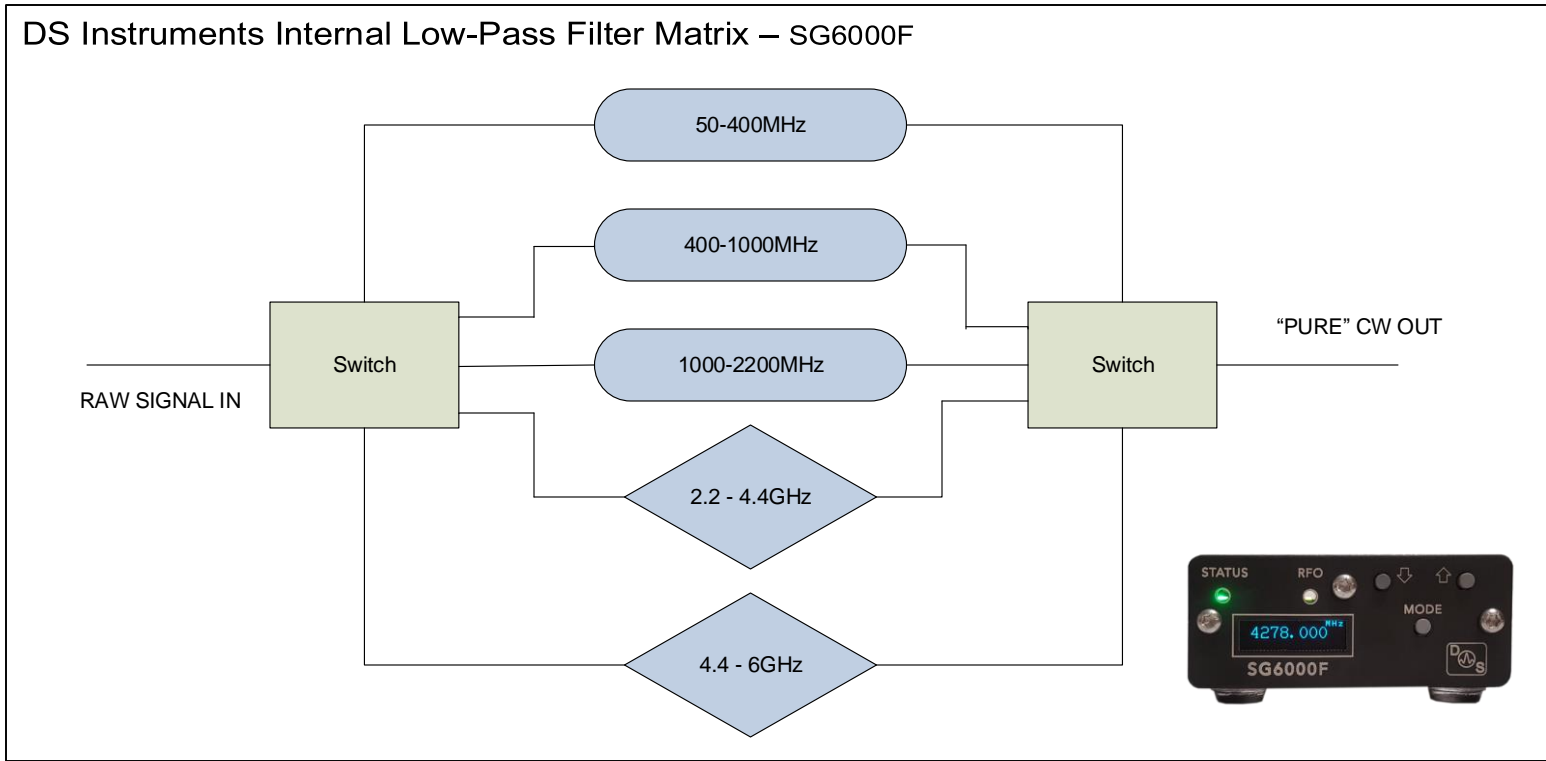


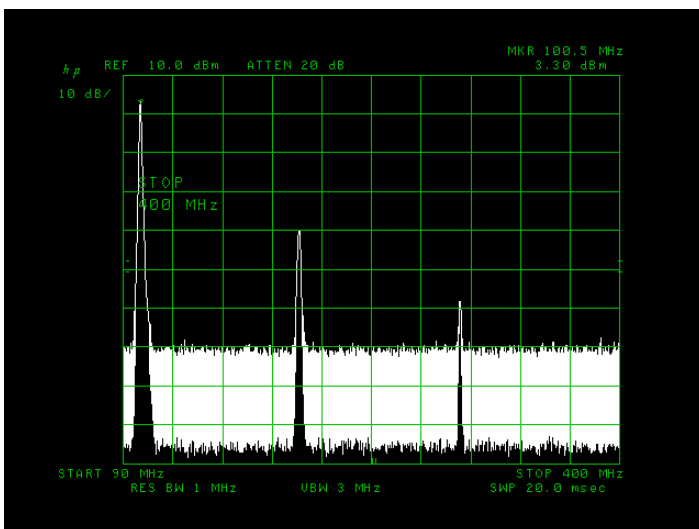
Harmonics and Time-Domain Distortion

The **SG6000F** and **SG6000PRO** focus on filtering the harmonics inherent to PLL based synthesizers as best as possible. The SG6000F utilizes a filter matrix made up of 3 multi-octave tunable low frequency filters and two fixed high-frequency low-pass filters. The SG6000 PRO has an additional fixed filter to cover its extra bandwidth.



Harmonics are more plentiful at low frequencies (<500MHz) in wideband systems, causing more pronounced distortion. The SG6000F filtering is typically able to reduce the second harmonic to -30dBc, and the third harmonic to under -40dBc. Unfiltered synthesizers can have harmonics as high as -10dBc extending well beyond the 9th.

Low Harmonic Content



Low Distortion!

