

Package: D14, 12.7mm x 12.7mm x 5.59mm



**Features**

- Ultra-low Phase Noise/Low Current
- Frequency: 240MHz to 250MHz
- Resonator: Aircoil
- PCB: Rogers
- Package Size: 12.7mm x 12.7mm x 5.59mm (0.5in x 0.5in x 0.22in)

**Applications**

- IF Conversion Applications
- Low Phase Noise Agile Clock Applications
- Low Phase Noise Applications



Functional Block Diagram

**Product Description**

This series of VCO modules offers an ultra-low noise VCO which includes an internal buffer amplifier for high performance IF conversion.

**Ordering Information**

UMJ-968-D14-G      Contact us at 1-480-756-6070

**Optimum Technology Matching® Applied**

- |                                      |                                      |  |                                    |
|--------------------------------------|--------------------------------------|--|------------------------------------|
| <input type="checkbox"/> GaAs HBT    | <input type="checkbox"/> SiGe BiCMOS | <input type="checkbox"/> GaAs pHEMT        | <input type="checkbox"/> GaN HEMT  |
| <input type="checkbox"/> GaAs MESFET | <input type="checkbox"/> Si BiCMOS   | <input type="checkbox"/> Si CMOS           | <input type="checkbox"/> BiFET HBT |
| <input type="checkbox"/> InGaP HBT   | <input type="checkbox"/> SiGe HBT    | <input checked="" type="checkbox"/> Si BJT | <input type="checkbox"/> 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: 0.8MHz typical, 1.2MHz 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.

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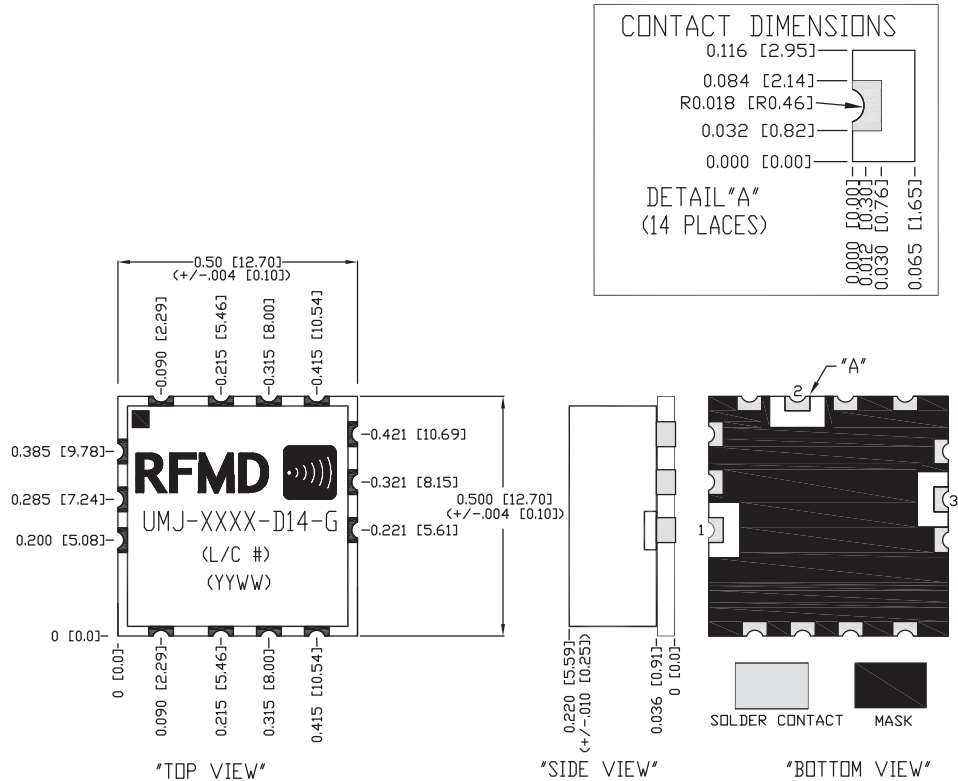


RoHS (Restriction of Hazardous Substances): Compliant per EU Directive 2002/95/EC.

Parameter	Specification			Unit	Condition
	Min.	Typ.	Max.		
<b>Overall</b>					
Frequency Range	240		250	MHz	
Tuning Voltage	0.5		4.5	V <sub>DC</sub>	
Tuning Sensitivity		4		MHz/V	
Output Power	7	9	11	dBm	At V <sub>T</sub> = 0
	7				
Output Phase Noise		-101	-96	dBc/Hz	1 kHz
		-126	-121		10 kHz
		-146	-141		100 kHz
		-164	-159		1000 kHz
Second Harmonic		-25	-20	dBc	
Frequency Pulling		0.5	0.8	MHz p-p	At 12dB <sub>r</sub> , all phases
Tuning Port Capacitance		330		pF	
Modulation Bandwidth		100		kHz	3dB BW
Frequency Pushing		0.2	0.5	MHz/V	
<b>Power Supply</b>					
Operating Voltage		5		V	
Supply Current		18	20	mA	

**Package Drawing & Pin Outs**

12.7mm x 12.7mm x 5.59mm (0.5in x 0.5in x 0.22in)



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