

Dynamic Engineers Inc.

Website: <u>www.DynamicEngineers.com</u> Email: <u>Inquiry@DynamicEngineers.com</u>

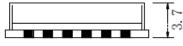
Features and Benefits

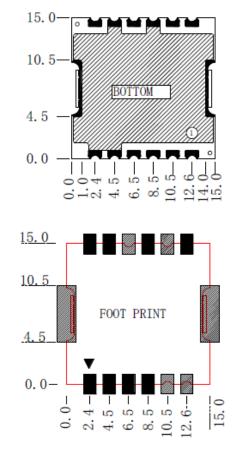
Frequency Range: 139-141MHz Supply Voltage: 5.0V Current: 30mA Max. 3 wire serial integer PLL Output power: +7.0dBm Max. Phase noise: -118dBc/Hz@10KHz Operating temperature: -40°C--+85°C Size: 15x15x3.7mm Package type: SMD

Typical Applications

Broadcast VHF radio Wireless Telemetry Test Instrument-Signal Generation

Mechanical Drawing & Pin Connections





PLL1515BQ-IT-139MHz-141MHz-A 139-141MHz SMD Phase Locked Loop (PLL) Synthesizer

Drawing No: M

MD240065-2

Pin Connections:

Pin	Function			
1	CLK			
2	DATA			
3	LE			
4- 6	GND			
7	VCC(VCO)			
8	GND			
9	RF Out			
10	GND			
11	Lock Detect			
12	Vcp(PLL)			
13&14	GND			
10014	OND			

Unit in mm 1mm = 0.0394 inches

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Rev. 1

Dynamic Engineers reserves the right to make changes to the company datasheet(s) along with other information contained inside; such as data tables and araphs without notification to potential customers who may have earlier revisions in their possession.



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Specifications

Parameter		Units	Min.	Typical	Max.
Operating Frequency Range		MHz	139		141
Output Power		dBm	+3.0	+5.0	+7.0
Step Size		KHz		10	
Settling Time		msec		10	30
Output Impedance		Ω		50	
Phase Noise	@1kHz offset	dBc / Hz		-90	-85
Phase Noise	@10kHz offset	dBc / Hz		-118	-113
Phase Noise	@100kHz offset	dBc / Hz		-140	-135
Phase Noise	@1MHz offset	dBc / Hz		-159	-154
2nd Harmonic Suppression		dBc		-22	-15
Sideband Spurious Suppression		dBc			-70
Reference (frequency)		MHz		13	
Reference (Freq. Stability)		ppm			2.5
VCO Power Supply (Vcc) Voltage		Vdc		5	
VCO Power Supply (Vcc) Current		mA		20	30
PLL Power Supply (Vcp) Voltage		Vdc		5	
PLL Power Supply (Vcp) Current		mA		5	10
Operating Temperature Range		°C	-40		+85