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This index covers all technical items that appeared in this periodical during 1993.

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Microstrip directional couplers

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- Stochastic processes;** cf. Autoregressive moving-average processes; Autoregressive processes
- Stripline**
loss calculation for single and coupled striplines using extended spectral domain approach. *Kitazawa, Toshihide, MGWL Jul 93 211-213*
- Stripline circuits**
integrated 94-GHz planar monopulse receiver using uniplanar coplanar waveguide, slotlines, and coplanar striplines. *Ling, Curtis C., + , MGWL Oct 93 358-360*
- Stripline resonators**
high-gain, low-noise narrowband active bandpass filters using stripline resonator and active microstrip circuits. *Schwab, Wolfgang, + , MGWL Jan 93 1-2*
- Strip scatterers**
time-domain design-oriented parametrization of truncated perfectly conducting periodic strip gratings. *Carin, L., + , MGWL Apr 93 110-112*
- Strip transmission lines;** cf. Microstrip...; Stripline...
- Submillimeter-wave (300–3000 GHz);** cf. Infrared (0.70–100 μm); Millimeter-wave (30–300 GHz)
- Submillimeter-wave frequency conversion**
split-waveguide mount design for millimeter- and submillimeter-wave frequency multipliers and harmonic mixers. *Räsänen, Antti V., + , MGWL Oct 93 369-371*
- Submillimeter-wave mixers**
split-waveguide mount design for millimeter- and submillimeter-wave frequency multipliers and harmonic mixers. *Räsänen, Antti V., + , MGWL Oct 93 369-371*
- Submillimeter-wave modulation/demodulation;** cf. Submillimeter-wave mixers
- Submillimeter-wave radio receivers**
wideband submillimeter-wave planar heterodyne receiver consisting of log-periodic antenna integrated with planar GaAs Schottky diode. *Gearhart, Steven S., + , MGWL Jul 93 205-207*
- Submillimeter-wave waveguides**
Si micromachined waveguides for millimeter-wave and submillimeter-wave frequencies. *McGrath, William R., + , MGWL Mar 93 61-63*
- Switches/switchgear**
finite-element study of scattering characteristics of tunable and switchable dielectric grating. *Bushbeck, Mark D., + , MGWL Sep 93 296-298*
- Switches/switching;** cf. Light-triggered switches; Magnetic switching; Microwave switches
- System identification**
characterization of microwave cavity by combined FDTD and system identification methods. *Houshmand, B., + , MGWL Aug 93 262-264*
fast sequential FDTD diakoptics method using system identification technique. *Huang, Tian-Wei, + , MGWL Oct 93 378-380*

T

- Time delay;** cf. Delay...
- Time-domain analysis;** cf. Finite-difference methods; Numerical methods; Transient...
- Time series;** cf. Autoregressive moving-average processes; Autoregressive processes
- Tracking loops;** cf. Phase-locked loops
- Transferred-electron devices;** cf. Gunn devices
- Transforms;** cf. Fourier transforms
- Transient...;** cf. Electromagnetic transient...
- Transistors;** cf. Bipolar transistors; FETs
- Transitions;** cf. Microstrip transitions; Waveguide transitions
- Transmission coefficient measurement;** cf. Scattering parameters measurement
- Transmission-line discontinuities;** cf. Coaxial transmission-line discontinuities; Microstrip discontinuities
- Transmission-line filters;** cf. Microstrip filters
- Transmission-line measurements**
characterization of resistive transmission lines to 70 GHz with ultrafast optoelectronics. *Deutsch, A., + , MGWL Mar 93 75-77*
- Transmission-line resonators;** cf. Finline resonators; Microstrip resonators; Stripline resonators
- Transmission lines**
characterization of transmission lines fabricated on lossy or dispersive dielectrics. *Williams, Dylan F., + , MGWL Aug 93 247-249*
full-wave analysis of arbitrarily shaped guided-wave structures by 2-D FDTD method using real variables. *Xiao, S., + , MGWL May 93 127-129*
- Transmission lines;** cf. Coupled transmission lines; Finline resonators; Microstrip...; Slotline...; Stripline...; Waveguides
- Traveling-wave devices**
equivalence of DC voltage to two traveling waves on lossless nonuniform transmission line; application to time-domain scattering parameters analysis. *Hsue, Ching-Wen, MGWL Mar 93 82-84*
quasi-microstrip traveling-wave power divider/combiner for use in high-density packages. *Willems, David, + , MGWL May 93 148-149*
- TR devices;** cf. Land mobile radio transmitters/receivers
- Tunable devices**
active varactor-tunable microstrip bandpass filter. *Chandler, S. R., + , MGWL Mar 93 70-71*
finite-element study of scattering characteristics of tunable and switchable dielectric grating. *Bushbeck, Mark D., + , MGWL Sep 93 296-298*
- Tuners;** cf. Varactor tuners
- Tuning**
100-GHz coplanar strip circuit tuned with sliding planar backshort. *Lubecke, Victor M., + , MGWL Dec 93 441-443*

U

- UHF (300–3000 MHz); cf.** Microwave (3–30 GHz)
UHF FET amplifiers; cf. MESFET amplifiers; MODFET amplifiers
UHF FET amplifiers, power
 high-efficiency class F GaAs FET amplifiers operating with very low bias voltages for use in mobile telephones at 1.75 GHz. *Duvanaud, C.*, + , *MGWL Aug 93* 268-270
UHF radio communication; cf. Land mobile radio...
Ultrafast electronics
 characterization of resistive transmission lines to 70 GHz with ultrafast optoelectronics. *Deutsch, A.*, + , *MGWL Mar 93* 75-77
Ultrafast optics
 characterization of light-switched coplanar-strip horn antennas fabricated on GaAs epilayers containing As clusters for picosecond pulse applications. *Carin, Lawrence*, + , *MGWL Sep 93* 339-341
 optically controlled generation and true-time-delay phase shifts of broadband 60-GHz signals. *Huang, Sheng-Lung L.*, + , *MGWL Feb 93* 42-44

V

- Varactors**
 high-power millimeter-wave frequency doubler using integrated planar array of four varactor diodes. *Rizzi, B. J.*, + , *MGWL Jun 93* 188-190
 improved millimeter-wave GaAs Schottky barrier varactor diodes; application in multipliers. *Crowe, Thomas W.*, + , *MGWL Jun 93* 161-163
Varactor tuners
 active varactor-tunable microstrip bandpass filter. *Chandler, S. R.*, + , *MGWL Mar 93* 70-71
Volterra series
 nonlinear model and measurement method for microwave mixers. *Vandersteen, G.*, + , *MGWL May 93* 133-135

W

- Waveguide arrays**
 computation of mutual coupling between waveguide apertures mounted on common conducting surface using time- and Fourier-gated pulsed FDTD method. *Olivier, J.C.*, *MGWL Jun 93* 177-179

Waveguide arrays; cf. Slot arrays**Waveguide discontinuities**

- rigorous modal analysis of asymmetric rectangular iris in circular waveguides. *Keller, Reinhard*, + , *MGWL Jun 93* 185-187
 vertex-based finite-volume time-domain method for analyzing waveguide discontinuities. *Chan, C. H.*, + , *MGWL Oct 93* 372-374

Waveguide discontinuities; cf. Waveguide junctions; Waveguide mounts; Waveguide transitions**Waveguide junctions**

- analytic series solution for *H*-plane waveguide T-junction using Fourier transform technique. *Park, Kyung H.*, + , *MGWL Apr 93* 104-106
 full wave modal *S*-matrix solution of magic-T junction using mode matching. *Sieverding, Thomas*, + , *MGWL May 93* 150-152
 rigorous analysis of rectangular waveguide six-port cross junction. *Sieverding, Thomas*, + , *MGWL Jul 93* 224-226

Waveguide mounts

- impedance modeling of metal whisker mounted in rectangular waveguide. *Xu, Jie*, + , *MGWL Mar 93* 58-60
 split-waveguide mount design for millimeter- and submillimeter-wave frequency multipliers and harmonic mixers. *Räsänen, Antti V.*, + , *MGWL Oct 93* 369-371

Waveguides

- analysis of passive microwave structures by combined mode matching and finite difference methods. *Mongiardo, M.*, + , *MGWL Aug 93* 241-243
 dual-frequency-band waveguide using frequency selective surfaces to form guide within guide. *Langley, R. J.*, *MGWL Jan 93* 9-10
 fast waveguide mode computation using wavelet-like basis functions. *Wagner, Robert L.*, + , *MGWL Jul 93* 208-210
 numerical stability and numerical dispersion of compact 2-D FDTD method used for dispersion analysis of waveguides. *Cangellaris, Andreas C.*, *MGWL Jan 93* 3-5

Waveguides; cf. Coplanar waveguides; Dielectric waveguides; Millimeter-wave waveguides; Semiconductor waveguides; Submillimeter-wave waveguides**Waveguide transitions**

- analysis of transition from rectangular waveguide to shielded dielectric image guide using FDTD method. *Dib, Nihad I.*, + , *MGWL Sep 93* 327-329
 coplanar-to-microstrip transition for *W*-band circuit fabrication with 100- μ m-thick GaAs wafers. *Golja, B.*, + , *MGWL Feb 93* 29-31

Wire communication; cf. Optical fiber communication