

|         |         |
|---------|---------|
| ZM-3265 | ZM-3268 |
| ZM-3266 | ZM-3270 |
| ZM-3267 | ZM-3271 |
|         | ZM-3272 |

# Traveling-Wave Tubes

## Technical Information

### RF PERFORMANCE

| Tube Type | Frequency Range (Gc) | Maximum Noise Figure (db) | Minimum Small Signal Gain (db) | Minimum Saturation Power Output (mw) |
|-----------|----------------------|---------------------------|--------------------------------|--------------------------------------|
| ZM-3270   | 7.0 - 8.5            | 8.0                       | 35                             | 10                                   |
| ZM-3266   | 7.0 - 11.0           | 8.0                       | 30                             | 10                                   |
| ZM-3265   | 7.0 - 12.0           | 9.0                       | 30                             | 3                                    |
| ZM-3271   | 7.5 - 8.5            | 7.5                       | 35                             | 10                                   |
| ZM-3267   | 8.0 - 12.0           | 8.5                       | 30                             | 5                                    |
| ZM-3268   | 8.5 - 9.6            | 7.5                       | 35                             | 10                                   |
| ZM-3272   | 9.0 - 10.0           | 8.0                       | 33                             | 10                                   |

- LOW NOISE
- X-BAND
- PPM FOCUSING

### FEATURES

low noise  
broad bandwidth  
periodic permanent magnet focusing  
metal-ceramic construction  
military environments  
light weight  
crystal mixer protection

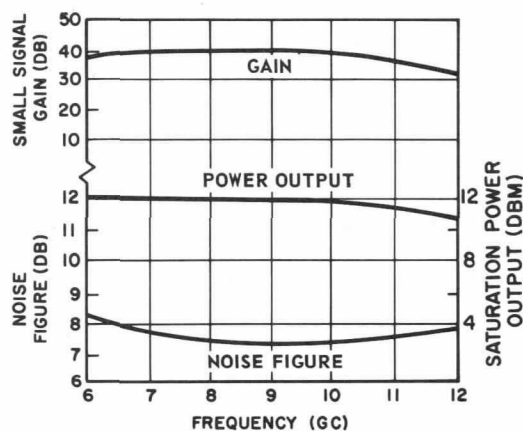
### APPLICATIONS

radar  
ecm  
instrumentation  
communications  
radiometry

### MECHANICAL & MISCELLANEOUS

|                          |                          |
|--------------------------|--------------------------|
| VSWR, max                |                          |
| Input.....               | 2.5                      |
| Output.....              | 2.5                      |
| Mounting position.....   | Any                      |
| Weight, lb.....          | 5.5                      |
| Over-all length, in..... | 11.0                     |
| Cooling.....             | Convection               |
| Connectors               |                          |
| RF input.....            | Type N                   |
| RF output.....           | Type N                   |
| DC.....                  | Winch'r M12P or equiv.   |
| Collector.....           | Winch'r PM1PLS or equiv. |

### TYPICAL CHARACTERISTICS



## ENVIRONMENTAL

|                      |               |
|----------------------|---------------|
| Shock.....           | 30 G, 11 ms   |
| (energized)          | 3 axes        |
| Vibration.....       | 15 G, 70 to   |
| (operating)          | 2,000 cps     |
| Temp. Ambient† ..... | -65 C to      |
| (operating)          | +100 C        |
| Altitude.....        | 100,000 ft.   |
| (operating)          |               |
| Acoustic Noise ..... | 135 db, 25 to |
| (operating)          | 12,000 cps    |

HELICOIL FOR 10-32 THD. 4 PLACES

1.620  $\pm .010$

3.00 DIA.

8.25 MIN.

WINCHESTER M12P/M12H OR EQUIV.

11.00 MAX.

8.41

5.37  $\pm .06$

RF INPUT TYPE N, FEMALE

1.000

1.000

.730

RF OUTPUT TYPE N, FEMALE

3.35

1.250  $\pm .010$

2.00

7.00 MIN.

WINCHESTER PM12H/HO OR EQUIV. (COLLECTOR)

3.96  $\pm .03$

3.00 MAX.

4.750

.188  $\pm .010$  TYP. 4 PLCS.

.125

5.094  $\pm .030$

4.750  $\pm .015$

.906

.312  $\pm .010$  TYP.

M12PM12H CONNECTIONS

|             |   |
|-------------|---|
| HTR         | H |
| CATH-HTR    | F |
| CATH        | J |
| ELECT 1     | B |
| ELECT 2     | E |
| ELECT 3     | K |
| ELECT 4     | N |
| CAPSULE GND | D |
| HELIX       | L |

DIMENSIONS ARE IN INCHES. THOSE WITHOUT

DIMENSIONS ARE IN INCHES; THOSE WITHOUT TOLERANCES ARE APPROXIMATE.

\* Voltages shown are measured with respect to cathode. All voltages may be isolated from ground. For minimum noise and optimum gain characteristics, voltages should be adjusted to values specified by instructions accompanying each tube. These values will be within the ranges given above.

† Some degradation of performance may occur under extremes of indicated environmental conditions.

These data are subject to change without notice.

**GENERAL  ELECTRIC**

**Owensboro, Kentucky**