

## Measure the Current Consumption of Portable Devices such as Smartphones

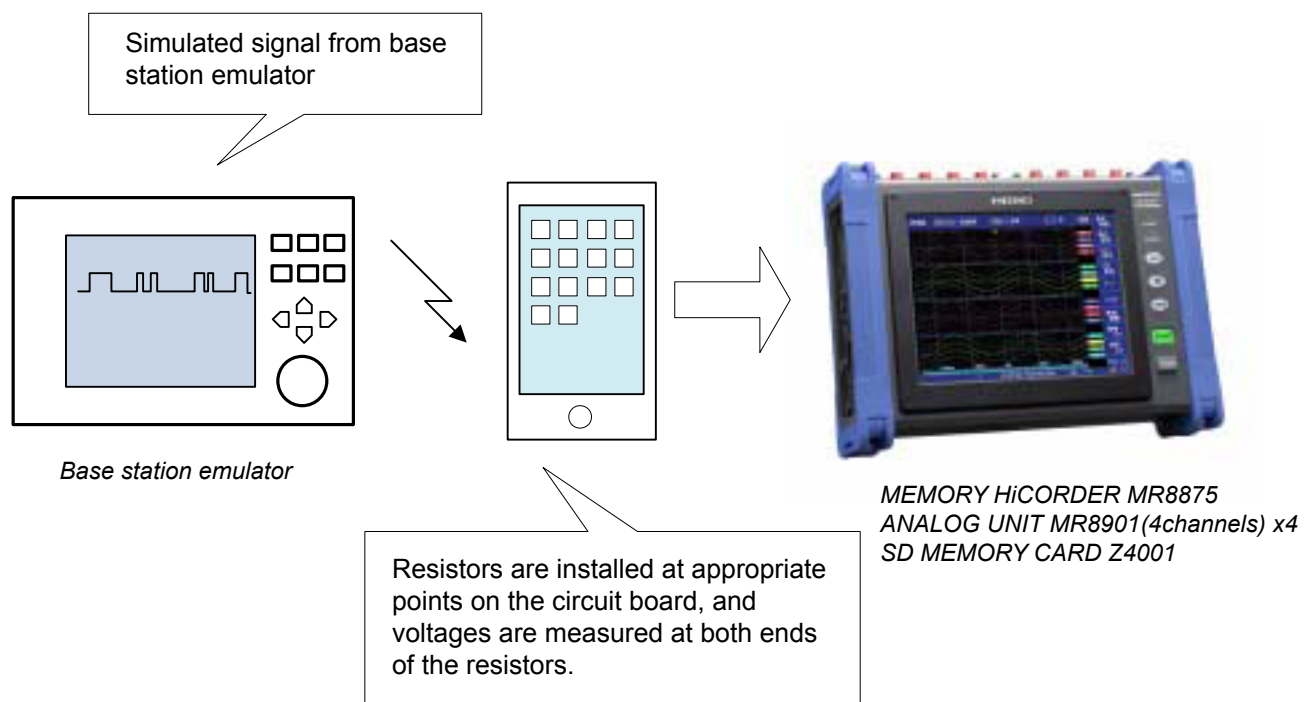
Measure and Record the current consumption of Smartphones during standby, talk, and Internet usage by inputting simulated signals. The acquired data can be useful for reducing power consumption.

### ■ Highlights

MEMORY HiLOGGER MR8875 is a compact, multi-channel high-speed data logger.

Current consumption is measured by inserting low-value resistors on the traces of the circuit board of a portable device such as a Smartphone, and measuring the voltages at each end of the resistors.

The 10 kS/s sampling rate is specified for observing the current waveforms of various operating conditions.



Simulation testing is conducted and currents are measured for an appropriate period such as three minutes. The averages calculated from the acquired current measurement values can then be utilized to reduce power consumption. Battery management effects can also be seen from the momentary current waveforms. The MR8875's capability to simultaneously measure and record currents on multiple isolated channels to an SD memory card make it suitable for reducing power consumption in a wide variety of devices.

### Products used

MEMORY HiCORDER MR8875  
ANALOG UNIT MR8901  
SD MEMORY CARD Z4001

\* ANALOG UNIT MR8901 supports up to four input channels, and one MR8875 supports up to four MR8901s.

\* The recommended genuine Z4001 (2 GB) SD memory card is sold separately.