

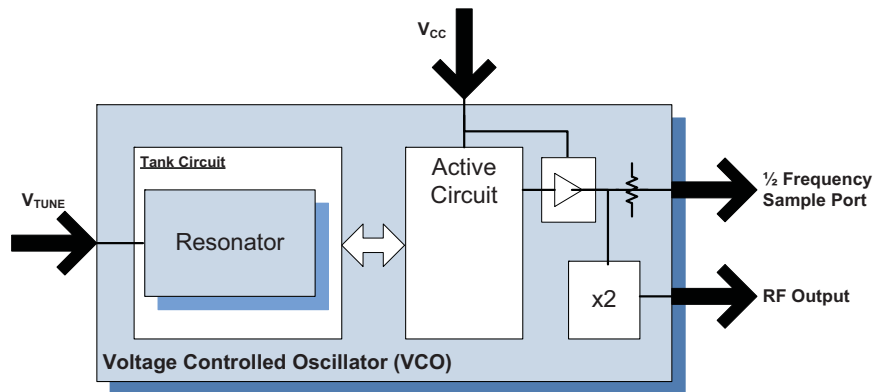


**Features**

- Internal Frequency Doubler and Buffer AMP
- 1/2 Frequency Output Provided
- Frequency: 6600MHz to 8100MHz
- Resonator: Microstrip
- PCB: Rogers
- Package Size: 12.7mm x 12.7 mm x 5.6mm (0.5in x 0.5in x 0.22in)

**Applications**

- DRO Replacements
- Higher Frequency Applications
- Wide Bandwidth Applications
- Test Instrumentation



Functional Block Diagram

**Product Description**

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

**Ordering Information**

UMZ-T2-447-016-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: 30MHz typical and 45MHz 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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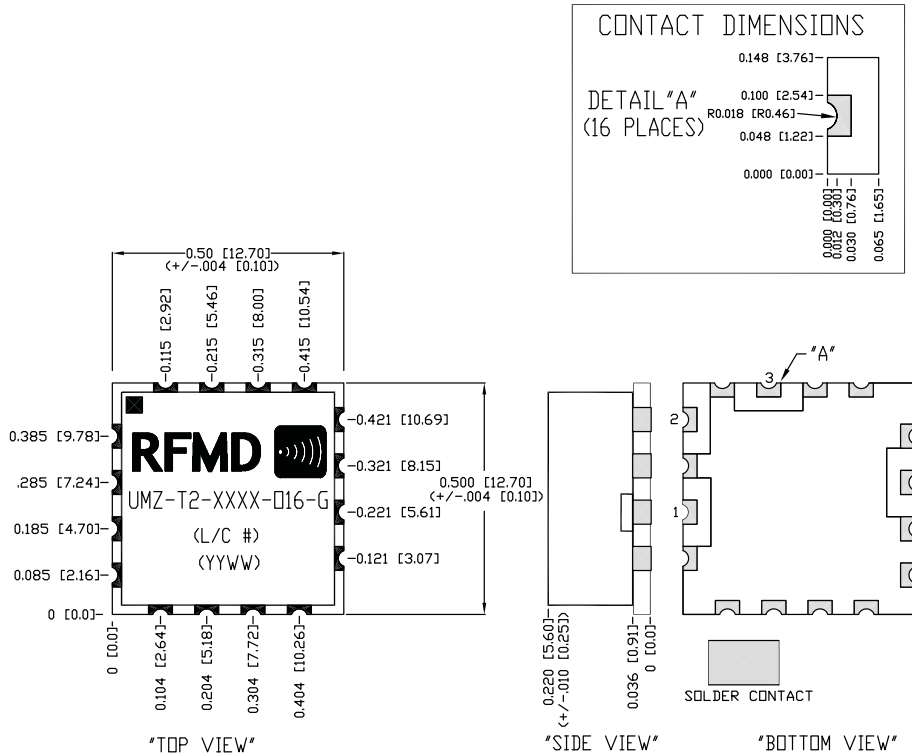


RoHS (Restriction of Hazardous Substances): Compliant per EU Directive 2002/95/EC.

Parameter	Specification			Unit	Condition
	Min.	Typ.	Max.		
<b>Overall</b>					
Frequency Range	6600		8100	MHz	
Tuning Voltage	1		15	V <sub>DC</sub>	
Tuning Sensitivity		130		MHz/V	
Output Power	-5	-2	4	dBm	
	-10	-5	0	dBm	1/2 frequency output
	-7			dBm	At V <sub>T</sub> =0
Output Phase Noise		-61	-56	dBc/Hz	1 kHz
		-86	-81	dBc/Hz	10 kHz
		-106	-101	dBc/Hz	100 kHz
		-126	-121	dBc/Hz	1000 kHz
		-146	-141	dBc/Hz	10000 kHz
Second Harmonic		-15	-5	dBc	
Tuning Port Capacitance		20		pF	
Modulation Bandwidth		1000		kHz	3dB BW
Frequency Pushing		4	20	MHz/V	
<b>Power Supply</b>					
Operating Voltage		5		V	
Supply Current		55		mA	

## Package Drawing & Pin Outs

12.7mm x 12.7mm x 5.6mm (0.5in x 0.5in x 0.22in)



1: RF OUT	
2: 1/2 FREQUENCY SAMPLE	
3: SUPPLY VOLTAGE INPUT	
4: TUNING VOLTAGE INPUT	
ALL OTHER CONTACTS ARE GROUND	