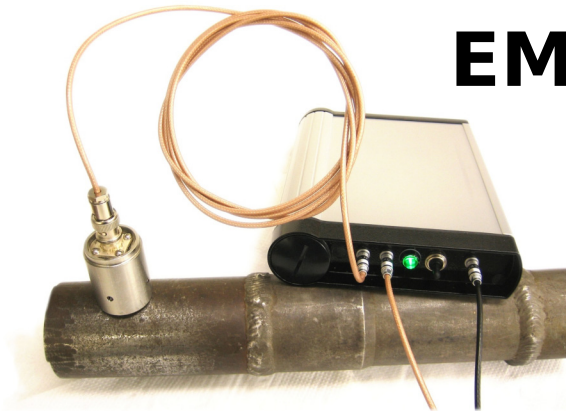




EMAT Adaptor[©]

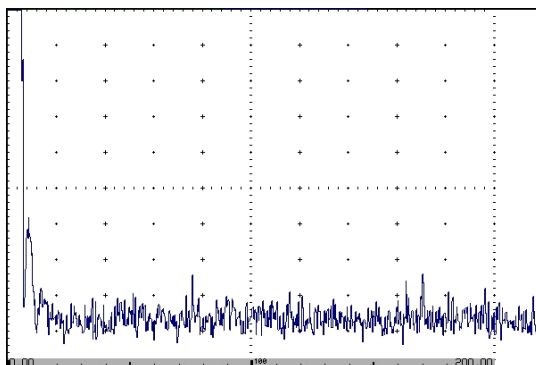


The EMAT Adaptor[©] **GS2020** provides a means for NDT inspectors to benefit from the advantages of non-contact EMAT transducers for pulse-echo flaw detection and thickness gauging, without the large capital outlay of replacing existing piezoelectric based flaw inspection systems and thickness/corrosion monitors.

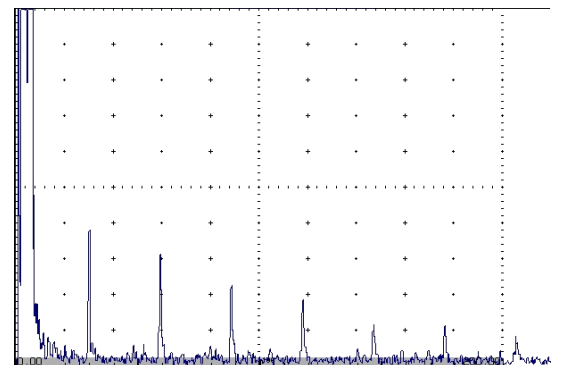
- Acts as a **bridge** between an EMAT probe and a flaw detector designed for piezoelectric transducers.
- Incorporates **low power averaging** electronics such that the signal-to-noise performance of the EMAT measurement is dramatically improved.
- Features **automatic gain control** (AGC), which increases reliability and inspection speed and can eliminate the need for operators to keep adjusting an EMAT stand-off ring or the gain setting on the flaw detector.

Designed to work with modern NDT inspection systems, the EMAT Adaptor[©], when used with a suitable EMAT (provided as part of the package), has sufficient signal strength and resolving power to work on **both oxide coated and oxide free ferritic steel surfaces**, providing a major advantage for plant inspection over alternative systems. In certain circumstances measurement of **austenitic stainless steel** is also possible. The adaptor can also be used with piezoelectric transducers for some situations where the signal-to-noise ratio is too poor to allow measurement, but averaging is able to reveal the ultrasonic signals.

WITHOUT AVERAGING AND AGC



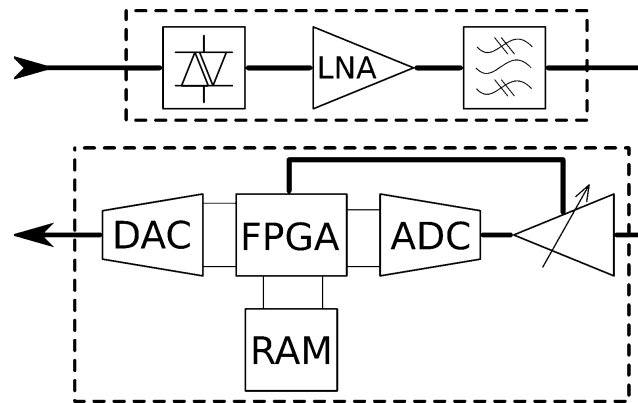
WITH THE GS2020



EMAT measurements on austenitic steel plate*



As most flaw detectors have a pulse repetition rate significantly greater than the screen update rate, most of the potential data available with a standard flaw detector is lost. There are many flaw detectors that do not possess either an averaging capability or an automatic gain control feature. In such situations the **GS2020** can enable your flaw detector to perform EMAT measurements that were previously not possible. By way of an example, consider the images taken from a flaw detector shown overleaf using a shear wave EMAT on a stainless steel sample with a high gain low noise EMAT preamplifier with and without the averaging feature.



Equivalent block diagram of the **GS2020**

Specifications

- Dimensions: 191 x 137 x 37mm approx. (box)
- Weight: 1kg (inc. battery)
- Storage temperature: -10 °C - +60 °C
- Operating temperature: 0 °C - +40 °C
- Operating humidity: 0 - 90%
- Maximum Input voltage: 1000V, 100ns pulse width @ 1kHz
- Maximum Output voltage: +/- 500mV • Bandwidth: 500kHz - 10MHz
- Power: 4x AA Batteries (Typically 12hrs battery life)
- Connections: 3x LEMO 00 coaxial
- Compatibility: Almost all standard flaw detectors — call for more information or a free trial with your flaw detector

* The exact improvement in signal-to-noise depends on the type and thickness of sample used and the example shown is taken on a 12mm thick SS304 plate — see www.sonemat.com for more examples that have been tested.

The information contained in the product brief is believed to be accurate at the time of publication. Specifications are subject to change without prior notice.