5G related activity of Hitachi Chemical

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Packaging Solution Center
Hitachi Chemical Co., Ltd.
Function of Packaging Solution Center (PSC) of HC

- Package TV design
- Evaluation of material property
- PSC for assembly
- Evaluation of package reliability
- Modeling & Simulation
- Package (RDL) wiring
- Assembly of Advanced package
Activity of Packaging Solution Center (PSC) of HC

Customer

Collaboration

Solution proposal

Solution proposal

Packaging Solution Center

Equipment manufacture

Material manufacture

Material manufacture

Material manufacture

HCC materials

HCC materials

Material development divisions & PSC

Hitachi Chemical

EPTC 2019
PSC Capabilities for 5G / RF Front end

Test vehicle designing

**PCB-based module**

**FO-based module**

**Material**
- Low Dk/Df material
  - AS-400, LW-900 series
- Low Dk-Df substrate
  - HE-679G, HS-100 series
- Molding Compound
  - CEL(Granule), EB (Film)
- Underfill material
  - CEL(CUF), AZ (NCF), MUF
- Fine patterning RDL
  - AH/AR series

**Process-ability**
- Flip-Chip Bonding
- Molding
  - Compression / Transfer
- RDL fabrication

**EM-field simulation**

Antenna simulation

Transmission line simulation