

Abstracts

Development of 20 GHz-Band On-Board Power Amplifiers

H. Makishima and N. Mita. "Development of 20 GHz-Band On-Board Power Amplifiers." 1991 MTT-S International Microwave Symposium Digest 91.3 (1991 Vol. III [MWSYM]): 1303-1306.

A high-efficiency and light-weight SSPA and TWTA for use in a 20 GHz-band satellite transponder is developed. The SSPA features a compact, highly efficient output power combiner. The output power of the SSPA is 3.3 W with an efficiency of 21% at 18.365 GHz and it weighs only 750 g. The TWTA features a high-efficiency, compact size 3-stage collector and high-switching frequency power supply. The TWTA delivers an output power of 31% efficiency at 20.645 GHz and weighs only 1430 g.

 [Return to main document.](#)