

# Abstracts

## A 5.5 Watt 20 GHz Solid State Power Amplifier for On-Board Satellite Communication

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*F. Bonecchi and L. Negri. "A 5.5 Watt 20 GHz Solid State Power Amplifier for On-Board Satellite Communication." 1992 MTT-S International Microwave Symposium Digest 92.2 (1992 Vol. II [MWSYM]): 1101-1104.*

A Solid State Power Amplifier for on-board applications in the 20 GHz down-link frequency band is presented. An output power of 5.5 Watts with 47 dB gain and 17 % DC to RF efficiency have been achieved combining in parallel six 1.0 Watt power FET's by means of a novel very low-losses and extra-small waveguide power divider/combiner. The overall unit, including Electronic Power Conditioner, results compact and reliable: an attractive solution as replacement for Ka-band Traveling Wave Tube Amplifier in space.

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