

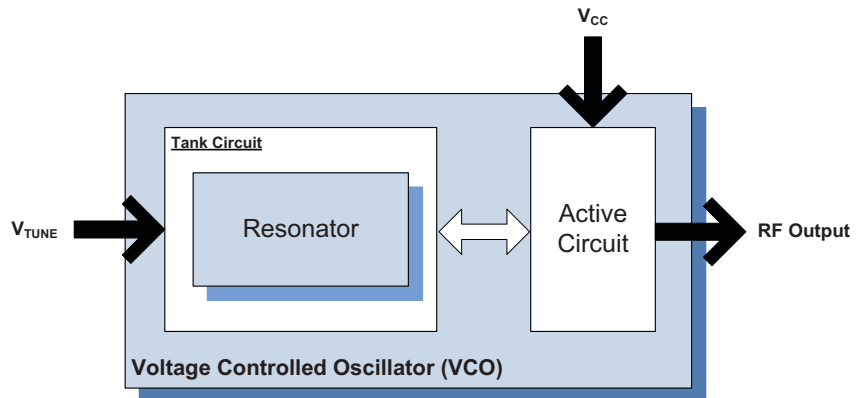


### Features

- Ultra-Linear Tuning/Low Phase Noise
- Frequency: 100MHz
- Resonator: Microstrip
- PCB: Rogers
- Package Size: 12.7mm x 12.7mm x 4.57mm (0.5in x 0.5in x 0.18in)

### Applications

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



Functional Block Diagram

### Product Description

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

### Ordering Information

UMZ-1155-R16-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     |

## Absolute Maximum Ratings

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

[1] Frequency drift: 0.3MHz typical, 0.6MHz 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		100		MHz	
Tuning Voltage	0.5		4.5	V <sub>DC</sub>	
Tuning Sensitivity		1		MHz/V	
Output Power	7	9	11	dBm	
	7			dBm	At V <sub>T</sub> =0
Output Phase Noise		-110	-105	dBc/ Hz	1 kHz
		-135	-130	dBc/ Hz	10 kHz
		-155	-150	dBc/ Hz	100 kHz
		-164	-155	dBc/ Hz	1000 kHz
Second Harmonic		-25	-15	dBc	
Frequency Pulling		0.1	0.2	MHz p-p	At 12dBr, all phases
Tuning Port Capacitance		330		pF	
Modulation Bandwidth		100		kHz	3dB BW
Frequency Pushing		0.1	0.2	MHz/V	
Power Supply					
Operating Voltage		5		V	
Supply Current		15	20	mA	

## Package Drawing & Pin Outs

12.7mm x 12.7mm x 4.57mm (0.5in x 0.5in x 0.18in)

