DIELECTRIC RESONATOR OSCILLATOR

MDR2100-07500

7500 - 8500 MHz

Features

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

Specifications[1]

CHARACTERISTIC	TYPICAL Ta = +25 ºC	MIN/MAX Ta = -20ºC to +65 ºC
Frequency	7500 - 8500 MHz	7500 - 8500 MHz
Mechanical Tuning Bandwidth (MHz)	—	±20 Min.
Frequency Stability[2] (ppm)/ ºC	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)[3]	+11	+10 Min.
Power Vdc[4]	+15	+15
mA	120	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.

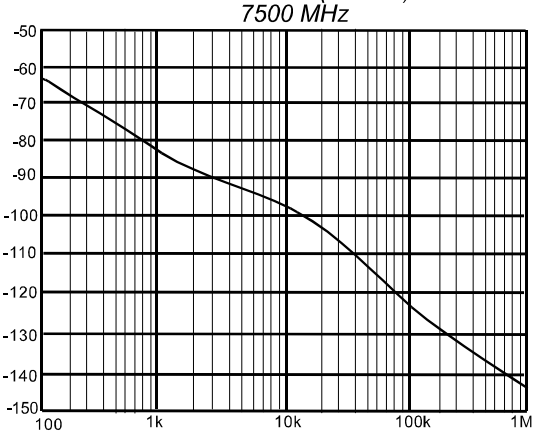
Absolute Maximum Ratings

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

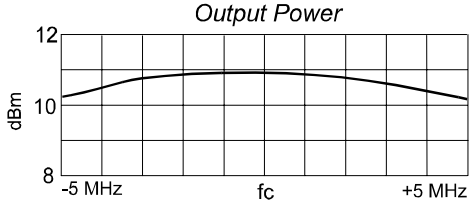
Typical Performance Data

Phase Noise Offset	Typical 7500 MHz	Typical 8500 MHz
10 kHz	-98	-97
100 kHz	-123	-122
1 MHz	-143	-142

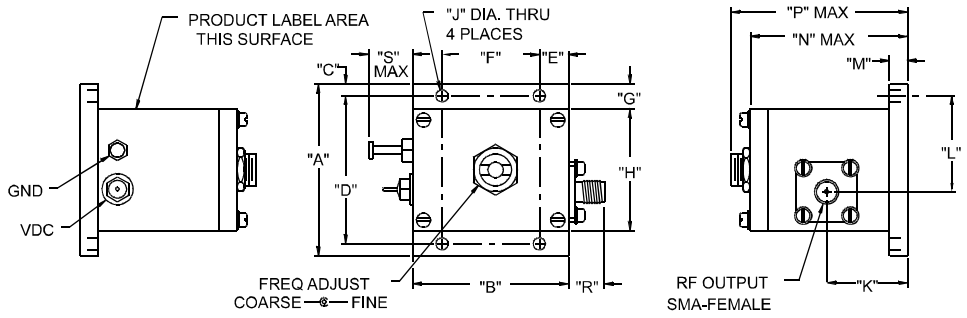
Phase Noise (dBc/Hz)
7500 MHz



Output Power



Mechanical Outline



	"A"	"B"	"C"	"D"	"E"	"F"	"G"	"H"	"J"	"K"	"L"	"M"	"N"	"P"	"R"	"S"
INCHES	1.65	1.46	.15	1.350	.36	.726	.32	1.00	.140	.76	.92	.16	1.55	1.70	.38	.40
MM	41.9	37.1	3.8	34.29	9.1	18.44	8.1	25.4	3.6	19.3	23.4	4.0	39.4	43.2	9.7	10.2

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Rev. 10/23/08