UMJ-865-D14-G

VOLTAGE CONTROLLED OSCILLATOR FOR IF CONVERSION

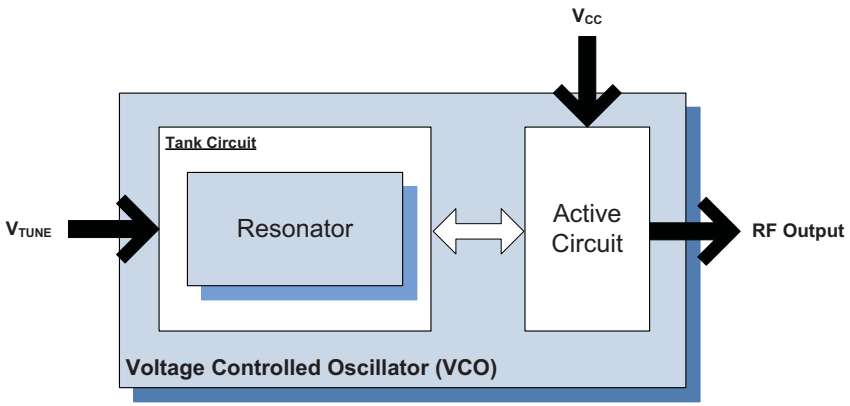
Package: D14, 12.7mm x 12.7mm x 5.59mm

Features

- Ultra-low Phase Noise/Low Current
- Frequency: 270MHz to 330MHz
- 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-865-D14-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: 1.0MHz 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.

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

Parameter	Specification			Unit	Condition
	Min.	Typ.	Max.		
Overall					
Frequency Range	270		330	MHz	
Tuning Voltage	0.5		4.5	V_{DC}	
Tuning Sensitivity		24		MHz/V	
Output Power	7	9	11	dBm	
	7			dBm	At V_T=0
Output Phase Noise		-90	-85	dBc/Hz	1kHz
		-115	-110	dBc/Hz	10kHz
		-135	-130	dBc/Hz	100kHz
		-155	-150	dBc/Hz	1000kHz
		-164	-155	dBc/Hz	10000kHz
Second Harmonic		-20	-12	dBc	
Frequency Pulling		0.2	0.5	MHz p-p	At 12dBr, all phases
Tuning Port Capacitance		330		pF	
Modulation Bandwidth		500		kHz	3dB BW
Frequency Pushing		0.5	1	MHz/V	
Power Supply					
Operating Voltage		5		V	
Supply Current		18		mA	

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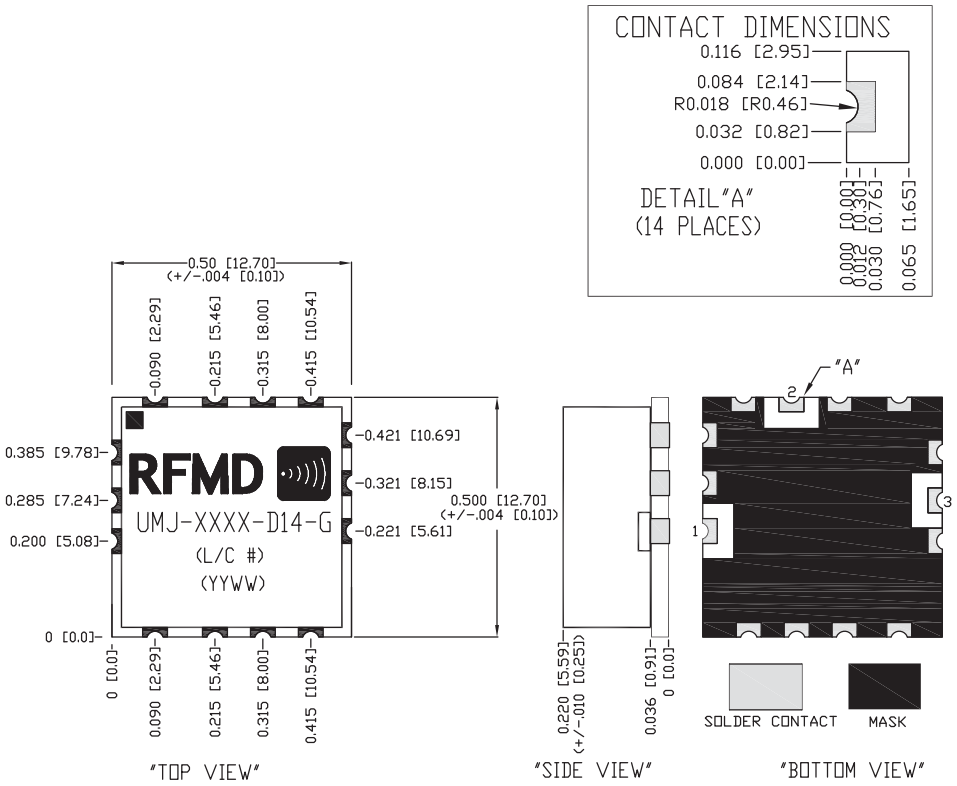
Package Drawing & Pin Outs

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	

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