VOLTAGE CONTROLLED OSCILLATOR
SURFACE MOUNT MODEL: DCSR1280-8

1280 MHz

FEATURES:
- Optimized Tuning Frequency Band
- Exceptional Phase Noise Performance
- Small Size, Surface Mount
- Lead Free Patented REL-PRO® Technology
- Planar Resonator Construction

SPECIFICATIONS (Rev. C 09/14/09)

Frequency
1280 MHz

Tuning Voltage
0.5 - 8 VDC

Bias Voltage
+8 VDC @ 32 mA (Max.)

Output Power
+6 dBm (Min.)

Tuning Sensitivity
1 - 1.5 MHz/V (Typ.)

Output Impedance
50 Ohms (Nom.)

Harmonic Suppression
23 dB (Typ.)

Frequency Pulling
2 MHz (Typ. @ 1.75:1 VSWR)

Frequency Pushing
1 MHz/V (Typ.)

Tuning Port Capacitance
42 pF (Typ.)

Phase Noise @ 10 kHz
-120 dBc/Hz (Typ.)

Operating Temperature Range
-40 to +85 °C

Absolute Maximum Ratings

Storage Temp. Range
-55 to +125 °C

Bias Voltage
+6.5 V

Tuning Voltage
+15 V

DC Voltage Applied to RF Out
± 25 V

Package #
278LF

RECOMMENDED PCB LAYOUT

Dimensions are in inches.
All unlabeled pins to be grounded.
Package mounting: SEE APPLICATION NOTE AN7200 & AN7300

Phase Noise

Offset Frequency (Hz)
100 1000 10000 100000 1000000 10000000

Phase Noise (dBc/Hz)
-120 -110 -100 -90 -80 -70 -60 -50 -40 -30 -20 -10 0 10 20 30 40 50 60 70 80 90 100 110 120

1278.4MHz 1280MHz 1281.5MHz
VOLTAGE CONTROLLED OSCILLATOR
SURFACE MOUNT MODEL: DCSR1280-8

OPTIMIZED BANDWIDTH

1280 MHz

PERFORMANCE PLOTS

- Control Voltage (Vdc)
- Frequency (MHz)
- Output Power (dBm)

Temperature Conditions:
- +25°C
- +85°C
- -40°C
VOLTAGE CONTROLLED OSCILLATOR
SURFACE MOUNT MODEL: DCSR1280-8
OPTIMIZED BANDWIDTH

1280 MHz

PERFORMANCE PLOTS

Tuning Sensitivity (MHz/V)

Control Voltage (Vdc)

+25°C  +85°C  -40°C

2nd Harmonic Suppression (dB)

Control Voltage (Vdc)

+25°C  +85°C  -40°C

This product is manufactured under one or more of the following patents. Approved: 5,160,810; 5,416,449; 5,390,349; 5,650,754; 5,805,431; 5,203,625; 6,850,575; 7,088,189; 7,180,381; 7,196,591; 7,262,670; 7,265,642; 7,292,113; 7,365,612; 7,495,525; 7,545,229; 7,580,693; 7,612,296; 7,636,021; 2,548,311; 2,548,317; 7,495,529; 7,545,221; 7,580,693; 7,612,296; 7,636,021; 2,548,311; 2,548,317; 7,495,529; 7,545,221; 7,580,693; 7,612,296; 7,636,021