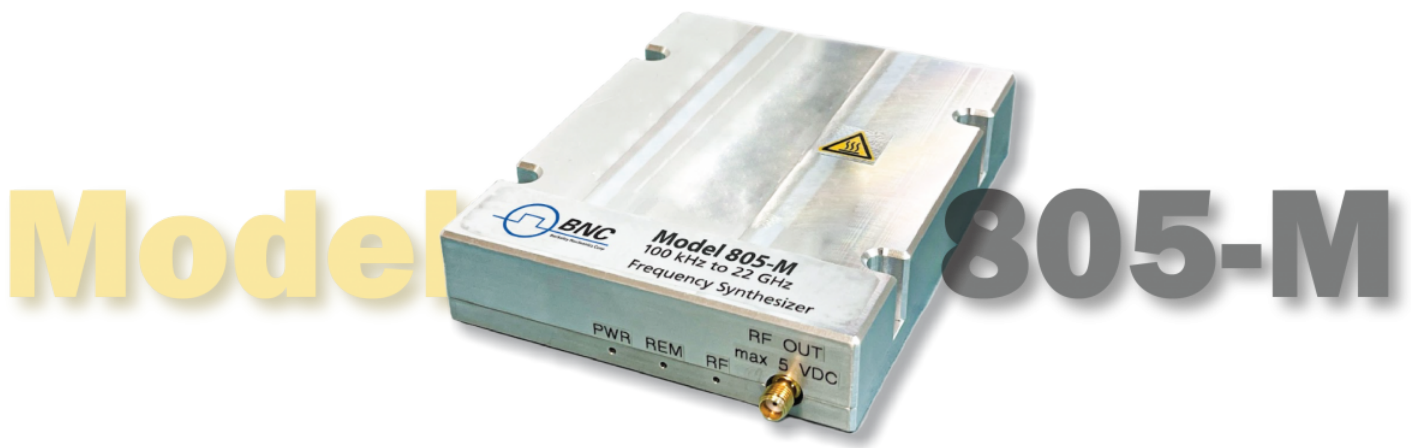


# MODEL 805-M ULTRA-AGILE FREQUENCY SYNTHESIZER: A POWERFUL REPLACEMENT FOR NATIONAL INSTRUMENTS' QUICKSYN LITE SYNTHESIZER

## Blog Post

In the world of electronic instrumentation, frequency synthesizers play a vital role in generating precise and stable signals across a wide frequency range. National Instruments' QuickSyn Lite Synthesizer has been a popular choice for many applications. However, Berkeley Nucleonics Corporation (BNC) is set to revolutionize the market with its latest innovation, the Model 805-M Ultra-Agile Frequency Synthesizer. With its compact size, versatile modulation capabilities, low power consumption, and multi-channel configurability, the 805-M is positioned as an ideal replacement for the QuickSyn Synthesizer.



### Compact Flange-Mount Design:

The Model 805-M Ultra-Agile Frequency Synthesizer features a small-sized flange-mount module, making it suitable for space-constrained environments. This compact design allows for easy integration into existing systems or instrument racks, saving valuable space without compromising performance.

### CW and Pulse Modulation:

With the 805-M, BNC has ensured that users have access to both continuous wave (CW) and pulse modulation capabilities. CW modulation enables the generation of continuous signals, while pulse

modulation enables the creation of pulsed signals with precise timing characteristics. This flexibility makes the 805-M suitable for a wide range of applications, including radar systems, wireless communications, and scientific research.

#### **Low Power Consumption and Passive Cooling:**

Power efficiency is a critical consideration in modern electronic devices. The 805-M stands out with its low power consumption, drawing as little as 17 W during operation. This feature not only reduces energy costs but also minimizes the heat generated by the device, contributing to its long-term reliability. The passive cooling mechanism eliminates the need for noisy fans, ensuring silent operation and making it suitable for noise-sensitive environments.

#### **Multi-Channel Configurable and Cascadable:**

The Model 805-M offers multi-channel configurability, allowing users to generate multiple frequency signals simultaneously. The ability to cascade multiple units enables the creation of complex setups with phase-locked and frequency-coherent outputs. This master-slave configuration provides precise synchronization between different units, essential in applications requiring phase coherence, such as multi-antenna systems or phased-array radar. To achieve phase coherence across multiple units, the 805-M features a 1 GHz reference loop-through capability. This allows for the distribution of an external 1 GHz reference signal, ensuring synchronization between multiple devices and maintaining accurate phase relationships. The reference loop-through simplifies the setup process and enhances system performance.



Berkeley Nucleonics Corporation's Model 805-M Ultra-Agile Frequency Synthesizer is a groundbreaking solution that surpasses the capabilities of the National Instruments QuickSyn Lite Synthesizer. With its compact size, CW and pulse modulation capabilities, low power consumption, passive cooling, multi-channel configurability, and phase coherence through the 1 GHz reference loop-through, the 805-M offers unmatched versatility and performance. Whether in research laboratories, communication systems, or radar applications, the 805-M is poised to become the go-to choice for engineers and scientists seeking advanced frequency synthesis capabilities. If you require any information, please check out the Model 805-M product page [[link here](#)].