

## 2H21 – Phasitron FM Modulator



General Electric 'Phasitron' phase modulator for use in FM transmitters. 11 pin magnal base. Used in GE and Gates FM transmitter since the late forties.

6.3 Volts at 0.3 A heater.

Similar to [5593](#) but with different parameters.

2H21 was registered to General Electric in April 1946. Data in the RMA record [486](#).

A short description of operating principle is given in the article '[Phasitron](#)'.

# RADIO MANUFACTURERS ASSOCIATION

SUITE 701-4 AMERICAN BUILDING  
1317 F STREET, N.W.  
WASHINGTON, D. C.



R.M.A. DATA BUREAU  
90 West Street  
New York, N. Y.

Release No. 486

April 25, 1946

To  
Tube Engineers:

Registration has been made by the RMA  
Data Bureau of the vacuum tube type designation

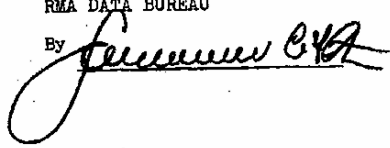
2H21 (Registration No. 1123)

as defined by the characteristics and ratings  
given in the attached data on application of:

General Electric Company  
Schenectady, New York

Respectfully yours,

RMA DATA BUREAU

By 

LCFHorle/CAP

**2H21 PHASITRON**  
**TECHNICAL INFORMATION**

**GENERAL DESCRIPTION**

Principal Application: Phase-modulator tube for use at frequencies below 500 kilocycles

**Characteristics**

<b>Cathode-Indirectly Heated</b>		
Heater Voltage	6.3	Volts D-C
Heater Current	0.3	Amps
<b>Direct Interelectrode</b>		
<b>Capacitances, Approximate</b>		
Deflectors to Plate 1	0.08	Micromicrofarads
Plate 1 to Plate 2	4.0	Micromicrofarads
Frequency for Maximum Ratings	500	Kilocycles
<b>Mounting Position-Any</b>		

**Terminal Connections**

- Pin 1 - Internal connection
- Pin 2 - Deflector No. 4
- Pin 3 - Deflector No. 1
- Pin 4 - Deflector No. 2
- Pin 5 - Deflector No. 3
- Pin 6 - Grid No. 1
- Pin 7 - Grid No. 2
- Pin 8 - Plate No. 1
- Pin 9 - Plate No. 2
- Pin 10 - Heater
- Pin 11 - Heater and Cathode



**MAXIMUM RATINGS**

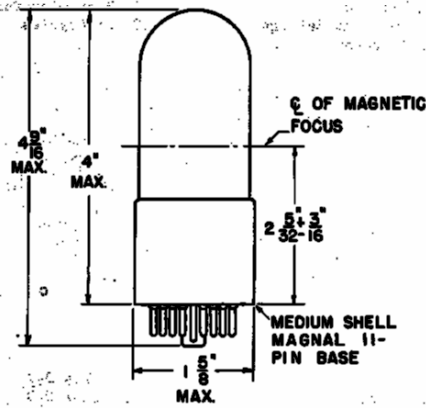
Plate No. 1 Voltage	300	Volts D-C
Plate No. 2 Voltage	300	Volts D-C
Deflectors No. 1, 2, and 3 Voltage	100	Volts D-C
Deflector No. 4 Voltage	100	Volts D-C
Grid No. 1 Voltage	25	Volts D-C
Grid No. 2 Voltage	150	Volts D-C
Cathode Current	6	Milliamperes D-C

**CHARACTERISTICS AND TYPICAL OPERATION**

<b>Phase Modulator</b>		
Plate No. 1 Voltage	200	Volts D-C
Plate No. 2 Voltage	250	Volts D-C
Deflectors No. 1, 2, and 3 Voltage	85	Volts D-C
Deflector No. 4 Voltage	60	Volts D-C
Grid No. 1 Voltage	10	Volts D-C
Grid No. 2 Voltage	25	Volts D-C
Cathode Current	4	Milliamperes D-C
Radio-Frequency Driving Voltage, phase to neutral	35	Volts RMS

CHARACTERISTICS AND TYPICAL OPERATION (Continued)

Audio-Modulating Power for $\pm 180^\circ$ Phase Shift, Approximate	50 Milliwatts
Radio-Frequency Output Voltage	4 Volts RMS
Distortion at $\pm 180^\circ$ Phase Shift	1.4 Per Cent



GENERAL ELECTRIC COMPANY, SCHENECTADY, N. Y.