

# SMART Scan Package

Acellent Technologies, Inc. provides complete Structural Health Monitoring (SHM) solutions with our innovative technology. We have designed a "SMART Scan Package" specifically for engineers, researchers and students, who are working on piezoelectric-based active sensing & diagnostic systems. The SMART Scan Package is ideal for monitoring localized damage in small structures.

## SMART Scan Package:

### Provides –

- Complete integrated system
- Reduced cross-talk for monitoring small structures
- Cost-effective solution to meet your SHM needs
- Compact & light-weight system for easy field deployment

### Allows –

- Automated signal processing
- Built-in tools for signal generation & data-acquisition
- Pre-connected sensor network
- Autonomous damage detection capability

### Monitors –

- Small structural components in visible and non-visible areas
- Hot spot locations in aircraft, helicopters, etc for damage
- Corrosion in pipelines, aircraft and other metallic structures

## System Configuration



## ScanSentry Package Includes -

Component	Product	Description
Sensor	SMART Layer®	8 sensors laid out in a circular pattern
Hardware	ScanSentry®	16 dedicated transmit and 16 dedicated receive channels
Software	ACCESS®	Version 2.1

## Features of ACCESS Software

- Control tools for data analysis
- Diagnostic imaging tools
- Data can be exported in multiple formats (such as Matlab, Excel and Text.)
- Advanced signal investigation capability
- Data retrieval for future analysis



## Features of the ScanSentry



- Portable device with reduced crosstalk between signals
- Multi-channel actuation and sensing - "16 channels each"
- Two active scan modes: through transmission and pulse-echo (alternative cable required)
- Data acquisition: up to 48MS/s in dual channel mode, 12-bit resolution
- Transmission signal: 10 kHz to 1 MHz, up to 95v pk-pk
- Adjustable band-pass filter and gain amplifier

## Features of the Sensors

- Ease & accuracy of installation
- Durability & reliability under variable environments
- Adaptability to any structure



SMART Layer Circle