[7] M. J. Ammann and Zhi Ning Chen, "Wideband Monopole Antennas for Multi- Band Wireless Systems", *IEEE Antennas and Propagation Magazine*, vol. 45, no. 2, 2003, pp. 146-150
[8] S.D. Moon, and H.Y. Hwang, "Improvement in band rejection characteristics of a wideband antenna using resonant slots" *Microwave Journal*, Vol. 50, No 10, 2007, pp. 116-124
[9] J. Wang, X. Sun, K. Okada,"UWB Circular Monopole Omni directional Antenna with a Slot for Radiation Pattern Improvement" *International Conference on Ultra Wideband*, Marina Mandrin Hotel, Singapore, 2007
[10] S. Hong, H. Lee, S. Lee and J. Choi, "A compact printed antenna with band-stop characteristic for UWB application" *Progress in Electromagnetic Research Symposium 2007*, 2007, pp. 188-191
[11] FCC First Report and Order and adopted the rules for Part 15 operation of UWB devices on February 14th, 2002
[12] Subminiature Coaxial Connectros and Cable Assemblies, Applied Engineering Products (AEP) Edition III, 1992

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