systems Inc.</b> North Haven, CT	<i>K. Coleman, Sr., K. Coleman, Jr., J. Coleman, D. Braithwaite, B. Gibson, M. Emswiller, G. Brinkley, N. Coleman, P. Nelson</i>
High frequency RF, microwave and mm-wave components and assemblies, including new plastic-packaged transistors and MMICs, surface mount amplifiers and VCOs, VHF oscillators and 2 to 20 GHz YIG-tuned oscillators.		<i>A. Criscuolo, F. Weissgerber, D. Tomaszewski, R. Griffin</i>	Microwave filters, diplexers and tunable and fixed-tuned triplexers, featuring direct frequency tape and LED readouts; IEEE-bus compatible programmable filters with accuracy of $\pm 1$ MHz in coaxial and waveguide designs for high power and receiver applications; and rigid and flexible waveguide assemblies, bends, twists, straight sections, terminations and coaxial adapters covering the frequency range from 0.15 to 26 GHz.
<b>AVX Corp./Kyocera</b> Myrtle Beach, SC	1608	<b>Communications Techniques Inc.</b> A Dover Technologies Co. Whippany, NJ	
<i>D. O'Toole, R. Phillips, T. Cantine, A. Gray, S. Maki, S. Burg</i>		<i>T. Ede, R. Badami, L. Bickley, J. Marino, T. Hammersley, U. Yaniv</i>	
Microwave MLC capacitor; CDR-S level; SLC; maxi SLC; Accu-F: Accu-P; A Q: MHF, VHF ultra chip.		7 MHz to 23 GHz RF and microwave signal sources, including phase-locked and free running DROs; VHF and microwave low noise frequency synthesizers; mechanically tunable and automatic phase-locked oscillators; single and multiple crystal oscillators; voltage-controlled and cavity oscillators; and frequency multipliers and synthesized STALO-COHO-AFC subsystems for magnetron radars.	
<b>Aydin Corp. West</b> San Jose, CA	1715	<b>Cadence Design Systems, Inc.</b> San Jose, CA	<b>Compac Development Corp.</b> 300 <b>Holbrook, NY</b>
<i>N. Donaldson, J. Harris</i>		<b>California Eastern Labs</b> Santa Clara, CA	<b>Compact Software</b> 126 <b>Paterson, NJ</b>
500 MHz to 40 GHz thin-film bipolar and GaAs FET amplifiers for commercial and military applications; and solid-state microwave oscillators for commercial and military telecom applications in the 500 to 18 GHz range.		<i>L. Lea, B. Tyson, S. Rynas, S. Morris, D. Apte, J. Kellett, G. Clark, N. Liberopoulos, C. Weinhofer, G. Davenport, M. Caulfield, J. D'Agostino</i>	
<b>Babcock Inc.</b> Orange, CA	1721		
<i>S. Ghandi</i>			

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*L. Angelini, A. Armstrong, J. Driscoll; P. Limberg, B. McGinn, J. McGovern, R. Pengelly, M. Perhacs, U. Rohde, S. Wheelis*

**Microwave Success,™** is the system simulator that gives systems engineers the ability to create proposals based on a minimum of information, important measurements and calculations from the other simulators, and performs full nonlinear end-to-end system analysis for design review data packages.

**Compex Corp.** 718  
**Medford, NJ**

*G. Gordon, C. Ennis*

Single-layer ceramic microwave chip capacitors with either gold or tin-plated electrodes configure in various patterns, such as split electrode, binary electrode, electrode arrays and safety margin electrodes; and metalized and unmetallized substrates.

**Component General Inc.** 1538  
**Odessa, FL**

*L. Cook, J. Cook, R. Davo, M. Davo, T. Florida*  
Power base mounted components, including resistors, terminations and attenuators; SMA terminations; conduction cooled loads; power chips, including resistors, terminations and attenuators; coaxial components including rods, discs and T-pads; and flange terminations.

**Comstron** 617  
**A Division of Aeroflex**  
**Plainview, NY**

*W. Meditz, S. Rosenfield, L. Borow*

Fast switching low noise synthesizers, including the 10 MHz to 18.4 GHz FS2000 series with a guaranteed switching speed of 1  $\mu$ s maximum; and filters and system level products.

**Conductus Inc.** 1618  
**Sunnyvale, CA**

*R. Barton, G. Liang*

Superconducting thin films for use in resonators, filters and passive signal processing.

**Connecting Devices Inc.** 406  
**Long Beach, CA**

*J. Dunbabin, W. Carpenter*

Handi-Form™ flexible reformable cable assemblies, 2.99 mm K connectors featuring unique swept right angle types, phase adjustable SMA connectors, automatic network analyzer test cables, TNC swept right angle in-series adapters and 7 mm adapters.

**Continental Microwave & Tool Co. Inc.** 1218  
**Hampton, NH**

*T. Brown, D. Wall, J. Ripel, F. Kinslow*

Flexible and rigid waveguide assemblies, passive components and waveguide antennas; 28 sizes of rectangular and double ridge waveguide in rigid and seamless flexible styles from WR284 to WR22.

**Cougar Components** 417  
**Santa Clara, CA**

**Crystal Technology Inc.** 1407  
**Palo Alto, CA**

*Z. Palmer, D. Hawkins, A. Comparini*

SAW products, including spectral shaping and timing recovery filters, resonators, correlators, delay lines, low loss filters, filters for CATV, satellite receivers, electro-optic modulators and integrated optic components.

**CTT Inc.** 1523  
**Santa Clara, CA**

*S. Mussynski, G. Graham, D. Tai*

0.5 to 40 GHz GaAs FET amplifiers and integrated subassemblies, including low noise, medium and high power, up to 40 W, MIL-I 45208 QA systems and MIL-STD-883C-screened amplifiers.

**Cuming Corp.** 235  
**South Easton, MA**

*W. Cuming, L. Watkins, J. Bruun, J. Cuming*

Radar absorbers, microwave and dielectric materials, radar reflectors, conductive plastics, adhesives and potting compounds.

**Daden Associates Inc.** 1027  
**Laguna Hills, CA**

*D. Hook, L. Jones, D. Henry*

1 MHz to 26.5 GHz RF and microwave bandpass, bandstop, lowpass and highpass filters.

**Daico Industries Inc.** 322  
**Compton, CA**

*B. Grunau, K. Townsend, S. Peck*

Control products, including switches, SPIT to SPROT, phase shifters, digital attenuators, voltage variable attenuators, relays, and other parts available in a variety of packages.

**David Sarnoff Research Center** 914  
**Princeton, NJ**

*M. Ettenberg, F. Marlowe, R. Camisa, D. Markman*

Microwave power amplifiers, high dynamic range receivers and microwave hybrid components and technologies.

**Defense Electronics** 1716  
**Englewood, CO**

*R. Burkes, L. VanCleit*

Free copies of the May and June issues.

**Diamond Antenna & Microwave Corp.** 1108  
**Winchester, MA**

*A. Hovanessian, E. Scollins, H. Trotta*

DC to 40 GHz passive microwave components including rotary joints, horns, antennas, adapters, couplers, terminations, and waveguide and coaxial assemblies.

**Dielectric Laboratories Inc.** 505  
**Cazenovia, NY**

*B. Semans, J. Stauring, G. Vorlop*

Di-Cap® QPL approved single layer microwave ceramic capacitors; QPL approved

porcelain capacitors; Di-MIC® metallized ceramic substrates; substrate circuit carriers; and plates for lumped-element filters.

**Ditom Microwave Inc.** 822  
**San Jose, CA**

*D. Hassett, J. Hassett, T. Weisz*  
Ferrite isolators and circulators.

**Dorado Co.** 1238  
**Seattle, WA**

*H. Rutstein, M. Myerow, P. King, C. Rutstein*  
Millimeter-wave products from 18 to 200 GHz and beyond, including passive and active devices and instruments; 33 to 1500 GHz oscillators; 200 MHz to 170 GHz ferrite isolators and circulators; and 30 MHz to 78 GHz YIG filters.

**Dow-Key Microwave Corp.** 1409  
**Ventura, CA**

*E. Kjellberg, J. Dysart, N. Pena, J. Larson, W. Worley*

Coaxial RF and microwave electromagnetic switches and relays.

**Dynatech Microwave Technology** 424  
**Calabasas, CA**

**Dynawave Inc.** 1038  
**Georgetown, MA**

*C. Lewis, D. Gartzke, B. McLaughlin, M. Calvetti, A. Scannelli*

Precision microwave coaxial connector and cable assemblies, including SMA, SSMA, KTNC type N, blindmate Dynamate™, blindmate Dynamite™, Dynacon™ interconnects, Dynaseal™ hermetic cable assembly and delay lines.

**Eagleware Corp.** 511  
**Stone Mountain, GA**

*R. Rhea, R. Lefebvre*

High speed interactive RF and microwave circuit simulation, tuning, optimization, and Monte Carlo analysis software for IBM PCs; filter, equalizer, oscillator and transmission line synthesis software; and EEpal, a new programmable engineering tool with hundreds of preprogrammed formula and data screens.

**East Coast Microwave Distributors** 806  
**Stoneham, MA**

*B. Cooper, B. Quinn, N. Mills, R. Stevens, K. Rossner*

Adapters, attenuators, connectors, cable assemblies, DC blocks, detectors, directional couplers, equalizers, isolators, power dividers, terminations, instrument test cables, special connectors, waveguide adapters, isolators, circulators, hybrids and EM switches.

**EDO Corp.** 1315  
**Barnes Engineering Division**  
**Shelton, CT**

*R. Stetson, D. Simko, K. Amato*

CompuTherm III micro thermal imager and MicroTherm spot temperature infrared microscope for use in semiconductor design, failure analysis and reliability engineering.			
<b>EEsof Inc.</b> 1428 <b>Westlake Village, CA</b> <i>L. McIlquham, J. Bunting, G. Kanaan, D. Leiss, R. Ross, J. Benincasa, A. Brooks, T. Hopple, J. Kapinos</i>			
CAE and CAD software for high frequency analog and microwave circuit design, linear and nonlinear circuit and system simulation, filter design and network synthesis, computer-aided test, and layout tools for high frequency printed circuit boards, hybrids and MMICs.			
<b>EEV Inc.</b> 809 <b>Elmsford, NY</b> <i>F. Oakes, A. Markiewicz, A. Sayers, G. Ball, T. Ellis</i>			
TWTs, TWT amplifier systems, magnetrons, mm-wave components and microwave devices.			
<b>EIP Microwave</b> 1030 <b>Milpitas, CA</b> <i>D. Mulder, R. Bush, C. McDaniel, J. Khazam</i>			
Pulsed and CW microwave and mm-wave frequency counters, signal-profiling test sets and VXIbus RF/microwave stimulus/response test systems.			
<b>Electro-Films Inc.</b> 618 <b>Warwick, RI</b> <i>B. Black, J. Coupal, T. Petit, F. Urrico, G. Erickson, B. Rizza</i>			
Thin-film passive microwave components, metalized plates, patterned substrates, metalized through holes and patterned edges, and microwave chip resistors.			
<b>Electronic Decisions Inc.</b> 1413 <b>Urbana, IL</b> <i></i>			
The acoustic charge transport signal microprocessor, a programmable analog signal processor capable of performing over 45 B multiply-and-accumulate operations per second, with adaptive equalizer, programmable filter, high speed pattern matcher, interference canceller and signal generator applications.			
<b>Electro Technik Industries</b> 201 <b>Clearwater, FL</b> See Res-Net See Wavetronix			
<b>Elettronica SpA</b> 1731 <b>Rome, Italy</b> <i>F. Nicolai, C. Lamesa, G. Greenwood, B. Mazonas, P. Rouse</i>			
High performance microwave components and subsystems, including cascadable microwave modules; FET and GaAs MMIC amplifiers; PIN switches; DROs and VCOs; and helix TWTs for ECM and radar applications.			
<b>Elisra Electronic Systems</b> 1410 <b>Hybrid Microelectronics Division</b> <b>Bene Beraq, Israel</b> <i>D. Shlomo, S. Ovadia, Y. Bechor</i>			Explosion-clad materials for microwave and power hybrid hermetic electronic packaging.
Detector log video amplifiers; log IF amplifiers, FM discriminators, linear IF amplifiers, TO-8 RF amplifiers, RF switch drivers, SRAM memory modules, LED display modules and custom hybrids.			
<b>Elisra Electronic Systems</b> 1410 <b>Microwave Division</b> <b>Bene Beraq, Israel</b> <i>R. Perez, O. Dar, I. Barak, U. Friedman, J. Feldfeber</i>			<b>Farran Technology Ltd.</b> 920 <b>Ballincollig, Cork, Ireland</b> <i></i>
Passive and active microwave and mm-wave components, custom-designed supercomponents (functions); microwave boosters for communications and TWTA retrofit; RF signal distribution matrices; and RF solid-state power amplifiers and transmitters.			<i>D. Vizard</i> Millimeter-waveguide components and sources, including mixers, detectors, phased-locked sources; Gunn oscillators and multipliers; millimeter and submm-wave Schottky barrier mixers, varactor diodes and radiometer systems; 300 to 3000 GHz quasi-optical components, including corner cube mixers and detectors, harmonic mixers, mirrors, lens, filters and beamsplitters. See TMR Associates
<b>EMC Technology Inc.</b> 606 <b>Cherry Hill, NJ</b> <i>P. Semitschew, L. Catalina, S. Rollin</i>			<b>FEI Microwave Inc.</b> 936 <b>Sunnyvale, CA</b> <i>J. Allan, D. Bush, B. Byk, P. Clark, R. Curby, J. Lee, F. Lemmon, L. Martire, F. Morese, M. Pardo, W. Patton, P. Thesing, S. Van Fleteren</i>
Detectors, terminations, loads, attenuators, DC blocks, shorts, capacitors, resistors, connectors, programmable attenuators, surface mount devices and custom RF circuits.			Microwave diodes, components, vertically integrated assemblies and MMIC devices designed for EW, radar, missile, satellite, test equipment and telecommunications markets.
<b>Emerson &amp; Cuming Inc.</b> 900 <b>Canton, MA</b> <i></i>			<b>Ferretec Inc.</b> 203 <b>Fremont, CA</b> <i>D. Killen, D. Hoekstra, R. Krueger, W. Keane, C. Schiebold, L. Pihl, M. Carroll, J. Guenard</i>
Microwave absorbers, RF attenuation materials, absorbers for antenna pattern control, surface current attenuation materials, and RCS reduction materials.			Microwave tunable bandpass and bandreject YIG filters, oscillators, and harmonic generators, and integrated receiver front ends in the 500 MHz to 40 GHz frequency range; and Ferretrac,® closed loop filters.
<b>EMF Systems Inc.</b> 1021 <b>State College, PA</b> <i>J. Chernega, M. Cleland, J. Chernega, C. Lorenc</i>			<b>Filtran Microcircuits Inc.</b> 423 <b>Ottawa, Ontario, Canada</b> <i>C. Sutton, N. Sutton, K. Ramachandran, E. Andrews, D. Thomson</i>
Solid-state microwave oscillators, including VCOs, crystal DROs, phase-locked oscillators and associated circuitry.			High resolution circuits manufactured on Teflon and ceramic for commercial and military microwave communications.
<b>ENI</b> 1415 <b>Rochester, NY</b> <i>E. Maier, C. Costello, J. Gorbold, R. Coco</i>			<b>Flann Microwave Instruments</b> 118 <b>Bodmin, Cornwall, UK</b> <i>I. Crane, B. Fleming, D. Collier</i>
Broadband power amplifiers to 5 kW and 1 GHz.			High performance lens horn antennas up to 140 GHz, including circular, rectangular and sectoral models; waveguide calibration kits for use with 1 to 140 GHz automatic network analyzers; 4 to 140 GHz programmable waveguide attenuators, phase shifters and switches with controllers featuring optional GPIB or RS232 interface; manual and programmable polarizers and polarization analyzers; and 1 to 170 GHz waveguide devices, including rotary vane attenuators, directional couplers, adaptors and terminations.
<b>Epitaxial Products International</b> 121 <b>St. Mellons, Cardiff, UK</b> <i></i>			<b>Flexco Microwave, Inc.</b> 136 <b>Port Murray, NJ</b> <i></i>
<b>Epitronics Corp.</b> 1022 <b>Phoenix, AZ</b> <i></i>			<b>Florida RF Labs Inc.</b> 114 <b>Palm City, FL</b> <i>D. Sampson, G. Fenex, F. Scalzo, C. Geder, S. Geder, C. Geder, Jr.</i>
<b>Epsilon Lambda Electronics Corp.</b> 1029 <b>Geneva, IL</b> <i>R. Knox, S. O'Brien</i>			Microwave thin-film resistor products, including high power resistors, terminations
Millimeter-wave transceivers, components and subsystems for radar and communications applications.			
<b>Evered &amp; Company Ltd.</b> 209 <b>Smedthwick, Westmidlands, UK</b> <i></i>			
<b>Explosive Fabricators Inc.</b> 615 <b>Louisville, CO</b> <i>P. Hingorany, A. Suppinger, H. Mansell</i>			

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and attenuators; stripline, microstrip, coaxial and waveguide components; RF coaxial cable assemblies, flexible and semi-rigid, phase matched, coaxial delay lines.	strates, modules and packaged devices; available with ESD protective materials for sensitive devices.	<b>Haverhill Cable &amp; Manufacturing Corp.</b> 120 <b>Haverhill, MA</b> <i>T. Kneeland, D. Kneeland, S. Raucci, F. Kneeland</i> MIL-C-17 semi-rigid coaxial cables in various sizes, types and finishes.
<b>Focus Microwaves Inc.</b> 413 <b>Pointe Claire, Quebec, Canada</b> <i>C. Tsironis, I. Fichtner</i> Computer-controlled microwave tuners operating with IBM-PC or compatible. The system includes noise parameter, amplifier and oscillator load pull and intermodulation analysis capability. Test frequency range is from 0.6 to 60 GHz.	<b>General Microwave Corp.</b> 1018 <b>Amityville, NY</b> <i>S.A. Rinkel, M. Wind, B. Grand, A. Caggiano</i> Microwave oscillators, including dielectric resonators, voltage-controlled and digitally-tuned; microwave PIN diode control components, including attenuators, modulators, switches, phase shifters, limiters and coaxial mm-wave; and microwave instruments, including, automatic single and dual channel peak power meters, average power monitors and radiation hazard measuring systems.	<b>Herotek Inc.</b> 1324 <b>Sunnyvale, CA</b> <i>C. Lai, C. Lai, P. Lau, E. Colety</i> Microwave detectors, limiters, amplifiers, comb generators, switches, harmonic mixers, power monitors and MIC subassemblies.
<b>FSY Microwave Inc.</b> 1628 <b>Rockville, MD</b> <i>W. Forrestel, J. Yania, J. D'Ostilio, F. Behdin, R. Siushansian</i> High rel RF and microwave filters and multiplexers from DC to 40 GHz. Topologies include miniature, LC, surface mount, microstrip, coaxial, suspended substrate, combline, cavity, interdigital and waveguide.	<b>Getelec Inc.</b> 1721 <b>Goleta, CA</b> <i>E. Berriman</i> Standard and custom conductive elastomers and compounds; anti-corrosion gaskets; molded, die-cut, precision laser-cut and extruded gaskets for military, aerospace and industrial applications. See <i>RF Associates Inc.</i>	<b>Hewlett-Packard Co.</b> 730 <b>Santa Clara, CA</b> <b>Higgins Microwave Co.</b> 822 <b>Brookline, NH</b> <i>B. Higgins, J. Torrey, M. McConnon</i> Manufacturer's representatives for RF and microwave components, instrumentation, engineering services, and microwave and antenna measurements and designs.
<b>Fujitsu Microelectronics Inc.</b> 104 <b>San Jose, CA</b> <i>S. Rupp, T. Shintani, B. Utter, D. Maly, P. Martin, G. Medley, M. Adamo, Y. Nemoto, M. Mathew, Y. Nishio, Y. Hirano, J. Fukaya</i> Microwave GaAs FET devices and related products, including microwave power amplifiers, power FETs, low noise HEMT devices, GaAs MIC and devices for microwave and cellular radio applications.	<b>GHz Technologies Inc.</b> 905 <b>St. Laurent, Quebec, Canada</b> <i>Z. Huszar, J. Lindover, J. L'Ecuyer, B. Szendrenyi</i> Filters, terminations, couplers, circulators, isolators, adapters, subsystems, predistortion alignment test accessory units and waveguide components.	<b>Hittite Microwave Corp.</b> 1035 <b>Woburn, MA</b> <i>B. Bedard, F. Paik, M. Shifrin</i> MMIC chips for amplifiers, oscillators, mixers, switches and integrated multifunction chips; MMIC modules and subsystems.
<b>GaAsCode Ltd.</b> 131 <b>Cambridge, UK</b> <i>P. Ladbrooke, J. Bridge, A. Hill, L. Carlin</i> Physics-based software tools with the application goal of right first-time MMIC design, using FETs and HEMTs; the design approach simulates the responses of complete MMIC chips using device physics to connect the electrical behavior back to the FET technology, also used to pinpoint the source of out-of-spec process faults.	<b>Giga-tronics Inc.</b> 712 <b>Pleasant Hill, CA</b> <i>R. Loft, R. Chikhani, D. Bogue, P. Edwards</i> Microwave and mm-wave synthesized sources, signal generators and sweepers; weather radar test sets; and VXI microwave synthesized sources.	<b>HK Microwave Inc.</b> 1511 <b>Santa Clara, CA</b> <i>K. Josefberg, H. Masuda, B.J. Stookey</i> Crystal oscillators, phase-locked crystal oscillators, phase-locked DRO/VCOs, synthesized phase-locked DRO and frequency synthesizers.
<b>Gamma-f Corp.</b> 306 <b>Torrance, CA</b> <i>L. Nielsen, D. Smith, D. Oberndorf</i> High power microwave components, including waterloads, filters, arc sensors, windows, circulators, isolators, directional couplers, diplexers, integrated assemblies, and focusing electromagnets for klystrons. See <i>TMR Associates</i>	<b>Gilbert Engineering Co. Inc.</b> 110 <b>Glendale, AZ</b> <i>R. D'Entremont, D. Burris, J. Lokken, J. Zorzy</i> High performance microwave connectors and custom connector products, including GPO, GMS, GSP, SMA, TNC, EWTNC, N, 7 mm and adapters.	<b>Holz Industries Inc.</b> 604 <b>San Diego, CA</b> <i>J. Oenning, C. Trondle, G. Holz, R. Bubb</i> Stratedge microwave multilayer process that combines thick- and thin-film technology in a ceramic co-fired assembly; and multilayer assemblies with microstrip and stripline techniques for power dividers, couplers, filters, attenuators and delay lines.
<b>Gamma Microwave Inc.</b> 920 <b>Santa Clara, CA</b> <i>L. Nielsen, D. Smith, D. Oberndorf</i> High power microwave components, including waterloads, filters, arc sensors, windows, circulators, isolators, directional couplers, diplexers, integrated assemblies, and focusing electromagnets for klystrons. See <i>TMR Associates</i>	<b>W.L. Gore &amp; Associates Inc.</b> 312 <b>Newark, DE</b> <i>R. Davis, T. Fairchild, B. Mitchell</i> DC to 50 GHz microwave cable assemblies 26.5 to 125 GHz flexible mm-wave guides, EMI shielding and gasketing materials, TETRA-ETCH® fluoropolymer etchant and etching services.	<b>Horizon House Publications Inc.</b> 527 <b>Norwood, MA</b> <i>W. Bazzi, R. Briden, C. Ayotte, A. Ambrose G. Davis, J. Budwey</i> <i>Microwave Journal, Journal of Electronic Defense, Telecommunications® and C&amp;CN publications, and Artech House books.</i>
<b>Gel-Pak Division</b> 409 <b>Vichem Corp.</b> <b>Mountain View, CA</b> <i>M. Althouse, S. Graves, S. Feldstein</i> Shipping and handling system for high value, fragile microelectronic components, including GaAs FETs, MMICs, RF carriers, sub-	<b>Harris Microwave Semiconductor</b> 801 <b>Milpitas, CA</b> <i>S. Hecker, G. Smith, K. DeSalvo, V. Kovacevic</i> GaAs FETs, MMICs, and foundry services; 2 to 20 GHz discrete FETs in die and packaged form with RF output power up to 1 W; for 0.5 to 3 GHz, 2 to 6 GHz and 6 to 128 GHz MMICs; and foundry services for application-specific MMICs.	<b>Huber &amp; Suhner Inc.</b> 1719 <b>Essex, VT</b> <i>P. McGivern, G. Pollack, D. Finan, M. Pepi</i> RF and microwave connectors and cable assemblies; lightning and nuclear EMP protectors; and microwave passive components.
		<b>Hughes Aircraft Co.</b> 703 <b>Electron Dynamics Division</b> <b>Torrance, CA</b>

<i>R. Brownell, J. Paul, M. Smith</i>	
1 to 100 GHz coupled-cavity and helix TWTs and instrumentation TWT amplifiers for ECM, radar and communications; and a passive, high power multipactor designed to provide front end protection for radar receivers.	
<b>Hughes Aircraft Co.</b> <span style="float: right;">1016</span> <b>Microelectronic Circuit Division</b> Newport Beach, CA	
<b>Hughes Aircraft Co.</b> <span style="float: right;">703</span> <b>Microwave Products Division</b> Torrance, CA	
<i>J. Nichols, H. Bell, A. Edberg, R. Larson, J. Cadwallader, N. Nicoll, K. Conklin, J. Kuno</i>	
20 to 300 GHz mm-wave devices, components, subsystems and instruments; GaAs FET products; GaAs MMICs; and GaAs MMIC design center and foundry services.	
<b>IFR Systems Inc.</b> <span style="float: right;">1320</span> Wichita, KS	
<i>T. Dideum, K. Showalter, F. Hunt, M. Forna, K. Filardo</i>	
RF and microwave spectrum analyzers, communication service monitors and avionics test equipment.	
<b>Inmet Corp.</b> <span style="float: right;">806</span> Ann Arbor, MI	
<i>E. Seitter, R. Seitter, T. Solomon</i>	
Passive microwave components, including attenuators, terminations, DC blocks, equalizers, adapters and microwave resistors.	
<b>Innowave</b> <span style="float: right;">920</span> Morgan Hill, CA	
<i>S. Virk, B. Sekhon, R. Barbara</i>	
Isolators, circulators, gain equalizers, harmonic phase shifters, detectors, limiters and integrated multifunction modules. See <i>TMR Associates</i>	
<b>Insulated Wire Inc.</b> <span style="float: right;">716</span> Danbury, CT	
<i>A. Nixon, S. Bruno</i>	
Flexible, high performance, low loss microwave cable and cable assemblies up to 60 GHz, and internally ruggedized cable assemblies, with improved crush resistance and tighter bend radii.	
<b>Integrated Microwave</b> <span style="float: right;">1119</span> San Diego, CA	
<i>D. Clark</i>	
DC to 26.5 GHz RF/IF, microwave filters, multiplexers and integrated components.	
<b>Inter-Continental Microwave</b> <span style="float: right;">305</span> Santa Clara, CA	
<i>P. Seaman, J. Martin, J. Tatum, B. Tatum, W. Schuerch, D. Hevesy</i>	
RF and microwave automatic network analyzers, TRL/LRM calibration kits, test fixtures for chip, MMIC and packaged devices, universal test fixtures, time domain reflectometer	
test fixtures, and DC to 50 GHz optical microwave test fixtures.	
<b>Ion Beam Milling Inc.</b> <span style="float: right;">334</span> Manchester, NH	
<i>R. Quagan, G. Quagan, J. McDonnell, J. Kelley, W. Alexander</i>	
Thin-film microwave integrated circuits, including custom planar chip inductors, capacitors and attenuators; and prototype and production circuits with line and space dimensions down to 1 $\mu$ m.	
<b>ITS Electronics</b> <span style="float: right;">515</span> Concord, Ontario, Canada	
<i>I. Tchaplia, B. Dell, K.V.S. Rao</i>	
Microwave components and subsystems; solid-state power amplifiers and sources; dielectric resonator oscillators; integrated subassemblies; HEMT low noise amplifiers; and microwave solid-state power amplifiers for form, fit and function system retrofit.	
<b>ITT GaAs Technology Center</b> <span style="float: right;">921</span> Roanoke, VA	
<i>J. Grzyb, B. Schmitz, I. Bahl</i>	
GaAs MMIC and digital technology, and foundry services.	
<b>ITT Sealectro</b> <span style="float: right;">1613</span> New Britain, CT	
<i>K. McLaughlin, T. Worroll, W. Brooks, R. Champi, G. Hubbard, D. Reed, J. Cabrera</i>	
RF and microwave SMB, SMC, slide-on, SSMB, SSMC, precision N, TNC, K, solderless, blindmate, slide-ons, adaptors and special configurations coaxial connectors, and flexible, conformable and semi-rigid cable assemblies.	
<b>JCA Technology</b> <span style="float: right;">214</span> Newbury Park, CA	
<i>J. Chao, C. Davis</i>	
0.5 to 22 GHz microwave amplifiers.	
<b>JFW Industries Inc.</b> <span style="float: right;">1714</span> Indianapolis, IN	
<i>K. Weber, C. Glover</i>	
Attenuators, terminations, fuses and coaxial switches.	
<b>Johanson Dielectrics Inc.</b> <span style="float: right;">814</span> Burbank, CA	
New MemoryGuard decoupling capacitors, multilayer ceramic chip capacitors, high-Q ceramic chip capacitors, single-layer chip capacitors and multiple layer capacitor arrays.	
<b>Johanson Manufacturing Corp.</b> <span style="float: right;">814</span> Boonton, NJ	
Variable capacitors and microwave tuning elements.	
<b>John Wiley &amp; Sons Co.</b> <span style="float: right;">1616</span> New York, NY	
<i>S. Nelson, G. Telecki</i>	
Publisher of scientific and technical books and journals, including the now-complete	
four-volume <i>Handbook of Microwave and Optical Components</i> , and the new <i>International Journal of Microwave and Millimeter Wave Computer Engineering</i> .	
<b>Journal of Electronic Defense</b> <span style="float: right;">527</span> Norwood, MA	
<i>H. Gershoff, S. Hardy, D. Gehly, A. Braun, R. Kaufman, D. Herskovitz</i>	
The monthly publication of the Association of Old Crows (AOC) focuses on electronic warfare; command, control, communications and intelligence; avionics; military computing and other military electronics technologies.	
<b>KDI/triangle Electronics Inc.</b> <span style="float: right;">932</span> East Hanover, NJ	
<i>D. McConnell, C. Schraufnagl, R. Hartwig, P. Levine, E. Landau, V. Caruso, T. Braviak, M. Snyder, M. Masterson</i>	
DC to 18 GHz components and subassemblies; resistors, attenuators, terminations, couplers, dividers, switches, oscillators, phase shifters and digital attenuators.	
<b>Kings Electronics Co.</b> <span style="float: right;">1303</span> Tuckahoe, NY	
<i>R. Dock, E. Lagarto, F. Dellalocono, H. Pessah, J. Murphy, F. Dallago</i>	
RF coaxial connectors; flexible and semi-rigid cable assemblies; RF coaxial connectors and switches for TCAS systems; and standard and 75 $\Omega$ BNC and SMA connectors.	
<b>K&amp;L Microwave Inc.</b> <span style="float: right;">504</span> Salisbury, MD	
<i>C. Schaub, J. Price, C. Carmean, M. Giarratano, G. Ardis, P. Wilsey</i>	
500 kHz to 40 GHz microwave and RF components, including miniature filters, cavity and waveguide filters, tunable filters, frequency agile and integrated subsystems, and subassemblies, coaxial switches to 26.5 GHz and RF switching matrices.	
<b>Kopin Corp.</b> <span style="float: right;">315</span> Taunton, MA	
<i>M. Micci, J. Salerno</i>	
High performance semiconductor wafers for electronic and optoelectronic applications, including silicon-on-insulator wafers manufactured with the isolated silicon epitaxy (ISE <sup>TM</sup> ) process; GaAs/AlGaAs epitaxial wafers, including HBTs, HFETs and PINs; and GaAs-on-silicon wafers up to six inches in diameter.	
<b>KW Microwave</b> <span style="float: right;">1609</span> San Diego, CA	
<i>J. M. Fournier, D. Kothari, S. Tantod</i>	
Ultra miniature lumped-element filters and multiplexers, combline, interdigital, waveguide and suspended substrate filters from 10 MHz to 26.5 GHz; subsystem integration utilizing the full spectrum of in-house filter, solid-state switch, discrete or hybrid devices and amplifier capability; and switch filters, multipliers, up and down converters, preamplifiers and power dividers.	

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<b>Kyocera America Inc.</b> <b>San Diego, CA</b>	<b>428</b>	Low noise VCOs and DTOs, frequency multipliers, switches, cavity oscillators, crystal oscillators, microwave semiconductors and multifunction assemblies.
<i>A. Buck, D. Hughes, F. McMahon, B. Gatta, R. Webb</i>		
Metalized products, including ceramic packages for microwave applications such as low noise transistor, microwave power FET, metal sealed, silicon power transistor, monolithic microwave, GaAs IC and diode package, ceramic lids and windows, and metalized substrates.		
<b>Kyocera Industrial Ceramics Corp.</b> <b>San Diego, CA</b>	<b>428</b>	
<i>L. Gibson, J. Mastrogiacomo</i>		
Ceramic substrates for hybrids, thin-film substrates, ceramic lids with low temperature sealant, hermetic solder coated lids, high dielectric substrates, ceramic insulators and multiform glass insulators.		
<b>Litton Airtron</b> <b>Morris Plains, NJ</b>	<b>1023</b>	
<i>R. Lagno, R. Ost, J. Knapp, B. Sellitto, N. Hansen, H. Faust</i>		
Microwave and RF subsystems, antennas, isolators, circulators, filters, couplers, loads, stripline, and rectangular and double ridge waveguide.		
<b>Litton Solid State</b> <b>Milpitas, CA</b>	<b>1023</b>	
<i>F. Olsen, D. Merkley, B. Quinn, H. Wilson, R. Hamilton, W. Ou, M. Kopec</i>		
Epi and custom chip foundry MESFET and HEMT MMICs, GaAs InP diode products, 1 to 110 GHz amplifiers, DRO and Gunn sources, mm-wave subsystems, MMIC technology, including MMIC narrowband 94 GHz LNA and 5 to 100 GHz InP MMIC amplifier chips.		
<b>Locus Inc.</b> <b>State College, PA</b>	<b>1019</b>	
<i>E. Brem, D. Richards, J. Callahan</i>		
RF and microwave amplifiers, converters and thin-film assemblies.		
<b>LogiMetrics Inc.</b> <b>Plainview, NY</b>	<b>512</b>	
<i>M. Feigenbaum, S. Abrams, J. Deutsch, E. Feigenbaum, V. Abrams, F. Deutsch</i>		
High power TWT amplifiers in frequency ranges from 0.5 to 40 GHz and in power levels from 1 W to 5 kW for military and commercial applications on ground and airborne platforms; SATCOM communication amplifiers; radiated susceptibility and high power test sets; jamming systems; threat simulators; and antenna boresight test chambers.		
<b>Loral Microwave Frequency Sources</b> <b>Chelmsford, MA</b>	<b>520</b>	
<i>B. Knowles, D. Brown, T. Blanco, W. Sobie, D. Langan</i>		
Metalized products, including ceramic packages for microwave applications such as low noise transistor, microwave power FET, metal sealed, silicon power transistor, monolithic microwave, GaAs IC and diode package, ceramic lids and windows, and metalized substrates.		
<b>Loral Microwave</b> <b>Narda</b> <b>Hauppauge, NY</b>	<b>520</b>	
<i>B. Leibowitz, J. Coppola, J. Kirch, R. Damiano</i>		
Nardalert,™ a personal monitor; super-slim switches, mixer products, DROs, high power passive components; and radiation hazard products for personal, area and direct detection of potentially hazardous areas.		
<b>Loral Microwave</b> <b>Wavecom</b> <b>Northridge, CA</b>	<b>520</b>	
<i>W. Anderson, N. Renfrow, G. Etzler, G. Jacques</i>		
Passive microwave filters, multiplexers, dividers, combiners and RF electromechanical switches.		
<b>Lorch Electronics</b> <b>St. Petersburg, FL</b>	<b>706</b>	
<i>C. McCoy, V. Hazners, M. McWhorter</i>		
RF and IF signal processing components, including mixers, microwave filters, electronic switches, switch matrices, digital phase shifters, digital attenuators, phase detectors/comparators/shifters/modulators, couplers, hybrids, integrated modules and surface mount components.		
<b>Lucas Aerospace Inc.</b> <b>Communications &amp; Electronics Inc.</b> <b>Hopkinton, MA</b>	<b>215</b>	
<b>Lucas Epsco Division</b> <b>Hopkinton, MA</b>	<b>215</b>	
<i>W. Coffin, J. Dhimos, J. Langley, R. Ranslow, J. Shalhoub, G. Smith, C. Warrington</i>		
High power, narrowband GaAs FET amplifiers from 2 to 18 GHz and output power levels to 1 W; custom waveguide and coaxial components, antennas and antenna systems; and high power CW and pulse signal sources.		
<b>Lucas Aerospace Inc.</b> <b>Microwave Technologies Division</b> <b>Mississauga, Ontario, Canada</b>	<b>215</b>	
<i>P. Balodis, J. Leizerowicz, P. Mercer</i>		
GaAs FET multi-octave and narrowband amplifiers and amplifier based integrated assemblies from 0.1 to 40 GHz for defense and commercial applications; and waveguide and coaxial circulators, isolators and isolators for volume Telecom and Satcom applications.		
<b>Lucas Weinschel Division</b> <b>Gaithersburg, MD</b>	<b>215</b>	
<i>C. Crews, J. Dholoo, B. Knill, D. Kuhn, C. McNamara, R. Mugg, L. Pregley, R. Stephens</i>		
RF and microwave coaxial components; fixed, variable, step, binary and programmable attenuators and connectors; terminations and adapters; and microwave test and meas-		
urement instruments, including power standards, frequency synthesizers, power and attenuation calibration systems.		
<b>Lucas Zeta Division</b> <b>San Jose, CA</b>	<b>215</b>	
<i>B. Dominguez, A. Leotta, J. Rolling, N. Stecklein, R. Wood</i>		
Microwave frequency sources; high power RF amplifier modules and systems; and signal intercept and direction finding systems.		
<b>M/A-COM Inc.</b> <b>Burlington, MA</b>	<b>1005</b>	
DC to 100 GHz GaAs and silicon semiconductor devices, MMIC switches, mixers, PIN, Gunn, Schottky, IMPATT diodes, GaAs MMIC circuits, GaAs foundry service, GaAs silicon material, bipolar transistors and MOSFETs; 5 MHz to 110 GHz passive and control components, including ferrite isolators and circulators, detectors, filters, attenuators, couplers, receiver protectors and low noise amplifiers; rotary joints, casting, pressure windows, connectors, adaptors, coaxial and fiber optic cable assemblies; integrated subsystems for radar, communications, EW and missile system applications; oscillator assemblies and synthesizers; high power solid-state amplifiers; and filter-based subsystems, including switched multiplexers, DLVA, digital discriminators and receiving equipment.		
<b>MAC Technology Inc.</b> <b>Klamath Falls, OR</b>	<b>1228</b>	
<i>M. Bailey, J. Branigar</i>		
0.5 to 18 GHz stripline couplers, power dividers, directional couplers, 90° hybrids and high power airline couplers in octave and multi octave bandwidths.		
<b>Magnum Microwave Corp.</b> <b>Fremont, CA</b>	<b>630</b>	
<i>J. Lee, G. Wehrfritz, H. Fowler, M. Streitmatter, R. Bridge, R. Todd</i>		
RF mixers, VCOs, dielectric resonator oscillators, cavity oscillators, microwave components and subassemblies.		
<b>Mast Microwave</b> <b>Billerica, MA</b>	<b>719</b>	
<i>C. Theophile, P. Burton, P. Christian</i>		
Rotary joints, double-ridge components, RF connectors and cable assemblies.		
<b>Matcom Inc.</b> <b>Palo Alto, CA</b>	<b>204</b>	
<i>B. Jones, S. Canning, C. Huynh, B. Hampton, T. Shino, M. Harrira, K. Akada</i>		
Toshiba microwave semiconductors.		
<b>Matrix Corp.</b> <b>Sunnyvale, CA</b>	<b>1335</b>	
<i>L. Earl, R. Pangan, S. Mendoza, B. Quinby</i>		
Contract assembly of microwave/RF components and assemblies, including assembly, seal, testing, marking and full turn-key services.		

<b>Maury Microwave Corp.</b> Rancho Cucamonga, CA	725	<b>MICA Microwave Corp.</b> San Jose, CA	1113	<b>Z. Turski, R. St. Laurent, K. Comtois</b> 10 MHz to 18 GHz solid-state control components; high reliability switches, attenuators, phase shifters for electronic warfare and communications systems, such as radars and C <sup>3</sup> ; and microwave integrated circuits, high reliability, multifunction subsystems with applications in electronic warfare, C <sup>3</sup> , such as passive and active detection systems, RWR.
<i>M. Maury, Jr., J. Adamson, R. Ramirez, J. Pierce, W. Pastori, G. Simpson</i>		<i>L. Cortez, F. Mills, A. Campbell, J. Patel, M. Starkey</i>		
DC to 110 GHz microwave components and instruments, including the automated tuner system (ATS), the ATS load-source/pull software, the ATS controller, low noise microwave amplifier and amplifier converter, universal transistor test fixture, transistor bias supply, metrology grade sliding terminations, connector gauges, calibration standards for network analyzer measurements, coaxial, waveguide and mm-wave calibration kits for vector automatic network analyzers, mm-waveguide devices, airline standards, waveguide-to-coaxial and coaxial-to-coaxial adapters, and noise calibration equipment.		Microwave detectors, including tunnel, biased Schottky and zero bias Schottky; PIN diode limiters; ferrite devices; coaxial isolators; drop-ins MICRO <sup>®</sup> PAC surface mount ferrite series; standard isolators; waveguide circulators; and custom components for space, EW and commercial applications.		
<b>Maxtech Inc.</b> State College, PA	320	<b>Micro-Chem Inc.</b> Santa Clara, CA	207	<b>Micronics Technology Inc.</b> Glen Cove, NY
<i>D. Bunnell, J. Dixon</i>		<i>L. Matts, E. Bond, E. Bond, L. Tooker, S. Tooker</i>		<b>Micro-Now Instrument Co. Inc.</b> Skokie, IL
Telecommunication components and subsystems, including LNAs, redundant LNA systems, power amplifiers, power amplifier systems, microwave and RF converters, ultra broadband quadrature couplers, imageless mixers and other custom components.		Stripline, microwave and rigid groundplane PTFE circuit boards, chemically-milled metal parts and high resolution glass plates.		<i>C. Arnow, R. Janya, F. Arnow</i>
<b>Menlo Industries, Inc.</b> Fremont, CA	1100	<b>Micro-Coax Components Inc.</b> Collegeville, PA	724	The model 716 500 MHz to 110 GHz wide range, mm-wave, solid-state sweeper/source; the model 715 mm-wave sweep system, which uses BWOs to provide full waveguide sweep to 170 GHz; and 2.45 GHz sources, stabilizers, klystron power supplies and mm-wave noise sources.
<i>D. Adams, L. Wagoner, S. Kakihana, J. Chang</i>		<i>F. Decker, M. Neiman, R. Souders, B. Ash, B. Gleghorn</i>		
Low noise, wideband and narrowband amplifiers, detector log video amplifiers and successive detector log video amplifiers, nonnernanum tunnel diode detectors and quick turn-around thin-film foundry service.		Standard and nonstandard semi-rigid cable, cable assemblies and delay lines, high performance flexible microwave cable to 40 GHz; 200 MHz to 30 GHz lowpass, highpass and bandpass filters.		
<b>Merrimac Industries Inc.</b> West Caldwell, NJ	607	<b>Micro-Dynamics</b> Woburn, MA	804	<b>Micropen Inc.</b> Pittsford, NY
<i>E. W. Niemiec, J. Blahosky, W. Joswick, T. Ramsden</i>		<b>Microelectronics Technology Inc.</b> Hsinchu, Taiwan, ROC	122	<i>J. Stoia, J. Cox, W. Mathias</i>
IF and microwave devices, components and subsystems using lumped-element and stripline designs; power amplifiers, IF integrated assemblies and hi-rel networks.		<i>P. Chen, W. Huang, J. Chang, L.C. Chang, T. Ho, S. Yang, E. Tseng</i>		A CAD and CAM direct writing system capable of producing microwave circuits directly from its own design system, or linkup with external CAD systems. It uses an additive or subtractive process for prototyping or production; thick film directly on ceramic, etched thin-film on ceramic, or etched copper on soft substrates.
<b>Metal Processing Co.</b> Woburn, MA	1311	<b>SATCOM and TELECOM components and subsystems; VSAT products, including C- and Ku-band stabilized LNRs, commercial LNRs, LNCs, LNAs, power amplifiers and odus and INMARSAT products, including power amplifiers, LNAs, PLOs and RF transceiver units.</b>		<b>Microphase Corp.</b> Norwalk, CT
<i>D. Winn, M. Perry</i>		<b>Micronetics Inc.</b> Electronic Division Hudson, NH	817	<i>F. S. Parin, R.J. Crocco, J.A. Hoffman, H. Schumacher, A. Schumacher, S. Temel, G. Temel, M. Goldman, R. Ferri, J. Chiappetta, F. Groman, H. M. Weil, R. Smith, J. Filakovsky, L. Stillay</i>
Custom hermetic glass-to-metal seals, RF and DC feedthroughs, direct sealing to Kovar modules and stainless steel bodies.		<i>Z. Turski, R. St. Laurent, K. Comtois</i>		Detector log video amplifiers, multiplexers, thin-line multiplexers, filters, miniature lumped-element filters, detectors, limiters, channelizers, detector modules, filter modules, threshold detector amplifiers, video receivers, channelized receivers, microwave integrated assemblies, solid-state multithrow switches, switch and filter assemblies and switch filter preselectors.
<b>Metelics Corp.</b> Sunnyvale, CA	1713	<b>10 MHz to 18 GHz RF and microwave components for applications in commercial, communications and cellular networks.</b>		<b>Microprecision</b> St. Laurent, Ontario, Canada
<i>F. Kwan, J. Godbout, C. McAllister</i>		<b>Micronetics Inc.</b> Microwave Division Hudson, NH	817	<b>Microsonics Inc.</b> Weymouth, MA
Microwave diodes, including Schottky barriers, PINs, SRDs, MIS capacitors, sampling phase detectors, tunnel diodes and microwave subassemblies.		<i>Z. Turski, R. St. Laurent, K. Comtois</i>		<b>Microsource Inc.</b> Santa Rosa, CA
<b>MH&amp;W International Corp.</b> see TDK Corp.	1206	Noise sources and instruments for performance evaluation of sophisticated electronic warfare and communication systems; and electromechanical coaxial and waveguide switches and termination (dummy loads) for signal processing and test in terrestrial and satellite transceivers and radar.		<i>G. Basawapatna, J. Albright, J. Clarke, H. Burkhardt, J. Tavormina, M. Shandas</i>
<b>Micronetics Inc.</b> NEM Division Hudson, NH	817	<b>YIG-tuned components, subsystems and systems, including oscillators, bandpass and bandreject filters, multipliers, upconvertors, downconvertors, synthesisizers and receiver subsystems.</b>		

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<b>Microtech Inc.</b> <b>Cheshire, CT</b>	<b>1204</b>	<b>Microwave Engineering Europe</b> <b>London, UK</b>	<b>1729</b>	Microwaves & RF magazine serves engineering and engineering management involved with RF, microwave and optical devices used in a broad spectrum of applications.
<i>J. Radder, J. McGregor, T. MacCallum, C.M. Jones, S. Lovely</i>		<i>J. Bidlake, R. Michael, P. Jackson, K. Smith, G. Moss, R. Kirstine</i>		
1.2 to 50 GHz rectangular and double-ridged waveguide and components, including catalog and custom flexible and rigid assemblies, waveguide and coaxial directional couplers, filters, waveguide-to-coaxial adapters, pressure windows and tees.		A magazine specially designed for European readers involved in the microwave and RF industry.		
<b>Microwave Applications Group</b> <b>Santa Maria, CA</b>	<b>123</b>	<b>Microwave Exhibitions &amp; Publishers Ltd.</b> <b>Tunbridge Wells, Kent, UK</b>	<b>1727</b>	
<i>D. Prigge, W. Hord, R. Hord, C. Boyd, P. Boyd</i>		<i>R. Marriott, J. Baron, D. Leah</i>		
Microwave ferrite components, including reciprocal phase control modules for electronic scanning antenna and antenna subsystems with related electronic control circuits.		Conference proceedings of the Military Microwaves and European Microwave Conferences; conference proceedings and reprint volumes.		
<b>Microwave Communications Labs</b> <b>Spotswood, NJ</b>	<b>1130</b>	<b>Microwave Journal</b> <b>Norwood, MA</b>	<b>527</b>	
<i>T. Nguyen, T. Nguyen, V. Nguyen, T. Lam</i>		<i>H. Howe, H. Ellowitz, E. Johnson, C. Sheffres, W. Cook, R. Walby, M. Stiglitz, A. Braun, J. Long, C. Blanchard, J. Callahan, R. Hammerton</i>		
Power dividers, couplers, hybrids, VCAs, filters, switches and subsystem assemblies.		<i>Microwave Journal</i> magazine subscription and editorial information.		
<b>Microwave Development Co. Inc.</b> <b>North Andover, MA</b>	<b>115</b>	<b>Microwave Printed Circuitry Inc.</b> <b>Lowell, MA</b>	<b>824</b>	
<i>J. Cook, C. Tomes, P. Hocknell, M. Slipp, M. Crittenden</i>		<i>M. Casper, B. Deitz, P. Beaulieu, C. Casper, T. Frotton</i>		
0.5 to 60 GHz passive waveguide and high power coaxial components, including bandpass, lowpass and harmonic absorptive filters, power combiners, terminations, magic tees, calibration kits, waveguide assemblies, adapters, pressure windows, high power directional couplers, high power terminations and coaxial harmonic absorptive and coaxial interdigital filters.		Microstrip and stripline circuits, metal backed circuits using PTFE materials, bonded antenna assemblies and RF testing of bonded filters, splitters and combiners.		
<b>Microwave Development Labs Inc.</b> <b>Natick, MA</b>	<b>326</b>	<b>Microwave Product Digest</b> <b>Hastings on Hudson, NY</b>	<b>1734</b>	
<i>R. Tucker, E. Bannister, M. Hale</i>		<i>D. Markhorse, W. Hickey, P. Lippin, R. Ranahan, T. Greney</i>		
Adapters, assemblies, attenuators, bends, twists, corporate feeds, couplers, crystal holders, circulators, diplexers, filters, flanges, gaskets, SSB generators, hybrids, isolators, mixers, mixer duplexers, monopulse comparators, rotary joints, double ridge, phase shifters, power dividers, rotary switches, tees, terminations, transitions, waveguide tubing, windows and suspended substrates.		<i>Microwave Product Digest</i> , a new product tabloid, for clients and prospects of manufacturers serving the microwave product industry, individuals engaged in the original equipment market and users of systems.		
<b>Microwave Device Technology Corp.</b> <b>Lawrence, MA</b>	<b>108</b>	<b>Microwave Resources Inc.</b> <b>Chino, CA</b>	<b>1513</b>	
<i>T. B. Ramachandran, M. Ayyagari, A. Vitale, M. McCann, C. Foose, K. Ohearn, J. Delap</i>		<i>M. Hassan Arain</i>		
Gunn diodes in C-, X-, Ku-, K- and mm-wave bands, GaAs pulsed and CW IMPATT diodes, GaAs abrupt and hyperabrupt tuning varactors diodes, multipliers, GaAs PIN diodes and ISIS multiplier diodes.		Microwave and mm-wave ferrite products, such as full band waveguide circulators and isolators.		
<b>Microwave Engineering Corp.</b> <b>N. Andover, MA</b>	<b>1611</b>	<b>Microwave Technology Inc.</b> <b>Fremont, CA</b>	<b>1617</b>	
<i>C. Ober, M. Aghion, J. Herrmann</i>		<i>A. Rosenzweig, R. Christensen, A. Roberts, K. Renwick</i>		
Microwave and mm-wave passive components, including double-ridge waveguides and in-house waveguide bending and forming.		GaAs FET devices, including chips, MMICs and packaged devices; GaAs FET drop-in amplifier modules, including gain stages, temperature compensation modules and voltage regulators; and 1 to 26 GHz microwave amplifiers.		
<b>Microwaves &amp; RF</b> <b>Hasbrouck Heights, NJ</b>	<b>1722</b>	<b>Microwaves &amp; RF</b> <b>Hasbrouck Heights, NJ</b>	<b>1722</b>	
<i>J. Carroll, J. Browne, M. Carey, M. Spector, M. Bandfield, G. Roberts, J. Reppas, R. Schneiderman</i>		<i>J. Carroll, J. Browne, M. Carey, M. Spector, M. Bandfield, G. Roberts, J. Reppas, R. Schneiderman</i>		

<b>Mini-Systems Inc.</b> <b>Electronic Packaging Division</b> <b>Plainville, MA</b> <i>R. Duff, H. Edwards</i>	925	RF and microwave discrete silicon bipolar and FET transistors to 4 GHz; low noise and power devices in a wide range of packages; and complete amplifier assemblies to 100 W 2 GHz.	<b>Newport Electro-Optics Systems</b> <b>Melbourne, FL</b> <i>R. V. Belfatto, E. Young, F. Sanzone, G. Georgiodis</i>	1630
Thick- and thin-film chip resistors, glass sidewall and all metal packages, and custom hybrid circuits.			The NEOS microwave laser photo plotter system, which plots a microwave mask from an AutoCAD® drawing file in less than one-half hour with no post processing; and the NEOS AutoCAT software, which automates production or laboratory tests by interfacing with measuring instruments through IEEE-488 or RS-232 ports and controls these instruments to manufacturers specifications.	
<b>Mini-Systems Inc.</b> <b>Sunbelt Microwave</b> <b>Deltona, FL</b> <i>D. Batts, S. Hess</i>	925	Thick- and thin-film chip resistors, glass sidewall and all metal packages, and custom hybrid circuits.	<b>MPD Inc.</b> <b>Owensboro, KY</b> <i>C. Larson, J. Olson, M. Stevenson</i>	414
Thick- and thin-film chip resistors, glass sidewall and all metal packages, and custom hybrid circuits.		1 to 40 GHz microwave transmitters and receivers for military and commercial applications; DRO, Gunn diode, planar triode based designs and MIC capabilities.	<b>M-Pulse Microwave</b> <b>San Jose, CA</b> <i>B. Long, E. Pendleton, J. Richards, R. Sahjani, W. Sander, P. Ierardi, B. Brann</i>	514
<b>Mini-Systems Inc.</b> <b>Thin-Film Division</b> <b>N. Attleboro, MA</b> <i>K. Barlow, R. Lamarre, F. Santilli</i>	925	Thick- and thin-film chip resistors, glass sidewall and all metal packages, and custom hybrid circuits.	Microwave Schottky, PIN, NIP, SRD, planar tunnel and tuning varactor diodes, and MNOS capacitors, available in chip, beam, lead, monolithic, surface mount or packaged from and screened through S-level of MIL-S-19500.	
<b>Mitec Electronics Ltd.</b> <b>Pointe Claire, Quebec, Canada</b> <i>M. Monzon, J. Robinson, G. Simays, M. Geraci, M. Bentob</i>	1514	1 to 60 GHz microwave components, subsystems and integrated networks for use in telecommunications and defense systems.	<b>M-Square Microtek Inc.</b> <b>Hayward, CA</b> <i>D. Simmons, K. Floyd, B. Webb</i>	920
Low noise amplifiers operating over the frequency range from 1 MHz to 40 GHz in moderate and ultrawide bandwidths; frequency sources, including cavity-tuned oscillators, VCOs, DROs, phase-locked cavities and DROs; signal processing components, including mixers, mixer-preamplifiers, image-reject mixers, limiters, discriminators, log amplifiers and multifunction assemblies.		Microwave tube and tube amplifiers for use in military avionics and subsystems. See TMR Associates	<b>Murata Erie North America</b> <b>Smyrna, GA</b>	813
<b>MITEQ Inc.</b> <b>Hauppauge, NY</b> <i>S. Eisenmesser, P. Kalisiak, A. Kiiss, H. Kiiss, H. E. Kiiss, F. Maqbool, R. Pflieger, N. Shaikh, J. Siddiqui</i>	1327	<i>B. Allen, B. Doherty, S. Dresel, R. Goad, J. Hamlett, B. Helms, A. Hook, M. Kawashima, J. Marano, J. McGaril, M. McGrail, M. O'Brien, T. Steidel, M. Yamaguchi</i>	Discs, multilayer, microwave and trimmer capacitors, RF microwave filters, resistor networks, potentiometers, piezo alarms, RFI and EMI filters, resonators, oscillators, flyback transformers, positors, sensors and associated electronic components.	
<b>Mitsubishi Electronics</b> <b>Sunnyvale, CA</b>	1436	<b>Nearfield Systems Inc.</b> <b>Carson, CA</b> <i>G. Hindman, J. Way</i>	Turn-key nearfield and farfield antenna measurement systems varying from small, low cost portable systems to large, high accuracy systems; and its portable nearfield antenna measurement system that provides rapid data acquisition, farfield processing and aperture diagnostics for antennas.	1216
<b>Modular Components National Inc.</b> <b>Forest Hill, MD</b> <i>M. Creighton, P. Burian, M. Ostendorf, I. Zazulak</i>	1505	<b>Nedrud Data Systems</b> <b>Las Vegas, NV</b> <i>B. Nedrud, C. Nedrud</i>	DragonWave, a full featured microwave circuit design program, combines schematic capture and optimization with interactive display functions, has an element library with 2-, 3- and 4-port blocks, microstrip and stripline discontinuities and coupled lines, and calculates S-parameters, group delay, NF, stability circles; XY plots and Smith charts have markers and tune function.	1031
<b>Motorola Inc.</b> <b>RF Products Division</b> <b>Phoenix, AZ</b> <i>N. Dye, S. O'Shea, B. Hunter, D. Murray, M. Williams</i>	425	<b>Olin Aegis</b> <b>New Bedford, MA</b> <i>S. Benisatto, D. Medeiros, C. Leedecke, J. Greenspan, M. Medeiros</i>	Microelectronic packages.	1230
		<b>Omni Spectra</b> <i>See M/A-Com</i>		1005
		<b>Optimization Systems Associates</b> <b>Dundas, Ontario, Canada</b> <i>J. Bandier, R. Biernacki, S. Chen, G. Simpson, Q. Cai, J. Song, S. Ye, B. Budd, Z. Bandier, Q. Zhang</i>	Harpe™, a user-friendly package for device simulation, parameter extraction and statistical modeling; OSA90™, a software system for customization-oriented microwave CAE featuring Datapipe™ for high speed data connection to the user's executable programs, optimizers, statistics and expression processors.	1037

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<b>Optotek Ltd.</b> <b>Ottawa, Ontario, Canada</b>	<b>1236</b>	Teflon PWBs, including metal-backed, microstrip and stripline substrates and multi-layered assemblies; etching, plating, machining, PTHs and autoclave lamination.	<b>W. Liebman, R. Sheloff, C. Gerbino, T. Dowling, R. Vitkovich</b>
<i>R. Meirer, S. Dindo</i>			
MMICAD, a general purpose linear analysis and optimization program for both active and passive electronic circuits, incorporate a complete nodal analysis, including nodal noise calculations using correlation matrix techniques and allows for user-defined models to be inserted directly into the circuit file; networks may be simultaneously analyzed for noise and other linear performance goals as a function of frequency or parameter variation.			
<b>Oscillatek</b> <b>Olathe, KS</b>	<b>510</b>		
<i>J. Passiglia</i>			
Quartz crystal oscillators, military, commercial and custom design QPL clock, TCXO, ovenized and clock, VCXO, and engineering and manufacturing capabilities.			
<b>Pacific Amplifier Corp.</b> <b>Newbury Park, CA</b>	<b>920</b>		
<i>F. Bloomberg</i>			
High performance RF power amplifiers from 100 kHz to 2 GHz and beyond, in power levels from 1 W to several kW in module, rack mount and bench top configurations; and multitone, low noise, high ICP, high efficiency, octave and decade bandwidth amplifiers.			
<i>See TMR Associates</i>			
<b>Pacific Monolithics</b> <b>Sunnyvale, CA</b>	<b>1331</b>		
<i>S. Layton, F. Russell, D. Bond, D. Jones</i>			
GaAs MMIC products, including 0.01 to 18 GHz amplifiers, DC to 17 GHz frequency converters, DC to 12 GHz switches and attenuators; DC to 18 GHz VCOs, DROs and PLOs; and GaAs subsystems.			
<b>Panasonic Industrial Co.</b> <b>Secaucus, NJ</b>	<b>1209</b>		
<i>N. Watanabe, O. Uwano, T. Nakamura, S. Mizuma, S. Inai, J. Vona, J. Higuchi, M. Honma, D. Matefy</i>			
Radio frequency modules, voltage-controlled oscillators, bandpass filters and duplexers.			
<b>Pascal Electronics Inc.</b> <b>Basking Ridge, NJ</b>	<b>1123</b>		
<i>A. Cox, R. Burman, N. Macey, N. Melas, D. James, D. Dalglish</i>			
IF/RF signal processing components, logarithmic IF amplifiers, constant-phase limiters, delay-line discriminators, I&Q phase detector subsystems, selective power meter SATCOM carrier monitor, SATCOM solid-state power amplifiers and military power conversion modules.			
<b>PC Dynamics</b> <b>Frisco, TX</b>	<b>111</b>		
<i>L. Eslinger, J. Holbrook, T. Kern, C. Malone, L. Harvey, S. Churchman</i>			
Phase II Corp. <b>San Bruno, CA</b>	<b>1212</b>		
<b>Philips Components</b> <b>Discrete Products Division</b> <b>Riviera Beach, FL</b>	<b>410</b>		
RF & microwave power transistors and modules.			
<b>Phoenix Co. of Chicago</b> <b>Wood Dale, IL</b>	<b>523</b>		
<i>M. Machura, D. Pierce, W. Walthall, H. Niver, P. Petti, L. Roffer, D. Roffer</i>			
PKZ blind mate coaxial connectors, combination D subminiatures, RF and microwave cable assemblies, audio connectors, and SMB, SMC, BNC, SMA, TNC and N connectors.			
<b>Picogiga Inc.</b> <b>Oxnard, CA</b>	<b>803</b>		
<i>A. Carlsson, J. Rochette</i>			
GaAs and heterostructure epiwafers.			
<b>Picosecond Pulse Labs</b> <b>Boulder, CO</b>	<b>415</b>		
<i>J. Andrews, J. Andrews, M. VanPelt</i>			
Programmable (GPIB) picosecond pulse generators; broadband coaxial components, including bias tees, transformers, DC blocks, attenuators, signal probes and delay lines.			
<b>P/M Industries, Inc.</b> <b>Portland, OR</b>	<b>1308</b>		
<i>P. Parks, C. Parks</i>			
Custom lapping and polishing services; HYPERFINE substrates, which are free from abrasive damage, virtually free of pull outs and measure less than 0.5 $\mu$ inch surface finish; laser drill substrates; and contract laser resistor trimming.			
<b>Poly Circuits</b> <b>Bensenville, IL</b>	<b>819</b>		
<i>J. Dryer, J. Turek, B. Beckwith</i>			
Stripline and microstrip Teflon substrate circuit boards, multilayer, double-sided and heat sink backed for communications, antennas, radar, satellite tracking, commercial and military aviation applications.			
<b>Polyflon Co.</b> <b>New Rochelle, NY</b>	<b>1314</b>		
<i>W. LaRusso, J. Seminoro, M. McConnon, R. Higgins</i>			
High voltage, high-Q, nonmagnetic fixed, variable and trimmer capacitors, CuFlon <sup>®</sup> ultra low loss substrate material and circuit boards, electroplated PTFE components, custom manufactured NMR/MRI probes and/or coils and antennas.			
<b>Power Systems Technology Inc.</b> <b>Hauppauge, NY</b>	<b>1201</b>		
<i>M. Zelemyer, M. Lewis, A. White, M. Zilberstein</i>			
Ferrite and solid-state devices; MICs, RF sources and signal processors; infrared devices; hybrid electronic microcircuits; microwave tubes, including CFAs, TWTs and klystrons; and automated test equipment.			

<b>Republic Electronics Corp.</b> <b>Wilkes-Barre, PA</b>	<b>1142</b>	<i>R. Hedges, R. Cole, R. Jansen, M. Norris, C. Santiago, C. Becker, D. Boulanger, G. Bull, E. Sandor, J. Dobrick, C. Ogden, S. Aspden, A. Hassell, G. Traut, A. Aguayo</i>	RT/duroid® microwave materials, TTM temperature stable microwave laminates, ISO-CORE™ coaxial cable, ULTRALAM® microwave laminates and precision microwave circuits.	lines, pulse expanders/compressors and custom subsystems that use SAW components; technical assistance for new design and production requirements from 10 MHz to 2 GHz.	
<b>Res-Net Microwave Inc.</b> <b>Clearwater, FL</b>	<b>201</b>	<i>M. Giacalone, R. Mayo, J. Bolus, G. Neumann, C. Decater</i>	Precision RF and microwave components, including conduction and convention cooled terminations, attenuators and resistors ranging in power from 0.25 to 1000 W for commercial and military applications.	<b>Scientific-Atlanta Inc.</b> <b>Atlanta, GA</b>	<b>1107</b>
<i>D. Huff, C. Brechin, M. Caldwell, J. Pape, D. Woods, S. Wood, B. Chapman</i>					
<b>Resin Systems Corp.</b> <b>Amherst, NH</b>	<b>704</b>	<i>D. Prawdzik, S. Mcaninch, S. Campbell</i>	Microwave loads, absorbers and terminations in low, medium and high power; loads and terminations in low (polyiron) and high (ceramic) power designed for the complete range of waveguide sizes; pourable casting compound, rod, plate and square stock in the complete range of formulations.	<b>Scientific Microwave Corp.</b> <b>Mississauga, Ontario, Canada</b>	<b>1419</b>
<i>A. Saad, G. Saad, M. Saad</i>					
<b>RF Associates Inc.</b> <b>Topsfield, MA 01983</b>	<b>1721</b>	<i>S. Marc-Aurele</i>	Manufacturers' representative for Babcock Inc., Getelec Inc., Min-E-Con, Tele-Tech, TRX, Valbar and Vanguard Electronics.	<b>ROHM Co. Ltd.</b>	<b>1207</b>
<i>H. Eisenson, C. Myrick, M. Hagins, P. Feinberg, R. Mouber</i>				<b>ROHM Research Corp.</b> <b>Westlake Village, CA</b>	
<b>RF Design</b> <b>Englewood, CO</b>	<b>1718</b>	<i>K. Walsh, G. Breed, B. Pettit</i>	Very high precision 1 to 220 GHz waveguide and microwave components, including bends, twists and slotted arrays.	<i>R. Lee, R. Beaubien, M. Miller, K. Kikuchi, M. Tsumori</i>	
<i>Free copies of the June issue.</i>				<b>Heterostructure InGaAs HFET ultra low noise transistor for DBS receivers; GaAs frequency divider IC (128/129 prescaler) for frequency synthesizers; and GaAs wideband low noise amplifier IC for IF applications, including TV, CATV and DBS.</b>	
<b>RLC Electronics Inc.</b> <b>Mt. Kisco, NY</b>	<b>913</b>	<i>Sage Laboratories Inc.</i>	<b>1405</b>	<b>Rollet</b>	<b>1517</b>
<i>A. Borck, P. Wright, D. Borck, J. Norelli, D. Duris</i>		<i>A.J. Cieri, C.A. Marguerite, P. Alfano, H. Chapell, T.S. Saad, J. Majewski</i>		<i>London, UK</i>	
<b>DC to 40 GHz passive microwave components, including filters, mechanical switches, attenuators, power dividers, couplers and detectors.</b>		<b>DC to 40 GHz passive microwave components, including couplers, power dividers, phase shifters, switches, hybrids, filters, rotary joints, terminations, wireline and wirepac, detectors, mixers and subsystems, and high reliability components for space applications.</b>		<i>H. Medicott, P. Prior, E. Medicott, N. Connor</i>	
<b>Robinson Laboratories Inc.</b> <b>Nashua, NH</b>	<b>628</b>	<i>Salisbury Engineering Inc.</i>	<b>1536</b>	<i>Very high precision 1 to 220 GHz waveguide and microwave components, including bends, twists and slotted arrays.</i>	
<i>B. Baker, R. Jarcz, F. Holt, T. Cole, B. Robinson</i>		<i>Salisbury, MD</i>		<i>W. Barbely, R. Newberry</i>	
<b>Control components, receiver products, broadband mixers, PIN diode switches, limiters, detectors, digital and analog attenuators, switch matrices and integrated assemblies.</b>		<i>1 MHz to 20 GHz RF and microwave filters.</i>		<i>1 MHz to 20 GHz RF and microwave filters.</i>	
<b>Rockwell International-Ferrocom</b> <b>San Jose, CA</b>	<b>1121</b>	<b>Satellink Inc.</b>	<b>1502</b>	<i>S. Kenton, D. Luiken, R. Goodrich, E. Webb, D. Lambert, J. Liu</i>	
<i>B. Forsberg, M. Kyser, M. Swift, T. Nguyen</i>		<b>RF and microwave products, including low noise amplifiers, up and down frequency converters, special receiving equipment and microprocessor-based controller firmware and software.</b>		<i>RF and microwave products, including low noise amplifiers, up and down frequency converters, special receiving equipment and microprocessor-based controller firmware and software.</i>	
<b>132 MHz to 26.5 GHz isolators, circulators, isolators and terminations in waveguide, coaxial and drop-in configurations.</b>		<b>Sawtek Inc.</b>	<b>1421</b>	<i>S. Miller, G. Monetti, J. Schlegel, R. Kindell</i>	
<b>Rogers Corp.</b> <b>Microwave Division</b> <b>Chandler, AZ</b>	<b>909</b>	<b>SAW devices, including bandpass filters, low loss filters, resonator filters, oscillators, delay</b>		<i>SAW devices, including bandpass filters, low loss filters, resonator filters, oscillators, delay</i>	
<i>J. Mitchell, J. Kominitsky, J. Rosenberg</i>					
<b>Microwave components up to 50 GHz, including isolators, circulators, filters, switches, equalizers, integrated components and amplifiers.</b>					

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<b>SOGO Electronics Inc.</b> Nagayama, Tama-shi, Tokyo, Japan	1732	RF, microwave and mm-wave subsystems for advanced signal acquisition applications; and X-band to W-band power multiplier with 1 W of output power at 94 GHz, for use in high performance communications and seeker designs.	<b>Taconic Plastics Ltd.</b> Petersburg, NY	1337
S. Kazama PIN switches (SPST-SP32T), DLVAs, up and downconverters and attenuators.			B. Smith, S. Seymour, I. Brooks Copper clad, PTFE/woven glass dielectrics for microwave printed circuit board applications; and dielectric constants from 2.15 to 2.65 available with tolerances of $\pm 0.02$ and thicknesses from 0.003 to 0.5".	
<b>Solidyne</b> Division of Rogers Corp. San Diego, CA	909	<b>Stellar Industries Corp.</b> Leominster, MA	<b>Taylor Microwave Inc.</b> Hoboken, NJ	1717
D. Reed, R. Farris Stripline and microstrip circuits on PTFE-based substrates.		J. Snook, R. Visser, J. Kingston, Jr. Thermal management materials; materials and metalizing of alumina, beryllium oxide and aluminum nitride; and direct bonded copper (DBCu) on alumina and beryllium oxide. See TRM Associates	B. Sastre, B. Occhipinti 10 to 18000 MHz RF/microwave oscillators and components, including attenuators, switches, phase shifters, power dividers and assemblies.	
<b>Sonic-Mill® Albuquerque</b> Albuquerque, NM	1708	<b>Storm Products</b> Hinsdale, IL	<b>TDK Corp.</b> MH&W International Corp. Mahwah, NJ	1206
C. Treadwell, M. Armijo, W. Meagher Automatic and manual Sonic-mill® processing equipment that machines quality holes and slots into substrates; and contract work.		B. Holland, B. Barrath Flexible and semi-rigid microwave and RF cables and assemblies; standard teflon and polyethylene dielectrics as well as microporous types utilized.	E. Hozeny, R. Kiernan, J. O'Keefe, J. O'Keefe, Jr., D. O'Keefe, R. Nitzl, K. Shimosawa, T. Iwata, T. Yanagida Connector type circulators and isolators; stripline type and ferrite substrate type; waveguide isolators and circulators, terminations, mixers and combiners.	
<b>Sonnet Software Inc.</b> Liverpool, NY	1106	<b>ST Microwave</b> Sunnyvale, CA	<b>Tecdia Inc.</b> Mountain View, CA	525
J. Rautio, K. Schroeder Full-wave, fast electromagnetic analysis of predominantly planar circuits, such as MICs and MMICs, available on 17 different UNIX workstations.		<b>Superconductor Technologies</b> Santa Barbara, CA	N. Aguilar, C. Mata, K. Koyama, N. Kawamoto Single-layer parallel plate chip capacitors, and custom-designed and etched alumina substrates.	
<b>SPC Electronics Corp.</b> Tokyo, Japan	1726	J. Bybokas, M. Schmidt, B. Hammond, J. Long, H. Dwight Thin-film resonators with $Q > 20,000$ , superconducting bandpass and bandreject filters, low loss delay lines and a cryo-cooled superconducting oscillator.		
S. Tagawa, T. Nunotani, K. Ishizuka, H. Suzuki Satellite and terrestrial communication equipment, and MIC and waveguide products.		<b>Synergy Microwave Corp.</b> Paterson, NJ		
<b>SSPA Microwave Corp.</b> Mississauga, Ontario, Canada	622	T. Almeida, M. Rohde, T. Buhlinger, J. De Raffele Mixers, power dividers, directional and bi-directional couplers, filters, phase shifters, attenuators, 90° hybrids, 180° hybrids, phase detectors, modulators, amplifiers, switches and subsystems.	<b>Tech-Ceram Corp.</b> TDI Amesbury, MA	1117
T.C. Cheng, A. Leung, M. Cheng 1.3 to 18 GHz microwave solid-state power amplifiers with output power up to 100 W at 5.85 to 6.45 GHz and 30 W at 14 to 14.5 GHz.			W. Burnham, W. Dinardo, W. DeJean, J. Silverstein, S. Nelson Microwave and RF ceramic packages, thick-film alumina/BeO/AlN substrates, ceramic feed-throughs, surface mount packages, desiccator cabinets, pulse DC ionization and tweezers.	
<b>STC Components Inc.</b> Microwave Products Schaumburg, IL	720	<b>Sytron Donner</b> Instrument Division Sylmar, CA	<b>Tech Systems</b> Division of Datron Inc. Thomaston, CT	313
C. Fay TWTs and TWTAs for commercial satellite terrestrial microwave and military ground and airborne applications; and the 18 to 40 GHz single TWT.		D. McKenzie, B. Geddes, A. Sheth, J. Kennedy, A. Madni High performance RF/microwave synthesizers with exceptional low phase noise and high phase stability up to 26.5 GHz; frequency counters to 110 GHz; and ATE DC power systems.		
<b>STC Components Inc.</b> Quartz Products Schaumburg, IL	720	<b>Sytron Donner</b> Microwave Division Sylmar, CA	<b>Tegmen Corp.</b> Syracuse, NY	1600
R. Pearson High frequency fundamental surface mountable precision TCXO and SAW devices for the military and microwave systems market.		A. Madni, J. Vu, B. Carpenter Microwave subsystems for EW, radar and communications systems, including velocity deception jammers, monopulse receivers, excitors, up and down converters, transmission line analyzers, thin-film GaAs FET amplifiers and waveguide components.	M. Anderson, J. Karker, J. Dickson Direct copper bonded ceramics and thick-film hybrid circuits on ceramic, specializing in beryllia and alumina.	
<b>Steinbrecher</b> Woburn, MA	1300		<b>Tekelec Microwave</b> Montreuil, France	708
J. Stone, R. Green, R. Shute, D. Steinbrecher, D. Peterson, M. Kosmicki, R. Cyr, J. Nazarian			J. L. Etienne, M. Beghin, G. Martin, S. Rassoulian Microwave silicon diodes, including Schottky, PIN, multiplier and tuning varactors and high voltage PIN diode up to 3000 V; MOS capacitors; ferrite circulators and isolators, includ-	

ing 30 MHz to 94 GHz waveguide, coaxial and drop-in; microwave ferrite and dielectric ceramics; absorbing powders; RF modules, including mixers, power dividers, couplers, transformers and frequency doublers; and microwave subsystems.

**Tektronix Inc.** 1522  
**Components Division**  
**Beaverton, OR**

*J. Heppell, S. Annas, E. French,  
G. Lehman-Lamer*

High frequency electronic interconnect and packaging, including multilayer polyimide and ceramics, teflon and flexible PCBs, and elastomer connectors.

**Tektronix Inc.** 1522  
**Digital Signal Processing Division**  
**Beaverton, OR**

*D. Goodman*

The 3052 digital signal processing system, which includes new 0.125 Hz frequency resolution capability, an alternative to specialized blackboxes for difficult signal analysis applications, performs 1024 point complex frequency transforms every 250  $\mu$ s and is translatable into the microwave frequency range.

**Tektronix Inc.** 1522  
**Microwave and RF Instruments Division**  
**Beaverton, OR**

*T. Richen, J. Harris, H. Elowitz, K. Dawson*

The 2782 microwave spectrum analyzer with a coaxial frequency range of 100 Hz to 33 GHz; the lightweight, portable 2712 spectrum analyzer; and the 494AP and 2756P spectrum analyzers.

**Teledyne Microelectronics** 715  
**Los Angeles, CA**

*P. Galletta, D. German, M. Fink, B. Kilgarriff,  
Y. Rubin, C. Parkinson*

Custom MIL-spec RF/microwave hybrids from 50 MHz to 26 GHz focusing on complex custom multifunction modules; single function devices, including medium power and low noise amplifiers, oscillators, switch/attenuator networks, frequency doublers and single arm SDLAs; multifunction devices, including frequency synthesizers, up and down converters, detector video log amplifiers, receivers, transmitters; and multifunction designs required for military and communications applications.

**Teledyne Microwave** 1709  
**Mountain View, CA**

*M. Lee, M. Daniel, D. Godsey, R. Ando,  
P. Kovacich, K. Gong, E. Kirchner, D. Krudop*

MARATHON Series 25,000,000 cycle coaxial switches, HYPERMODE ultra-broadband isolators, filters and multiplexers, bulk acoustic wave delay devices, circulators, gain amplitude equalizers, oscillators, amplifiers and integrated subsystems.

**Telephonics/PRD Instruments** 623  
**Huntington, NY**

*J. Levy, T. Giambra, R. Freedman,  
H. Ruschmann*

Microwave components, electronic test equipment and thin-wall waveguide components and space-qualified assemblies.

**Teleplex Inc.** 1720  
**Alford Division**  
**Woburn, MA**

*T.L. Fitch, L. Fitch, F. Abel, A. Alford,  
J. McSweeney, M. Kamat*

Millimeter-wave and microwave components and test equipment, including slotted lines, high power bias tees, microwave tuners, precision coax adapters, precision terminations, network analyzer calibration standards and broadband antennas.

**Tele-Tech** 1721  
**Bozeman, MT**

*J. Peca*  
Mixers, frequency doublers, switches, power divider and hybrids, transformers, custom integrated assemblies and custom assemblies. See *RF Associates Inc.*

**Test & Measurement World Magazine** 1234  
**Newton, MA**

Sample issues and free subscription applications of *Test & Measurement World*, a test, measurement and inspection magazine serving the electronics industry.

**Texas Brazing Inc.** 1502  
**Forney, TX**

*R. Irwin, D. Luiken*  
Aluminum dip brazing and machine fabrication services, waveguide assemblies, complex electronic enclosures and EMI/RFI housings.

**Texas Instruments** 1328  
**Dallas, TX**

*J. Barnett, G. Haas, J. Harbus, T. Kilgo,  
S. Lazar, T. McCaffrey, D. Mize, S. Nelson,  
J. Nuttall, P. Schurr, R. Toole*

GaAs microwave and RF devices and foundry services.

**Texcel Inc.** 1416  
**Westfield, MA**

*L. Derose, R. Lalli, J. Lovotti, R. Dickson*  
Laser welding of high reliability products for the military and aerospace industries, including the TXL-9000 ESD protected, glovebox laser sealing system, 400 W Nd:YAG laser, vacuum bake oven, process control software, and gross and fine leak checks, lid manufacturing services and engineering support of package design.

**Thomson Composants Microondes** 612  
**Orsay, France**

*V. Piazzini, H. Charlin, O. de Saint Leger,  
H. Sandager*

Si and III-V diodes, including Gunn, Impatt, Schottky and varactors; GaAs FETs; GaAs ICs and foundry, including analog, digital and MMIC; subsystems, including oscillators and YIG, DRO and VCO sources, PLL, synthesizers, phase shifters, wideband amplifiers, LNA and PA.

**Thomson-ICS Corp.** 616  
**Southwick, MA**

*M. Fox, P. Dufilie, C. Marliac, E. Psaila*

SAW, BAW, AO and integrated optics, low loss and bandpass filters, BAW microwave, dispersive and nondispersive delay lines, phase coded correlators, convolvers, pulse compression subsystems and SAW spectrum analyzers.

**Thunderline-Z** 105  
**Hampstead, NH**

*H. Cunningham, J. Zanello, F. Manning,  
J. Halloran*

DC and RF, 0 to 71.8 GHz hermetic feedthroughs; and hermetic housings made from cold rolled steel, stainless steel, copper, aluminum, brass and Kovar.

**Times Microwave Systems** 1220  
**Wallingford, CT**

*J. Mescan, J. Lewis, J. Riter, R. Krimmier,  
A. Torpie*

High performance broadband microwave cable assemblies for airborne, shipboard, ground-based, radar, communications, missile and test systems; low smoke/zero halogen specialty engineered cables and assemblies; and MIL-C-17 coaxial cable.

**TMR Associates** 920  
**Groton, MA**

*L. Pihl, J. Guenard, C. Faiola, P. Evirs,  
M. Carroll, J. Moore*

Manufacturers representative for New England providing sales and promotion of RF, microwave and mm-wave components and subassemblies. Particular emphasis on military program oriented sales and recent penetration into commercial and microwave medical industries.

**Toshiba America Electronic Components Inc.** 1605  
**Advanced Materials Division**  
**Westboro, MA**

*J. Walker, J. Blum, C. Hiruta, K. Anzai,  
R. Prunier*

High thermal conductivity aluminum nitride substrates for high power applications.

**TRAK Microwave Corp.** 1504  
**Tampa, FL**

*S. Kier, H. Schoenborn, T. Roberts, G. Pate*  
Oscillators, including XCOs, OCXOs, TCXOs, VCXOs, VCOs, DSOs, DTOs and phase-locked; frequency multipliers; comb generators and multipliers; IF amplifiers; ferrite isolators and circulators; frequency synthesizers.

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ers and multifunction assemblies; and GPS precise time and frequency systems.			
<b>Transco Products Inc.</b> <span style="float: right;">319</span> <b>Camarillo, CA</b> <i>A. Kwon, P. Williams, L. Neeley, R. Bishop</i> High power passive components, subassemblies, coaxial and waveguide switches, and airborne antennas.		Passive electrical wave filters, including anti-aliasing delay equalized video, sine x/x correction and IF bandpass filters; filter systems; and DC to 500 duplexers and diplexers.	<i>R. Newman, S. Newman, N. Perrella, J. McClay, R. Grant</i>
<b>Trans-Tech Inc.</b> <span style="float: right;">915</span> <b>A subsidiary of Alpha Industries Inc.</b> <b>Adamstown, MD</b> <i>J. Alherici, R. West, E. Hokanson</i> Advanced oxide ceramic-ferrites, garnets and dielectrics, including dielectric disc/coaxial resonators, substrates and metallization, ferrite configurations for circulators, isolators and phase shifters; and technical ceramic powders.		<b>United Glass to Metal Sealing Inc.</b> <span style="float: right;">116</span> <b>N. Billerica, MA</b> <i>P. Sullivan, R. Darwin, K. Darwin, E. Lundber, R. Whitney</i> Hermetic glass sealing for electronics, custom Kovar package design and custom 50 $\Omega$ or DC feedthroughs.	Sealed piston trimmer capacitors and non-magnetic capacitors with dielectrics of glass, quartz, air, sapphire and teflon; and hermetically sealed and standard DRO and microwave cavity tuners.
<b>Trilithic Inc.</b> <span style="float: right;">1203</span> <b>Indianapolis, IN</b> <i>J. Dowd, M. Tronser</i> Air plate variable trimmer capacitors, sapphire trimmers, microwave tuning elements and air tubular trimmer capacitors.		<b>US Microwave</b> <span style="float: right;">317</span> <b>Tuscon, AZ</b> <b>UTE Microwave Inc.</b> <span style="float: right;">620</span> <b>Asbury Park, NJ</b> <i>L. Nilson, O. Cook, B. Kent, W. Richman, J. Harty, C. Quesenberry</i> 300 MHz to 20 GHz, communication and broadband, low and high power ferrite circulators, isolators, iso-adaptors, terminations, iso-filters, waveguide circulators, isolators and subassemblies.	<b>Wandel &amp; Goltermann Inc.</b> <span style="float: right;">702</span> <b>Morrisville, NC</b> <i>S. Gupta, B. Handrahan, M. Combs</i> Spectrum and network analyzers with ranges to 22 GHz; related software, including a package that measures and compiles crystal equivalent circuit parameters; a radio link measuring setup; fiber optics test set, and a fading simulator and signature test.
<b>Trim-Tronics Inc.</b> <span style="float: right;">723</span> <b>Cazenovia, NY</b> <i>J. Dowd, M. Tronser</i> Air plate variable trimmer capacitors, sapphire trimmers, microwave tuning elements and air tubular trimmer capacitors.		<b>Valbar</b> <span style="float: right;">1721</span> <b>Attleboro, MA</b> <i>M. Gregory</i> Complete microwave and RF circuit board fabrication on PTFE materials, such as duroid. <i>See RF Associates Inc.</i>	<b>Watkins-Johnson Company</b> <span style="float: right;">1420</span> <b>Palo Alto, CA</b> <i>J. Spear, R. Thurow, M. Lin, S. Witmer, T. Burkhard, L. Dessert, D. Luce</i> Microwave semiconductor devices, microwave integrated circuits, RF signal processing components and subsystems, mm-wave components, YIG oscillators and filters, voltage-controlled and digitally tuned oscillators and MMIC components.
<b>TriQuint Semiconductor</b> <span style="float: right;">619</span> <b>Beaverton, OR</b> <i>L. Pengue, D. Powers, M. Kilgore, B. Fournier, D. Criss, D. Kruger</i> GaAs ICs, GaAs ASIC fabrication, custom and semicustom products and factory designed turnkey solutions.		<b>Vanguard Electronics</b> <span style="float: right;">1721</span> <b>Gardena, CA</b> <i>H. Orr</i> RF and microwave inductive components for hi-rel military and telecommunication applications; leadless surface mount, products and leaded, fully encapsulated packages. <i>See RF Associates Inc.</i>	<b>Wavetek Corp.</b> <span style="float: right;">1507</span> <b>San Diego, CA</b> <b>Wavetronix Inc.</b> <span style="float: right;">201</span> <b>Sanford, FL</b> <i>R. Mayo, D. Mayo, F. Decater</i> Semi-rigid coaxial cable; semi-rigid and flexible cable assemblies; low loss semi-rigid and flexible coaxial cable; delay lines; baluns; RF connectors; and wire harnesses.
<b>TRM Inc.</b> <span style="float: right;">713</span> <b>Manchester, NH</b> <i>A. Butts, A. Tirollo, H. Gagne, M. Fredericksen</i> DC to 26 GHz couplers, power dividers, hybrids and custom components, utilizing strip-line and lumped-element designs to meet custom requirements for optimization of package and frequency configuration.		<b>Varian Associates</b> <b>Microwave Equipment Product Division</b> <b>Santa Clara, CA</b> <b>Vari-L Co. Inc.</b> <span style="float: right;">1232</span> <b>Denver, CO</b> <i>C. Kiser, J. Carnahan, B. Reynolds, E. Spainhower</i> Doubly balanced mixers, impedance matched transformers, frequency doublers, power dividers, RF solid-state switches, PIN diode and Schottky switches, multifunction subassemblies, customer designed hybrids, quadrature modulators and VCOs.	<b>West-Bond Inc.</b> <span style="float: right;">926</span> <b>Anaheim, CA</b> <i>V. Bezjian, R. Bailey</i> Microelectronic assembly equipment, including wire and die bonders, and wire bond testers.
<b>Trontech Inc.</b> <span style="float: right;">513</span> <b>Eatontown, NJ</b> <i>A. Arbuckle</i> 1 kHz to 6 GHz RF and microwave amplifiers, including low noise amplifiers, broadband medium power and high power to 20 W, class A, 500 W class C. <i>See RF Associates Inc.</i>		<b>Vectorn Laboratories Inc.</b> <span style="float: right;">908</span> <b>Norwalk, CT</b> <i>A. Camhi, L. Jawitz, B. Peters, L. Rowe, J. Herrick</i> Crystal and noncrystal controlled oscillators from 0.1 Hz to 2 GHz, sinewave, TTL, CMOS and ECL, including XOs TCXOs, TC/VCXOs, VCXOs, VCOs, and OCXOs.	<b>Wiltron Co.</b> <span style="float: right;">226</span> <b>Morgan Hill, CA</b> <i>W. Baxter, B. Austin, R. Thorburn</i> Pulsed CW VNA system, noise figure VNA, W-band mm-wave VNA, 6769 swept frequency synthesizer, 5600 SNA, 6400 RF/analyizer, 60 GHz VNA and components.
<b>TRX</b> <span style="float: right;">1721</span> <b>Attleboro, MA</b> <i>D. Barry, J. Barry</i> Thick-film chip resistors and terminations, and attenuators for surface mount applications. <i>See RF Associates Inc.</i>		<b>Voltronics Corp.</b> <span style="float: right;">301</span> <b>E. Hanover, NJ</b> <i>D. Zavac, S. Sodaro</i>	<b>XL Microwave Inc.</b> <span style="float: right;">330</span> <b>Oakland, CA</b> <b>ZAX Millimeter Wave Corp.</b> <span style="float: right;">903</span> <b>San Dimas, CA</b> <i>D. Zacharias, S. Rigdon</i> 44 to 350 GHz mm-wave components and systems, including antennas, polarizers, orthogonal transducers, detectors, cryogenic mixers, subharmonic and balanced mixers; fixed frequency, mechanically tuned and varactor-tuned Gunn oscillators; frequency multiplexers; calibration loads and radars and radiometers.