



# COMPATIBILITY TEST

LABORATORY SERIES

3041 Olcott St. | Santa Clara, CA 95054  
Fax: 408.986.8024 | Phone: 408.986.9988  
information@newnex.com | www.newnex.com

## Testing Documentation

- Subject: Machine Vision Cameras Compatibility versus Newnex Length Solutions
- Goal: To ensure compatibility between Newnex’s Connectivity Solutions and Basler USB 3.0 Camera
- Duration: over 24 hours
- Location: Newnex’s Technical Laboratory, 3041 Olcott st, Santa Clara, CA 95054
- Camera tested: Basler USB 3.0: Model # acA1600-20um
- Newnex products tested:
  - FireNEX-H3M-08: USB 3.0 High Flex Active Repeater Cable, 8M
  - FireNEX-uLINK 8M: USB 3.0 Active Repeater Cable, 8M
  - FireNEX-uLINK-DE: USB 3.0 Active Repeater Dongle
  - FireNEX-ULP 12M: USB 3.0 Active Repeater Cable with external power jack, 12M
  - FireNEX-ULP 14M: USB 3.0 Active Repeater Cable with external power jack, 14M
  - FireNEX-UL 16M: USB 3.0 Active Repeater Cable, 16M
  - FireNEX-5000H: USB 3.0 Optical Repeater with Power Delivery Option, 300M
  - FireNEX-uHUB: USB 3.0 Industrial Hub

## Detail Testing Parameters

Operating System	Windows 7 – 64bits with Intel H77 Chipset CPU: i7-3450		
PCIe Card	Fresco Logic, Renesas	USB 3.0 Host	Intel

## Test Results

Desired Distance	Machine Vision Cameras	
	Types	Basler
	Model#	acA1600-20um
	Version (mono/color)	Mono
	MP	1 MP
8M	FireNEX-uLINK 8M	COMPATIBLE
8M	FireNEX-H3M-08	COMPATIBLE
10M	FireNEX-uLINK-DE <sup>(1)</sup>	COMPATIBLE
12M	FireNEX-ULP 12M	COMPATIBLE
14M	FireNEX-ULP 14M	COMPATIBLE
16M	FireNEX-UL 16M	COMPATIBLE
10M, 24M	FireNEX-uHUB <sup>(2)</sup>	COMPATIBLE
100-300M	FireNEX-5000H <sup>(3)</sup>	COMPATIBLE
Testing Specification		
	Color Code During Test	Mono 8
	Transfer Rate During Test (fps)	20
	Resolution During Test (pixels)	1626x1236

(1): FireNEX-uLINK-DE was set up using two 5 meters USB 3.0 cables with the Dongle in the middle of the PC and the camera

(2): FireNEX-uHUB was tested in two set-ups. One set up used two 5 meters USB 3.0 cables, and the other set-up used two 12 meters USB 3.0 repeater cables. For each set-up, the hub is in the middle of the PC and the camera.

(3): FireNEX-5000H: Tested up to 300 meters without power delivery option and up to 100 meters with power delivery option.

## Conclusion

With over 24 hours of comprehensive testing with USB 3.0 PCIe cards from Fresco Logic, Renesas and USB 3.0 host from Intel, Newnex FireNEX-H3M-08, FireNEX-uLINK 8M, FireNEX-uLINK-DE, FireNEX-uHUB, FireNEX-ULP 12M, FireNEX-ULP 14M, FireNEX-UL 16M, and FireNEX-5000H demonstrate to be fully compatible with Basler USB 3.0 camera, Model# acA1600-20um.