To Tube Engineers:

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

3J21 (Registration No. 1545)  4J21 (  1546)
4J22 (  1547)  4J23 (  1548)
4J24 (  1549)  4J25 (  1550)
4J26 (  1551)  4J27 (  1552)
4J28 (  1553)  4J29 (  1554)
4J30 (  1555)  4J32 (  1556)
5J21 (  1557)  5J22 (  1558)
5J23 (  1559)  5J24 (  1560)
5J25 (  1561)  5J26 (  1562)

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

Western Electric Company
New York, N. Y.

Respectfully yours,

RMA DATA BUREAU

By

LCFHorle/cap
Enc.
WESTERN ELECTRIC 3J21 ELECTRON TUBE

TYPE DESIGNATION REGISTRATION

Reservation No.: 5222  Manufacturers Designation: 1456
Reservation Date: 10/2/44  Data Bureau Designation: 3J21

U.H.F. MAGNETRON - PACKAGED TYPE

Electrical Data - General

Heater Voltage  12.6 volts
Heater Current  1.6 amperes
Cathode Heating Time  3 minutes
Frequency  23,746-24,226 megacycles
Frequency Pulling (max.)  18 megacycles
Frequency Change with Anode Temperature (max.) 0.45 megacycle per degree C

Mechanical Data - See Outline Drawing

Maximum Ratings, Absolute Values

Peak Anode Voltage  15  16 kilovolts
Peak Anode Current  10  16 amperes
Peak Power Input  150  225 kilowatts
Average Power Input  150  110 watts
Duty Cycle  0.001  0.0006
Pulse Duration  0.55  0.55 microseconds
Anode Temperature  150°  150° Centigrade
Operation Time in 100 Microsecond Interval  0.6  0.6 microsecond

Typical Operation

Heater Voltage *
Magnetic Field  Integral Magnet
Peak Anode Voltage  15  15 kilovolts
Peak Anode Current  15  15 amperes
Pulse Repetition Rate  1000  2000 pulses/second
Pulse Duration  0.5  0.25 microseconds
Peak Power Output  60  60 kilowatts
Maximum R.F. Bandwidth  6  12 megacycles

*During high voltage operation the heater voltage must be reduced so that the cathode operates at approximately 820°C.

Note: This sheet does not imply commercial availability of the tube.
WESTERN ELECTRIC 4J21 to 4J25 ELECTRON TUBES

TYPE DESIGNATION REGISTRATION

Reservation Nos.: 5077 to 5081  Manufacturers Designation: 1402M
Reservation Date: 7/2/43  Data Bureau Designation: 4J21 to 4J25

U.H.F. MAGNETRONS

Electrical Data - General

Heater Voltage 20.5 volts
Heater Current 2.2 amperes
Cathode Heating Time 3 minutes
Frequency
4J21 = 1336-1350 megacycles
4J22 = 1322-1336 megacycles
4J23 = 1308-1322 megacycles
4J24 = 1294-1308 megacycles
4J25 = 1280-1294 megacycles

Frequency Pulling (Max.) 6.0 megacycles
Frequency Change with Anode Temperature (Max.) 0.03 megacycles per degree C

Mechanical Data - See Outlint Drawing

Maximum Ratings, Absolute Values

Peak Anode Voltage 30 kilovolts
Peak Anode Current 60 amperes
Peak Power Input 1500 kilowatts
Average Power Input 1500 watts
Duty Cycle 0.002
Pulse Duration 6.0 microseconds
Anode Temperature 100° Centigrade
Operation Time in 100 Microsecond Interval 8 microseconds

Typical Operation

Heater Voltage *
Magnetic Field 1400 gauss
Peak Anode Voltage 26.5 kilovolts
Peak Anode Current 4.8 amperes
Pulse Repetition Rate 200 pulses/second
Pulse Duration 5 microseconds
Peak Power Output 640 kilowatts
Maximum R.F. Bandwidth 4 megacycles

* During high voltage operation, the heater voltage must be reduced so that the cathode operates at approximately 820°C.

Note: This sheet does not imply commercial availability of the tube.
WESTERN ELECTRIC 4J26 to 4J30 ELECTRON TUBES
TYPE DESIGNATION REGISTRATION

Reservation Nos.: 5083 to 5087  Manufacturers Designation: 1402M
Reservation Date: 7/16/43    Data Bureau Designation: 4J26 to 4J30

U.H.F. MAGNETRONS

Electrical Data - General

Heater Voltage 23.5 volts
Heater Current 2.2 amperes
Cathode Heating Time 3 minutes
Frequency
4J26 = 1268-1280 megacycles
4J27 = 1256-1268 megacycles
4J28 = 1244-1256 megacycles
4J29 = 1232-1244 megacycles
4J30 = 1220-1232 megacycles
Frequency Pulling (Max.) 5.5 megacycles
Frequency Change with Anode Temperature (Max.) 0.03 megacycles per degree C

Mechanical Data - See Outline Drawing

Maximum Ratings, Absolute Values

Peak Anode Voltage 30 kilovolts
Peak Anode Current 60 amperes
Peak Power Input 1500 kilowatts
Average Power Input 1500 watts
Duty Cycle 0.002
Pulse Duration 6.0 microseconds
Anode Temperature 100° Centigrade
Operation Time in 100 Microsecond Interval 8 microseconds

Typical Operation:

Heater Voltage *
Magnetic Field 1400 gauss
Peak Anode Voltage 27 kilovolts
Peak Anode Current 46 amperes
Pulse Repetition Rate 200 pulses/second
Pulse Duration 5 microseconds
Peak Power Output 700 kilowatts
Maximum R.F. Bandwidth 4 megacycles

* During high voltage operation, the heater voltage must be reduced so that the cathode operates at approximately 820°C.

Note: This sheet does not imply commercial availability of the tube.
WESTERN ELECTRIC 4J52 ELECTRON TUBE

TYPE DESIGNATION REGISTRATION

Reservation No.: 5233  Manufacturers Designation: 1471
Reservation Date: 11/6/44  Data Bureau Designation: 4J52

U.H.F. MAGNETRON - PACKAGED TYPE

Electrical Data - General

Heater Voltage 12.6 volts
Heater Current 2.1 amperes
Cathode Heating Time 4 minutes
Frequency 9345-9405 megacycles
Frequency Pulling (Max.) 15 megacycles
Frequency Change with Anode Temperature (Max.), 25 megacycles
per degree C

Mechanical Data - See Outline Drawing

Maximum Ratings, Absolute Values

Peak Anode Voltage 16 16 kilovolts
Peak Anode Current 20 30 amperes
Peak Power Input * 300 450 kilowatts
Average Power Input 300 450 watts
Duty Cycle .002 .002
Pulse Duration 6.0 1.2 microseconds
Anode Temperature 150 150° Centigrade
Operation Time in 100 Microsecond Interval 6 6 microseconds

Typical Operation

Heater Voltage **
Magnetic Field Integral Magnet
Peak Anode Voltage 15 15 kilovolts
Peak Anode Current 15 15 amperes
Pulse Repetition Rate 1000 200 pulses/second
Pulse Duration 1 5.5 microseconds
Peak Power Output 100 100 kilowatts
Maximum R.F. Bandwidth 3 3 megacycles

* Tube shall not be operated at maximum peak input power at pressure of less than 60 cm Hg.

** During high voltage operation, the heater voltage must be reduced so that the cathode operates at approximately 820°C.

Note: This sheet does not imply commercial availability of the tube.
WESTERN ELECTRIC 5J21 to 5J25 ELECTRON TUBES
TYPE DESIGNATION REGISTRATION

Reservation Nos.: 5038 to 5042 Manufacturers Designation: 1382M
Reservation Date: 1/22/43 Data Bureau Designation: 5J21 to 5J25

U.H.F. MAGNETRONS

Electrical Data - General

Heater Voltage 20.5 volts
Heater Current 3.4 amperes
Cathode Heating Time 3 minutes
Frequency
5J21 = 1098-1110 megacycles
5J22 = 1086-1098 megacycles
5J23 = 1074-1086 megacycles
5J24 = 1062-1074 megacycles
5J25 = 1050-1062 megacycles

Frequency Pulling (Max.) 5.5 megacycles
Frequency Change with Anode Temperature (Max.) .03 megacycles per degree C

Mechanical Data - See Tube Outline

Maximum Ratings, Absolute Values

Peak Anode Voltage 25 kilovolts
Peak Anode Current 30 amperes
Peak Power Input 750 kilowatts
Average Power Input 750 watts
Duty Cycle .001
Pulse Duration 2.0 microseconds
Anode Temperature 100° Centigrade
Operation Time in 100 Microsecond Interval 5 microseconds

Typical Operation

Heater Voltage *
Magnetic Field 900 gauss
Peak Anode Voltage 19 kilovolts
Peak Anode Current 24 amperes
Pulse Repetition Rate 1000 pulses/second
Pulse Duration 1.5 microseconds
Peak Power Output 250 kilowatts
Maximum R. F. Bandwidth 4 megacycles

* During high voltage operation, the heater voltage must be reduced so that the cathode operates at approximately 820° C.

Note: This tube is obsolete and manufacturing facilities are no longer available.
WESTERN ELECTRIC 5J26 ELECTRON TUBE
TYPE DESIGNATION REGISTRATION

Reservation No.: 5290    Manufacturers Designation: 1475M
Reservation Date: 3/14/45    Data Bureau Designation: 5J26

U.H.F. MAGNETRON

Electrical Data - General

Heater Voltage       23.5 volts
Heater Current       2.2 amperes
Cathode Heating Time 3 minutes
Frequency            1220-1350 megacycles

Mechanical Data - See Outline Drawing

Maximum Ratings, Absolute Values

Peak Anode Voltage   31 kilovolts
Peak Anode Current   60 amperes
Peak Power Input     1800 kilowatts
Average Power Input  1800 watts
Duty Cycle           .002
Pulse Duration       6.0 microseconds
Anode Temperature    125° Centigrade
Operation Time in 100 Microsecond Interval 8 microseconds

Typical Operation

Heater Voltage * 1400 gauss
Magnetic Field     27 kilovolts
Peak Anode Voltage 46 amperes
Peak Anode Current 1000 pulse/sec/second
Pulse Repetition Rate 1 microsecond
Pulse Duration     600 kilowatts

* During high voltage operation the heater voltage must be reduced so that the cathode operates at approximately 820°C.

Note: This sheet does not imply commercial availability of the tube.