

# DIELECTRIC RESONATOR OSCILLATOR

**MDR2100-03500**

**3500 - 4500 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	3500 - 4500 MHz	3500 - 4500 MHz
Mechanical Tuning Bandwidth (MHz)	—	±10 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 3500 MHz	Typical 4500 MHz
Offset		
10 kHz	-104	-103
100 kHz	-129	-128
1 MHz	-149	-148

Phase Noise (dBc/Hz)  
3500 MHz

