



ELECTRONIC TUBE REFERENCE

2K50

Specialized - Klystron electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
KLYSTRON

Thermally tuned K-band reflex klystron oscillator covering approximately 23.5–24.5 GHz, tuned by an integral triode-controlled thermal mechanism.

GENERAL CHARACTERISTICS

BASE DESIGNATION	B8-21	BASE PINS	8
NOMINAL HEATER	– / –	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Klystron

No fixed ratings recorded.

Published characteristics and ratings promoted where clearly recoverable from source.

The 2K50 Reflex Klystron (Bendix Red Bank Type TK-4) is a thermally tuned K band reflex oscillator. The tube is designed for use as a CW oscillator over the range of 23.5 kMc/sec. to 24.5 kMc/sec. The tube is thermally tuned over this frequency range by varying the grid bias voltage of a triode section incorporated in the metal envelope. The plate of this triode section is attached to the klystron structure and thermal expansion of the plate caused by variations of plate current is transmitted to the klystron section causing a change of gap spacing and a corresponding frequency change. The wave guide coupling is accomplished, by means of a tapered wave guide which couples to the cavity through a non-resonant iris. The guide tapers in the narrow dimension only, from the iris to a circular output window.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

196X Bendix

Published test conditions and operating points. Values on this page are preserved as reported by this source.

196X BENDIX

Section 1 · Klystron

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Current	805 A	Published datasheet value; see source context.

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cathode Current	28 mA	Published datasheet value; see source context.