

RUBY

1k2 30FPS CLA for C-arms



GiGE™
VISION



**Lower
Cost**



**Improve
Image Quality**



**Simplify
Install & Service**

Description

The new RUBY X-ray Camera Lens Assembly (CLA) delivers full digital real-time 1k2 30fps imaging in Image Intensifier based medical imaging systems. RUBY is specifically designed to reduce and eliminate costs in fluoroscopy C-arm systems compared to today's existing CCD based solutions, without compromising image quality.

With RUBY you optimize the 5 elements of image quality in X-ray imaging in your system: Resolution, Contrast, Dynamic imaging, Noise, Artifacts. RUBY delivers 1k2 triggered global shutter imaging with optimal sharpness, bad-pixel & spot free high contrast imaging for fluoroscopy dose range imaging.

The RUBY CLA fits on any brand Image Intensifier with 25mm output window. The low weight, compact outline and low power operation make it easy to install RUBY in existing mobile C-arm designs, with re-use of the existing aesthetic covers. Adjustment provisions on RUBY make it simple to position, align and fine-focus the image, regardless of the orientation of the C-arm.

Adimec
Excellence in Imaging

Specifications

Image Sensor	Global shutter CMOS, low-noise high-dynamic range operated (73dB DNR)
Imaging format	1k2 (1024x1024) , 30FPS, 12bits/pixel progressive digital video via GigE, latency free pipeline
Triggering	Internal triggering (user programmable) / External triggering (via I/O)
Optics	Compact lens, aligned on sensor for optimal uniformity & MTF with 0% over framing, optical distortion correction
II compatibility	P20, P22G, P43 and alike compatible; fit to 25mm output window; fit to any brand via adaptor plate
Video interface	GigE Vision GenICam standard compliant / no power over Ethernet / RJ45 connector
I/O interface	Real-time I/O signals for synchronization (input/output) and dose control (ABC) / Molex 5018761440 connector
Power interface	Separate I/O, 10,8,... 26,8V DC, < 6W / Molex 5018761440 connector
Sensitivity control range	72dB max / Control by digital iris concept (1)
Adaptor plate (2)	Mounts CLA to II / adjustment image horizon, X-Y translation & fine focusing (3) / 2-set ND filter (factory config)
Embedded processing (4)	ABC (-15V .. +15V signal range) / AGC (multi modes) / Video measurement field / H-flip, V-flip
Image Black Level	User programmable, independent of gain settings
Serviceability	LED status indicators / Built In Test / Test pattern generator / Image overlays for adjustments
Dimensions CLA	Max outline circle diameter: 85mm / max height: 55.8mm
Dimensions adaptor	Max outline diameter mounting plate: 160mm / max height adaptor: 24.2mm
Weight	CLA: 375 gram / adaptor plate: 550 gram (5)
MTBF	> 120000h at 55°C [MIL-HDBK-217F] (no moving parts, no failures due to wear & tear)
Compliance	RUBY components are designed to meet UL. UL certification to be done by system integrator RUBY ROHS and CE compliant. RUBY is tested to comply with EMI/EMC requirements for medical parts

(1) patented under: EP31103136; NL2015037

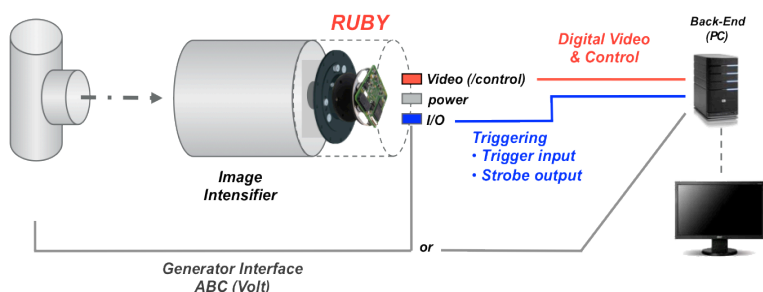
(2) adaptor plates are II-type dependent and facilitate reproducible & easy adjustments under any angle orientation of the C-arm.

(3) CLA is factory focused with 0% over framing. Fine adjustment focusing only needed to eliminate tolerances in II mechanics.
No optical over framing adjustment needed during installation or service.

(4) ABC, AGC, Measuring Field are fully user programmable.

(5) EMC cover or aesthetic cover are not part of RUBY.

System Implementation Concept



CLA exploded view



For maximum image quality, performance, and reliability in demanding applications - Choose Adimec

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