PX8000  Power Consumption Measurement of Motors on Disaster Relief Robot

High Accuracy Power Measurement of Inverter Driven Signal

In disaster scene, it is very significant to perform rescue operation in situations where safe access to the site cannot be made. People are required to work, climb up stairs, and remove obstacles in dangerous environments. For this reason, much attention is recently being focused on the use of disaster relief robots with artificial intelligence (rescue robots). In reality, there are many issues in developing such type of robots that is controlled using a large number of motors and requires stable movement and the ability to perform complicated tasks. Since these robots are powered by batteries at the time of disaster, lowering the power consumption is an important point for them to operate for a long period of time.

The PX8000 Precision Power Scope is a power measurement instrument that is capable of high accuracy measurement of inverters and waveform analysis with its broad bandwidth measurement capability. Especially, with its ability to measure the power of high frequency, the effect on motor power consumption due to the difference between inverter driven waveforms can be evaluated.

Features
- High accuracy & high speed sampling
  - Accuracy: ±0.1% of reading +0.1% of range
  - Sample rate: Max. 100MS/s (12bit)
- High bandwidth: DC to 20MHz
  (Sensor voltage input)
  DC to 10MHz (Direct input)
- Number of modules installed: 1 to 4 power modules

Measures inverter waveform at 100 MS/s and displays voltage, current, power results.