



TERAHERTZ AUTOMOTIVE PAINT COATING INSPECTION



Manual DFT to
Automated THz
technology



MULTI-LAYER COATING

REAL-TIME

NON-DESTRUCTIVE

THE PROBLEM FACING

- MANUAL & NOT AUTOMATION-FRIENDLY
- CANNOT MEASURE MULTI-LAYER THICKNESS
- 1–5% VEHICLE REJECTION DUE TO POOR COATING

WHY TERAHERTZ?

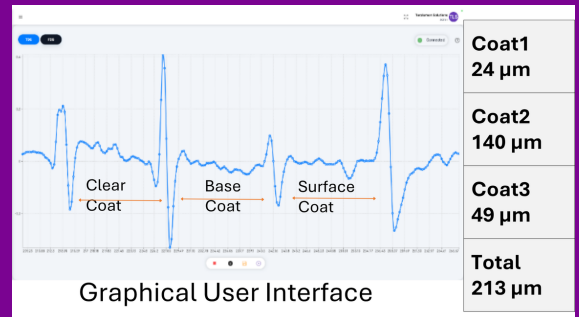
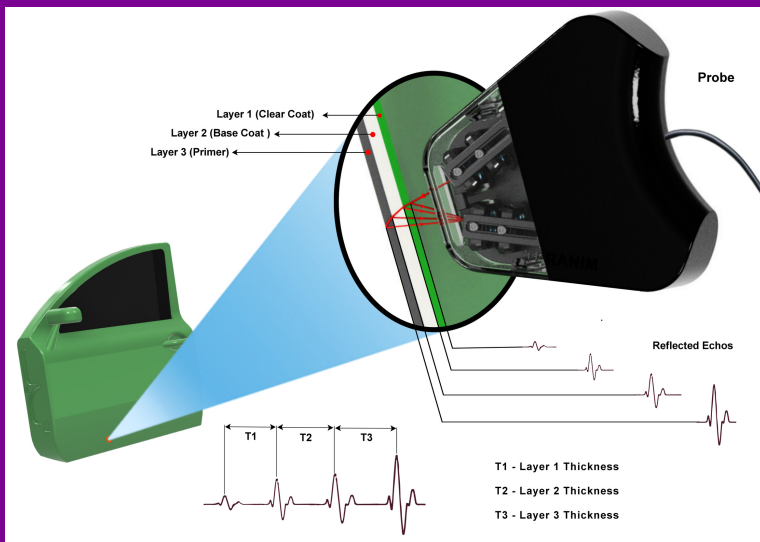
- REDUCES REWORK
- NON-IONIZING - SAFE
- READY FOR INDUSTRY 4.0
- WORKS ON CURVED OR FLAT SURFACES

HOW IT WORKS

- RESULTS SHOWN INSTANTLY
- REFLECTIONS ANALYZED FOR THICKNESS/DEFECTS
- THZ WAVES SCAN THROUGH PAINT LAYERS

OUR SOLUTION: THZ-BASED INSPECTION

- MICRON-LEVEL ACCURACY
- IN-LINE, REAL-TIME, AND CONTACTLESS
- MEASURES ALL LAYERS (PRIMER, BASE, CLEAR)
- DETECTS HIDDEN DEFECTS & DELAMINATION
- NO SPECIAL TRAINING/QUALIFICATION REQUIRED



KEY BENEFITS

BY IMPLEMENTING TERAHERTZ TECHNOLOGY, MANUFACTURERS CAN ACHIEVE UP TO 15% COST SAVINGS AND REDUCE ENERGY CONSUMPTION PER CAR. IT HELPS TO MINIMIZE DEFECTS AND MANUAL ERRORS THROUGH INLINE ROBOTIC INTEGRATION AND OPERATES WITH A USER FRIENDLY INTERFACE.

ABOUT TERALUMEN

TERALUMEN DELIVERS ADVANCED TERAHERTZ INSPECTION SYSTEMS DESIGNED FOR AUTOMOTIVE PAINT SHOPS QUALITY CONTROL. OUR TECHNOLOGY ENABLES REAL-TIME, MULTI-LAYER COATING THICKNESS MEASUREMENT WITH UNMATCHED ACCURACY AND SAFETY — HELPING MANUFACTURERS TO REDUCE DEFECTS, CUT ENERGY USE, AND IMPROVE QUALITY CONTROL

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