## **FPGA** $B\sin(\omega_{i}t + \phi_{i}) \leftarrow ADC \leftarrow B\{\sin(\omega_{i}t + \phi_{i}) + \sin[(\omega_{i} + 2\omega_{j})t + \phi_{i}]\}$ $B\cos(\omega_{i}t + \phi_{i}) \leftarrow B\{\cos(\omega_{i}t + \phi_{i}) + \sin[(\omega_{i} + 2\omega_{j})t + \phi_{i}]\}$