

# MKEM-2080

## High Power Toneburst Ultrasonic P/R



The MKEM-2080 High Power Tone Burst ultrasonic pulser receiver, developed and manufactured by MKC, is designed to be used with a choice of EMAT (Electro-Magnetic Acoustic Transducer) and PZT. The MKEM-2080 has an Auto Matching function that automatically matches the transmitter's output impedance with the probe's impedance. The Auto Matching function prevents the transmitter from failing when using the EMAT and provides an optimal reception signal. In addition, the AGC circuit is built-in to automatically detect and amplify weak received signals, making it optimized for EMAT inspection. In addition, when using PZT as a probe, a damping resistor is built in to protect the transmitter.

### Main specifications

#### AMPLIFIER

- Frequency Range: 150kHz to 5MHz
- Pulse Repetition Frequency (PRF): 0.1Hz to 10kHz
- LOAD: EMAT to PZT
- RMS Output Power (into 50Ω): 6kW
- Pulse Cycle: 1cycle to 200cycles

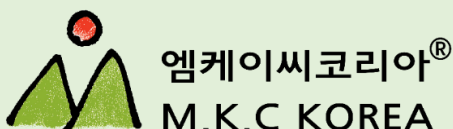
#### RECEIVER

- Frequency Range: 150kHz to 5MHz
- Gain Control Range: Adjustable - 30 to +80dB in 0.5dB step
- Display Output: Switchable RF, Detected RF
- Maximum Gain: 150dB

#### MISCELLANEOUS

- Dimensions: H 177mm x W 435mm x D 360mm
- Weight: 15kg

# MKC manufactures and supplies high-tech ultrasonic pulsar receivers, EMAT pulsar receivers, and vortex inspection equipment.



Tel: +82-2-804-3600, 3636  
E-mail: [ndt@mkckorea.com](mailto:ndt@mkckorea.com)  
Web: [www.mkckorea.com](http://www.mkckorea.com)  
Address: 서울시 금천구 두산로 70 현대지식산업센터 B-910



## Detail specifications

### AMPLIFIER

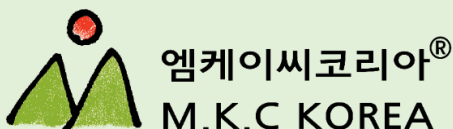
- Frequency Range: 200kHz to 5MHz
- RMS Output Power(into 50Ω): 6kW(2,000Vp-p)
- Pulse Repetition Frequency(PRF): 0.1Hz to 10kHz
- LOAD: E-MAT to PZT
- TX Level Control: 0 to 100 settings
- Auto Matching: Load Impedance 1Ω to 20Ω (E-MAT)
- External Trigger Input: Triggers at positive edge of 3-5V square wave
- Trigger Output: +3.3Vp-p TTL and CMOS compatible
- Sweep Time: 0.5 to 3.0sec
- Load Prog: 0 to 10
- Nominal Output Impedance: 50Ω
- Output Monitor: -40dB into 50Ω
- Pulse Cycle: 1cycle to 200cycle
- Damping(PZT Mode): 50Ω
- BIAS Level Control: 0 to 4.99V
- Default setup: Object initialization
- Sweep Frequency: Frequency Fixed
- Save Prog: 0 to 10

### RECEIVER

- Frequency Range: 200kHz to 5MHz
- Maximum Gain: 110dB
- Gain Control Range: Adjustable -30 to +80dB in 0.5dB steps
- Attenuate: 0dB, 10dB, 20dB, 30dB Fixed
- Input Mode: Pulse-echo or through transmission
- High-Pass Filter: 100, 300, 550kHz, 1MHz
- Low-Pass Filter: 300, 550kHz, 1, 2.5, 5MHz
- Display Output: Switchable RF, Detected RF
- Detected RF Presentation: +, -, +/-, Hi Res +/-
- Nominal Input Impedance: 50Ω
- AGC Amp. Gain: 60dB Fixed
- Output Voltage: ± 1Vp-p into 50Ω
- Output Impedance: 50Ω
- Video Filter: 40, 70, 165, 330kHz, 1MHz

### MISCELLANEOUS

- Display: 7inch LCD, 1024x600 High resolution
- Dimensions: H 177mm x W 435mm x D 360mm
- Operating Temperature: 0°C to +50°C
- Power: AC200-240VAC, 50-60Hz, 300VA
- Weight: 15kg



Tel: +82-2-804-3600, 3636  
E-mail: [ndt@mkckorea.com](mailto:ndt@mkckorea.com)  
Web: [www.mkckorea.com](http://www.mkckorea.com)  
Address: 서울시 금천구 두산로 70 현대지식산업센터 B-910

