



COMPATIBILITY TEST

LABORATORY SERIES

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Testing Documentation

- Subject: Machine Vision Cameras Compatibility versus Newnex Length Solutions
- Goal: To ensure compatibility between Newnex’s Connectivity Solutions and Point Grey USB 3.0 Cameras
- Duration: over 24 hours
- Location: Newnex’s Technical Laboratory, 3041 Olcott st, Santa Clara, CA 95054
- Cameras tested: +Point Grey Flea3 USB 3.0: Model # FL3-U3-32S2C-CS and #FL3-U3-32S3M-CS
 +Point Grey Grasshopper3 USB 3.0: Model # GS3-U3-28S4M-C
 +Point Grey Ladybug5 USB 3.0: Model# LDS-U3-51S5C-44R and #LDS- U3-51S5C-44B (Point Grey tested)
- Newnex products tested:
 US2-AMCB11-3M: USB 3.0 A to Micro B with USB3 Vision Locking Cable, 3M
 US226AMCB11-5M: USB 3.0 A to Micro B with USB3 Vision Locking Cable, 5M
 US226AMCBR115M: USB 3.0 A to Micro B Right Angle R-1 with USB3 Vision Locking cable, 5M
 FireNEX-uLINK 8M: USB 3.0 Active Repeater Cable, 8M
 FireNEX-uLINK-DS: 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

Detailed Testing Parameters

Newnex’s Testing Parameters	
Operating System	Windows 7 – 64bits With Intel H77 Chipset CPU: i7-3450
PCIe Card	SIIG DP SuperSpeed USB 2-port PCIe with Renansas Chipset

Test Results

Desired Distance	Machine Vision Cameras			
	Types	Flea3	Grasshopper3	Ladybug5 ⁽³⁾
	Model#	FL3-U3-32S2C-CS, FL3-U3-32S3M-CS	GS3-U3-28S4M-C	LDS-U3-51S5C-44R, LDS- U3-51S5C-44B
	Version (mono/color)	Color	Mono	Color
	MP	0.3 MP	1 MP	30 MP
3M	US2-AMCB11-3M	COMPATIBLE	COMPATIBLE	COMPATIBLE
5M	US226AMCB11-5M, US226AMCBR115M	COMPATIBLE	COMPATIBLE	COMPATIBLE
8M	FireNEX-uLINK 8M	COMPATIBLE	COMPATIBLE	COMPATIBLE
10M	FireNEX-uLINK-DS ⁽¹⁾	COMPATIBLE	COMPATIBLE	COMPATIBLE
12M	FireNEX-ULP 12M	COMPATIBLE	COMPATIBLE	COMPATIBLE
14M	FireNEX-ULP 14M	COMPATIBLE	COMPATIBLE	COMPATIBLE
16M	FireNEX-UL 16M	COMPATIBLE	COMPATIBLE	COMPATIBLE
10M, 24M	FireNEX-uHUB ⁽²⁾	COMPATIBLE	COMPATIBLE	COMPATIBLE
100-300M	FireNEX-5000H ⁽³⁾	COMPATIBLE	COMPATIBLE	COMPATIBLE
Testing Specification				
	Color Code During Test	RGB 32	RGB 24 (HD)	-
	Transfer Rate During Test (fps)	120	60	-
	Resolution During Test (pixels)	640x480	1280x720	-

- (1): FireNEX-uLINK-DS 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 SIIG DP SuperSpeed USB 2-port PCIe with Renansas Chipset, Newnex US2-AMCB11-3M, US226AMCB11-5M, US226AMCBR115M, FireNEX-uLINK 8M, FireNEX-ULP 12M, FireNEX-ULP 14M, and FireNEX-5000H demonstrated to be fully compatible with the Point Grey Flea3 USB 3.0 cameras, model #FL3-U3-32S2C-CS and #FL3-U3-32S3M-CS, Grasshopper3, model #GS3-U3-28S4M-C. In addition, the Ladybug5 was tested by Point Grey and is compatible with Newnex products listed above.