

### UMZ-T2-1062-016-G

# VOLTAGE CONTROLLED OSCILLATOR WITH INTERNAL DOUBLER

Package: 016, 12.7mm x 12.7mm x 5.59mm

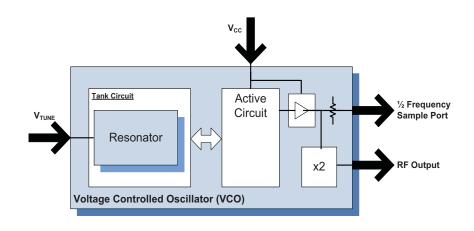


#### **Features**

- Internal Frequency Doubler and Buffer AMP
- 1/2 Frequency Output Provided
- Frequency: 5400MHz to 6950MHz
- Resonator: Microstrip
- PCB: Rogers
- Package Size: 12.7mm x
   12.7mm x 5.59mm (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-T2-1062-016-G Contact us at 1-480-756-6070

Optimum Technology Matching® Applied							
☐ GaAs HBT	☐ SiGe BiCMOS	☐ GaAs pHEMT	☐ GaN HEMT				
☐ GaAs MESFET	☐ Si BiCMOS	□ si cmos	☐ BiFET HBT				
☐ InGaP HBT	☐ SiGe HBT	☑ Si BJT	☐ LDMOS				

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## UMZ-T2-1062-016-G



### **Absolute Maximum Ratings**

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

<sup>[1]</sup> Frequency drift: 37MHz typical (either extreme)



#### Caution! ESD sensitive device.

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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		Heit	Condition
	Min.	Тур.	Max.	Unit	Condition
Overall					
Frequency Range	5400		6950	MHz	
Tuning Voltage	0.5		13.8	$V_{DC}$	
Tuning Sensitivity	95	130	160	MHz/V	
Output Power	-4	0	3	dBm	
	-10	-5	0	dBm	1/2 frequency output
	-5			dBm	At V <sub>T</sub> =0
Output Phase Noise		-63	-58	dBc/Hz	1kHz
		-86	-81	dBc/Hz	10kHz
		-106	-101	dBc/Hz	100 kHz
		-126	-121	dBc/Hz	1000 kHz
		-146	-141	dBc/Hz	10000 kHz
Second Harmonic		-17	-10	dBc	
Frequency Pulling		0.1	0.2	MHz p-p	At 12dBr, all phases
Tuning Port Capacitance		10		pF	
Modulation Bandwidth		5000		kHz	3dB BW
Frequency Pushing		3	7	MHz/V	
Power Supply					
Operating Voltage		12		V	
Supply Current		54		mA	

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### **Package Drawing & Pin Outs**

12.7mm x 12.7mm x 5.59mm (0.5in x 0.5in x 0.22in)

