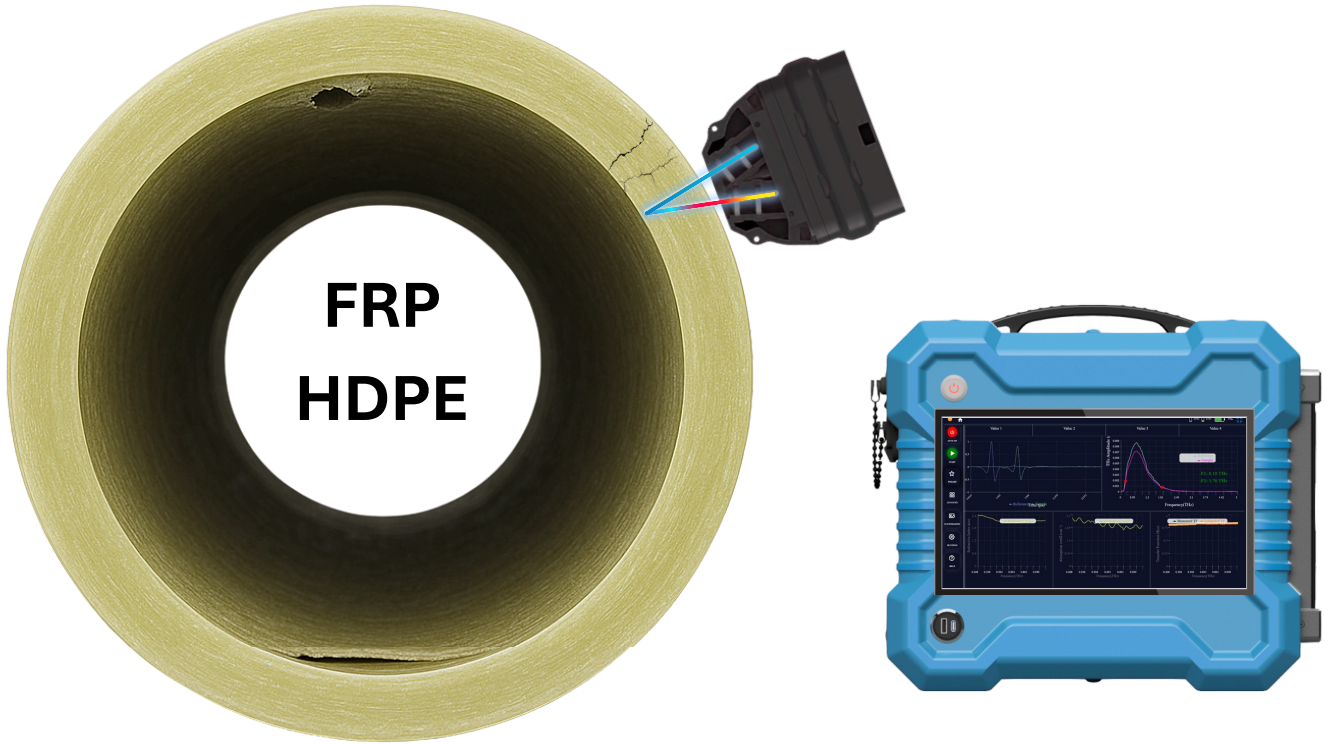




TeraNIM™_OG

Compact THz System

A compact NDT Industrial Terahertz Device suitable for Oil and Gas Industries.



Non-Contact Testing

Non-Ionizing Radiation

Real-Time Results

Composite Material Inspection

TeraNIM_OG can inspect various composite materials for

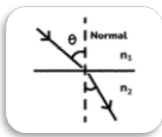
- Internal and External Defect detection
- De-bonding and Delamination
- Moisture Detection
- Material Density Analysis
- Sub-surface defects in Foams and Plastic

With baseline of these properties and subsequent tests over time, users can monitor changes in the composite material characteristics for the early detection of aging effects and prediction of long-term performance for the material integrity and extending its service life.

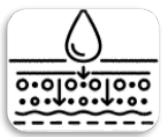
TeraNIM_OG Specifications

Measuring Materials	Dielectric Materials Eg: FRP, HDPE, MDPE & Polymers
Spectral Range	0.1 – 3.5 THz
Technology Type	THz Time Domain System
Equipment Type	Compact
Probe Type	Hand Held
Dynamic Range	> 50 dB
Probe positioning	Inbuilt 8MP Camera
Diameter of THz beam	2 to 8 mm*
Delay Line	330 ps / 660 ps*
Image Resolution	1mm
Mode	Reflection Mode
Measurement Type	Single point

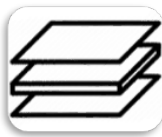
Terahertz (THz) testing is an non-destructive evaluation (NDE) technique for assessing composite materials. It enables users to detect defects like delaminations, voids, cracks and impact damage. Beyond defect identification, THz testing is crucial for characterizing fundamental material properties such as refractive index and absorption coefficient which are vital indicators of a material's physical and chemical state.



Refractive Index



Absorption Coefficient



Material Characteristics

Thickness penetration	25mm @ 1.8 RI
Data Representation	Mode1: Point measurement Mode2: Imaging with scanner
Umbilical Cable	2.5 mts (customizable)
Measurement Resolution	0.1, 0.01 and 0.001
Enclosure	40 cm x 30 cm x15 mm (L x W x H)
Controller Weight	18 kg
Probe Weight	< 1 kg
External Ports	Ethernet – 1; USB - 1
Automation Integration	Yes
Operating Voltage	230 VAC
Frequency	50 - 60 Hz
Power Consumption	<250 W
Operating Temperature	15 - 40 °C
Operating Humidity	20 to 80% non-condensing
Storage Temperature	15 - 40 °C

*Note: Turnkey system is customizable based on application requirements.