

8. REFERENCES

8.1 Chapter 1

- [1] IEEE Standard 896.2-1991, *IEEE Standard for Futurebus+ - Physical Layer and Profile Specifications*, New York, N.Y., 1992.
- [2] S. H. Duncan and R. V. White, "Designing 2.1V Futurebus+ termination system requires system-engineering approach," in *EDN*, Vol. 39, No. 11, May 26, 1994.
- [3] Intel Corporation, *Instantly Available PC, System Power Delivery Requirements and Recommendations*, Revision 1.0, December 30, 1997.
- [4] A. F. Rozman and K. J. Fellhoelter, "Circuit considerations for fast, sensitive, low-voltage loads in a distributed power system," in *Applied Power Electronics Conference Proceedings*, 1995, Vol. 1, pp. 34-42.
- [5] J. A. O'Connor, "Converter optimization for powering low voltage, high performance microprocessors," in *Applied Power Electronics Conference Proceedings*, 1996, Vol. 2, pp. 984-989.
- [6] Intel Corporation, *VRM 8.2 DC-DC Converter Design Guidelines*, July, 1998.
- [7] X. Zhou, J. Liu, X. Zhang, P. Wong, J. Chen, H. Wu, L. Amoroso, F. Lee, and C. Chen, "Investigation of candidate VRM topology for future microprocessors," in *Applied Power Electronics Conference Proceedings*, 1998.

- [8] M. T. Zhang, M. M. Jovanovic, and F. C. Lee, "Design considerations for low-voltage on-board DC/DC modules for next generations of data processing circuits," in *IEEE Transactions on Power Electronics*, Vol. 11, No. 2, pp. 328-337.
- [9] X. Zhou, P. Wong, R. Watson, L. Amoroso, X. Sun, H. Wu, P. Xu, B. Yang, R. Chen, F. Lee, A. Huang, and D. Chen, "Investigation of power management issues for next generation Intel microprocessors," The Virginia Power Electronics Center's VRM Consortium Quarterly Progress Report, April 17, 1998.
- [10] W. A. Tabisz, M. M. Jovanovic, and F. C. Lee, "Present and future of distributed power systems," in *Proceedings of the 1992 Applied Power Electronics Conference*, pp. 11-18.
- [11] C. H. Small, "Distributed power takes center stage," in *EDN*, Vol. 39, No. 9, April 28, 1994.
- [12] G. G. Suranyi, "The value of distributed power," in *Proceedings of the 1995 Applied Power Electronics Conference*, Vol. 1, pp. 104-110.
- [13] F. Shi and A. Brockschmidt, "Fault tolerant distributed power," in *Proceedings of the 1996 Applied Power Electronics Conference*, Vol. 2, pp. 671-677.
- [14] G. G. Suranyi, "Bus voltage level comparisons for distributed power architectures," in *Power Conversion and Intelligent Motion*, Vol. 21, No. 6, June, 1995, pp. 8-28.
- [15] R. Watson, G. C. Hua, F. C. Lee, "Characterization of an active-clamp flyback topology for power factor correction applications, in *IEEE Transactions on Power Electronics*, Vol. 11, No. 1, pp. 191-198.
- [16] W. Tang, Y. Jiang, G. C. Hua, F. C. Lee and I. Cohen, "Power factor correction with flyback converter employing charge control," in *Proceedings of the 10th Annual VPEC Power Electronics Seminar*, pp. 91-96.

- [17] E. X. Yang, Y. M. Jiang, G. C. Hua, and F. C. Lee, "Isolated boost circuit for power factor correction," in *Proceedings of the 10th Annual VPEC Power Electronics Seminar*, pp. 97-104.
- [18] S. D. Freeland, *"Input Current Shaping for Single-Phase Ac-Dc Power Converters,"* Ph. D. Thesis, Part II, California Institute of Technology, 1988.
- [19] R. Erickson, M. Madigan, and E. Ismail, "Integrated high quality rectifier regulators," in *Proceedings of the 23th Annual Power Electronics Specialists Conference*, pp. 1-9.
- [20] R. Erickson, M. Madigan, and S. Singer, "Design of a simple high power factor rectifier based on the flyback converter," in *Applied Power Electronics Conference Proceedings*, 1990, pp. 792-801.
- [21] F. S. Tsai and F. C. Lee, "Computer modelling and simulation of a 20 kHz AC distributed system for space station," in *22nd IECEC Proceedings*, 1987, pp. 338-344.
- [22] I. G. Hansen and G. R. Sundburg, "Space station 20 kHz power management and distribution system," in *IEEE Power Electronics Specialist Conference Record*, 1986, pp. 676-683.
- [23] F. S. Tsai and F. C. Lee, "High-frequency AC power distribution in the space station," in *IEEE Transactions on Aerospace and Electronic Systems*, Vol. 26, No. 2, pp. 239-252.
- [24] P. Jain and M. C. Tanju, "A unity power factor resonant AC/DC converter for high frequency space power distribution system," in *Proceedings of the 25th Annual Power Electronics Specialists Conference*, Vol. I, pp. 3-9, 1994.
- [25] M. C. Tanju and P. K. Jain, "High-performance ac/dc converter for high-frequency power distribution systems: analysis, design considerations, and

experimental results," in *IEEE Transactions on Power Electronics*, Vol. 9, No. 3, pp. 275-280.

- [26] P. K. Sood and T. A. Lipo, "Power conversion distribution system using a resonant high frequency AC link," *IEEE IAS Annual Meeting Conference Proceedings*, 1986, pp. 533-541.
- [27] Intel Corporation, *Mid-Range E-Bay Industry Specification*, Revision 0.60, April 14, 1998.
- [28] D. P. Arduini, "Distributed power system using AC to solve DC distributed power problems," in *Proceedings of the 10th International HFPC Conference*, Vol. 10, 1995, pp. 33-47.
- [29] R. Watson, W. Chen, G. Hua, and F.C. Lee, "Component Development for a High-Frequency AC Distributed Power System," in *Proceedings of the 1996 Applied Power Electronics Conference*, Vol. 2, pp. 657-663.
- [30] Intel Corporation, *High-End Power Bay Modular Chassis Specification*, Revision 0.1, April 14, 1998.

8.2 Chapter 2

- [31] J.A. Sabate, V. Vlatkovic, R.B. Ridley, F.C. Lee, and B.H. Cho, "Design considerations for high-voltage high-power full-bridge zero-voltage-switched PWM converter," in *Applied Power Electronics Conference Proceedings*, 1990, pp. 275-284.
- [32] R.A. Fisher, K.D.T. Ngo, and M.H. Kuo, "A 500 KHz, 250 W dc-dc converter with multiple outputs controlled by phase-shifted PWM and magnetic amplifiers," in *High Frequency Power Conversion Conference Proceedings*, 1988, pp. 100-110.

- [33] D.M. Sable and F.C. Lee, "The operation of a full-bridge, zero-voltage-switched, PWM converter," in *VPEC Power Electronics Seminar Proceedings*, 1989, pp. 92-97.
- [34] L.H. Mweene, C.A. Wright, and M.F. Schlecht, "A 1 KW, 500 KHz front-end converter for a distributed power supply system," in *Applied Power Electronics Conference Proceedings*, 1989, pp. 423-432.
- [35] R. Farrington, M.M. Jovanovic, and F.C. Lee, "A new family of isolated zero-voltage-switched converters," in *Power Electronics Specialists Conference Proceedings*, 1991, pp. 209-215.
- [36] G. Hua, F.C. Lee, and M.M. Jovanovic, "An improved zero-voltage-switched PWM converter using a saturable inductor," in *Power Electronics Specialists Conference Proceedings*, 1991, pp. 189-194.
- [37] M. Brkovic, A. Pietkiewicz, and S. Cuk, "Novel soft-switching full-bridge converter with magnetic amplifier," in *IEEE International Telecommunications Energy Conference Proceedings*, 1994, pp.155-162.
- [38] W. Chen, F.C. Lee, M. M. Jovanovic, and J. A. Sabate, "A comparative study of a class of full bridge zero-voltage-switched PWM converters," in *Applied Power Electronics Conference Proceedings*, 1995, Vol. 2, pp. 893-899.
- [39] Allied-Signal Company, *Design of High Frequency Mag Amp Regulators Using METGLAS Amorphous Alloy 2714A*, 1991.

8.3 Chapter 3

- [40] C. Henze, H. Martin, D. Parsley, "Zero-voltage switching in high frequency power converters using pulse width modulation," in *Proceedings of the Third Annual Applied Power Electronics Conference*, pp. 33-40, 1988.

- [41] H. Martin, "Topology for miniature power supply with low voltage and low ripple requirements," U. S. Patent 4,618,919.
- [42] K. Yoshida, T. Ishii, N. Nagagata, "Zero voltage switching approach for flyback converter," in *Proceedings of the Fourteenth International Telecommunications Energy Conference*, pp. 324-329, 1992.
- [43] W. Tang, E. Yang, F. Lee, "Loss comparison and subharmonic issue on flyback power factor correction circuit," *Proceedings of the Eleventh Annual VPEC Power Electronics Seminar*, pp. 125-131, 1993.
- [44] K. Harada, H. Sakamoto, "Switched snubber for high frequency switching," in *Proceedings of the Power Electronics Specialist Conference*, pp. 181-187, 1990
- [45] B. Carsten, "Design techniques for transformer active reset circuits at high frequency and power levels," in *High Frequency Power Conversion Conference Proceedings*, pp. 235-245, 1990.
- [46] C. Leu, G. Hua, F. Lee, "Comparison of forward topologies with various reset schemes," in *Proceedings of the Ninth Annual VPEC Power Electronics Seminar*, pp. 101-109, 1991.
- [47] Y.M. Jiang, G. Hua, E.X. Yang, F.C. Lee, "Soft-switching of IGBTs with the help of MOSFETs," in *Proceedings of the 10th Annual Virginia Power Electronics Center Seminar*, pp. 77-84.
- [48] UNITRODE Company, *Applications Handbook*, 1997.
- [49] R. Watson, G. C. Hua, and F. C. Lee, "Characterization of an active-clamp flyback topology for power factor correction applications," in *IEEE Transaction on Power Electronics*, Vol. 11, No. 1, pp. 191-198.
- [50] G. Hua, R. G. Watson, N. Dai, W. A. Tabisz, and F. C. Lee, "Development of a distributed power system," Virginia Power Electronics Center Project Final Report to Delta Electronic Industrial Company, May 27, 1993.

8.4 Chapter 4

- [51] Y. V. Panov, J. G. Cho, and F. C. Lee, "Three-phase single-stage isolated rectifier with power factor correction," in *Proceedings of the 12th Annual Virginia Power Electronics Center Seminar*, 1994, pp. 227-235.
- [52] G. C. Hua and F. C. Lee, "Novel full-bridge zero-current switching PWM converter," in *4th European Power Electronics and Applications Proceedings*, 1991, Vol. II, pp. 29-34.

8.5 Chapter 5

- [53] H. W. Ott, *Noise Reduction Techniques in Electronic Systems*, John Wiley & Sons, 1988, Chapters 2, 6, and 11.
- [54] F. S. Tsai, P. Materu, and F. C. Lee, "Constant-frequency, clamped-mode resonant converters," in *IEEE Transactions on Power Electronics*, Vol. 3, No. 4, pp. 364-378.
- [55] S. Kim and F. C. Lee, "Comparative study of constant-frequency resonant inverter topologies for AC power distribution," in *6th Annual VPEC Power Electronics Seminar Proceedings*, pp. 252-263.
- [56] F. S. Tsai, Y. Chin, and F. C. Lee, "Constant-frequency zero voltage switched clamped-mode parallel resonant converter," in *Proceedings of INTELEC'89*, 1989, pp. 16.4.1-16.4.7.
- [57] J. A. Sabate and F. C. Lee, "Off-line application of the fixed frequency, clamped-mode, series resonant converter," in *8th Annual VPEC Power Electronics Seminar Proceedings*, pp. 125-134.
- [58] I. J. Pital, "Phase-modulated resonant power conversion techniques for high frequency inverters," in *IEEE IAS Conference Proceeding*, 1985.

- [59] J. A. Sabate, M. M. Jovanovic, F. C. Lee and R. T. Gean, "Analysis and design-optimization of LCC resonant inverter for high-frequency AC distributed power system," in *IEEE Transactions on Industrial Electronics*, Vol. 42, No. 1, pp. 63-71.
- [60] C.-S. Leu, M. Tullis, L. Keller and F. C. Lee, "A high-frequency AC bus distributed power system," in *8th Annual VPEC Power Electronics Seminar Proceedings*, 1990, pp. 98-107.
- [61] V. Vorperian and R. Ridley, "A simple scheme for unity power-factor rectification for high frequency AC buses," in *IEEE Transactions on Power Electronics*, Vol. 5, No. 1, pp. 77-87.
- [62] W. Chen, R. Watson, G. Hua, and F. Lee, "Development of a regulated resonant rectifier for AC-distributed power systems," in *12th Annual VPEC Power Electronics Seminar Proceedings*, 1994, pp. 259-265.
- [63] D. Medini and S. Ben-Yaakov, "A current controlled-controlled variable-inductor for high frequency resonant power circuits," in *Proceedings of the 1994 Applied Power Electronics Conference*, Vol. I, pp. 219-225.
- [64] A. Cook and C. Carr, Elements of Electrical Engineering, A. Cook and C. Carr, 6th Edition, John Wiley & Sons, 1926.
- [65] MicroSim Corporation, *Circuit Analysis Reference Manual*, Version 6.1, July, 1994.
- [66] Ansoft User's Guide, Pittsburgh, PA.

8.6 Chapter 6

- [67] M. Terrien, "The HP 11940A close field probe: characteristics and application to EMI troubleshooting," *Hewlett-Packard RF & Microwave Measurement Symposium and Exhibition*.

8.7 Chapter 7

- [68] G. Stojcic, F. C. Lee, and S. Hiti, "Small-signal characterization of active-clamp PWM converters," *13th Annual VPEC Power Electronics Seminar Proceedings*, 1995, pp. 237-245.
- [69] G. Hua, "Consolidated soft-switched AC/DC converters," U. S. Patent 5790389, August 5, 1998.
- [70] C. Peng, M. Hannigan, O. Seiersen, "A new efficient high-frequency rectifier circuit", in *High Frequency Power Conversion Conference Proceedings*, pp. 236-243, June 1991.
- [71] O. Seiersen, "Power supply circuit with integrated magnetic components", U. S. Patent 5335165, August 2, 1994.
- [72] I. Jitaru, "Fixed frequency converter switching at zero voltage", U. S. patent 5434768, July 18, 1995.
- [73] G. Morris, "Magnetically integrated full wave DC to DC Converter", U. S. Patent 5555494, September 10, 1996.
- [74] W. Chen, "High density power converters with integrated magnetics", U. S. Patent pending.
- [75] W. Chen, G. Hua, D. Sable, and F. Lee, "Design of high efficiency, low profile, low voltage converter with integrated magnetics", in *IEEE APEC'97 Proceedings*, pp. 911-917, February, 1997.