ACOUSTIC CONTROL SYSTEMS

# A1052 MultiSONIC

## Multichannel Ultrasonic Pulser-Receiver Unit with WiFi Data Interface for Low-Frequency UT applications
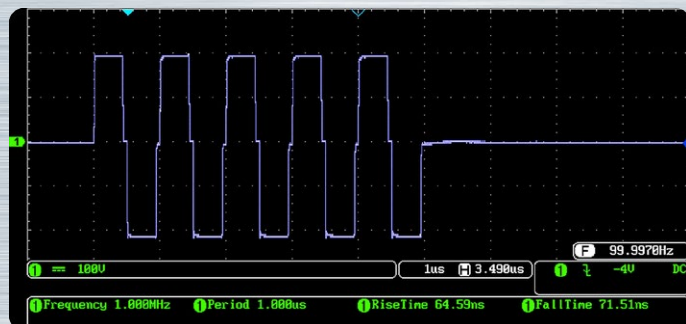


- **32 parallel pulser-receiver channels**
  for flexible system configuration

- **Wireless Data Interface**
  Ethernet connection to PC, Smartphone or Tablet-PC via WiFi

- **Conformance**
  with all Dry-Point-Contact transducers by ACS

- **Flexible excitation frequency setting**
  arbitrary bipolar burst configuration within specified frequency range (half-cycle duration, number of half-cycles)

- **Versatile Software Developer Kit**
  with detailed documentation for system integrators

# Specification:

| Parameter | Value |
|---|---|
| **TRANSMITTER** | |
| Number of transmitting channels | 32 |
| Transmitter output voltage, V | ± 200 Volt (400 Vpp) |
| Excitation sequence, periods | Meander, 0.5 to 5.0 |
| **RECEIVER** | |
| Number of receiveing channels | 32 |
| Data acquisition length, Samples | 128k |
| Sampling rate (MHz) | 1, 4 |
| Filter frequencies (FIR) | HF 10,20,40,100kHz; LF 350kHz |
| Receiving bandwidth | 20 – 250 kHz |
| Dynamic range of amplifier, dB | 0 to 60 |
| Dynamic range of DAC function | 40 dB |
| Averaging factor | 1 to 256 |
| **POWER SUPPLY** | |
| Power source | Exchangable battery |
| Operation time of the battery, not less than | 8 h |
| Battery charging time | 2.5 h |
| External power supply | DC 15 V, 4A \ AC 110-250 V |
| **DATA INTERFACES** | |
| Wireless Ethernet 54 Mbit | IEE802.11n |
| **DIMENSIONS & WEIGHT** | |
| Dimensions of the electronic block | 200x125x100 mm (7,9 x 4,9 x 3,9 inch) |
| Weight of the electronic block | 2.4 kg / 5.5 pounds |

## Scalable burst excitation pulse sequence ±200 V



# Special features:

- **Diverse UT operation modes:** pulse-echo, transmitter-receiver and through-transmission

- Excitation of **Golay Coded Sequences** for improved SNR is possible

- **Stand-alone on-site operation** due to battery powered

- **Free demo-software "MATHILDA$^{32}$"** for basic measurement applications



# Delivery set:

**MADE IN GERMANY**

| Name | Quantity, pcs. |
|---|---|
| A1052 MultiSONIC – Electronic Unit | 1 |
| Net adaptor with USB Type C power cable | 1 |
| Exchangeable Li-Ion batteries 18650 | 6 |
| Lemo00 to Lemo00 cables | 2 |
| Free demo SW for smartphone / tablet PC / PC | |
| Integration kit for software development by user | 1 |