

# DIELECTRIC RESONATOR OSCILLATOR

**MDR2100-13500**

**13500 - 14500 MHz**

## Features

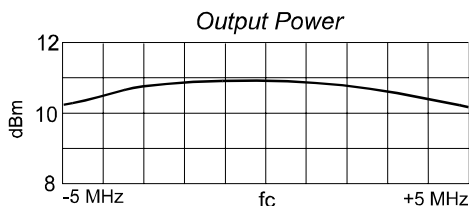
- Rugged Construction for Extreme Environmental Conditions
- High Frequency Stability
- Free Running, Mechanically Tuned

## Specifications<sup>1</sup>

CHARACTERISTIC	TYPICAL Ta = +25 °C	MIN/MAX Ta = -20°C to +65 °C
Frequency	13500 - 14500 MHz	13500 - 14500 MHz
Mechanical Tuning Bandwidth (MHz)	—	±20 Min.
Frequency Stability <sup>2</sup> (ppm)/ °C	4	5 Max.
Pulling, 12 dB RL (ppm)	—	±100 Max.
Pushing (ppm/Volt)	—	20 Max.
Harmonics (dBc)	-20	-15 Max.
Spurious (dBc)	-75	-70 Max.
Output Power (dBm) <sup>3</sup>	+11	+10 Min.
Power	Vdc <sup>4</sup> mA	+15 120
		+15 125 Max.

NOTES: Care should always be taken to effectively ground the case of each unit.

1. Specifications labeled "min." or "max." are guaranteed in a 50 Ohm system over the specified temperature range.
2. Averaged over the full temperature range.
3. Higher output power is available.
4. Alternate input voltage is available.
5. Package must be verified by Spectrum Microwave.



## Absolute Maximum Ratings

Ambient Operating Temperature ..... -55°C to +100 °C  
 Storage Temperature ..... -62°C to +125 °C  
 Case Temperature ..... +125 °C  
 DC Voltage ..... +24 Volts

## Typical Performance Data

Phase Noise	Typical 13500 MHz	Typical 14500 MHz
Offset		
10 kHz	-93	-92
100 kHz	-118	-117
1 MHz	-138	-137

Phase Noise (dBc/Hz)  
13500 MHz

