

Supplementary Information

Patch-type vibration visualization (PVV) sensor system based on triboelectric effect

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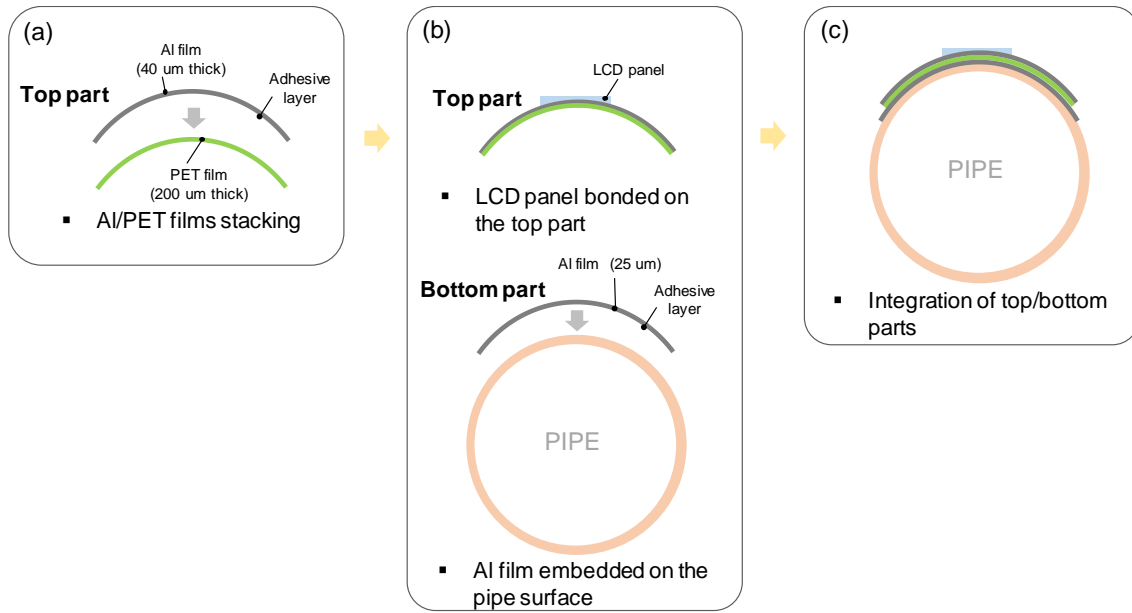


Figure S1. Schematic illustration of fabrication process of the PVV sensor system; (a) Stacking process of Al/PET films. (b) Bonding process of the LCD panel/top part using an adhesive. (c) Al film embedding on the pipe surface. (d) Integration process of top/bottom parts.

The integration process begins with stacking Al (40 μm thick)/PET (100 μm thick) films. After that, LCD panel is bonded onto the Al/PET film (top part). Meanwhile, a Al film is embedded onto the pipe surface (bottom part). Finally, the top and bottom parts are integrated.

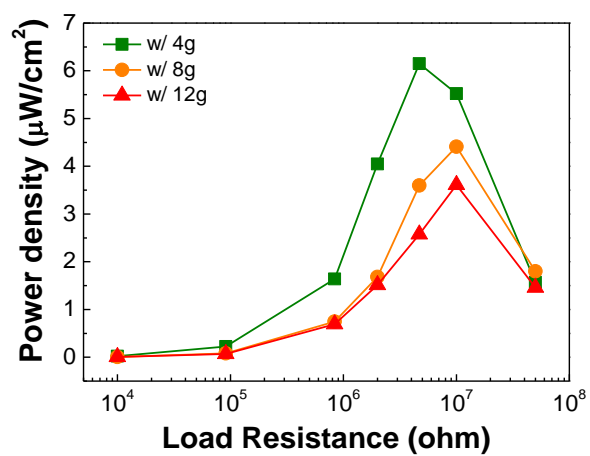


Figure S2. Power densities of the PVV sensors at the resonant frequencies as a function of load resistance.