RFMD
rfmd.com

UMS-1000-A16-G

OCTAVE BAND VOLTAGE CONTROLLED OSCILLATOR

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

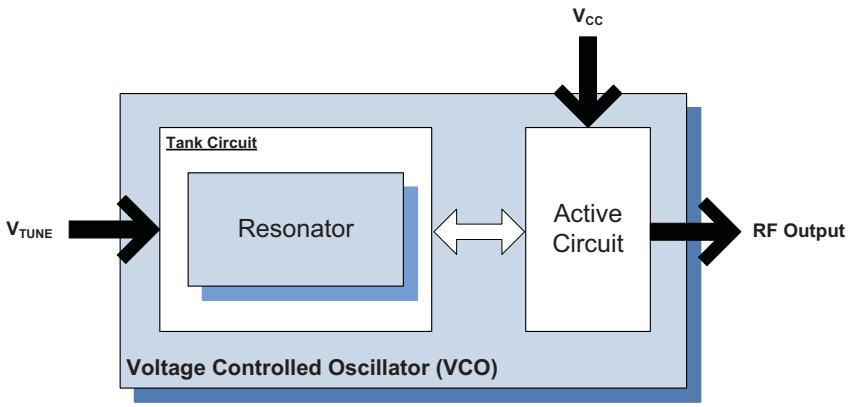
RoHS

Features

- Octave Band Tuning
- Frequency: 500MHz to 1000MHz
- Resonator: Microstrip
- PCB: Rogers
- Package Size: 12.7mm x 12.7mm x 3.43mm (0.5in x 0.5in x 0.135in)

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-1000-A16-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

7628 Thorndike Road, Greensboro, NC 27409-9421 · For sales or technical support, contact RFMD at (+1) 336-678-5570 or customerservice@rfmd.com.

Absolute Maximum Ratings

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

[1] Frequency drift: 6.0MHz typical, 10.0MHz 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.

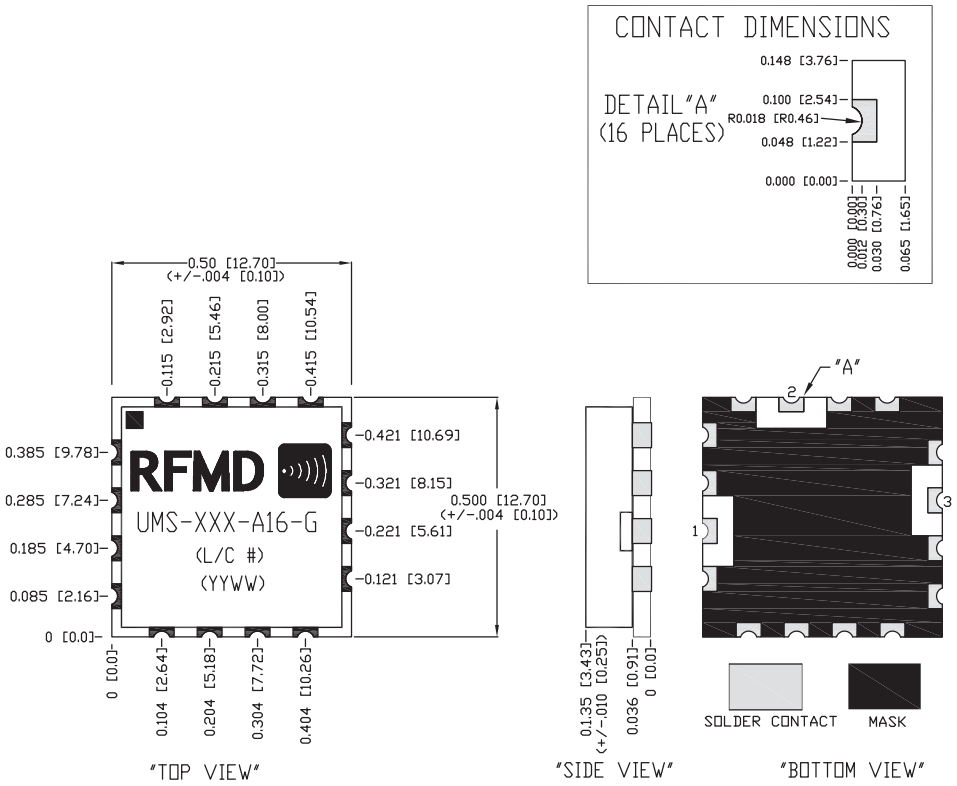
RoHS (Restriction of Hazardous Substances): Compliant per EU Directive 2002/95/EC.

Parameter	Specification			Unit	Condition
	Min.	Typ.	Max.		
Overall					
Frequency Range	500		1000	MHz	
Tuning Voltage	0.5		11	V_{DC}	
Tuning Sensitivity		55		MHz/V	
Output Power	7.5	10	12.5	dBm	
	6			dBm	At V_T=0
Output Phase Noise		-78	-73	dBc/Hz	1kHz
		-103	-97	dBc/Hz	10kHz
		-123	-117	dBc/Hz	100kHz
		-143	-137	dBc/Hz	1000kHz
		-163	-155	dBc/Hz	10000kHz
Second Harmonic		-20	-12	dBc	
Frequency Pulling		5	10	MHz p-p	At 12dBr, all phases
Tuning Port Capacitance		100		pF	
Modulation Bandwidth		5000		kHz	3dB BW
Frequency Pushing		0.3	0.6	MHz/V	
Power Supply					
Operating Voltage		12		V	
Supply Current		29		mA	

7628 Thorndike Road, Greensboro, NC 27409-9421 · For sales or technical support, contact RFMD at (+1) 336-678-5570 or customerservice@rfmd.com.

Package Drawing & Pin Outs

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



CONTACT ASSIGNMENTS:	
1: RF OUT	
2: SUPPLY INPUT	
3: TUNING VOLTAGE INPUT	
ALL OTHER CONTACTS ARE GROUND	

7628 Thorndike Road, Greensboro, NC 27409-9421 · For sales or technical support, contact RFMD at (+1) 336-678-5570 or customerservice@rfmd.com.