

## UMZ-986-D16-G

# MICROSTRIP VOLTAGE CONTROLLED OSCILLATOR

Package: D16, 12.7mm x 12.7mm x 5.6mm

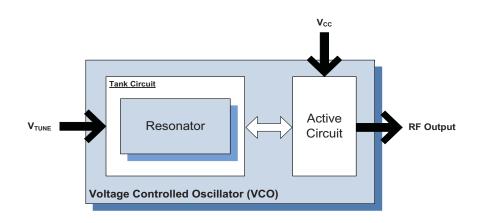


#### **Features**

- Ultra-Linear Tuning/Low Phase Noise
- Frequency: 3000 MHz to 3500 MHz
- Resonator: Microstrip
- PCB: Rogers
- Package Size: 12.7 mm x
   12.7 mm x 5.6 mm (0.5 in x 0.5 in x 0.22 in)

#### **Applications**

- Frequency Synthesizers
- Up and 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-986-D16-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	▼ Si BJT	☐ LDMOS

RF MICRO DEVICES®, RFMD®, Optimum Technology Matching®, Enabling Wireless Connectivity™, PowerStar®, POLARIS™ TOTAL RADIO™ and UltimateBlue™ are trademarks of RFMD, LLC. BLUETOOTH is a trade mark owned by Bluetooth SiG, linc., U.S.A. and licensed for use by RFMD. All other trade names, trademarks and registered trademarks are the property of their respective owners. ©2012, RF Micro Devices, Inc.

## UMZ-986-D16-G



#### **Absolute Maximum Ratings**

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

[1] Frequency drift: 20MHz typical, 25MHz maximum (either extreme)



#### Caution! ESD sensitive device.

CAUDIN LOD SETISITIVE 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 lusit	Condition
	Min.	Тур.	Max.	Unit	Condition
Overall					
Frequency Range	3000		3500	MHz	
Tuning Voltage	2		12	$V_{DC}$	
Tuning Sensitivity		60		MHz/V	
Output Power	-2	0	2	dBm	
	-2			dBm	At V <sub>T</sub> =0
Output Phase Noise		-71	-66	dBc/Hz	1kHz
		-98	-93	dBc/Hz	10kHz
		-119	-114	dBc/Hz	100 kHz
		-139	-134	dBc/Hz	1000 kHz
		-159	-154	dBc/Hz	10000 kHz
Second Harmonic		-15	-10	dBc	
Frequency Pulling		2	4	MHz p-p	At 12dBr, all phases
Tuning Port Capacitance		20		pF	
Modulation Bandwidth		5000		kHz	3dB BW
Frequency Pushing		2	4	MHz/V	
Power Supply					
Operating Voltage		8		V	
Supply Current		28		mA	



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

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

