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- generalized Z-domain absorb. boundary conditions for EM problems anal. with FDTD method. *Zhenhai Shao*, +, *T-MTT Jan 03* 82-90
- Hybrid approach for modeling complex antenna systs. on vehicular platforms. *Thiel, W.*, +, *MWSYM-03 2003* 2097-2100 vol.3
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- Negative reflective/refr. "meta-interface" using, bi-directional phase-conjugating array. *Allen, C.A.*, +, *MWSYM-03 2003* 1875-1878 vol.3
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- SiGe act. sub-harmonic front-end for 5-6 GHz direct-conversion receiver appls.. *Svitek, R.*, +, *RFIC-03 2003* 675-678
- SiGe WCDMA/DCS dual-band RF front-end receiver. *June-Ming Hsu*, +, *RFIC-03 2003* 27-30
- Single-package 5GHz WLAN RF module with embedded patch antenna and 20dBm power amp.. *Ryckaert, J.*, +, *MWSYM-03 2003* 1037-1040 vol.2
- Si/SiGe BiCMOS mixer with 3rd-order nonlin. cancellation for WCDMA appls. (student paper). *Liwei Sheng*, +, *RFIC-03 2003* 417-420
- Systematic study of ESD protection struct. for RF ICs. *Guang Chen*, +, *RFIC-03 2003* 347-350
- Very low distortion SiGe BiCMOS down converter for W-CDMA appls.. *Watanabe, D.*, +, *MWSYM-03 2003* 1555-1558 vol.3
- W-CDMA 1 chip SiGe TX-IC with high dyn. range and accurate temp. compensation VGA. *Nakamizo, H.*, +, *RFIC-03 2003* 399-402
- X band BiCMOS SiGe 0.35 μm VCO in parallel and refl. topol. and external phase noise improvement soln.. *Wong, W.*, +, *RFIC-03 2003* 281-284

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- bipolar-MOSFET LNA (BiFET LNA), cct. config., design methodology, chip implement.. *Pingxi Ma*, +, *T-MTT Nov 03* 2175-2180

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- Correlation of max. temp. increase and peak SAR in human head due to handset antennas. *Hirata, A.*, +, *T-MTT Jul 03* 1834-1841
- Frequency spectrum investigs. on detect. of radiofrequency EM fields by biological cells. *Apollonio, F.*, +, *MWSYM-03 2003* 1431-1434 vol.2
- Investigation of SAR of EM fields at 100 MHz in head of pers. wearing hoodless protection grment.. *Hadjem, A.*, +, *MWSYM-03 2003* 407-410 vol.1
- Microwave symposium digest. *MWSYM-03 3 vol.*(lxxxiv+xxiii+2284)
- mobile commun. freqs., EM field computation inside biological tissues. *Emili, G.*, +, *T-MTT Jan 03* 178-186
- radiobase antenna near field, human exposure, full-wave soln. using parallel FDTD. *Catarinucci, L.*, +, *T-MTT Mar 03* 935-940
- UTD/FDTD model to evaluate human exposure to base-station antennas in realistic urban environ.. *Bernardi, P.*, +, *MWSYM-03 2003* 403-406 vol.1

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Biological thermal factors

- Correlation of max. temp. increase and peak SAR in human head due to handset antennas. *Hirata, A.*, +, *T-MTT Jul 03* 1834-1841

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- FDTD simul. of interstitial arrays of sleeved-slot antennas for hyperthermic cancer therapy. *Bernardi, P.*, +, *MWSYM-03 2003* 395-398 vol.1
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- Biomedical imaging**
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- Biomedical transducers**
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- 5-6 GHz SiGe VCO with tunable polyphase output for analog image rejection and I/Q mismatch compensation. *Sanderson, D.I.*, +, *RFIC-03 2003* 683-686
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- Fast filter optim. scheme based on model order reduction. Krohne, K., +, *MWSYM-03 2003* 21-24 vol.1
- Ka-band class F MMIC amp. design utilizing adaptable knowledge-based neural network modeling techs.. Reece, M.A., +, *MWSYM-03 2003* 615-618 vol.1
- Microwave symposium digest. *MWSYM-03* 3 vol.(lxxxiv+xxiii+2284)
- Minimal-order multi-dimens. lin. interpolation for parameterized EM model database. Seru, J., +, *MWSYM-03 2003* 295-298 vol.1
- MMIC FET act. freq.-multiplier design using CAD, nonlin. CAD software. Klymyshyn, D.M., +, *T-MTT Apr 03* 1377-1385
- Multidimensional time-domain macromodels for microwave appls.. Gunupudi, P., +, *MWSYM-03 2003* 13-16 vol.1
- Multiple-chip module design optim. using, novel layout parameterization tech.. Chun-Wen Huang, +, *MWSYM-03 2003* A73-A76 vol.1
- Multiport MM/FE tech. for efficient CAD of folded and cross-coupled rect. combine filters. Arndt, F., +, *MWSYM-03 2003* 287-290 vol.1
- neural-based microwave modeling and design, exact adjoint sensitivity anal.. Jianjun Xu, +, *T-MTT Jan 03* 226-237
- Optimisation and comparison of three duplexers based on new slot to microstrip jn.. Gouget, P., +, *MWSYM-03 2003* 1231-1234 vol.2
- Powerful tool for synthesis of prototype filters with arbitrary topol.. Macchiarella, G., *MWSYM-03 2003* 1467-1470 vol.3
- RF and microwave cct. design, ANN. Qi-Jun Zhang, +, *T-MTT Apr 03* 1339-1350
- RF MEMS switches, varactors, and tunable filters, IMD and power-handling capabilities. Dussot, L., +, *T-MTT Apr 03* 1247-1256
- Simplified analytic CAD model for lin. tapered microstrip lines. Edwards, C.L., +, *MWSYM-03 2003* 2101-2104 vol.3
- design engineering**
- corrections to "Design of an interdigital hairpin bandpass filter utilizing a model of coupled slots" (Sept 02 2153-2158). *T-MTT Apr 03* 1298
- design and testing of SMA temperature-compensated cavity resonators. Keats, B.F., +, *T-MTT Dec 03* 2284-2289
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- Displacement meas. tech. using MM-wave interferometry. Seoktae Kim, +, *T-MTT Jun 03* 1724-1728
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- Low cost RF MEMS switches using photodefinable mixed oxide dielec.. Guoan Wang, +, *MWSYM-03 2003* 1633-1636 vol.3
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- Realization of 150 GHz to 450 GHz tripler cct. based on thin dielec. HMDS-N-membrane. Duwe, K., +, *MWSYM-03 2003* 755-757 vol.2
- Dielectric liquids**
- Dielectric fluid immersed MEMS tunable capacitors. McCormick, D.T., +, *MWSYM-03 2003* 495-498 vol.1
- Dielectric loaded waveguides**
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- complex permitt. of materials, determ. with transm. refl. meas. in partially filled rect. waveguides. Catala-Civera, J.M., +, *T-MTT Jan 03* 16-24
- Improvement of charact. using cross patch in LTCC filter. Hayashi, J., +, *MWSYM-03 2003* 531-534 vol.1
- Low loss phase shifter based on piezo-controlled layered dielec. struct.. Poplavko, Y., +, *MWSYM-03 2003* 437-440 vol.1
- Miniaturized synthetic rect. waveguide. Hsien-Shun Wu, +, *MWSYM-03 2003* 1099-1102 vol.2
- Numerical and expt. investig. of losses in tray based spatial power amp.. Al-Zayed, A., +, *MWSYM-03 2003* 1867-1870 vol.3
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- High dens. RF MIM capacitors using high- ϵ AlTaO_x dielec.. Huang, C.H., +, *MWSYM-03 2003* 507-510 vol.1
- Minimization of pass. ccts. losses realized on low resist. silicon using micro-machining techs. and thick polymer layers. Bouchriha, F., +, *MWSYM-03 2003* 959-962 vol.2
- New MM-wave stripline resonator with embedded air cavities in LTCC multilayer struct.. Young Chul Lee, +, *MWSYM-03 2003* 2027-2030 vol.3
- thin flexible high-loss materials, modified transm.-refl. method for permitt. charactn.. Williams, T.C., +, *T-MTT May 2003* 1560-1566
- Tunable ferroelec. filter-phase shifter. Deleniv, A., +, *MWSYM-03 2003* 1267-1270 vol.2
- Dielectric materials**
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- open-ended coaxial probe sens. vol. for dielec. charactn. of breast tissue at microwave freqs.. Hagl, D.M., +, *T-MTT Apr 03* 1194-1206
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- corrections to "Complex permittivity measurements of common plastics over variable temperatures" (Mar 03 727-733). Riddle, B., +, *T-MTT Oct 03* 2148
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- MM-wave meas. of complex permitt. using dielec. rod resonator excited by NRD-guide. Nakayama, A., +, *T-MTT Jan 03* 170-177
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- MEMS shunt switch on dielec. membrane. Nithianandam, J., *MWSYM-03 2003* 499-502 vol.1
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- Simple far-field model for lateral leakage in printed transm. lines. Kamel, A.H., +, *MWSYM-03 2003* 669-672 vol.2
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- 2 GHz high-gain differential InGaP HBT driver amp. matched for high IP3. *van der Heijden, M.P.*, +, *MWSYM-03 2003* 235-238 vol.1
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- Neutralized differential amps. using mixed-mode S-params.. *Stengel, B.*, +, *RFIC-03 2003* 711-714
- New methods & non-lin. meas. for act. differential devices. *Dunsmore, J.*, *MWSYM-03 2003* 1655-1658 vol.3
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- Single-ended differential amp. and mixer ccts. utilizing complementary RF charact. of both NMOS/PMOS. *Ilku Nam*, +, *RFIC-03 2003* 631-634
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- Wide bandwidth, high perform. waveguide-integrated P-I-N photodiodes for 40 Gbits/s receiver modules. *Wang, G.*, +, *MWSYM-03 2003* 151-154 vol.1
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- Development of 40 Gb/s limiting-distributed modulator drivers in InP HBTs. *Yu, M.*, +, *RFIC-03 2003* 71-73
- Novel direct-coupled current switch archit. for series-connected voltage-balancing pulse driver. *Umeda, Y.*, +, *MWSYM-03 2003* 2265-2268 vol.3
- Very low distortion SiGe BiCMOS down converter for W-CDMA appls.. *Watanabe, D.*, +, *MWSYM-03 2003* 1555-1558 vol.3

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efficient modal analysis of arbitrarily shaped waveguides composed of linear, circular, and elliptical arcs using BI-RME method. Cogollos, S., +, *T-MTT Dec 03* 2378-2390

Functions; cf. Bessel functions; Green's function methods; Transfer functions**Fuzzy logic**

EM-based design tools for microwave ccts. using fuzzy logic techs.. Mirafteb, V., +, *MWSYM-03 2003* 169-172 vol.1

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- 110 MHz 84 dB CMOS prog. gain amp. with RSSI. *Chun-Pang Wu*, +, *RFIC-03 2003* 639-642
- Fully integrated variable gain 5.75-GHz LNA with on chip act. balun for WLAN. *Raja, M.K.*, +, *RFIC-03 2003* 439-442
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- Enhancement mode GaAs PHEMT LNA with lin. control (IP3) and phased matched mitigated bypass switch and differential act. mixer. *Kumar, S.*, +, *MWSYM-03 2003* 1577-1580 vol.3
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- Improved but reliable model for MESFET parasitic capacitance extraction. *Ooi, B.L.*, +, *RFIC-03 2003* 567-570
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- multiport struct. using MSWs in ferrite films, electrodynamic anal. and appls.. *Zagriadski, S.V.*, +, *T-MTT Mar 03* 744-751
- Novel compact uniplanar MMIC Wilkinson power divider with ACPS series stubs. *Hettak, K.*, +, *MWSYM-03 2003* 59-62 vol.1
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- Enhancement-mode power HFET utilizing re-grown p⁺-GaAs gate with negligible off-state leakage current. *Bito, Y.*, +, *MWSYM-03 2003* 703-706 vol.2
- GaN-based heterostruct. RF FET, transient charact.. *Kohn, E.*, +, *T-MTT Feb 03* 634-642
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- Stability anal. and layout design of internally stabilized multi-finger FET for high-power base station amps.. *Goto, S.*, +, *MWSYM-03 2003* 229-232 vol.1

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Power integrated circuits

- Fully-integrated 1.8-V, 2.8-W, 1.9-GHz, CMOS power amp.. *Aoki, I.*, +, *RFIC-03 2003* 199-202
- High power DPD T MMIC switch for broadband wireless appls.. *Zeji Gu*, +, *MWSYM-03 2003* A173-A176 vol.1
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- quad-band wireless handset appls., power-amp. module. *Shuyun Zhang*, +, *T-MTT Nov 03* 2203-2210

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- AlGaIn/GaN HEMTs, operation in K-band and above, power and noise perform.. *Smorchkova, I.P.*, +, *T-MTT Feb 03* 665-668
- AlGaIn/GaN HEMTs under pulsed-bias conditions, microwave power limits. *Green, B.M.*, +, *T-MTT Feb 03* 618-623
- ANN model for AlGaIn/GaN HEMTs constructed from near-optimal-load large-sig. meas.. *Schreurs, D.*, +, *MWSYM-03 2003* 447-450 vol.1
- GaN microwave-power HEMTs, RF lin. charact., IMD. *Nagy, W.*, +, *T-MTT Feb 03* 660-664
- High-power and high-efficiency AlGaIn/GaN HEMT operated at 50 V drain bias voltage. *Kikkawa, T.*, +, *RFIC-03 2003* 167-170
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- Large sig. modeling of AlGaIn/GaN HEMTs with P_{sat}>4 W/mm at 30 GHz suitable for broadband power appls.. *van Raay, F.*, +, *MWSYM-03 2003* 451-454 vol.1
- Mechanism of power dens. degrad. due to trapping effects in AlGaIn/GaN HEMTs. *De Meyer, S.*, +, *MWSYM-03 2003* 455-458 vol.1
- Performance of AlGaIn/GaN HEMTs for 2.8 GHz and 10 GHz power amp. appls.. *Zhang, A.P.*, +, *MWSYM-03 2003* 251-254 vol.1
- Single-ended amp. that substantially improves PAE and ultra-broadband perform.. *Virdee, B.S.*, +, *MWSYM-03 2003* A177-A179 vol.1

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- Improved elec. and thermal perform. of ultra-thin RF LDMOS power transistors. *Herbsommer, J.A.*, +, *MWSYM-03 2003* 213-216 vol.1
- LDMOS short-channel transistor, BiCMOS proc., RF power amp.. *Bengtsson, O.*, +, *T-MTT Mar 03* 1052-1056
- Low distortion RF-LDMOS power transistor for wireless commun. base station appls.. *Gajadharsing, J.R.*, *MWSYM-03 2003* 1563-1566 vol.3
- Method for modeling amplif. and bandwidth depend. distortion in nonlin. RF devices. *Jeckeln, E.G.*, +, *MWSYM-03 2003* 1733-1736 vol.3
- Voltage optim. for state of art RF-LDMOS for 2.1 GHz WCDMA cellular infrastructure appls.. *Brech, H.*, +, *MWSYM-03 2003* 209-212 vol.1

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Power semiconductor switches

- High-power-handling GSM switch IC with new adaptive-control-voltage-generator cct. scheme. *Numata, K.*, +, *RFIC-03 2003* 233-236
- III-N insulating-gate FETs for high-power microwave and switching appls.. *Khan, M.A.*, +, *T-MTT Feb 03* 624-633

Power system protection

- alignment insensitive separable electromagnetic coupler for high-speed digital multidrop bus applications. *Benham, J.R.*, +, *T-MTT Dec 03* 2597-2603

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Power transistors; cf. Power bipolar transistors

Power transmission; cf. Microwave power transmission

Printed circuit design; cf. Printed circuit layout

Printed circuit fabrication

- Novel LTCC-/BGA-modules for highly integrated MM-wave transceivers. *Heyen, J.*, +, *MWSYM-03 2003* 1041-1044 vol.2
- SMD-type 42 GHz waveguide filter. *Mueller, T.J.*, *MWSYM-03 2003* 1089-1092 vol.2

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- Advanced microwave modeling framework exploiting automatic model generation, knowledge neural networks, and space mapping. *Devabhaktuni, V.K.*, +, *T-MTT Jul 03* 1822-1833
- Compact wideband MEM switched diversity antenna for indoor mobile channels. *Cetiner, B.A.*, +, *MWSYM-03 2003* 1711-1714 vol.3

- Inductance-enhanced high-impedance surfaces for broadband simultaneous switching noise mitigation in power planes. *Kamgaing, T.*, +, *MWSYM-03 2003* 2165-2168 vol.3
- Miniaturized synthetic rect. waveguide. *Hsien-Shun Wu*, +, *MWSYM-03 2003* 1099-1102 vol.2
- Novel coupled-line conductor-backed coplanar and microstrip directional couplers for PCB and LTCC appls.. *Sawicki, A.*, +, *T-MTT Jun 03* 1743-1751

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- negative refraction, growing evanescent waves, and sub-diffraction imaging in loaded transmission-line metamaterials. *Grbic, A.*, +, *T-MTT Dec 03* 2297-2305
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- UWB path loss charactn. in residential environ.. *Ghassemzadeh, S.S.*, +, *RFIC-03 2003* 501-504

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Programmable logic arrays; cf. Field programmable gate arrays

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- nonreciprocal wave propagation in multilayer semiconductor films at frequencies up to 200 GHz. *Mok, V.H.*, +, *T-MTT Dec 03* 2453-2460
- nonsymmetric transversally anisotropic waveguides, adjoint high-order vectorial finite elements. *Schulz, V.*, *T-MTT Apr 03* 1086-1095
- tailoring double-negative metamaterial responses to achieve anomalous propagation effects along microstrip transmission lines. *Cheng, C.-Y.*, +, *T-MTT Dec 03* 2306-2314

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- Investigation of SAR of EM fields at 100 MHz in head of pers. wearing hoodless protection garment.. *Hadjem, A.*, +, *MWSYM-03 2003* 407-410 vol.1
- Ku-band LNA with using short-stub ESD protection. *Chang-Kun Park*, +, *MWSYM-03 2003* A157-A160 vol.1
- Ku-band LNA with using short-stub ESD protection. *Chang-Kun Park*, +, *RFIC-03 2003* 671-674
- Novel LC-tank ESD protection design for Giga-Hz RF ccts.. *Ming-Dou Ker*, +, *RFIC-03 2003* 115-118
- Systematic study of ESD protection struct. for RF ICs. *Guang Chen*, +, *RFIC-03 2003* 347-350

Protection; cf. Power system protection

Proton radiation effects

- Characterization and model of high quality factor and broadband integrated inductor on Si-substr.. *Yang, M.T.*, +, *MWSYM-03 2003* 1283-1286 vol.2

Pulse circuits; cf. Counting circuits; Digital circuits; Driver circuits

Pulse compression; cf. Chirp modulation

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- fully distributed and periodically loaded nonlin. transm. lines, comparison. *Duchamp, J.-M.*, +, *T-MTT Apr 03* 1105-1116

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- 2GHz band quadruple mode dielec. resonator filter for cellular base station. *Hattori, J.*, +, *MWSYM-03 2003* 933-936 vol.2
- 3D on-chip inductors for RFICs, develop. using plastic deform. mag. assembly proc.. *Jun Zou*, +, *T-MTT Apr 03* 1067-1075

- 3D silicon micromachined RF resonators. *Strohm, K.M.*, +, *MWSYM-03 2003* 1801-1804 vol.3
- 5.3 GHz phase shift tuned I/Q LC oscillator with 1.1 GHz tuning range. *van der Tang, J.*, +, *MWSYM-03 2003* A133-A136 vol.1
- 5.3 GHz phase shift tuned I/Q LC oscillator with 1.1 GHz tuning range. *van der Tang, J.*, +, *RFIC-03 2003* 647-650
- 5 GHz 56 dB voltage gain 0.18 μ m CMOS LNA with built-in tunable channel filter for direct conversion 802.11a WLAN receiver. *Hau-Yiu Tsui*, +, *RFIC-03 2003* 225-228
- Amplitude modulator utilizing, high-Q Class-E DC-DC converter. *Cantrell, W.H.*, +, *MWSYM-03 2003* 1721-1724 vol.3
- Analysis on resonator coupling and appl. to CMOS quadrature VCO at 8 GHz. *Donghyun Baek*, +, *RFIC-03 2003* 85-88
- Application of CPW based spiral-shaped defected ground struct. to reduction of phase noise in V-band MMIC oscillator. *Young-Taek Lee*, +, *MWSYM-03 2003* 2253-2256 vol.3
- Bandstop filter design using evanescent mode resonators. *Snyder, R.V.*, +, *MWSYM-03 2003* 1073-1076 vol.2
- Bulk-acoustic-wave filters, perform. optim. and vol. mfg.. *Aigner, R.*, +, *MWSYM-03 2003* 2001-2004 vol.3
- Characterization and model of high quality factor and broadband integrated inductor on Si-substr.. *Yang, M.T.*, +, *MWSYM-03 2003* 1283-1286 vol.2
- Characterizing/optimizing high Q inductors for RFIC design in silicon procs.. *Rotella, F.*, +, *RFIC-03 2003* 339-342
- circ. wire-patch resonator, theory, num. anal. and filter design appl.. *Simeoni, M.*, +, *T-MTT Apr 03* 1187-1193
- CMOS-compatible RF-MEMS tunable capacitors. *Oz, A.*, +, *MWSYM-03 2003* A97-A100 vol.1
- CMOS-compatible RF-MEMS tunable capacitors. *Oz, A.*, +, *RFIC-03 2003* 611-614
- Comparison of micromachined FBAR band pass filters with different structural geom.. *Park, J.Y.*, +, *MWSYM-03 2003* 2005-2008 vol.3
- Comprehensive explanation on high quality charact. of symm. octagonal spiral inductor. *Ban-Leong Ooi*, +, *RFIC-03 2003* 259-262
- Design and modeling of high-Q on-chip hairpin inductor for RFIC appls.. *Wan Ni*, +, *MWSYM-03 2003* A33-A36 vol.1
- Dielectric fluid immersed MEMS tunable capacitors. *McCormick, D.T.*, +, *MWSYM-03 2003* 495-498 vol.1
- dual-mode bandpass filter, enhanced capacitive perturb.. *Boon Tiong Tan*, +, *T-MTT Aug 03* 1906-1910
- Efficiency enhanced and harmonic suppressed differential VCO with novel buffer scheme using transformers for IEEE 802.11a. *Yoon, S.-W.*, +, *MWSYM-03 2003* 2181-2184 vol.3
- Electrostatically-tunable analog RF MEMS varactors with meas. capacitance range of 300%. *Peroulis, D.*, +, *MWSYM-03 2003* 1793-1796 vol.3
- Encapsulation of micromachined air-suspen. inductors. *Yun-Seok Choi*, +, *MWSYM-03 2003* 1637-1640 vol.3
- Exact anal. of simple class E cct. version for device charactn. purposes. *Gaudo, P.M.*, +, *MWSYM-03 2003* 1737-1740 vol.3
- Experimental results and die area efficient self-shielded on-chip vert. solenoid inductors for multi-GHz CMOS RFIC. *Hau-Yiu Tsui*, +, *RFIC-03 2003* 243-246
- feedback transistor oscillators with complex tanks, Leeson formula extension to phase noise calc.. *Nallatamby, J.-C.*, +, *T-MTT Mar 03* 690-696
- High-perform. 3D on-chip inductors in SOI CMOS technol. for monolithic RF cct. appls.. *Jonghae Kim*, +, *MWSYM-03 2003* A77-A80 vol.1
- High-perform. and area-efficient stacked transformers for RF CMOS IC. *Fong, N.*, +, *MWSYM-03 2003* 967-970 vol.2
- High perform. multilayered high temp. cofired ceramic for wide band packaging. *Tavernier, C.A.*, +, *MWSYM-03 2003* 2277-2280 vol.3
- High-Q LTCC resonators for MM wave appls.. *El-Tager, A.*, +, *MWSYM-03 2003* 2257-2260 vol.3
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- High-Q RF inductors on std. silicon realized using wafer-level packaging techs.. *Carchon, G.*, +, *MWSYM-03 2003* 1287-1290 vol.2
- HTS microstrip and coplanar resonators with ferrite thin-film component, microwave characts.. *Nurgaliev, T.*, +, *T-MTT Jan 03* 33-40
- Leeson formula for phase noise in microwave oscillator design, lin. feedback-systs. formalism. *Nallatamby, J.-C.*, +, *T-MTT Apr 03* 1386-1394

Liquid cryst. polymer-based integrated pass. develop. for RF appls.. Davis, M.F., +, *MWSYM-03 2003* 1155-1158 vol.2

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Novel invasive electronic tuning of dielec. resonators. Virdee, B.S., +, *MWSYM-03 2003* 51-54 vol.1

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Packaged 2.3 GHz SiGe VCO with parallel-branch inductors. Ja-Yol Lee, +, *RFIC-03 2003* 655-658

Parameters extraction and modeling for planar spiral inductor on Si-SiO₂ substs. by DDM for conformal modules. Ji-Xiang Zhao, +, *T-MTT Jun 03* 1763-1766

Performance comparison of CMOS vs biploar VCO in SiGe BiCMOS technol.. Wang, D., +, *RFIC-03 2003* 615-618

Performance of polygonal-shaped TFBARs and on-wafer tuning inductors. Jong-Soo Kim, +, *MWSYM-03 2003* 1759-1762 vol.3

Post-enabled precision flip-chip assembly for variable MEMS capacitor. Faheem, F.F., +, *MWSYM-03 2003* 1927-1930 vol.3

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S-param. formulation of quality factor for spiral inductor in generalized two-port config.. Horng, T.S., +, *RFIC-03 2003* 255-258

Substrate integrated slab waveguide (SISW) for wideband microwave appls.. Deslandes, D., +, *MWSYM-03 2003* 1103-1106 vol.2

Superconducting thin film filter of very high wide-band rejection. Yi, H.R., +, *MWSYM-03 2003* 1893-1896 vol.3

Switched capacitor bandpass filter tuned by ring VCO in CMOS 0.35 μ m. Paillot, J.-M., +, *RFIC-03 2003* 119-122

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New results on MMIC six-port's used in Ka band direct conversion receivers. Tatu, S.O., +, *RFIC-03 2003* 523-526

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Efficient approach for characterizing power combining dividing network of distributed phased array antenna. Abdalnour, J., +, *MWSYM-03 2003* 591-594 vol.1

Experimental feasibility of breast tumor detect. and localization. Fear, E.C., +, *MWSYM-03 2003* 383-386 vol.1

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Ultra wide band 24 GHz automotive radar front-end. Gresham, I., +, *RFIC-03 2003* 505-508

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- Ultra wide band 24GHz automotive radar front-end. *Gresham, I.*, +, *MWSYM-03 2003* 369-372 vol.1
- Ultra-wideband microwave radar sens. for characterizing pavement subsurface. *Joongsuk Park*, +, *MWSYM-03 2003* 1443-1446 vol.2

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- Retro-directive noise correl. radar with extremely low acquisition time. *Gupta, S.*, +, *MWSYM-03 2003* 599-602 vol.1
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- Superconducting microstrip wide band filter for radio astron.. *Yuanzhi Li*, +, *MWSYM-03 2003* 551-554 vol.1

Radiocommunication

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- 2003 IEEE Radio Frequency Integrated Circuit (RFIC) Symposium. *Staudinger, J.*, *T-MTT Nov 03* 2153
- mode content analysis technique for antennas in multimode waveguides. *Nikitin, P.V.*, +, *T-MTT Dec 03* 2402-2408
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- Integrated wideband-IF-receiver archit. for mobile terminals. *Richter, R.*, +, *RFIC-03 2003* 583-586

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- Transmission line matrix method reduced order modeling. *Lukashevich, D.*, +, *MWSYM-03 2003* 1125-1128 vol.2

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- comments on "Cross-coupling in coaxial cavity filters - A tutorial overview" (Apr 03 1368-1376). *Reeves, T.*, +, *T-MTT Oct 03* 2147
- Coplanar waveguide periodic struct. with reson. elements and their appl. in microwave filters. *Karyamapudi, B.M.*, +, *MWSYM-03 2003* 1619-1622 vol.3
- corrections to "Adaptive synthesis and design of resonator filters with source/load-multiresonator computing" (Aug 02 1969-1978). *Amari, S.*, +, *T-MTT Jan 03* 246
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2003 Microwave Theory and Techniques Society International Microwave Symposium (special issue). *T-MTT Dec 03* 2663-2603

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RF and microwave tutorials (special issue intro.). *Gupta, K.C.*, +, *T-MTT Apr 03* 1301-1305

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- Novel microwave cross-point switch MMIC employing thyristors for broadband services. *La Rue, R.A.*, +, *MWSYM-03 2003* 247-250 vol.1
- Systematic study of ESD protection struct. for RF ICs. *Guang Chen*, +, *RFIC-03 2003* 347-350
- thyristor-based microwave cross-point switch MMIC. *La Rue, R.A.*, +, *T-MTT Dec 03* 2577-2588

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- 1.4-W 50-Gbit/s InP HEMT 1:4 DEMUX IC with, multi-phase clock archit.. *Sano, K.*, +, *MWSYM-03 2003* 1181-1184 vol.2
- 40/43-Gb/s CDR/DEMUX/MUX chipset integrated on MCM-ceramic with 3R-regeneration functionality. *Reinhold, M.*, +, *MWSYM-03 2003* 1185-1188 vol.2
- 40 Gb/s TDM syst. using InP HBT IC technol.. *Krishnamurthy, K.*, +, *MWSYM-03 2003* 1189-1192 vol.2
- Design and meas. of very high bitrate digital ICs fabricated in InP HBT technol.. *Konczykowska, A.*, +, *MWSYM-03 2003* 1177-1180 vol.2

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- Adjoint variable method for time domain TLM with fixed struct. grids. *Bakr, M.H.*, +, *MWSYM-03 2003* 1121-1124 vol.2
- CDF biorthogonal MRTD method, appl., PEC targets. *Xianyang Zhu*, +, *T-MTT Sep 03* 2015-2022
- Characterization of microwave probe up to freqs. of 400 GHz. *Bieler, M.*, +, *MWSYM-03 2003* 1811-1814 vol.3
- Composite-cell multiresolution time-domain tech. for design of EM band-gap and via-array struct.. *Bushyager, N.*, +, *MWSYM-03 2003* 2081-2084 vol.3
- cross-modulation distortion in CDMA receivers, anal. and reduction. *Aparin, V.*, +, *T-MTT May 2003* 1591-1602
- Dynamic electro-thermal behavioral model for RF power amps.. *Boumaiza, S.*, +, *MWSYM-03 2003* 351-354 vol.1
- efficient num. interface between FDTD and Haar MRTD, formulation and appls.. *Sarris, C.D.*, +, *T-MTT Apr 03* 1146-1156
- Envelope domain anal. of meas. time domain voltage and current waveforms provide for improved understanding of factors effecting lin.. *Williams, D.J.*, +, *MWSYM-03 2003* 1411-1414 vol.2
- Extending multiresolution time-domain (MRTD) tech. to simul. of HF act. devices. *Hussein, Y.A.*, +, *T-MTT Jul 03* 1842-1851

- Finite element time domain method using Laguerre polynomials. *Young-seek Chung*, +, *MWSYM-03 2003* 981-984 vol.2
- Finite-vol. time-domain (FVTD) method and appl. to anal. of hemispherical dielec. resonator antennas. *Baumann, D.*, +, *MWSYM-03 2003* 985-988 vol.2
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- Microwave symposium digest. *MWSYM-03 3 vol.*(lxxxiv+xxiii+2284)
- Multidimensional time-domain macromodels for microwave appls.. *Gunupudi, P.*, +, *MWSYM-03 2003* 13-16 vol.1
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- Time domain charactn. of power amps. with memory effects. *Draxler, P.*, +, *MWSYM-03 2003* 803-806 vol.2
- transfinite-element time-domain method. *Din-Kow Sun*, +, *T-MTT Oct 03* 2097-2105
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- 1.25 Gbps wireless Gigabit ethernet link at 60 GHz-band. *Ohata, K.*, +, *RFIC-03 2003* 509-512
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- Microwave symposium digest. *MWSYM-03 3 vol.*(lxxxiv+xxiii+2284)
- mode content analysis technique for antennas in multimode waveguides. *Nikitin, P.V.*, +, *T-MTT Dec 03* 2402-2408

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- Accurate anal. representation of continuous spectrum excited on multilayer stripline struct. in spectral-gap regions. *Baccarelli, P., +, MWSYM-03 2003 809-812 vol.2*
- anal. of coplanar transm. lines, multilayered substr., revisiting partial-capacitance approach. *Ghione, G., +, T-MTT Sep 03 2007-2014*
- Analysis of stripline T-jn. with rect. cut based on eigenmode expansion method and Foster-type equiv. network. *Takenaka, T., +, MWSYM-03 2003 1111-1114 vol.2*
- Analysis of Substrate Integrated Slab Waveguides (SISW) by BI-RME method. *Bozzi, M., +, MWSYM-03 2003 1975-1978 vol.3*
- analyzing waveguiding structs., hierarchical vector finite elements. *Seung-Cheol Lee, +, T-MTT Aug 03 1897-1905*
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- Local stereoscopic field sing. models for FDTD anal. of guided wave problems. *Celuch-Marcysiak, M., MWSYM-03 2003 1137-1140 vol.2*
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- modeling guided-wave props. of substr. integr. waveguide, finite difference freq.-domain algm.. *Feng Xu, +, T-MTT Nov 03 2221-2227*
- Mono-modal waveguides filled with, pair of parallel epsilon-neg. (ENG) and mu-neg. (MNG) metamaterial layers. *Alu, A., +, MWSYM-03 2003 313-316 vol.1*
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- Electromagnetic-wave effects on closely packed microwave transistors using, fast time-domain simul. approach. *Hussein, Y.A., +, MWSYM-03 2003 989-992 vol.2*
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- Steady state anal. of multitone nonlin. periodic ccts. in wavelet domain. *Soveiko, N., +, MWSYM-03 2003 2121-2124 vol.3*
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- 1.25 Gbps wireless Gigabit ethernet link at 60 GHz-band. *Ohata, K., +, RFIC-03 2003 509-512*
- 5.7 GHz 0.18 μ m CMOS gain-controlled LNA and mixer for 802.11a WLAN appls.. *Yuan-Kai Chu, +, RFIC-03 2003 221-224*
- 5-GHz/2.4-GHz dual-band RF-transceiver for WLAN 802.11a/b/g appls.. *Klepser, B.-U., +, RFIC-03 2003 37-40*

5 GHz 56 dB voltage gain 0.18 μm CMOS LNA with built-in tunable channel filter for direct conversion 802.11a WLAN receiver. *Hau-Yiu Tsui*, +, *RFIC-03 2003* 225-228

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