

# Abstracts

## Embedded transmission line MMIC 1-W flip chip assembly using a Z-axis interconnect

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*T. Budka, A. Ketterson, Hua-Quen Tsemg, L. Stiborek, L. Heinrich, R. Smith, B. Ables, C. Kyhl, K. Worthen, G. Brehm and J. Reddick. "Embedded transmission line MMIC 1-W flip chip assembly using a Z-axis interconnect." 1998 Microwave and Guided Wave Letters 8.6 (Jun. 1998 [MGWL]): 238-240.*

The authors describe a new type of electronic packaging topology using embedded transmission-line (ETL) monolithic microwave integrated circuits (MMIC's) along with a new state-of-the-art Z-axis material that acts as a chip adhesive as well as an electrical connection with a carrier substrate. The results from the first two flip chip assemblies that were produced under the Microwave Analog Front End Technology (MAFET) Thrust 2 Program are presented. The flip chip packages provided greater than 1-W package output power on a Kovar housing floor with greater than 8-dB package large signal gain at 11.5 GHz.

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