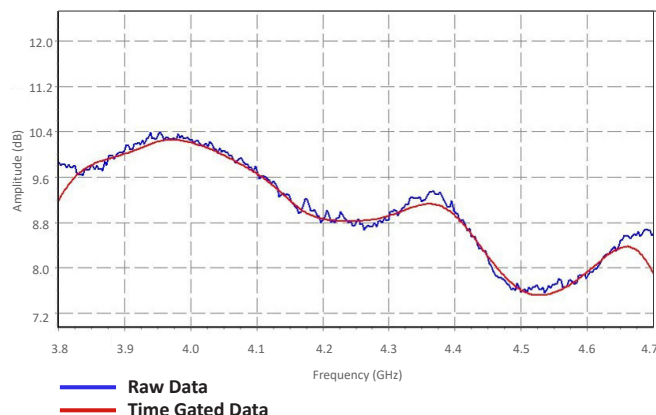
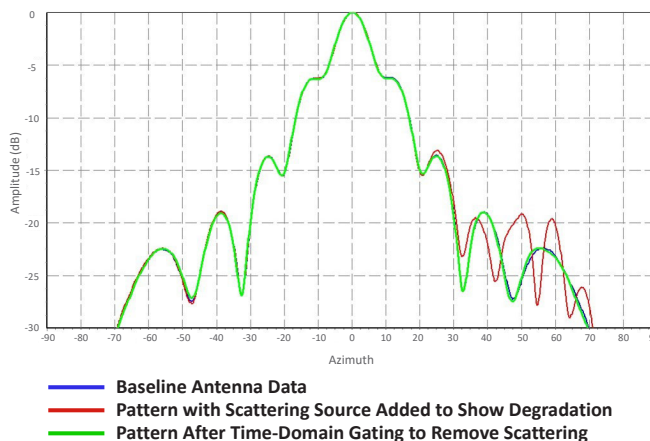




Raw and Gated Field Probe Data at Center Position



Comparison of Before and After Gating of Corrupted Antenna Pattern Data



DESCRIPTION

In antenna ranges, extraneous signals can be introduced that contaminate the antenna pattern. In outdoor far-field ranges, for example, this could be a set of ground bounce signals. In compact ranges, this could be reflections off the side walls, ceiling and floor. These signals have longer path lengths and thus longer travel times than the primary, direct signal path. If the extraneous signals are separated in time from the desired signal, they can be filtered out with time domain processing. NSI-MI Technologies' Time Domain Analysis package helps identify and separate these contaminated signal paths.

DATA REQUIREMENTS

Minimum requirements for the data to be processed with the Time Domain Analysis module include:

- **Minimum of 8 frequencies**
- **Frequencies must be in MI-3000 "RANGE" mode for even spacing**
- **Minimum bandwidth of 50 MHz**

For reference, a 100 MHz bandwidth gives a range resolution of 299.3 cm (117.85 in.) and 8 frequencies give coverage of 2394.7 cm (942.80 in.) or 23.92 m (78.5 ft); large enough for most antennas under test on outdoor ranges. Wider frequency bandwidths provide improved resolution in the time domain as this allows filtering of unwanted signals that are much closer to the antenna under test.

COMPATIBILITY

- **Windows® 7, 10**
- **Arena Data Acquisition Software**

STANDARD COMPONENTS

- **Time Domain Analysis Software**
- **Software Manual**