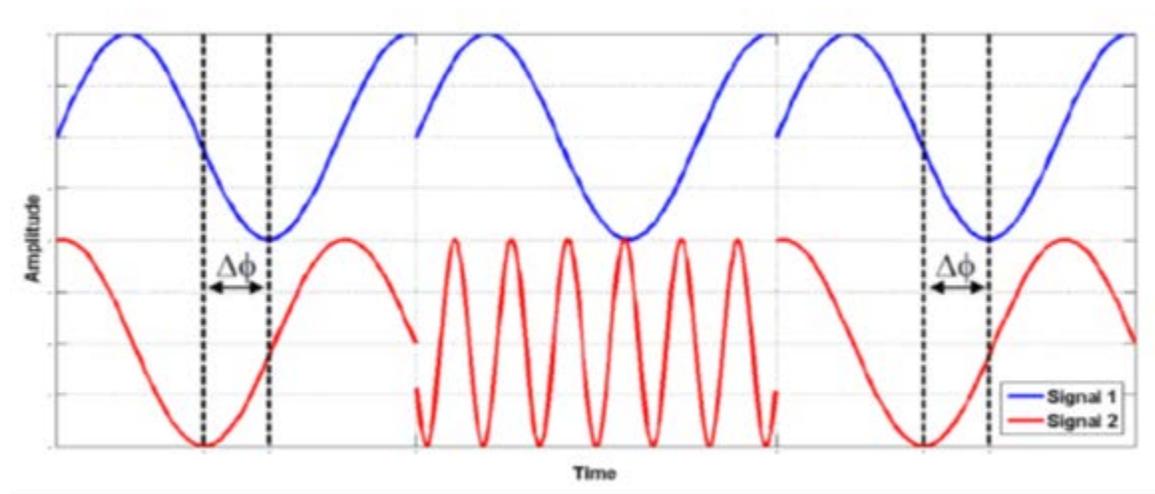


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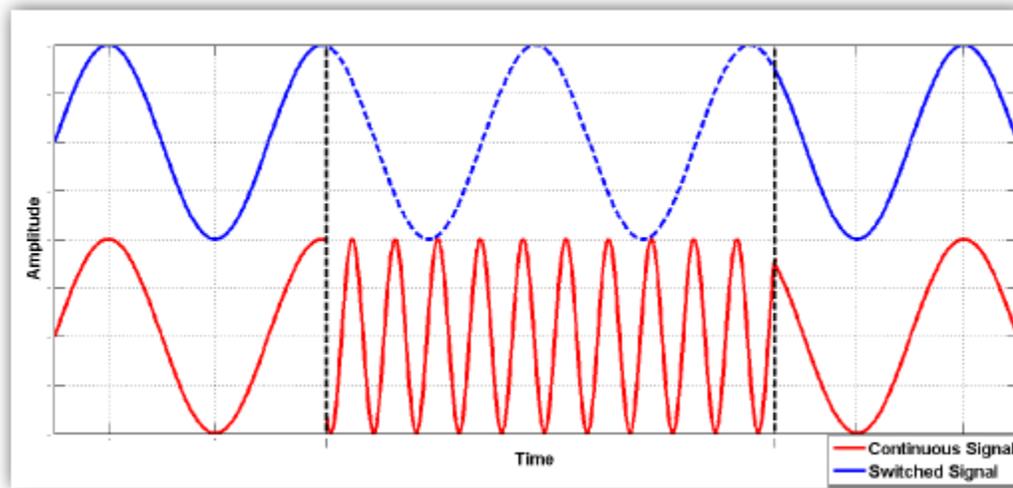
### Advanced Frequency Switching with RF / Microwave Signal Generators

(San Rafael, CA) Berkeley Nucleonics Corporation offers the most comprehensive option package for high speed frequency switching in 6GHz, 12GHz, 20GHz, 33GHz and 40GHz signal generators. The company's flagship Multi-Channel Signal Source, the Model 855B, can now be ordered with Phase-Coherent Switching (Option PHS) which allows users to maintain a relative phase relationship between several channels when frequencies are toggled. A simple example follows:



With 2 phase coherent signals at frequency ( $F_1$ ) and relative phase ( $\omega$ ), signal 2 undergoes frequency switching ( $F_1, F_2, F_1$ ). Following the sequence, the 2 signals once again have the same relative phase ( $\omega$ ).

Additional work has been done on the phase memory of the output signal. With phase memory, users can run a frequency shift (F1, F2, F1) and the signal's phase resumes at the position it would have been had it run continuously at frequency (F1). A simple example of phase memory follows:



Advancements in switching performance are critical for applications Radar Simulation, Phased Array Antenna Test and Beam Forming because users wish to generate a sequence of RF pulses with well defined frequency, power and phase. Using Phase Coherent Switching and defined Phase Memory, radar signal simulation can be further refined to address electronic countermeasures, effects of environmental disturbances (clutter) and issues at various points along the signal path. Radar systems are now required to address multiple functions, from search to scan to track to map. The Model 855B with PHS helps meet these objectives by advancing your RF/Microwave signal generation capability.