



ELECTRONIC TUBE REFERENCE

VA201B

Specialized - Klystron electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

KLYSTRON

Rugged Ferranti X-band reflex klystron designed as an airborne local oscillator, emphasizing exceptional frequency stability under severe environmental conditions.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	6.3 V / 1.2 A	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Klystron	
MAXIMUM PLATE VOLTAGE	330 V
MAXIMUM CATHODE CURRENT	55 mA
<i>Microwave-device section. Standard promoted fields contain the closest directly equivalent published anode/beam limits; device-specific quantities are preserved in TUBE_SECTION_PARAMETER.</i>	

Ferranti VA201B is a rugged reflex klystron local oscillator for airborne X-band applications. It covers approximately 8.5-9.6 GHz and is designed for extreme frequency stability under severe environmental conditions.



SOURCE OPERATING CONDITIONS

1953 RFT Rundfunk Technik

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

1953 RFT RUNDFUNK TECHNIK

Section 1 · Klystron

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterVoltageNominal	6.3 V	Nominal
HeaterCurrentNominal	1.2 A	Nominal
MaximumResonatorVoltage	330 V	—
MaximumResonatorCurrent	55 mA	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
FrequencyRange	8.7–9.6 GHz	Published operating range
OutputPowerMinimum	0.015 W	Typical range



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1963 Ferranti

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

1963 FERRANTI

Section 1 · Klystron

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Nominal
Heater voltage absolute limits	5.7–6.9 V	—
Heater current	1.2 A	Nominal $\pm 10\%$

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum resonator voltage	350 V	—
Maximum resonator current	55 mA	—
Maximum negative reflector voltage	500 V	Magnitude; reflector negative
Maximum heater-cathode voltage	45 V	—
Maximum body temperature	200 C	—
Reflector voltage at 250 V resonator	-120--40 V	Mode 6 3/4
Typical resonator current at 250 V	33 mA	—
Power output at 250 V	12–66 mW	—
Reflector voltage at 300 V resonator	-200--80 V	Mode 5 3/4
Resonator current at 300 V	41–45 mA	—
Power output at 300 V	40–120 mW	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum reflector current	5 uA	Typical table maximum
Electronic tuning range at 250 V	30— Mc/s	Average with 30 Mc/s minimum
Electronic tuning range at 300 V	20— Mc/s	Average with 20 Mc/s minimum
Temperature coefficient	-100–50 kc/s/C	—
Noise	<3e-14 W/Mc/s/mW	RF noise metric
Maximum tuner resetting error	1 Mc/s	—
Maximum tuner side-thrust error	0.5 Mc/s	—

FREQUENCY		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Operating frequency	8500–9600 Mc/s	—

TUBE TINKER

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and their source documents.

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