



# ONE METER MEASURED BACKPLANE CHANNEL DATA

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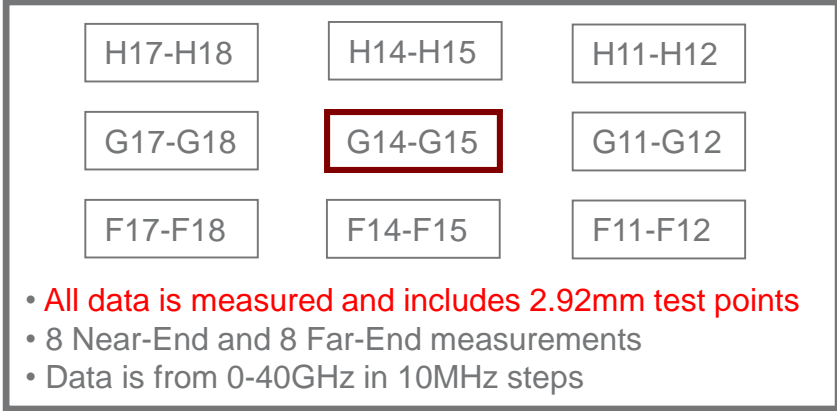
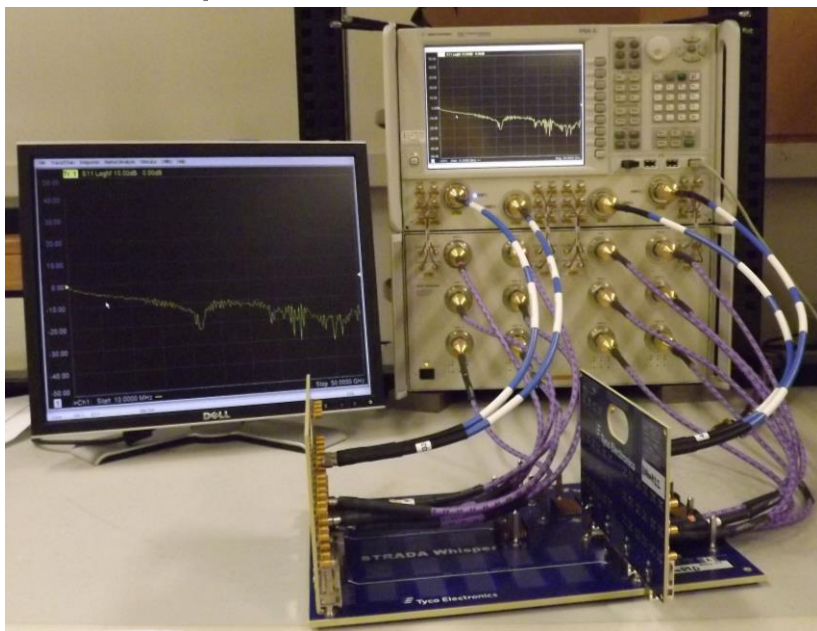


# SUMMARY

- This contribution provides measured data for TE Connectivity STRADA Whisper™ backplane connectors/channels.
  - This design incorporates improved ILD, RL & noise response.
- The STRADA Whisper™ connector used in the tested channel reflects the current tooled product.
- Data will be uploaded to the 802.3cd public channel data web site by July 29<sup>th</sup>.
- Please use the data for your simulations and provide feedback.

# STRADA Whisper™ Backplane Channel

Test Set-up – G14G15 centric



## DAUGHTER CARD

- Board Material = Megtron6 HVLP
- Trace length = 5"
- Trace geometry = Stripline
- Trace width = 6 mils
- Differential trace spacing = 9 mils
- PCB thickness = 110mils, 14 layers
- Counterbored vias, 1 – 6mil stub
- Test Points = 2.92mm (included in data)

## BACKPLANE

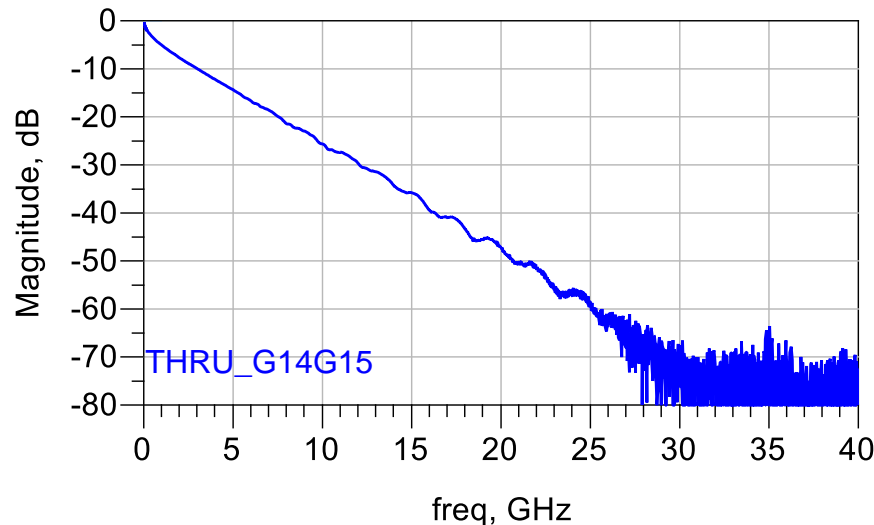
- Board Material = Megtron6 HVLP
- Trace length = 30" (1.75", 17" also avail.)
- Trace geometry = Stripline
- Trace width = 5.75 mils
- Differential trace spacing = 6.25 mils
- PCB thickness = 190 mils, 20 layers
- Counterbored vias, 1 – 6mil stub

## CONNECTORS

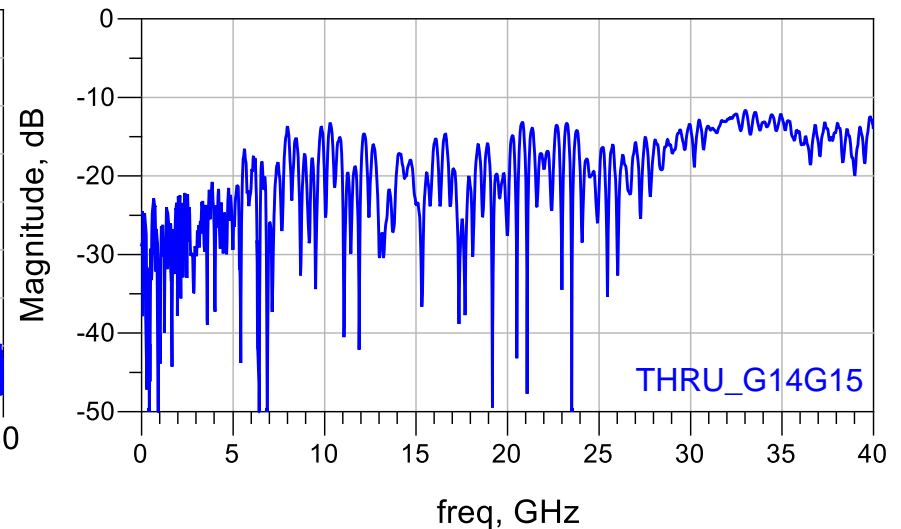
- Mated standard STRADA Whisper connector at each end

# STRADA Whisper 3.9mm 40" System

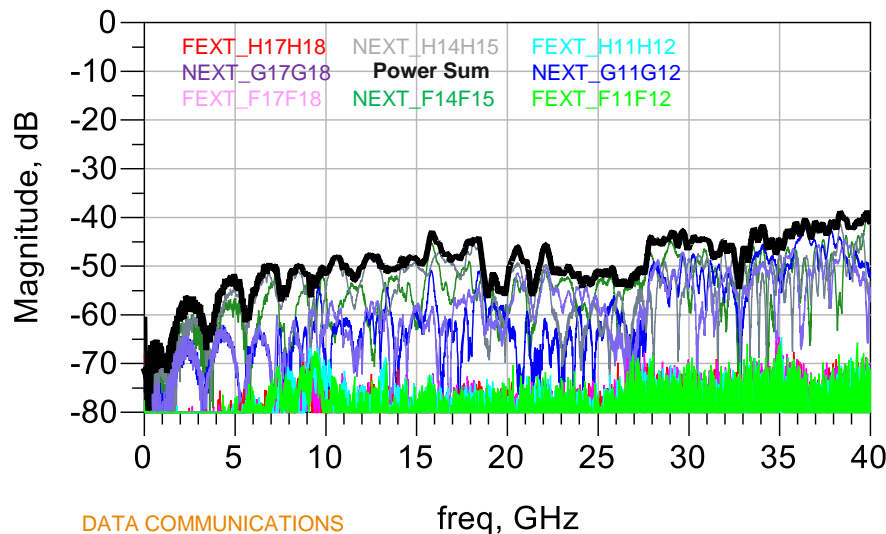
Differential Insertion Loss



Differential Return Loss



Differential Crosstalk



802.3bj COM (for reference only)  
 8 Crosstalk Aggressors – 4 NEXT AND 4 FEXT  
 Maximum Frequency = 40 GHz

	NRZ [100GBASE-KR4]	
	Case 1	Case 2
COM*	4.93	4.03

- COM Version 3.2 Release Date 11/2014 (software version 1.54)
- COM > 3dB PASSES
- COM Test Case 1 and Test Case 2 differ in the value of the device package transmission line length  $z_p$  - 12mm and 30mm respectively, per Table 93-8 of IEEE Std 802.3bj™-2014