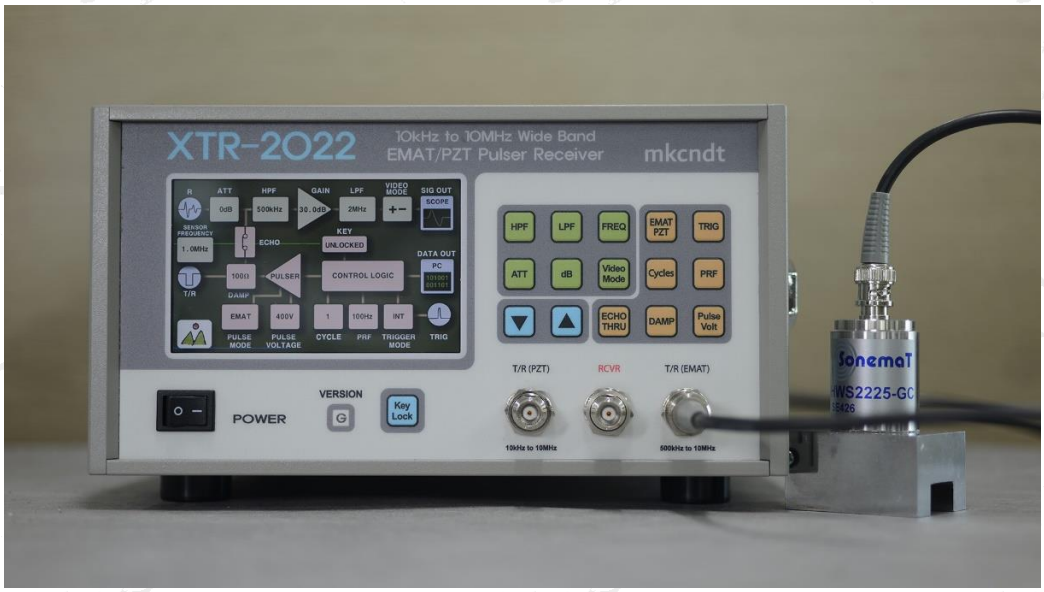
XTR-2022

Wide Band EMAT/PZT Pulser Receiver



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-couplant 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: 10㎑, 15㎑, 20㎑, 25㎑, 30㎑, 35㎑, 40㎑, 45㎑, 50㎑, 55㎑, 60㎑, 80㎑, 100㎑, 150㎑, 200㎑, 250㎑, 300㎑, 400㎑, 500㎑, 700㎑, 1㎒, 1.5㎒, 2.25㎒, 3㎒, 5㎒, 6㎒, 7.5㎒, 8㎒, 10㎒ EMAT Mode: 500㎑, 700㎑, 1㎒, 1.5㎒, 2.25㎒, 3㎒, 5㎒, 6㎒, 7.5㎒, 8㎒, 10㎒
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: 10㎑ to 10㎒ EMAT Mode: 500㎑ to 10㎒
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℃ to +50℃
Weight	6kg

엠케이씨코리아®
M.K.C KOREA
Tel: 02) 804-3600, 3636
E-mail: ndt@mkckorea.com
Web: www.mkckorea.com
Address: B-910, 70, Dusan-ro, Geumcheon-gu, Seoul, Korea