

The reality of using DGO Technology (Dual - Gain Output) with super within the labor market in 35mm CMOS sensor in modern cinema cameras Egypt the Arab Republic of
Dr. Mahmoud Saleh Ahmed

Lecturer of the College of Applied Arts, Department of Photography, Film and Television

dr.mahmoudsaleh.eg@gmail.com

Abstract:

The dynamic Range is considered one of the most important factors that determine the quality of the cinema camera, and production companies have tended to develop the CMOS sensor, especially the size of Super 35 mm, where the pixel or photosensitive cell plays a major role in determining the extent of the sensor's ability to show the largest amount of detail in bright and dark areas and where The dynamic range of the film negatives reaches 13 exposure degrees, while the dynamic range achieved by digital cinematographic cameras is much less than film, as it ranges between 4 or 5 exposure degrees, but in the recent period there has been a great development, as digital cinema cameras, where the dynamic range reaches 13 stops in Black magic camera, while Arri Alexa camera, up to 14 degrees of exposure, and with the emergence of modern technology for DGO (Dual - Gain Output) technology, where the photodiodes are deployed in a form that contains an optical diode to record LG's low-light areas and lighting areas. The HG frame has a structure that expands the dynamic range, allowing the image sensor to extend further into the deep, dark areas of a scene with While maintaining the high-light areas at the same time, this increased the dynamic range performance of the Cinema EOS C300 Mark III that uses the Dual Gain Output (DGO) to 16 stops that the camera can record.

And since DGO technology has given photographic directors the ability to photograph and record the image in a large dynamic range, it is possible to exploit this feature in photographing tourist scenes inside the Arab Republic of Egypt without notching or losing details, especially when photographing areas of tourist attraction with night shots, such as the city of Galala and the new Alamein, similar to With Turkish and Lebanese dramas that present the tourist attractions in their works in a pure manner without spread, which positively affects the media image of Egypt abroad

Key Words:

Dynamic Range - Dual Gain DGO - CMOS - Super 35mm output