IDS GeoRadar

IBIS-FS Plus

The advanced configuration for remote static and dynamic monitoring



An accelerometer version of IBIS-FS that mitigates the effect of large external vibration sources on radar results

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IDS GeoRadar: Innovative Interferometric Radar for Mining, Environmental and Civil Engineering Applications

www.idsgeoradar.com

IBIS-FS Plus

IBIS-FS PLUS APPLICATIONS

The IBIS-FS Plus configuration is aimed at users who need to perform measurements in places characterized by large ground vibrations where the IBIS-FS is installed. These ground vibrations can be transmitted to the IBIS-FS tripod, affecting the measurement results.

For this purpose IBIS-FS Plus integrates an accelerometer on the radar head whose data is used for cancelling the self-induced vibrations transmitted to the radar from the ground.

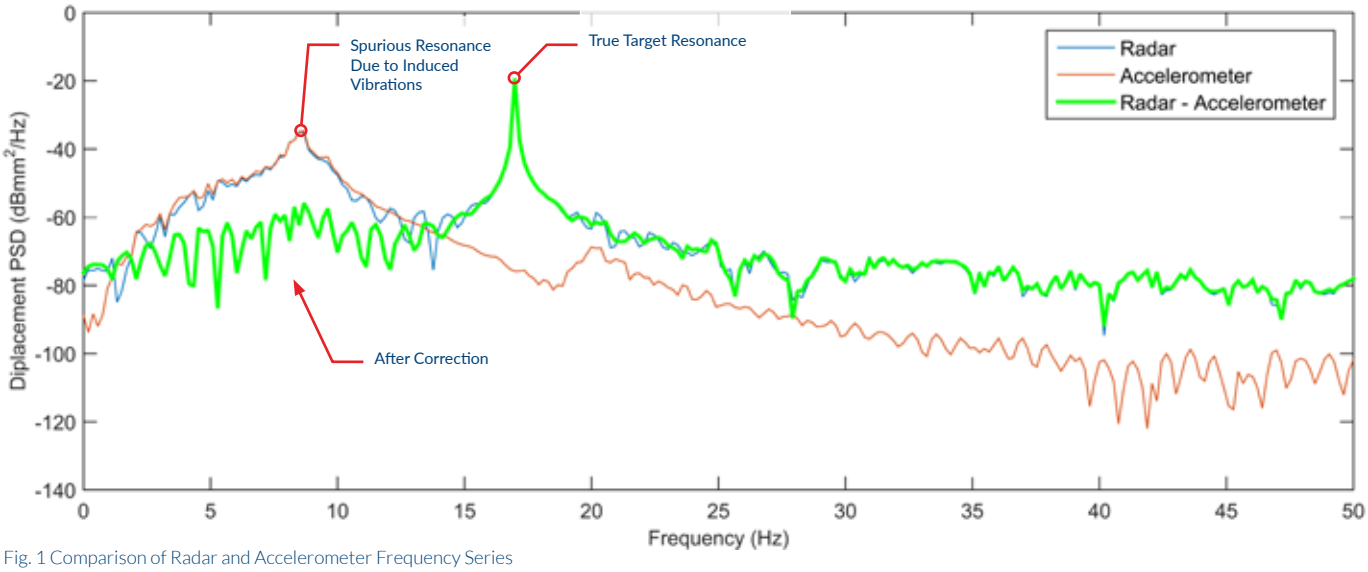


Fig. 1 Comparison of Radar and Accelerometer Frequency Series

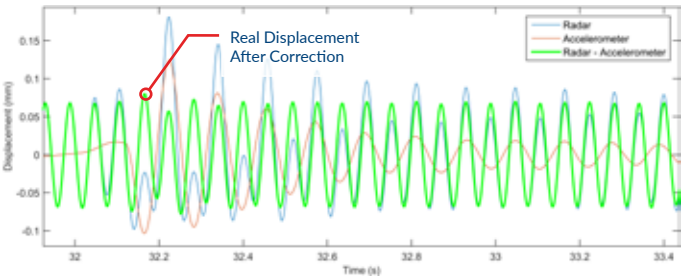


Fig. 2 Radar and Accelerometer Displacement

Fig. 1: The blue line shows the frequency response measured by IBIS-FS. The vibration of the radar head (induced from ground vibration) is measured by the integrated accelerometer (red line) and subtracted, resulting in the green line which contains only the measurement target's frequencies.

Fig. 2: Shows the effect of the above subtraction procedure on the resulting displacement of the target. Spurious displacements induced by soil vibrations are cancelled.



IBIS-FS Plus Incorporates an Accelerometer

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