

### UMZ-1087-A16-G

# MICROSTRIP VOLTAGE CONTROLLED OSCILLATOR

Package: A16, 12.7mm x 12.7mm x 3.43mm

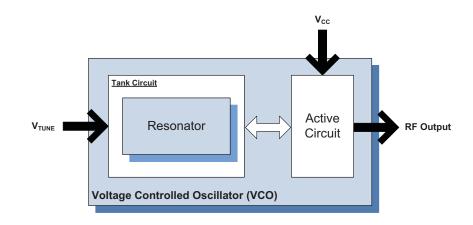


#### **Features**

- Ultra-Linear Tuning/Low Phase Noise
- Frequency: 460MHz to 920MHz
- 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-1087-A16-G Contact us at 1-480-756-6070

#### **Optimum Technology Matching® Applied**

☐ GaAs HBT	☐ SiGe BiCMOS	☐ GaAs pHEMT	☐ GaN HEM
GaAs MESFET	☐ Si BiCMOS	□ Si CMOS	☐ BiFET HBT
☐ InGaP HBT	☐ SiGe HBT	<b>▼</b> Si BJT	☐ LDMOS

## UMZ-1087-A16-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: 5MHz typical (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.

The information in this publication is believed to be accurate and reliable. However, no responsibility is assumed by RF Micro Devices, Inc. ("RFMD") for its use, nor for any infringement of patents, or other rights of third parties, resulting from its use. No license is granted by implication or otherwise under any patent or patent rights of RFMD. RFMD reserves the right to change component circuitry, recommended application circuitry and specifications at any time without prior notice.



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

Parameter		Specification		l lesit	Oo u ditio u
	Min.	Тур.	Max.	Unit	Condition
Overall					
Frequency Range	460		920	MHz	
Tuning Voltage	2		13	$V_{DC}$	
Tuning Sensitivity		45		MHz/V	
Output Power	8	10	12	dBm	
	7			dBm	At V <sub>T</sub> =0
Output Phase Noise		-80	-75	dBc/Hz	1kHz
		-103	-97	dBc/Hz	10kHz
		-123	-118	dBc/Hz	100 kHz
		-143	-138	dBc/Hz	1000kHz
		-163	-155	dBc/Hz	10000kHz
Second Harmonic		-15	-7	dBc	
Frequency Pulling		5	20	MHz p-p	At 12dBr, all phases
Tuning Port Capacitance		330		pF	
Modulation Bandwidth		1000		kHz	3dB BW
Frequency Pushing		0.4	1	MHz/V	
Power Supply					
Operating Voltage		12		V	
Supply Current		25		mA	

## UMZ-1087-A16-G

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

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

