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UMV-3050-R16-G

ULTRA-LINEAR TUNING VOLTAGE CONTROLLED OSCILLATOR

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

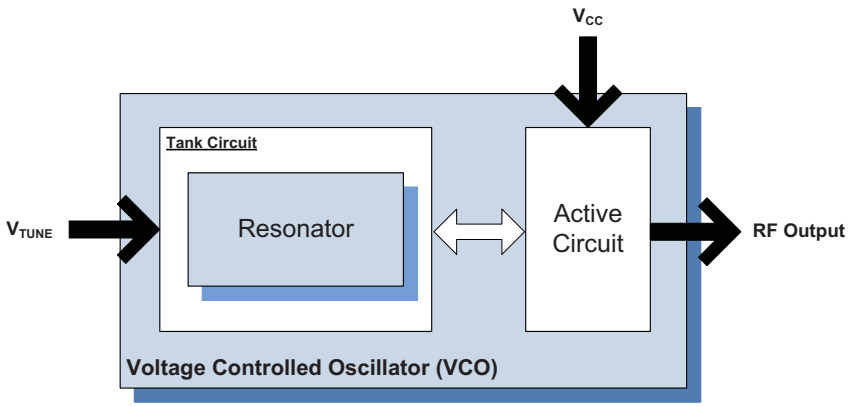
RoHS

Features

- Linear Tuning/100MHz Frequency
- Frequency: 3000MHz to 3100MHz
- Resonator: Microstrip
- PCB: Rogers
- Package Size: 12.7mm x 12.7mm x 4.57mm (0.5in x 0.5in x 0.18in)

Applications

- Frequency Sythesizers
- Upconverters and Downconverters
- Narrow V_{TUNE} and V_{CC} Applications



Functional Block Diagram

Product Description

This series of VCO modules offers ultra-linear tuning across their specified frequency band.

Ordering Information

UMV-3050-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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Absolute Maximum Ratings

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

[1] Frequency drift: 9MHz 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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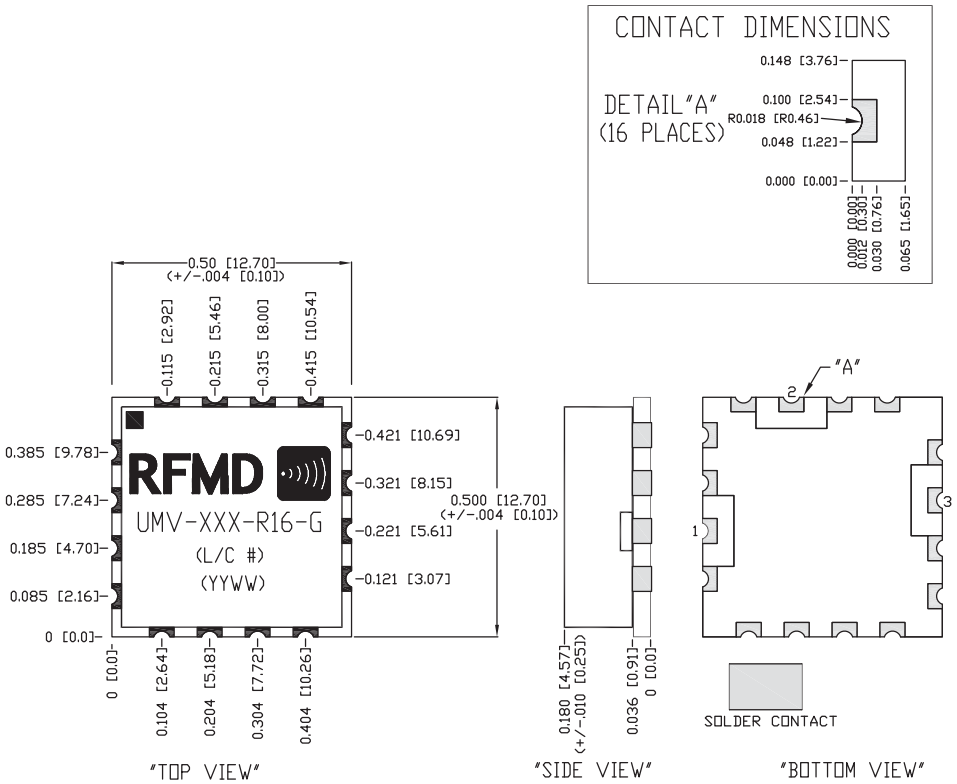
RoHS (Restriction of Hazardous Substances): Compliant per EU Directive 2002/95/EC.

Parameter	Specification			Unit	Condition
	Min.	Typ.	Max.		
Overall					
Frequency Range	3000		3100	MHz	
Tuning Voltage	0.5		4.5	V_{DC}	
Tuning Sensitivity		40		MHz/V	
Output Power	-2.5	0	2.5	dBm	
	-3				At V_T = 0
Output Phase Noise		-75	-70	dBc/Hz	1kHz
		-102	-97	dBc/Hz	10kHz
		-122	-117	dBc/Hz	100kHz
		-142	-137	dBc/Hz	1000kHz
		-162	-155	dBc/Hz	10000kHz
Second Harmonic		-15	-10	dBc	
Frequency Pulling		1	2	MHz p-p	At 12dBr, all phases
Tuning Port Capacitance		20		pF	
Modulation Bandwidth		1000		kHz	3dB BW
Frequency Pushing		1.5	3	MHz/V	
Power Supply					
Operating Voltage		5		V	
Supply Current		28		mA	

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Package Drawing & Pin Outs

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



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

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