

QUICK REFERENCE DATA

The Sylvania Type 6435 is a hermetically sealed reference cavity constructed for waveguide mounting. It is designed for use in Beacon Radar operation as an effective method of tuning the radar local oscillator to the beacon system.

The 6435 was formally designated BRC445.

MECHANICAL DATA

Construction Hermetically Sealed Unit Designed for Use in RG-49/U Waveguide Between UG-148B/U Choke Flanges.

ELECTRICAL DATA

RATINGS

Frequency:
 0° C 5419.8 Mc Min.
 65° C 5420.2 Mc Max.

CHARACTERISTICS

Voltage Standing Wave Ratio:
 $f_0 = 5420 \text{ Mc} \pm 0.2 \text{ Mc}$ 2.5 Max.
 $f_1 = 5500 \text{ Mc} \pm 10 \text{ Mc}$ 10.0 Min.
 $f_2 = 5300 \text{ Mc} \pm 10 \text{ Mc}$ 10.0 Min.
 Insertion Loss 5 db Max.
 Loaded Q, $f_0 = 5420 \pm 0.2 \text{ Mc}$:
 Minimum 1300
 Maximum 2500

APPLICATION DATA

The Sylvania Type 6435 Beacon Reference Cavity was designed for use in radar systems for which beacon operation is desired and provides the means of tuning the radar local oscillator to the beacon system. The 6435 incorporates the best performance features of other existing methods of performing this function. It combines small size, low noise factor and excellent temperature compensation with improved system reliability, because of the minimum number of associated components required. Another major application is the use of the reference cavity in a circuit that essentially controls the radar transmitter frequency. This is accomplished by means of a feedback circuit and servo system in conjunction with the cavity to continuously tune the magnetron.

The 6435 tuned to the appropriate frequency will also serve as a frequency standard in microwave link systems.



SYLVANIA ELECTRIC PRODUCTS INC.

ELECTRONICS DIVISION WOBURN, MASS.

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OUTLINE DRAWING

