

DAFTAR PUSTAKA

- [1] S. A. Cummer and M. Stanley, "Submillisecond resolution lightning currents and sprite development: Observations and implications," *Geophys. Res. Lett.*, vol. 26, no. 20, pp. 3205–3208, Oct. 1999, doi: <https://doi.org/10.1029/1999GL003635>.
- [2] D. Krstić, "RF microelectronics: Behzad Razavi: Prentice-Hall PTR, Upper Saddle River, NJ, 1998, hardcover, 335 pp., \$92.99. ISBN 0-13-887571-5," *Microelectronics J.*, vol. 29, no. 12, pp. 1041–1042, 1998, doi: [https://doi.org/10.1016/S0026-2692\(98\)00059-7](https://doi.org/10.1016/S0026-2692(98)00059-7).
- [3] K. M. Bhat, V. K. Patel S, and Mt. student, "Low Noise Amplifier Design With Noise And Distortion Cancellation: A Survey of CMOS Implementations," 2025. [Online]. Available: www.ijert.org
- [4] "Lightning, Physics and Effects [Book Review]," *IEEE Circuits and Devices Magazine*, vol. 21, no. 4, pp. 35–36, 2005, doi: [10.1109/MCD.2005.1492718](https://doi.org/10.1109/MCD.2005.1492718).
- [5] P. Emeraldi and A. Hazmi, "Pengukuran Radiasi Elektromagnetik Frekuensi Sangat Tinggi (VHF) Petir Compact Intracloud Discharges," *JURNAL NASIONAL TEKNIK ELEKTRO*, vol. 7, no. 2, p. 102, Jul. 2018, doi: [10.25077/jnte.v7n2.499.2018](https://doi.org/10.25077/jnte.v7n2.499.2018).
- [6] P. Emeraldi, A. Hazmi, R. Fernandez, and M. Miftahur Rahman, "Study on frequency spectra and image of negative cloud to ground lightning flashes with a very high frequency detecting system," *E3S Web of Conferences*, vol. 677, p. 04003, 2025, doi: [10.1051/e3sconf/202567704003](https://doi.org/10.1051/e3sconf/202567704003).
- [7] S. Pekárek, "Driving voltage frequency and electrode material effects on electromagnetic radiation of the surface dielectric barrier discharge in the air," *The European Physical Journal D*, vol. 78, no. 7, p. 88, 2024, doi: [10.1140/epjd/s10053-024-00887-7](https://doi.org/10.1140/epjd/s10053-024-00887-7).
- [8] S. Das Barman, R. Shah, S. Islam, and A. Kumar, "A 3D Numerical Model to Estimate Lightning Types for PyroCb Thundercloud," *Applied Sciences*, vol. 14, no. 12, 2024, doi: [10.3390/app14125305](https://doi.org/10.3390/app14125305).
- [9] J. Yang, S. Huang, T. Yang, Q. Zhang, Y. Deng, and Y. Liu, "Impact of ice multiplication on the cloud electrification of a cold-season thunderstorm: a numerical case study," *Atmos. Chem. Phys.*, vol. 24, no. 10, pp. 5989–6010, 2024, doi: [10.5194/acp-24-5989-2024](https://doi.org/10.5194/acp-24-5989-2024).
- [10] M. E. Abdelaal, Igor. V Dokuchaev, E. A. Malinovskaya, S. I. Klimov, G. G. Dolnikov, and A. V Zakharov, "Experimental modeling of atmospheric

- discharge phenomena and charged dust particle interactions,” *Frontiers in Astronomy and Space Sciences*, vol. Volume 11-2024, 2024, doi: 10.3389/fspas.2024.1347048.
- [11] Z. Pervez, R. Janalizadeh, and V. P. Pasko, “Compact Intracloud Discharges and the Sources Generating Their Low and High Frequency Signatures,” in *2025 United States National Committee of URSI National Radio Science Meeting (USNC-URSI NRSM)*, 2025, p. 189. doi: 10.23919/USNC-URSINRSM66067.2025.10906936.
 - [12] D. W. Sekti, “Analisis Pengaman Eksternal Gangguan Petir Di Stasiun Pemancar Tvri Semarang,” *Universitas Negeri Semarang*, 2015.
 - [13] C. E. R. Bruce and R. H. Golde, “The lightning discharge,” *Journal of the Institution of Electrical Engineers - Part I: General*, vol. 88, no. 6, pp. 242–245, Jun. 1941, doi: 10.1049/ji-1.1941.0051.
 - [14] A. J. Surtees, “A review of IEC 62305–4 protection against lightning part 4: Electrical and electronic systems within structures,” in *2011 7th Asia-Pacific International Conference on Lightning*, 2011, pp. 478–481. doi: 10.1109/APL.2011.6110170.
 - [15] Y. Lee and Y. S. Lee, “A Cost-Effective Lightning Current Measuring Instrument with Wide Current Range Detection Using Dual Signal Conditioning Circuits,” *Sensors*, vol. 23, no. 6, 2023, doi: 10.3390/s23063349.
 - [16] S. A. Cummer and W. M. Farrell, “Radio atmospheric propagation on Mars and potential remote sensing applications,” *J. Geophys. Res. Planets*, vol. 104, no. E6, pp. 14149–14157, Jun. 1999, doi: <https://doi.org/10.1029/1998JE000622>.
 - [17] W. Rison, R. J. Thomas, P. R. Krehbiel, T. Hamlin, and J. Harlin, “A GPS-based three-dimensional lightning mapping system: Initial observations in central New Mexico,” *Geophys. Res. Lett.*, vol. 26, no. 23, pp. 3573–3576, Dec. 1999, doi: <https://doi.org/10.1029/1999GL010856>.
 - [18] “Communication Systems,” in *Radio-Frequency and Microwave Communication Circuits*, 2004, pp. 11–56. doi: <https://doi.org/10.1002/0471653764.ch2>.
 - [19] “Principles of Digital Communication Systems,” in *Microwave Engineering*, 2008, pp. 119–182. doi: <https://doi.org/10.1002/9780470290996.ch2>.
 - [20] RF Parts Company, “D3000N,” *Technical Specification*, 2012.
 - [21] Diamond Antenna Corporation, “dmn-sp1000,” *Coaxial Lightning Surge Protector*, 2023.

- [22] T. Microwave Systems, “LMR ®-400 Flexible Low Loss Cable Assemblies.”
- [23] Mini-Circuits, “ZX60-P103LN+,” 2015. [Online]. Available: www.minicircuits.com
- [24] Mini-Circuit, “ZFL_500LN_2b-3236994,” 2023.
- [25] Mini-Circuits, “ZABP_59_S_2b-3180373,” 2020.
- [26] P. By Alldatasheet.com, “(800) Tms-Coax • www.timesmicrowave.com LMR ®-240 Flexible Low Loss Communications Coax,” 2024. [Online]. Available: www.timesmicrowave.com
- [27] Mini-Circuits, “Hat-A-Series www.minicircuits.com.” [Online]. Available: www.minicircuits.com
- [28] P. Technology, “PicoScope 3000 Series oscilloscope data sheet.” [Online]. Available: www.picotech.com
- [29] M. Al-Nahhal, I. Al-Nahhal, S. K. O. Soman, and O. A. Dobre, “Enhanced Signal-to-Noise Ratio Estimation in Optical Fiber Communications: A Pilot-Based Approach,” *IEEE Open Journal of the Communications Society*, vol. 6, pp. 5552–5567, 2025, doi: 10.1109/OJCOMS.2025.3581473.

