

# Progress and Update on the Connector Specification

Stephen Peters,  
Intel Corp.



# ICM Specification Progress

- Spec review – keyword and sub-parameter conformance to IBIS conventions
  - Review of header information complete
  - About  $\frac{3}{4}$  the way thru connector description itself
  - Various keywords eliminated, others changed
- Progress on matrixes
  - Added “G” matrix, most likely will add support for freq dependent simulations
  - Both existing IBIS RLGC matrix and ‘S-parameter’ (touchstone format) data are being considered
- With current progress, look for spec end of Jan, 02
  - **Caveat:** no significant technical issues w/remaining items.

# What (Significantly) Changed?

- Added conduction (G) matrix
- Added “even\_mode”, “odd\_mode”, “quiescent” model\_types
  - Clarifies and adds conditions under which model data is extracted.
- Went to [Path Description] type format for section descriptions
  - Fork and EndFork replace Cn\_stub
- Several keyword changes relating to pin <-> matrix “row order” mapping.

# Comparison of Matrix Data Types

- **S-parameters**

- ‘natural’ for freq domain simulators
- familiar to RF/connector folks
- Directly measurable (build model from measured data)
- Can directly extrapolate loss factors between frequencies

- **RLGC Matrix**

- ‘natural’ for time domain simulators
- Familiar to SI engineers
- Not directly measurable (build models from field solver)
- Does not directly contain freq losses, there are questions about extrapolation