

## CAD of multipactor-free waveguide components for communication satellites

---

*M. Ludovico, L. Accatino, G. Zarba and M. Mongiardo. "CAD of multipactor-free waveguide components for communication satellites." 2002 MTT-S International Microwave Symposium Digest 02.3 (2002 Vol. III [MWSYM]): 2077-2080 vol.3.*

Power handling capabilities of satellite waveguide components are limited by multipactor discharge which, so far, has received scarce attention in terms of a model for design purposes. We describe a procedure, based on the knowledge of the field distribution inside the considered component, for calculating the minimum power above which the multipactor risk becomes significant. It is shown that the proposed technique allows to avoid over-restrictive specifications and is useful for quantitative evaluation of multipaction prevention techniques. Experimental results and examples confirm the procedure validity.

 [Return to main document.](#)