The high-power ultrasonic pulser receiver XTR-2022 developed by MKC is capable of testing in a wide frequency range from 10kHz to 10MHz. For pulse, square pulse method for PZT transducer and square pulse method for EMAT transducer can be used selectively. Therefore, it is a smart device designed to drive the PZT transducer and EMAT transducer in one device, expanding the range of options.

In PZT mode and EMAT mode, when you select a frequency that suits the characteristics of the transducer, the square pulse width to obtain the optimal signal is automatically selected and the value is displayed on the monitor. In addition, the filter of the receiving circuit is automatically selected according to the characteristics of the transducer, allowing precise experimentation with the optimal signal. The square pulser for non-contact EMAT that requires high power is an excellent equipment for EMAT inspection with the built-in automatic gain control (AGC) circuit that transmits a pulse suitable for the frequency of the probe and the receiving circuit automatically detects and amplifies the signal.

The control screen of the equipment is displayed in a diagram format so that the user can operate the equipment while grasping the operation of the internal circuit at a glance, and the D model has a digital oscilloscope inside the equipment so that the received signal can be viewed on a PC through the USB interface. G model has a built-in Gated Peak Detector, so it has a peak level output function.

**Features**

- Selectively available by generating square pulses for each drive of PZT and EMAT
- In EMAT mode, you can select from 1 to 5 pulse cycles and an automatic gain control (AGC) function that greatly improves the received signal-to-noise performance for measurement.
- Screen display to let users know the behavior of the circuit when setting up the equipment
- Designed to adapt to changes in physical properties of various materials by expanding the ultrasonic pulse width control and damping steps.
## Specifications

### Pulser

| Tuned Frequencies | PZT Mode: 10kHz, 15kHz, 20kHz, 25kHz, 30kHz, 35kHz, 40kHz, 45kHz, 50kHz, 55kHz, 60kHz, 80kHz, 100kHz, 150kHz, 200kHz, 250kHz, 300kHz, 400kHz, 500kHz, 700kHz, 1MHz, 1.5MHz, 2.25MHz, 3MHz, 5MHz, 6MHz, 7.5MHz, 8MHz, 10MHz  
|                   | EMAT Mode: 500kHz, 700kHz, 1MHz, 1.5MHz, 2.25MHz, 3MHz, 5MHz, 6MHz, 7.5MHz, 8MHz, 10MHz  
| Amplitude        | 700volts into 50Ω  
| Repetition Rate  | 0.1Hz to 20kHz (25 steps)  
| Pulse Rise Time  | Less than 75ns  
| Damping          | PZT Mode Selectable, 53, 65, 75, 83, 100, 153, 220, 333, 500, 1,000Ω  
|                  | EMAT Mode: 100Ω  
| Pulse Voltage    | Selectable, 50V, 100V, 200V, 300V, 400V, 500V, 600V, 700V  
| Mode             | User-selectable Pulse-echo or through transmission  
| Sync Output      | +5Vp-p TTL and CMOS compatible  
| External Trigger Input | Triggers at positive edge of 3-5V square wave  

### Receiver

| Tuned Frequencies | PZT Mode: 10kHz to 10MHz  
|                  | EMAT Mode: 500kHz to 10MHz  
| Gain             | Adjustable -30 to +80dB in 0.5dB steps  
| High-Pass Filter | PASS, 10kHz, 100kHz, 250kHz, 500kHz, 1MHz, 2MHz, 4MHz  
| Low-Pass Filter  | 100kHz, 200kHz, 500kHz, 1MHz, 2MHz, 5MHz, 10MHz, 15MHz  
| Display Output   | Switchable RF, Detected RF  
| Detected RF Presentation | +, -, +/-, Hi Res +/-  
| Output Impedance | 50Ω  
| Output Voltage   | ±1.5Vp-p into 50Ω  

### Computer Interface (D Model Only)

USB Interface

### Gated Peak Detector (G Model Only)

| Gate Delay Range | 0.1 to 200μs  
| Delay Mode       | From main bang or selected interface echo.  
| Gate Width Range | 100ns to >200μs  
| Blanking Delay Range | 100μs max.  
| Peak Level Output | DC 0 to 1V  
| Alarm            | DC 5V Output  
| Marked RF Monitor Output | +,- 1.0Vp-p  
| Gate RF Monitor Output | +,- 1.0Vp-p  
| Output Impedance | 50Ω  

### Miscellaneous

| Power            | AC85-265VAC, 50-60Hz, 40W, Free voltage  
| Dimension        | H 132.5mm x W 250mm x D 300mm  
| Operating temperature | 0°C to +50°C  
| Weight           | 6kg  

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* The presented specifications are subject to change without notice.