

Title (en)  
HYBRID REFLECTION HOLOGRAM

Title (de)  
HYBRIDES REFLEXIONSHOGRAMM

Title (fr)  
HOLOGRAMME HYBRIDE PAR REFLEXION

Publication  
**EP 2005225 A2 20081224 (EN)**

Application  
**EP 07758837 A 20070319**

Priority  

- US 2007064325 W 20070319
- US 78350206 P 20060317
- US 45982106 A 20060725

Abstract (en)  
[origin: WO2007109626A2] Hybrid white-light viewable holograms and methods for making them. The holograms are hybrid reflection holograms made using the diffractive structures or gratings of a holographic object such as a transmission hologram or holographic optical element (HOE). The wavefronts of the diffractive structures are converted into a reflection hologram by scanning them with a coherent light source having a profiled narrow beam. The hybrid reflection hologram can exhibit display parameters including the multiple colors, solidity, and color stability of white light reflection holograms, the diffractive color shifting of a white light transmission hologram, three dimensional imaging and a wide variety of dynamic changes. Different areas or images with each of these effects can be combined in a single hologram. These hybrid reflection holograms are ideal for security and forgery prevention applications.

IPC 8 full level  
**G02B 5/32** (2006.01)

CPC (source: EP)  
**G03H 1/202** (2013.01); **G03H 1/0011** (2013.01); **G03H 1/0248** (2013.01); **G03H 1/0406** (2013.01); **G03H 1/0408** (2013.01); **G03H 2001/205** (2013.01); **G03H 2001/207** (2013.01); **G03H 2001/2231** (2013.01)

Citation (third parties)  
Third party :  

- US 4209250 A 19800624 - JAMES RANDALL P [US], et al
- US 4995685 A 19910226 - ARMSTRONG MARK L [US], et al
- EP 1217469 A2 20020626 - DU PONT [US]
- EP 1511636 B1 20080903 - GIESECKE & DEVRIENT GMBH [DE]

Designated contracting state (EPC)  
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC MT NL PL PT RO SE SI SK TR

DOCDB simple family (publication)  
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