

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

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China









UMS-50-R16-G

OCTAVE BAND VOLTAGE CONTROLLED OSCILLATOR

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



Features

Octave Band Tuning

■ Frequency: 25MHz to 50MHz

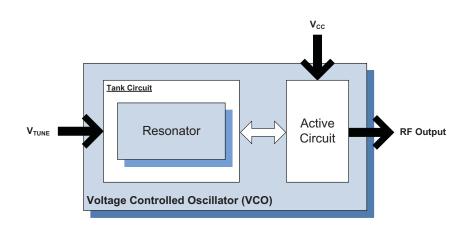
■ Resonator: Microstrip

■ 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-50-R16-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	▼ Si BJT	☐ LDMOS

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UMS-50-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: 0.2MHz 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		Unit	Condition
	Min.	Тур.	Max.	Unit	Condition
Overall					
Frequency Range	25		50	MHz	
Tuning Voltage	1		15	V _{DC}	
Tuning Sensitivity		2.4		MHz/V	
Output Power	7	9	11	dBm	
	7			dBm	At V _T =0
Output Phase Noise		-100	-94	dBc/Hz	1kHz
		-125	-119	dBc/Hz	10kHz
		-145	-139	dBc/Hz	100kHz
		-164	-155	dBc/Hz	1000 kHz
		-164	-155	dBc/Hz	10000 kHz
Second Harmonic		-15	-8	dBc	
Frequency Pulling		0.1	0.2	MHz p-p	At 12dBr, all phases
Tuning Port Capacitance		1000		pF	
Modulation Bandwidth		100		kHz	3dB BW
Frequency Pushing		0.05	0.1	MHz/V	
Power Supply					
Operating Voltage		12		V	
Supply Current		16		mA	



Package Drawing & Pin Outs

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

