刘 桂 简 历

一、个人基本情况

姓　　名：刘桂
性　　别：男
出生年月：1975 年 11 月
民　　族：汉族
职称职务：教授
政治面貌：农工党温州市委会副主委、省委会委员，温州市政协常委
学历学位：研究生学历，哲学博士
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手　　机：一三五八七八九一八四八

二、从事研究的专业领域及研究方向

专业领域：电路与系统、电磁场与微波技术、信息与通信工程
研究方向：射频集成电路设计、微波/毫米波器件及电路设计、天线设计、物联网技术、无线通信、人工智能

三、教育背景及主要工作经历

1993.9-1997.7 华南理工大学，电子材料与元器件专业、通信工程专业（双专业），学士；
2000.9-2003.7 中山大学，电子工程专业，硕士；
2007.8-2011.5 伊利诺伊理工大学（美国），电子工程专业，博士；
2011.9-2023.1　温州大学 （期间：2011.9 校聘教授（讲师）；2015.1 晋升正教授、硕士生导师;2015.11 起兼职北京大学深圳研究院研究员;2016.8 至 2017.7 挂职温州市科技局高新技术发展及产业化处副处长； 2018 年 6 月-2019 年 1 月挂职温州大学科技处，2019 年 6 月至 2023.1，任温州大学科技处副处长兼技术转移办公室副主任)。
2023.2-2025.2 平阳县政协副主席、温州大学教授
2025.2-至今　温州大学瑞安研究生学院院长、温州大学瑞安研究院（瑞安研究生院）院长

四、近年主持的主要教学科研项目

（一）主持的科研项目（2 项国家级、4 项省部级、7 项市级、4 项横向）：

1.可重构超宽带毫米波 CMOS 接收机及片上天线的关键技术研究
（国家自然科学基金面上项目）

2.纳米尺度 CMOS 可重构电感、毫米波多频段与超宽带集成电路的关键技术研究（国家自然科学基金专项基金项目）

3.毫米波无线通信芯片的研发与应用
（浙江省科技厅公益项目，省部级）

4.纳米尺度 CMOS 毫米波片上可重构无源器件的机理及建模研究
（浙江省自然科学基金项目，省部级）

5.超宽带 CMOS 毫米波接收机芯片的研究与开发
（浙江省钱江人才计划 D 类（特殊急需类）项目，省部级）

6.新型毫米波 CMOS 无源器件的基础理论及关键技术研究
（留学人员科技活动项目择优资助经费，省部级）

7.WiFi 网络抗干扰天线的关键技术研究 （温州市科技局公益技术研究工业项目，市级）

8.可重构超宽带低噪声放大器的关键技术研究 （温州市人社局，市级）

9.适用于物联网射频识别的小型化天线研制（温州市人社局，市级）

10.温州市集成电路产业发展调研课题 （温州市经信委，市级）

11.无线模块开发（企业横向课题）

12.局部放电在线监测系统升级（企业横向课题）

13.贵宾市座位库存预测模型（企业横向课题）

14.车载天线与射频前端电路关键技术研究与产业化 （温州市重点研发计划项目，校企合作项目，校方负责人）

15.智能眼镜产业发展调研课题 （横向课题）

16. 提升市县政协协商工作质效的路径与机制研究，2023 年度温州市哲学社会科学重点课题（温州市社科联，市级）

17. CPE 用多频段 LTE/5GMIMO 天线与波束成形 WiFi6 天线的关键技术研究，温州市重大科技攻关项目（企业牵头，校方负责人）

（二）主持的科研团队、科研平台项目

1. 第三批温州市重点创新团队（物联网技术创新团队）负责人
2. 温州市集成电路与物联网智能系统重点实验室主任

五、近年完成的主要教学、科研成果

（一）发表的科研论文

[1] S. Xiao,J. Lu, L. He, Z. Chen and **G. Liu***, “A Dual-Band High-Gain Antenna With AMC for WLAN Applications,” *International Journal of RF and Microwave Computer-Aided Engineering*, Vol.2025, pp.1-12,Nov. 2025.

[2] X. Jin, H. Wang, S. Xiao, and G. Liu*, “Compact Hybrid CSRR-DGS Bandstop Filter With Enhanced Suppression for 5G n1 Band,” Microwave and Optical Technology Letters, 67: e70437, pp.1-6, Oct. 2025.

[3] L.F. He, L. He, X. Jin, and **G. Liu***, “A Broadband_L-Probe-Fed Metasurface Antenna Utilizing AMC Structure,” *IEEE Antennna and Wireless Propagation Letters*, Vol.24，10, pp. 3704-3708, Oct. 2025.

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[5] J. Lu, L.F. He, and **G. Liu***, “Design and Performance Analysis of a Miniaturized Four-Port MIMOAntennaModulefor5GNRandWLANBands,” *PIER Letters*, Vol. 126, pp. 23-29, May 2025.

[6] Y. Miao, L. He, and G. Liu*, “A Miniaturized Eight-Port MIMO Antenna for 5G Ultra-Slim Smartphones,” Electronics, Vol. 14, pp. 566-583, Jan. 2025.

[7] W. Luo, L.F. He, S. Xiao, and **G. Liu***, “A Wideband Eight-Element Antenna Arrays with Metal - frame for 5G New-Radio Applications,” *International Journal of Antennas and Propagation*, Vol. 2025, pp. 1-14, Jan. 2025.

[8] J. Zhang, W. Luo, Q. Li, Y.Pan, and **G. Liu***, “Design and Performance Evaluation of a High-Isolation MIMO Antenna Array for 5G N77/N78/N79 and WLAN Implementations,” *PIER B*, Vol. 110, pp. 57-71, Jan. 2025.

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[10] X. Wei, J. Lu, Y. Miao, J. Huang, Z. Chen and **G. Liu***, "High Isolation MIMO Antenna System for 5G N77/N78/N79 Bands," *Micromachines*, Vol. 15, pp. 721-736, May 2024.

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[12] H. Li, S. Xiao, L.F. He, Q. Cai, and **G. Liu***, "A Dual-Band 8-Antenna Array Design for 5G/WiFi 5 Metal-Frame Smartphone Applications," *Micromachines*, Vol. 15, no.5, pp. 584-598, Apr. 2024.

[13] L. Shen, W. Luo, Y. Miao, and **G. Liu***, "Combined Shark-Fin rooftop Antenna for LTE, WLAN and BeiDou Applications," *Electronics*, Vol. 13, no.7, pp. 1324-1337, Apr. 2024.

[14] J. Huang, L. Shen, S. Xiao, X. Shi, and **G. Liu***, "A miniature eight-port antenna array based on split ring resonators for 5G sub-6 GHz handset applications," *Sensors*, Vol. 23, pp. 9734-9747, Dec. 2023.

[15]T. He, J. Huang, J. Lu, X. Shi, and **G. Liu***, "Eight-Element Dual-Band Multiple-Input Multiple-Output Mobile Phone Antenna for 5G and Wireless Local Area Network Applications," *Micromachines*, Vol. 14, , pp. 2200-2216, Nov. 2023.

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[18] J. Huang, J. Cai, X. Shi, B. Chen, and **G. Liu***, "Compact dual-band eight-element MIMO antenna for 5G operations in mobile handsets," *International Journal of RF and Microwave Computer-Aided Engineering*, Vol. 32, no.12, e23544, Nov. 2022.

[19] J. Cai, G. Dong, C. Zhang, H. Li, X. Shi, and **G. Liu***, "Design and characterization of a minimized planar dual‐band MIMO circular ring antenna with high efficiency," *Microwave and Optical Technology Letters*, Vol. 65, no.2, pp. 619-625, Nov. 2022.

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[28] J. Huang, Z. Chen, Q. Cai, T. Loh, and **G. Liu***, "Minimized Triple-Band Eight-Element Antenna Array for 5G Metal-frame Smartphone Applications," *Micromachines*, Vol. 13, no.1, pp. 136-147, Jan.2022.

[29] **G. Liu***, C. Zhang, Z. Chen, B. Chen, "A Compact Dual-Band MIMO Antenna for 5G/WLAN Applications" *International Journal of Microwave and wireless technologies*, Jan. 2022.

[30] H. Peng, Q. Yang, Y. Dou, R. Berenguer, and **G. Liu***, "A 77GHz CMOS Down-Conversion Mixer with High CG Using CCPT-SPT Structure," 2021 International Conference on IC Design and Technology (ICICDT), 2021, pp. 1-4

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antenna for 5G/WLAN/Bluetooth applications," *Microwave and Optical Technology Letters*, Vol. 64, No. 2, pp. 325-330, 2021.

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[44]**G. Liu***, M. Fang, R. Zhi, J. Bai, and Z. Zeng, "Compact CPW-Fed Multiband Antenna for TD-LTE/WLAN/WiMAX Applications," *Progress In Electromagnetics Research Letters*, Vol. 65, 9–14, 2017.

[45]S. Chen, M. Fang, D. Dong, M. Han, **G. Liu***, "Compact multiband antenna for GPS/WiMAX/WLAN applications," *Microwave and Optical Technology Letters*， vol. 57, no. 8, pp.1769-1773, Aug. 2015.

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（二）授权专利

1. 一种电感值可调的片上集成单端电感，中国发明专利

2. 一种电感值可调的片上集成差分电感，中国发明专利

3. 一种 CMOS 开关电路，中国发明专利

4. 一种可重构片上集成变压器及其调节方法，中国发明专利

5. 可重构片上集成变压器及其信号线电感值的调节方法，中国发明专利

6. 一种射频低噪声放大器，中国发明专利

7. 一种适用于无线局域网的双频 MIMO 天线，中国实用新型专利

8. 一种共面波导三陷波超宽带天线，中国实用新型专利

（三）教学科研获奖

1. 入选首届“温州 580 海外精英引进计划”

2. 指导学生荣获第九届“挑战杯”大学生创业大赛浙江省二等奖（2014 年）

3. 温州大学 2014 年度“十佳学生科技创新优秀指导教师”

4. 温州大学物电学院 2014 年度、2015 年度物华“特别奖”

5. 第六届浙江省大学生职业生涯规划大赛“优秀指导老师”（2014 年）

6. 第十四届“挑战杯”全国大学生课外学术科技作品竞赛“优秀指导老师”（2015 年）

7. 指导学生荣获第六届浙江省大学生职业生涯规划大赛一等奖（2015 年）

8. 指导学生荣获浙江省第十四届挑战杯大学生学术科技作品竞赛“特等奖”

9. 指导学生荣获第十四届“挑战杯”全国大学生课外学术科技作品竞赛“二等奖”（2015 年 10 月）

10. 指导学生荣获 2016 年省第七届大学生物理科技创新竞赛省一等奖

11. 指导学生荣获浙江省第十六届“挑战杯”省二等奖（2019 年 5 月）

六、社会兼职

1. 温州市政协常委、中国侨联第四届青年委员会委员、浙江省欧美同学会理事会理事、全美温州博士协会执行副会长等。

2. 国家自然科学基金等国家省市科研项目评审专家

3. SCI 期刊《International Journal of Antennas and Propagation》、《International Journal of RF and Microwave Computer-Aided Engineering》学术编辑（Academic Editor）

4. 中国电子学会高级会员

5.IEEE Electron Device Letters、IEEE Antennas and Wireless Propagation Letters、International Journal of Antennas and Propagation、PIER、Sensors、Electronics、International Journal of RF and Microwave Computer-Aided Engineering 等 10 多家期刊审稿人。

七、研究生培养情况

指导硕士研究生34位，其中在读10位，毕业的硕士研究生在深圳、上海、杭州、南京、合肥等城市的集成电路设计公司从事芯片设计或攻读博士学位。2026年秋季拟招学硕2位+专硕4位。