

# Ingenieurbüro Gronefeld

Low-Noise Signal Sources

Data Sheet

4.0 - 8.3GHz VCO  
GVO4083

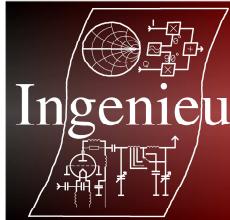


### Description:

The broadband VCO GVO4083 tunes over the frequency range of 4,0GHz to 8,3GHz and features low phase noise and low power consumption, despite the over-octave wide tuning range. A built-in buffer amplifier minimizes load pulling and an integrated voltage regulator markedly reduces pushing and filtering complexity for low spurious content from a single +5V source.

For applications that require fast on/off switching of the VCO, a version without the internal voltage regulator can be supplied (GVO4083U), allowing switching times of under 5µSec.

The VCO comes as an SMD-Module with 18mm x 21mm x 4mm.



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## Technical Data:

|     |   |                         |
|-----|---|-------------------------|
| 1.1 | Frequency Range                         | 4,0 – 8,3 GHz           |
| 1.2 | Output Power                            | + 5 dBm                 |
| 1.3 | Output Power Variation over Frequency   | ± 2dB                   |
| 1.4 | Output Power Variation over Temperature | ± 2dB                   |
| 1.5 | Harmonic Distortion                     | > 10dB (typ. >15dB)     |
| 1.6 | Phase Noise (typ. @ 100kHz)             | - 95 dBc/Hz             |
| 1.7 | Pulling (12dB return loss)              | < 10MHz                 |
| 1.8 | Temperature Drift                       | < 1MHz/°C               |
| 2.1 | Tuning voltage                          | 0V .. 15 V              |
| 2.2 | Tuning Slope                            | ca. 100..650MHz/V       |
| 2.3 | Tuning Port Capacitance *               | < 4pF                   |
| 3.1 | Supply Voltage                          | +5V (4,7V .. 6,0V)      |
| 3.2 | Supply Current                          | ca. 40mA                |
| 4.1 | Temperature Range                       | -40°C .. +85°C          |
| 4.2 | Dimensions                              | 18,0mm x 21,0mm x 4,0mm |

\* The modulation bandwidth is determined by the lowpass, formed by the tuning port capacitance and the source impedance of the driving source.