

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE PATENT TRIAL AND APPEAL BOARD

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NICHIA CORPORATION,  
Petitioner

v.

DOCUMENT SECURITY SYSTEMS, INC.,  
Patent Owner

Patent No. 7,652,297  
Issue: January 26, 2010  
Filed: September 11, 2007  
Inventors: Lee Kee Hon, *et al.*  
Title: LIGHT EMITTING DEVICE

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*Inter Partes* Review No. IPR2018-00966

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**Petition for *Inter Partes* Review of  
U.S. Patent No. 7,652,297**

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**Cases**

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