

Oral Presentation

[DES1]8K Systems

Chair: Ryutaro Oke (Panasonic Liquid Crystal Display)

Co-Chair: Hyun-Wook Lim (SAMSUNG ELECTRONICS)

Wed. Nov 27, 2019 1:40 PM - 3:00 PM Room 207 (2F)

2:10 PM - 2:35 PM

[DES1-2(Invited)]Driver Technology for 8K Ultra High Definition TV

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Keywords: 8K UHD, Column Driver, Equalization, Line Overdriving, Auto calibration

Driver technology for large 8K UHD 120Hz 10bit color display is presented in 0.13- μ m high-voltage CMOS process for column driver IC, and 14nm CMOS process for TCON. The proposed auto-optimized equalizer could compensate -21.4dB channel loss for 4Gbps receiver per lane for 82-inches 8K UHD panel. The proposed line-overdrive technique could compensate insufficient charging time for each line using variable LUT.