

## HELICOPTER NAVIGATION FLIR FORWARD LOOKING INFRARED

The FLIR 111 is a state-of-the-art, high performance, compact, lightweight navigation Forward Looking InfraRed (FLIR) for utility and attack helicopters.

From a solid background in Electro-Optics (EO) and InfraRed (IR) applications and exploiting the new technologies, the FLIR 111 features:

- High level of integration
- Low power consumption
- Simple mechanical interface
- Standard electrical interface
- Minimal number of interconnections.

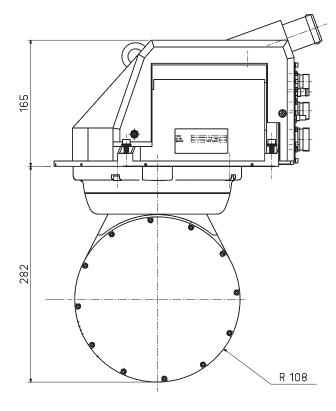
The FLIR 111 makes use of a second generation thermal camera mounted onto a two-axis steering platform.

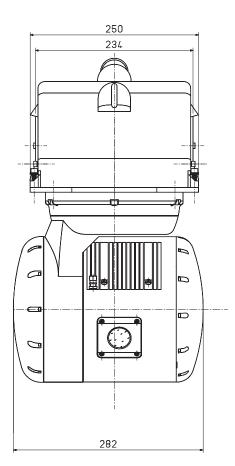
The video image, generated by the thermal camera, presented on the pilot's Helmet Mounted Display (HMD), allows the crew to navigate a 'map of the earth' at night and in adverse weather conditions.

The FLIR 111 has been qualified for NH90/TTH and Tiger helicopters. It is jointly produced by the company (Prime Contractor), Hensoldt Systemtechnik GmbH (Zeiss Group) and AEGInfrarot-Module.



## **FLIR 111**





## **TECHNICAL CHARACTERISTICS**

Field of Regard± 130° (azimuth)Angular Speed140°/sec (azimuth)Angular Speed150°/sec (elevation)Angular Acceleration1000°/sec2 (azimuth)1140°/sec2 (elevation)1140°/sec2 (elevation)Position Resolution0.2m Rad.THERMAL CAMERASpectral Range7.5 - 10.5µmDetector288 x 4 TDI linear arrayField of View30° x 40°CoolingLinear split stirling coolerNETD< 0.1 K°SYSTEMPower Consumption150W typicalWeight- 20KgDimensionsSee image	PLATFORM	
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150°/sec (elevation)         Angular Acceleration         1000°/sec2 (azimuth)         1140°/sec2 (elevation)         Position Resolution         0.2m Rad.         THERMAL CAMERA         Spectral Range         7.5 - 10.5µm         Detector         288 x 4 TDI linear array         Field of View         30° x 40°         Cooling         Linear split stirling cooler         NETD         SYSTEM         Power Consumption         150W typical         Weight		+ 45° to -70° (elevation)
Angular Acceleration       1000°/sec2 (azimuth)         1140°/sec2 (elevation)       1140°/sec2 (elevation)         Position Resolution       0.2m Rad.         THERMAL CAMERA         Spectral Range         7.5 - 10.5µm         Detector       288 x 4 TDI linear array         Field of View       30° x 40°         Cooling       Linear split stirling cooler         NETD       < 0.1 K°	Angular Speed	140°/sec (azimuth)
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Position Resolution     0.2m Rad.       THERMAL CAMERA	Angular Acceleration	1000°/sec2 (azimuth)
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NETD < 0.1 K° SYSTEM Power Consumption 150W typical Weight - 20Kg	Field of View	30° x 40°
SYSTEM       Power Consumption     150W typical       Weight     - 20Kg	Cooling	Linear split stirling cooler
Power Consumption     150W typical       Weight     - 20Kg	NETD	< 0.1 K°
Power Consumption     150W typical       Weight     - 20Kg		
Weight - 20Kg	SYSTEM	
	Power Consumption	150W typical
Dimensions See image	Weight	~ 20Kg
	Dimensions	See image



FLIR 111 on a Tiger helicopter



For more information please email infomarketing@leonardocompany.com