



WDR (Wide Dynamic Range): See the Unseen

Wide Dynamic Range extends image visibility under high contrast lighting scenes and improves object identification in critical surveillance scenarios

Introduction

Wide Dynamic Range (WDR) technology improves a camera's image quality under high-contrast lighting conditions where both dimly and brightly lit areas are present in the field of view. It enables the camera to capture details clearly in both the poorly and strongly illuminated areas of the video.

Applications

The ability to discern details even in video taken under such high-contrast lighting conditions is extremely important for security applications, such as the identification of people or vehicle license plates. Using a camera with strong WDR performance allows it to clearly capture detailed features by appropriately exposing both the darkest and brightest parts of the entire scene. For this reason, cameras that incorporate WDR technology are particularly recommended for environments such as building entrances, ATMs, and transportation facilities, as well as near windows or similar areas.



Transportation



Parking Lot







Loading Deck

VIVOTEK Comprehensive Range of WDR Solutions

VIVOTEK has developed a comprehensive range of WDR implementations to suit customer needs. WDR Enhanced uses software-based tone mapping technology, which detects areas in the field of view that are either too dark or too light, then adjusts them so that the final result closely mimics what the naked eye would perceive. WDR Pro represents an advancement over WDR Enhanced, utilizing a hardware-based solution by simultaneously capturing two or three images at different exposure levels. An algorithm is then used to combine the images into a single frame of video in which all areas are optimally exposed for maximum visibility. WDR Pro II is a further improvement, capturing four images simultaneously for even more precisely optimized video.

With extensive experience in developing WDR technologies and a comprehensive range of offerings, VIVOTEK is an industry leader in ensuring video quality in security application environments with challenging high-contrast lighting conditions.







WDR Pro



WDR Pro II

