

Iterative Panel RC Extraction for Capacitive Touchscreen

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Abstract : Electrical characteristics of capacitive touchscreen need to be accurately analyzed to result in better performance for multi-channel capacitance sensing. In this paper, we extracted the panel resistances and capacitances of the touchscreen by comparing measurement data and model data. By employing a lumped RC model for driver-to-receiver paths in touchscreen, we estimated resistance and capacitance values according to the physical lengths of channel paths which are proportional to the RC model. As a result, we obtained the model having 95.54% accuracy of the measurement data.

Keywords : electrical characteristics of capacitive touchscreen, iterative extraction, lumped RC model, physical lengths of channel paths

Conference Title : ICCACADT 2018 : International Conference on Computer Aided Circuit Analysis, Design and Testing

Conference Location : Kuala Lumpur, Malaysia

Conference Dates : February 12-13, 2018