

RQRA-4043-CR

ELECTRICAL SPECIFICATIONS

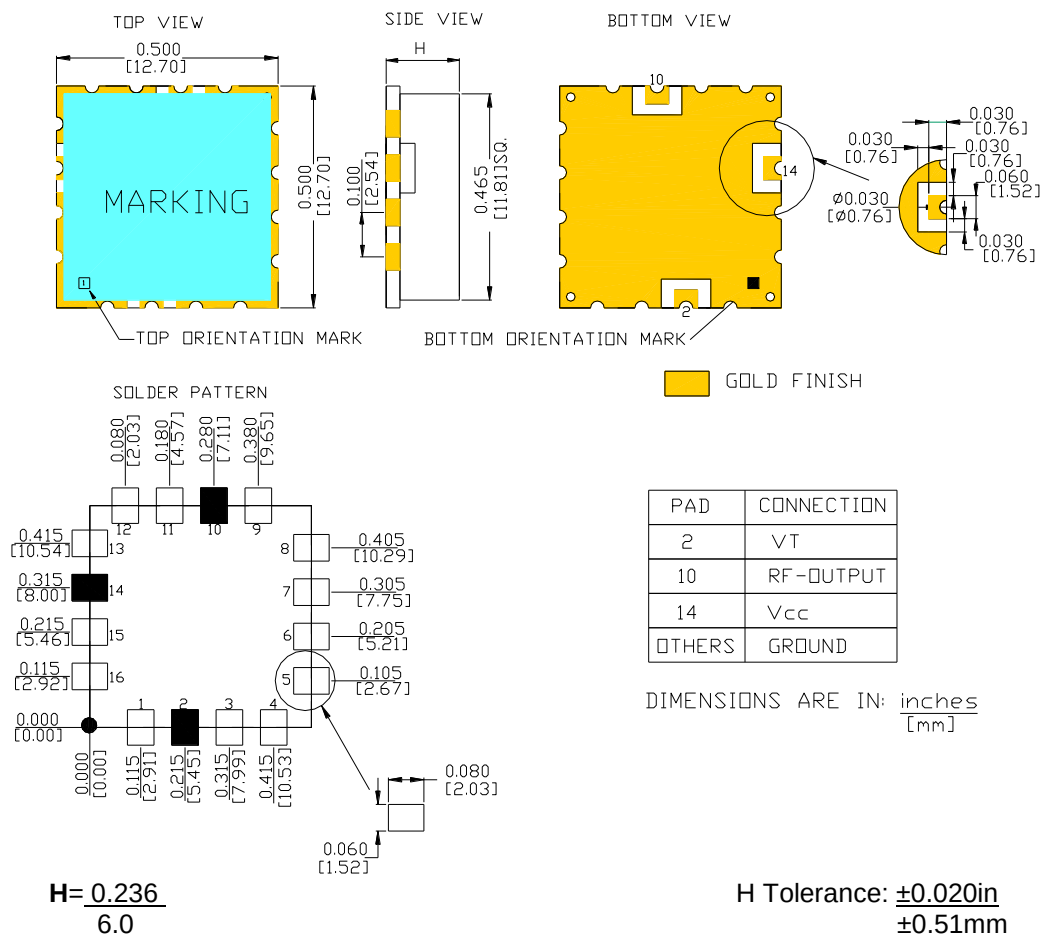
PARAMETER	CONDITION	SYMBOL	VALUE			UNIT
			Min.	Typ.	Max.	
Frequency Range	Vt=0.5 V	fo(Vt)		4043		MHz
	Vt=4.5V					
Power Supply Voltage		Vcc		8.0		V
Tuning Voltage		Vt	0.5		4.5	V
Supply Current	Vcc=8.0V	Icc			28	mA
Tuning Sensitivity	Vt=0.5~4.5V Vcc=8.0V T=25°C	df/dVt		7		MHz/V
Pushing		df/dVcc		0.3		MHz/V
Pulling	@12 dBr, All phases	df/dZL		0.5		MHz p-p
Tuning Port Capacitance		Cin		10		pF
Modulation Bandwidth	@-3 dB	MBW		1000		KHz
Operating Temperature	Frequency Drift ±4MHz Max.	Ta	-40		85	°C
Storage Temperature		Tstor	-55		100	°C
Maximum Limits Voltage	V _{cc(abs)}				9.0	V
Moisture Sensitivity Level	MSL	JEDEC J-STD-2	1			
Termination; Finish			Glass-reinforced laminate base and nickel-silver cover			
ESD Sensitivity	HBM	Human body model JESD22-A114		3		kV

OUTPUT CHARACTERISTICS

SINE-WAVE	PARAMETER	SYMBOL	CONDITION	VALUE			UNIT
				Min	Typ.	Max	
	Output Power	Pw	Output termination 50Ω Vcc=8.0V	-2.5	0	2.5	dBm
	2nd Harmonic Suppression	h ²			-15	-10	dBc
	3rd Harmonic Suppression	h ³			-15	-10	dBc
	Output Load	O _{CL}			50		Ω

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MECHANICAL DIMENSIONS AND PIN FUNCTIONING



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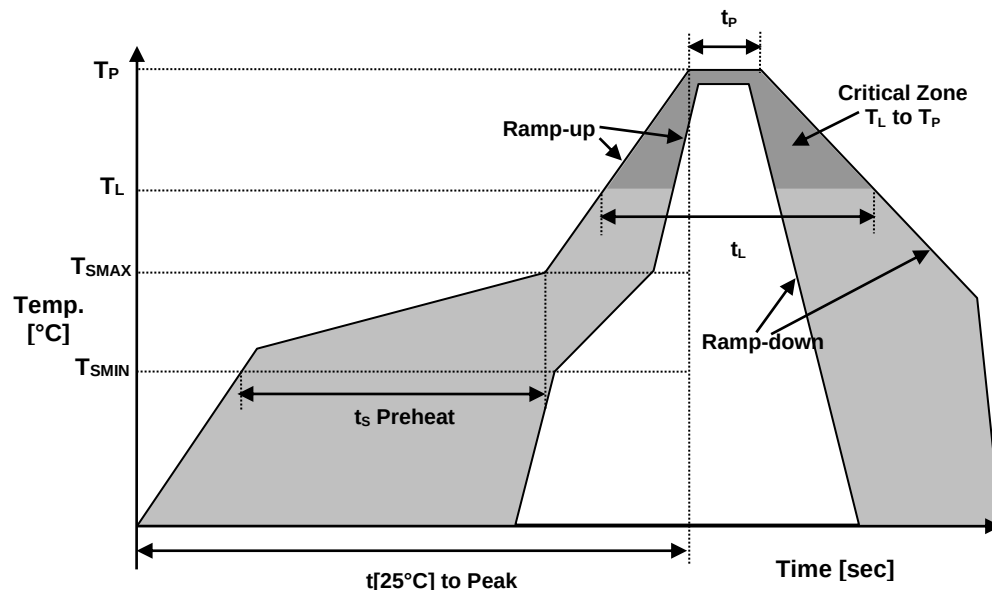
PHASE NOISE

PARAMETER	SYMBOL	CONDITION	VALUE	
Max. Phase noise	$\Sigma(\Delta f)$	$\Delta f=1.0\text{kHz}$	-84	dBc/Hz
		$\Delta f=10\text{kHz}$	-111	
		$\Delta f=100\text{kHz}$	-131	
		$\Delta f=1000\text{kHz}$	-151	

Environmental Compliance

PARAMETER	CONDITIONS
Mechanical Shock	MIL-STD-883, Method 2002
Mechanical Vibration	MIL-STD-883, Method 2007
Solderability	MIL-STD-883, Method 2003
Resistance to Solvents	MIL-STD-883, Method 2016

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REFLOW PROFILE

Recommended Solder Reflow Profile		
Temperature Min Preheat	T_{SMIN}	150°C
Temperature Max Preheat	T_{SMAX}	175°C
Time (T_{SMIN} to T_{SMAX})	t_s	60-180 sec.
Temperature	T_L	217°C
Peak Temperature	T_P	260°C
Ramp-up rate	R_{UP}	3°C/sec max.
Ramp-down rate	R_{DOWN}	6°C/sec max.
Time within 5°C of Peak Temperature	t_p	10-20 sec max.
Time $t[25^\circ\text{C}]$ to Peak Temperature	$t[25^\circ\text{C}]$ to Peak	480 sec.
Time	t_L	60-150 sec.

APPROVALS

Eng. approval, date: IM 11/23//2016

Created by, date: MH 11/23//2016

Revision: A



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