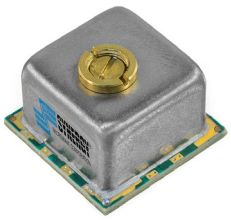
DIELECTRIC RESONATOR OSCILLATOR
SURFACE MOUNT MODEL: GSDRO1200-8XT

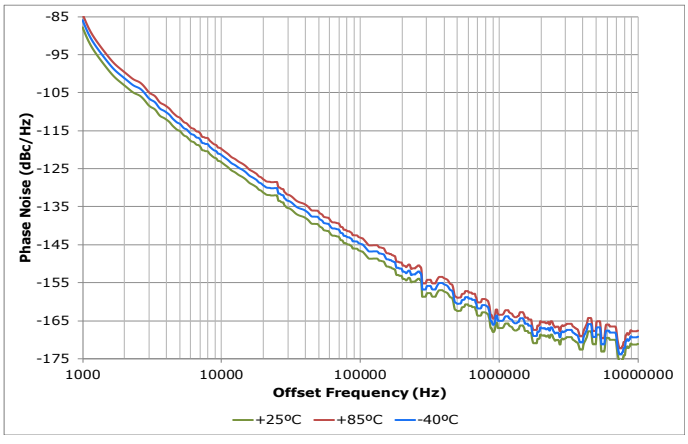
FREQUENCY 12 GHz

FEATURES:

- Gold Standard Series
- Extended Operating Temperature Range
- Exceptional Phase Noise Performance
- Small Size Surface Mount
- Lead Free RoHS Compliant



Phase Noise



SPECIFICATIONS (Rev. B 10/01/25)

Frequency	12 GHz
Tuning Voltage	1 - 15 VDC
Bias Voltage	+8 VDC @ 25 mA (Max.)
Output Power	-2 dBm (Min.)
Tuning Sensitivity	0.4 MHz/V (Typ.)
Thermal Drift	1.28 ppm / °C (Typ.)
Output Impedance	50 Ohms (Nom.)
Harmonic Suppression	26 dBc (Typ.)
Frequency Pulling	190 kHz (Typ. @ 1.75:1 VSWR)
Frequency Pushing	120 kHz/V (Typ.)
Tuning Port Capacitance	15 pF (Typ.)
Phase Noise @ 25°C	Offset: dBc/Hz (Typ.) 10 kHz: -123 100 kHz: -146 1 MHz: -164 10 MHz: -168
Operating Temperature Range	-40 to +85 °C

Absolute Maximum Ratings

Storage Temp. Range	-45 to +90 ºC
Bias Voltage	+8.5 V
Tuning Voltage	+17 V
DC Voltage Applied to RF Out	±25 V

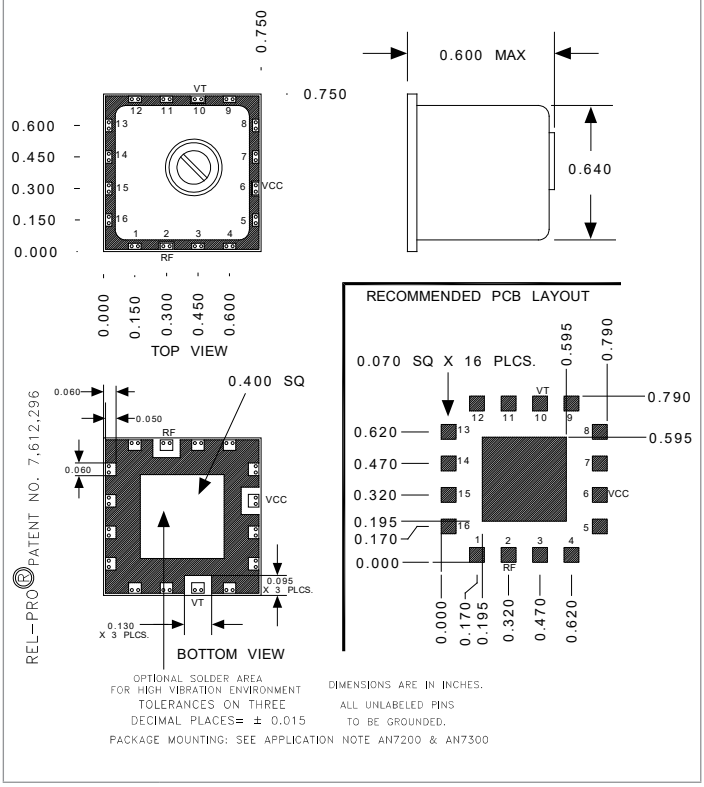
Notes:

1. Tuning of the mechanical screw can cause significant shifts in frequency and cause irreversible damage to the product. Warranty is void if tuning screw exceeds ±0.5 turn max.

2. Test data measured with bias voltage at +8V.

3. Specifications guaranteed at 12 GHz.

Package #	396-7



Copyright © Synergy Microwave Corporation

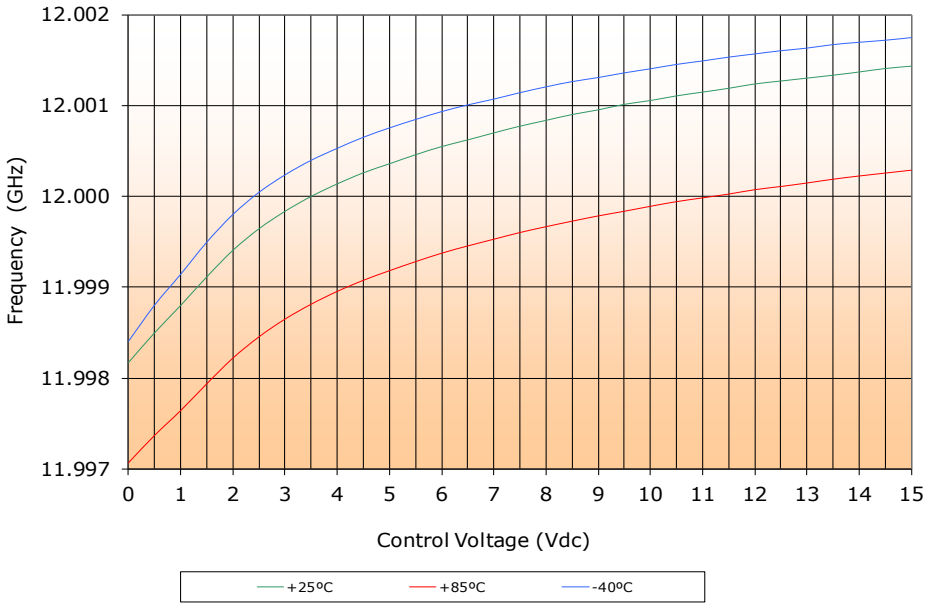
201 McLean Boulevard • Paterson, New Jersey 07504 USA
Tel: (973) 881-8800 • Fax: (973) 881-8361
E-Mail: sales@synergymwave.com • Website: http://www.synergymwave.com
Patents : http://www.synergymwave.com/patents

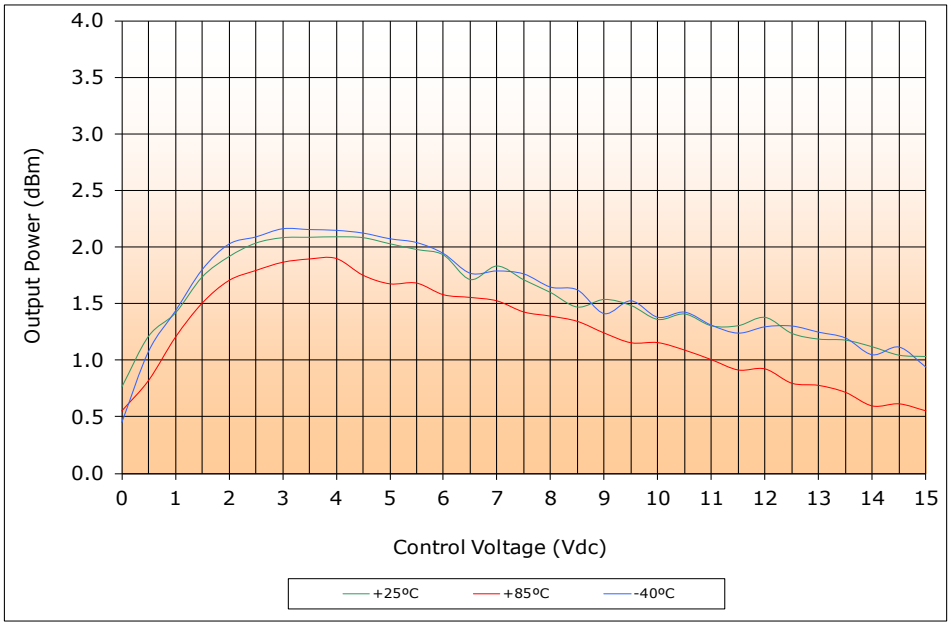
SYNERGY® MICROWAVE CORPORATION

DIELECTRIC RESONATOR OSCILLATOR
SURFACE MOUNT MODEL: GSDRO1200-8XT

FREQUENCY 12 GHz

PERFORMANCE PLOTS





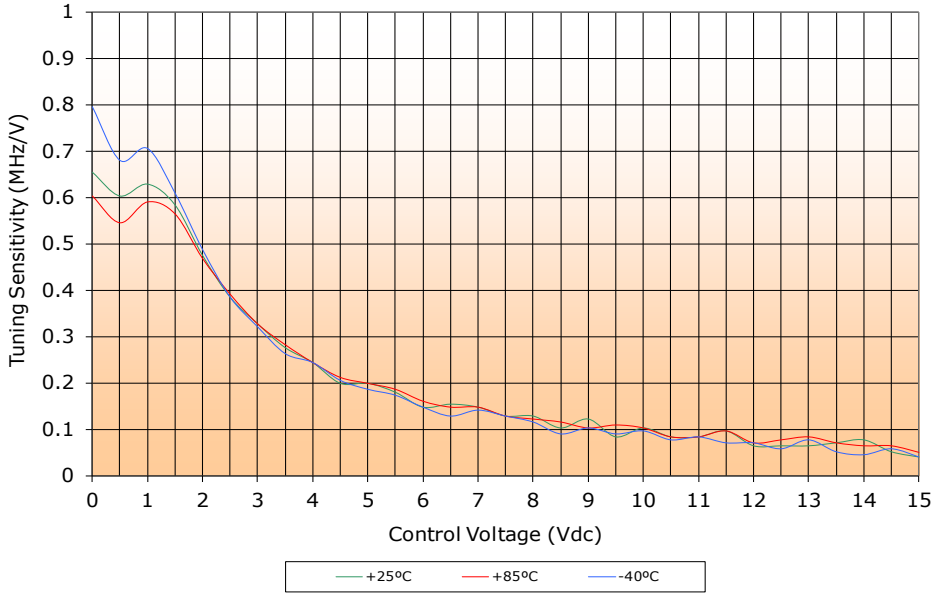
Copyright © Synergy Microwave Corporation
201 McLean Boulevard • Paterson, New Jersey 07504 USA
Tel: (973) 881-8800 • Fax: (973) 881-8361
E-Mail: sales@synergymwave.com • Website: http://www.synergymwave.com
Patents : http://www.synergymwave.com/patents

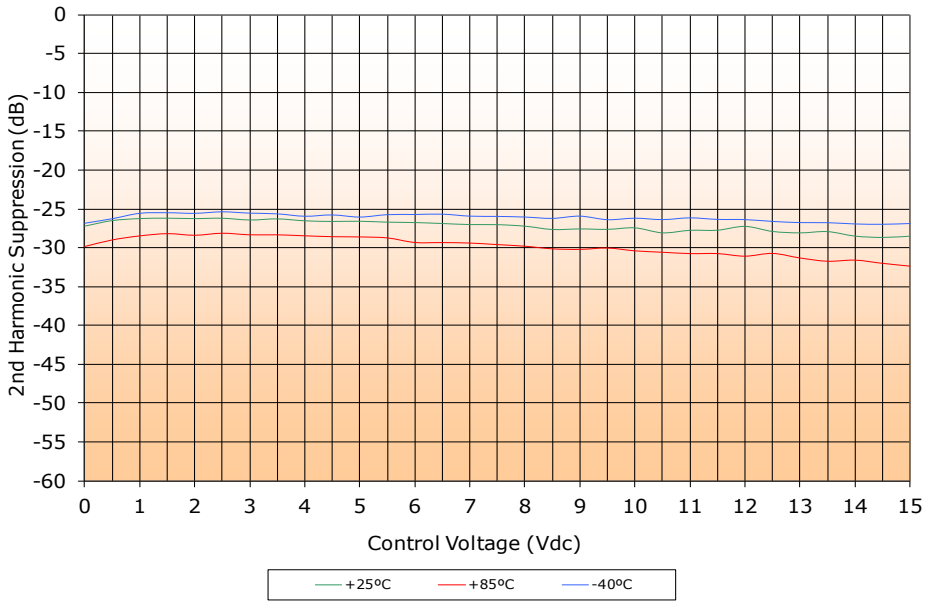
SYNERGY® MICROWAVE CORPORATION

DIELECTRIC RESONATOR OSCILLATOR
SURFACE MOUNT MODEL: GSDRO1200-8XT

FREQUENCY 12 GHz

PERFORMANCE PLOTS



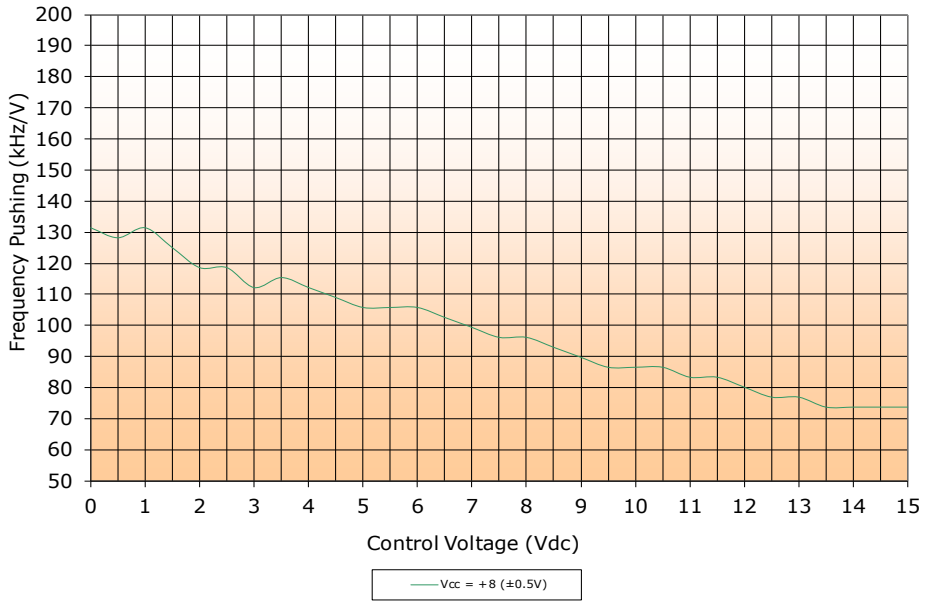


Copyright © Synergy Microwave Corporation
201 McLean Boulevard • Paterson, New Jersey 07504 USA
Tel: (973) 881-8800 • Fax: (973) 881-8361
E-Mail: sales@synergymwave.com • Website: http://www.synergymwave.com
Patents : http://www.synergymwave.com/patents

SYNERGY® MICROWAVE CORPORATION

DIELECTRIC RESONATOR OSCILLATOR
SURFACE MOUNT MODEL: GSDRO1200-8XT

FREQUENCY 12 GHz



PERFORMANCE PLOTS

Copyright © Synergy Microwave Corporation
201 McLean Boulevard • Paterson, New Jersey 07504 USA
Tel: (973) 881-8800 • Fax: (973) 881-8361
E-Mail: sales@synergymwave.com • Website: http://www.synergymwave.com
Patents : http://www.synergymwave.com/patents

SYNERGY® MICROWAVE CORPORATION