JETEC TYPE DESIGNATION REGISTRATION FORM

PRE-TR TUBE

Manufacturer's Designation: BL-96A
JETEC Designation: 6605
Manufacturer: Bomac Laboratories, Inc.
Beverly, Massachusetts

March 7, 1957

GENERAL CHARACTERISTICS

The 6605 is a Pre-TR gas switching tube designed to supplement the standard TR tube at moderate and high power levels and is used to prevent crystal burnout resulting from magnetron sparking. It consists of a quarter wave section of waveguide with low Q windows sealed at the ends. When fired the gas discharge spreads across the entire input window, and provides the necessary attenuation at all frequencies to reduce the harmonic magnetron frequencies associated with magnetron sparking to a safe level. At the same time, the arc voltage is high enough so that the energy leaking through the tube is sufficient to reliably fire the TR tube. Its operational band is from 1250 to 1350 Megacycles.

ELECTRICAL DATA - TYPICAL VALUES

Operational Band
VSWR 1.4 maximum
VSWR 1.2 maximum

1250 to 1350 Mc/s
1265 to 1335 Mc/s

Average Leakage Power
F=1300 Mc; po=2000 kw;

tp=4.0 μs; prr=250 pps

50 mw (max.)
10 mw (min.)

Insertion Loss (max.) at F=1300 Mc
Recovery Time (max.) at 2000 kw peak 3 db down
High Level VSWR (max.)

F=1300 Mc; po=500 kw;

tp =4μs; prr=250 pps

0.4 db
45 μs
1.2

MECHANICAL DATA - GENERAL

Mounting Position
Pressurization
Weight, approximately

Any
25 psia
5 lbs.

from JETEC release #1897, April 15, 1957
ABSOLUTE MAXIMUM RATINGS

Transmitter Peak Power 2000 kw
Transmitter Average Power 2000 W

OUTLINE DRAWING

As per attached drawing dated 3-26-56
Ref. Dimension Ref. Dimension
A 0.348 Dia., 10 Holes K 5 7/16
B 8 11/16 L 3.600 Max.
C 5 7/16 M 0.375 ± 0.015 ± 0.005
D 7.365 ± 0.010 N 0.250 ± 0.010
E 6.725 Max. P 5/16-18NC 10 Holes
F 4.115 ± 0.010 Q 3.938 ± 0.008
G 3.475 Max. R 2.375 ± 0.008
H 0.250 ± 0.010 S 2.500 ± 0.008
J 2.320 ± 0.045 T 4.626 ± 0.008

SPECIFICATION SHEET
Outline
BL-96, 6605/BL-96A

BOMAC LABORATORIES INC.
SALEM ROAD
BEVERLY, MASSACHUSETTS
3-26-56 clr