

Use case- Corrosion Inspection - Lytid

lytid.com/ndt-radar-solutions/corrosion-inspection

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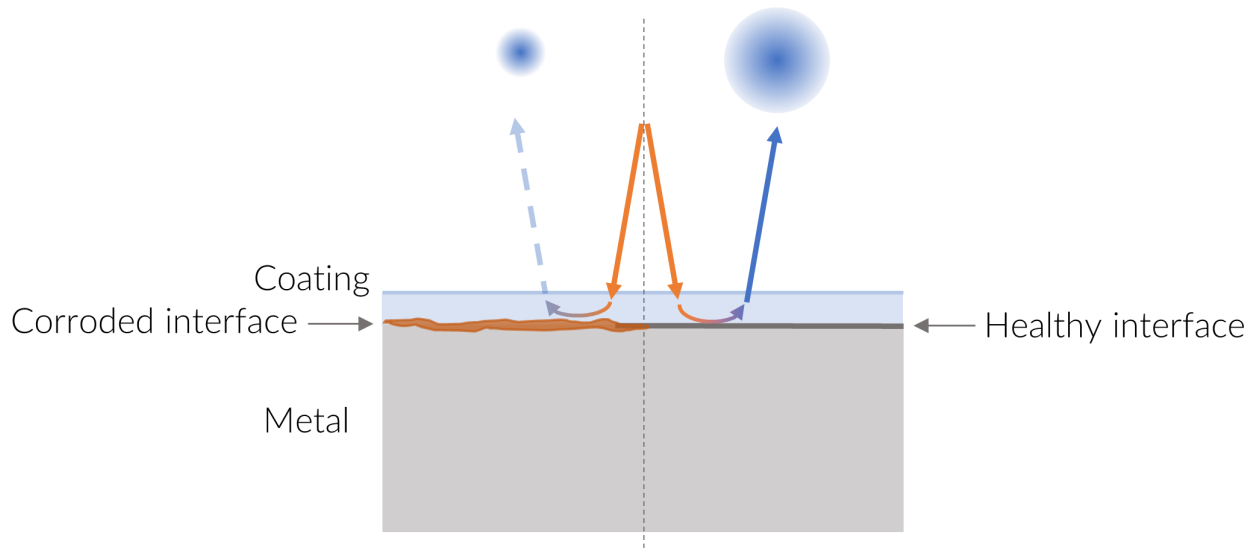
Corrosion inspection with NDT Radar Solution



A large variety of industrial sectors suffer from corrosion issues causing undesired high maintenance costs and products obsolescence. Namely, naval and aeronautics sectors are highly impacted, for instance, even early-stage corrosion behind the protective coating represents a harmful signal with potential damage risks. Although the inspection of such metal substrates can be performed after the removal of all protective layers, this destructive approach damages the sample under test while the whole process remains time-consuming and expensive.

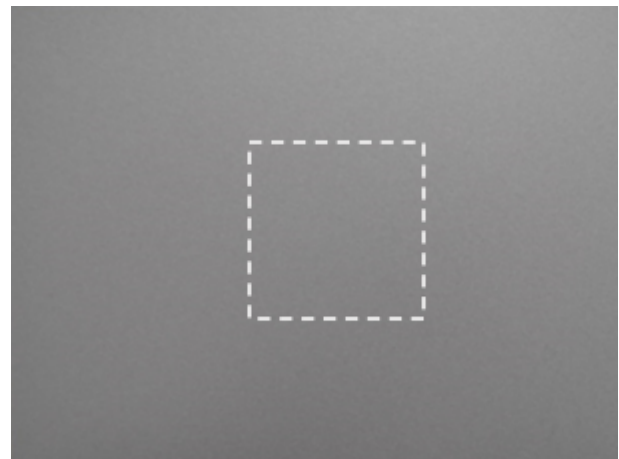
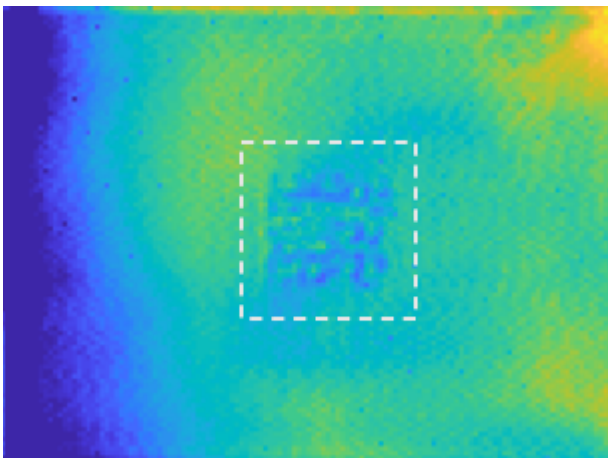
It is then primordial to detect corrosion traces in early stages in a non-invasive way to anticipate maintenances or parts replacement. Terahertz FMCW radars technologies, as a new supplementary tool, enable a non-contact, sensitive, harmless assessment of corroded surfaces through multiple opaque protective layers.

NDT radar inspection principle for early-stage corrosion



Through the subtle reflectivity change of the metallic substrate in presence of corrosion traces, NDT radar solution provides a sensitive measurement tool capable of detecting minor corrosion traces through opaque protective coating layers.

A one-sided inspection of an opaquely protected metallic substrate has been performed using the NDT radar solution. While no corrosion can be observed with visible light, image achieved with Lytid's NDT radar solution shows clearly corrosion traces (marked with white dot rectangle) behind the coating at the center.



Inline



Non-contact



High accuracy



One-sided