

## NovaSource™ RF Signal Source

NovaSource is a small, low-cost, and easy-to-use programmable frequency synthesizer that not only saves significant space on your lab bench or test rack, but also in your capital equipment budget.

### Improve flexibility without sacrificing space or money

- ▼ Models cover frequency bands from 45 MHz to 6 GHz
- ▼ 10% of the cost of Agilent® signal generators
- ▼ Compact size saves valuable real estate on the bench or rack and allows for portability
- ▼ Real-time or programmed operation for versatile control



Ever wonder what would happen if you eliminated all of the extraneous features of your Agilent® signal generator and shrunk it enough to fit in your pocket? Result: NovaSource RF Signal Source - a low-cost alternative to traditional signal generators perfect for a plethora of applications.

NovaSource is simple to use with its programmable, nonvolatile memory and built-in synthesizer functions, including software-controlled attenuation of the buffered RF output and an internal reference signal. If you would rather use your own signal, simply feed it into NovaSource's external reference signal input. With the supplied software, programming NovaSource is hassle-free and straightforward.

Providing support for nearly any project, NovaSource is offered in two different flavors - NovaSource M2 and NovaSource G6. 13 different NovaSource M2 models are offered, with each model covering a frequency band between 45 MHz and 2.4 GHz. Similarly, NovaSource G6 (pictured) is offered in seven separate models collectively covering 2.4 GHz to 5.875 GHz. NovaSource G6 also offers a tuning resolution of 1 kHz and frequency modulation and frequency sweep capabilities.

Everything you want. Nothing you don't need. Find out for yourself today.

### Applications

- ▼ Cellular and PCS Field Amplifier Testing
- ▼ Local Oscillator for Wireless Development
- ▼ 802.11a, 802.11b, Bluetooth, U-NII, HiperLAN Development
- ▼ Production Test & Equipment
- ▼ Wireless Base Station Power Amplifier Burn-in
- ▼ University Lab

*"The beauty of this family is that it eases development."*

-Alex Mendelsohn,  
ChipCenter.com

Parameter	M2	G6
Range	45 MHz - 2.4 GHz	800 MHz - 5.875 GHz
Tuning step size	1 kHz to 1000 kHz (typical, model dependent)	1 kHz
Memory	Nonvolatile	same
Frequency modulation	None	Internal 1 kHz; external up to 50 kHz Deviation: +/- 1.25 MHz peak, 10 MHz reference
RF output power (max)	+10 dBm (typical)	+8 dBm (typical)
RF output impedance	50 ohms (typical, in-band)	same
RF output power adjustment	Software controlled	same
Number of steps	31	same
Total range	28 dB typical (min. 25 dB)	same
SSB phase noise (dBc/Hz)		
@ 1 kHz	-60 to -80 (typical, model dependent)	-61 to -70 (typical, model dependent)
@ 10 kHz	-70 to -100 (typical, model dependent)	-71 to -78 (typical, model dependent)
@ 100 kHz	-105 to -115 (typical, model dependent)	-96 to -109 (typical, model dependent)
Non-harmonic spurious	< -60 dBc (typical)	same
Harmonics	< -35 dBc (typical)	same
RF output modes	Continuous, Momentary, and Toggle (on/off)	same
Frequency reference port	Selectable as output or input	same
Internal reference frequency	10.00000 MHz (9.60000 in 30 kHz step models)	10.00000 MHz
Accuracy	+/- 1 ppm (@ +23 +/- 2 deg. C)	same
Stability	+/- 1 ppm over operating temperature range	same
External reference frequency	Up to 40 MHz, 0.5 to 5.0 Vpp (Dependent on PLL configuration)	Up to 40 MHz, 0.6 to 5.0 Vpp (Dependent on PLL configuration)
DC supply input voltage	16-24 VDC	9-15 VDC
Control software	PC / Windows™ compatible	same
Control interface	PC parallel	PC RS-232 serial
Status indicators (LEDs)	RF Output On, Phase Lock, Power Applied	same
RF connectors	SMA female	same
Power connector	1.3 mm center-positive DC power jack	same
Data connector	DB-9P (9 Pin D-Sub)	DB-9 female
PC connection required for initial setup	Parallel port (cable included)	Serial port (cable included)
Size (W x L x H)	2.75" x 3.52" x 0.75" (70 mm x 90 mm x 19 mm)	2.75" x 4.0" x 0.75" (70 mm x 102 mm x 19 mm)
Weight	6 oz., 170 g. (not including cables or power supply)	same
Temperature range	Operating: 0 to +50 C; storage: -20 to +70 C	same
Enclosure	Aluminum body with epoxy-based coating, polymer end-caps	
Model frequency bands (MHz)	45-65, 65-95, 80-120, 110-160, 160-220, 220-320, 320-500, 500-800, 800-1200, 1000-1500, 1500-2000, 1700-2200, 2000-2500	800-1200, 1700-2500, 2400-3400, 3400-3700, 3700-4200, 5150-5350, 5470-5875

More information available.  
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