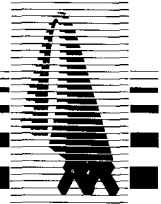




MTT-S 85 Exhibition Guide

(As of April 5, 1985.)

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|--|------------|---|------------|--|------------|
| Accumet Engineering Corp.
Hudson, MA
<i>J. Snook, S. Lehrfeld, L. Voyer, F. Halgas</i>
Lapped and polished ceramic, BeO, Silica and other dielectric substrates for the microelectronics industry. | 121 | Advanced Electromagnetics
Santee, CA
<i>G. Sanchez, B. Sanchez</i>
Microwave absorbing materials for use from 30 MHz to 90 GHz, for attenuation characteristics as well as full anechoic chamber designs and insulation. Custom tailor standard product line for new applications. | 142 | Alpha Industries, Inc.
Microwave Components Div.
Lawrence, MA
<i>D. Barker, G. Kamnitsis, J. Richmond</i>
PIN diode switches, limiters and attenuators, MFAs, GaAs FET amplifiers and switch drivers. | 800 |
| Acrian, Inc.
San Jose, CA
<i>D. Wotton, D. Herick, M. Mallinger, A. Juodikis</i>
Power transistors, passive power products and power module assemblies for avionics, radar, communications and broadcast applications. | 539 | Aerowave, Inc.
Medford, MA
<i>T.L. Kozul, M.F. Kozul, T.S. Kozul</i>
Millimeter-wave devices. | 738 | Alpha Industries, Inc.
Microelectronics Div.
Hatfield, PA
<i>G. Kamnitsis, J. Diesso</i>
RF/microwave modular amplifiers, multi-function subassemblies, switches, attenuators and analog and digital hybrid microcircuits. | 800 |
| Adams-Russell, Antenna & Microwave Div.
Amesbury, MA
<i>D. Ryan, K. Akerley, J. Ripel, P. Colombo, P. McGivern, J. Underhill, F. Kaczor</i>
Coaxial cable assemblies, antennas and microwave components. | 528 | Aikin Advanced Systems
Alexandria, VA
M. Van Meer, E. McDowell, R.Korb
Detector log video amplifiers and microwave switch matrices and related products. | 140 | Alpha Industries, Inc.
Millimeter Wave Div.
Methuen, MA
<i>M. Reid, B. Sharkey, B. Ruff</i>
Waveguide and active components, antennas and feeds, frequency meters and attenuators, radio front ends, radiometers, circulators and isolators and space-qualified mixers. | 800 |
| Adams-Russell, Anzac Div.
Burlington, MA
<i>J. Parker, K. Lambert, R. Grandmaison, L. Yadoff, M. Smith</i>
RF and microwave components, including low noise and log amplifiers, mixers, switches, phase modulators, power dividers, hybrids, couplers and transformers. | 528 | Alan Industries, Inc.
Columbus, IN
<i>B. Mullins, M. Burton, S. Kennedy, B. Kennedy</i>
Attenuators: programmable, continuously variable, rotary, fixed, cam actuated, toggle switch, rocker switch, pushbutton; also terminations, directional couplers, RF fuses, resistive dividers, impedance matching pads. | 420 | Alpha Industries, Inc.
Central Microwave Subsidiary
Maryland Heights, MO
<i>B. Goldwasser, B. Ruff, M. Reid</i>
Solid-state sources, power Gunn devices and FET amplifiers, wideband amplifiers, VCOs, DSOs, ILOs, multifunction subsystems and PLOs. | 800 |
| Adams-Russell, Micro-Tel Div.
Hunt Valley, MD
<i>B. Biller, J. Spero, D. Breville</i>
Microwave attenuation measurement/signal generator calibration system: AMS-1295. | 528 | Alpha Industries, Inc.
Woburn, MA
<i>N. Bishop, M. Antell, A. Kariotis, M. Reid, G. Kamnitsis, F. Leith, B. Goldwasser</i>
Microwave devices, components and subsystems, semiconductor diodes and ceramic materials. | 800 | Alpha Industries, Inc.
Trans-Tech Subsidiary
Adamstown, MD
<i>M. Reid, B. Stiles, M. Antell</i>
Microwave ferrites, garnets, dielectrics, dielectric resonator materials, technical ceramic powders. | 800 |
| Adams-Russell, Modpak Div.
Burlington, MA
<i>J. Parker, J. Murgu</i>
RF shielded enclosure providing access to both sides of the PC board. | 528 | Alpha Industries, Inc.
Semiconductor Div. Woburn, MA
<i>F. Leith, B. Touzet, A. Jakelarios</i>
Point contact mixer and detector diodes, Si and GaAs Schottky mixer/detector diodes, PIN and limiter diodes, abrupt and hyperabrupt tuning diodes, Gunn diodes, modules and sources, noise diodes, SRD/multiplier and paramp diodes and MIS capacitors. | 800 | American Electronic Laboratories, Inc.
Lansdale, PA
<i>F. McDonnell, K. Veith, R. Shillady, M. Nussbaum, F. Decker, W. Coyle</i>
MIC Custom multifunctional microwave and hybrid integrated circuits covering the frequency range to 100 GHz. | 208 |
| Adams-Russell, Semiconductor Center
Burlington, MA
<i>R. Gold, F. Weber, J. Parker</i>
GaAs MMICs and foundry. | 528 | | | | |



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| <p>American Technical Ceramics 833
 Huntington Station, NY
 <i>R. D. O'Toole, D. Davis, R. Blumkin</i>
 Capacitor product line covering the RF and microwave frequency range. They are QPL approved to MIL-C-55681/4 and/5 through failure rate level "S."</p> <p>Amperex Electronics Corp. 314
 Hicksville, NY
 <i>G. Marshall, J. Billaud, J. Salvey</i>
 RF and microwave power transistors featuring high power S-Band and L-Band high power devices.</p> <p>Amphenol Products 107
 Lisle, IL
 RF products, including SMA and SSMA connectors, microwave cable assemblies and precision connectors and adapters.</p> <p>Amplica, Inc. 108
 Newbury Park, CA
 <i>D. Henault, H. Lester, L. Nevin, G. Keithley, R. Stegens, E. Nyiri, J. Luschen, B. Dunn, B. Barrett</i>
 Solid state amplifiers operating in the RF and microwave frequency bands for end item use in communication, radar and ECM applications.</p> <p>Amplifier Research 534
 Souderton, PA
 <i>D. Shepherd</i>
 Broadband high power RF amplifiers, 10 kHz to 1 GHz, 1 to 10,000 W; broadband shielded-room antennas; field strength monitors; TEM cells; accessories for RFI susceptibility testing; EMP simulators; shielding materials - test cells.</p> <p>Amplifonix, Inc. 524
 Langhorne, PA
 <i>A. Riben, J. Day, R. Dubois</i>
 Broadband hybrid RF amplifiers, frequencies from kHz to 2000 MHz; also, limiters, linearizers, and voltage controlled attenuators.</p> <p>Anaren Microwave, Inc. 720
 E. Syracuse, NY
 <i>L. Nielsen, L. Buckridge, J. Krastel, C. Gerst</i>
 Microwave components, microwave integrated assemblies, digital frequency discriminators, ESM receivers.</p> <p>Andersen Laboratories. 134
 Bloomfield, CT
 <i>E. Hodur, C. Erikson, B. Ossmann, R. Hsing, B. King, M. Magda</i>
 Acoustic signal processing devices: SAW hybrid oscillators, frequency synthesiz-</p> | <p>ers, professional SAW filters, SAW and IMCON dispersive filters, filter banks, bulk acoustic wave delay lines, Q-switches, A/O modulators and RF amplifiers.</p> <p>Antennas for Communications Inc. 921
 Ocala, FL
 <i>W. Riesz, T. Anderson</i>
 Microwave antennas, satellite antennas, waveguide components.</p> <p>Applied Engineering Products 442
 New Haven, CT
 <i>C. Goff, A. Garrett, D. Winn</i>
 Subminiature coaxial connectors in series SMA, SMB, SMC; flexible and semi-rigid coaxial cable assemblies.</p> <p>Aristo Graphics Corp. 638
 Randolph, NJ
 <i>E. Harthaus, O. Jones</i>
 ARISTOMAT drafting and digitizing systems, MAT100 CAD interactive color graphics design station for precision microwave art masters.</p> <p>Artech House 220
 Dedham, MA
 <i>E. Bazy, B. Modelski</i>
 Artech House publishes advanced books on microwave, radar and telecommunications technology, theory and applications.</p> <p>Astrolab, Inc. 723
 Warren, NJ
 <i>J. Toma, S. Toma, O. Johnson, L. Pihl</i>
 Hi-rel and high frequency 50 ohm microwave connectors, adapters, waveguide assemblies, cable assemblies and other related components.</p> <p>Avantek, Inc. 504
 Santa Clara, CA
 <i>R. Atwater, S. Wheelis, C. Wirtz, P. Manno, D. Wong, F. Russell, J. Bybokas, B. Koehn, G. Brannock, L. Lea</i>
 PlanarPak surface mount components, subassemblies, Avanpak amplifiers, mixers, switches. Mixer/preamps, 18-40 GHz amplifier, low noise silicon bipolar MMICs, expanded line of 6 watt IMFETs, voltage controlled oscillators, dielectrically stabilized oscillators, low noise oscillators, 26-40 GHz YIG oscillators, broadband SiBip YIG oscillator.</p> <p>AVX Corp. 414
 Myrtle Beach, SC
 <i>J. Tinkler, J. Sarvis, J. Kennedy, J. Winn, B. Rawal, J. Horn, H. McCaul, K. Miller, N. Clausen</i>
 Microwave ceramic/porcelain MLCs and SLCs suited for MIC designs operating from 400 MHz to 40 GHz, requiring low loss stripline width matching components.</p> | <p>Aydin Vector Div. 119
 Newtown, PA
 <i>H. Jastrow, P. Oldham, A. Katz, P. Buess, P. Nelson</i>
 RF Wideband RF hybrid amplifiers to 1 GHz. Also, custom microelectronics capability (custom hybrids).</p> <p>Aydin Microwave Div. 119
 San Jose, CA
 <i>J. Harris, S. Misbabach</i>
 Solid state microwave amplifiers: 755 MHz to 18.0 GHz, low noise, power miniatures and limiting types. Military and commercial versions.</p> <p>Balo Precision Parts, Inc. 305
 Franklin Lakes, NJ
 <i>E. Rapoza, A. Dudas, H. Dudas</i>
 Microwave high frequency hermetic packages: 50 ohm bubble-free feedthroughs including glass free air launches. Channelized and shielded special packages, Hermeticity (1×10^{-8} cc/S He) maintained after exposure to 600°. TIG weldable glass seals. Power hybrid kovar/copper packages. Meets full requirements of MIL-STD-883.</p> <p>Bolriet Technologies 740
 Carleton Place, Ontario, Canada
 <i>M. Leitner</i>
 Thin Film MIC substrates on PTFE, lines and spaces to 0.001. Accuracies to ± 0.0001. Power divider networks, phase shifter, filters to 140 GHz. Custom design and fabrication.</p> <p>Boonton Electronics Corp. 513
 Randolph, NJ
 <i>L. Ramsey, D. Reiher, S. Elkins, R. Morrell</i>
 V-Band power meter, 50-75 GHz, -50 dB sensitivity; model 8200 modulation analyzer.</p> <p>Brush Wellman Inc. 337
 Cleveland, OH
 <i>M. Anderson, G. Chesmar</i>
 M. Beryllia ceramic substrates, packages and components for electronic packaging.</p> <p>California Eastern Laboratories, Inc. 812
 Santa Clara, CA
 <i>J. Swan, G. Medley, B. Hawkins, J. Barry, R. Chou</i>
 Hybrid ICs (data communications/cellular applications); GaAs/silicon MMICs; X, Ku-Band low noise GaAs FETs; power GaAs FETs (50 ohm matched/semi-matched); small signal, power/pulse power bipolars; GaAs/silicon IMPATT, Schottky diodes and beam lead.</p> |
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Cascade Microtech, Inc. 721
Beaverton, OR

E. Strid, R. Gleason, D. Carlton, B. Most, J. Grossarth

Microwave wafer probes that bring 18 GHz, 50 ohm transmission line directly to the device bond pads: model 42 probe station, model 54 auto prober top plate and series 1000 and 2000 probe cards.

Cohan-Epner Co. 822
Brooklyn, NY

D. Epner, W. Ryan

Ultra-high Q silver and gold plating. High tech specification plating for microwave filters, cavities, etc. Tin plating on aluminum. 100 percent reliable solder coating. Electroless nickel.

Coleman Microwave Co. 604
Edinburg, VA

K. Coleman Sr., K. Coleman Jr., J. Coleman, N. Coleman, G. Brinkley

Microwave filters from .1 to 26 GHz, including tunable and fixed-tuned in coax and waveguide; highpass, lowpass, band-pass, programmable and band-reject models.

Com Dev Ltd. 120
Cambridge, Ontario, Canada

N. Emptage, M. Pley, J. Sferrazza, D. Siu

Microwave and SAW enhanced subsystems for radar systems and communications satellites. Products include mm-wave components, passive waveguide devices, antenna feed components and beam reconfiguring subsystems.

Communication Consulting Corp. 515
Upper Saddle River, NJ

U. Rohde

Analysis, optimization and synthesis software for RF and microwave circuits, compatible with HP, IBM and Tektronix desktop computers.

Compac Development Corp. 937
Deer Park, NY

C. Groves, P. Rao

RFI/EMI shielded enclosures, RF transfer switches, power relays, gasketing, RF connectors, coaxial attenuators, circuit board mounting systems.

Compact Software, Inc. 634
Palo Alto, CA

H. Wong, D. Leiss, B. Castricone, C. Boyer, L. Olsen, G. Hansen, T. Oliver, S. March, J. Lindauer

CAD software for microwave circuit design, including Super-Compact, Autoart, Time-Domain, Super-Compact PC and Autoart PC.

Compex Corp. 905
Marlton, NJ

G. Gordon, S. Chen

Single layer parallel plate capacitors.

Component General, Inc. 742
Tampa, FL

J. Cook

Power microwave rods, power chip resistors and terminations, SMA terminations, power base mounted resistors and terminations, power attenuators, SMA flange terminations, chip attenuators.

Connecting Devices, Inc. 608
El Segundo, CA

J. Dunbabin, C. Wirtz, R. Black, W. Carpenter, P. King, M. Myerow, G. Burling

Microwave connectors and cable assemblies.

Continuing Education Institute 437
Los Angeles, CA

H. Heignsdal

Brochures on microwave engineering short courses.

Crystal Technology 438
Palo Alto, CA

L. Castelli, A. Comparini, D. Cowell, Z. Snow, R. Towns

Surface acoustic wave (SAW) devices, filters, bandpass filters, resonators, delay lines.

Delta Microwave 935
Camarillo, CA

J. R. Schulz

Microwave filters, multiplexers, iso-filters, gain equalizers and integrated packages.

Dielectric Laboratories 319
Cazenovia, NY

G. Vorlop, J. Stavring, D. Lupfer

Microwave chip capacitors: single-plate, frequencies up to 75 GHz; high Q porcelain capacitors for applications up to 5 GHz.

Dynatech 215
Venice, CA

N. Renfrow, L. Powers, S. Smith, M. Okano, R. Klenske, K. Siengsubcharti, B. Wise

Dynatech/UZ's line includes electro-mechanical coaxial switches and PIN diode switches. Dynatech Integrated Devices' line includes power dividers/combiners, filters, couplers and phase shifters.

Eastern Microwave Corp 440
Woburn, MA

M. Fuchs, J. Borghetti, S. Lowe, F. Oddi

VHF-UHF antenna arrays, microwave antennas, feeds, couplers, mixers, transitions multiple channel coaxial/waveguide

rotary joints, waveguide switches, bends, twists and assemblies, marine radar antennas, linear arrays.

Eaton, Microwave Products Div. 233
Sunnyvale, CA

H. Harrison, B. Livingston, C. Fraser, D. Contois

YIG filters and oscillators, VCOs, DTOs, isolators, switches, mixers, filters.

Eaton Corp., 233
Electronic Instrumentation Div.
Los Angeles, CA

A. Freeland, J. Shahan, A. Brown, R. Rapant, R. Raykar

Microwave and RF test and measurement equipment and systems: spectrum analyzers, frequency synthesizers, noise generators, noise-gain analyzers, system noise monitors, EMI/EMS test systems, broadband linear power amplifiers and RF power signal sources.

EEsof 828
Westlake Village, CA

C. Abronson, W. Childs, D. Mutch, L. DuBois, L. Rhodes, D. Morton, L. Lerner, P. Wilhelmson

Touchstone circuit design, analysis and optimization program; MiCAD artwork program; Touchstone/RF for RF frequency circuit design.

EEV Inc. 320
Elmsford, NY

P. Plurien, F. Oakes, A. Sayers, G. Noble, D. Taylor

Professional electronic tubes for radar communications and electronic warfare applications, including TWTs, magnetrons, integrated microwave packages.

EIP Microwave Inc. 422
San Jose, CA

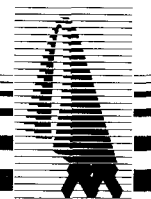
R. Bush, R. Loft, K. Thomas, J. Tarvin, J. Adam, L. Han

Microwave frequency counters to 110 GHz, microwave source locking frequency counters to 110 GHz, pulsed microwave frequency counters to 110 GHz, microwave sources to 18.6 GHz.

Electromagnetic Sciences 212
Norcross, GA

J. Banks, S. Ferrell, L. Bloom, B. Alverson

Microwave ferrite components and subsystems: phase shifters, switches, isolators, circulators over the 100 MHz to 100 GHz 100 MHz frequency range, including narrow and multi-octave bandwidths.



Electronautics 642 Raymond, ME

R. Olsen, C. Morton

Microwave absorbing materials, dummy loads, attenuators, RF shielding, military RF components.

EMC Technology 137 Cherry Hill, NJ

P. Semitschew, M. Moore, M. Steidlitz, G. Rolland, F. Halgas, S. Lehrfeld

Passive microwave components: terminations, loads, attenuators, DC blocks and shorts, resistors and connectors, hybrid circuits service.

EMF Systems Inc. 724 State College, PA

J. Chernega, J. Chernega

Oscillators.

Engelhard-Millis Corp. 324 Millis, MA

See Millis Corp.

EPSCO, Inc. 620 Westwood, MA

W. Coffin, J. Langley, J. Shalhoub, J. Dhimos, R. Kalvaitis

Solid-state power amplifiers, upwards of 2 GHz and 30 dBm, for EW and telecommunications. High power CW and pulsed signal sources, cavity oscillators and modulators.

Epsilon Lambda Electronics 127 Geneva, IL

P. Papaezagelou, C. Johnstone

Gunn oscillators: 4645 (MILSTAR) 42-46 GHz, min. power 100 mW, micronmeter-tuned; 4695 high power 93-95 GHz, min. power 70 mW, micronmeter-tuned; 4745 (MILSTAR) 42-46 GHz min. power 20 mW voltage-controlled.

Flexco Microwave, Inc. 411 Fort Murray, NJ

W. Pote, R. Landsman, R. Walker, Sr.

RF-flexible coaxial cable assemblies.

Frequency Sources 304 Chelmsford, MA

F. Bashore, J. Naidus, L. Johnson, G. Smith

VCOs, crystal oscillators, multipliers, switches, attenuators, phase shifters, semi-conductors, synthesizers and subsystems.

Frequency West 304 Santa Clara, CA

N. Donaldson, B. Rischpater, J. Daws

F-TEC 505 New York, NY

R. Grace, A. Ferland, J. Norris

Coaxial attenuators, couplers, switches, terminations; waveguide switches; micro-

wave chip capacitor line; most DC-18 GHz and some with applications to 26.5 GHz.

FTS Systems Inc. 131 Stone Ridge, NY

T. Thompson Jr., H. DiRuscio, B. Patterson

Temperature conditioning equipment for temperative-stressing live electronic devices.

Fujitsu Microelectronics, Inc. 708 Santa Clara, CA

N. Corpron, S. Erickson, S. Rupp, E. Mirabella

Bipolar transistors: general purpose, medium and high power, 0.5-2.3 GHz; GaAs FETs: low noise, medium power, 2-26 GHz; 2.0 and 4.0 GHz power FETs; internally matched power FETs: 4 - 15 GHz bands; CASPAC: 6 - 18 GHz, 17.9 -19.9 GHz; high power and broadband FET amplifiers; optical semiconductors.

Gamma-F Corp. 212 Torrance, CA

C. Goss, R. Frazier, L. Alford

Passive microwave components and assemblies from WR-229 through WR-8: filters, duplexers, multiplexers, OMTs, power dividers, couplers, transitions, bends, horns, etc.

GCA Corp. 434 Bedford, MA

General Microwave Corp. 628 Farmingdale, NY

S. Rinkel, M. Wind, F. Perry

Microwave high speed switches SPST-SPMT; digital and analog attenuators, phase shifters and frequency translators, MICs; automatic peak power meter; average power meters and monitors; radiation hazard meters.

GHz Technologies 840 Montreal, Canada

Z. Huszar, D. Smith, J. Dowell, W. Reddoch

Microwave passive components: filters, circulators, isolators, drop-ins, iso-adapters, power dividers and combiners, couplers, mixers, adapters.

Gilbert Engineering Co., Inc. 700 Phoenix, AZ

A. Foss, J. Kubota

Microwave connectors and adapters (SMA, Type N, TNC, 7mm, 14 mm) attenuators, terminations, slotted lines, cable assemblies, air lines, tees. Many offered in 50 ohm and 75 ohm versions.

W. L. Gore and Associates, Inc. 328 Flagstaff, AZ

M. Pawlicki, G. Walters, B. Gibson, F. Fulgham

Flexible microwave cable assemblies,

DC-40 GHz flexible mm-wave assemblies, 36 GHz-125 GHz.

Gould Dexcel 733 Santa Clara, CA

T. Brinkoetter, S. Kakihana

GaAs FETs, GaAs MMICs, microwave amplifiers.

Gould Inc. 733 Microwave Products Div. San Jose, CA

D. Sanders, T. Brinkoetter, G. McClarnon, S. Kakihana

Low noise, medium power and power FETs, microwave amplifiers, MIC thin film foundry service, MMIC amplifiers.

Harris/GSSD/PRD Instruments 939 Westbury and Syosset, NY

P. Schild, J. Price, J. Levy, G. Iavarone, R. Irka, H. McCarthy, D. Schoder, C. Motlenski, A. Salendar, P. Del Nunzio

Microwave and RF instrumentation consisting of calorimeters, power monitors, attenuators, vector voltmeters, power supplies, couplers and isolators.

Harris Microwave Semiconductor Inc. 413 Milpitas, CA

B. Hoffman, D. Apte, T. Strouth, N. Frick, J. Barrera, J. Tenedorio, J. deKoning, V. Kovacevic, A. Tenedorio, S. Mussynski, M. Harvey, R. Foust

GaAs products - GaAs Digital ICs, high gain and high power microwave GaAs FETs, broadband and narrowband GaAs FET amplifiers, GaAs semi-custom and custom services.

Hewlett-Packard Co., Microwave 703 and Communications Group Palo Alto, CA

Millimeter-wave test systems measuring to 60 GHz and beyond. Included are swept and synthesized signal sources, spectrum analyzers, vector and scalar network analyzers, power meters, counters and waveguide measurement accessories.

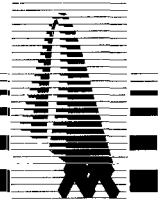
Hewlett-Packard Co., 703 Lake Stevens Instrument Div. Palo Alto, CA

HP3577A 5 Hz to 200 MHz network analyzer, S-parameter test set, HP 3577S error correction software. System features built-in source, 100 dB receiver, graphics display, 12-term error correction, parameter conversion.

Hewlett-Packard Co., 703 Santa Clara Div. Santa Clara, CA

L. Hornback, D. Schneider

5350A 18 GHz automatic microwave counter, 5351A GHz automatic microwave counter.



**Hewlett-Packard Co.,
Network Measurements Div. 703
Palo Alto, CA**

Network measuring systems for millimeter and microwave frequencies, including HP 8510 vector analyzer, HP 8757A scalar analyzer, plus swept and synthesized signal sources.

**Hewlett-Packard Co.,
Signal Analysis Div. 703
Palo Alto, CA**

Modular spectrum analyzer systems for microwave and mm-wave frequencies; multi-band millimeter spectrum analyzer and multi-instrument microwave and millimeter ATS.

**Hewlett-Packard Co.,
Stanford Park Div. 703
Palo Alto, CA**

HP 11729C carrier noise test set with 10 dB lower noise floor, self oscillator mode for frequency discriminator method on free-running sources and ability to do many pulsed carriers.

**Honeywell Inc., 139
Santa Barbara, CA**

J. Daly, R. Griffith, K. Pickford

MIC, MMIC and waveguide mixers, multipliers, receiver downconverters and integrated assemblies; network analyzer frequency extenders and S-parameter test sets.

**Horizon House-Microwave, Inc. 220
Dedham, MA**

W. Bazzy, R. Briden

Microwave Journal, Telecommunications, Journal of Electronic Defense publications and Artech Books.

**Hughes Aircraft Co. 514
Microwave Products Div.
Torrance, CA**

F. Bernues, J. Kuno, R. Larson, J. Nichols

Millimeter-wave instrumentation, systems and components. GaAs FET amplifiers and devices. Synthesizers and sweep generators, automatic vector and scalar network analyzers and power meters.

**Integrated Microwave Corp. 242
San Diego, CA**

D. Clark, A. Brand, D. Czagany, D. Bree, D. Knudson, B. Warren

MIC supercomponents and subsystems with switches, couplers, power dividers, video detectors, isolators, circulators and amplifiers. Also, microwave filters, switched filter banks, multiplexers, multipliers, and attenuators.

**Interconics 111
St. Paul, MN**

P. Koosmann, D. McGee, S. Scott, F. Grimm, N. Schriefer, J. Confer, B. Wolf, T. Stevens, N. Barol, P. Meagher, B. Snider

Microwave, microstrip, stripline printed circuit boards.

**Interdevices 312
San Jose, CA**

B. Berson, O. Ewing, M. Bernstein, R. Trueblood, N. Nelson

Design, development and manufacture of packaging for high frequency/high speed GaAs analog and digital circuits; metal housings with matched glass seals; metalized and plated ceramic substrates (including HICs) and services.

**Isotronics, Inc. 606
New Bedford, MA**

D. Hanley, J. Pinac, S. Overall

Isotronics is a manufacturer of hi-rel, all metal microcircuit packages. Products include precision machined custom modules for microwave applications.

**JFW Industries, Inc. 912
Indianapolis, IN**

J. Walker S. Manka

Fixed and variable attenuators, switches, detectors, solid state programmable attenuators.

**Johanson Dielectrics Inc. 824
Burbank, CA**

F. Luhrs

Ceramic chip capacitors.

**Johanson Mfg. Corp. 824
Boonton, NJ**

E. Fagerlund

Variable capacitors.

**Junction Devices 612
Westlake Village, CA**

E. Vadnais, A. Anderson, N. Pena, K. Schroeder

Coax and waveguide isolators and circulators from VHF through 50+ GHz. Product line includes high power handling ferrite components, hi-rel components and integrated assemblies.

**K & L Microwave Inc. 419
Salisbury, MD**

P. Leo, C. Schaub, R. Bernstein, N. Parker, and W. Anthony

RF and microwave filters, including microminiature, miniature cavity, tracking, wideband, narrowband cavity, tunable bandpass and band reject filters. Additional products include multiplexers, mobile duplexers, switched filter networks and waveguide filters.

**K & L Quartztek, Inc. 419
Phoenix, AZ**

M. Story, R. Livingston

Quartz crystals, 1.0 MHz-200 MHz, crystal filters, 1.5 MHz-100 MHz, crystal oscillators, 1.0 MHz-100 MHz, temperature compensated oscillators, crystal discriminators and crystal products.

**K & L Switch Products Div. 419
Salisbury, MD**

K. Jenkins, R. Kelly, G. Richter

Coaxial switch products, standard and custom, including transfer, miniature, coaxial and multi-position switches and RF switch control units.

**KDI Electronics, Inc. 112
Whippany, NJ**

C. Schraufnagl, B. Hartwig, D. McConnell

Microwave components and subassemblies including MIC devices, diode switches, attenuators, oscillators, combiners, terminations, mixers, dividers and others for application up to 26.5 GHz.

**Keene Corp., Ray Proof Div. 100
Norwalk, CT**

B. Lawrence, M. Wolski

RF shielded rooms for secure communications, computer rooms, EMP protection; RF rooms for Tempest testing; anechoic chamber systems. UL listed EMI power line filters.

**Keene Corp., Advanced Absorber Products 100
Amesbury, MA**

B. Kelly, T. Towle

Special microwave absorber materials, radomes.

**Keene Corp., Laminates Div. 100
East Providence, RI**

R. Petrick, T. Zawislak, J. Walsh, J. Taylor

PTFE/FEP microwave substrates and materials for: military ECM/EW applications; radar systems; TVRO, low noise amplifiers and blockdown converters; MLS and other ultra high frequency applications; instrumentation applications.

**Kevlin Microwave Corp. 412
Woburn, MA**

E. Lattanzi, J. Riley, P. Walker, I. Bhawnani

RF rotary joints, from single to 12 channel and from low to multi-megawatt power levels. Also, high frequency coaxial components, operating up to 50 GHz.

**Krytar, Inc. 423
Sunnyvale, CA**

T. Russell, C. Gentile

Broadband directional detectors, directional couplers, zero bias Schottky detectors, crystal detectors, 90° hybrids.



KW Engineering, Inc. 520
San Diego, CA

B. Cherot, R. Moubert, W. Lavery, R. Levy, B. Traynor, T. Mauk

Filters, multiplexers, multipliers, switch filters, switch multiplexers and integrated subsystems.

Lark Engineering, Inc. 815
San Juan Capistrano, CA

D. Emerick, M. Wilde, F. Baier, A. Pina

RF and microwave filters, diplexers, multiplexers, isofilters, switch filter.

Litton Industries, Electron Devices Div. 327
San Carlos, CA

K. Carrothers, B. Rodenroth, J. Van Dyke, B. Webb, C. Fay, J. Penna

Microwave tubes and devices: coupled cavity and helix microwave tubes, magnetron crossfield amplifiers and power supplies.

Litton Industries, Airtron Div. 327
Morris Plains, NJ

M. Grosso, J. Knapp, J. LoSchiario, E. Strong

Slotted arrays, circulators, waveguides: seamless, twistable, flexible, side-seamed. Rotary joints, couplers.

Locus Inc. 724
State College, PA

F. Thompson, W. Coyle

RF products, amplifiers, multi-couplers, image-reject mixers.

LogiMetrics, Inc. 719
Plainview, NY

M. Feigenbaum, E. Blum

Microprocessor based A230/A330 TWT amplifiers that include an LCD front panel display, IEEE/GPIB, internal RF power monitoring and mini-tube technology. Also, militarized/commercial TWTAs to 18 GHz and 1 kW EW systems, susceptibility test sets to 200 V/m, communication HPAs and boresight test carts.

Lorch Electronics Corp. 303
Englewood, NJ

L. Pultman, H. Lorch, J. Lorch, M. Harges

RF, IF and microwave signal-processing components and subassemblies; amplifiers, digital and variable attenuators, directional couplers, filters, mixers, phase comparators and shifters, power splitters, quadrature hybrids, switches, switch matrices, transformers.

3M Co., Electronic Prod. Div. 104
Austin, TX

E. Bond, S. Nodland, D. Caldwell, T. Donegan, R. Bishop, S. Miller, T. Tschida, T. Pearson

Precision tolerance Teflon/woven glass and ceramic filled copper clad substrates with K values from 2.17 to 10. Available in a wide range of thicknesses and claddings.

M/A-COM MDM, Inc. 803
Chatsworth, CA

Antennas/subsystems; flat plate arrays, conformal arrays reflector antennas, feeds.

M/A-COM Microwave Circuits Inc. 803
Burlington, MA

Mixers, diode control devices, EW subsystems, communications subsystems, radar subsystems, missile subsystems.

M/A-COM Microwave Components Inc. 803
Burlington, MA

Ferrite components, control assembly components/devices, waveguide products, magnetrons.

M/A-COM Microwave Power Devices Inc. 803
Hauppauge, NY

Solid state RF/microwave power amplifiers and subsystems, defense electronics power amplifiers, telecommunications power amplifiers, laboratory instrumentation/subsystems.

M/A-COM Millimeter Products, Inc. 803
Burlington, MA

ECM requirements, communications, guidance, radar products; 18 to 325 GHz millimeter waveguide test components.

M/A-COM Omni Spectra, Inc. 803
Merrimack, NH

Microwave connectors, microwave components, cablewave miniature products.

M/A-COM OSW, Inc. 803
Tempe, AZ

Military amplifiers, military oscillators, military subsystems, telecommunications products; TVRO products.

M/A-COM PHI, Inc. 803
Torrance, CA

RRF power transistors, RF power amplifiers, RF power MOSFETs, hybrid integrated amplifiers, specialized RF power products.

M/A-COM Semiconductor Products, Inc. 803
Burlington, MA

N. Jansen

GaAs field silicon products: Schottky bar-

rier, point contact and PIN diodes, power Schottky rectifiers, PIN diodes, TR switches, MNS capacitors, multiplier and tuning varactors, limiter diodes, paramp varactors, bipolar transistors, IMPATT diodes, epitaxial wafers, ceramic packages, resistors, terminations, SOT-23 packaging. Also, GaAs products.

M/A-COM Advanced Semiconductor Operations 803
Lowell, MA

GaAs FETs and MMICs, GaAs IC grade substrates.

Magnum Microwave 116
Mountain View, CA

D. Fealkoff, G. Graham, L. Earl

VCOs, mixers.

Marconi Electronic Devices Ltd. 238
Lincoln, England

J. Evans, E. Smith, D. Williams, M. Yeo

Semiconductors: Si, GaAs, Schottky, PIN, Gunns, transistors, from 10 MHz -240 GHz. Modules: amplifiers, control modules, detectors, mixers, oscillators, SAWs, circulators, ferrite and dielectric materials, loads, rotating joints, noise sources, switches, filters. Also, subsystems, millimetric and monolithic.

Marconi Instruments 209
Allendale, NJ

H. Felger, R. Munden, K. Elkins, W. Bean

Microwave counter, scalar analyzer, RF power meters, radio communications test set, signal generators.

MAST Microwave 611
Billerica, MA

C. Theophile, F. Cooper, W. Fowler

Rotary joints from DC-50 GHz, single and multi-channel, in standard waveguide, coax and double-ridge transmission lines; precision cable assemblies, flexible and semi-rigid; and coaxial connectors.

Matcom Inc. 340
Flann Microwave Div. Palo Alto, CA

B. Jones, E. Jones, D. Tuccori, B. Fleming, A. Frampton, L. Lansdell

Flann Microwave instruments and components.

Matcom, Inc., Toshiba Div. 340
Palo Alto, CA

B. Jones, E. Jones, D. Tuccori, K. Akada, M. Kihara, M. Haruta

Toshiba Microwave semiconductors: low noise and power GaAs FETs, diodes.



Materials Research Corp. 542
Pearl River, NY

I. Drangel, B. Block, J. True, M. Hieronymi
 99.6 percent alumina substrates (SUPER-STRATES); uncoated and sputter-coated; pattern-etched substrates; laser scribing services; high-purity thin-film sputtering targets.

Maury Microwave Corp. 712
Cucamonga, CA

M. Maury Jr., M. Maury, G. Simpson, F. Bennett Sr., D. Payette, L. Willey, M. Maury III

Microwave components and instruments: MT950 series universal transistor test fixture demonstrated on HP8510 automatic network analyzer; WR22 waveguide devices and calibration instruments for MIL-STAR; millimeter waveguide flanges; 3.5 mm slide screw tuner for use up to 34 GHz; 3.5 mm fixed loads rated to 34 GHz; millimeter waveguide calibration kits for 18 to 75 GHz network analyzer calibration; calibration kits for the HP8510 VANA; noise measurement equipment, broadband isolators, low SWR waveguide-to-coaxial adapters, etc.

Merrimac Industries, Inc. 509
West Caldwell, NJ

R. Koelzer, T. Cox, J. Blahosky, J. Cappucci
 IF and microwave signal processing components covering frequency ranges of 50 KHz to 4 GHz and 1 to 18 GHz, including mixers, power dividers, and integrated assemblies. Also, up- and downconverters, IF modulators and microwave receivers.

Metelics 609
Sunnyvale, CA

R. Dorilag, B. Clarke, E. Pendleton
 State of the art microwave diodes: Schottky, PIN, SRD, varactor.

MIC Technology Corp. 923
Richardson, TX

D. Chapman, R. Chapman, M. Chmura, L. Ingham, C. Ristagno, D. Tarnowski
 Thin films: coated substrates and etched circuits.

Mica Microwave Corp. 816
Santa Clara, CA

A. Campbell, F. Mills
 Microwave components: ferrite circulators and isolators; octave-plus, octave, and narrowband. Stripline devices available connectorized or as drop-in components.

Micro-Coax Components 614
Collegeville, PA

R. Schafer, L. Deery, D. Snader, E. Woehr
 Semi-rigid coaxial cable, assemblies, delay lines, in-a-cable filters, millimeter waveguides, connectors, adapters, compo-

nents, flexible microwave cable, flexible RF cable, EMP protectors, fiber optic cable, transmitters, receivers and complete systems.

Microelectronics Technology, Inc. 123
Taiwan, ROC

C. Hsieh, P. Wang, A. Chu
 GaAs or bipolar amplifiers for low noise or high power uses, Gunn oscillators, voltage controlled oscillators and detectors.

Microguide Ltd. 928
Tel Aviv, Israel

S. Dotan
 Double-ridge waveguide components, antennas and feeds, rectangular waveguide components, coaxial components, oscillators and special microwave products.

Microlab/FXR 813
Livingston, NJ

R. Vincent, M. Bruno.
 Passive waveguide and coaxial components, couplers, filters, power dividers, dummy loads and double-ridge components.

Micronetics, Inc. 433
Norwood, NJ

P. Basse, L. Hecht
 Programmable noise generators, noise sources, noise diodes, coaxial switches, waveguide switches, dummy loads, bolometers, coaxial crystal detectors.

Micro-Now Instrument Co. Inc. 811
Skokie, IL

C. Arnow, W. Openlander, R. Hoguet
 Model 706 solid-state mm-wave sweeper. A family cost-effective, narrow band, solid state microwave sweep generators. Each includes a calibrated Gunn diode oscillator, low isolator and IEEE interface. Pulse modulation is available as option. Also, 44 GHz generator with sweep width to 4 GHz.

Microsource, Inc. 623
Santa Rosa, CA

G. Basawapatna, J. Meyers, K. Kisling, M. Lampenfeld

YIG-tuned devices and subsystems, oscillators with -40 dBc harmonics; bandpass and band-reject filters; analog and digital drivers for all devices; subsystems incorporating YIG devices, drivers, AGC circuits, power splitters, modulators, detectors and mixers; negative-biased Gunn replacement X/Ku transistor oscillators; and 8-18 GHz oscillator with -40 dBc harmonics.

Microtech Inc. 641
Cheshire, CT

D. McFayden, J. Rodder J. McGregor
 Flexible and rigid waveguide assemblies,

passive microwave components from 1.12 to 50 GHz.

Microwave Applications Group 301
Santa Maria, CA

D. Prigge, T. Janzen, W. Hord, C. Boyd
 Design, fabrication and test of microwave ferrite components along with related electronic drive circuits. Specific components include reciprocal phase control modules for electronic scanning antennas.

Microwave Components, Inc. 311
So. Chelmsford, MA

D. McCarthy
 Air coils for microwave microelectronics, inductors, chokes, gold, copper and resistive coils, 5 - 500 nh.

Microwave Development Co. 338
North Andover, MA

J. Cook, C. Tomes
 A line of double-ridged and rectangular waveguide components. Custom designed components and assemblies, many of which are state-of-the-art designs of 3.6:1 bandwidth, include couplers, hybrids, high power terminations, adapters, transitions, filters and magic tees.

Microwave Development 228
Laboratories, Inc.
Natick, MA

R. Tucker, E. Bannister, J. Furey
 Adapters, assemblies, attenuators, bends, twists, couplers, crystal holders, circulators, diplexers, filters, flanges, gaskets, SSB generators, hybrids, isolators, mixers, monopulses, ridge guide, rotary joints, phase shifters, power dividers, rotary and shutter switches, tees, terminations, transitions, waveguide tubing, windows, suspended substrates.

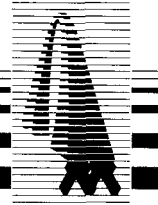
Microwave Distributors Co. 500
Commack, NY

Microwave Journal 220
Dedham, MA

W. Bazy, B. Bossard, R. Briden, H. Elowitz, M. Stiglitz, C. Donohue, W. Cook, A. Gordon, K. Feltmate
 Microwave Journal magazine: subscription and editorial information.

Microwave Modules & Devices 307
Mountain View, CA

T. Simons, J. Johnson, L. Max, E. Ulrich
 Design, development and manufacture of softboard and hybrid high power, solid-state RF amplifier modules. This includes amplifiers employing hybrid micro-circuitry and modular printed circuit technology.



Microwave Printed Circuitry 311 **Lowell, MA**

M. Casper, D. McCarthy, S. Newbegin, M. Casper, Jr.

Stripline and microstrip circuitry fabrication service. Soft substrates and thin film circuits on ceramics. Capabilities include sputtered metalization, ultrasonic machining and drilling, PTH, plated edges.

Microwaves & RF 835 **Hasbrouck Heights, NJ**

S. Bearse, B. Manz, S. Marzan

Microwaves and RF magazine, subscription information, promotional literature.

Microwave Semiconductor Corp. 313 **Somerset, NJ**

C. Lump, J. Holmquest, W. Poole, E. Casterline, A. Arbuckle

A line of microwave semiconductor devices and components. Product lines include GaAs power FETs, Silicon bipolar power transistors, GaAs FET amplifiers/subsystems and solid state noise sources.

Microwave Systems News & Communications Technology 913 **Palo Alto, CA**

A. Yaconetti, C. Polster, A. Braun, M. Spector, A. Deming, V. LeGendre, M. Hall, A. Ring

Publishers of *Microwave Systems News & Communications Technology*, *Microwave Systems Designer's Handbook*, *Defense Electronics Magazine* and *New Defense Electronics' C³I Handbook* and the *International Countermeasures Handbook*.

Microwave Technology, Inc. 613 **Fremont, CA**

T. Baruch, J. Cochrane, B. Zeiser, D. Gray, M. Omori

Standard and miniature size GaAs FET amplifiers covering the 0.5 to 18.0 GHz frequency range. Linear power output up to +20 dbm (at the 1.0 dB compression point).

Millis Corp. 324 **Millis, MA**

D. Bradshaw, W. Gasko, R. Visser

Custom thin-film metalization, custom precision phototurning, MIC substrates, thin film precision system resistor networks, vacuum technology.

Millitech Corp. 538 **So. Deerfield, MA**

R. Huguenin, D. Loger, W. Pleasant, P. Goldsmith, R. Haas, G. Goldberg

Millitech develops, manufactures and markets millimeter and submillimeter components and subsystems used in defense electronics systems, research, communications and instrumentation applications.

Mitec Electronics Ltd. 400 **Montreal, Quebec, Canada**

J. Robinson, M. Bentob, C. Lorenc, N. Sebag

Microwave components for communications systems, earth satellite stations and defense systems.

MITEQ, Inc. 503 **Hauppauge, NY**

A. Faverio, H. Kiiss

Solid-state microwave components, subsystems and systems, including low-noise and medium-power amplifiers to 18 GHz, signal sources, low phase noise synthesizers for communications applications, image-reject mixers, mixer/preamplifiers, upconverters, downconverters and receivers.

Mitsubishi Electronics America, Inc. 143 **Sunnyvale, CA**

T. Suzuki, K. Kusunoki, T. Costa, B. Bechtold, J. Kominitsky, S. Nakamura, J. Talbot

GaAs FETs and transistor modules, including small-signal, medium power, high power and high power internally matched types; MIC modules.

Modular Components 911 **Waltham, MA**

D. Shippey, T. Calf

Microwave circuits, components and sub-assemblies for use in the field of telecommunications and in defense systems and their support equipment.

Monolithic Microsystems 903 **Hauppauge, NY**

S. Layton, J. Quinnell, J. Lee

Detector log video amplifiers, special detectors, log video amplifier ICs.

Murata Erie North America 241 **Marietta, GA**

M. Blickstein, J. Alberici, T. Sudo

Hi-Q capacitors, dielectric resonators and gigafils.

Narda Microwave 304 **Hauppauge, NY**

J. Coppola, B. Leibowitz, V. Chitkara, R. Damiano, W. Crofut, W. Bourke

Microwave electronic components, including a line of terminations, attenuators and couplers to 26 GHz; an expanded line of PIN switches, to 40 GHz; subsystems; test equipment and electromagnetic radiation monitoring devices.

Narda Western Operations 304 **San Jose, CA**

G. Ginatasio

GaAs FET amplifiers, filters, multiplexers, isolators, integrated assemblies.

New England Microwave Corp. 834 **Hudson, NH**

K. Benz, R. Raso, R. Robbins, C. Beck

PIN diode switches and drivers, attenuators, silicon PIN diodes, varactor limiter diodes.

Norsal Industries, Inc. 533 **Central Islip, NY**

L. Lipset, A. Margulis, N. Spector, S. Margulis

Microwave components and subsystems: PIN switches, coaxial couplers, hybrids, powers dividers and attenuators. Double-balanced and wideband dual mixers, mixer modules, single-sideband modulators, quadrature IF mixers and PIN attenuators.

North Hills Electronics 237 **Glen Cove, NY**

J. Server, B. Server, D. Ljungquist, H. Marx, H. Anders, J. Mruz

Electronic news gathering antenna, microwave components, microwave integrated component subassemblies, down-converter for air-to-ground telephony, phase detectors.

NIK Technical Ceramics Div. 836 **Richardson, TX**

Nurad 820 **Baltimore, MD**

G. Neuberth, R. Korb, G. Rappaport, L. Czirjak

Antenna and radome systems for operation between 5 MHz and 40 GHz. Featuring mm-wave and dual polarized antennas and an automatic antenna system controlled by Loran-C.

Oak Materials 133 **Hoosick Falls, NY**

Olektron Corp. 207 **Webster, MA**

B. Baker, W. Beauregard, L. Foshay, P. Hurney

RF components and subsystems for signal processing.

Ortel Corp. 607 **Alhambra, CA**

I. Ury, N. Bar-Chaim, K. Lau, B. Ware and B. Jacobsen

Ortel's ultra wide bandwidth transmitters and receivers are suited for high speed analog and digital signal transmission, microwave antenna remoting, microwave signal processing and other applications.

P.C. Dynamics Corp. 105 **Frisco, TX**

C. Anderson, R. Deitz, G. Maurer

Microwave circuit board fabrication facilities. High reliability stripline and microstrip circuits. Bonded multi-layer and



phased array antenna substrates. Etching, plating and machining on Teflon materials.

Phonon Corp. 117
Simsbury, CT

T. Martin, D. Fraley, W. Narot

Surface acoustic wave devices, sub-systems.

Piezo Crystal Co. 113
Carlisle, PA

C. Jensik, R. Zeigler, L. Heishman, G. Kurzenknabe

Quartz crystals, crystal oscillators and crystal filters for industry and aerospace use in frequency control applications.

Plessey Microwave 536
San Diego, CA

S. Griffiths, R. Coleman, R. Johnson [Plessey US], R. Lowin, P. Higgs, M. Phillips, C. Stewart, R. Evans [Plessey UK]

Radar absorbing materials (RAM), RF test screens, GaAs FET amplifiers, Gunn oscillators, horn antennas, Doppler modules, detectors, GaAs FETs.

Polarad Electronics 404
Lake Success, NY

G. Kushner, R. Ramirez, B. Yellin, S. Abrams

The 600 series spectrum analyzers, the 300 series microwave synthesizers, other synthesizers, test receivers, network analyzer, transceiver test set.

Precision Tube Co., Inc. 435
North Wales, PA

W. McNeil, A. West, R. Stahley

Semi-rigid cable, cable assemblies, waveguide, pre-packaged off-the-shelf coaxial delay lines.

Raytheon Co., Microwave & Power Tube Div. 428
Waltham, MA

A. Vacaro, T. White, D. Roberts, J. Hieber, G. Cicinelli, R. Mason

Microwave tubes; ferrite devices; microwave integrated circuits; GaAs FET amplifiers; YIG and SAW devices; GaAs FETs.

REMEC 408
San Diego, CA

R. Ragland, C. Somach, M. Mosier, E. Ekaireb

Filters (lumped element, suspended substrate and combine), equalized filters, equalizers, contiguous and non-contiguous multiplexers, switched filters and integrated switched modules, coaxial and drop-in switches, frequency multipliers, supercomponents.

Republic Electronics Corp. 841
Paterson, NJ

W. Eisenberger, L. Eisenberger

Ceramic capacitors, broadband through 50 GHz; parallel plates for stripline applications; high-Q multi-layer microwave capacitors, approved to MIL-C-55681, BP and BG characteristics. Also, QPL to MIL-C-20 "R" level.

Resin Systems Corp. 439
Amherst, NH

F. Harrington, N. Diehm, S. Campbell

Lossy dielectric material, custom "cast" poly-iron low power loads and absorbers, high power ceramic loads and terminations. Any specified size or design. Meets SWR and customer specifications.

RFD Inc. 206
Tampa, FL

S. Bailey, J. Wood, T. Facer, T. Holliday, L. Tyson, R. Ochenrider, C. Ochenrider, D. Chmielewski, M. Smith

Phase-locked oscillators, L-Band CW power amplifiers, IFF transmitters, IFF receivers, cavity stabilized oscillators, IFF power amplifiers, dual PLOs, DME 125 W amplifier.

RF Design Magazine 907
Englewood, CO

K. Aldrich, J. MacDonald, K. Walsh, E. Nieman

The June issue of *RF Design*. The special report in that issue will be "Facing Up To Digital Interfaces."

RF Products 909
Camden, NJ

T. Riley, F. Arlotta, G. Sharifi, R. Minke, W. Staufenberg

Developer and manufacturer of fixed and tunable filters, multicouplers and multiplexers.

RHG Electronics Laboratory, Inc. 508
Deer Park, NY

S. Wolin, R. Hirsch, D. Weaver

MIC microwave and IF/RF products, including ICLL, ICLLW, ICLLP, ICLLWP and ILM series, ISM and ICDL series, ICE1000, model ICLWX1 and model QDD6-18, 6-18 GHz SSB modulator.

RLC Electronics, Inc. 619
Mt. Kisco, NY

P. Wright, D. Borck, P. Dionisio, M. Martin [AME Sales]

Passive microwave components consisting of filters, switches, attenuators, couplers, power dividers, terminations, crystal detectors, cable assemblies, etc., as featured in full-line catalog, as well as units built to specifications.

Rogers Corp. 823
Chandler, AZ

G. Archer, E. Sandor, R. Cole, R. Jansen, J. Dobrick, Z. Katinszky

RT/duroid[®] 5500, 6006 and other microwave substrates, including metal-clad laminates.

Sage Laboratories, Inc. 204
Natick, MA

T. Saad, T. Cieri, C. Marguerite, S. Pekunece, R. Richardson, A. Feller

Passive microwave components, attenuators, couplers, filters, hybrids, mixers, phase shifters, power dividers, rotary joints, switches, video detectors, terminations, crystal holders, Wireline and Wirepac (3 dB quadrature hybrids and couplers).

Satellite Ground Components 115
Simi Valley, CA

M. Cherubin, E. Gray, R. Carlton, D. Compton

Ferrite isolators, circulators, phase shifters, 2, 4, and 8-way power dividers, multi-systems, and line amplifiers.

Sawtek, Inc. 507
Orlando, FL

G. Monetti, B. Vancata, S. Grappy, W. Sneller

Surface acoustic wave (SAW) products including bandpass filters, delay lines, resonator products (including frequency control elements, narrowband filters and oscillators) and other signal processing components.

SDI, Inc. 734
Billerica, MA

J. Caruso, P. Huyck, G. Degon, S. Dawe

Microwave semiconductors and solid-state control devices.

Sealectro Corp. 819
Trumbull, CT

J. Flanagan, D. Duris

Miniature, subminiature and microminiature connectors and cable assemblies. K Connectors to 46 GHz. Coaxial Din connector inserts and BNC connectors.

Seven Associates 633
Sonoma, CA

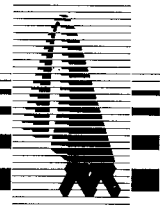
H. Smith, D. Smith, B. Matthews

Tooling to fabricate microwave (semi-rigid) cables.

Soladyne 216
San Diego, CA

P. Taparuskas, D. Reed, B. Swansen

Manufacturers of microwave stripline and microstrip circuit boards on PTFE based substrates.



SPC Electronics Corp. 839
Tokyo, Japan

K. Ishizuka, S. Tagawa, T. Nunotani, K. Sasaki, M. Sasaki, T. Inoue

Noise gain analyzer for DBS LNA/LNB; GaAs FET amplifier, wideband and low noise; mm-wave calorimeter: ± 1 percent accuracy at 94 GHz region, optical power meter; wide dynamic range and accurate, mm-wave components, etc.

Stantel Components 737
Schaumburg, IL

J. Elk, W. Cavallo, J. Pryma, J. Rodell, D. Colborne

Traveling wave tubes, traveling wave tube amplifiers, microwave subsystems, GaAs FET amplifiers, microwave sources, fiber optics, fiber-optic test equipment, crystal oscillators, SAW filters, 1553 products.

Steinbrecher Corp. 821
Woburn, MA

D. Steinbrecher, D. Peterson, D. Giglio

Steinbrecher is engaged in contract R&D in mm-wave, microwave and RF engineering. Millimeter-wave IMPATT diode power amplifiers and varactor diode frequency multipliers, wideband mm-wave ferrite isolator, circulator and hybrids, high power EHF solid state transmitters, and HF broadband paramixer.

Storm Products Co. 213
Hinsdale, IL

B. Holland, J. Holland

Microwave cables, semi-rigid and flexible, delay lines, low loss-high power cable assemblies, phase matched, interchangeable connectors.

Synergy Microwave 515
Paterson, NJ

H. Levine, U. Rohde

Signal processing components and subsystems, DC-3 GHz mixers, QPSK modulators, SSB and image-reject mixers, power dividers, hybrids, phase shifters, frequency doublers.

Syston Donner Corp. 339
Concord, CA

H. Winkler, D. Herbert, R. Sullivan, G. Dishong

Frequency counters, power supplies, sources, synthesizers, transmission analyzer.

Syston Donner Corp., 401
Microwave Div. Van Nuys, CA

T. Meehan, A. Madni, J. Vuong, T. Vu, L. Wan

Microwave components, GaAs FET amplifiers, instruments and subsystems in radar

and telecommunications. Design, development and production; standard line, custom design or build-to-print.

Tektronix, Inc. 203
Beaverton, OR

K. Dawson, L. Garrett, H. Ellevitz, C. Hilger, T. Smith

VHF/UHF, microwave and mm-wave spectrum analysis systems, including 494P 10 kHz-325 GHz (with external mixers) with built-in 1 Hz resolution frequency counter, HELP mode. Systems will be under programmed control.

Teledyne Microwave 704
Mountain View, CA

D. Merkley, P. Lee, M. Lee, R. Lukon, J. McPherson, P. Gruver, S. Kendall, P. Kovacich

Ferrite isolators and circulators, coaxial switches, filters and multiplexers, VCOs, MIC thin film subsystems, GaAs FET amplifiers, equalizers, bulk acoustic wave delay devices.

Test and Measurement World/ 838
Technical Publishing Boston, MA

Test and Measurement World is a monthly publication for those concerned with making decisions about purchasing, implementing and upgrading test, measurement and inspection equipment for electro-optical or electronics applications.

Texscan Corp. 915
Indianapolis, IN

Thomson-CSF Components Corp. 200
Special Prod. Div. Rutherford, NJ

M. Poirier, H. Sandager

Amplifiers-FET, space-qualified components, ferrite and dielectric resonator materials, beam lead diodes — GaAs, VCOs, laser diodes, isolators, circulators.

Thomson CSF Components Corp., 200
Semiconductor Div. Montgomeryville, PA

Thomson CSF, Electron Tube Div. 200
Rutherford, NJ

S. Barthelmes, A. Laconti, R. Kolts, M. Freteaud, D. Kleim

High power klystrons, TWTs, TWTAs for satellite communications and telecommunications in C, X, Ku, K and Ka Band; power ranging from 1 watt to over 3 kW.

Time Microwave 621
Santa Clara, CA

M. Maesel, M. Midwin, C. Martens, L. Underkofler J. Cudahy

Polar frequency discriminators, 500 MHz

to 18 GHz. Available in octave and multi-octave bandwidths.

Times Fiber Communications 639
Wallingford, CT

R. Krimsier, C. Tyler, J. Mankus

RF cable assembly, interconnection systems, RF coaxial cable products, passive microwave components.

TRAK Microwave Corp. 510
Tampa, FL

G. Pate, M. Medley, R. Boone, B. Craig, T. Gant, T. Roberts, D. Frizzell

Oscillators, (dielectrically stabilized, crystal controlled, voltage controlled, YIG-tuned), GaAs FET amplifiers, IF amplifiers, frequency multipliers, comb generators, YIG filters, isolators, circulators, frequency synthesizers, up- and downconverters, subsystems.

Transco Products, Inc. 924
Marina del Rey, CA

R. Williams, B. Toffelmier, G. Wilson, A. Kwon

Products or services: horn, spiral, blade antennas/coaxial and waveguide switches, combiners, dividers, filters, and integrated RF assemblies.

TRW Microwave 727
Sunnyvale, CA

R. Bridge, G. Coonce, F. Lemmon, D. Mazzacavallo, W. Patton, R. Roy, E. Sheehan, P. Thesing

A range of microwave semiconductor devices, components, and subsystems to serve the EW, radar, missile, satellite, telemetry, test equipment and telecommunications markets.

TRW RF Devices 727
Lawndale, CA

B. Mehrmann, L. Wilson, M. Williams, B. Hunter, J. Calder

L-band transistors, 45 W at 1.7-1.85 GHz; microwave linear power transistors; cellular radio transistors; and a line of VHF and UHF devices, 50 W from .5-1.0 GHz and 200-400 MHz, 110 W infinite SWR.

A. J. Tuck Co. 124
Brookfield, CT

A. Tuck, D. Tuck, L. Hunt

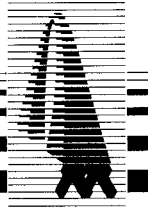
Precision electroformed components built to customer requirements. Specialize in WG transitions, filters, cavities, polarizers, OMTs, horns, corrugated horns and WG, miniature double ridge and millimeter components.

United Glass to Metal Sealing Inc. 125
Chelmsford, MA

P. Sullivan

Glass-to-metal hermetically sealed headers and feedthroughs for microwave, mi-

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croelectronic, crystal, hybrid, optic and custom package designs.

Valbar Industries 535
Attleboro, MA

R. Barry and D. Morrissey, H. Smith

Microwave circuit board manufacturing including drilling, stamping, routing and plated through holes using a wide variety of materials produced by Rogers, Keene, Oak and others.

Varian Associates,
Beverly Microwave Div. 128
Palo Alto, CA

Varian Associates 128
Solid-State Microwave Div.
Palo Alto, CA

Voltronics Corp. 637
East Hanover, NJ

R. Newman, S. Newman

Precision trimmer capacitors of air, sapphire, Teflon, glass and quartz. MIL-C-14409D. Surface mount 4 GHz, high Q, subminiature styles.

A.T. Wall Co. 138
Warwick, RI

C. Gibbs, R. Huntsman, R. Hudson

Waveguide tubing manufactured from aluminum, copper, brass, copper-coated invar, coin silver and other special alloys, as well as other special tubular sections.

A.T. Wall Co., Judson A. Smith Div. 138
Boyertown, PA

G. Gibbs, R. Huntsman, R. Hudson

Manufacturer of small tubing and miniature tubular parts from non-ferrous and ferrous materials.

Watkins-Johnson Co. 219
Fairfield, NJ

R. Koenig, J. McCrea, R. Powell, E. Fodor

A standard line of components in WR-22 and double-ridge waveguide. An operational setup will demonstrate WR-22 capability.

Wavecom 304

W. Anderson, C. Bell, D. Kolletta, G. Collins, G. Etzler, W. Harrison, J. Hoffman

Electromechanical RF switches, filters, power combiner, multiplexer, isolator assembly, antenna coupler.

Wavetek Corp. 333
San Diego, CA

C. Foster, D. Armann

Microwave electronic test and measurement equipment.

Weinschel Engineering 321
Gaithersburg, MD

A. Belski, C. Hancock, L. Pregley, R. Bastien

VM4B attenuator and signal generator calibrator, VM24 calibration receiver, system II automatic power meter calibration system and a component line sampling.

Western Microwave Inc. 842
Sunnyvale, CA

J. Lautermilch, A.M. St. John, K. Schoniger, D. Tracy

GaAs FET amplifiers, microwave mixers and integrated RF subassemblies, DLVAs, microwave ferrite devices including drop-in microstrip units, suspended substrate filters and RF channelizer assemblies.

Whittaker Corp. 933
Electronic Resources
Burbank, CA

W. Palmisciano, T. Saia, C. Berg, B. Miller

RF/microwave stainless steel jacketed silicon dioxide cable and cable systems for major airframe and missile manufacturers, EW/ECM equipment and component fabricators and for primary suppliers of nuclear instrumentation.

Wild Heerbrugg Instruments 827
Farmingdale, NY

F. Califano, J. Jensen, C. Longhurst, D. Oestreicher

CADART, a two-dimensional CAD/CAM system for generation of artwork for manufacturing and quality control.

Wiltron Co. 519
Mountain View, CA

A. Hart, F. Kuttner, M. Grace R. Reinhardt, K. Schroeder

Microwave measurement systems, 10 MHz to 40 GHz, components for microwave measurements, coax connectors to 46 GHz.

