

**“Experimental verification of left-handed characteristics of Split Ring Resonators and wires array in finline”, pp.38-43**

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**Abstract** – We characterize experimentally the electromagnetic properties of a metamaterial-based transmission line periodically loaded by split ring resonators and wires in a finline technology. In a first stage after solving the problem of mode matching, a direct experimental evidence of a lefthanded propagation mode is shown via differential phaseshift measurements. In a second stage, we take advantage of a closed EM system to address the loss issue, which is often considered as the key limitation of SRR resonant particles.