



# 1990 MTT-S Exhibition Guide

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

**Accumet Engineering Corp.** 1440  
Hudson, MA

**Acrian, Inc.** 236  
San Jose, CA

*D. Smith, K. Renwick, D. Wotton, R. Thornton, F. Klaner, B.J. McDaniel, G. Irvine, J. Huiskens, L. Leverich, K. McNamara, T. Moller*

Transistors, amplifiers, passive components from 1 MHz to 4 GHz. New products include cellular radio and UHF TV and communications devices in aluminum nitride packages and using new PSAT technology.

**Accuril Inc.** 514  
Fremont, CA

*I. Andres, R. Brown*

2 to 20 GHz dynamic range extender; 100 mW YIG-tracking filters, up to 40 GHz; and mm-wave extenders/multipliers up to 40 GHz.

**Adams Russell** 801  
**A M/A-COM Company**  
Burlington, MA

10 MHz to 18 GHz GaAs and silicon semiconductors products, including: varactors, GaAs MMIC control circuits, MMIC custom circuits, GaAs technology development, foundry services and GaAs material and MMIC products; IF, RF, and microwave components, including coaxial/waveguide components, frequency multipliers, amplifiers, logarithmic amplifiers, control components, waveguide filters and cast components; solid-state mixers, detectors, digital attenuators, switches and control components; coaxial connectors, and passive RF and microwave components; broadband antennas for satellite, multifunction, radar and missile seeker applications; and cables for EW, CNI, radar, test and instrumentation.

**Advance Reproductions Corp.** 535  
North Andover, MA

*C. Losanno, G. Stoll*

High precision photomasks and phototools for the electronics industry; services include Calma GDSII drafting, pattern generation, im-

age repeating, E-line & H-line working plates, PCB panelization and layout drafting, laser photoplotting, complete reprographic and documentation support, data conversion and transfer.

**Advantech** 410  
Montreal, Quebec, Canada

**Advantest America Inc.** 1337  
Lincolnshire, IL

*M. Riley, J. Heitman, L. Rhodes, F. Kamei, T. Takenaka, P. Bazan, M. Hirose*

23 GHz RF spectrum analyzer, 3.5 GHz RF spectrum analyzer, 3.6 GHz spectrum analyzer with controller card option, plotter, EMI software, FFT servo analyzer.

**AEL Defense Corp.** 1220  
Lansdale, PA

*A. Gross, S. Schneider, D. Ritchie, J. Iervolino, M. Kumar, D. Johnson, E. Gertel*

Log amps, DLVAs, VCOs, frequency converters, IF strips, SRAs, receivers, antennas, spiral, log periodic and horns.

**Aerowave Inc.** 1011  
Medford, MA

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

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

**Airpax Co.** 508  
Cambridge, MD

*C. Tinley, R. Bromwell, J. Jones, M. Judkins, B. Tolleson, M. Wilson, K. Rippy, C. Johnston, R. Noyes, E. Noyes, R. Buckley*

Standard microwave housings and closely toleranced custom machined housings incorporating glass-to-metal seals in such materials as Kovar, stainless steels and other materials.

**A.J. Tuck Co.** 816  
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.

**Alan Industries Inc.** 1037  
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.

**Alessi, Inc.** 311  
Irvine, CA

*D. Miller, G. Hunt, T. Reese*

Microwave probe station, which is designed to provide the ideal environment for on wafer microwave measurements, accommodates all brands of microwave probes and is fully planarizable throughout the system including the stage, vacuum chuck, micropositioners and probe mounts.

**Alpha Industries Inc.** 228  
Woburn, MA

*M. Reid, D. Gallagher, C. Genzarella, D. Barker, B. Harris, R. Hebert, G. Llewellyn, D. Emerick and L. Hayman*

A complete line of devices, components, and materials through mm-wave, including semiconductors, amplifiers, attenuators, switches, oscillators, wafers, ceramics, dielectrics and a complete selection of GaAs circuit configurations. Multifunction assemblies also will be exhibited.

**American Micro Components Inc.** 817  
See Southwest Microwave Electronics

**American Technical Ceramics** 244  
Huntington Station, NY

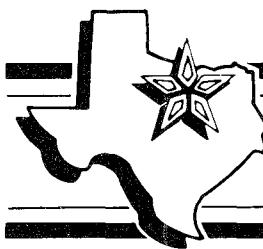
*D. Davis*

RF/microwave multilayer and single layer capacitors for surface mount applications, including ATC 100 series porcelain Superchips® 111 series mm-wavelength Micro-caps® and Sta-Tune™ capacitors, the new trimmable surface-mount chip capacitors.

**Amitron** 1218  
North Andover, MA

*R. Simione*

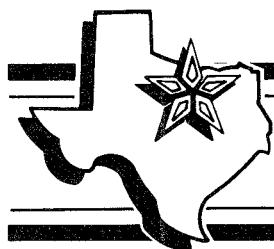
Thick-film microwave circuits, thick-film standard and custom chip resistors and thick-film chip attenuators.



## 1990 EXHIBITION GUIDE

<b>AML Inc.</b> <b>Camarillo, CA</b>	<b>715</b>	<b>Anadigics Inc.</b> <b>Warren, NJ</b>	<b>1422</b>	GHz. TWT amplifiers at power levels from 20 W to 50 kW, hard tube modulator driven magnetron transmitters up to 1 MW and solid-state FET modulators for magnetrons and CFAs up to 150 kW.
<i>J. Inbar, E. McAvoy, T. Mazilu, R. Hetzler, C. Navickas</i>				
High intercept amplifier products, telemetry tracking components, receiving multicouplers and switch matrix systems.				
<b>AMP Inc.</b> <b>Harrisburg, PA</b>	<b>120</b>	<b>Andrew Corp.</b> <b>Orland Park, IL</b>	<b>100</b>	
<i>L. Caddell, D. Peoples, C. Toy, E. Hauck, B. Fisher, C. Nikoloff</i>		<i>B. Perelman, P. Sengstock</i>		
High speed ribbon coax and coaxial cable assemblies; blindmate coax contacts; aerospace and military products; high density connectors; and a wide range of coaxial and triaxial contacts and adapters for flexible and semi-rigid cabling plus fiber optics.		Heliax™ coaxial cables; custom cable assemblies; and 1/2" cable with CATVR rating.		
<b>Amphenol RF Division</b> <b>Danbury, CT</b>	<b>210</b>	<b>Anritsu America Inc.</b> <b>Oakland, NJ</b>	<b>1301</b>	
<i>N. Sladek, N. Buonanno, J. Davis, J. Rizos, M. Rizos, R. Rizos, R. Caldwell, J. Scott, J. Duenkel, S. Fort, C. Henkle, R. McGuire</i>		<i>J. Lidh, H. Felger</i>		
RF/microwave connectors and cable assemblies for flexible and semi-rigid coaxial, twinaxial and triaxial cables.		RF and microwave instruments, including microwave system analyzers, RF spectrum analyzers, microwave spectrum analyzers and frequency synthesizers.		
<b>Amplica Inc.</b> <b>Newbury Park, CA</b>	<b>517</b>	<b>Apollo Microwaves Ltd.</b> <b>St-Laurent, Quebec, Canada</b>	<b>126</b>	
<i>C. Carnegie, D. Pfau, R. Pizzi, G. Keithley, W. Barrett, T. Lingren, M. Yeo</i>		<i>N. Vouloumanos, L. Schatt</i>		
5 MHz to 22 GHz microwave amplifiers and integrated subassemblies; high gain broadband limiting amplifiers, phase and gain matched amplifiers, drop-in phased-array modules, ultra-low noise amplifiers, ultra-broadband amplifiers, switched amplifiers, and amplifiers, mixers, filters, limiters, and switches integrated on single substrates using coplanar waveguide technology.		Standard and custom engineered components and subsystems for telecommunication, defense and industrial applications up to 60 GHz; combining networks for satellite earth terminals, output assemblies for high power amplifiers, filters, filter diplexers, circulators, isolators, terminations, couplers, power combiners, variable ratio combiners, and adapters.		
<b>Amplifier Research</b> <b>Souderton, PA</b>	<b>728</b>	<b>Applied Dielectrics Inc.</b> <b>San Francisco, CA</b>	<b>323</b>	
<i>D. Shepherd, E. Smarz, L. Pokorny</i>		<i>G. Maurer, J. Fuller, J. Firmin, T. O'Brien, R. Clark</i>		
Broadband RF power amplifiers and accessories, 10 KHz to 1 GHz, for laboratory and industrial uses including RF susceptibility testing, wattmeter calibration, NMR/MRI, particle accelerators, EMP simulation, RF plasma research, RF heating and other medical, biological and physical research applications.		Stripline and microstrip teflon circuit boards and multilayer bonded teflon structures.		
<b>Amplifonix Inc.</b> <b>Langhorne, PA</b>	<b>524</b>	<b>Applied Engineering Products</b> <b>New Haven, CT</b>	<b>441</b>	
<i>A. Riben, R. Dubois, J. Grotzinger, M. Sonstein</i>				
Bi-polar and GaAs FET amplifiers, PIN diode and MMIC switches/attenuators.				
<b>Applied Microwave Magazine</b> <b>Lexington, MA</b>	<b>214</b>	<b>Applied Systems Engineering Inc.</b> <b>Fort Worth, TX</b>	<b>1300</b>	
<i>J. White, E. White, C. White, A. Lemay, D. Conti, P. Barry, K. Barry, E. Angelakis, J. Angelakis, H. Kuemmerle, III, R. Vincent, B. Cohen</i>		<i>B. Jostrand, B. Reed, L. Marks, B. Turner, K. Reed, R. Knabe, J. Powell, B. Sokol, T. Kelley</i>		
Applied Microwave is a quarterly subscription magazine with application articles and reports covering 1 MHz to light frequencies, serving the RF, microwave and optical engineering fields.		High power microwave amplifiers, transmitters in frequency ranges from 0.5 through 95		
<b>Arrow/Smith Shelburne Inc.</b> <b>Shelburne, VT</b>	<b>640</b>	<b>Artech House</b> <b>Norwood, MA</b>	<b>618</b>	
<i>W.M. Bazzi, M. Walsh</i>		Books and software on microwave techniques and applications.		
<b>ASM Software Inc.</b> <b>Santa Cruz, CA</b>	<b>1310</b>			
<i>S. DiBartolomeo, A. Morawski</i>		CAD postprocessing and translation software for AutoCAD, Hewlett Packard and EE-sof CAD programs.		

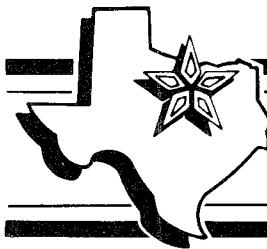
<b>Aspe Inc.</b> Towaco, NJ	134	<b>AVX Corp.</b> Myrtle Beach, SC	418	<b>Buckbee-Mears/St. Paul</b> St. Paul, MN	301
<i>J. Benedict, R. Sachs, A. Sachs, D. McMahon, E. Emery, L. Tureck, K. Pilarz, G. Cole</i>		<i>D. O'Toole, R. Phillips, A. Templeton, J. Horn</i>		<i>J. Confer, F. Grimm, P. Meagher, C. Over, B. Cowell, B. Snider, J. Bowgren, J. Currie, P. Beadles, P. Koosmann, T. Stevens</i>	
Standard and custom designed glass-to-metal seals, and machine-sealing-plating services.		Microwave MLC capacitor; SCDR-S level; SLC; maxi SLC; Accu-F; Accu-P; A Q: MHF, VHF ultra Chip.		Specialty printed circuit boards, microwave antenna boards, multilayer teflon boards up to 48" x 36"; laser machining and photo etching.	
<b>Assemblies Inc.</b> See Southwest Microwave Electronics	817	<b>Aydin Corp. (West)</b> Vector Division Newtown, PA	812		
<b>Astrolab Inc.</b> Warren, NJ	1201	<i>J. Harris, P. Meditz</i>		<b>Bullen Ultrasonics Inc.</b> Eaton, OH	412
<i>S. Toma, M. Ceres, J. Toma, N. Iocco</i>		Standard and custom hybrid amplifiers, high power amplifiers, RF subassemblies and custom microelectronics.		<i>M. Moreland, S. Brown, G. Giffen, F. Fent</i>	
Microwave and RF transmission lines including connectors, adapters, attenuators, cable assemblies and waveguide adapters.				Ultrasonic machining and ultrasonic impact grinders; prototype and production machining in ceramic, glass, sapphire, silicon and other hard, brittle materials.	
<b>A.T. Wall Co.</b> Warwick, RI	614	<b>Ball Corp.</b> Efratom Division Irvine, CA	809	<b>Cablewave Systems</b> North Haven, CT	133
<i>J. Matzen, R. Huntsman, J. Cantwell, S. Sewell, J. Tipton, D. Daley, C. Deinert, C. Gibbs, M. McCaulley, R. Dix</i>		<i>C. Moyer, E. Yrisarri, B. Tysinger</i>		<i>W. Dixon, E. McBride, A. Criscuolo</i>	
Precision rigid waveguide tubing manufactured from aluminum, copper, brass, copper clad invar, coin silver, copper clad aluminum, and other alloys.		Rubidium oscillators and crystal oscillators, as well as customized modular systems.		Microwave parabolic antenna systems, semi-flexible elliptical waveguide, coaxial cable, connectors, pressurization equipment and installation accessories.	
<b>Automatic Connector Inc.</b> Commack, NY	309	<b>Balo Hermetics Co.</b> Butler, NJ	1325	<b>Cabot Ceramics Inc.</b> Greenville, RI	337
<i>H. Kay, R. Hall, J. Brown, C. Dietrich, E. Beaven, W. Ridgley, T. Pressley</i>		<i>E. Rapoza, S. Rapoza, A. Dudas, H. Dudas, J. Gowens, H. Cobb, W. Hoffman</i>		<i>S. DiCarlo, P. Bartigian, K. Chakuroff, P. Cannistra</i>	
RF interconnects, including SMA, PMA, PMMA, SMB, SMC, BNC, TNC, N, and twinax; and UHF, including flexible and semi-rigid cable assemblies.		Hi-rel glass-to-metal sealed packages for microelectronic, microwave, fiber optic and power applications; custom machined kovar packages and standard configurations.		Ceramic packaging for microwave and millimeter microwave applications that include metalized substrates, diodes, transistors, RF and discrete packages.	
<b>Automatic Testing &amp; Networking Inc.</b> Woburn, MA	304	<b>Balo Precision</b> Butler, NJ	1325	<b>Cadence Design Systems, Inc.</b> San Jose, CA	1408
<i>M. Fennelly, V. Zohrabian, V. Adamian, J. Caruso</i>		<i>E. Rapoza, A. Dudas, H. Dudas, S. Rapoza, J. Palotta</i>		<b>California Eastern Labs Inc.</b> Santa Clara, CA	1223
The NP5 on wafer noise parameter test set, the TS110 high power amplifier test set, the IG-100 impedance generator, and the NP4 noise parameter test set.		Hi-rel glass-to-metal sealed packages for microelectronic, microwave, fiber optic and power applications; ceramic/metal packages with 50 ohm strip line feedthroughs, custom machined kovar packages and MIL-STD-883 standard configurations.		<i>L. Lea, B. Chung, B. Tyson, D. Apte, S. Morris, J. Barry, D. Henoult, K. Ebel, S. Pavlik</i>	
<b>Avantek Inc.</b> Santa Clara, CA	1117	<b>Boonton Electronics Corp.</b> Randolph, NJ	509	A full line of NEC RF and microwave semiconductors, including small signal and power bipolar transistors; GaAs analog and silicon MMICs; digital ICs; GaAs and silicon presealers; low noise and power GaAs FETs; hybrid ICs; silicon PIN diodes; and GaAs and silicon varactor, Schottky and Impatt diodes.	
<i>K. Wadors, S. Monroe, K. Cobb, J. Larkins, S. Revert, D. VanDiver</i>		<b>Brimrose Corp. of America</b> Baltimore, MD	1019		
Microwave and mm-wave semiconductors, components and functional subassemblies; YIG-tuned oscillators, amplifiers and the uAVPAK™ hermetic microstrip package, and advanced silicon MMIC modules including a 4.5 GHz divide-by-four, 5 GHz active mixer/IF amplifier, and transimpedance amplifiers.		<i>R. Snyder, D. Leepa</i>		<b>Cardiff Publishing</b> Microwave Systems News Los Altos, CA	139
		VHF to C-Band video and telemetry transmitters, microwave components and subsystems, C-band radar simulator; acousto-optic components and systems; Bragg cells, acousto-optic scanner and spectrum analyzer; infrared detectors in the 2 to 12 micron range, IR detector amplifiers; X-ray Darc system; and digital automated rocking curve for analysis of semiconductor material topography.		<i>L. Besser, R. Davis, J. Cotsworth, M. Adams, S. Steeves, C. Sherod</i>	
				<i>Microwave Systems News</i> , a monthly publication that serves OEM systems markets and	



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corresponding users in the microwave and communication field.				
<b>Cardiff Publishing</b> MSN, RF Design Englewood, CO	139	<b>Compac Development Corp.</b> Holbrook, NY <i>C. Groves, P. Rao, W. Smith</i>	1338	<b>Cougar Components</b> Santa Clara, CA <i>D. Cheadle, N. Cheadle, J. Musquez</i>
<b>Caro-Line Habigand</b> Toulouse, France	1414	Custom and standard RFI/EMI shielded enclosures; RF connectors, coaxial attenuators, terminations, gasketing, and TSS and TSD switches.		RF and microwave cascadable amplifiers and signal processing components.
<b>Cascade Microtech Inc.</b> Beaverton, OR	518	<b>Compact Software</b> Paterson, NJ <i>L. Cook, J. Cook, R. Davo, M. Davo</i>	941	<b>Crystal Technology</b> Palo Alto, CA <i>S. Mussynski, J. Meyers, D. Tai</i>
<i>D. Barnard, T. Burcham, E. Strid, R. Gleason, D. Carlton, D. D'Almeida, J. Ladwig, P. Wilhelmsen, K. Jones, D. Riordan</i>		<b>Compex Corp.</b> Medford, NJ <i>L. Cook, J. Cook, R. Davo, M. Davo</i>	1420	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 system.
Manual wafer probe station, DC to 65 GHz wafer probes, noise parameter test set, CAT test executive software, microstrip test fixture and microprobe holders.		<b>Component General Inc.</b> Odessa, FL <i>L. Cook, J. Cook, R. Davo, M. Davo</i>	1239	
<b>Celeritek Inc.</b> San Jose, CA	1132	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.		<b>Daden Associates Inc.</b> Laguna Hills, CA <i>L. Jones, D. Hook, D. Henry</i>
<i>R. Jones, G. Koker, T. Herdt, D. Reinholm, S. Fujisaka, C. Wilbanks, R. Newman, G. Payne</i>		<b>Comstron Corp.</b> Division of Aeroflex Plainview, NY <i>W. Meditz, L. Borow</i>	522	RF and microwave filters from 1 MHz to 26.5 GHz, including bandpass, bandstop, low-pass, and highpass.
GaAs FET amplifiers, subsystems, MMICs and GaAs FETs.		Fast switching frequency synthesizers with a frequency range of 10 MHz to 18.4 GHz, Xtal and L/C filters, phase lock sources, down-converters and subsystems.		<b>Daico Industries Inc.</b> Compton, CA <i>W. Grunau, G. Peck, K. Tubbs</i>
<b>Ceratronics Inc.</b> Westboro, MA	204	<b>Connecting Devices Inc.</b> Long Beach, CA <i>C. Wirtz, J. Dunbabin, G. Black, W. Carpenter</i>	808	IF/RF switches, attenuators, phase shifters and integrated assemblies.
<i>J. Walker, K. Anzai, J. Blum</i>		Handi-Form™ flexible reformable cable assemblies, Model 5999 phase adjustable SMA connector, 500 series automatic network analyzer test cables, TNC swept right angle in-series adapters, and 7 mm adapters.		<b>DB Products Inc.</b> See Southwest Microwave Electronics <i>817</i>
High thermal conductivity aluminum nitride substrates, including polished, metalized and direct bond copper substrates for maximum circuit density, high power microwave applications.		<b>Continental Microwave &amp; Tool Co. Inc.</b> Hampton, NH <i>R. Cicale, D. Wall, J. Ripel, T. Brown</i>	413	
<b>Circuit Busters Inc.</b> Stone Mountain, GA	6	Flexible and rigid waveguide assemblies, passive microwave components and waveguide antennas; rectangular and double ridge waveguide in rigid and seamless flexible styles from WR284 to WR22.		<b>Delta Microwave Inc.</b> Camarillo, CA <i>J. Olsen, R. Reed</i>
<i>R. Rhea, M. Rhea</i>				Microwave filters, multiplexers, gain equalizers, filter/amplifiers, isofilters and integrated assemblies.
RF and microwave engineering software for IBM PCs and compatibles; new simulation program, = SuperStar = Professional Extension, including Monte Carlo; user models; microwave line models; and filter and oscillator synthesis software.				<b>Design Technique</b> Chatsworth, CA <i>D. Fealkoff, J. Marzan, G. Marzan, K. Whitwood</i>
<b>Coleman Microwave Co.</b> Edinburg, VA	803			Microwave on-wafer probes, probe stations, microstrip probes and test fixtures.
<b>Communications Techniques Inc.</b> Whippany, NJ	1113			<b>Dielectric Laboratories Inc.</b> Cazenovia, NY <i>N. Iocco, R. Mitchell, B. Semans, J. Stauring, G. Vorlop, G. Kent, M. Ingalls</i>
<i>T. Ede, B. Badami, W. Anthony, L. Miciak</i>				Low loss ceramic substrates, QPL approved single layer microwave ceramic capacitors, QPL approved ultra high-Q porcelain capacitors, RF power capacitors for NMR applications and low ESR 0.01/0.1 $\mu$ F capacitors.
Solid-state microwave signal sources, low phase noise phase-locked oscillators, ultra low noise microwave and VHF synthesizers in discrete bands to 23 GHz; frequency test translators, synthesized STALO/COHO/AFC subsystem to add MTI capability to pulsed magnetron radars, frequency multipliers and cavity oscillators.		<b>Coors Ceramics Co.</b> Electronics Division Golden, CO <i>E. Blitz, R. Langman, J. Knight, A. Suppinger</i>	308	
		Ceramic substrates, ceramic multilayer packages, crystal carrier and oscillator packages, microwave packages, 50 $\Omega$ feed throughs, metallized beryllium and alumina substrates, laser scribing and machining of substrates, SLAM chip carriers.		<b>Ditom Microwave Inc.</b> San Jose, CA <i>D. Hassett, T. Weisz, B. Hawkins</i>
				Coaxial and waveguide ferrite isolators and circulators.

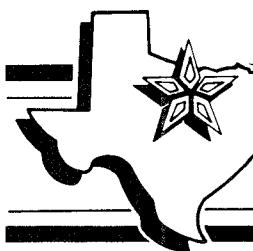
<b>Dorado Co.</b> <b>Seattle, WA</b>	<b>110</b>	
<i>H. Rutstein, N. Rutstein, M. Lu, E. Sedlik</i>		
30 MHz to 1500 GHz microwave and mm-wave devices; 30 MHz to 78 GHz YIG filters; 400 MHz to 150 GHz ferrite isolators/circulators; 26.5 to 325 GHz power meter; 36 to 1500 GHz backward wave oscillators; 10 to 240 GHz passive waveguide devices, including attenuators, bends, couplers, frequency meters, hybrids, loads, shorts, slotted lines, straights, switches, tees, transitions, twists, solid-state devices, detectors, Gunn oscillators, mixers, noise sources, programmable attenuators, phase shifters and coaxial type devices		
<b>Dow-Key Microwave Corp.</b> <b>Ventura, CA</b>	<b>705</b>	
<i>E. Kjellberg, J. Dysart, J. Wleklinski, J. Williams, J. Larson, V. Harter</i>		
Microwave switches and coaxial RF relays.		
<b>Dynatech Microwave Technology</b> <b>Calabasas, CA</b>	<b>642</b>	
<i>W. Reed, M. Long, J. Wenzel</i>		
DC to 40 GHz electro-mechanical switches, integrated assemblies, switch matrices, video switches, Idi-reliability and space qualified hardware.		
<b>Dynawave Inc.</b> <b>Georgetown, MA</b>	<b>220</b>	
<i>C. Lewis, D. Gartzke, A. Scannelli</i>		
Precision microwave coaxial connector and cable assemblies, including SMA, SSMA, KTNC Type N, blindmate Dynamate, blindmate Dynamite, Dynacons interconnects, Dynaseal hermetic cable assembly and delay lines.		
<b>Eaton Corp.</b> <b>Electronic Instrumentation Division</b> <b>Los Angeles, CA</b>	<b>222</b>	
<i>L. Caney, M. Freschi, T. Audia, J. Zack</i>		
High performance RF and microwave test and measurement instrumentation, including an ultra fast switching synthesizer with low phase noise and low spurious.		
<b>EDO Corp.</b> <b>Barnes Engineering Division</b> <b>Shelton, CT</b>	<b>104</b>	
<i>R. Stetson, C. Goane, R. Paulson</i>		
EDO/Barnes will display the new Compu-Therm III infrared thermal imaging system and RM-2A spot temperature microscope for use in microelectronic design, failure analysis and reliability engineering.		
<b>EEsof Inc.</b> <b>Westlake Village, CA</b>	<b>1129</b>	
<i>C. Abronson, T. Reeder, G. Kanaan, W. Best, D. Mutch</i>		
CAE software for high frequency analog and		
<b>EEV Inc.</b> <b>Elmsford, NY</b>	<b>804</b>	
<i>F. Oakes, S. Bliek, A. Sayers, T. Ellis, J. Thorne, D. Barker</i>		
TWTs, magnetrons, including a phased-locked magnetron amplifier unit; microwave devices, including a KW-band lightweight integrated microwave package; and mm-wave components.		
<b>EIP Microwave Inc.</b> <b>San Jose, CA</b>	<b>837</b>	
<i>L. Johnson, D. Mulder, J. Rogers, J. Khazam</i>		
Pulsed and CW microwave and mm-wave 10 Hz to 170 GHz frequency counters, including phase locking counters and CW/pulsed counters.		
<b>Electro-Films Inc.</b> <b>Warwick, RI</b>	<b>1207</b>	
<i>B. Black, T. Petit, F. Urrico</i>		
Thin-film passive microwave components, metalized plates, patterned and etched substrates, microwave chip resistors, metalized thru holes and patterned wrap-around edges, fine-line couplers to $0.0004" \pm 0.00005"$ ; alumina, BEO, quartz, AlN substrates, TaN and Ni Cr resistors. Ti, TiW, Mo, Cu, Au, Ni, Pd, Cu metallization.		
<b>The Electro-Mechanics Corp.</b> <b>Austin, TX</b>	<b>510</b>	
<i>K. Matloubi, G. Watkins, M. Mart</i>		
The 1 to 18 GHz broadband isotropic probe system, a non-intrusive system, which uses the latest NIST technology for monitoring field strength in both near and far fields, from up to eight probes simultaneously.		
<b>Electronic Decisions Inc.</b> <b>Urbana, IL</b>	<b>115</b>	
<i>D. Fleisch, P. Haag</i>		
The PTF, a software-programmable signal processor based on acoustic charge transport (ATC) technology, is used to generate, correlate, and filter signals with bandwidths up to 100 MHz. Applications include electronic warfare, communications, radar and instrumentation.		
<b>Electro Rent Corp.</b> <b>Van Nuys, CA</b>	<b>113</b>	
<i>J. Hart, T. Pacey, C. Eckles, G. Landers, R. Garrett, D. Flowers, W. Kosmowski, G. Phillips</i>		
Rental of RF & microwave engineering work-		
<b>EMC Technology Inc.</b> <b>Cherry Hill, NJ</b>	<b>1208</b>	
<i>P. Semitschew, S. Rollin, L. Catalina, B. Hawn</i>		
Detectors, terminations, loads, attenuators, DC blocks, shorts, capacitors, resistors and connectors, programmable attenuators, surface mount devices, and custom RF circuits.		
<b>Emerson &amp; Cuming Inc.</b> <b>Woburn, MA</b>	<b>123</b>	
<i>D. Turi, L. Byrnes, J. Gear, B. Berardi</i>		
Microwave absorbers, anechoic chambers, RF attenuation materials, and absorbers for antenna pattern control, surface current attenuation materials, RCS reduction materials.		
<b>EMF Systems Inc.</b> <b>State College, PA</b>	<b>1035</b>	
<i>J. Chernega, M. Cleland, J. Chernega</i>		
Solid-state microwave oscillators, VCOs, crystal, VCXOs, DROs, phase-locked oscillators, synthesizers, combgenerators, multicouplers, downconverters and special 1 MHz to 18 GHz signal sources.		
<b>Epitronics Corp.</b> <b>Phoenix, AZ</b>	<b>919</b>	
<i>P. Crook, J. Mayne, B. Mills, R. Adams, D. Davito, D. Currie</i>		
Custom and semicustom III/V epitaxial structures utilizing MOCVD technology.		
<b>Epsilon Lambda Electronics Corp.</b> <b>Geneva, IL</b>	<b>818</b>	
<i>R. Knox, K. Wood, P. Papaevangelou, S. O'Brien</i>		
Millimeter-wave components and subsystems for radar and communications applications, including mm-wave GaAs and InP Gunn diode oscillators and VCOs; simplex/duplex mm-wave communications links; and tactical solid-state radar transceivers, including FM CW and high power short pulse types.		
<b>stations, data products, digital design, data acquisition, telecommunications and general purpose test and measurement equipment.</b>		
<b>Electro Technik Industries</b> <b>Clearwater, FL</b>	<b>101</b>	
<b>Elisra Electronic Systems Ltd.</b> <b>Microwave Components Division</b> <b>Bnei Berak, Israel</b>	<b>116</b>	
<i>J.N. Feldfeber, I. Eliahu, E. Fridman</i>		
Filters, low noise and high power amplifiers, solid-state switches and oscillators, mixers, power dividers and couplers, mm-wave components, detectors, limiters, matrices, multicouplers, supercomponents and subsystems.		



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<b>Explosive Fabricators Inc.</b> <b>Louisville, CO</b> <i>H. Mansell, P. Hingorany, W. Sharp</i>	137	<b>Flann Microwave Inc.</b> See Southwest Microwave Electronics	817	blies from WR-229 through WR-8; filters, diplexers, OMTs, power dividers, couplers, transitions, bends and horns.	
<b>Etek™ electronic products, including explosively clad hermetic microwave and power hybrid electronic packages.</b>					
<b>FEI Microwave Inc.</b> <b>Sunnyvale, CA</b> <i>P. Clark, P. Thesing, W. Patton, J. Humphrey, B. Christensen, G. Korb, F. Lemmon, B. Bridge, J. Lee, M. Adamo, D. Bush, R. Curby, S. Van Fleteren</i>	400	<b>Flexco Microwave, Inc.</b> Port Murray, NJ	1112	<b>Gamma Microwave Inc.</b> Santa Clara, CA	503
Microwave devices, components, and vertically integrated assemblies for the EW, radar, missile, satellite, test equipment, and telecommunications markets.					
<b>Ferranti International Computer Systems Ltd.</b> <b>Manchester, England</b> <i>D. James, F. Savage, M. Evanson</i>	131	<b>Florida RF Labs Inc.</b> Stuart, FL <i>D. Sampson, G. Fenex, G. Moore, F. Scalzo, R. Newman, C. Wilbanks, G. Payne, S. Clemens</i>	512	<b>Gel-Pak Division/Vichem Corp.</b> Mountain View, CA	1016
Microwave components and subsystems, including standard phase-locked oscillators and multipliers, wideband oscillators and filters; low noise amplifiers, solid-state power amplifiers, including high power greater than 150 W at 6 GHz, microwave common modules and subsystems, including EW receivers, radar altimeters and AVSAT low noise amplifier/diplexers.		Microwave thin film resistor products, including flange, chip, threaded power and coaxial terminations; rod stud, chip, power and disc resistors; waveguide vanes, power and film card stripline attenuators; and flexible, semi-rigid, phase matched, delay lines coaxial cable assemblies.		<i>M. Althouse, S. Graves, F. Walsh</i>	
<b>Ferranti International Industrial Electronics Ltd.</b> <b>Manchester, England</b> <i>J. Lowe, M. Wood, B. O'Donnell</i>	131	<b>Focus Microwaves Inc.</b> Pointe Claire, Quebec, Canada <i>C. Tsironis, I. Fichtner</i>	533	<b>General Microwave Corp.</b> Amityville, NY <i>S.A. Rinkel, M. Wind, B. Grand, A. Caggiano</i>	1217
Ferrite circulators and isolators, receiver protectors incorporating STC facilities, products for particle accelerator systems and TWTs and power supplies.		Computer-controlled microwave tuners operating with IBM-PC portable computer. The system includes noise parameter, amplifier and oscillator load pull and intermodulation analysis capability. Test frequencies range is from 0.8 to 60 GHz.		Microwave oscillators, including dielectric resonant, voltage-controlled and digitally-tuned; microwave PIN diode control components, including attenuators, modulators, switches, phase shifters, limiters, coaxial mm-wave; and microwave instruments including, automatic single and dual channel peak power meters, average power meters, and radiation hazard measuring systems.	
<b>Ferretec Inc.</b> <b>Fremont, CA</b> <i>A. Rosenzweig, D. Killen, D. Hoekstra, R. Krueger, C. Schiebold, S. Hammond, E. McBride, D. McBride</i>	514	<b>FSY Microwave Inc.</b> Rockville, MD <i>W. Forrestel, J. Yania, F. Behdin</i>	1341	<b>GHz Technologies Inc.</b> St. Laurent, Quebec, Canada	1400
Broadband YIG-tuned oscillators, YIG-tuned open and closed loop filters, Ferretrac® filters, YIG-tuned harmonic generators, and YIG-based integrated receiver front ends/tuners in the 0.5 to 40 GHz frequency range.		RF and microwave filters, diplexers and multiplexers covering the DC to 26.5 GHz frequency range. Topologies include LC, miniature LC, coaxial combline, cavity, interdigital, microstrip, suspended substrate, and waveguide.		<b>Giga-tronics Inc.</b> Pleasant Hill, CA	625
<b>Filtran Microcircuits Inc.</b> <b>Ottawa, Ontario, Canada</b> <i>C. Sutton, D. Thomson, K. Ramachandran</i>	401	<b>Fujitsu Microelectronics Inc.</b> Santa Clara, CA <i>S. Rupp, B. Utter, G. Medley, R. Maly, J. Fukaya, Y. Hirano</i>	700	<i>J. Scheck, H. Mette, R. Loft</i>	
High resolution circuits manufactured on teflon and ceramic for commercial and military microwave communications, plated-through hole technology on thin-film ceramic.		Quarter micron gold gate FETs, both low noise HEMT, and K-band power FETs; 12 and 25 W C-band FETs; medium power and general purpose microwave FETs; and power amplifiers.		The 7000 series multi-band and 6000 series single-band microwave sources; and signal generators and sweepers operating over the frequency range from 10 MHz to 75 GHz.	
<b>Gamma-f Corp.</b> <b>Torrance, CA</b> <i>D. Deck, L. Alford, F. Hendrickson, G. Peale, M. Stupnik, G. Kasai</i>		<b>Harris Microwave Semiconductor</b> Milpitas, CA <i>N. Pressel, K. DeSalvo, S. Hecker, M. Emerson, S. Varaitch, R. Sawires, V. Kovacevic</i>	628	<b>Haverhill Cable &amp; Manufacturing Corp.</b> Haverhill, MA <i>T. Kneeland, D. Kneeland</i>	408
		Passive microwave components and assem-		MIL-C-17 semi-rigid coaxial cable in standard types and various sizes and finishes.	

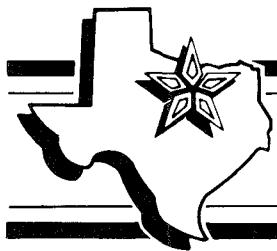
<b>Herotek Inc.</b> <b>Sunnyvale, CA</b> <i>C. Lai, C. Lai, R. O'Connor, J. Wong</i>	<b>229</b>	<b>Hughes Aircraft Co.</b> <b>Microelectronic Circuits Division</b> <b>Newport Beach, CA</b> <i>M. Nusbaum, A. Krum, J. Adams, D. Lance, J. Hamilton, B. Campbell, J. Boyer, R. Brown, K. Jones, R. Snow, R. Geiser, K. Lake</i>	<b>209</b>	tors; thin- and thick-film metalization down to 0.25 mil with 50 $\mu$ inch tolerances; and dicing services.
<b>Hewlett-Packard Co.</b> <b>Palo Alto, CA</b>	<b>329</b>	Military/space grade hybrids and a variety of component level products, such as precision quartz crystal, L/C and crystal filters, high stability/low noise crystal oscillators, oven-controlled oscillators and RF modules, such as frequency synthesizers, receivers and excitors.		
<b>Hittite Microwave Corp.</b> <b>Woburn, MA</b> <i>F. Paik, Y. Ayasli</i>	<b>1021</b>	<b>Hughes Aircraft Co.</b> <b>Microwave Products Division</b> <b>Torrance, CA</b> <i>A. Edberg, R. Larson, H. Bell, K. Conklin, J. Nichols, M. Smith, R. Brownell, J. Paul</i>	<b>1100</b>	
MMIC chips for amplifiers, oscillators, switches, converters and MMIC-based integrated subsystems.		20 to 300 GHz mm-wave devices, components, subsystems and instruments; GaAs FET products; GaAs MMICs; GaAs MMIC design center and foundry services; and RCS systems.		GaAs technology and MMIC foundry service.
<b>Holz Industries Inc.</b> <b>San Diego, CA</b> <i>G. Holz, C. Somach</i>	<b>525</b>	<b>Inmet Corp.</b> <i>See Southwest Microwave Electronics</i>	<b>817</b>	
DC to 26 GHz custom and off-the-shelf ceramic packages, thin- or thick-film metalized substrates, integrated packages with substrates and components, including capacitors, resistors, filters, multilayer ceramic circuits and integral packages, GaAs and MMIC applications.		<b>Insulated Wire Inc.</b> <b>Danbury, CT</b> <i>S. Bruno, A. Nixon</i>	<b>712</b>	RF coaxial connectors, including K connectors to 46 GHz, SMA, SMB, SMC connectors, solderless, precision N and TNC connectors, between series adaptors, and RF coaxial cable assemblies.
<b>Horizon House-Microwave Inc.</b> <b>Norwood, MA</b> <i>W. Bazzi, R. Briden, C. Ayotte, A. Ambrose</i> <i>Microwave Journal and Journal of Electronic Defense publications, and Artech House books.</i>	<b>620</b>	<b>Integrated Microwave</b> <b>San Diego, CA</b> <i>D. Clark, M. Monte, D. Bree, P. Hannah, D. McMahill, C. Peacock</i>	<b>632</b>	<b>JCA Technology</b> <b>Newbury Park, CA</b> <i>J. Chao, D. Biddle</i>
		RF/microwave filters, multiplexers, switch-filter banks, low noise filter-amplifier modules, varactor-tuned filters, ISO-filters, limiter detectors, frequency converters and frequency multiplexers.		Microwave low noise amplifiers, microwave control components and microwave subassemblies.
<b>Huber &amp; Suhner Inc.</b> <b>Woburn, MA</b> <i>S. Saia, B. Rothman, D. Finan</i>	<b>403</b>	<b>Inter-Continental Microwave</b> <b>Santa Clara, CA</b> <i>W. Schuerch, K. Lee, R. Wolfe, S. Law</i>	<b>819</b>	<b>Johanson Dielectrics Inc.</b> <b>Burbank, CA</b> <i>J. Marks</i>
Sucoflex microwave cable assemblies; microwave components, including adaptors, attenuators, terminations, power dividers, filters and EMP protectors; RF and microwave connectors; coaxial cable and coaxial cable assemblies		Microwave test fixtures for measuring chip transistors, MMICs, packaged transistors, packaged components, microwave circuits and other multiport devices. Test fixture debonding with TRL, LRL, and TOSL calibration methods. Non-destructive beam lead diode test fixtures.		High-Q ceramic chip capacitors, single layer ceramic chip capacitors, multilayer ceramic chip capacitors and multiple capacitor arrays.
<b>Hughes Aircraft Co.</b> <b>Electron Dynamics Division</b> <b>Torrance, CA</b> <i>A. Edberg, R. Larson, H. Bell, K. Conklin, J. Nichols, M. Smith, R. Brownell, J. Paul</i>	<b>1100</b>	<b>Ion Beam Milling Inc.</b> <b>Manchester, NH</b> <i>R. Quagan, G. Quagan, J. McDonnell</i>	<b>421</b>	<b>Johanson Manufacturing Corp.</b> <b>Boonton, NJ</b> <i>T. Rowan, B. Rowe, R. Kapner</i>
1 to 220 GHZ TWTs and TWT amplifiers.		Attenuator pads, networks and chip induc-		Variable capacitors and microwave tuning elements.



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<b>Journal of Electronic Defense</b> <b>Norwood, MA</b> <i>H. Gershmanoff, S. Hardy, J. Hinojosa, A. Braun, R. Kaufman, D. Herskovitz, E. Tokarz</i>	<b>620</b>	<b>K&amp;L Microwave Inc.</b> <b>K&amp;L Oscillatek</b> <b>Olathe, KS</b> <i>R. Stevens</i> Crystal oscillators.	<b>1101</b>	<b>Lemo rF Inc.</b> <b>Huntingdon Valley, PA</b> <i>J. Finerfrock, M. Moore</i> Microwave connective products, including a complete line of SMA connectors and custom cable assemblies, and the 10 GHz Quick-Lok connector for high package density applications.	<b>1314</b>
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>Kaman Instrumentation</b> <b>Colorado Springs, CO</b> <i>S. Perry, G. Barney, T. Dillahunt</i>	<b>328</b>	<b>Kopin Corp.</b> <b>Taunton, MA</b> <i>R. Bates, M. Micci, J. Salerno, P. Smith</i> Silicon-on-insulator wafers manufactured by the isolated silicon epitaxy (ISETM) process; GaAs/AlGaAs epitaxial wafers, including heterojunction bipolar transistors (HBTs), HEMTs and LEDs; and GaAs on silicon wafers up to six-inches in diameter.	<b>1307</b>		<b>1022</b>
Semi-flexible cable assemblies, hermetic connectors, and SiO <sub>2</sub> dielectric, coaxial cable assemblies.					
<b>KDI/Triangle Electronics</b> <b>East Hanover, NJ</b> <i>D. McConnell, C. Schraufnagl, B. Hartwig, T. Braviak, H. Shinn</i>	<b>1343</b>	<b>Krytar</b> <b>Sunnyvale, CA</b> <i>T. Russell, M. Molley, C. Gentile</i> Ultra broadband microwave components, including directional detectors, directional couplers, 90° 3 dB hybrids, 180° 3 dB hybrids, zero bias Schottky detectors, coaxial terminations covering 0.01 to 40 GHz.	<b>612</b>	<b>Litton Airtron</b> <b>Morris Plains, NJ</b> <i>B. Ost, G. Keyes, J. Knapp, J. Michalski, H. Faust</i> Airborne antennas, waveguide products, high power microwave components and RF subsystems.	
DC to 18 GHz components and subassemblies; resistors, attenuators, terminations, couplers, dividers, switches, oscillators, phase shifters, and digital attenuators that use thin-film, thick-film and softboard technologies.					
<b>Kings Electronics Co. Inc.</b> <b>Tuckahoe, NY</b> <i>R. Dock, E. Lagarto, F. Della Iacono, H. Pessah</i>	<b>704</b>	<b>KW Microwave</b> <b>San Diego, CA</b> <i>P. Cox, D. Peterson, L. Yates, H. Harrison, P. Buckley</i> Bandpass, highpass and lowpass filters; multipliers; multiplexers; diplexers; switch filters; ferrites; and integrated subsystems, operating over the frequency range from 500 KHz to 40 GHz.	<b>621</b>	<b>Litton Solid State</b> <b>Milpitas, CA</b> <i>L. Nielsen, L. Newbold, D. Martell, C. Blum, M. Parry, S. Ray</i> Microwave GaAs FET low noise to medium power, thin-film hybrid substrate for microwave applications, amplifier, oscillator and subsystems.	<b>1022</b>
RF coaxial connectors and related interconnection devices for aerospace, military, telecommunication, computer, aircraft, broadcast applications.					
<b>K&amp;L Microwave Inc.</b> <b>Salisbury, MD</b> <i>N. Cherrix, D. Chambers, C. Schaub, J. Price, J. Tinkler, P. Wiltsey</i>	<b>1101</b>	<b>Kyocera America Inc.</b> <b>Ceramic Substrate Division</b> <b>San Diego, CA</b> <i>L. Gibson, G. Scott</i> Advanced ceramic TF substrates, LTS lids, insulators, high dielectric constant substrates, solder coated lids, press parts, transparent glass lids and aluminum nitride substrates.	<b>321</b>	<b>Locus Inc.</b> <b>State College, PA</b> <i>E. Brem, T. Steidel</i> RF and microwave components for the telecommunications industry. Specializing in state-of-the-art amplifiers, image reject mixers, converters, and RF/microwave assemblies.	<b>1033</b>
500 KHz to 40 GHz microwave and RF components, including miniature filters, cavity and waveguide filters, crystal filters, tunable filters, frequency agile and integrated subsystems, integrated subassemblies, coaxial switches to 26.5 GHz and RF switching matrices.					
<b>K&amp;L Microwave Inc.</b> <b>K&amp;L Quartztek</b> <b>Phoenix, AZ</b> <i>M. Story, P. Lorenz</i>	<b>1101</b>	<b>Kyocera America Inc.</b> <b>Metallized Division</b> <b>San Diego, CA</b> <i>A. Buck, B. Herritage, J. Bartholomew, R. Webb, F. McMahon, D. Hughes</i> Advanced ceramic RF packages, microwave packages, surface mount amplifier packages, MMIC packages, and alumina and aluminum nitride metallized substrates.	<b>321</b>	<b>LogiMetrics Inc.</b> <b>Plainview, NY</b> <i>M. Feigenbaum, E. Feigenbaum, E. Blum, E. Blum</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 use in both military and commercial applications on ground and airborne platforms; Satcom communication amplifiers and radiated susceptibility test sets.	<b>521</b>
Quartz crystals and quartz crystal filters.					
<b>Lectronic Research Labs Inc.</b> <b>Camden, NJ</b> <i>B. Raub, K. Reid, E. Stettisch, S. Rheuban, J. Diskin</i>	<b>531</b>	<b>Loral Microwave</b> <b>Frequency Sources</b> <b>Chelmsford, MA</b> <i>B. Knowles, D. Brown, J. Langevin, T. Blanco, W. Sobie, D. Langan, M. Koechlin, J. Slayton</i> Custom designed DTO, VCO, stable oscillators, special control devices, multifunction assemblies and microwave semiconductors.			<b>929</b>
X-band microwave trainer and assorted reconditioned products.					

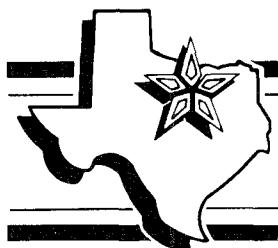
<b>Loral Microwave</b> <b>Narda</b> <b>Hauppauge, NY</b> <i>J. Coppola, B. Leibowitz, R. Damiano, R. Koelzer, R. Strickland, V. Chitkara</i> Mixers, waveguides, and amplifiers, power dividers, couplers, pin switches, attenuators, and DROs, expanded mm-wave and high power components, Smarts, and innovative radiation hazard monitoring instruments.	929	<b>Lucas Epsco Inc.</b> <b>Microwave Technologies Division</b> <b>Mississauga, Ontario, Canada</b> <i>P. Balodis, P. Mercer, J. Miller</i> GaAs FET broadband, octave and multi-octave, medium and high power amplifiers from 2 GHz to mm-wave; and coaxial, waveguide and mixed media ferrite components up to 30 GHz.	604	<b>Magnum Microwave Corp.</b> <b>Fremont, CA</b> <i>H. Fowler, L. Earl, J. Talbot, M. Streitmatter, W. Heichel, J. Lee</i> RF and microwave mixers, RF and microwave VCOs, dielectric resonator oscillators and integrated assemblies.	1237
<b>Loral Microwave</b> <b>Narda West</b> <b>San Jose, CA</b> <i>L. Becker, B. Swartz, D. Immekus, L. Miller</i> Isolators, circulators, GaAs FET amplifiers, filters, multiplexers, gain equalizers, cavity and DRO oscillators, integrated assemblies and polar discrimination.	929	<b>Lucas Weinschel Inc.</b> <b>Gaithersburg, MD</b> <i>C. Crews, J. Harris, G. McNamara, L. Pregley</i> Programmable, variable, step and fixed attenuators, connectors, RF and microwave power measuring instruments.	604	<b>Mansol Ceramics Co.</b> <b>Belleville, NJ</b>  <b>Matcom Inc.</b> <b>Palo Alto, CA</b> <i>B. Jones, C. Huynh, B. Hampton, E. deVera, T. Shino, K. Akada</i> Microwave semiconductors.	1118
<b>Loral Microwave</b> <b>Wavecom</b> <b>Northridge, CA</b> <i>W. Anderson, G. Etzler, N. Renfrow, M. Okano, H. Clark Bell, W. Harrison</i> Coaxial and waveguide filters and multiplexers, power dividers and combiners, and electromechanical coaxial switches for commercial, military and space applications.	929	<b>Lucas Zeta Inc.</b> <b>San Jose, CA</b> <i>B. Dominguez, A. Leotta, M. Mallinger, J. Spear, N. Stecklein</i> Microwave signal generation and signal processing components, and DF/intercept subsystems and systems.	604	<b>Materials Research Corp.</b> <b>Pearl River, NY</b> <i>T. Stensgard, J. Walker, P. LaTouche, M. Hill, R. Buckley</i> Thin-film substrates, thin-film metalization, custom etched circuit and custom patterned material.	445
<b>Lorch Electronics</b> <b>St. Petersburg, FL</b> <i>C. McCoy, V. Hazners</i> RF and IF signal processing components, including mixers, microwave filters, electronic switches, switch matrixes, digital phase shifters, digital attenuators, phase detectors/comparators/shifters/modulators, couplers, hybrids and integrated modules.	807	<b>Luxtron</b> <b>Mountain View, CA</b>	136	<b>Maury Microwave Corp.</b> <b>Rancho Cucamonga, CA</b> <i>M. Maury, Jr., J. Adamson, R. Ramirez, B. Pastori, P. Gianfortune, G. Simpson</i> DC to 110 GHz microwave components and instruments, including automated tuner system (ATS), ATS load-source/pull software, ATS controller, metrology grade sliding terminations, connector gages, calibration standards for network analyzer measurements, universal transistor test fixture, coaxial, waveguide and mm-wave calibration kits for vector automatic network analyzers, precision mm-waveguide devices, airline standards, 1.05 max SWR waveguide to coaxial adapters, coax-to-coax adapters and noise calibration equipment.	422
<b>Lucas Aerospace Inc.</b> <b>Communications &amp; Electronics Division</b> <b>Hopkinton, MA</b>  <b>Lucas EPSCO Inc.</b> <b>Hopkinton, MA</b> <i>W. Coffin, J. Dhimos, J. Langley, J. Lowe, R. Ranslow, J. Shalhoub, G. Smith, C. Warrington</i> GaAs FET narrowband power amplifiers from 2 GHz to 18 GHz and output power levels to 1 W; high power CW and pulse signal sources with cavity oscillator and magnetron plug-in heads; passive waveguide and coaxial components, combiners, dividers, switches, filters, antennas and antenna systems.	604 604	<b>M/A-COM Inc.</b> <b>Burlington, MA</b> DC to 110 GHz GaAs and silicon semiconductor products, including varactors, bipolar transistors, GaAs MMIC control circuits, MMIC custom circuits, GaAs technology development, foundry services and GaAs material and MMIC products; IF, RF, microwave and mm-wave components, including coaxial/waveguide ferrite components, frequency multipliers, amplifiers, high power control components, waveguide filters and cast components; solid-state mixers, detectors, VCO, DROs, DTOs, digital attenuators, switches and control components; coaxial connectors, precision cable assemblies, and passive RF and microwave components; broadband antennas; integrated subsystems for radar, communications, EW and missile system applications; oscillator assemblies and synthesizers; and high power, solid-state amplifier products and equipment.	801	<b>Maxtech Inc.</b> <b>State College, PA</b> <i>D. Bunnell, J. Dixon, M. Wharton</i> Microwave and RF components and subsystems, including LNAs, redundant LNA systems, power amplifiers, power amplifier systems, microwave converters, high performance imageless mixers, ultra broadband quadrature couplers, IF-to-tape converters and custom subsystems.	720
		<b>MAC Technology Inc.</b> <b>Klamath Falls, OR</b> <i>M. Bailey, J. Branigar, M. Egbert</i> 0.5 to 18 GHz stripline couplers, power dividers, directional couplers, 90° hybrids, and high power airline couplers, in octave and multioctave bandwidths.	634	<b>Menlo Industries, Inc.</b> <b>Fremont, CA</b>	814



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<b>Merrimac Industries Inc.</b> West Caldwell, NJ	240	<b>Microelectronics Technology Inc.</b> Hsinchu, Taiwan, ROC	233	filters, detectors, limiters, channelizers, detector modules, filter modules, threshold detector amplifiers, video receivers, channelized receivers, microwave integrated assemblies, solid-state multithrow switches and switch/filter assemblies.	
<i>J. Blahosky, W. Joswick, E. Niemiec, T. Ramsden</i>		<i>T. Ho, J. Chin, L.C. Chang, M. Boby, P. Chen, W. Huang, W. Lo</i>			
IF and microwave devices, components and subsystems using lumped-element and stripline designs. Power amplifiers, IF integrated assemblies and hi rel networks.		Microwave components and systems for communications applications such as VSAT, INMARSAT, microwave radio, and TVRO/DBS.			
<b>Metal Processing Co.</b> Woburn, MA	125	<b>Microlab/FXR</b> Livingston, NJ	313	<b>Microsonics Inc.</b> Weymouth, MA	619
<i>D. Winn, M. Perry</i>				<i>B. Baker, J. Crehan, J. Livezey, P. Beesla, J. Pavao, V. Bates, J. Killough</i>	
Custom glass-to-metal sealing, RF and DC feedthroughs, field replace SMA feedthroughs, multi-pin feedthroughs and connectors, kovar housings and stainless steel bodies.				Crystal and LC filters, crystal oscillators including TCXOs, VCXOs, TCVXOs and OCXOs, and delay lines, including discrete, modular, analog, digital and SAW.	
<b>Metelics Corp.</b> Sunnyvale, CA	1116	<b>Micronics Technology Inc.</b> Glen Cove, NY	1018	<b>Microsource Inc.</b> Santa Rosa, CA	1125
<i>R.M. Dorilag, J. Tatum, J. Godbout, R.C. Dorilag, F. Kwan, R. Medel, S. Fang, A. LaRosa</i>		<i>P. Basse, R. Herrmann</i>		<i>J. Tavormina, J. Albright, C. Martens, J. Clarke, J. Dean, G. Basawapatna, M. Shandas</i>	
Microwave diodes, including Schottky, PIN, tunnel, MIS capacitor, SRD and tuning varactor devices.		Precision RF and microwave frequency sources, including frequency synthesizers, phase-lock DROs and multipliers. Custom microwave subassemblies for frequency conversion, generation and signal processing applications; containing mixers, filters, circulators, PIN devices and amplifiers.		Microwave components, subsystems and systems, YIG tuned oscillators, multipliers and bandpass/bandreject filters from 5 to 26.5 GHz; available with analog or digital drivers. Synthesizers up/downconverters integrated front ends, multichannel phase-matched receiver front ends and modular measurement systems products.	
<b>MH&amp;W International Corp.</b> Mahwah, NJ	1418	<b>Micro-Now Instrument Co. Inc.</b> Skokie, IL	1009	<b>Microtech Inc.</b> Cheshire, CT	824
		<i>C. Arnow, F. Arnow, R. Jania</i>		<i>J. McGregor, J. Radder, M. Beasley, D. Scotch, L. Dayaratna, L. Kahn</i>	
		Millimeter wave instrumentation, mm-wave sweep systems to 170 GHz.		Rectangular and double-ridged waveguide and components from 1.2 to 50 GHz, including catalog and custom flexible and rigid assemblies, directional couplers, waveguide-to-coaxial adaptors, pressure windows and tees. High speed, low phase noise VCO's, high efficiency frequency multipliers and phase-lock oscillators.	
<b>MIC Technology Corp.</b> Richardson, TX	417	<b>Micropac Industries Inc.</b> Garland, TX	216	<b>Microwave Applications Group</b> Santa Maria, CA	539
<i>D. Chapman, L. Ingham, B. Chapman, C. Ristagno, B. Mitchell, K. Walker, R. Tomchif</i>		<i>B. Wehe, T. Butcher, K. St. Clair</i>		<i>W. Hord, D. Prigge, F. Lauriente</i>	
Thin-film manufacturing services and hermetic packaging, including 30 metalization systems on all dielectric substrates, precision photolithography for conductor and resistor patterns, plated vias, airbridges, and passivation, glass-to-metal sealed plug-in, microwave, and platform modules, as well as glass flatpacks.		VCO and VCO subsystems in hermetic TO-8 to standard mechanical enclosures, options include dual polarity tuning, low current, buffering, ovenized or regulated in surface mount, flatpack and TO-8.		Design, fabrication and test of microwave ferrite components and antenna subsystems with related electronic control circuits. Components include reciprocal phase control modules for electronic scanning antennas.	
<b>MICA Microwave Corp.</b> San Jose, CA	1029	<b>Micropen Inc.</b> Pittsford, NY	1319	<b>Microwave Development Co. Inc.</b> North Andover, MA	314
		<i>J. Cox</i>		<i>J. Cook, C. Tomes, M. Slipp, P. Hocknell, M. Crittenden</i>	
		Micropen™, a computer-controlled direct writing, precision dispensing machine, dispenses materials such as thick-film materials, etch and plating resists, adhesives, solder pastes, solder mask, or any material that is fluid at room temperature, and is used for prototyping thick-film microwave and conventional hybrid circuits.		Passive double ridge and rectangular waveguide and high power coaxial components, including magic tees, directional couplers, adapters, harmonic, bandpass, and lowpass filters, terminations and waveguide assemblies, antennas, custom filters, quartz pressure windows, calibration kits, and high power components.	
<b>Micro-Chem Inc.</b> Santa Clara, CA	602	<b>Microphase Corp.</b> Norwalk, CT	714		
<i>L. Matts, D. Natz, L. Tooker, P. Zukonik, S. Tooker</i>		<i>F. Parin, H. Schumacher, S. Temel, G. Temel, H. Weil, E. McBride, D. McBride</i>			
Stripline, microstrip and rigid groundplane PTFE circuit boards, chemically-milled metal parts and high resolution glass plates for the microwave industry.		Detector log video amplifiers, multiplexers,			

<b>Microwave Development Labs Inc.</b> Natick, MA	1121	<b>Microwave Solutions Inc.</b> National City, CA	725	<b>Mirage Systems</b> Sunnyvale, CA	711
<i>R. Tucker, E. Bannister, M. Hale, R. Bubel, A. Rottendurg</i>		<i>E. Teysier, R. Hall, J. Colada</i>			
Adapters, assemblies, attenuators, bends, twists, corporate feeds, couplers, crystal holders, circulators, diplexers, filters, flanges, gaskets, SSB generators, hybrids, isolators, mixers, mixer duplexers, monopulses, comparators, rotary joints, double ridge, phase shifters, power dividers, rotary switches, tees, terminations, transitions, waveguide tubing, windows and suspended substrates.		Low noise through medium power microwave amplifiers, custom amplifiers and supercomponents through 26 GHz.			
<b>Microwave Device Technology Corp.</b> Lawrence, MA	202	<b>Microwave Systems News</b> See Cardiff Publishing Co.	139	<b>Mitec Electronics Ltd.</b> Pointe Claire, Quebec, Canada	300
<i>T. Ramachandran, M. Ayyagari</i>				<i>M. Bentob, R. Monzon, J. Robinson</i>	
Millimeter wave Gunn diodes, Gunn diodes in C-, X-, Ku- and K-bands, GaAs pulsed and CW Impatt diodes, GaAs abrupt and hyperabrupt tuning varactors, and mm-wave ISIS multiplier diodes.				Microwave components and subsystems for telecommunications, satellite communicators and military applications with frequency range and test equipment capabilities of 1 to 60 GHz; microwave subsystems and networks for uplink and downlink assemblies for satellite earth stations, transmit and receive multiplexing for communications equipment, transmit and receive front ends for radar equipment.	
<b>Microwave Exhibitions and Publishers Ltd.</b> Tunbridge Wells, Kent, UK		<b>Microwave Technology Inc.</b> Fremont, CA	409	<b>MITEQ Inc.</b> Hauppauge, NY	1128
<i>R. Marriott, M. Napier, J. McPhail, D. Leah</i>		<i>A. Roberts, W. Wilson, J. Stiles, K. Kawakami, W. Ou, M. Omori</i>		<i>S. Eisenmesser, P. Kalisiak, A. Kiiss, H. Kiiss, H. Kiiss, F. Maqbool, R. Pflieger, N. Shaikh, J. Siddiqui</i>	
Conference proceedings covering Military Microwaves and European Microwave Conferences; conference proceedings and reprint volumes.		GaAs FETs, GaAs MMICS, high power solid-state tristates, gain modules, microwave amplifiers and multifunction subassemblies, and services, including thin-film circuit processing foundry and laser welding of hermetic assemblies.		1 MHz to 30 GHz low noise amplifiers 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.	
<b>Microwave Journal</b> Norwood, MA	620	<b>Microwaves &amp; RF</b> Hasbrouck Heights, NJ	541	<b>Mitsubishi Electronics</b> Sunnyvale, CA	237
<i>H. Ellowitz, E. Johnson, C. Sheffres, W. Cook, M. Stiglitz, A. Braun, C. Donohue, J. Long, C. Blanchard, J. Callahan, R. Hammerton</i>		<i>J. Carroll, M. Kachmar, M. Carey, M. Bandfield, G. Roberts, J. Reppas, M. Spector, J. Browne</i>		<i>S. Child, J. Dreyfuss, R. Ramchandani, J. Berger, B. O'Bryant</i>	
Microwave Journal magazine subscription and editorial information.		Microwaves & RF focuses on RF, microwave and optical devices used in various applications.		Microwave GaAs FETs and devices, including low noise, medium and high power discrete devices, and high power internally matched devices and MMICs.	
<b>Microwave Printed Circuitry Inc.</b> Lowell, MA	1215	<b>Midwest Microwave</b> Saline, MI	1312	<b>Modular Components National Inc.</b> Forest Hill, MD	1315
<i>M. Casper, B. Deitz, C. Webb</i>		<i>E. DeVita, D. Hartje, B. Cherot</i>		<i>I. Zazulak, P. Burian, M. Creighton</i>	
Microstrip and stripline circuits, metal backed circuits using PTFE materials, bonded antenna assemblies, thin-film circuits and resistors, RF testing of bonded filters, splitters and combiners.		Microwave component products, including fixed coaxial attenuators, calibrated attenuator sets, step attenuators, between series adapters, RF coaxial connectors, coaxial terminations, gain equalizers, phase shifters, directional couplers, hybrids and power dividers, waveguide-to-coax adapters, coaxial cable assemblies, DC blocks and microwave resistors.		Microwave printed circuit boards; microstrip, bonded stripline and metal clad circuit boards; and in-house plating and plating through holes services.	
<b>Microwave Product Digest</b> Hastings on Hudson, NY	103	<b>Millitech Corp.</b> South Deerfield, MA	734	<b>Motorola Semiconductor Products</b> Phoenix, AZ	500
<i>P. Lippin, B. Hickey, D. Markhouse, V. LeGendre</i>		<i>R. Huguenin, D. Dixon, N. Deo, D. Wheeler, J. Plimpton</i>		<i>N. Dye, S. O'Shea, P. Hartig, B. Hunter, D. Murray, M. Williams</i>	
Microwave Product Digest, a new product tabloid, serves RF and microwave engineers, working as design, research, development and application engineers, working in both commercial and military installations.		Millimeter and submillimeter-wave active components, including oscillators, mixers, multipliers, detectors, and isolators, and antennas, subassemblies, Gaussian optics components frequency extension units for mm-wave test applications, block downconverters, and wideband receiving subsystems.		RF and microwave discrete silicon bipolar and FET transistors to 4 GHz, low noise and power devices in a wide range of packages, and amplifier assemblies to 100 W, 2 GHz.	
<b>Mini-Systems Inc.</b> North Attleboro, MA	820	<b>MPD Inc.</b> Owensboro, KY	1204		
<i>W. Glick, C. Barlow, R. Normandin, G. Lee</i>		<i>R. Dutkosky, F. Perry, D. Bowlds</i>			
Thick- and thin-film chip resistors, electronic packages, and custom hybrid circuits.		High power RF and microwave amplifiers and			



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sources for missile and avionics applications, medical and research applications.

**M-Pulse Microwave** **1003**  
**San Jose, CA**

*B. Long, E. Pendleton, J. Richards, W. Sander*  
Microwave and RF diodes and capacitors, including Schottkys, PINs, NIPs, SRDs, varactors, tunnels and MNOS capacitors for mixers, detectors, modulators, attenuators, switches, frequency multipliers, voltage-tuned oscillators, amplifiers, products are available as chips, beam leads, surface mount monolithics and packaged, screening available for commercial, JTX equivalent and space level applications.

**MSN, RF Design** **139**  
*See Cardiff Publishing*

**M-Square Microtek Inc.** **713**  
**Hayward, CA**

*J. Driscoll, K. Floyd, C. Hudson, H. Powers, B. Scott, B. Webb, S. Thurmond*  
Traveling-wave tubes and power supplies.

**Murata Erie North America Inc.** **316**  
**Smyrna, GA**

Discs, multilayer, microwave and trimmer capacitors, resistor networks, potentiometers, Piezo alarms, RFI/EMI filters, resonators, power supplies, oscillators, flyback transformers, posistors, sensors, and associated electronic components.

**Nearfield Systems Inc.** **1020**  
**Carson, CA**

*G. Hindman, D. Slater*  
Turn-key near-field and far-field antenna measurement systems, from small, low cost portable systems to large, high accuracy systems; portable near-field antenna measurement system that provides rapid data acquisition, far-field processing, and aperture diagnostics for antennas.

**NEC** **1223**  
*See California Eastern Labs*

**Nedrud Data Systems** **540**  
**Las Vegas, NV**

*B. Nedrud, C. Nedrud*  
Microwave analysis software for the Macintosh computer, including integrated schematic capture, graphics, full nodal noise analysis, compatibility with major non-Macintosh programs, user-defined models, limitless block nesting, elements, open windows, multiple substrates, sweeps, variables and equations, and customized reports.

**New England Micronetics**  
**Hudson, NH**

**121**

device modeling and characterization, including HarPET™, CAE consulting services, specializing in statistical modeling and yield optimization.

**Norpex Oak Inc.** **1122**  
**La Crosse, WI**

*D. Krumenauer, R. Triune, R. Pangier*  
PTFE/woven substrate materials (laminates) for high frequency, low loss microwave applications.

**Northern Scientific Laboratory** **817**  
*See Southwest Microwave Electronics*

**NTK Technical Ceramics** **1333**  
**Mount Prospect, IL**

*M. Ota, K. Ito, R. Hanson, B. Hirano, P. Diapolo*  
Microwave dielectric materials, including dielectric substrates and resonators.

**Nurad** **1200**  
**Baltimore, MD**

*J. Gillis, B. Korb, C. Yablon*  
Antennas, radomes and associated subsystems for defense applications, submersible radomes, commercial aviation radomes and advanced composite radomes, high power horn antennas, data link antennas and conformal flush-mounted antennas.

**Olektron** **617**  
**Webster, MA**

**Olin Aegis** **1305**  
**New Bedford, MA**

*M. Lofrumento, J. Greenspan, C. Roellig, J. Pinac*  
Microcircuit packages and housings for microwave and microelectronic application.

**Optimax Inc.** **517**  
**Hatfield, PA**

*F. McDonnell, S. Smola, B. Shillady, T. Dolan, A. Bauer, J. Quinn, T. Musto, K. Evans, J. Mogel, J. Hickey, J. Rauchut, C. O'Brien, S. Kantor*  
Thick-film RF components, including log IF amplifiers, limiting amplifiers, control products, multifunction assemblies and switch drivers.

**Optimization Systems Associates Inc.** **1323**  
**Dundas, Ontario, Canada**

*J. Bandler, L. Bandler, R. Biernacki, S. Chen, Q. Zhang*  
Integrated large signal and small signal DC computer-aided engineering software for microwave circuit simulation and design, and

**Optotek Limited** **910**  
**Kanata, Ontario, Canada**

*R. North, S. Dindo, R. Meierer*  
MMICAD, a linear microwave analysis and optimization program; GaAs foundry services.

**Pacific Monolithics** **1329**  
**Sunnyvale, CA**

*S. Layton, E. Russell, R. Bay-Ramyon, D. Lockie, A. Podell, E. Wilson, D. Bond*  
GaAs MMIC-based microwave subsystems and components operating over the frequency range of 20 MHz to 18 GHz, including receivers, transponders, phase-shifter networks, amplifiers, oscillators, switches and attenuators.

**Panasonic Industrial Co.** **416**  
**Secaucus, NJ**

*N. Watanabe, E. Small, T. Rhodes, S. Inai, T. Uwano, T. Nakamura, M. Yoshioka*  
Dielectric microwave resonators, bandpass filters, voltage-controlled oscillators, dielectric microwave devices for wireless equipments and microwave modules

**Pascall Electronics Inc.** **923**  
**Basking Ridge, NJ**

*A. Cox, R. Burman, N. Macey, N. Melas, S. Chiplin*  
IF signal processing supercomponents, logarithmic IF amplifiers, constant-phase limiters, delay-line discriminators, I&Q phase detector subsystems, selective power meter (carrier monitor), and military power supplies.

**PC Dynamics** **201**  
**Frisco, TX**

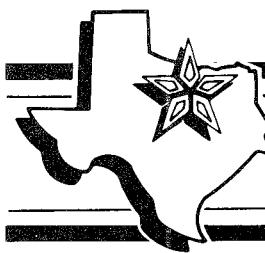
*L. Eslinger, J. Holbrook, M. Coutu, P. Rackley, D. Fross, A. Tupper, C. Anderson*  
Teflon PWBs, including plating, etching, bonding and machining of metal-backs, stripline and laminated assemblies.

**Penn Engineering Components** **218**  
**N. Hollywood, CA**

**Philips Components** **511**  
**Discrete Products Division**  
**Riviera Beach, FL**

*T. Hendrix, M. Pradue*  
Microwave transistors, RF power transistors,

transmitting modules, wideband transistors and CATV modules.		delay lines and preassembled right angle cable assemblies.	tions in low, medium and high power; catalogued loads and terminations in low (poly-iron) 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>Phoenix Co. of Chicago</b> Wood Dale, IL	138	<b>Q-bit Corp.</b> Palm Bay, FL	<b>1309</b> <i>G. Callaway, H. Mead, M. Rogers, D. Meeks, C. Rice</i>
<b>Picogiga Inc.</b> Oxnard, CA	717		Power feedback 0.1 to 3 GHz amplifiers, hybrid microelectronic and coaxial packaging.
<i>A. Carlsson, J. Rochette</i> GaAs and heterostructure epiwafers.		<b>Qualcomm Inc.</b> San Diego, CA	<b>537</b>
<b>Picosecond Pulse Labs</b> Boulder, CO	710	<b>Quality Microwave Interconnects Inc.</b> Tewksbury, MA	<b>924</b> <i>P. Tusini, R. Pendergast, P. Grandmaison, J. Kerrigan</i>
<i>J. Andrews</i> Ultrafast pulse generators with rise times from 20 ps to 300 ps and amplitudes up to 50 V, and 10 KHz to 18 GHz broadband coaxial components.			Microwave coaxial cable assemblies.
<b>P/M Industries Inc.</b> Portland, OR	1209	<b>Radiall Inc.</b> Stratford, CT	<b>545</b> <i>G. Pollack, C. Dreyer, W. Pitcher</i>
<i>P. Hartman, C. Parks, R. Gorton, P. Parks</i> Advanced laser cutting applications for scribing, hole drilling and machining of 96%, 99.6% alumina; beryllia and aluminum nitride; lapped and polished substrates for microwave applications and laser trimming of thin-film resistor networks.			RF connectors from DC to 46 GHz; rack and panel connectors for commercial and military avionics and weapons systems, including ARNIC 400 and 600; microwave terminations, attenuators, couplers, detectors, switches, relays, phase shifters and rotary jounts; flexible and semi-rigid cable assemblies; and fiber optic connectors for multi-mode and single mode fibers.
<b>Poly Circuits</b> Bensenville, IL	1007	<b>Radian Technology</b> Santa Clara, CA	<b>723</b> <i>J. Mongillo, L. Johnson, J. Arsenault</i>
<i>J. Dryer, J. Turek, R. Harazin</i> Printed circuit boards.			VCOs, DTOs, synthesizers, multiplexers and switch filters for EW and space applications.
<b>Polyflon Co.</b> New Rochelle, NY	221	<b>Raytheon Co.</b> Microwave and Power Tube Division Waltham, MA	<b>737</b> <i>W. Boyd, J. Hieber, W. Berwick</i>
<i>W. LaRusso, J. Seminoro</i> High voltage, high-Q, non-magnetic fixed, variable and trimmer capacitors, CuFlon® ultra low loss substrate material and circuit boards, electroplated PTFE components, custom manufactured NMR/MRI probes and/or coils and antennas.			Ferrite and solid-state devices, including GaAs FETs; MICs, RF sources and signal processors, infrared devices, hybrid electronic microcircuits, CRTs, lasers, and microwave tubes, including CFA, TWTS and klystrons for use in early warning, ECM and communications systems.
<b>Power Systems Technology, Inc.</b> Hauppauge, NY	616	<b>Republic Electronics Corp.</b> Wilkes-Barre, PA	<b>407</b> <i>L. Eisenberger, W. Eisenberger</i>
<i>R. Sheloff, W. Liebman, T. Dowling, B. Vitkovich</i> Class A, AB and C 1 MHz to 4000 MHz solid-state power amplifiers for ECM, avionics, communications and radar applications, as well as EMI/RFI laboratory instruments and radar range testing.			Military microwave chip capacitors and single plate capacitors for use up to 50 GHz.
<b>Precision Tube Co. Inc.</b> North Wales, PA	1320	<b>Resin Systems Corp.</b> Amherst, NH	<b>1001</b> <i>D. Prawdzik</i>
<i>G. Passmore, A. West, W. McNeill</i> Semi-rigid coaxial cables, RF/microwave cable assemblies, prepackaged and custom			Microwave loads, absorbers and termina-
			tions in low, medium and high power; catalogued loads and terminations in low (poly-iron) 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>RFD Inc.</b> St. Petersburg, FL	<b>128</b> <i>M. Wilson, R. Frizzell, C. Torrey, L. Tyson, W. Feick</i>
			Phase-locked oscillators, DRO's, solid-state transmitters, high power amplifiers, indirect synthesizers, receivers and custom subsystems.
		<b>RF Monolithics Inc.</b> Dallas, TX	<b>1317</b> <i>F. Perkins, C. Baker, G. Andersen, A. Coon, R. Hertenberger, L. Cecil, W. Spurgeon, T. Hinkle, C. Grace, H. Brian, V. Simpson, D. Ash, M. Robinson, B. Potter, H. Vollers</i>
			UHF SAW technology, including low loss SAW filters, SAW resonators, SAW frequency sources, transmitter and receiver modules and OEM RF subassemblies.
		<b>RLC Electronics Inc.</b> Mt. Kisco, NY	<b>708</b> <i>C.A. Borck, P.H. Wright, D.A. Borck, J. Norelli, D. Duris</i>
			Passive microwave components operating over the frequency range from DC to 40 GHz; including mechanical switches, filters, attenuators, couplers and power dividers.
		<b>Rockwell Ferrocom</b> San Jose, CA	<b>1311</b> <i>B. Forsberg, M. Kyser, M. Swift, B. Fuller, M. Pitchell</i>
			132 MHZ to 26.5 GHZ isolators and circulators in coaxial stripline, waveguide, iso-adapter, and stripline drop-in packages.
		<b>Rogers Corp.</b> Microwave Division Chandler, AZ	<b>1137</b> <i>Z. Katinsky, J. Dobrick, E. Sandor, K. Takasumi, C. Santiago, D. Boulanger, R. Desilets, R. Cole, R. Jansen, M. Norris, R. Bonfield, C. Becker, G. Bull, A. Boulia, R. Belfay</i>
			RT/duroid® microwave laminates for stripline and microstrip applications and Iso-core™ coaxial cables.
		<b>H. Rollet &amp; Co. Ltd.</b> London, England	<b>118</b> <i>H. Medlicott</i>
			Very high precision waveguide and microwave components including bends, twists



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and slotted arrays, covering the frequency range from 1 to 220 GHz.

**Rosenberger/Micro-Coax** 722  
**Collegeville, PA**

*J. Lewis, B. Ash, F. Decker, R. Schafer*  
DC to 65 GHz RF coaxial connectors; DC to 40 GHz microwave assemblies, lowpass, bandpass and highpass filters; semi-rigid coaxial cable and assemblies, including phase stable low loss cable; related transmission line components, including waveguide, delay lines and attenuators.

**Sage Laboratories Inc.** 325  
**Natick, MA**

*T.S. Saad, C.A. Marguerite, A.J. Cieri, P.A. Alfano*

Passive microwave components operating from DC to 40 GHz including, attenuators, couplers, filters, hybrids, mixers, switches, phase shifters, power dividers, rotary joints, terminations, video detectors, crystal holders, wireline and wirepac (3 dB quadrature hybrids and couplers).

**Salisbury Engineering Inc.** 119  
**Salisbury, MD**

*W. Barbel, R. Newberry*  
RF and microwave components.

**Sarnoff Research Center** 1302  
**Princeton, NJ**

**Sawtek Inc.** 332  
**Orlando, FL**

*E. Frix, S. Miller, G. Monetti*

SAW devices, including bandpass filters, low loss filters, resonator filters, oscillators, delay lines, pulse expanders/compressors and custom subsystems that use SAW components; technical assistance for new design and production requirements.

**Schleuniger USA Inc.** 544  
**Manchester, NH**

*L. Roth, C. Burns*

Semi-rigid coaxial cable stripper, semi-rigid coaxial cable cutoff saw, heavy coaxial cable stripper and flexible coaxial cable stripper.

**Scientific Atlanta** 109  
**Atlanta, GA**

**Scientific Microwave Corp.** 107  
**Mississauga, Ontario, Canada**

*G. Saad, M. Saad, A. Saad*

Passive microwave and mm-wave compo-

nents, including filters, diplexers, circulators, hybrids, couplers, transitions and terminations for military, space and commercial applications; evanescent-mode ridge waveguide and planar structures covering narrowband, wideband, low power and high power; custom production and consulting services.

**Sciteq Electronics Inc.** 1136  
**San Diego, CA**

**Seven Associates** 206  
**Sonora, CA**

*H. Smith, D. Smith, S. Smith, C. Smith, R. Stahl*  
Semi-rigid cable assembly production line tooling; portable RF induction heating equipment; and custom subcontract type cable assembly.

**SGS-Thomson Microelectronics** 1203  
**Montgomeryville, PA/Somerset, NJ**

*R. Blaskvitch, D. Kupinewicz, C. Lump, J. Walsh, W. Henderson, G. Oliver*

RF and microwave power transistors, amplifiers and subsystems; silicon MMIC's; and solid-state noise sources.

**Shason Microwave** 1436  
**Houston, TX**

**Sierra Microwave Technology** 501  
**Rancho Cordova, CA**

*J. Mitchell, T. Rodriguez*  
Microwave components, including isolators, circulators, filters, equalizers, switches and integrated assemblies.

**Solidyne** 1137  
**Division of Rogers Corp.**  
**San Diego, CA**

*D. Reed, C. Ogden, A. Hassell, J. Eckholt, R. Farris*

Stripline and microstrip circuits on PTFE-based substrates.

**Sonnet Software Inc.** 507  
**Liverpool, NY**

*J. Rautio, K. Schroeder*  
Full-wave electromagnetic analysis software for arbitrary microstrip circuits that is designed to interface with and enhance your existing CAE software.

**Southwest Microwave** 1324  
**Tempe, AZ**

*J. Kubota, J. Rawlins, R. Zelichowski, L. Scheneman, E. Foley, J. Cheal, V. McHenry*  
Super SMA, TNC, N, SSMA and customer special designs of microwave connectors; and a full range of adapters, including 7 mm, SMA, TNC, N, 3.5 mm and SC.

**Southwest Microwave Electronics** 817  
**American Micro Components Inc.**

**Milpitas, CA**  
*M. Beasley, D. Scotch, C. Beasley*

Custom thin-film networks.

**Southwest Microwave Electronics** 817  
**Assemblies Inc.**

**Warner Robins, GA**  
*M. Beasley, D. Scotch, C. Beasley, J. Daniel*

Low loss flexible coaxial cable assemblies and semi-rigid coaxial cable assemblies.

**Southwest Microwave Electronics** 817  
**DB Products Inc.**

**Pasadena, CA**  
*M. Beasley, D. Scotch, C. Beasley*

Electromechanical microwave switches.

**Southwest Microwave Electronics** 817  
**Flann Microwave Inc.**  
**Cambridge, MA**

*M. Beasley, D. Scotch, C. Beasley*  
Rotary wave attenuators, metrology grade waveguide calibration kits, mm-wave network analyzers, programmable attenuators and phase shifters, waveguide slotted lines and short circuits, waveguide PIN modules and waveguide three-way power splitters.

**Southwest Microwave Electronics** 817  
**Inmet Corp.**

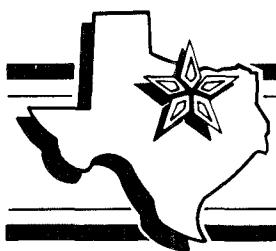
**Ann Arbor, MI**  
*M. Beasley, D. Scotch, C. Beasley*

Coaxial attenuators, coaxial adapters, coaxial terminations, DC block connectors, custom equalizers and frequency dependent attenuators.

**Southwest Microwave Electronics** 817  
**Northern Scientific Laboratory**

**Livingston, NJ**  
*M. Beasley, D. Scotch, C. Beasley*  
Instantaneous frequency and phase measurement receivers, and digital frequency discriminators.

<b>Space Machine &amp; Engineering</b> <b>St. Petersburg, FL</b>	<b>515</b>	polishing; dicing; thick-film; thin-film; refractory and direct bonded copper (DBCu) on AlN, BeO, Al <sub>2</sub> O <sub>3</sub> .	<b>Tech-Ceram Corp.</b> <b>Amesbury, MA</b>	<b>108</b>
<i>J. Archbold, S. Sewell, J. Cantwell, A. Loyd, E. Loyd, K. Zions, P. Chandler, J. Harty</i>			<i>W. Dinardo, W. Burnham, W. DeJean, H. Merino, J. Silverstein</i>	
Waveguide components and precision machined parts.			Microwave and RF ceramic packages, thick-film alumina/BeO substrates and 50 Ω ceramic feed-throughs.	
<b>Spectrum Materials Inc.</b> <b>Norcross, GA</b>	<b>1430</b>	<b>Storm Products Co.</b> <b>Hinsdale, IL</b> <i>B. Holland, B. Barrath</i>	<b>Tech-Ceram Corp.</b> <b>TDI</b> <b>Amesbury, MA</b>	<b>108</b>
		Flexible and semi-rigid lowloss, phase stable, high power cable assemblies; low density dielectric cables for space applications, and delay lines and connectors.	<i>W. Dinardo, W. Burnham, W. DeJean, H. Merino, J. Silverstein</i>	
<b>SSPA Microwave Corp.</b> <b>Mississauga, Ontario, Canada</b>	<b>917</b>	<b>Superconductor Technologies</b> <b>Santa Barbara, CA</b> <i>J. Bybokas, B. Hammond, J. Long, H. Dwight</i>	<b>Tech-Ceram Corp.</b> <b>Divison of Datron Inc.</b> <b>Thomaston, CT</b>	<b>404</b>
<i>T. Cheng, A. Leung, M. Cheng</i>		High temperature superconducting (HTSC) materials and devices for microwave and electronic applications, including thin-film superconductors on substrates; custom, patterned films; high-Q microwave resonators; low loss delay lines; microwave filters; testing service for HTSC thin-films; and custom superconducting components.	<i>J. Moore, S. Litt, G. Smith, A. Pia, S. Ammirati</i>	
<b>ST Microwave Corp.</b> <b>Sunnyvale, CA</b>	<b>621</b>	<b>Synergy Microwave Corp.</b> <b>Paterson, NJ</b> <i>A. Almeida, T. Buhlinger</i>	Waveguide and microwave components, flexible waveguide, double ridge waveguide and components, rigid waveguide, custom waveguide assemblies, and specialized plating services.	
<i>P. Cox, D. Peterson, L. Yates, H. Harrison, P. Buckley</i>		Double-balanced mixers, power dividers, directional and bi-directional couplers, filters, phase shifters, attenuators, 90° hybrids, 180° hybrids and phase detectors.	<b>Technical Components/Xeram</b> <b>Warwick, RI</b>	<b>1014</b>
Voltage- and digitally-tuned oscillators, YIG-tuned filters and oscillators, semi-rigid coaxial cables, bandpass filters, switches, double-balanced mixers, multifunctional components, filters, diplexers, multiplexers, circulators, isolators and gain equalizers, harmonic generators in communications, radar warning, ECM and missile systems.		<i>S. Brock, B. Geddes, D. McKenzie, B. Carpenter, A. Sheth, A. Madni, I. Wan</i>	Single and multi-layer ceramic packages up to 20 GHz, TO-5, TO-8, dual-in-line metal packages, machined modules, FET and transistor packages, co-fired multilayer ceramic boards.	
<b>STC Components</b> <b>Quartz Crystal Division</b> <b>Schaumburg, IL</b>	<b>322</b>	<b>Sytron Donner</b> <b>Instrument &amp; Microwave Divisions</b> <b>Sylmar, CA</b> <i>S. Brock, B. Geddes, D. McKenzie, B. Carpenter, A. Sheth, A. Madni, I. Wan</i>	<b>Teklec Microwave</b> <b>Montreuil, France</b>	<b>205</b>
<i>B. Pearson</i>			<i>E. Paillard, M. Beghin, G. Martin</i>	
High frequency fundamental surface mountable precision TCXO and SAW devices.			Microwave silicon diodes, including Schottky, PIN, multiplier and tuning varactors, and high voltage PIN diodes up to 3000 V; MOS capacitors, ferrite circulators and circulators, including waveguide, coaxial and drop-in from 30 MHz up to 94 GHz; microwave ferrite and dielectric ceramics; absorbing powders; RF modules, including mixers, power dividers, couplers, transformers and frequency doublers; and microwave subsystems.	
<b>STC Electron Tubes</b> <b>Schaumburg, IL</b>	<b>322</b>	<b>Taconic Plastics Ltd.</b> <b>Petersburg, NY</b> <i>B. Smith, I. Brooks, R. Quintus, S. Seymour</i>	<b>Tektronix Inc.</b> <b>Beaverton, OR</b>	<b>701</b>
<i>C. Fay</i>		PTFE/woven glass substrates for military and commercial microwave circuit boards.	CSA 803 communication signal analyzer for the development, design, and manufacture of high speed communication components, modules and links; and the 11800 series 40 GHz programmable digital sampling oscilloscopes.	
TWTs, including an 18 to 40 GHz TWT, and TWTAs for commercial satellite, terrestrial, microwave and military ground and airborne applications.		<b>Taylor Microwave Inc.</b> <b>Hoboken, NJ</b> <i>B. Sastre, D. Sastre</i>	<b>Tektronix Inc.</b> <b>Digital Signal Processing Division</b> <b>Beaverton, OR</b>	<b>701</b>
<b>Steinbrecher Corp.</b> <b>Woburn, MA</b>	<b>414</b>	0.01 to 20 GHz RF/microwave sources and stripline/microstrip components; DROs; PLOs; VCOs; switches; phase shifters; attenuators; and integrated assemblies.	<i>J. Snook, R. Visser, J. Kingston, S. Lehrfeld, F. Halgas, C. Stout, H. Stout</i>	
<i>P. Butler, D. Steinbrecher, R.D. Shute, D. Peterson</i>		<b>Tecdia Inc.</b> <b>Mountain View, CA</b> <i>N. Aguilar, S. Shah, C. Mata, K. Koyama, N. Kawamoto</i>	High speed, wide bandwidth signal analysis systems for difficult radar and satellite measurements.	
High dynamic range mm-wave, microwave, and RF subsystems and components for advanced communications and high speed signal acquisition applications.		Single layer and ceramic micro chip capacitors for microwave applications up to 40 GHz.		
<b>Stellar Industries Corp.</b> <b>Leominster, MA</b>	<b>1221</b>			
<i>J. Snook, R. Visser, J. Kingston, S. Lehrfeld, F. Halgas, C. Stout, H. Stout</i>				
Thermal management, including lapping;				



## 1990 EXHIBITION GUIDE

<b>Tektronix Inc.</b> <b>ICO Division</b> <b>Beaverton, OR</b>  <i>B. Bradford, D. Bernel, J. Murphy, D. Stroberger, A. Waterman</i>	<b>140</b>	<b>Texas Instruments</b> <b>Dallas, TX</b>  <i>P. Schurr, T. Kilgo, R. Toole, D. Mize, D. Tupman, S. Nelson, T. McCaffrey, S. Lazar</i>	<b>729</b>	ble assemblies for airborne, shipboard, ground-based, radar, communications, and missile systems; specialty engineered cables and MIL-C-7 coaxial cable.
<b>Tektronix Inc.</b> <b>Microwave and RF Instruments Division</b> <b>Beaverton, OR</b>  The 2782 microwave spectrum analyzer operating over the frequency range from 100 Hz to 33 GHz; the 492PGM spectrum analyzer, operating over the frequency coverage from 10 kHz to 21 GHz; and the 497P quasi-microwave spectrum analyzers operating over the frequency range from 100 Hz to 7.1 GHz.	<b>701</b>	<b>Texcel Inc.</b> <b>Westfield, MA</b>  <i>R. Lalli</i>	<b>1306</b>	<b>TRAK Microwave</b> <b>Tampa, FL</b>  <i>T. Roberts, J. Krastel, S. Altomari, G. Pate</i>
<b>Tektronix Inc.</b> <b>Microwave Technology Organization</b> <b>Beaverton, OR</b>  The DC to 40 GHz TMP9000 microwave probes; the DC to 60 GHz, DC to 33 GHz and DC to 40 GHz microwave probing test systems for network analysis, spectrum analysis, and TDR and device characterization measurements, respectively.	<b>701</b>	<b>Thermocarbon Inc.</b> <b>Casselberry, FL</b>  <i>F. Wada</i>	<b>219</b>	MIC shielded circulators; frequency synthesizers; dielectrically-stabilized, crystal-controlled, voltage-controlled and YIG-tuned oscillators; GaAs FET, IF and bipolar transistor power amplifiers; frequency multipliers; comb generators; YIG filters; microstrip, coaxial and waveguide isolators/circulators; directional couplers; 3 dB hybrids and power dividers.
<b>Tektronix Inc.</b> <b>SAW Technology</b> <b>Beaverton, OR</b>  <i>E. Sang</i>	<b>701</b>	<b>Thin Film Technology</b> <b>Buellton, CA</b>  <i>J. Wafer, K. Wafer</i>	<b>1308</b>	<b>Transco Products Inc.</b> <b>Camarillo, CA</b>  <i>J. Fricke, L. Neeley, J. Underhill</i>
Surface acoustic wave (SAW) resonators/oscillators, filters and subsystems, and a 1 GHz SAW resonator oscillator.		Custom thin-film circuits; custom services, including metalization and custom patterning of alumina, aluminum nitride, beryllia, ferrite, fused quartz and silicon substrates using etchback, liftoff and pattern plating techniques with plated through via holes.		Coaxial and waveguide RF/microwave antennas, switches, components and assemblies.
<b>Teledyne Microelectronics</b> <b>Los Angeles, CA</b>  <i>C. Parkinson, P. Galletta, D. German, Y. Rubin, D. Woods</i>	<b>1015</b>	<b>Thomson Composants Microondes</b> <b>Massy, France</b>  <i>V. Piazzini, J. Magarshack, H. Charlin, C. Delattre</i>	<b>315</b>	<b>Trilithic Inc.</b> <b>Indianapolis, IN</b>  <i>B. Malcom, B. Binninger, D. Distler</i>
Custom microcircuits, including analog, digital, memories, microprocessors, signal converters, decoders, RF microwave modules; hi-rel medical electronics, information display modules, fiber-optic/lightwave modules, chip-carrier/PCB assemblies, and ultra low to high power designs and packaging for severe environments.		MMICs, FETs, DSPs, diodes, MMIC foundry, MHMIC foundry, amplifiers, microwave sources, phase-locked loops, phase shifters, frequency synthesizers, and modular functions, including T-PAK®.		Filters to 18 GHz including miniature, L/C, cavity, tubular, and waveguide; attenuators including fixed pad, programmable, and variable; ATE equipment including matrix and RF switches; 1 GHz test equipment including spectrum analyzer, sweep generator, and comparator; test components, including SWR bridges, calibrated mismatches, detectors, feed through terminations, DC blocks, and matching pads.
<b>Teledyne Pines</b> <b>Aurora, IL</b>  <i>A.K. Stewart, F.M. DuMez, D. Waskow, R.W. Kuhn, S. Graupman</i>	<b>913</b>	<b>THOMSON-ICS</b> <b>Southwick, MA</b>  <i>D. Kleim, P. Dufilie, C. Marliac, G. Walter, H. Gautier</i>	<b>319</b>	<b>Trim-Tronics Inc.</b> <b>Cazenovia, NY</b>  <i>J. Dowd, M. Tronser, D. Hamilton</i>
The model CXC-10 numerically-controlled semi-rigid coaxial cable bending machine.		SAW and BAW devices, acousto-optic components, modules and subsystems. SAW filters, dispersive delay lines, low loss filters, pulse compressors, BAW delay lines and modules.		Air variable capacitor, sapphire variable capacitors and microwave tuning elements.
<b>Telephonics/PRD Instruments</b> <b>Huntington, NY</b>  <i>R. Freedman, J. Levy, H. Ruschmann</i>	<b>312</b>	<b>Times Microwave Systems</b> <b>Wallingford, CT</b>  <i>P. Page, J. Palasciano, J. Riter, Jr.</i>	<b>215</b>	<b>TriQuint Semiconductors Inc.</b> <b>Beaverton, OR</b>  <i>D. Powers, M. Kilgore, B. Fournier, L. Pengue, P. Snow</i>
Microwave components and test equipment.		High performance broadband microwave ca-		GHz digital, linear and microwave GaAs IC products for use in the communication, computer, instrumentation and military/aerospace fields in the development and manufacturing of both custom and semicustom GaAs IC components.
				<b>TRM Inc.</b> <b>Manchester, NH</b>  <i>A. Butts, A. Tirollo, R. St. Laurent</i>
				Directional couplers, power dividers, hybrids and custom components operating from DC to 26 GHz.

<b>Trontech Inc.</b> Neptune, NJ	1120	HEMT MMICs, GaAs and 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.	ators; microwave scalar analyzers and peak power meters; and RF components.
<b>TTE Inc.</b> Kirkland, WA	916	<b>Vari-L Co.</b> Denver, CO	<b>Wavetek Microwave Inc.</b> 719 See Wavetek Corp.
<i>A. Arbuckle, C. Brand, P. Mi</i> 1 KH <sub>z</sub> to 6 GHz RF and microwave amplifiers, including low noise amplifiers, broadband medium and high power to 20 W class A, 100 W class C.			<b>Wavetek RF Products Inc.</b> 719 See Wavetek Corp.
<b>United Glass to Metal Sealing Inc.</b> Chelmsford, MA	911	<b>Vectron Laboratories Inc.</b> 420 Norwalk, CT <i>R.J. Peters, M. Scinto, D. Stewart</i> Crystal and non-crystal controlled oscillators from 0.1 Hz to 1 GHz, including sinewave and all logic outputs; XOs TCXOs, TC/VCXOs, VCXOs, VCOs, and OCXOs.	<b>West-Bond Inc</b> 638 Anaheim, CA <i>I. Malcolm, V. Bezjian, S. Kirby, M. Chrastecky</i> Tweezer die attach machine for extremely delicate chips such as super-thin GaAs FETs.
<b>UTE Microwave Inc.</b> Asbury Park, NJ	921	<b>Vectortronics Microwave Corporation</b> 1214 Middlesex, NJ <i>J. Vogler, T. Vogler, S. Dec, J. Papalski</i> Microstrip digital phase shifters, frequency translators, digital and analog attenuators, vector modulators, monoprobe converters and networks, PSK/QPSK modulators and passive microstrip components.	<b>Western Microwave Inc.</b> 600 Sunnyvale, CA <i>F. Oliveri, J. Lautermilch, F. Marki, A. St. John-Brooks</i> GaAs FET amplifiers: microwave mixers and integrated RF subassemblies, LVAs, and microwave ferrite devices, including drop-in microstrip units, filters and RF channelizer assemblies.
<b>Varian Associates</b> Canada Microwave Division Georgetown, Ontario, Canada	1041	<b>Voltronics Corp.</b> 1336 E. Hanover, NJ <i>S. Newman, W. Smith</i> Precision trimmer capacitors in glass, quartz, air, sapphire and teflon dielectrics; non-rotating piston and internal o-ring seal; non-magnetic trimmers, DRO and cavity tuners.	<b>Wiltron Co.</b> 829 Morgan Hill, CA <i>B. Bathiany, M. Grace, W. Baxter, F. Torrellio, D. Kindblom, R. Thornburn, B. Wiedemann, J. Niehues, R. Beers, T. Kitbourne</i> RF and microwave and test instrumentation, including vector network analyzers, scalar network analyzers, swept frequency synthesizers, precision measurement components; pulsed RF vector analysis and universal fixture for testing of microstrip circuits capabilities.
<b>Varian Associates</b> RF Subsystems Division Beverly, MA	1041	<b>Wandel &amp; Goltermann, Inc.</b> 1412 Morrisville, NC	<b>W.L. Gore &amp; Associates</b> 641 Flagstaff, AZ
<i>C. Davis, J. Renner, P. Murston</i> IF signal processing components and subsystems, including monolithic log amplifiers, log amplifiers, limiting amplifiers, frequency discriminators, phase detectors and phase detection subsystems for applications in EW and ESM.		<b>Watkins-Johnson Company</b> 223 Palo Alto, CA <i>S. Algeri, T. Blaney, J. Cochrane, J. de Leon, L. Dessert, B. Hoglund, J. Hyde, A. Isaacs, N. Nelson, J. Schram, J. Spear, T. Wilson, S. Witmer, B. Gardner, T. Burkhard</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>XL Microwave Inc.</b> 529 Oakland, CA <i>R. Swift, D. Thornton, D. Nipper, B. Blay, B. Lawrence, J. Engel, M. Ikard, D. Tarver, W. Artz, R. Kieft</i> Microwave counter from 10 MHz to 20 GHz, 1 z resolution, and microwave CW counters to 3 GHz, 8 GHz, 12.4 GHz and 20 GHz.
<b>Varian Associates</b> Solid-State Microwave Division and III-V Device Center Santa Clara, CA	1041	<b>Wavetek Corp.</b> 719 San Diego, CA <i>L. Dolan, B. Hynes, J. White, H. Stitt, K. Anderson, T. Whitacre, D. Armann, S. Fox, S. Mussmann, D. Morikawa</i> RF and microwave signal and sweep genera-	<b>ZAX Millimeter Wave Corp.</b> 1224 San Dimas, CA <i>D. Zacharias, R. Moreno, S. Rigdon</i> 44 to 350 GHZ mm-wave components and systems, including antennas, detectors, cryogenic mixer, subharmonic and balanced mixers; fixed frequency, mechanically-tuned and varactor-tuned Gunn oscillators; frequency multipliers; calibration loads; radars and radiometers.