Abstracts

Dielectric Waveguides for Underwater Transmission of High Microwave Power

D. Pavlidis and H.L. Hartnagel. "Dielectric Waveguides for Underwater Transmission of High Microwave Power." 1977 MTT-S International Microwave Symposium Digest 77.1 (1977 [MWSYM]): 156-159.

For certain applications it is advantageous to transmit high power levels by microwaves underwater via a dielectric layered tube structure with outer metal braiding which is, for example, simultaneously used for the passage of breathing gas for divers. Details of launching waves into this structure, the transmission properties, and suitable absorbers for such applications as heating are described. The system under study operates with a power level of 3-4kW at 8GHz when the dielectric line can be conveniently slim.

❑ Return to main document.