



High Frequency Oscillator

GRO1

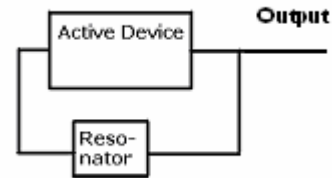
Description

The **GRO1** is high performance 14-16 GHz oscillator with off-chip resonator and it is designed on 2 um InGaP HBT Technology.

It requires the High Q external resonator. The VCO is taking only 3.5 mA current and the layout is very small.

The simulation is done using Series Resonator with Q = 200.

Functional Diagram



Applications.

- Digital Radio
- SATCOM
- VSAT
- Multipoint Radios
- LMDS (Local Multipoint Distribution Services)

Key Features

- 15 GHz Narrow band oscillator
- Low Phase Noise
- Operating Temperature 0 to 85 °C Range
- Pout is -1 dBm

Electrical Specification

Conditions: Vcc = 4.2 V & TA=25 °C

Parameter	Min	Typical	Max	Units
Frequency Range			15	GHz
Power Output		-1		dBm
Phase Noise @ 15 GHz				
Offset @ 10kHz		-95		dBc
@ 100kHz		-115		dBc
@ 1 MHz		-135		dBc
Input Reflection Coefficient @ 15 GHz		11		dB
Operating Current		3.5		mA
Supply voltage		4.2		V



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Simulated Results

