

Exciting Life, Exciting Experience
Feel the haptic sound.



About Us

TNBTECH Co., Ltd. sincerely seeks to provide its customers joy and excitement through Haptics .
Under the motto, "Turning wherever our users are into a place of pleasure and happiness, the moment they touch our products," we are committed to doing our best from product planning and development to delivering the end products .

CEO Jae-seong Park



What is Haptics ?

Haptics is the science and technology of transmitting and understanding information through touch by delivering force, vibration , and motion to the user.

For VR experiences involving the sense of touch, it provides a realistic feeling for the users to feel the vibration by putting emphasis on the sound familiar to them by using a new material.

A Haptic interface can play a significant role along with the emergence of haptic media, a new creation, with an exquisite user interface Thanks to highly advanced performance and lower prices, today's computers are capable of interacting with humans in ever more complicated forms.

The most important factor in this interaction is the realistic feeling of the interface. And to this end, displays such as monitors are evolving in the direction of high resolution and large size, while for voice transmission, stereophonic sound devices are replacing those of the stereo.

As a groundbreaking paradigm that has emerged for the sophistication of interfaces, the ultimate aims of virtual reality technology is to provide realism to the users by properly combining various types of information including 3D graphics, stereophonic sound, smell, taste, and touch.

A haptic interface can be used as a basic element for the advancement of tactile media.



Differentiation of BB Haptics Technology

Incomparable performance as compared to existing motor-driven vibration

- NO ordinary vibration
- Incomparable performance as compared to existing motor-driven vibration
- Advanced digital reality through transmission without delay

BB Haptic technology can be used as an alternative interface for users who are not familiar with audiovisual interfaces such as those who are with visual or hearing impairments

- Its development started by questioning the limitation of vibration only for alarms, and with the question of the possibility to provide a sense of touch linked to audio and video
- Existing Haptic products generate vibration signals in arbitrary waveforms and store them in a memory device for the CPU to use them to produce vibrations when necessary, thereby making it difficult to present various vibrations due to residual vibrations
- The response time for a person to feel the vibrational sensation simultaneously with visual information should be within 15ms, whereas the response time of the products equipped with an eccentrically rotating vibration motor used in the existing vibration mouse and other vibrotactile products is as slow as 250 to 400ms. The vibration mouse using a linear motor also has a response speed of 50~70ms, which is insufficient to provide users with a simultaneous sense of touch
- A vibrotactile product with Haptic vibration module designed to address such problem is capable of responding in real time with a response time of 7ms or less, so that the user can feel the simultaneous sensation responsive to visual and auditory information. It also enables vibration in a wide variable frequency band to provide a realistic sense of vibration for rich emotional experience
- This Haptic technology to generate vibration based on sound is the world's first of its kind with intellectual property right
- Patents acquired in the USA, Japan, China, India, and Taiwan



Are you still playing in a boring way using a normal mouse?

THIS IS NO ORDINARY MOUSE



Real-time sound and vibration

The Haptic mouse turns in-game sounds into vibrations in real time.



A vibration on a whole new level

Traditional motor-driven vibration is difficult to adjust touch pressure sensitivity, whereas the Haptic mouse offers a dynamic vibration responding to the sound volume



Ergonomic design

The most suitable design for the human body has been achieved through numerous sampling tests, thus minimizing fatigue when holding it for an extended period of time.



5th-generation vibration module

It offers a comprehensive technology to facilitate a variety of functions including Haptic force feedback utilizing a 5th generation new material that expresses the excitation force of vibration in real time, and an Audio ON/OFF function to adjust the volume.

What is a "Haptic" mouse?

It is a new concept device that can be used as an ordinary mouse in a normal circumstance, while enabling to enjoy the dynamic Haptic feedback by adding depth and weight to the familiar sound during games. The vibration rendered by the Haptic mouse is not powered by a general motor, but by using a self-developed Haptic technology using piezo-ceramic, to feel the sound on the screen in real time through the tactile sensation is thus enabled.





What is a Haptic Console?



This Haptic gear can be used by mounting the mobile phone to the Haptic Console and connecting it to the phone via Bluetooth to feel all kinds of sounds such as FPS, racing games, YouTube videos, movies, and music with realistic Haptic vibrations



Easy to use, it can be connected and disconnected within a second
It is lightweight, convenient, and safe

The level of immersion plays a significant role in the gaming industry.

Haptic Console is a game pad that takes your mobile gaming experience to the next level.

Unlike conventional consoles that perform vibration with limited application, the Haptic console transforms every sound in the game into powerful feedback to immerse the player to the game.

This is TRUE Haptic technology!

The console can extend horizontally, thus compatible with most iOS and Android phones

Its elegant, ergonomic hand grip with a sophisticated design makes it highly comfortable to use, it also comes equipped with a Type-C charging port, a headphone connector, and a built-in battery that provides up to six hours of playing time.

Discover a dynamic variety of activities. Feel the slide, power, and sound!

You can actually feel the asphalt and the roar of the engine.

For the best Haptic experience, 70 to 90% sound volume is recommended.

Double tap the trigger button in the front for mode switch – between Vibration Only and Vibration and Sound – without having to pause your game.

Press and hold the power button to turn on the console.

Turn on the mobile phone on and then activate Bluetooth.

Launch your favorite game, choose a mode to enjoy a whole new level of mobile gaming experience.

You can also watch movies, and even feel your baby's heartbeat, which can be particularly beneficial to those with hearing impairment.

When you finish using it, simply turn off the console and slide your phone off the pad.



Feel the sound

Difference in vibration from various other game pads

Category	Haptic Vibration (Haptic Console)	Standard Vibration (General Console Game Controllers)
Vibration Features	Real-time response to sound / Delicate vibration	Available for specific circumstance / Simple vibration
Convenience of Access	Connectable via Bluetooth to any smartphone	Used for console games only
Scalability (Usability)	Vibration available regardless of brand	Vibration available only between the same brands
Applicable Games	Any type of game	Vibration available only in compatible console games
Vibration Intensity	Realistic, delicate vibration	Simple, strong motor-driven vibration
Vibration Intensity Adjustment	Adjustable by sound volume	No intensity control available
Place of Use	Anywhere	Available only in an environment where a console game is installed

It is compatible to most smartphone models with the Bluetooth setting since its width can be adjusted up to 6.42 inch by using the spring.

Available device size

Any smartphone with a minimum 5.51 inch to maximum 6.42 inch length on the long side (based on the body size).

6.42 inch

If the size is suitable for attaching a protective case, use the product with the case attached. If the left and right sides of the case are not stably attached like a wallet-type mobile case, use it without its protective case.



| Application of JH47-BT



A rich portfolio of games to maximize the fun. While playing a first-person shooter (FPS) game, you can feel a greater perceived recoil of the gun in your hand, and in racing games, you can feel the real operational feeling of the steering wheel.



You can also watch your favorite movies and dramas as realistically as a 4D movie. The multi-dimensional sensations, as if watching a 4D movie audio-visually, maximizes the sense of immersion by presenting more vivid, realistic images.

A thrill brought about by vibrations!



The rhythmic play education allows even children with weak concentration to participate with fun for longer periods of time. The sound of various animals, nature, and songs can help develop a sense of rhythm for toddlers who are in their crucial stage of growth and development.



An unforgettable first encounter with the vivid heartbeat of your child, a one and only experience of a lifetime. Feeling your child's heartbeat in your own hands, you will have alleviated the thrill.



In addition, hearing-impaired people can perceive not only visual sensations, but also the sense of touch. It provides a sense of reality for those who cannot hear and have only imagined to experience the pleasures of sensation.

MS37-MB/VB

Sensor	Avago ADNS-3050(Optical Sensor)
Illumination	IR LED
Color	Marine Blue/Violet Black
Grip Type	Right hand
Button	6 Button (Forward, Back, DPI, Wheel, Left, Right)
Button Switching	OMRON switch (Left / Right)
Resolution	400-2400DPI / 4 Step (400, 900,1600, 2400DPI)
Max Tracking Speed	60IPS
Acceleration	MAX 20G
Frame	6300FPS or higher
Polling Rate	125/500 / 1000Hz
DPI Display Color	Colored LED(Red, Yellow, Blue, Violet)
Interface	USB
Cable Length	1.8m
Mode	2Mode (OFF / Vibration+Sound ON)



BBmouse

Feel the vibration



MS37-MB

MS37-VB



MS37R

Sensor	Avago ADNS-3050(Optical Sensor)
Illumination	IR LED
Grip Type	Right hand
Button	6 Button (Forward, Back, DPI, Wheel, Left, Right)
Button Switching	OMRON switch (Left / Right)
Resolution	400-2400DPI / 4 Step (400, 900,1600, 2400DPI)
Max Tracking Speed	60IPS
Acceleration	MAX 20G
Frame	6300FPS or higher
Polling Rate	125/500 / 1000Hz
DPI Colors	Colored LED(Red, Yellow, Blue, Violet)
Interface	USB
Cable Length	1.8m
Mode	3Mode (OFF / Vibration+Sound ON / Only VIB)



SM35

Sensor	PIXART PMW-3360(Optical Sensor)
Illumination	IR LED
Cover Color	Dark Brown (Default) / Black (Option)
Grip Type	Right hand
Button	6 Button (Forward, Back, DPI, Wheel, Left, Right)
Button Switching	OMRON switch (Left / Right)
Resolution	400-2400DPI / 4 Step (400, 900,1600, 2400DPI)
Max Tracking Speed	300IPS
Acceleration	MAX 50G
Frame	12000FPS 이상
Polling Rate	125/500 / 1000Hz
DPI Colors	Blue LED
Interface	USB
Cable Length	1.8m
Mode	3Mode (OFF / Vibration+Sound ON / Only VIB)



JH47-BT

Power	DC 5V
Power consumption	Max 400mA
Charging time	About 6hrs
Usage time	About 4hrs
Weight	160g
Function	ON/OFF Haptic System
Battery	Built-in



Components

- Haptic Console 1ea
- Haptic Console Case 1ea
- C Type cable 1ea
- User's Guide 1ea



Functional Specification

Power
ON(Press for more 1.5seconds)
OFF(Press for more 4seconds)

Charging C Type

Earrphone Connector

Battery status display LED

Operation mode switch
(two consecutive presses within two seconds:
vibration only or vibration + sound mode)

LED Status display Blue/Green/Red
■ Blue : Vibration only
■ Green : Vibration + Sound
■ Red : Power OFF or Low Battery (blinks every second)

New products currently under development

PLUS Products with Protruded Haptic Module

It is a product with a Haptic module protruding from the surface of the exterior.
Equipped with an upgraded Haptic feedback, it provides a more vivid and realistic experience than that of existing products.



- Sensor : PIXART PMW-3360(Optical Sensor)
- Max DPI : 12,000 DPI
- Macro Program

HAPTIC MOUSE PLUS (SH60P)

Usable size
5.67~6.85in long side of smartphone
(based on body length)



HAPTIC CONSOLE PLUS (JH47K-EXT)

BBmouse



Feel the sound
Feel the vibration

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