

KEY FEATURES

- ❖ Fully supports two unsynchronized base Camera Link™ cameras/frame grabbers
- ❖ Provides 5Gb/s transport bandwidth - 24b/pixel and pixel clock rate up to 85MHz for each camera
- ❖ Zero loss and transparent transport – no changes required for camera and/or frame grabber
- ❖ Two LC duplex fiber interface
- ❖ 8 opto-isolated GPIO channels (4 inputs and 4 outputs) for external trigger and control
- ❖ Two full duplex RS232 for remote instrument control
- ❖ Single 5V~24V DC power supply
- ❖ Locking AC/DC power adapter
- ❖ Transmission distance depending on your choice of fiber:
 - Multi-mode fiber – up to 250m
 - Single-mode fiber – up to 80km

APPLICATIONS

- ❖ High precision security surveillance (e.g. border control, airport)
- ❖ Bar code reading and sorting (e.g. postal center, packaging)
- ❖ Vehicle license plate reading/recording (e.g. toll booth)
- ❖ Product inspection (e.g. automated production line)
- ❖ Port/Harbor cargo container management
- ❖ Railroad measurement/inspection
- ❖ Traffic surveillance/control
- ❖ Cameras placed in harsh environment (e.g. nuclear plant)
- ❖ Long haul image transmissions (e.g. bridge inspection)
- ❖ Other Machine Vision Applications

PHRONTIER™
TECHNOLOGIES

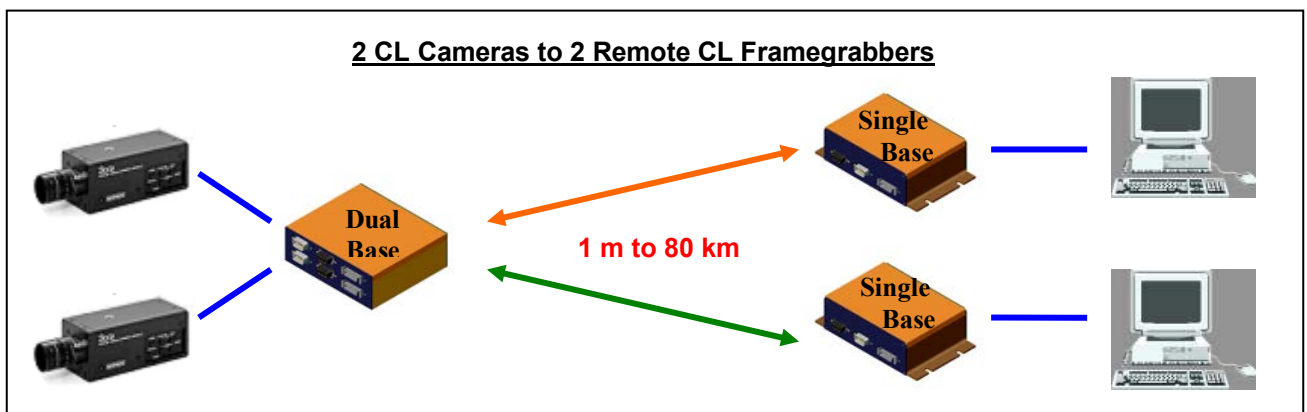
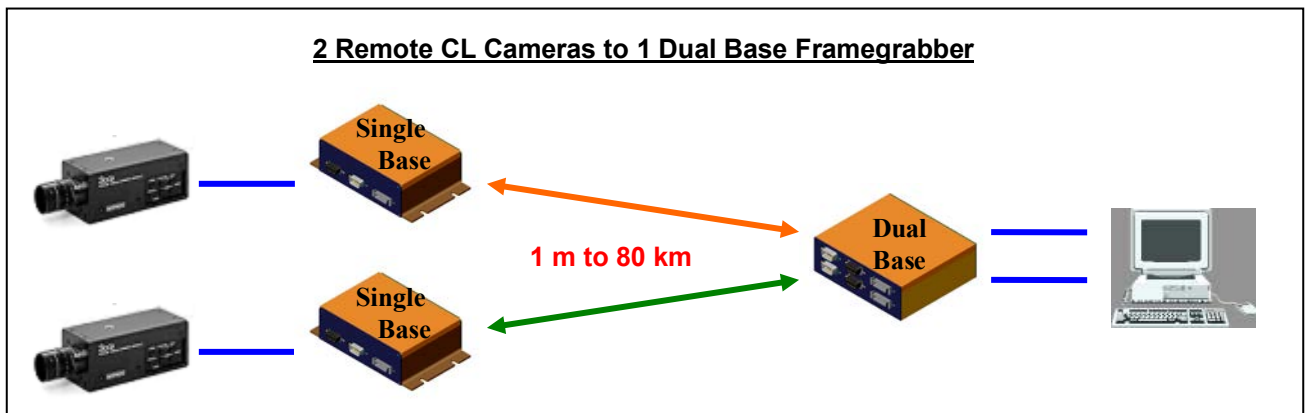
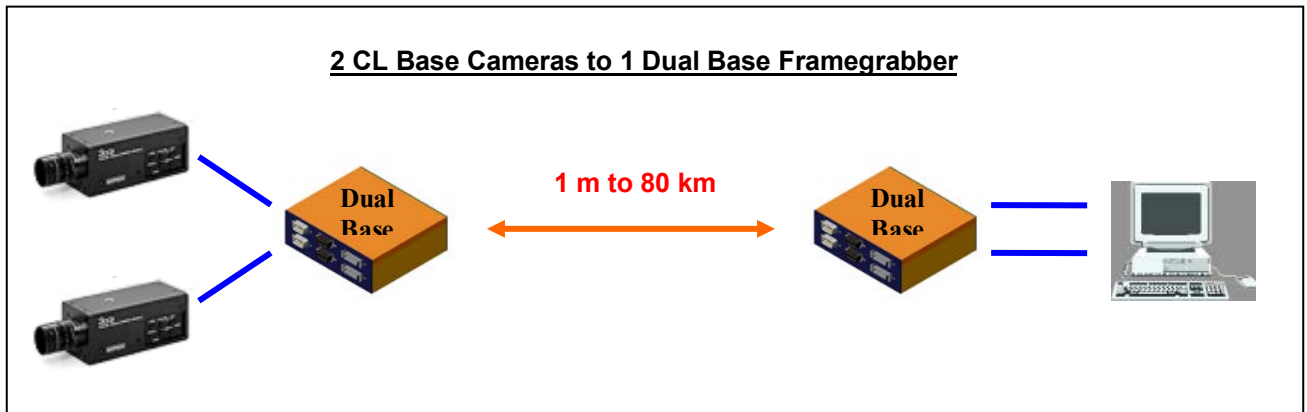
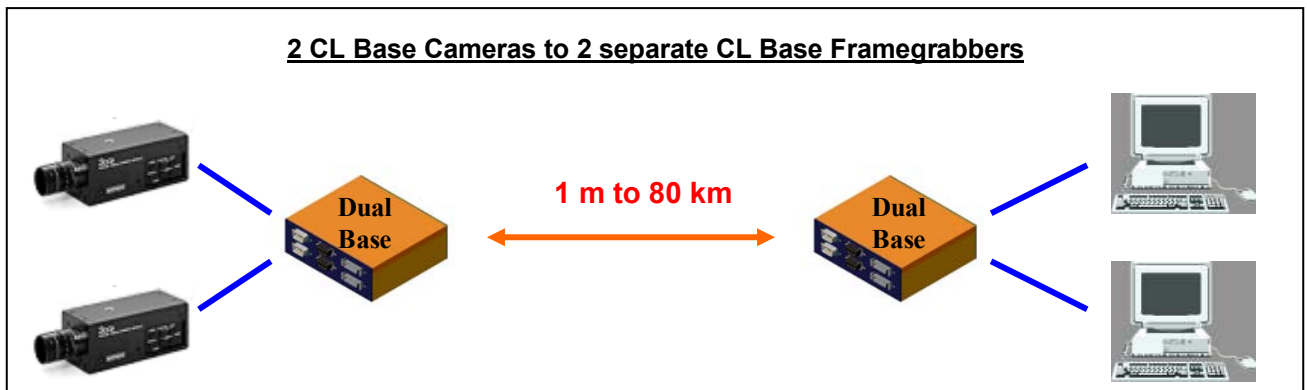
PHOX™ Camera Link Fiber Extender

Dual Base Configuration

PHOX-B2M-250
PHOX-B2M-A250
PHOX-B2L-10/20/40/80
PHOX-B2L-A10/A20/A40/A80



SYSTEM FLEXIBILITY

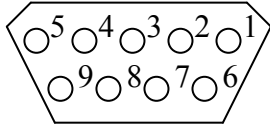


TECHNICAL SPECIFICATIONS

Camera Link Interface				
Max Pixel Clock	PHOX-B2M-250	66 MHz	PHOX-B2M-A250	85 MHz
Max Data Width per Pixel	24 bits			
Compatibility	Camera Link Dual Base mode			
Connector Type	MDR 26 pin			
Opto-isolated GPIO Interface				
Number of I/O Channels	4 input and 4 output (all are opto-isolated)			
Operating Voltage	0~3.3V (0~5.0V optional)			
Max. Data Rate	1 Mbps			
Connector Type	DB9 male			
RS232 Interface				
Number of Data Channels	8 (2 sets of RxD TxD RTS CTS)			
Operating Voltage	Input: +/- 25V, Output: +/- 6V			
Max Data Rate	250 Kbps			
Connector Type	DB9 female			
Optical Interface				
Model #	Operating Wavelength	Optical Tx Output Power	Min Optical Rx Power	Fiber Type
PHOX-B2M-250	850 nm	-9 to -4 dBm	-15 dBm	OM1, OM2, OM3, OM4 multimode fiber
PHOX-B2M-A250	850 nm	-9 to -2.5 dBm	-15 dBm	
PHOX-B2L-10	1310 nm	-9.5 to -3 dBm	-18 dBm	9/125 μm single mode fiber
PHOX-B2L-A10	1310 nm	-8 to -3 dBm	-18 dBm	
PHOX-B2L-20	1310 nm	-5 to 0 dBm	-18 dBm	
PHOX-B2L-A20	1310 nm	-5 to 0 dBm	-18 dBm	
PHOX-B2L-40	1550 nm	-2 to +3 dBm	-20 dBm	
PHOX-B2L-A40	1550 nm	0 to +4 dBm	-18 dBm	
PHOX-B2L-80	1550 nm	-2 to +3 dBm	-28 dBm	
PHOX-B2L-A80	1550 nm	0 to +4 dBm	-26 dBm	
Connector Type	LC duplex			
General Electrical Specification				
Input Voltage	DC 5 ~ 24 V			
Supply Current	600 mA each module			
Typical Power Consumption	7.2 W each module			
Operating Temperature	0 ~ 50 °C			
Connector Type	Switchcraft TA3F locking connector			
Approx Weight (each module)	370 gram			

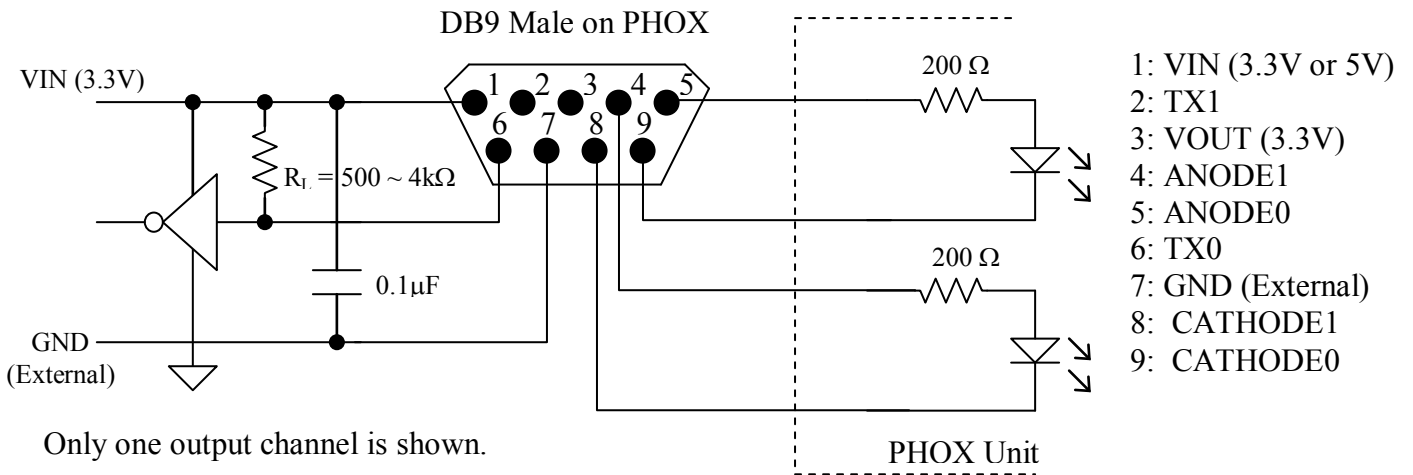
RS232 PIN ASSIGNMENT (FEMALE DB9)

DB9 Female on PHOX



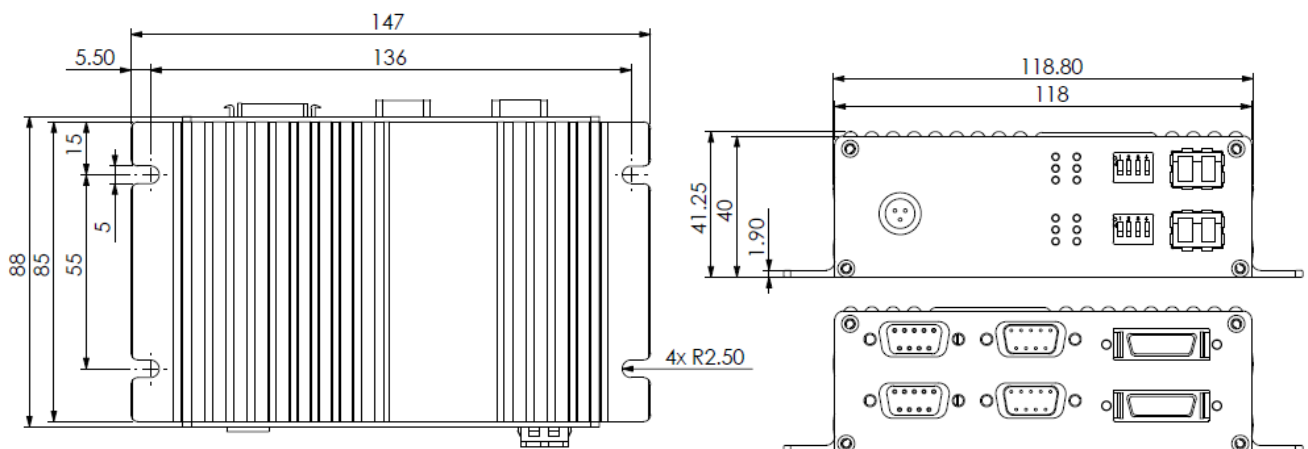
- 1: N/C
- 2: Data Tx
- 3: Data Rx
- 4: N/C
- 5: GND
- 6: N/C
- 7: CTS (Clear To Send)
- 8: RTS (Request To Send)
- 9: N/C

GPIO PIN ASSIGNMENT (MALE DB9)



- 1: VIN (3.3V or 5V)
- 2: TX1
- 3: VOUT (3.3V)
- 4: ANODE1
- 5: ANODE0
- 6: TX0
- 7: GND (External)
- 8: CATHODE1
- 9: CATHODE0

MECHANICAL INFORMATION (mm)



ORDERING INFORMATION

Model #	Pixel Clock	Transport Distance	Check List
PHOX-B2M-250	66 MHz max.	Up to 250 meters*	1x PHOX-CM 1x PHOX-FG 4x DB9 M/F RS232 cable (6ft) (upon request) 2x International AC/DC power adapters (12V DC output) with locking plug (LC duplex fiber cable not included)
PHOX-B2M-A250	85 MHz max.	Up to 250 meters*	
PHOX-B2L-xx	66 MHz max.	Up to 80 kilometers*	
PHOX-B2L-Axx	85 MHz max.	Up to 80 kilometers*	

- Note: xx = Maximum transporting distance in kilometers. Available in 10KM, 20KM, 40KM, and 80KM.
- * Distance depending on fiber type and system design. 250 m transmission distance for PHOX-B2M is based on 50/125 MM fiber. Extra optical losses in the system will reduce the maximum transmission distance.