

DETAIL SPECIFICATION SHEET
WAVEGUIDES, RIGID, RECTANGULAR (MILLIMETER WAVELENGTH)

This amendment forms a part of MIL-DTL-85/3B, dated 4 February 2002, and is approved for use by all Departments and Agencies of the Department of Defense.

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TABLE II: Fifth column heading - insert "2". Sixth column heading - insert "3". Add the following to the footnotes beneath TABLE II:

- 2/ These values were determined by calculating the non-pressurized air dielectric breakdown strength produced by considering the E field within the waveguide. This determination was based on the peak value of a continuous wave (CW) signal. For further information see M. Gilden and L. Gould, "Handbook on High Power Capabilities of Waveguide Systems", June 1963, Navy Contract Nobsr-85190, Index No.SR0080302, ST 9604.
- 3/ These values were determined by calculation of the rate of heat loss to the ambient, considering a non-pressurized air dielectric waveguide in air using no artificial heat sink. A maximum waveguide temperature of 71°C, 1:1 VSWR, and an ambient temperature of 30°C were assumed. For additional information see H. E. King, "Rectangular Waveguide Theoretical CW Average Power Rating", IRE Transactions PGMIT-9, pp 349-357, July 1961."

Custodians:
Army - CR
Navy - EC
Air Force - 11
DLA - CC

Preparing activity:
DLA - CC

Reviewing activities:
Army - AR, CR4, MI
Navy - AS, MC, OS, SH
Air Force - 19, 71, 99

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