

# A1570 EMAT

Universal OEM electromagnetic-acoustic pulser-receiver unit  
for wide variety of EMAT probes



- **Compatible with diverse transducers**

The unit is suitable for driving EMAT with the novel pulse magnetization as well as the regular probes with permanent magnets

- **Flexible excitation frequency control**

Bipolar burst excitation within specified frequency range of 1 - 10 MHz

- **Ingress Protection rating IP54**

suitable for integration in inspection robots in rough environmental conditions

- **Versatile Software Developer Kit**

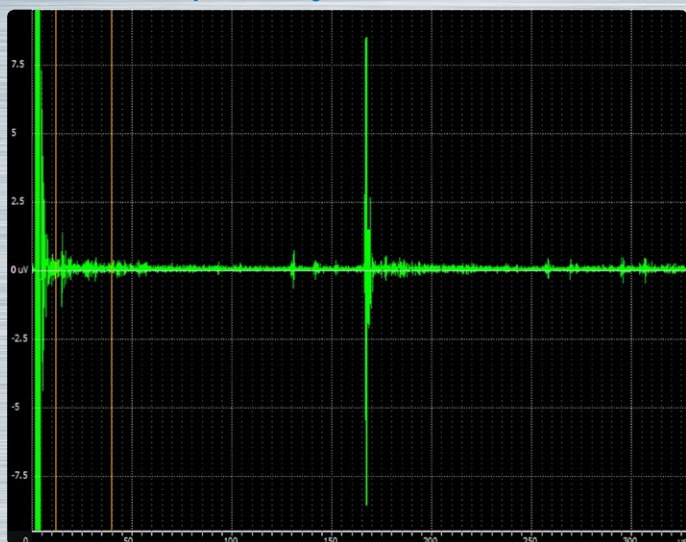
SDK compatible with the industrial protocol SCPI



## Specification:

| Parameter  | Value   |
|--|---|
| <b>TRANSMITTER</b>   |   |
| Output voltage, Volt   | Bipolar burst $\pm 200$ V, $\pm 400$ V, $\pm 600$ V |
| Excitation sequence, periods   | 0.5 to 9  |
| Pulse repetition rate, Hz  | up to 60 with the averaging factor 32               |
| <b>RECEIVER</b>  |   |
| Data acquisition length, Samples                                       | up to 8 KSamples                                    |
| Sampling rate, MHz   | 25 MHz, 50 MHz, 100 MHz                             |
| Receiver band width, MHz   | 1 to 15 MHz   |
| Dynamic range of the amplifier including Time Corrected Gain (TCG), dB | 40 dB   |
| Averaging factor   | up to 32  |
| <b>DATA INTERFACES</b>   |   |
| Ethernet   | up to 100 MBit                                      |
| WiFi 802.11b/g/n / Bitrate:802.11n                                     | up to 150Mbps                                       |
| External trigger output  | TTL + RS485 pulse signal                            |
| <b>TRANSDUCER INTERFACES</b>   |   |
| For EMAT with pulse magnetization                                      | Lemo 2K (EGG.2K.810. CLL1/EGG.2K.810.CLL1)          |
| For EMAT with permanent magnet   | Lemo 00 (ERN.00.250.CTL)                            |
| <b>DIMENSIONS &amp; WEIGHT</b>   |   |
| Dimensions of the electronic block                                     | 320 x 165 x 55 mm                                   |
| Weight of the electronic block   | 1650 g  |

### A-scan for the inspection range of 270 mm



## Special features:

- **Extraordinary signal quality** & signal to noise ratio due to optimal excitation
- **Flexible excitation frequency control** with bipolar burst excitation within specified frequency range of 1 – 10 MHz
- **Easiness of unit integration** due to versatile SDK compatible with the industrial protocol **SCPI**
- **Eligibility** for wide range of **R&D** purposes due to easy integration in **MatLAB**



### Scalable burst excitation pulse sequence $\pm 200$ V



## Delivery set:

**MADE IN GERMANY**

| Name   | Quantity, pcs. |
|--|----------------|
| A1570 EMAT – electronic unit   | 1              |
| EMAT S7694 with linear polarization (other transducers available on request)   | 1              |
| Lemo00 cable 1.2 meter (other lengths available on request)  | 1              |
| WiFi Antenne   | 1              |
| Ethernet cable 1.5 meter   | 1              |
| Introductory application software „ACS “Mathilda-EMAT” Windows GUI App” (available at <a href="http://www.acs-international.com">www.acs-international.com</a> ) | 1              |
| Hard case  | 1              |