

# Wide Band VCO

# 13.5 to 20.0 GHz

## Electrical specification

| Type number                     | VO4280P/00 |            |                  |
|---------------------------------|------------|------------|------------------|
| Package                         | SMA house  |            |                  |
| Parameter                       | Min.       | Max.       | Unit             |
| Frequency range*                | 13.5       | 20.0       | GHz              |
| Output power, over all*         | 14         | 19         | dBm              |
| Power vs. frequency*            |            | 4          | dB               |
| Power vs. temperature*          |            | 2          | dB               |
| Temperature drift *             |            | 3          | MHz/°C           |
| 2:nd harmonic                   |            | - 25       | dBc              |
| Spurious                        |            | - 60       | dBc              |
| FM noise* (SSB) 100 kHz<br>1MHz |            | -65<br>-95 | dBc/Hz<br>dBc/Hz |
| Tuning voltage*                 | 0          | +20        | V                |
| Tuning sensitivity*             | 100        | 600        | MHz/V            |
| Non-linearity                   |            | ±10        | %                |
| Pulling, VSWR 1.5:1             |            | ±2         | MHz              |
| Pushing 11.5-12.5 V             |            | 1          | MHz/V            |
| Slew rate                       | 20         |            | GHz/μs           |
| Modulation bandwidth            | 10         |            | MHz              |
| PTD 1μs to 1s after freq. jump  |            | ±25        | MHz              |

$T_a = 25^\circ\text{C}$ , unless otherwise stated.



### Dimensions

44.0×31.0×10.0mm

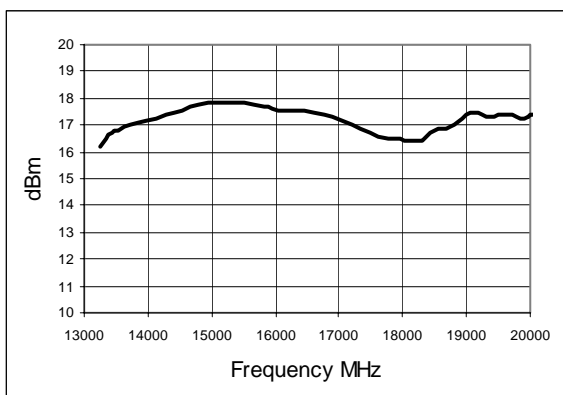
Note:

\*100% tested and guaranteed values. Other data are indicative

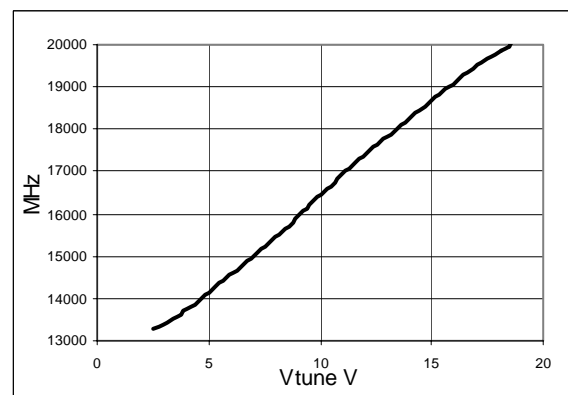
## Interface/environmental specification

| Parameter                     | Min. | Max. | Unit |
|-------------------------------|------|------|------|
| Bias voltage                  | 11   | 16   | V    |
| Bias current                  |      | 200  | mA   |
| Tuning voltage (damage level) |      | 21   | V    |
| Operating temperature         | 0    | +60  | °C   |
| Storage temperature           | -50  | +100 | °C   |

## Typical Pout vs. frequency



## Typical frequency vs. Vtune

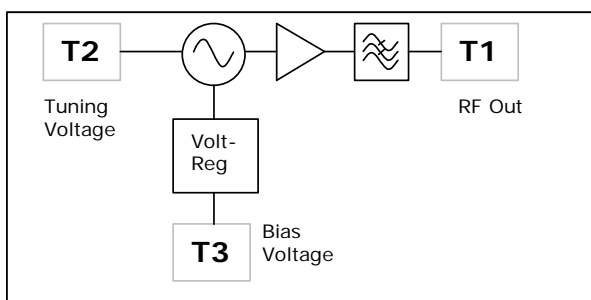


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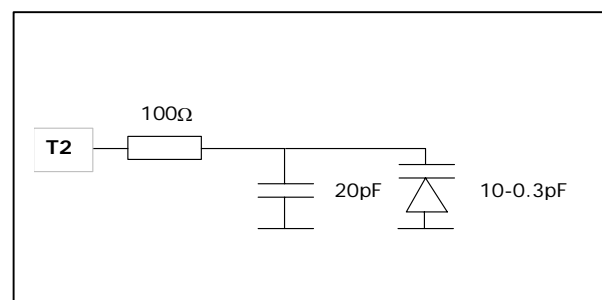
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## Simplified block diagram



## Tuning input interface



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