



Test Plan

LumenX³

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Team Members:

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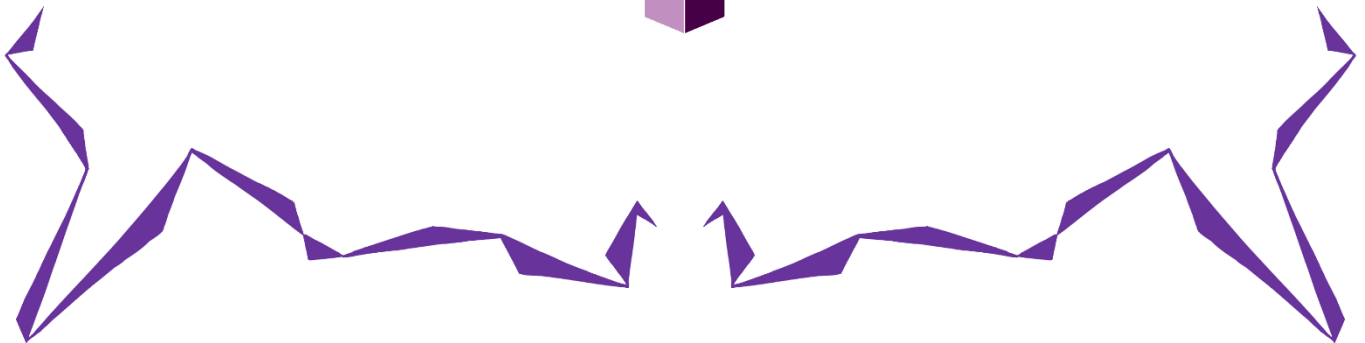
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OBELXTECH



◆ Test Case 01 – Transforming between Compact Mode and Projection Mode

Actions/Steps	Expected Result	Pass/Fail
1. With the LumenX ³ on a flat and stable surface, push the buttons on the left and right sides of the box simultaneously	- Side buttons do not pop back out	
2. Pull the handle at the top of the LumenX ³ upwards	- Inner box slides upward with little effort and does not tilt in any direction	
3. Continue raising the handle until the device locks into its taller Projection Mode	- Inner box slides upward until at the Projection Mode height - Once in Projection Mode, the side buttons automatically pop out from the upper holes	
4. Push or pull the handle upwards or downwards	- Device components and inner box are stable - Side buttons do not pop inward	
5. Push the buttons on the left and right sides of the box simultaneously	- Inner box slides down gracefully - Side buttons do not pop back out of the case	
6. Push the handle at the top of the box down until the device locks into Compact Mode	- Inner box slides downward until at Compact Mode height, some resistance felt but still quite easy to lock into place - Once at Compact Mode height, the side buttons automatically pop out from the lower holes	
7. Push or pull the handle upwards or downwards	- Device components and inner box are stable - Side buttons do not pop inward	

◆ Test Case 02 – Powering on the LumenX³

Actions/Steps	Expected Result	Pass/Fail
1. Plug the power plug of the LumenX ³ into a power source	- LED light on LumenX ³ turns on, and shines a red colour, indicating the computer is off	
2. Raise the device to Projection Mode	- Device locks into Projection Mode (see Test Case 01)	
3. Press the projector's power button on the top of the LumenX ³	- Projector turns on and a blank projection is seen on the tabletop surface	
4. Press the computer's power button on the top of the LumenX ³	- MeegoPad T01 computer turns on, the Windows Operating System screen is seen in the projection - LED light on LumenX ³ turns from red to green light	

◆ Test Case 03 – Powering off the LumenX³ (Software Shut Down)

Actions/Steps	Expected Result	Pass/Fail
1. With the LumenX ³ powered on and in its Projection Mode, turn off the computer from within the Operating System software	- Projection shows Windows 8.1 OS shutting down, and eventually becomes a blank projection screen - LED light on LumenX ³ turns from green to red light, indicating the computer is off	
2. Press the projector's power button on the top of the LumenX ³	- Projection turns off completely	
3. Transform the LumenX ³ from Projection Mode to Compact Mode	- Device locks into Compact Mode (see Test Case 01)	
4. Unplug the power cord from the power source	- LED light turns off, no light emitted from the LumenX ³	

◆ Test Case 04 – Powering off the LumenX³ (Force Shut Down)

Actions/Steps	Expected Result	Test Result (Pass/Fail)
1. With the LumenX ³ powered on and in its Projection Mode, press and hold the computer's power button on the top of the LumenX ³ for 8 seconds	After 8 seconds: - MeegoPad T01 computer turns off - LED light on LumenX ³ turns from green to red light - Projection immediately changes from projecting Windows to a blank projection	
2. Press the projector's power button on the top of the LumenX ³	- Projection turns off completely	
3. Transform the LumenX ³ from Projection Mode to Compact Mode	- Device locks into Compact Mode (see Test Case 01)	
4. Unplug the power cord from the power source	- LED light turns off, no light emitted from the LumenX ³	

◆ Test Case 05 – General Projection Functionality and Performance

Actions/Steps	Expected Result	Test Result (Pass/Fail)
1. With the LumenX ³ powered on and in its Projection Mode, use the LumenX ³ as if the projection was a capacitive touchscreen of a Windows 8.1 computer	<ul style="list-style-type: none"> - The projected computer screen is always proportionate, with the rest of the projection always a black colour - No part of the computer screen is cut off in the projection - Corrected computer screen within the projection is always a rectangle of 18.5cm by 11.2cm - Projected Windows 8.1 OS screen has almost no noticeable latency 	
2. Open the Screen Resolution page in the Control Panel of the Windows 8.1 OS and view available resolutions	<ul style="list-style-type: none"> - Only 1280 x 720 is shown as the sole available resolution, in Landscape Orientation, on the Display “MStar Projector” 	
3. Set the size of items in Appearance and Personalization to Medium: 125%	<ul style="list-style-type: none"> - All words in the Operating System are clearly and easily legible 	

◆ Test Case 06 – General Touch Recognition Functionality and Performance

Actions/Steps	Expected Result	Test Result (Pass/Fail)
1. With the LumenX ³ powered on and in its Projection Mode, tap on a large Windows desktop icon, then double tap it	<ul style="list-style-type: none"> - Large Windows desktop icon is easily pressed without much precise effort by the user - Icon’s program upon double-tap opens and shows itself in a new window (or however it works) 	
2. Tap on a large Windows taskbar program	<ul style="list-style-type: none"> - Large Windows taskbar program is easily pressed without much precise effort by the user 	
3. Open a text editor, bring up the on-screen keyboard and type words	<ul style="list-style-type: none"> - All letters tapped by the user are accurately shown on the screen in their correct order 	