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UMJ-858-D14-G

VOLTAGE CONTROLLED OSCILLATOR FOR IF CONVERSION

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

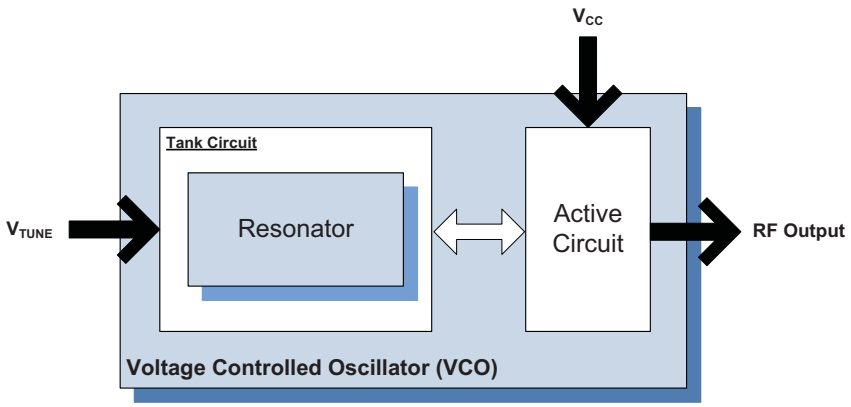
RoHS

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

☐ 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: 1.5MHz 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.

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

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

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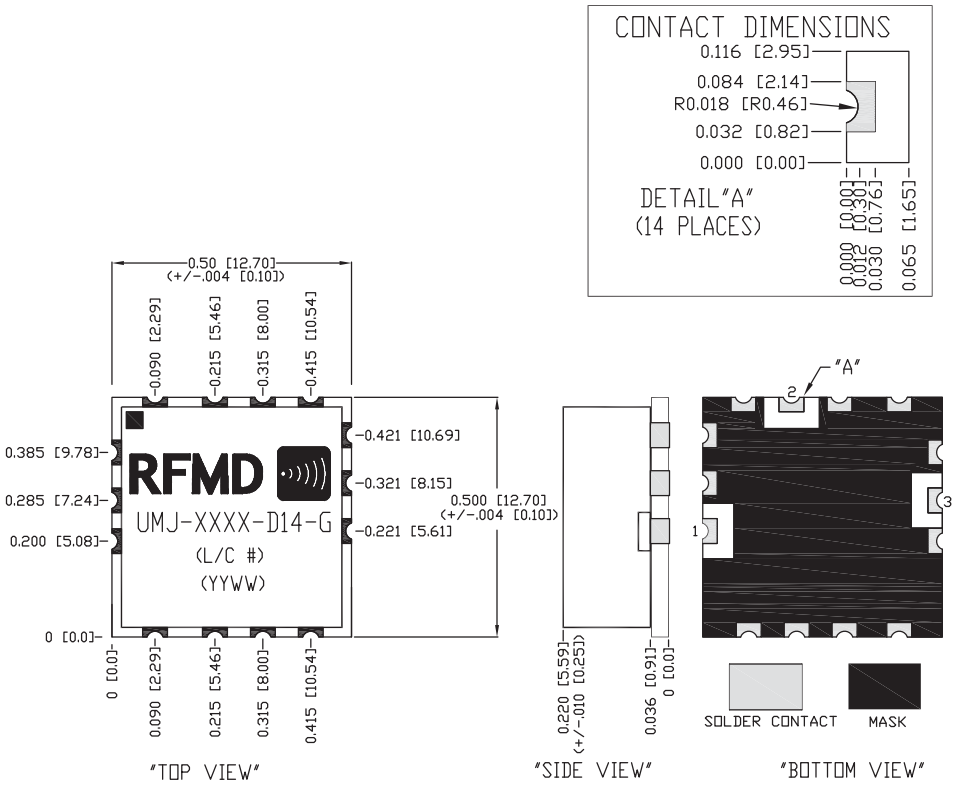
Package Drawing & Pin Outs

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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