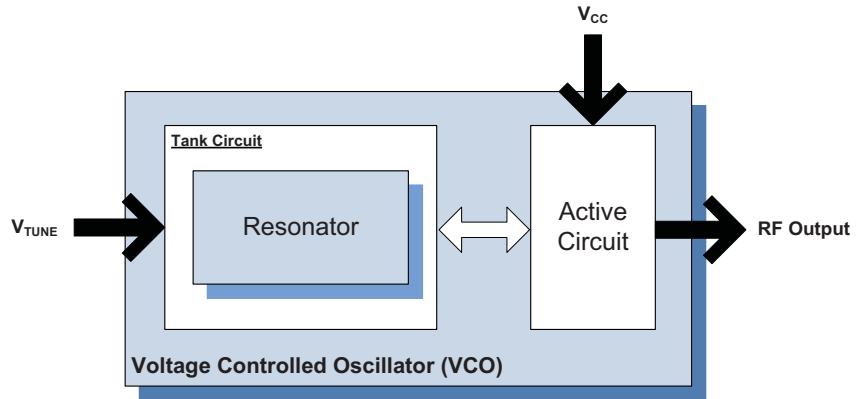




Features

- Ultra-Linear Tuning/Low Phase Noise
- Frequency: 2950MHz to 3020MHz
- Resonator: Microstrip
- PCB: Rogers
- Package Size: 12.7mm x 12.7mm x 3.43mm (0.5in x 0.5in x 0.135in)



Functional Block Diagram

Applications

- Frequency Synthesizers
- Up & Down Converters
- Instrumentation
- Wideband Frequency Applications

Product Description

This series of VCO modules offers ultra-linear tuning across their specified frequency band.

Ordering Information

UMZ-290-A16-G Contact us at 1-480-756-6070

Optimum Technology Matching® Applied

- | | | | |
|--------------------------------------|--------------------------------------|--|------------------------------------|
| <input type="checkbox"/> GaAs HBT | <input type="checkbox"/> SiGe BiCMOS | <input type="checkbox"/> GaAs pHEMT | <input type="checkbox"/> GaN HEMT |
| <input type="checkbox"/> GaAs MESFET | <input type="checkbox"/> Si BiCMOS | <input type="checkbox"/> Si CMOS | <input type="checkbox"/> BiFET HBT |
| <input type="checkbox"/> InGaP HBT | <input type="checkbox"/> SiGe HBT | <input checked="" type="checkbox"/> Si BJT | <input type="checkbox"/> LDMOS |

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Absolute Maximum Ratings

| Parameter | Rating | Unit |
|----------------------------------|-------------|------|
| Operating Ambient Temperature[1] | -40 to +85 | °C |
| Storage Temperature | -55 to +125 | °C |

[1] Frequency drift: 10MHz typical, 14MHz maximum (either extreme)



Caution! ESD sensitive device.

Exceeding any one or a combination of the Absolute Maximum Rating conditions may cause permanent damage to the device. Extended application of Absolute Maximum Rating conditions to the device may reduce device reliability. Specified typical performance or functional operation of the device under Absolute Maximum Rating conditions is not implied.

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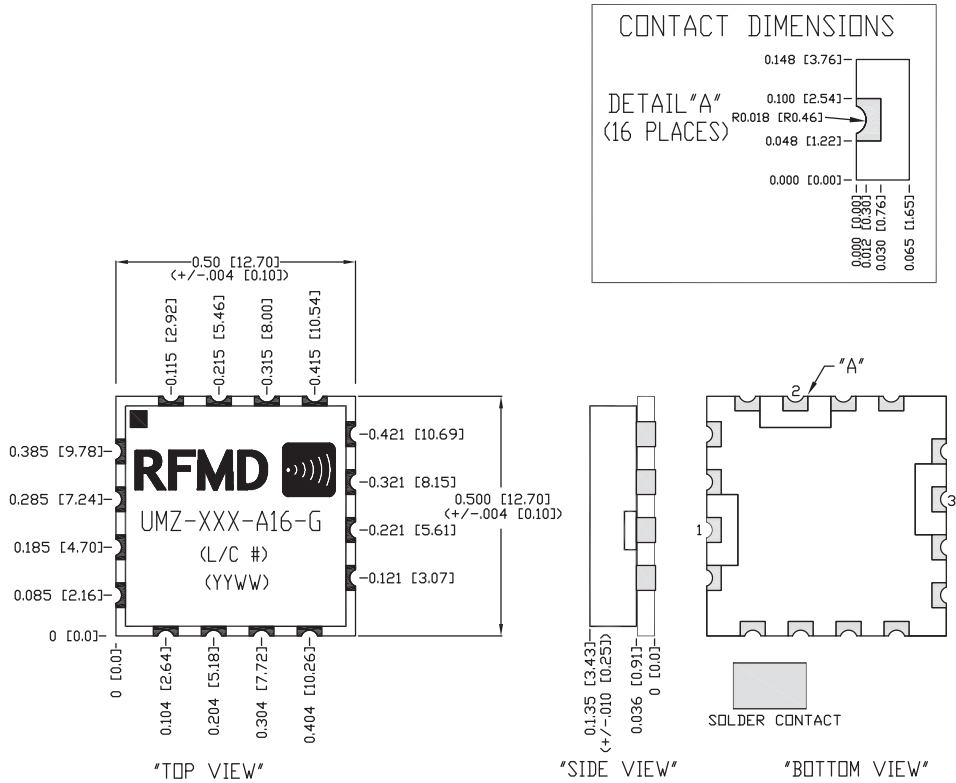


RoHS (Restriction of Hazardous Substances): Compliant per EU Directive 2002/95/EC.

| Parameter | Specification | | | Unit | Condition |
|-------------------------|---------------|------|------|-----------------|-----------------------------------|
| | Min. | Typ. | Max. | | |
| Overall | | | | | |
| Frequency Range | 2950 | | 3020 | MHz | |
| Tuning Voltage | 0.5 | | 4.5 | V _{DC} | |
| Tuning Sensitivity | | 33 | | MHz/V | |
| Output Power | 1 | 3 | 5 | dBm | |
| | 0 | | | dBm | At V _T = 0 |
| Output Phase Noise | | -80 | -75 | dBc/Hz | 1 kHz |
| | | -105 | -100 | dBc/Hz | 10 kHz |
| | | -125 | -120 | dBc/Hz | 100 kHz |
| | | -145 | -140 | dBc/Hz | 1000 kHz |
| | | -160 | -150 | dBc/Hz | 10000 kHz |
| Second Harmonic | | -20 | -15 | dBc | |
| Frequency Pulling | | 3 | 5 | MHz p-p | At 12dB _r , all phases |
| Tuning Port Capacitance | | 18 | | pF | |
| Modulation Bandwidth | | 1000 | | kHz | 3dB BW |
| Frequency Pushing | | 2 | 5 | MHz/V | |
| Power Supply | | | | | |
| Operating Voltage | | 5 | | V | |
| Supply Current | | 27 | | mA | |

Package Drawing & Pin Outs

12.7mm x 12.7mm x 3.43mm (0.5in x 0.5in x 0.135in)



| CONTACT ASSIGNMENTS: | |
|-------------------------------|----------------------|
| 1: | RF OUT |
| 2: | SUPPLY INPUT |
| 3: | TUNING VOLTAGE INPUT |
| ALL OTHER CONTACTS ARE GROUND | |