# imall

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



# Contact us

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# UMS-2150-R16-G

#### OCTAVE BAND VOLTAGE CONTROLLED OSCILLATOR

Package: R16, 12.7mm x 12.7mm x 4.57mm

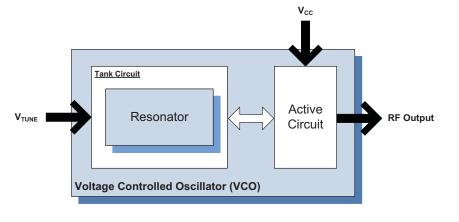


### Features

- Octave Band Tuning
- Frequency: 950MHz to 2150MHz
- Resonator: Microstrip
- PCB: Rogers
- Package Size: 12.7mm x 12.7mm x 4.57mm (0.5in x 0.5in x 0.18in)

### **Applications**

- Wide Band Applications
- Built-in Test Applications
- First LO Applications
- Frequency Sythesizers



Functional Block Diagram

### **Product Description**

This series of VCO modules features full octave bands (typical), low phase noise, low harmonics, and linear tuning.

#### **Ordering Information**

UMS-2150-R16-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

# UMS-2150-R16-G



#### **Absolute Maximum Ratings**

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

[1] Frequency drift: 13.0MHz 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	O and it is n
	Min.	Тур.	Max.	Unit	Condition
Overall					
Frequency Range	950		2150	MHz	
Tuning Voltage	0.5		16	V <sub>DC</sub>	
Tuning Sensitivity		85		MHz/V	
Output Power	8.5	11	13.5	dBm	
	8.5				At V <sub>T</sub> = 0
Output Phase Noise		-75	-70	dBc/Hz	1kHz
		-102	-97	dBc/Hz	10kHz
		-122	-115	dBc/Hz	100kHz
		-142	-135	dBc/Hz	1000kHz
Second Harmonic		-20	-10	dBc	
Frequency Pulling		15	20	MHz p-p	At 12dBr, all phases
Tuning Port Capacitance		47		pF	
Modulation Bandwidth		1000		kHz	3dB BW
Frequency Pushing		1	1.5	MHz/V	
Power Supply					
Operating Voltage		12		V	
Supply Current		28		mA	





## **Package Drawing & Pin Outs**

12.7mm x 12.7mm x 4.57mm (0.5in x 0.5in x 0.18in)

