

iB Haptics



iB Haptics (Haptics Feedback) is a complete set of haptics feedback control, driving and actuating combinations, implemented on touch screens or other transparent or opaque human-machine interfaces. It allows users to enhance, confirm and safely interact with various control systems through tactile sensing of different vibration waves, thereby improving the efficiency of human-machine interaction. For instance, designers can plan the human-machine operation of their systems so that only permitted functions can be activated under different circumstances, and use vibration feedback to confirm to the user whether the operation is valid or invalid. The intuition, integrity, safety and simplicity of human-machine interaction directly affect the effectiveness of control. Relying on different technologies to enhance the sense of presence in human-machine interaction is an evolving process. On top of sound and display, haptics is obviously another major way of making communication.

- Three components: iBT controller, iBH driver, iBHM actuation device
- Easy to install and set up by connecting to the iBT touch controller (like iBT-1740) and the HOST via USB/I2C and so on.
- The touch control interface added both haptics control and vibration feedback capability
- No circuit design required, may go straight the mechanical design for installation
- Can vibrate touch panels (or tablets) of different sizes, up to a maximum of 23"
- Haptics is adjustable (gravity acceleration) from several g to 1x g
- Self-generated high voltage without external supply
- Haptics intensity can be customized in GUI, vibration effect is clear
- Programmable vibration waveform planning
- Proprietary technology, direct technical support provided

Specification

Driving mode	low frequency and high voltage AC, dual actuators
Actuation strength	programmable (several g ~ 1X g; g is gravity acceleration)
Actuation method	D31/D33
Resonance frequency	5~25KHz
Control interface	I2C
High voltage supply	self-supply
Operating temperature	normal temperature range

Quick Setup

The iBT controller connects to iBH-674 via I2C, and then connects to iBHM-6x via AC output to complete the Haptics hardware setup. Execute the iBT firmware, then you can perform vibration feedback and experience it. Vibration effects can be customized using the iB GUI, and cooperated with client application program planning, human-machine operations with vibration feedback can be completed.



I2C



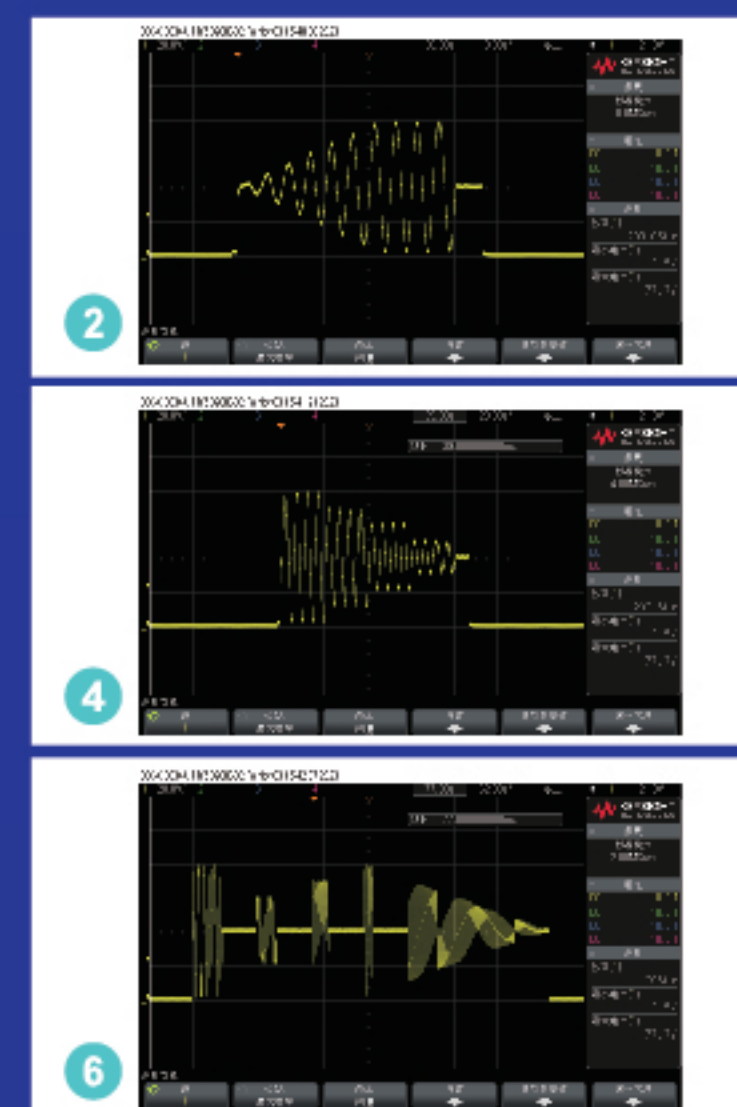
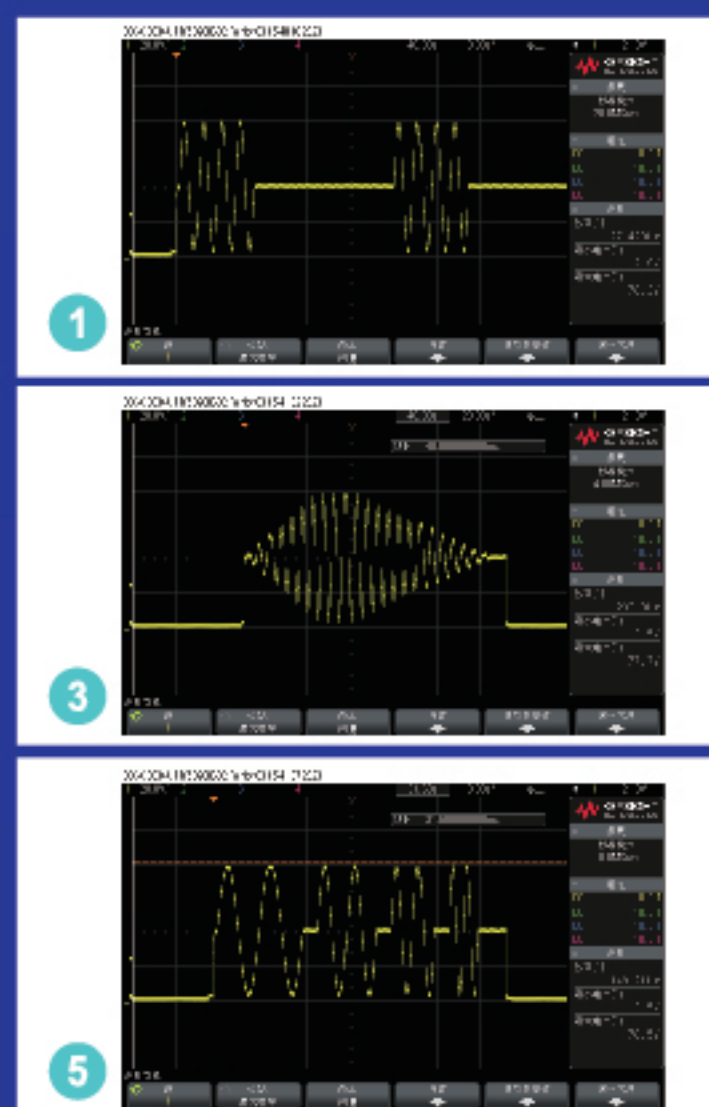
AC



Complete kit, no hardware design required, the haptics feedback function is just ready to work.

Programmable Vibration Waveform

Library and tools are ready for quickly build up needed and appropriate haptic feedbacks.



Multi-finger Touch and with Vibration Feedback

In an environment where touch screen operates and iBT projected capacitive touch controllers are in use, not only will multi-finger touch be unaffected, but the haptics feedback capability will be added, which increases the benefits of a closer human-machine interaction.

Self-Generated On-Board High Voltage

The high voltage required for piezoelectric actuating does not need to be provided separately. The power supply taken from the iBT control board for the drive circuit is sufficient to provide a complete supply, eliminating the efforts of high-voltage haptics feedback design.

Haptics Is Clear & Strength Is Programmable

The whole system can express a force up to greater than 10g (gravity acceleration). Different forces can be selected for different application purposes through program planning.

