

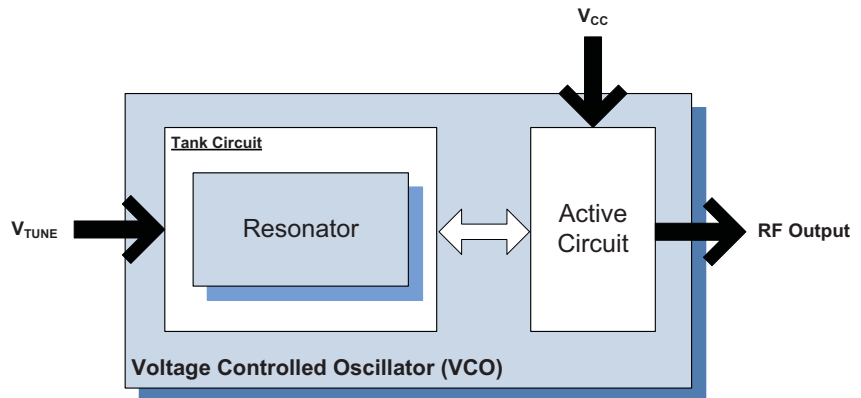


### Features

- Ultra-Linear Tuning/Low Phase Noise
- Frequency: 1218MHz to 1262MHz
- Resonator: Microstrip
- PCB: Rogers
- Package Size: 12.7mm x 12.7mm x 3.43mm (0.5in x 0.5in x 0.135in)

### 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-104-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     |

## Absolute Maximum Ratings

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

[1] Frequency drift: 2MHz typical, 4MHz 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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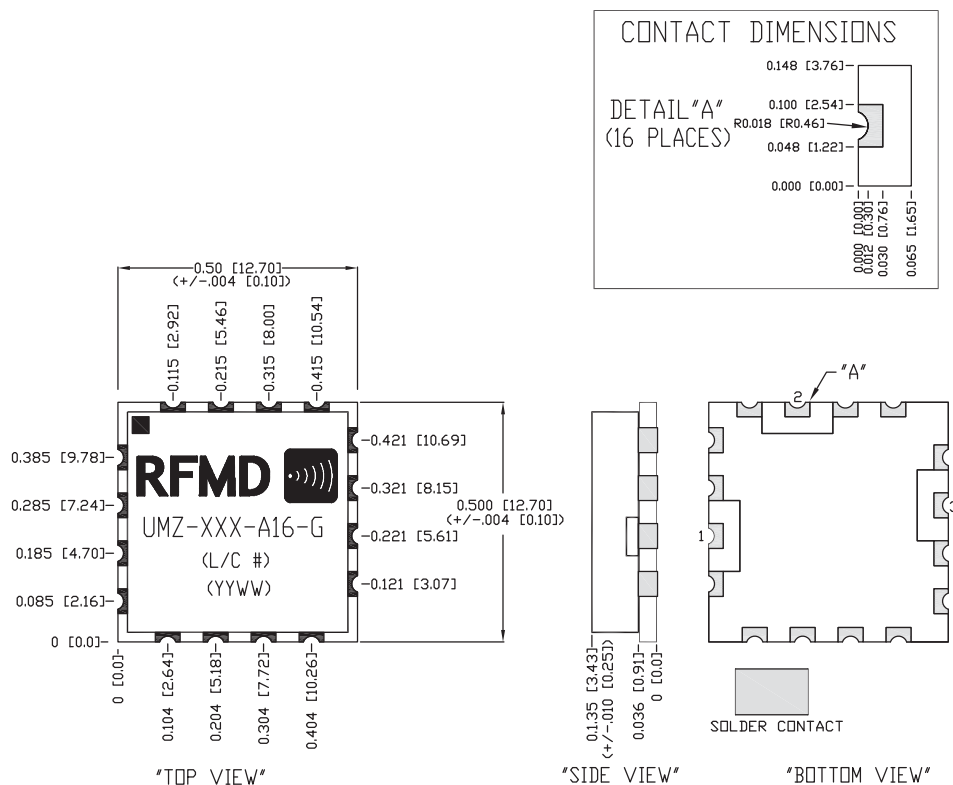


RoHS (Restriction of Hazardous Substances): Compliant per EU Directive 2002/95/EC.

Parameter	Specification			Unit	Condition
	Min.	Typ.	Max.		
Overall					
Frequency Range	1218		1262	MHz	
Tuning Voltage	0.5		4.5	V <sub>DC</sub>	
Tuning Sensitivity		16		MHz/V	
Output Power	6	8	10	dBm	
	5			dBm	At V <sub>T</sub> =0
Output Phase Noise		-87	-82	dBc/Hz	1 kHz
		-112	-107	dBc/Hz	10 kHz
		-132	-127	dBc/Hz	100 kHz
		-152	-147	dBc/Hz	1000 kHz
		-164	-155	dBc/Hz	10000 kHz
Second Harmonic		-15	-10	dBc	
Frequency Pulling		2	5	MHz p-p	At 12dBr, all phases
Tuning Port Capacitance		47		pF	
Modulation Bandwidth		1000		kHz	3 dB BW
Frequency Pushing		0.3	1	MHz/V	
Power Supply					
Operating Voltage		5		V	
Supply Current		19		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	