

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

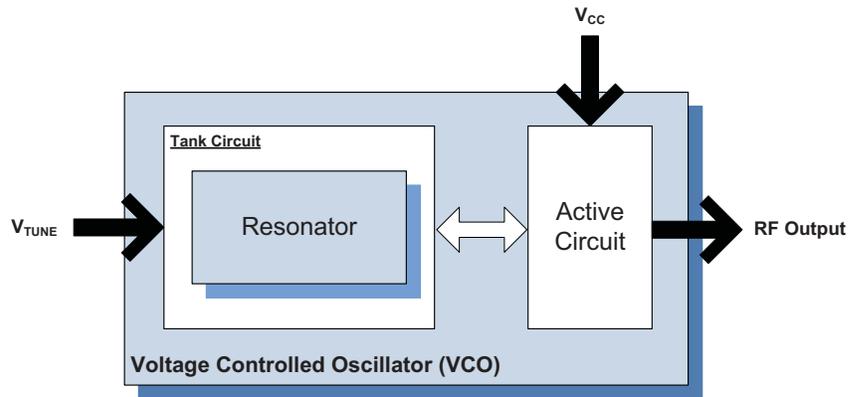


### Features

- Ultra-low Phase Noise/Low Current
- Frequency: 400MHz
- 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-858-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: 1.5MHz 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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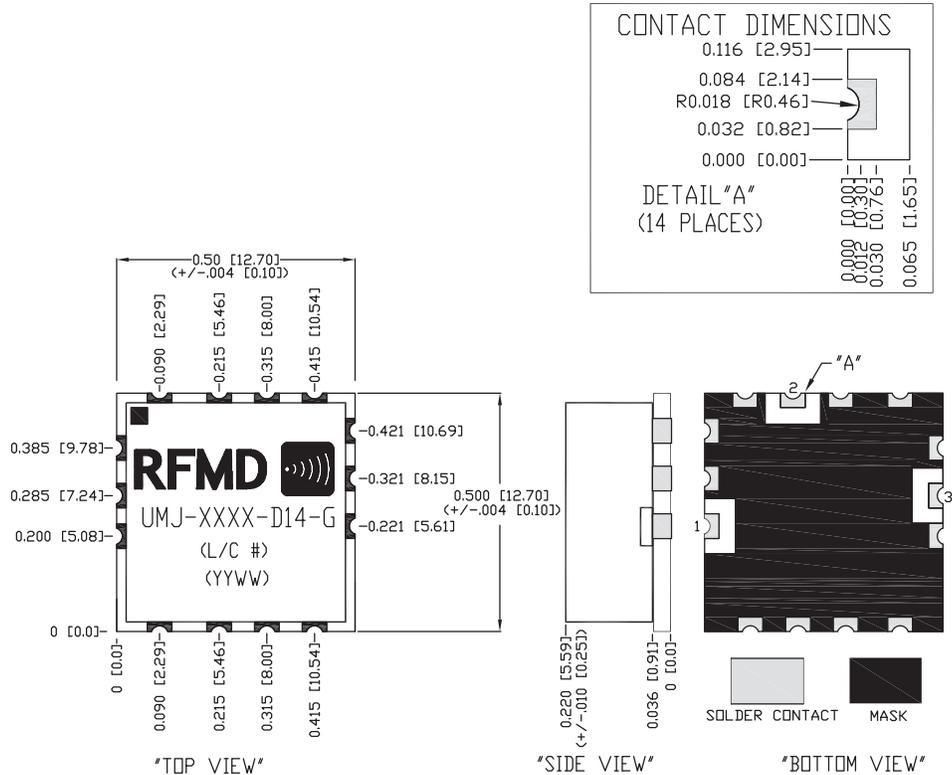


RoHS (Restriction of Hazardous Substances): Compliant per EU Directive 2002/95/EC.

Parameter	Specification			Unit	Condition
	Min.	Typ.	Max.		
<b>Overall</b>					
Frequency Range		400		MHz	
Tuning Voltage	1		4	V <sub>DC</sub>	
Tuning Sensitivity		4		MHz/V	
Output Power	7	9	11	dBm	
	7				At V <sub>T</sub> = 0
Output Phase Noise		-98	-93	dBc/Hz	1kHz
		-125	-120		10kHz
		-145	-140		100kHz
		-165	-160		1000kHz
Second Harmonic		-20	-10	dBc	
Frequency Pulling		0.5	1	MHz p-p	At 12dB <sub>r</sub> , all phases
Tuning Port Capacitance		100		pF	
Modulation Bandwidth		1000		kHz	3dB BW
Frequency Pushing		0.5	1	MHz/V	
<b>Power Supply</b>					
Operating Voltage		5		V	
Supply Current		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	