

MMIC Broadband VCO

OEV2040

OEV2040 is a GaAs InGaP HBT MMIC broadband VCO chip, operating frequency of 2.0~4.0GHz. The oscillator integrates a negative resistance oscillator circuit, resonant circuit and varactor diode, while providing 1/2 harmonic frequency output. At + 5V operating voltage, OEV2040 output power of 10dBm, the phase noise as low as -112dBc / Hz @ 100kHz, suitable for point-to-point communications, VSAT and other communications systems.

The chip uses on-chip through-hole metallization process to ensure a good grounding, do not need additional grounding measures, easy to use. The back of the chip was metallized, suitable for eutectic sintering or conductive adhesive bonding process.

Limit parameters

Maximum operating voltage	5.5V
The maximum tuning voltage range	0V-24V
The maximum junction temperature	175 °C
Maximum storage temperature range	-65~+150 °C
Maximum operating temperature range	-55~+100 °C
Reflow soldering maximum temperature	245 °C

Electrical Specifications

Frequency Range(GHz)	2.0~4.0
Tuning voltage(V)	1.3-18
Output Power(dBm)	10
Phase Noise (dBc/Hz)	-87 ~ -86 fm=10KHz -112 ~ -109 fm=100KHz
Harmonic suppression (dBc)	-13
Clutter suppression (dBc)	-75
Input resistance (MΩ)	10
Output impedance(Ω)	50
Frequency temperature drift (MHz/°C)	0.24-0.43
DC voltage (V)	4.75-525
DC current (mA)	55
Antistatic ability (V)	500
Range of working temperature (°C)	-55 ~ +85
Storage temperature range (°C)	-55 ~ +125

