

E I M A C
 Division of Varian
 SAN CARLOS
 CALIFORNIA

Tentative Data

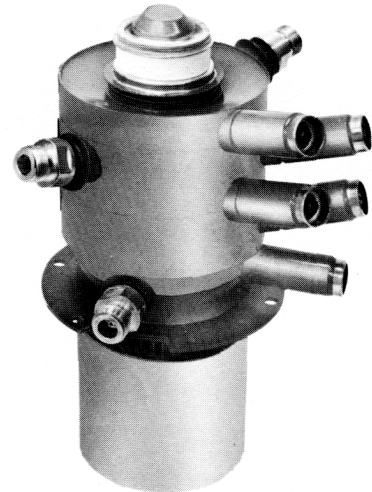
X3065A

**POWER AMPLIFIER
 S-BAND KLYSTRON**

The EIMAC X3065A is an air cooled, electrostatically focused, power-amplifier klystron designed to operate at frequencies from 2100 to 2110 megahertz. It will deliver a minimum output power of 500 watts with a minimum power gain of 40 decibels. The X3065A is intended for use in applications where light weight and compactness are essential.

FEATURES

- ELECTROSTATIC FOCUSING
- FIVE INTEGRAL CAVITIES
- LOW NOISE LEVEL
- FIXED INPUT AND OUTPUT COUPLING
- INSTANT FAULT RECYCLING



CHARACTERISTICS

ELECTRICAL

Frequency	- - - - -	2100-2110 MHz
Minimum Output Power	- - - - -	500 W
Minimum Power Gain	- - - - -	30 db
Cathode: Oxide, Unipotential		
Starting Time	- - - - -	1 minute
Heater: Voltage	- - - - -	7 Vac
Current	- - - - -	1 Aac
Maximum Starting Current	- - - - -	2 Aac

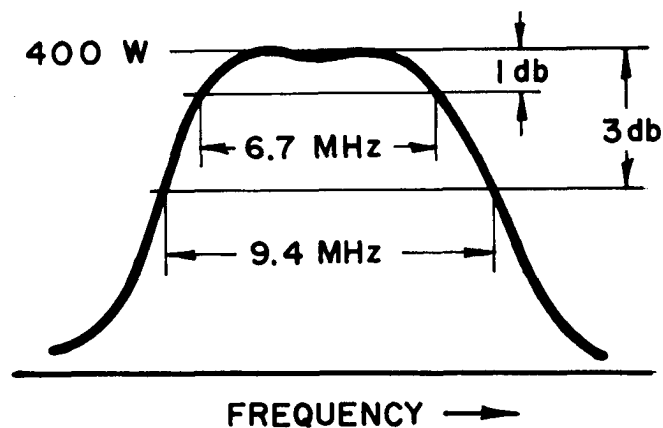
MECHANICAL

Operating Position	- - - - -	Any
Cavity Tuning Torque (maximum)	- - - - -	1 inch pounds
Cooling	- - - - -	Forced Air (20°C at sea level)
Collector Flow	- - - - -	100 cfm
Collector Pressure Drop	- - - - -	1 inches H ₂ O
Maximum Dimensions:		
Length	- - - - -	9.0 inches
Width	- - - - -	6.5 inches
Depth	- - - - -	5.5 inches
Rf Input Coupling	- - - - -	Connector TNC
Rf Output Coupling	- - - - -	7/8 inch, 50-ohm line
Weight	- - - - -	5 pounds

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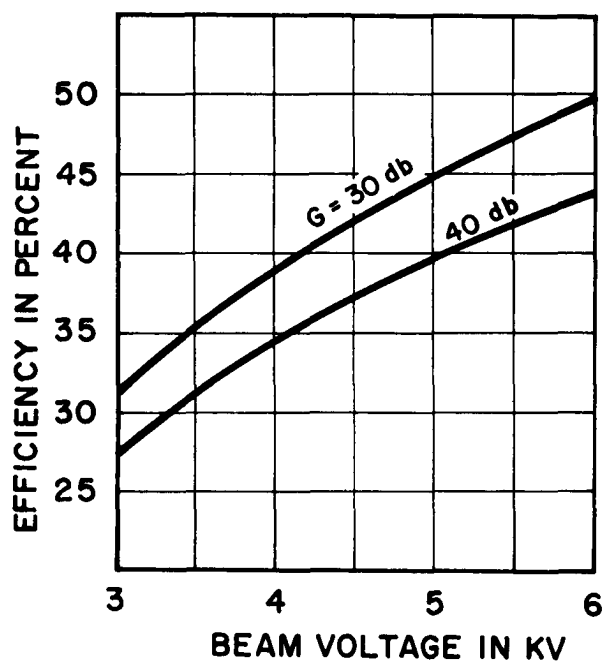
Frequency	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2105	2105	MHz
DC Beam Voltage	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4.75	4.9	kVdc
DC Beam Current	-	-	-	-	-	-	-	-	-	-	-	-	-	-	230	250	Madc
Driving Power	-	-	-	-	-	-	-	-	-	-	-	-	-	-	500	50	mW
Output Power	-	-	-	-	-	-	-	-	-	-	-	-	-	-	500	500	W
Gain	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30	40	db
Beam Power Efficiency	-	-	-	-	-	-	-	-	-	-	-	-	-	-	46	41	%
3 db Bandwidth	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.5	3.7	MHz

[illegible]

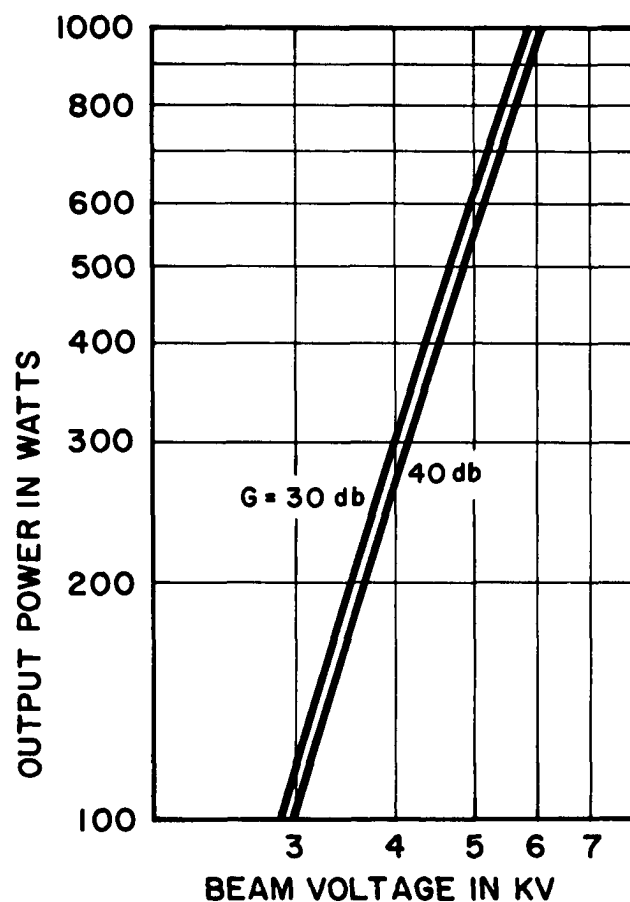


DRIVING POWER — 500 mW
 OUTPUT POWER — 400 W
 GAIN — 29 db
 EFFICIENCY — 35 %
 1 db BANDWIDTH — 6.7 MHz
 3 db BANDWIDTH — 9.4 MHz

RF-OUTPUT POWER vs FREQUENCY. THE CAVITIES ARE TUNED FOR BANDWIDTH.



CAVITIES TUNED FOR MAXIMUM EFFICIENCY



CAVITIES TUNED FOR MAXIMUM EFFICIENCY



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