



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts,Customers Priority,Honest Operation,and Considerate Service",our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



## Contact us

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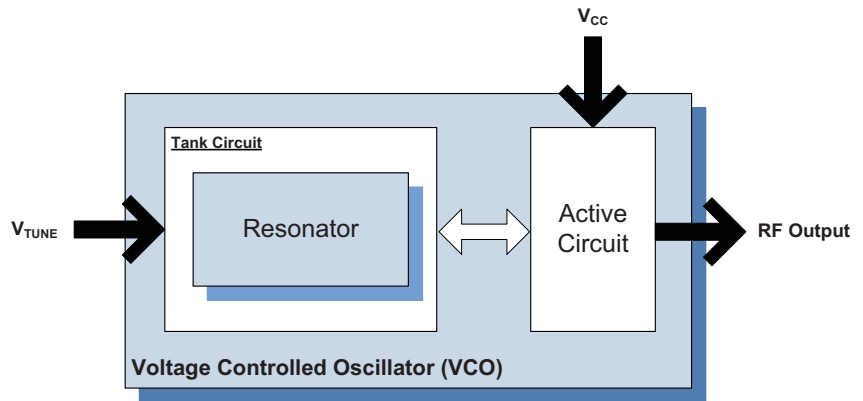
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China





**Features**

- Ultra-linear Tuning/Ultra-low Phase Noise
- Frequency: 2950MHz to 3200MHz
- Resonator: Ceramic
- PCB: Rogers
- Package Size: 12.7mm x 12.7mm x 5.59mm (0.5in x 0.5in x 0.22in)



Functional Block Diagram

**Applications**

- Point-to-Point Radio
- DRO/YIG Multiplied Replacements
- Low Phase Noise Applications
- SAW VCO Replacements

**Product Description**

This VCO series features ultra-low phase noise, lower phase transients, lower harmonics, and lower pushing and pulling without any performance penalties typically associated with high technology designs.

**Ordering Information**

UMX-164-D16-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: 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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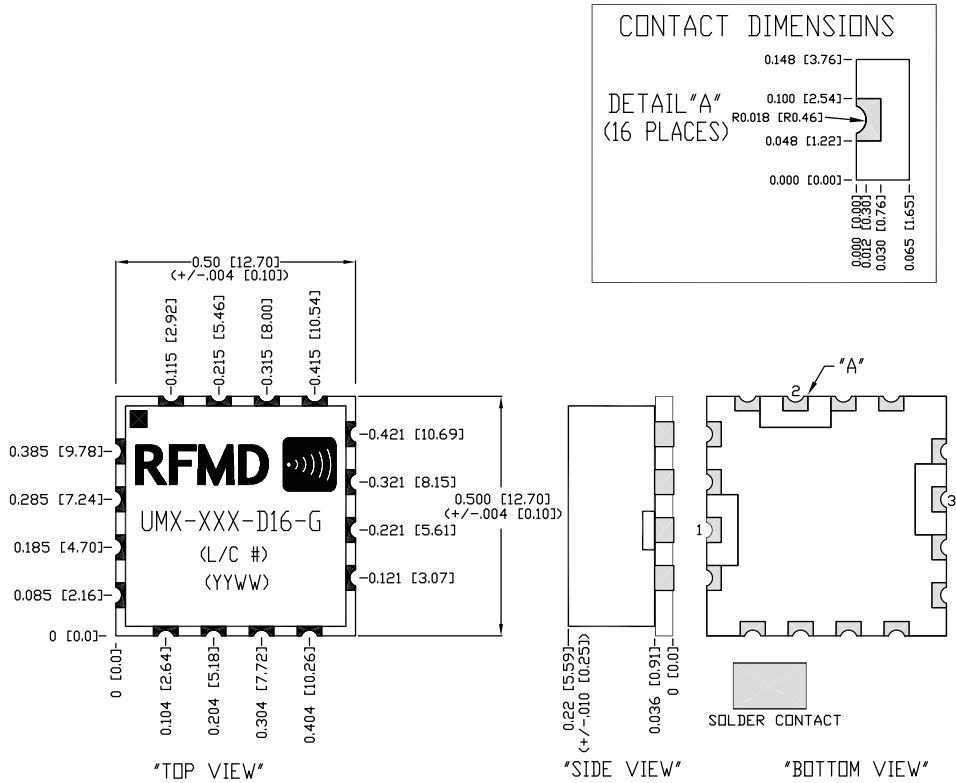


RoHS (Restriction of Hazardous Substances): Compliant per EU Directive 2002/95/EC.

Parameter	Specification			Unit	Condition
	Min.	Typ.	Max.		
<b>Overall</b>					
Frequency Range	2950		3200	MHz	
Tuning Voltage	0		15	V <sub>DC</sub>	
Tuning Sensitivity		24		MHz/V	
Output Power	4	7	10	dBm	
	4				At V <sub>T</sub> = 0
Output Phase Noise		-80	-75	dBc/Hz	1kHz
		-105	-100	dBc/Hz	10kHz
		-125	-121	dBc/Hz	100kHz
		-145	-141	dBc/Hz	1000kHz
Second Harmonic		-15	-8	dBc	
Frequency Pulling		0.4	1	MHz p-p	At 12dB <sub>r</sub> , all phases
Tuning Port Capacitance		10		pF	
Modulation Bandwidth		1000		kHz	3dB BW
Frequency Pushing		0.2	1	MHz/V	
<b>Power Supply</b>					
Operating Voltage		6		V	
Supply Current		28	30	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	