



Valon 5009 - Frequency Step Size

The frequency step size depends on the desired output frequency and then to some degree the reference frequency. Basically the resolution will be as shown in the table below. So as you can see, in the 3~6GHz range, the minimum step size is 10kHz. Or, for example, at 30MHz, the minimum step would be around 78Hz.

Frequency Min. (MHz)	Frequency Max (MHz)	Step Size (kHz)
3000	6000	10
1500	3000	5
750	1500	2.5
375	750	1.25
187.5	375	0.625
93.75	187.5	0.3125
46.875	93.75	0.15625
23.4375	46.875	0.078125

Our synthesizer uses a reference double technique to minimize phase noise. You can turn the reference doubler off, and the minimum step size will be half of that shown in the table (5kHz instead of 10kHz at 4GHz for example).