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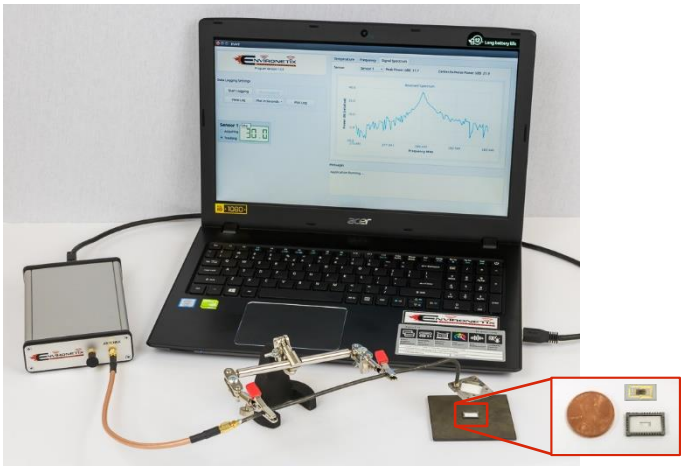
EVHT-300: Wireless Microwave Acoustic Temperature Sensor System

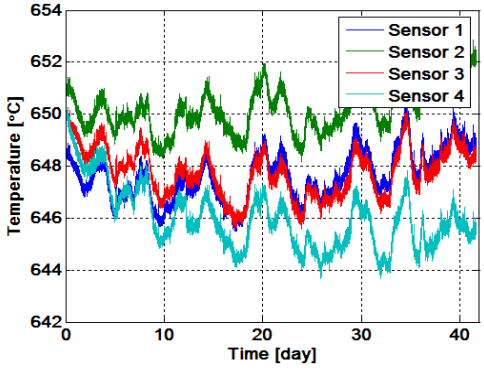


Specifications	
Temperature range	150–1000 °C (300–1832 °F)
Accuracy	± 5 °C
Precision	± 3 °C
Long term drift	< 1 °C / 744 hours
Sensor life	> 500 hours @ 800 °C
Pressure insensitivity	0–750 psi with < 1 °C error
Rotational load	Up to 75,000 G

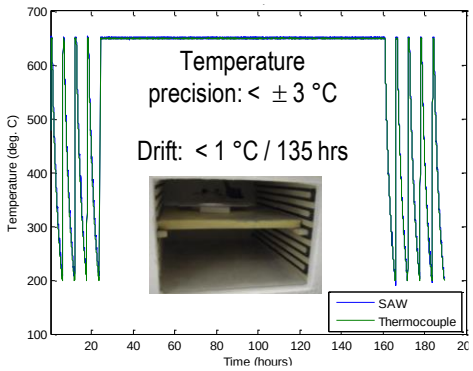
- Multiple sensors with integrated RF antennas
- Wireless RF interrogator electronics
- Custom installation on rotating or static parts
- User-friendly data output on laptop PC
- Proprietary sensor packaging and attachment

Attachment on rotating and static components

Performance in Harsh Environments



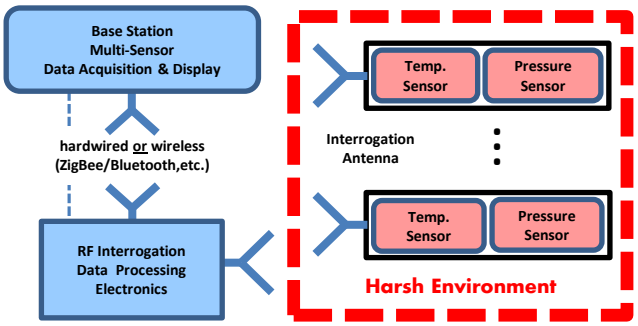
Stable and reliable multi-sensor data

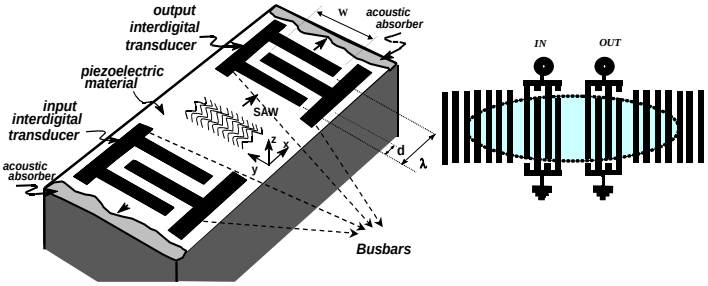


Accuracy with repeated cycling

Validated in furnaces, turbine engines, and power plant water walls

Surface Acoustic Wave (SAW) Sensor Technology



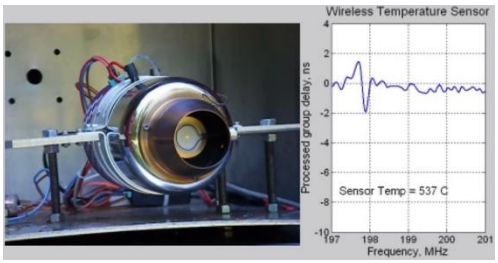


Wireless interrogation within hot zone

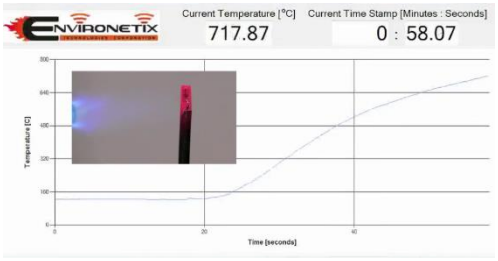
- Integrated sensor-antenna arrays
- Passive wireless (battery-free) sensor operation
- Harsh environment RF interrogation electronics
- Real time data sampling of multiple sensors

Acoustic wave propagation on SAW sensor

- Langasite ($La_3Ga_5SiO_{14}$) piezoelectric crystals
- Typical device size: ~3 mm x 1 mm x 0.5 mm
- Stable nanocomposite high-T transducer electrodes
- Passivation coatings for long-term sensor protection



Wireless real time sensor data acquisition for rotating and fixed parts



Environetix Sensor Systems Are Applicable In Many Harsh Environments

Combustion engines

Power plants

Industrial processes

High-T processing

Space vehicles

Gas/oil extraction

ENVIRONETIX TECHNOLOGIES CORPORATION

www.environetix.com

Wireless sensor systems — built for customer needs

Contact us to discuss sensor array size, interrogation range, sensor attachment location and profile, and user interface for your specific application

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