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This index covers all technical items - papers, correspondence, reviews, etc. - that appeared in this periodical during 1996, and items from previous years that were commented upon or corrected in 1996.

The Author Index contains the primary entry for each item, listed under the first author's name, and cross-references from all coauthors. The Subject Index contains several entries for each item under appropriate subject headings, and subject cross-references.

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InP HEMT DC-to-100 GHz 1:2 distributor IC, distrib. amplif. *Imai, Y.*, +, *MGWL Jul 96* 256-258

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- Millimeter wave generation; cf.** Millimeter wave oscillators
- Millimeter wave integrated circuits**
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- Millimeter wave integrated circuits; cf.** Millimeter wave bipolar integrated circuits; Millimeter wave FET integrated circuits; MIMICs
- Millimeter wave isolators**
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- Millimeter wave mixers**
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- Millimeter wave monolithic integrated circuits; cf.** MIMICs
- Millimeter wave oscillators**
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- Millimeter wave oscillators; cf.** Millimeter wave FET oscillators
- Millimeter wave power amplifiers; cf.** Millimeter wave power FET amplifiers
- Millimeter wave power bipolar transistors**
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- Millimeter wave power FET amplifiers**
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- Millimeter wave propagation; cf.** Millimeter wave waveguides
- Millimeter wave switches**
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- Millimeter wave transmitters**
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- Millimeter wave waveguides**
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- Mixers; cf.** Millimeter wave mixers; Schottky diode mixers
- MMIC amplifiers**
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- MMIC amplifiers; cf.** MMIC power amplifiers
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- MMIC oscillators**
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- MMIC power amplifiers**
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- MMIC power dividers/combiners**
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- MMIC switches**
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- Modeling; cf.** Circuit modeling; Semiconductor device modeling; Simulation
- Mode locked lasers**
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- circ. waveguide discontinuities, anal. *Reiter, J.M.*, + , *MGWL Oct 96* 369-371
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- GaAs FET MMIC amp. design, IMD control by derivative superposition. *Webster, D.*, + , *MGWL Mar 96* 123-125
 GaAs PHEMT Ka-band monolithic LNA, high-perform. design. *Youngwoo Kwon*, + , *MGWL Jul 96* 253-255
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- GaAs PHEMT Ka-band monolithic LNA, high-perform. design. *Youngwoo Kwon*, + , *MGWL Jul 96* 253-255
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MODFET integrated circuits; cf. MODFET amplifiers; MODFET oscillators; MODFET switches**MODFET oscillators**

- MM-wave integrated planar NRD oscillator, design. *Ke Wu*, + , *MGWL Sep 96* 329-331

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- GaAs-based PHEMT C-band power amp., design/perform. *Brown, J.J.*, + , *MGWL Feb 96* 91-93
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- common-gate HEMT act. input matched HBT DC MMIC amp. *Kobayashi, K.W.*, + , *MGWL Jan 96* 55-57

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- monolithic HEMT pass. switch with HBT driver, phased-array appls. *Kobayashi, K.W.*, + , *MGWL Oct 96* 375-377
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- comments, with reply, on "New prospects for time domain analysis" by M. Krumpholz, and L.P.B. Katehi. *Tam, W.Y.*, *MGWL Nov 96* 422-423
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- quasi-TEM transm. lines, modal cross power. *Williams, D.F.*, + , *MGWL Nov 96* 413-415

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- wideband waveguide-to-microstrip transit. and power divider. *Davidovitz, M.*, *MGWL Jan 96* 13-15

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- microstrips, multilayered media, printed aperture, mutual coupling. *Chinglung Chen*, + , *MGWL May 96* 202-204

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- MM-wave automated prog. tuner, 75-110 GHz, noise meas. appl. *Drury, R.*, + , *MGWL Oct 96* 378-379

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- freq. divider operating bands, determ. *Morales, J.*, + , *MGWL Jan 96* 46-48

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- coaxial line radiating into parallel plate, refl. *Lee, J.H.*, + , *MGWL Mar 96* 135-137

- lossy absorbing boundary conditions, method of lines, unbounded EM structs., microstrip line. *Ke Wu*, + , *MGWL May 96* 212-214

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- 3D scatt. problems, FDTD stabil., Mur's ABC. *Zhang Yusheng*, + , *MGWL Mar 96* 120-122

- Courant condition, EM simul., FDTD method. *Sullivan, D.M.*, *MGWL Aug 96* 289-291

- pass. equiv. cct. for FDTD algm. *Craddock, I.J.*, + , *MGWL Jan 96* 40-42

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- act. antenna, tunneling diodes, RF triggering. *Boric-Lubecke, O.*, + , *MGWL Aug 96* 280-282

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- InP HEMT DC-to-100 GHz 1:2 distributor IC, distrib. amplif. *Imai, Y.*, + , *MGWL Jul 96* 256-258

Optical communication equipment; cf. Optical transmitters**Optical data processing; cf. Optical signal processing****Optical fiber delay lines**

- microwave true time delay syst., acoustooptic control. *Jemison, W.D.*, + , *MGWL Aug 96* 283-285

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- transversal microwave opt. filters, in-fiber Bragg grating arrays. *Hunter, D.B.*, + , *MGWL Feb 96* 103-105

Optical losses

- AlGaAs/GaAs TW electrooptic modulators, vel.-matched electrodes. *Jaeger, N.A.F.*, + , *MGWL Feb 96* 82-84

- bent opt. waveguides, complex integrat. path in theory of leaky modes. *Wilczewski, F.*, *MGWL Mar 96* 149-150

- InGaAsP/InP TW electrooptic modulators, vel.-matched electrodes. *Jaeger, N.A.F.*, + , *MGWL Feb 96* 82-84

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- hybrid mode-locked DBR semicond. laser, locking range, MM-wave freqs. *Novak, D.*, + , *MGWL Sep 96* 320-322

- microwave true time delay syst., acoustooptic control. *Jemison, W.D.*, + , *MGWL Aug 96* 283-285

Optical modulation/demodulation; cf. Electrooptic modulation; Intensity modulation**Optical noise; cf. Laser noise****Optical planar waveguide components**

- AlGaAs/GaAs TW electrooptic modulators, vel.-matched electrodes. *Jaeger, N.A.F.*, + , *MGWL Feb 96* 82-84

- InGaAsP/InP TW electrooptic modulators, vel.-matched electrodes. *Jaeger, N.A.F.*, + , *MGWL Feb 96* 82-84

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- transversal microwave opt. filters, in-fiber Bragg grating arrays. *Hunter, D.B.*, + , *MGWL Feb 96* 103-105

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- hybrid mode-locked DBR semicond. laser, locking range, MM-wave freqs. *Novak, D.*, + , *MGWL Sep 96* 320-322

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- ultra-low-noise microwave oscillator, phase noise suppress. *Ivanov, E.N.*, + , *MGWL Sep 96* 312-314

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coupled phase-locked oscillator array at 160 GHz, meas. appl. *Geist, T.*, +, *MGWL Jun 96* 235-237

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AlGaAs/GaAs HBT Q-band MIMIC lin. amp. *Youngwoo Kwon*, +, *MGWL Apr 96* 180-182

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planar diodes, T-gate-like anodes in 200 GHz waveguide mixers. *Mehdi, I.*, +, *MGWL Jan 96* 49-51

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AlGaAs-GaAs HBT, high-power-efficiency, model verification. *Deshours, F.*, +, *MGWL Jan 96* 31-33
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AlGaAs-GaAs HBT, high-power-efficiency, model verification. *Deshours, F.*, +, *MGWL Jan 96* 31-33
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planar Schottky diodes, T-gate-like anodes in 200 GHz waveguide mixers. *Mehdi, I.*, +, *MGWL Jan 96* 49-51

Semiconductor devices; cf. Semiconductor lasers

Semiconductor device testing

AlGaAs-GaAs HBT, high-power-efficiency, model verification. *Deshours, F.*, +, *MGWL Jan 96* 31-33

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Semiconductor diodes; cf. Millimeter wave diodes; Schottky diodes; Submillimeter wave diodes; Tunnel diodes; Varactors

Semiconductor lasers

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Semiconductor logic devices; cf. FET logic devices

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SiGe coplanar HBT MMIC oscillator. *Rheinfelder, C.N.*, +, *MGWL Nov 96* 398-400

SiGe power HBTs, 1 W device for mobile commun. *Schuppen, A.*, +, *MGWL Sep 96* 341-343

Semiconductor noise; cf. Semiconductor device noise

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Signal detection; cf. Heterodyning

Signal processing; cf. Adaptive signal processing; Optical signal processing; Signal sampling/reconstruction

Signal representations; cf. Image representations

Signal sampling/reconstruction

MM-wave time-resolved meas. near discontinuity. *Shah, S.A.*, +, *MGWL Feb 96* 79-81

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microwave inductors fabricated on SOS and bulk Si, comparison. *Johnson, R.A.*, +, *MGWL Sep 96* 323-325

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Simulation; cf. Circuit simulation

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Submillimeter wave diodes

correction to "Progress toward solid-state local oscillators at 1 THz" (May 96 207-208). *Crowe, T.W.*, +, *MGWL Oct 96* 383

GaAs Schottky diode, varactor tripler, THz LO. *Crowe, T.W.*, +, *MGWL May 96* 207-208

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- Schottky varactor optim. for submm. freq. multiplier appls. *Louhi, J.T.*, +, *MGWL Jun 96* 241-242
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- Submillimeter wave isolators**
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- Synchronization**
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- Tracking loops**; cf. Phase locked loops
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- Transient analysis**; cf. Pulse analysis
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