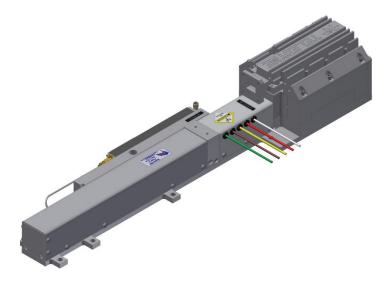
## **MEC 5466**

## Communication TWT 17.3 GHz - 18.4 GHz



- 17.3 to 18.4 GHz
- -40° to 85° C
- 1555 W Typ. Prime Power
- 45-47 dB Typical Gain
- 19.8" L x 3.9" W x 3.4" H (50.3 x 10 x 8.6 cm)
- Phase Match Available



| Typical Operating Conditions |  | Power Supply Re   | Power Supply Requirements  |  |
|------------------------------|--|---|--|--|
| Voltage                      | Current  | Voltage Min.  | Voltage Max.   | Current Max.   |
| -6.1 Vdc                     | 1.7 A  | -5.8 Vdc  | -6.6 Vdc   | 2 A  |
|                              |  |   |  |  |
| Ground                       | 5 mA   | Ground  | Ground   | 10 mA  |
| Ground                       | 1 mA   | Ground  | Ground   | 10 mA  |
| -10 Vdc                      | 0.1 mA   | 0   | -50 Vdc  | 1 mA   |
| -1600 Vdc                    | 0.1 mA   | -1600 Vdc   | -2000 Vdc  | 1 mA   |
| -11.8 kV                     | 385 mA   | -11.5 kV  | -12.5 kV   | 400 mA   |
|                              |  |   |  |  |
| 5.81 kV                      | 110 mA   | 49% x E   | k ±2%  | 250 mA   |
| 3.20 kV                      | 270 mA   | 27% x E   | E <sub>k</sub> ±2%   | 375 mA   |
|                              | Voltage  -6.1 Vdc  Ground Ground -10 Vdc -1600 Vdc -11.8 kV  5.81 kV | Voltage         Current           -6.1 Vdc         1.7 A           Ground         5 mA           Ground         1 mA           -10 Vdc         0.1 mA           -1600 Vdc         0.1 mA           -11.8 kV         385 mA           5.81 kV         110 mA | Voltage         Current         Voltage Min.           -6.1 Vdc         1.7 A         -5.8 Vdc           Ground         5 mA         Ground           Ground         1 mA         Ground           -10 Vdc         0.1 mA         0           -1600 Vdc         0.1 mA         -1600 Vdc           -11.8 kV         385 mA         -11.5 kV           5.81 kV         110 mA         49% x E | Voltage         Current         Voltage Min.         Voltage Max.           -6.1 Vdc         1.7 A         -5.8 Vdc         -6.6 Vdc           Ground         5 mA         Ground         Ground           Ground         1 mA         Ground         Ground           -10 Vdc         0.1 mA         0         -50 Vdc           -1600 Vdc         0.1 mA         -1600 Vdc         -2000 Vdc           -11.8 kV         385 mA         -11.5 kV         -12.5 kV           5.81 kV         110 mA         49% x E <sub>k</sub> ±2% |

Cathode voltage is measured with respect to ground.

Heater, Collector, and Focus Electrode (FE) voltages are measured with respect to Cathode.

## **RF Performance**

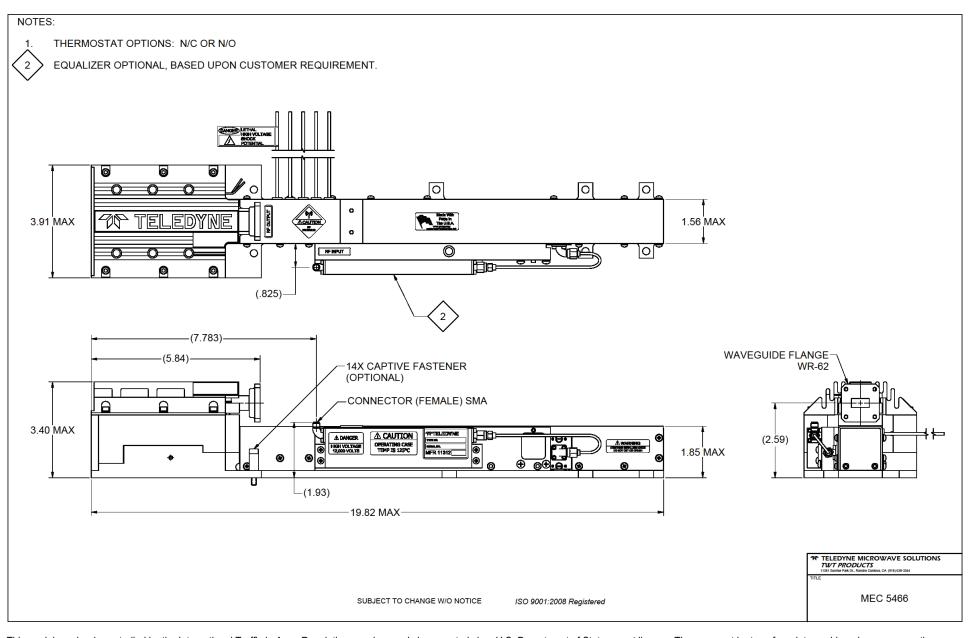
| Freq<br>(GHz) | Typ. Sat.<br>Power<br>Output (W) | Min. Spec.<br>Power<br>Output (W) | Typ. Gain<br>@ Spec.<br>Power (dB) |
|---------------|----------------------------------|-----------------------------------|------------------------------------|
| 17.3          | 550                              | 500                               | 47                                 |
| 17.4          | 550                              | 500                               | 47                                 |
| 17.5          | 550                              | 500                               | 47                                 |
| 17.6          | 550                              | 500                               | 47                                 |
| 17.7          | 540                              | 500                               | 47                                 |
| 17.8          | 530                              | 500                               | 47                                 |
| 17.9          | 525                              | 500                               | 47                                 |
| 18.0          | 500                              | 450                               | 46                                 |
| 18.1          | 490                              | 450                               | 46                                 |
| 18.2          | 480                              | 450                               | 46                                 |
| 18.3          | 460                              | 450                               | 45                                 |
| 18.4          | 450                              | 450                               | 45                                 |

Typical power output is shown to illustrate capability. Typical gain shown is without equalizer.

| Performance              | Typical | Spec   |
|--------------------------|---------|--------|
| Input VSWR               | 1.75:1  | 2.25:1 |
| Output VSWR              |         |        |
| Max. Duty                | —       | CW     |
| FE Capacitance           | 50 pF   | 65 pF  |
| Min. Harmonic Separation | 30 dBc  | 15 dBc |
| Noise Power Density      |         |        |
| (dBm/MHz)                | 20      | 15     |
| Prime Power              | 1555 W  | 1600 W |

This model number is controlled by the International Traffic in Arms Regulations, and can only be exported via a U.S. Department of State export license. They may not be transferred, transshipped on a non-continuous voyage, or otherwise be disposed of in any other country, either in their original form or after being incorporated into other end-items, without the prior written approval of the U.S. Department of State.





This model number is controlled by the International Traffic in Arms Regulations, and can only be exported via a U.S. Department of State export license. They may not be transferred, transshipped on a non-continuous voyage, or otherwise be disposed of in any other country, either in their original form or after being incorporated into other end-items, without the prior written approval of the U.S. Department of State.

