## **\*\*TELEDYNE MEC**

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MODEL NO. MEC 5296

2.5 to 7.5 GHz

| TYPICAL C          | )PEI | rating cc | POWER SUPPLY REQUIREMENTS |                |                |                |
|--------------------|------|-----------|---------------------------|----------------|----------------|----------------|
| ELEMENT            |      | VOLTAGE   | CURRENT                   | VOLTAGE<br>MIN | VOLTAGE<br>MAX | CURRENT<br>MAX |
| HEATER             |      | -6.3 Vdc  | 2.1 A                     | -6 Vdc         | -6.5 Vdc       | 2.5 A          |
| HELIX W/RF W/O RF  |      | GROUND    | 35 mA                     | GROUND         |                | 50 mA          |
|                    |      | 01(00110  | 5 mA                      |                |                |                |
| GRID ON            |      | 165 Vdc   | 0.2 mA                    | 100 Vdc        | 250 Vdc        | 5 mA           |
| GRID OFF           |      | -200 Vdc  | 0.05 mA                   | -200 Vdc       | -500 Vdc       | 0.5 mA         |
| CATHODE (Ek)       |      | -6.15 kV  | 500 mA                    | -5.8 kV        | -6.5 kV        | 550 mA         |
| COLLECTOR<br>W/ RF | #1   | 4.31 kV   | 300 mA                    | 70% X          | Ek ±2%         | 450 mA         |
|                    | #2   | 2.89 kV   | 165 mA                    | 47% X          | Ek ±2%         | 550 mA         |

NOTE 1: CATHODE VOLTAGE IS MEASURED WITH RESPECT TO GROUND.

NOTE 2: HEATER, COLLECTOR AND GRID VOLTAGES ARE MEASURED WITH RESPECT TO CATHODE.

| SELECTED PERFORMANCE    | TYPICAL      | SPECIFIED   |
|-------------------------|--------------|-------------|
| INPUT VSWR              | 2:1          | 2.5:1       |
| OUTPUT VSWR             | 1.75:1       | 2.5:1       |
| MAXIMUM DUTY            |              | CW          |
| GRID CAPACITANCE        | 32 pF        | 50 pF       |
| MIN HARMONIC SEPARATION | -5 dBc       | -3 dBc *    |
| NOISE POWER DENSITY     | -40 dBm/MHz  | -25 dBm/MHz |
| PRIME POWER             | 1995 W       | 2500 W      |
| TEMPERATURE RANGE       | -40° to 85°C |             |

| RF PERFORMANCE |                              |   |                                       |  |  |  |  |
|----------------|------------------------------|---|---------------------------------------|--|--|--|--|
| FREQ<br>GHz    | TYP SAT POWER OUTPUT (WATTS) | MIN<br>SPEC<br>POWER<br>OUTPUT<br>(WATTS) | TYP<br>GAIN AT<br>SPEC<br>POWER<br>dB |  |  |  |  |
| 2.5            | 600                          | 535 *                                     | 32                                    |  |  |  |  |
| 3.0            | 775                          | 535                                       | 38                                    |  |  |  |  |
| 3.5            | 825                          | 535                                       | 40                                    |  |  |  |  |
| 4.0            | 775                          | 535                                       | 42                                    |  |  |  |  |
| 4.5            | 750                          | 535                                       | 43                                    |  |  |  |  |
| 5.0            | 750                          | 535                                       | 43                                    |  |  |  |  |
| 5.5            | 700                          | 535                                       | 42                                    |  |  |  |  |
| 6.0            | 675                          | 535                                       | 40                                    |  |  |  |  |
| 6.5            | 675                          | 535                                       | 38                                    |  |  |  |  |
| 7.0            | 635                          | 535                                       | 34                                    |  |  |  |  |
| 7.5            | 550                          | 535                                       | 31                                    |  |  |  |  |

TYPICAL POWER OUTPUT IS SHOWN TO ILLUSTRATE CAPABILITY.

GAIN IS W/O EQUALIZER.

An ISO 9001:2000 Quality System Certified Company

01/06