

The Development Platform for HD Haptic Applications

Actronika has deep knowledge and extensive expertise in haptics. We have designed the Tactronik™ Advanced System to meet restrict performance requirements of high definition (HD) tactile feedback. As an haptically enabled solution, the HFBA95X32 high-performance proprietary haptic actuator offers a high bandwidth which corresponds to 1% of the frequency bandwidth of the actuators available on the market.

With the combination of the Actronika’s HapLib proprietary cutting edge library and our embedded electronics, the Tactronik™ Advanced System offers high quality rendering going far beyond any system available on the market today.

The patented actuator HFBA95X32 can be easily integrated into a wide range of products allowing for outstanding realism. And, due to the dedicated design the typical rise time is 50% faster than its previous model.



Recommended Applications

- HM interfaces
- Intelligent clothes
- Hedonic devices
- Gaming
- Industrial devices
- Healthcare

Feature	Benefit
HFBA95X32 Actuator	<ul style="list-style-type: none"> • High frequency bandwidth • Miniature size • Dedicated build-in embedded driver
Embedded electronics	<ul style="list-style-type: none"> • 32-bit architecture chip with a build-in driver • Embedded library of effects • Network’s intelligence embedded into an actuator itself
Haptic library - HAPLIB	<ul style="list-style-type: none"> • Simple to use through API’s • Haptic effects designed based on Shock&Texture innovative approach • All most popular communication protocols available - I2C, SPI, UART

Actuator Performance

Resonant Frequency	65 Hz (±10%)
Band Width	10 Hz to 25 kHz
Acceleration RMS	3,7 G
Consumption ¹	45 mA
Dimensions	9.5 x 9.5 x 32 mm

¹At the resonant frequency and a test load of 100 g

Haptic characteristics

Lag time	1 ms
Rise time	35 ms
Stop time	73 ms

System Warranty

3 years	1
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Electronics

Communication	I2C, SPI, UART
Dimensions	10 x 10 x 1 mm
Packaging	BGA
Operating Current	75 mA (typical)
Sleep Current	< 500 uA
Power connection	Actuator: 3.3-12 Vdc Logic: 3.3 Vdc
ESD	±8kV Contact, ±27kV Air

Reliability

Chemical Resistance	ASTM-D-1308-2 and ASTM-F-1598-95
Operating Temperature	-40°C to 70°C
Storage Temperature	-50°C to 85°C
Humidity	Up to 90% RH from 0°C to 35°C, non-condensing

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