

Four-cavity magnetically focused 755–985 MHz power-amplifier klystron delivering approximately 10 kW in narrowband or broadband operation.

GENERAL CHARACTERISTICS

BASE DESIGNATION	–	BASE PINS	–
NOMINAL HEATER	7.5 V / –	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1	Klystron
No fixed ratings recorded. Single electrical section; values mapped from printed ratings/characteristics. Klystron represented as SectionType Other because the canonical section vocabulary has no Klystron section type.	

The Eimac 4KM50,000LR is a four-cavity, magnetically focused, power-amplifier klystron designed for use at frequencies between 755 and 985 megacycles. This klystron will deliver a narrow-band CW output power of 10 kilowatts with a minimum power gain of 50 deci- bels. When adjusted for wide-band operation the 4KM50,000LR will deliver an output power of 10 kilowatts with a half-power bandwidth of 7 megacycles and a power gain of 30 decibels. This klystron employs the Eimac Modulating Anode which provides an effective means for protecting the tube against internal arcs when connected to the beam supply through a resistor. All tuning is accomplished outside of the vacuum envelope by means of external resonant cavities which enclose the cylindrical ceramic windows of the klystron. This design affords a wide tuning range and permits external cavity loading for broadband applications. For spares or replacements, only the basic vacuum tube, without cavities, need be purchased. Eimac Klystron Amplifier Circuit Assembly H-141 has been designed for use with the 4KM50,000LR to cover the specified

frequencyrange. This assembly includes a klystron supporting structure, magnetic focusing coils, tuning cavities, adjustable load couplers for each cavity, and an Eimac SK-110 Air-System Socket.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1962 Eimac

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

1962 EIMAC

Section 1 · Klystron

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
The Eimac	0 a	The Eimac 4KM50,000LR is a four-cavity, magnetically focused,
and	985 megacycles	and 985 megacycles. This klystron will deliver a narrow-band CW
output power of	50 kilowatts	output power of 10 kilowatts with a minimum power gain of 50 deci-
deliver an output power of	10 kilowatts	deliver an output power of 10 kilowatts with a half-power bandwidth
of	30 megacycles	of 7 megacycles and a power gain of 30 decibels.
Heater: Voltage	7.5 volts	Heater: Voltage - - - 7.5 volts
Current	40 amperes	Current - - - 40.0 amperes
Maximum Starting Current	80 amperes	Maximum Starting Current - - 80.0 amperes
Voltage	2 volts	Voltage - - - 2.0 volts
Current	36 amperes	Current - - - 36.0 amperes
Output Power	10 kilowatts	Output Power - - - 10 kilowatts
Frequency Range (H	985 megacycles	Frequency Range (H-141 Assembly) - 755 to 985 megacycles
Output	50 ohm	Output - - - 3 1/8 inch, 50-ohm line
(Effective	1961 A	(Effective 10-20-61) Copyright 1961 by Eitel-McCullough, Inc. Printed in U.S.A.
Prefocus Coil: Voltage	25 volts	Prefocus Coil: Voltage - - - 0 to 25 volts
Current	1.25 amperes	Current - - - 0 to 1.25 amperes
Voltage	400 volts	Voltage - - - 0 to 400 volts
Current	0 amperes	Current - - - 0to4.0 amperes

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
D-C BEAM CURRENT	2.5 AMPERES	D-C BEAM CURRENT - - - - 2.5 AMPERES
A-C GETTER CURRENT	50 A	A-C GETTER CURRENT - - - - 50 AMPERES
FOCUS-ELECTRODE VOLTAGE	500 VOLTS	FOCUS-ELECTRODE VOLTAGE - - - - -500 VOLTS
COLLECTOR DISSIPATION	50 KILOWATTS	COLLECTOR DISSIPATION - - - - 50 KILOWATTS
Frequency	762 megacycles	Frequency 755 985 762 megacycles
Output Power	10 kilowatts	Output Power 12.1 11.5 10 kilowatts
Driving Power	10 watts	Driving Power 0.05 0.05 10 watts
D-C Beam Current	1.9 amperes	D-C Beam Current 1.76 1.76 1.9 amperes
Focus-Electrode Voltage	175 volts	Focus-Electrode Voltage -245 -245 ~-175 volts
Half Power Bandwidth	7 megacycles	Half Power Bandwidth - - - - 7 megacycles
Prefocus Coil	1.1 amperes	Prefocus Coil 1.06 1.03 1.1 amperes
Coil in Series	3 amperes	Coil in Series 3.0 3.0 3.0 amperes
MO MiM. MAX,) LBes VP	3 A	MO MiM. MAX,) LBes VP50 EXCERPT ANODE CATY A SHOWN, 3 »WI\ EOR % O D Tubila.
ol	42 A	ol 20.642 LY 42D A% - @ - * <
Pl	1 A	Pl .59 [1 LJ QECTION A-A SEcTiON BB

TUBE TINKER

An independent reference for electronic tubes, vacuum tubes,
and their source documents.

[Catalog](#) [Tube types](#) [Full books](#) [Blog](#) [Feedback & corrections](#)

© 2026 Tube Tinker