



### **Responsibilities**

- Designing Samsung LSI, Qualcomm and Mediatek platform, and co-designing CPU+ peripheral system for Galaxy series
- Bring-up and standardizing circuit design for a new platform in cooperation with platform companies (Samsung LSI, Qualcomm)
- Optimizing Signal Integrity & Power Integrity for Internal Memory System such as LPDDR, UFS, EMMC and etc.
- Optimizing system performance considering battery time through low power system design and AP(Application Processor) and PMIC (Power Management IC) tuning
- Designing, artwork, and standardizing SERDES block for USB, PCI Express, etc. circuit in RF/Baseband system
- Researching energy efficient circuit and high-speed signal system

### **Flagship Research & Development Group**

**Engineer, Baseband and Logic Team**

**12/2014~10/2015**

#### **Responsibilities**

- Designing and optimizing performance for power system and multimedia system (display, camera) of Galaxy S and Note series
- Low power system design; optimizing electric current and heating performance
- Investigating and sourcing optimal power components for performance and cost saving
- Designing multimedia block and interface system considered signal integrity and EMI
- Managing approval process for variety of communication device regulations such as SAFETY, CTIA, CEC and RE and following up relevant issues
- Field-testing for current consumption standard of European/North American telecommunications service providers

### **Hardware Research & Development Group – North America**

**Engineer, Baseband and Logic Team**

**02/2011~12/2014**

#### **Responsibilities**

- Designing power system circuit and artwork for Galaxy S series and the models of North American telecommunications service providers (AT&T, T-Mobile)
- Designing circuit and artwork for multimedia (display, camera) and sensor block
- Designing low power system; optimizing electric current consumption and heating performance
- Managing approval process for variety of communication device regulations such as SAFETY, CITA and CEC; proceeding with field tests for current consumption standard of North American telecommunications service providers

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### **PUBLICATIONS**

Changkyu Choi, **Seung Hyup Han**, Hae-Bong Yang, Seong Ro Lee, Youngpo Lee, Seokho Yoon, Spectrum Sensing Methods for Detection of DVB-T Signals., *Proceeding of Symposium of the Korean Institute of Communications and Information Sciences, 2010.11, 47-49 (3 pages)*

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### **TECHNICAL PROFICIENCIES**

**Simulators:** SIwave, ADS, HFSS, Q3D, Cadence PowerSI, Cadence PowerDC, Hspice, Matlab, CTS (MWS)

**CAD tools:** MENTOR

**Tools:** Samsung Mobile Phones Measurement systems: Tektronix/Keysight Oscilloscope/BER Tester, Agilent/Anritsu Spectrum Analyzer, Vector Network Analyzer (VNA), Teledyne LeCroy Protocol Analyzer, R&S CMW500, Agilent 8960 Series, Keysight E7515A UXM Wireless Test Set, Yokogawa DL850 (Scope Corder), National Instruments Multifunction I/O Device USB-6255/6289 (Voltage, Current meter), Power meter

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### **AWARDS, SCHOLARSHIP AND HONORS**

- A recipient of Samsung Electronics Scholarship for Ph.D. course, 2018 (2017.07)
  - SUNGKYUN HONORABLE SCHOLARSHIP, Sungkyunkwan University (2010.03)
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