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(54) **CAPACITANCE MEASURING CIRCUIT
CAPACITANCE MEASURING INSTRUMENT
AND MICROPHONE DEVICE**

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(57) **ABSTRACT**

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An electrostatic capacitance detection circuit 10 comprises an AC voltage generator 11, an operational amplifier 14 of which non-inverting input terminal is connected to specific potential (a ground in this example), an impedance converter 16, a resistance (R1) 12 connected between the AC voltage generator 11 and an inverting input terminal of the operational amplifier 14, a resistance (R2) 13 connected between the inverting input terminal of the operational amplifier 14 and an output terminal of the impedance converter 16, and an impedance element (a capacitor) 15 connected between an output terminal of the operational amplifier 14 and an input terminal of the impedance converter 16, and a capacitor to be detected 17 is connected between the input terminal of the impedance converter 16 and specific potential. The electrostatic capacitance detection circuit 10 and the capacitor 17 are located adjacently.

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