

# Test Execution Report

## ExtremeUSB™ and HDBaseT™ Extension Testing

### Document Control

Name	Role	Date
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#### Objective:

To evaluate the reliability of three cameras when connected to a host PC using two different extenders: one utilizing HDBaseT™ technology and the other employing ExtremeUSB™.

The tests will determine the effectiveness of each extender in transmitting the camera's image over a distance of 100 meters (330 feet) using Cat6a Unshielded Twisted Pair (UTP) cable.

#### Test Setup:

##### 1. Equipment:

- Cameras:
  - Aver 340+ Camera  
S/N 5311812100077  
S/N 5311812100039
  - Lumens VC-B30U  
S/N VANA10476  
S/N VANA10424
  - Poly Studio USB  
S/N \*8G2133657D82F9  
S/N \*8G2142662BFEF9

- Extenders:
  - HDBaseT™  
AV Proedge 100M USB 2.0 Extender via HDBaseT™,  
Product code AC-EXUSB-3-KIT  
S/N 122224060800015, 122324060800015
  - ExtremeUSB™  
USB 3-2-1 Raven™ 3204C Pro,  
Product code 00-00478,  
S/N IC3204CPL-03-F000404, IC3204CPR-03-F000404
- Cabling:
  - 2x 100 meters of Cat6a UTP cable.
- Host PC:
  - Dell Inspiron 16 5640 AMD Ryzen™ 7 8840U 8-core/16-thread Processor, Windows 11 Pro, S/N 79T5544
- LAN Switch:
  - TP-Link TL-SX105(UN) 5-Port Unmanaged Desktop 10-Gigabit Switch  
S/N 22412Y90000037

### 2. Procedure:

- Connect each camera to the host PC using the designated extender and the 100-meter (330 feet) Cat6a UTP cable.
- Conduct the following tests for each camera-extender combination:
  - Video Transmission Test: Verify that the camera's image is transmitted to the host PC without interruption.
  - Signal Integrity Test: Assess the quality of the transmitted image for any artifacts or degradation.

### 3. Evaluation Criteria:

- Each extender will be classified as either Pass or Fail based on its ability to reliably transmit the camera's image to the host PC.
- A Pass indicates consistent image quality and connectivity, while a Fail signifies issues such as loss of signal, significant latency, or image degradation.

### Expected Outcomes:

The results will provide insights into the performance of each extender with the cameras, guiding future decisions on equipment selection for optimal reliability in various operational environments.

Test 1

PC Camera Application, AMD Processor Laptop, Cat6A FTP 100 meters uncoiled			
		AV Proedge	Raven 3204C Pro
Aver 340+ Camera	Bulk	Fail, Unable to pull camera out of standby mode	Pass
Aver 340+ Camera	ISO	Fail, Unable to pull camera out of standby mode	Pass
Lumens VC-B30U	Bulk	Pass	Pass
Lumens VC-B30U	ISO	Fail	Pass
Poly Studio USB	Bulk	Fail, Blank Screen,	Pass

Test 2

OBS Studio App camera feed AMD Processor Laptop, Cat6A FTP 100 meters uncoiled			
		AV Proedge	Raven 3204C Pro
Aver 340+ Camera	Bulk	Fail, Unable to pull camera out of standby mode	Pass
Aver 340+ Camera	ISO	Fail, Unable to pull camera out of standby mode	Pass
Lumens VC-B30U	Bulk	Pass	Pass
Lumens VC-B30U	ISO	Fail	Pass
Poly Studio USB	Bulk	Fail, Blank Screen,	Pass

Test 3

OBS Studio App camera feed AMD Processor Laptop, 2x Cat6A FTP 100 meters uncoiled,			
		Raven 3204C Pro	
Aver 340+ Camera	Bulk	Pass	
Aver 340+ Camera	ISO	Pass	
Lumens VC-B30U	Bulk	Pass	
Lumens VC-B30U	ISO	Pass	
Poly Studio USB	Bulk	Pass	

## Conclusion

In conclusion, the testing results indicate that the HDBaseT™ extender was unable to establish a reliable connection with two out of the three tested cameras.

This limitation suggests that while HDBaseT™ technology may be effective in certain scenarios, it may not be suitable for all camera models in our specific application.

On the other hand, the ExtremeUSB™ extender demonstrated 100% compatibility with robust performance, successfully transmitting camera feed over 100 meters. In addition, the ExtremeUSB™ extender supports up to 200-meter distance when integrated with a 10Gb LAN switch. This capability highlights the superiority of the ExtremeUSB™ technology, making it a more versatile and reliable choice for a wide range of applications.

## Recommendations:

1. HDBaseT™ might be a good solution in certain applications. However, our test demonstrated that it is not as reliable as ExtremeUSB™.
2. Wider compatibility matters in the world of IT and AV. It allows devices, software, and components to work together reliably and without any conflicts.
3. ExtremeUSB™ works in a wider setup including point-to-point and over LAN making the technology unrivalled in the global USB extension market.