

RLT-NG1-001 - OVERVIEW

The **RLT-NG1-001** from Réaltra Space Systems Engineering is a high-definition video camera for use on launch vehicles.

RLT-NG1-001 Camera is a low profile, ethernet enabled camera that provides full colour video stream. The camera has self-illumination of dark scenes through the use of three white light LEDs' located on the lid of the camera.

The RLT-NG1-001 Camera is ruggedised for survival in harsh space environments with a wide operating temperature range and space qualified components.

APPLICATIONS

Launcher in-flight HD video image capture of;

- Launcher stage & booster separation
- Faring and payload separation events.
- Upper stage engine firing events
- On-board technology maturation in-flight experiment monitoring

Re-Entry vehicle HD video image capture for;

- Solar array / antenna deployment events
- On-orbit proximity operations with other spacecraft or platforms
- On-board in-flight experiment monitoring
- Re-entry preparation events



FEATURES

- Full HD Video, 1080p
- H.265 compression and Ethernet output
- Global Shutter
- 2.5MP CMOS sensor
- High speed with 60 fps
- Superior quality optics with Narrow and Wide angle S-mount Lenses available.
- Qualified for launcher and space environment operation
- 95Lux at 1m LED located on lid.
- Operates between -40 °C to +70°C.

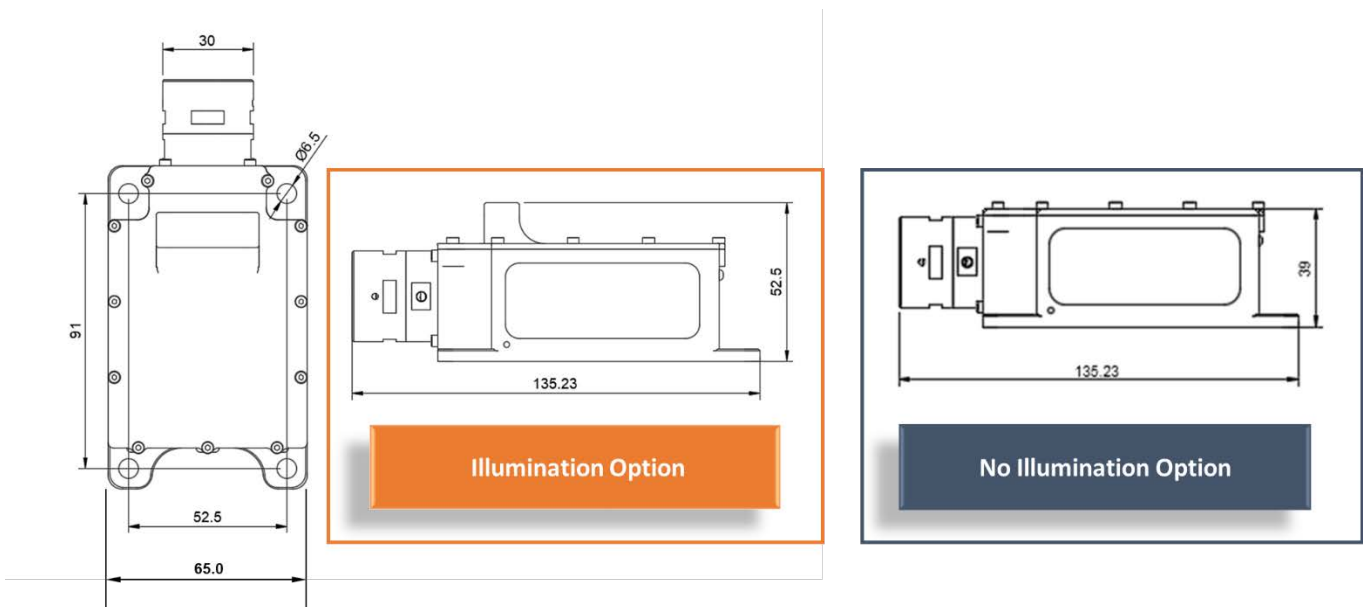


Réaltra provides the Independent Video Kit for Ariane 6

SPECIFICATIONS

Parameter	Value		Units	Notes
	No LED	With LED		
Mass	330	350	g	
Dimensions (L x W x H)	135 x 66 x 41	135 x 66 x 52.5	mm	
Power Consumption	7	9.8	W	
Operating Temperature	40 to 70	40 to 70	°C	Qualified in vacuum at 10 ⁻⁶ bar
Random Vibration	25	25	gRMS	While operational
Shock	5,000	5,000	g	Shock applied in each axis
Vacuum	1x10 ⁻⁶	1x10 ⁻⁶	mBar	Full operating temperature range

FIGURE 1 MECHANICAL DRAWING OF RLT-NG1-001 CAMERA



Note: Dimensions are expressed in mm

ELECTRICAL INTERFACE

The Video camera system operates from a +28VDC supply through a Harwin Gecko G125-324109600 connector for power and a Harwin Gecko G125-224109600 connector for ethernet.

A 6 way circular power connector harness and 9-way D-sub ethernet harness are also available.

While every effort is made to ensure the accuracy of all information provided, Réaltra provides technical data in good faith "as is" which may contain errors, and disclaims all warranties, express and implied, including without limitation any implied warranties of merchantability and fitness for a particular purpose.

ORDERING INFORMATION

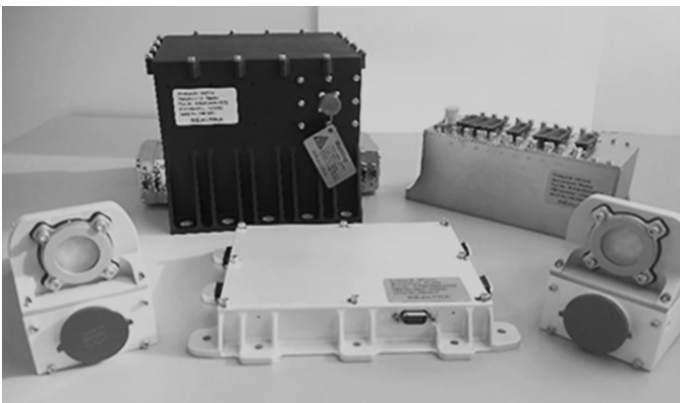
RLT-NG1-001 Camera is available as a standalone product

- Réaltra VCAM : R-SUB-0081-NGCL

The RLT-NG1-001 Camera is also compatible with other Réaltra products as part of video telemetry sub-system, such as:

- Réaltra PDCU : R-PSU-0004-PDCA
- Réaltra VBAT : R-BAT-0009-VBAT2
- Réaltra VDCU : R-SUB-0030-DCUA

The products above form the VIKI system specifically designed for Rocket launchers. The Réaltra PDCU is capable of taking power input from the VBAT and distributing it to the VDCU and up to 6 NG1 Cameras. This allows multiple views of the rocket launcher or the payload.



VIKI - Autonomous Independent Video Kit for use on the Ariane 5 launch vehicle



VIKI – Integrated Independent Video Kit for use on the Ariane 6 launch vehicle

The Video Kit developed by Réaltra Space Systems Engineering has been Qualified for the flight elements of the Independent HD Video Telemetry Kit (VIKI) for use on the Ariane 5 and Ariane 6 launch vehicles for ArianeGroup. The VIKI system will capture and broadcast HD video from HD IP cameras located on the launchers that will provide live images of the stage, fairing and payload separation events for commercial and engineering purposes.

To make an enquiry, request a quotation or learn about Réaltra's other products and services, please contact:



Réaltra Space Systems Engineering
The Realtime Building,
Clonshaugh Business Park,
Dublin,
D17 H262,
Ireland.



+353 1 848 6112



info@realtra.space



www.realtra.space



www.linkedin.com/company/realtra

Note: "Ariane 5" and "Ariane 6" are Trademarks owned by ArianeGroup SAS.

Note: Information in this document is subject to change without notice and becomes contractual only after written confirmation by Réaltra Space Systems Engineering.

Manufacturing Partner for Réaltra is Realtime Technologies Ltd. Web: www.realtime.ie

