



# Measurement Microphones

Josephson **Series Five** microphones are rugged, stable and cost-effective alternatives to high voltage metal diaphragm lab mics for speaker testing, room acoustics, and general audio measurements between 20 Hz and 20 kHz. The 6mm condenser capsule has a permanently polarized backplate and a 3.5 $\mu$ m polyester diaphragm, metallized with a rugged nickel-chromium alloy. Frequency response is flat  $\pm 2$  dB from 20 Hz to 20 kHz. Like all Josephson mics, the diaphragm is critically conditioned during manufacture for minimum drift over time. Series Five mics have been in rugged field service for more than ten years, with little or no change in response. Several versions are available for use with a variety of other equipment.

The **C550** series is a “half inch” model available in three sensitivity steps, each one covering an operating range of about 100 dB. The C550H provides 10 mV/Pa output, suitable for microphone level inputs. The L version is more sensitive, for use with line level inputs, while the F version has lower sensitivity for use in high sound pressure level measurements. Frequency response is flat for on-axis sound incidence, but any of the models may also be supplied with a -D suffix for flat diffuse field response. All models may be powered with 24 to 48 volt phantom supplies, and provide symmetrical active balanced outputs. They will also operate on phantom power as low as 15V with some reduction in maximum level.

For more critical applications, please refer to model C606B in the Josephson Series Six, which has lower noise and higher overload point than the Series Five, uses lab grade metal diaphragm mic capsules, and standard phantom power rather than a dedicated power supply.

## Specifications

	<b>C550F</b>	<b>C550H</b>	<b>C550L</b>
Output Level, mV/Pa	0.3	10	60
Dynamic Range, dB SPL <sup>2</sup>	65-170	35-135	35-128
Frequency Response <sup>1,3</sup>	20 Hz to 20,000 Hz, $\pm 2$ dB		
Output Impedance <sup>3</sup>	50 $\Omega$ (recommended load 1k $\Omega$ )		
Operating Conditions <sup>3</sup>	Free-field; for pressure/diffuse response, use -D		
Transducer Type <sup>3</sup>	Capacitive pressure transducer, prepolarized backplate		
Power Requirement <sup>3</sup>	Phantom power per DIN 45596, 15 to 50 volts, <2mA		
Temperature Range, $^{\circ}$ C <sup>3</sup>	-10 to +50		
Weight, grams	140	140	140
Connector <sup>3</sup>	3 pin XLR type, pin 2 positive polarity		
Accessories Supplied <sup>3</sup>	Stand clamp, padded case, calibration curve		

1- Individually calibrated, data supplied with each microphone

2- Per IEC 651, with 48 V phantom power. 5 dB above noise floor, to 5% THD

3- Specifications common to all Series Five models

