

DuoSense® Digital Pencil™ Product Brief



DuoSense Digital Pencil: Enhancing on-screen performance

The DuoSense® battery-powered Digital Pencil™ is an electronic stylus, that enables direct onscreen digital input, for a true Hands-on computing® experience for mobile computers and other digital products. Offering a more effective, natural and accurate form of input interaction, the Digital Pencil enables users to write and annotate directly on screen much as they would on a textbook or pad of paper, resulting in greater levels of performance and productivity.

Utilizing DuoSense inherent pen capabilities, the Digital Pencil complements DuoSense true multi-touch functionality for a more interactive and creative approach to computing, by advancing pen and touch capabilities from basic touch consumption to advanced creative interaction. Providing an enriched and more precise performance that cannot be achieved by touch alone, the Digital Pencil significantly extends device functionality, offering users sophisticated input capabilities and a more detailed level of content creation.

The Digital Pencil functions just like a regular pen, offering hovering capabilities that aid input precision, 256 distinct levels of pressure sensitivity, and utilizing palm rejection capabilities and a rapid stylus refresh rate to enable better accuracy and offers a customizable ID, including interchangeable tips, and configurable side buttons.

DuoSense runs over various distributions of Windows®, Linux®, and Android™ operating systems, and supports a variety of applications for different market segments including education, healthcare, graphic and industrial design, entertainment and multimedia.

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Feature/function	DuoSense Digital Pencil
Pressure sensitivity	256 levels
Resolution	> 400 dpi
Battery type	AAAA, replaceable, lifetime of 18 months of typical usage
Composition	<ul style="list-style-type: none"> ■ Replaceable standard AAAA battery ■ Replaceable tip (available in different materials) ■ Internal electronic parts – proprietary ASIC IC and passive components. (Non-user serviceable) ■ Encasement (“envelope”)
Supported operating systems	<ul style="list-style-type: none"> ■ Windows XP Tablet, Vista and Windows 7 ■ Linux (Ubuntu) ■ Android
Customizability	Fully customizable ID and functionality <ul style="list-style-type: none"> ■ Optional side buttons (right click, eraser) ■ Envelope design
Palm rejection	Supported
Position report rate	133 Hz
Position accuracy	± 0.4 mm (vertically held)
Position jitter	± 0.4 mm (vertically held)
Minimum activation force	Self-weight ± 5%
Tilt	From vertical hold up to 60°
Hover tracking height	10 – 15mm (vertically held)
Functionalities	Hover, tip, up to 2 configurable side buttons (including right-click and eraser functionality options)
Operating envelope	0°C to 50°C, 10 - 90% relative humidity, non-condensing for the life of the product's warranty
Storage envelope	-40°C to 60°C, 10 - 90% relative humidity non-condensing for the life of the product's warranty
Peak operating power	20 [uW]

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