

## UMX-630-D16-G

# ULTRA-LOW NOISE COAXIAL RESONATOR OSCILLATORS

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

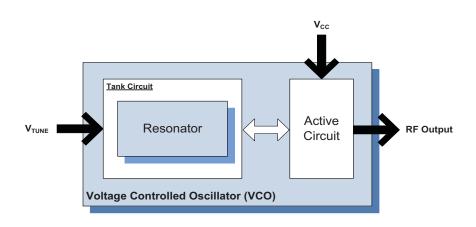


#### **Features**

- Ultra-Linear Tuning / Ultra-Low Phase Noise
- Frequency: 2400 MHz to 2600 MHz
- Resonator: Ceramic
- PCB: Rogers
- Package Size: 12.7mm x 12.7mm x 5.6mm (0.5in x 0.5in x 0.22in)

#### **Applications**

- Point-to-Point Radio
- DRO/YIG Multiplied Replacements
- Low Phase Noise Applications
- SAW VCO Replacement



**Functional Block Diagram** 

#### **Product Description**

This VCO series features ultra-low phase noise, lower phase transients, lower harmonics, and lower pushing and pulling without any performance penalties typically associated with high technology designs.

#### **Ordering Information**

UMX-630-D16-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	<b>▼</b> Si BJT	☐ 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

<sup>[1]</sup> Frequency drift: 6MHz 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.

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

Parameter		Specification		11:4	Oo u ditio u
	Min.	Тур.	Max.	Unit	Condition
Overall					
Frequency Range	2400		2600	MHz	
Tuning Voltage	1		12	$V_{DC}$	
Tuning Sensitivity		20		MHz/V	
Output Power	5	7	9	dBm	
	5			dBm	At V <sub>T</sub> =0
Output Phase Noise		-82	-77	dBc/Hz	1kHz
		-108	-105	dBc/Hz	10kHz
		-130	-127	dBc/Hz	100kHz
		-152	-147	dBc/Hz	1000 kHz
		-164	-159	dBc/Hz	10000kHz
Second Harmonic		-15	-10	dBc	
Frequency Pulling		0.5	1	MHz p-p	At 12dBr, all phases
Tuning Port Capacitance		28		pF	
Modulation Bandwidth		1000		kHz	3dB BW
Frequency Pushing		0.5	1.5	MHz/V	
Power Supply					
Operating Voltage		8		V	
Supply Current		28		mA	



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

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

