

IDT technical Note: 0002 (2012/12/28)

"Differences between pipeline and non-pipeline cameras"

How to detect if a camera is pipeline

Pipeline cameras are also called "new-design" cameras and are Y, N, NR and NX cameras with a version of firmware that includes some on-board capabilities. To detect if a camera is pipeline, select the Help menu on Motion Studio, then select the "Cameras info…" item and then check if the "New design" item is set to Yes (see below).

ameras Information				
💿 Y4-S3 Camera - MotionPro Y4-S3 (GigaBit)			Refresh Save	
Current Device Info Link:				
Description	Value			
Link Type Camera MAC Address Camera IP Address Camera SubNet Mask Adapter MAC Address Adapter IP Address Device:	GigaBit Ether 00-50-C2-7A [10.10.10.69 [255.255.25 00-04-48-00 [10.10.10.2]	GigaBit Ethernet 00-50-C2-7A-8B-45 [10.10.10.69] [255.255.255.0] 00-04-4B-00-66-50 [10.10.10.2] ▼		
Description	Value		•	
Intensified Min Exposure	No 1 us	No 1 us		
Light Version Supports EDR	No		_	
Supports Plus	Yes	Yes T		
Hardware:				
Qty Description		P/N	Rev	
•			•	
•			4	



Main differences between pipeline and non pipeline cameras

The main differences between pipeline and non pipeline cameras are listed in the table below.

Feature	Non pipeline	Pipeline	
Background and Pixel sensitivity correction	In the computer	On board	
Calibration file	Download to the local hard disk is required	The file is loaded from the camera flash memory to the camera DDR during the boot and used on-board. The download to the hard disk is not required.	
Current condition calibration	Supported	Supported	
RGB reconstruction from Bayer	In the computer	On board	
TNK	Not supported	Supported	
Motion Trigger	Slow, it requires LWR to detect motion	1 frame onboard motion detection	
Auto-exposure	Not supported	Very fast reaction to intensity change	
HDMI image	May be different from the computer image	Computer and HDMI image are the same	
Time to boot	Fast	Fast, the calibration file is loaded on the DDR at high speed	
Memory size	A few MB larger	A few MB less, they are reserved for the calibration file.	