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Obtaining a Broadband Magneto-mechano-electric generator with large power for IoT operation

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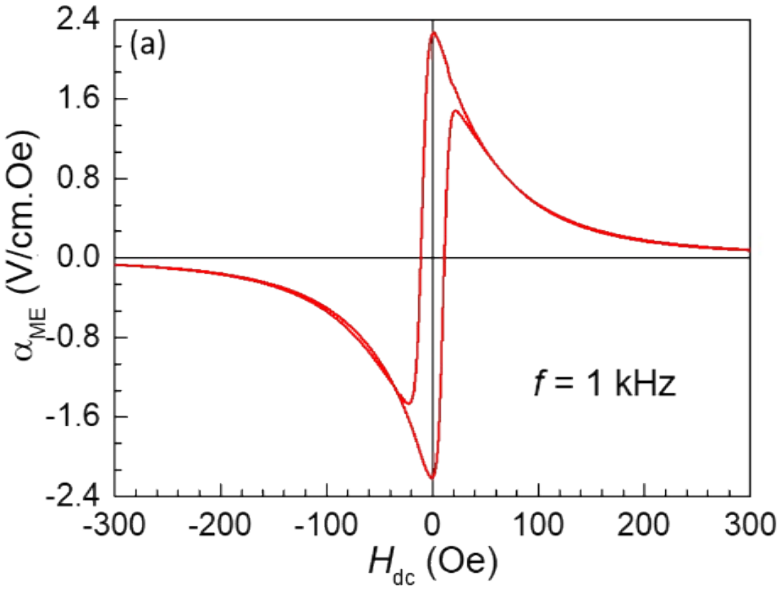

Figure S1 Magnetoelectric voltage coefficient (α_{ME}) as a function of DC magnetic field for MME generators at 1 kHz ac magnetic field.

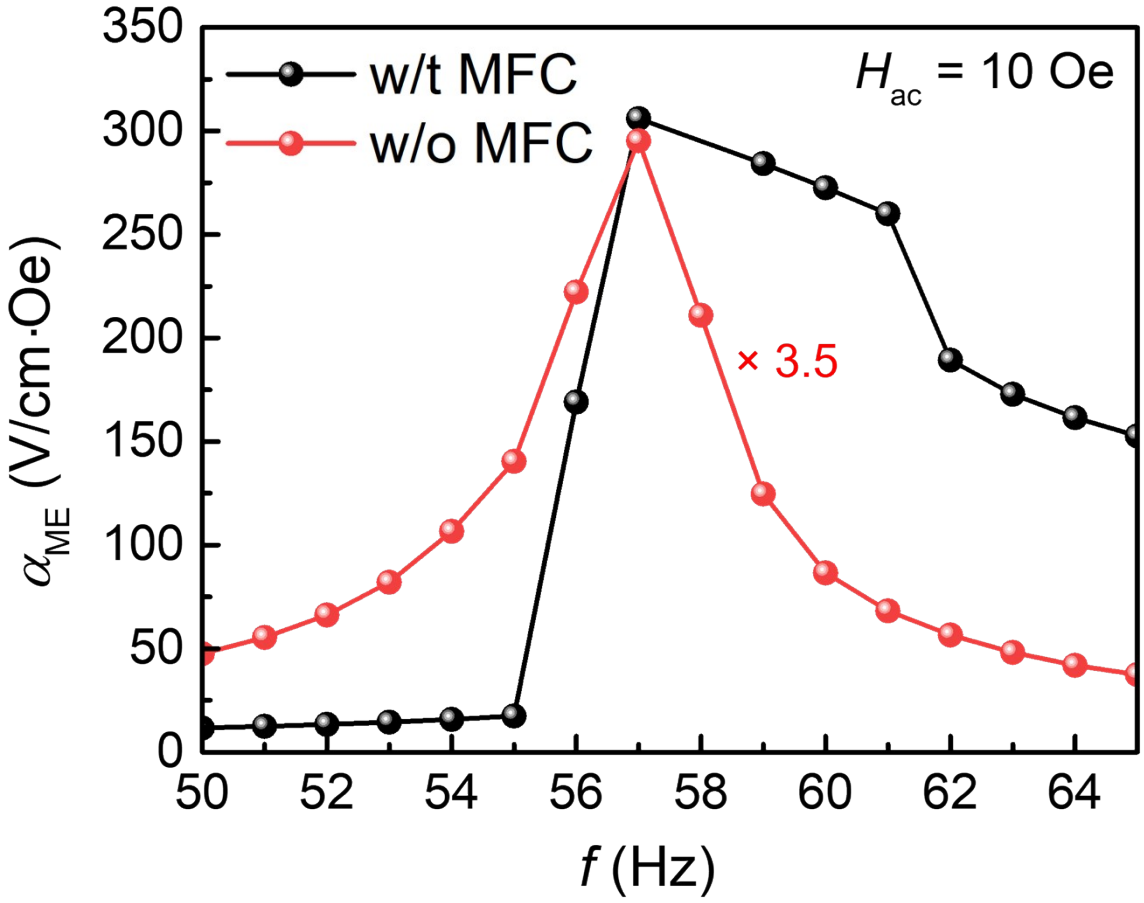

Figure S2: ME voltage coefficient as a function of frequency for MME generator with and without Ferrite MFC under AC magnetic field of 10Oe.

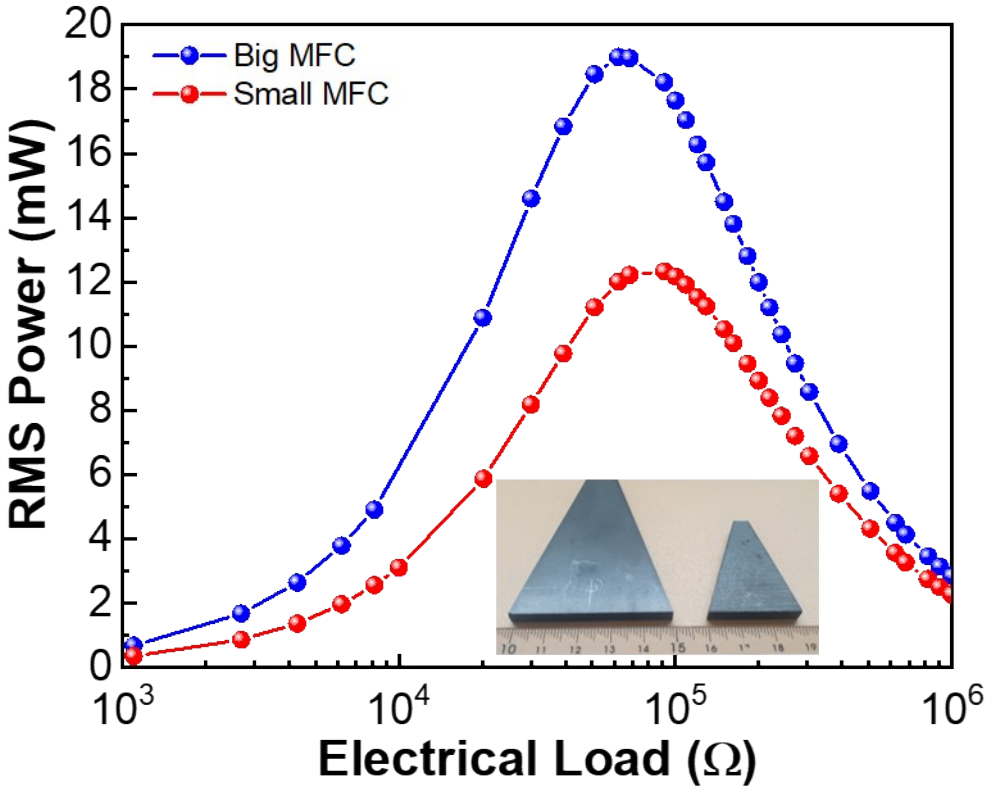

Figure S3: Output RMS power of Type II MME generator with small and big size MFC at various load resistances. With decreasing MFC size the output power was decreased but still sufficient to operate the IoT sensor with data communication system.

Table S1: Operating current of the temperature and humidity IoT sensor used in the present study under different operating modes.

Component	Power consumption
IST3055 MCU	<0.5 μA (standby mode, @ 1.8-5.5V supply) <600 μA (measuring mode, @ 1.8-5.5V supply)
TLSR8251 bluetooth module	5.3 mA (RX/TX mode, @1.8-3.6V supply) 1 μA (standby mode, @1.8-3.6V supply
SHTV3 sensor IC	4.8@2.4 supply, 1 measurement/s)