

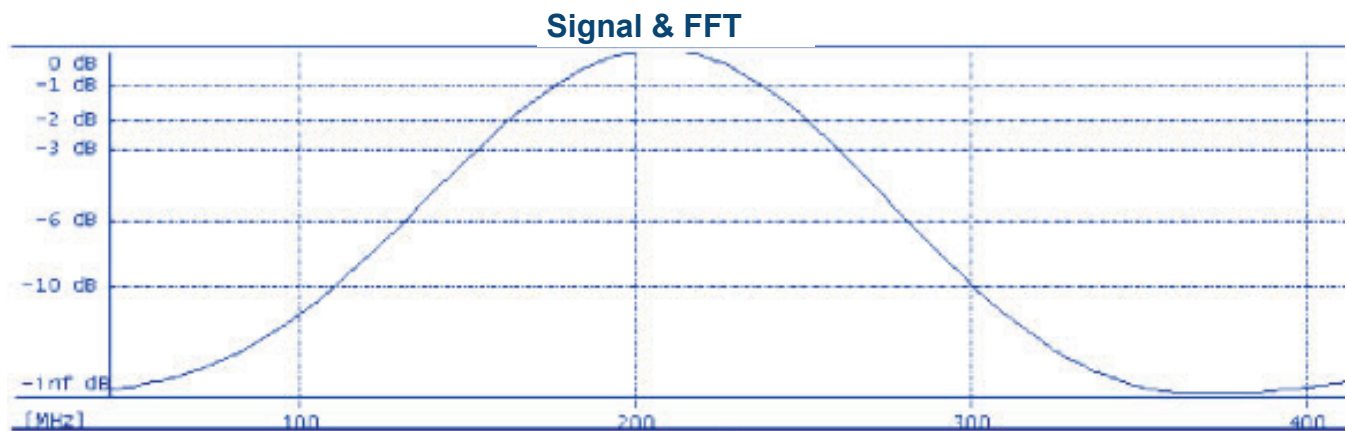
TRANSDUCERS

Specs

- ◆ Each transducer is offered at various focal lengths
- ◆ Standard focal lengths are 2, 3, 4, 5.9, 6, 7, 8, 10.2, 12.7, and 15 mm
- ◆ High frequency transducers focal lengths range from 2 to 10 mm
- ◆ Low frequency transducers focal lengths range from 6 to 15 mm
- ◆ 40mm and other custom lengths are available
- ◆ MUF probe available in 6, 9, and 11 mm



OKOS ultrasonic transducers are specially designed for flaw detection, thickness measuring, bond line inspection, and materials research. The inherent properties of sound make transducers a critical component for non-destructive testing in research and manufacturing facilities.

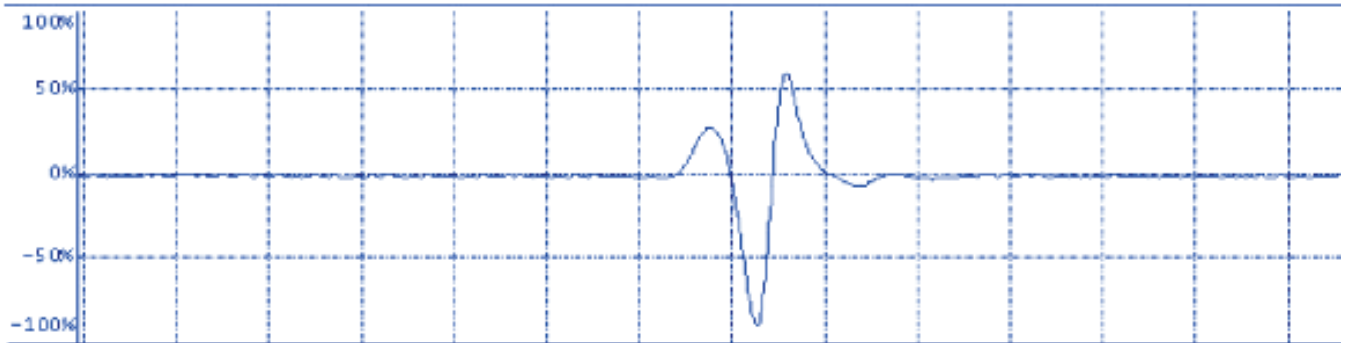


RESULTS

Peak Freq (MHz): 207.031	-6db BW (MHz): 150.656	Receive Voltage (Vpp): 0.03
Center Freq (MHz): 205.890	-6db BW (%): 73.173	%FSH: 24.22
-3dB Hi (MHz): 260.456	-6db Hi (MHz): 281.219	Loop Gain Value (dB): -72.6575

OKOS offers a large variety of custom hand built transducers for different semiconductor package types. Continuous innovation, using new construction techniques, keeps OKOS transducers as the top performing probes for SAM.

Transducers can be designed and built for customer specific applications.



Trusted by the experts for traditional and emerging package technologies

UHF Transducer

- ◆ **Model: OKOS UHF**
- ◆ **Peak Frequency: 180 MHz**
- ◆ **Tolerance: +- 20 MHz**
- ◆ **Focal Length: 2, 3, 3, 4, 5, 5.9, 7, 8, 10 mm**
- ◆ **Delay Line Buffer Material: Fused Silica**
- ◆ **Delay Line Buffer Length: 10 us**
- ◆ **Connector Style: Side Microdot**
- ◆ **Housing: Top UHF Connector**



DeepFocus Acoustic Microscope Transducer

with Integrated Pulser-Receiver

OKOS is the exclusive worldwide distributor of the DF100 under license from Idaho National Labs

US Patents
7,104,131 B2
&
7,188,526 B2

Nondestructive material characterization and flaw detection are the principal applications of this technology.

The Acoustic Microscope's ability to detect, characterize, and precisely represent locations of subsurface anomalies is superb.

Idaho National Lab inventors Steven C. Taylor and Nancy C. Kraft have developed a new patented ultrasonic immersion transducer named the DeepFocus Acoustic Microscope Transducer with Integrated Pulser-Receiver.

Current ultrasonic technologies require users to choose between sensitivity, and resolution.

The DeepFocus Acoustic Microscope Transducer with Integrated Pulser-Receiver (DF-100) has high resolution, is extremely sensitive, compact and has a depth of field that allows it to remain in focus over 0.4 in. of water path variability. This system will detect fill voids, cracks, delaminations and other surface and subsurface anomalies, and provide precision flaw location.

Possible applications of this technology include: 1) A variety of corrosion inspection applications, 2) industrial coating tests, 3) medical industry applications, 4) aircraft safety, 5) computer chip inspection, and 6) semiconductor industry.

Depth of field is a measurement of the range over which a transducer is in focus. Ultrasonic transducers must be focused in a manner similar to that of a standard camera, with objects at a particular distance being in focus and objects either in front of or behind those objects are out of focus.

Most current ultrasonic transducer technologies have a limited depth of field of approximately 0.004 in. of aluminum, needing greater than 60 test-passes with the microscope refocused each time to inspect and characterize 0.250 in. of material.

The DF100's depth of field in aluminum is 0.250 in. The increased depth of field allows characterization on the same amount of material in one test pass.

