

# UMZ-223-A16-G

#### MICROSTRIP VOLTAGE CONTROLLED OSCILLATOR

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

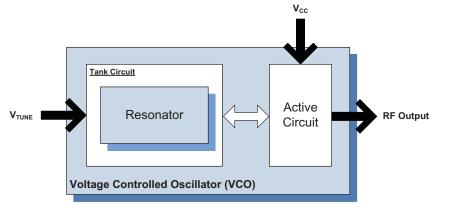


### **Features**

- Ultra-Linear Tuning/Low Phase Noise
- Frequency: 1730MHz to 1790MHz
- 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-223-A16-G Contact us at 1-480-756-6070

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

🗌 GaAs HBT	□ SiGe BiCMOS	🗌 GaAs pHEMT
GaAs MESFET	🗌 Si BiCMOS	□_Si CMOS
🗌 InGaP HBT	SiGe HBT	🗹 Si BJT

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GaN HEMT BiFET HBT LDMOS

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#### **Absolute Maximum Ratings**

0		
Parameter	Rating	Unit
Operating Ambient Temperature[1]	-40 to +85	°C
Storage Temperature	-55 to +125	°C

[1] Frequency drift: 6MHz typical, 10MHz 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		11	Condition
	Min.	Тур.	Max.	Unit	Condition
Overall					
Frequency Range	1730		1790	MHz	
Tuning Voltage	0.5		4.5	V <sub>DC</sub>	
Tuning Sensitivity		28		MHz/V	
Output Power	-2.5	0	2.5	dBm	
	-2.5			dBm	At V <sub>T</sub> =0
Output Phase Noise		-82	-77	dBc/Hz	1kHz
		-107	-102	dBc/Hz	10kHz
		-127	-122	dBc/Hz	100kHz
		-147	-142	dBc/Hz	1000 kHz
		-164	-159	dBc/Hz	10000 kHz
Second Harmonic		-18	-10	dBc	
Frequency Pulling		1	2	MHz p-p	At 12dBr, all phases
Tuning Port Capacitance		47		pF	
Modulation Bandwidth		1000		kHz	3dB BW
Frequency Pushing		0.5	1.5	MHz/V	
Power Supply					
Operating Voltage		5		V	
Supply Current		15	17	mA	





## **Package Drawing & Pin Outs**

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

