RFMD
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PNP-745-P22-G

PLUG-N-PLAY SYNTHESIZER MODULE

Package: P22, 15.2mm x 15.2mm x 5.6mm

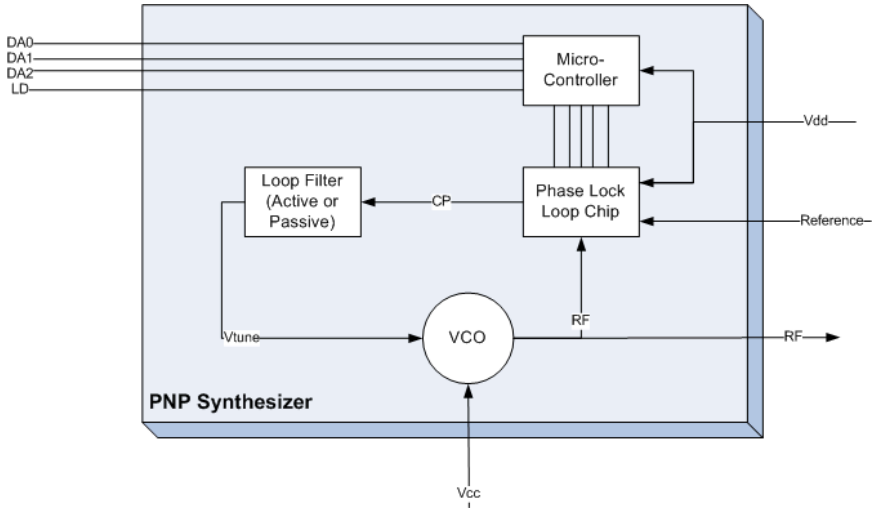
RoHS

Features

- Internal Microcontroller
- Programmable START/STOP/Step Size
- SPI BUS Compatible
- Frequency: 1600MHz to 2425MHz
- Resonator: Microstrip
- PCB: Rogers
- Package Size: 15.2mm x 15.2mm x 5.6mm (0.6in x 0.6in x 0.22in)

Applications

- Highly Integrated Radio Designs
- High-performance Radios
- Mircrowave Radio IF Conversion
- Instrumentation
- Frequency Synthesizers



Functional Block Diagram

Product Description

RFMD offers complete Plug-N-Play Synthesizers (PNPs) for low noise frequency synthesizer applications consisting of a VCO, PLL, loop filter and Micro-controller interface. The PNP family of RF signal sources is the world's first family of truly configurable frequency synthesizer modules. These synthesizers can make quick adjustments with amazing accuracy, speed, and performance.

Ordering Information

PNP-745-P22-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	-40 to +85	°C
Storage Temperature	-55 to +125	°C

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	1600		2425	MHz	
Step Size	100		10000	kHz	
Output Power	-3	0	3	dBm	
Output Phase Noise		-83	-78	dBc/Hz	1kHz
		-92	-87	dBc/Hz	10kHz
		-113	-108	dBc/Hz	100kHz
		-135	-130	dBc/Hz	1000kHz
Spurious Product - 100kHz Step Size		-70	-60	dBc	
Reference Feedthrough		-75	-65	dBc	
Second Harmonic		-20	-10	dBc	
Reference Oscillator Signal	10	20	250	MHz	Frequency
Reference Input Level	0		3.3	V_{P-P}	DC coupled
	-5	0	+5	dBm	AC coupled
Power Supply					
V1	11.7	12	12.3	V	
V2	2.7	3	3.3	V	
I1		50	60	mA	
I2		25	35	mA	

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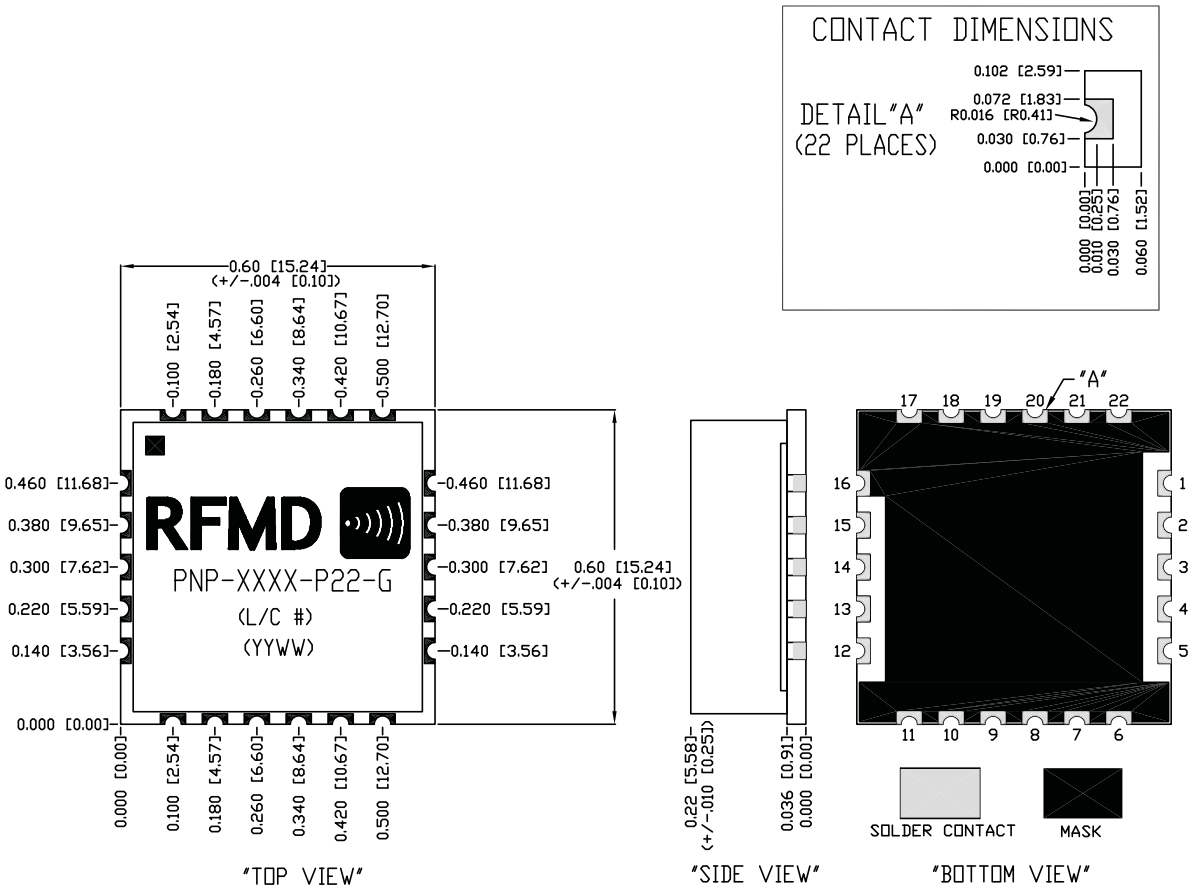
Package Drawing & Pin Outs

15.2mm x 15.2mm x 5.6mm (0.6in x 0.6in x 0.22in)



CONTACT ASSIGNMENTS:	
1: DA0	12: RF OUTPUT
2: DA1	13: Avdd, ANALOG SUPPLY INPUT
3: DA2	14: Dvdd, DIGITAL SUPPLY INPUT
4: LOCK DETECT	15: REFERENCE INPUT
5: NO CONNECT	ALL OTHER CONTACTS ARE GROUND

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