



# Summary of System Discussion of Backplane Channels

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# Backplane Analysis – 3 Step Approach

## 1. Ideal channels → High level sanity

*“Are we in the ballpark?”*

*“Is the TX/RX architecture appropriate at this data rate?”*

## 2. Reasonable channels → Coming into reality

*“Does the architecture still hold?”*

*“What are reasonable settings?”*

*“Start holding some ‘tools’ still”*

## 3. Many, many, many channels → Fine tune and validation



# Our Goals

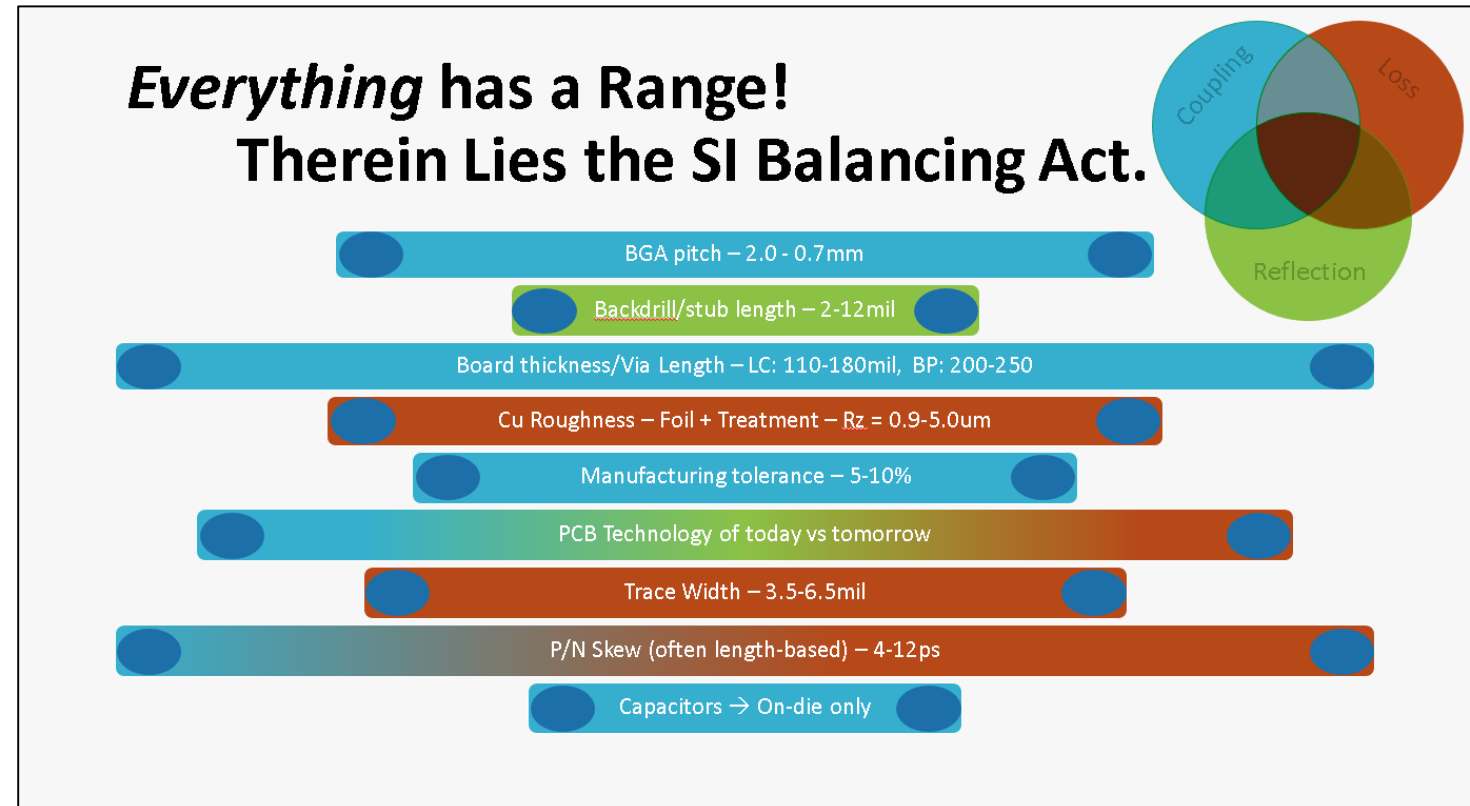
Identify a channel, or subset of channels, that...

- include realities of realistic designs.
- embody “boundary(ies)” of what must work.
- represent multiple individuals and affiliations.
- do NOT discourage further investigation of channel contributions.



# Narrowing the Channels

- Product vs. Standard
- Range of implementation
- Technology tradeoffs
- Necessary Analysis



# The Highlighted Channels

Contribution	Channel
<a href="#">heck 3ck 01 1118</a>	<a href="#">28dB Cabled Backplane/Cable_BKP_28dB_0p575m_more_isi</a>
	<a href="#">16dB Cabled Backplane/Cable_BKP_16dB_0p575m_more_isi</a>
<a href="#">mellitz 3ck adhoc 02 081518</a>	<a href="#">24,28,30dB including BGA Via/CaBP_BGAVia_Opt2_28dB</a>
<a href="#">tracy 3ck 01 0119</a>	<a href="#">Traditional Backplane Channels/BP_SYSTEM_DC4”_BP16”</a>
	<a href="#">Orthogonal Backplane Channels/DPO_IL_12dB</a>
<a href="#">kareti 3ck 01a 1118</a>	<a href="#">Measured Orthogonal Backplane Channels/OAch4</a>
	<a href="#">Measured Orthogonal Backplane Channels/Och4</a>
	<a href="#">Measured Cabled Backplane Channels/CAch3_b2</a>
	<a href="#">Measured Traditional Backplane Channels/Bch2_a7p5_7</a>

# Call to Action

It is recommended to use highlighted channels for...

- deep analysis with only a few channels.
- highlighting subset of channels in analysis with large channel pool.
- a metric for early COM changes/decisions\*.

*\*NOTE: System channel analysis was focused on backplane channels.  
The SerDes landscape may change if cable assemblies are added in.*



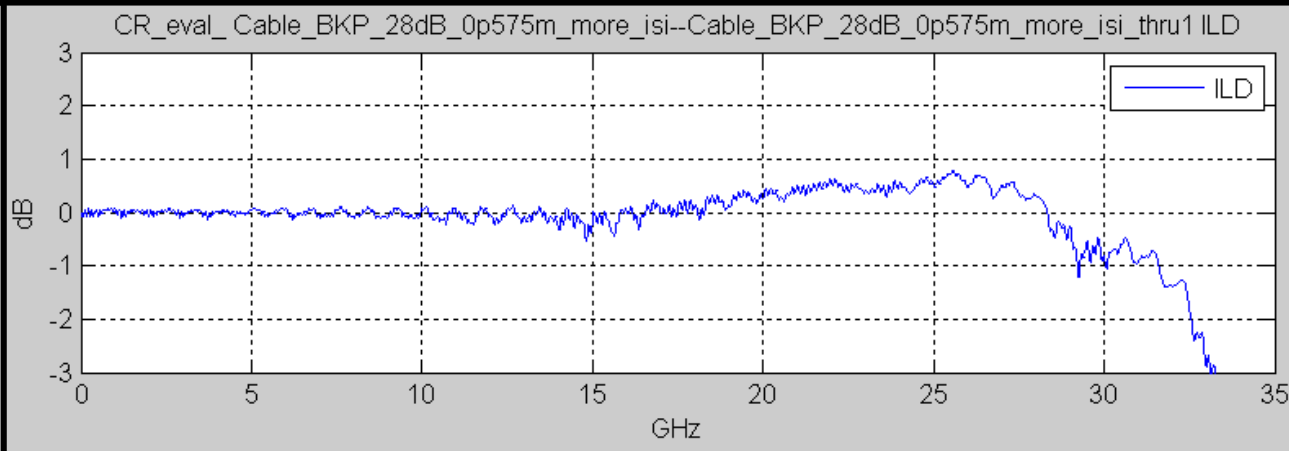
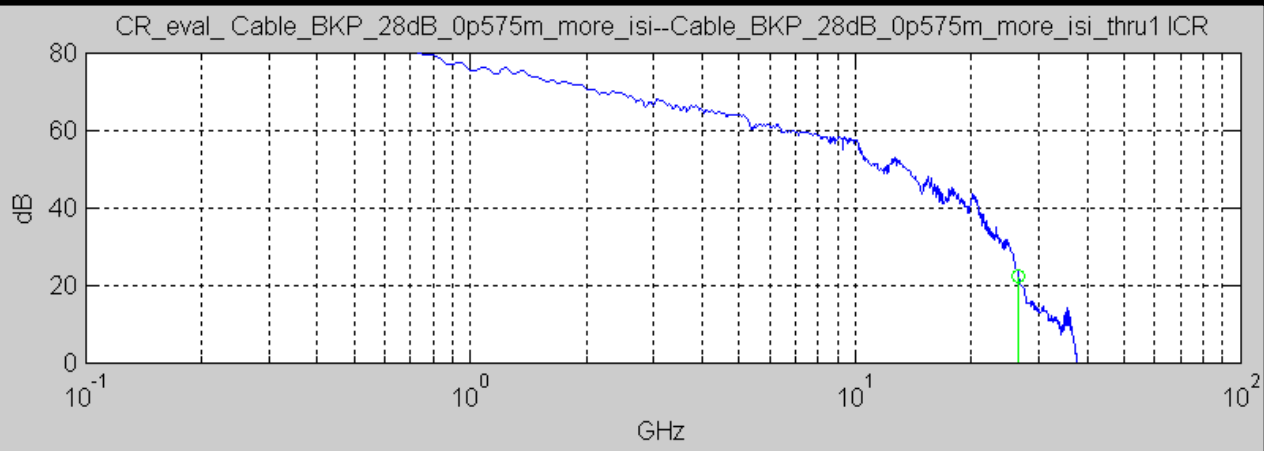
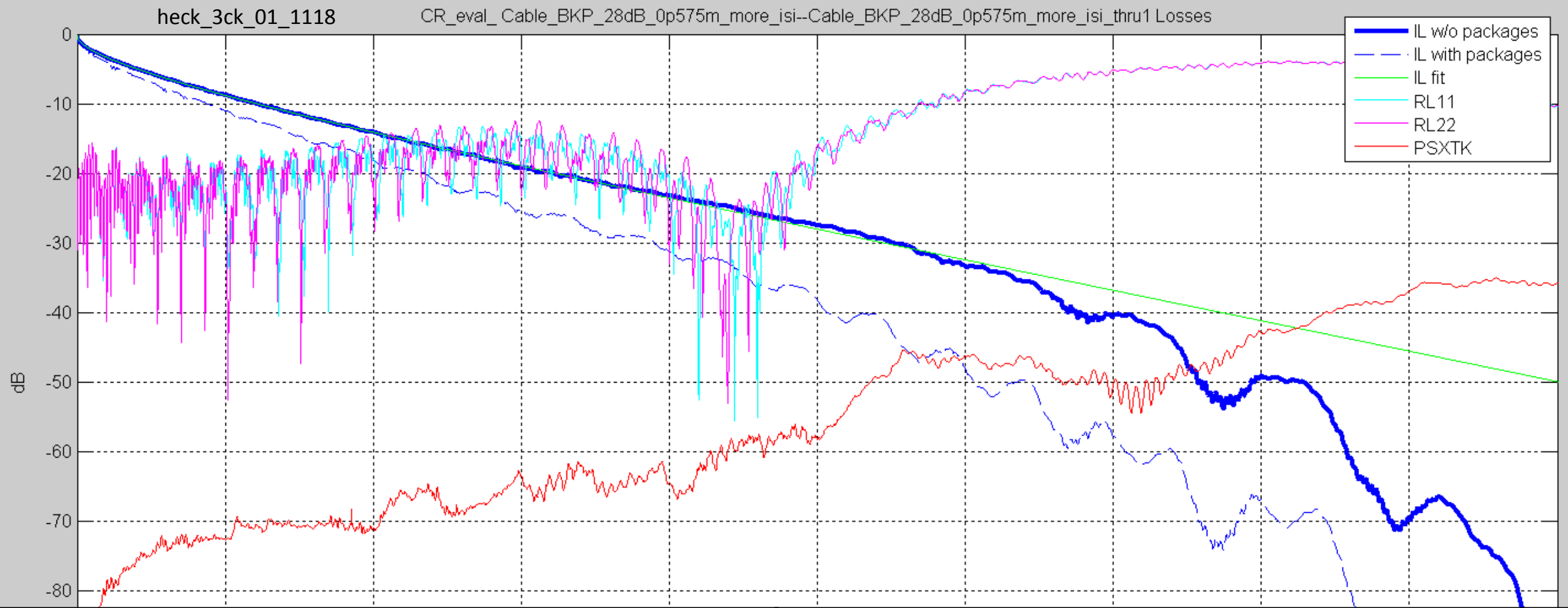
# Questions?

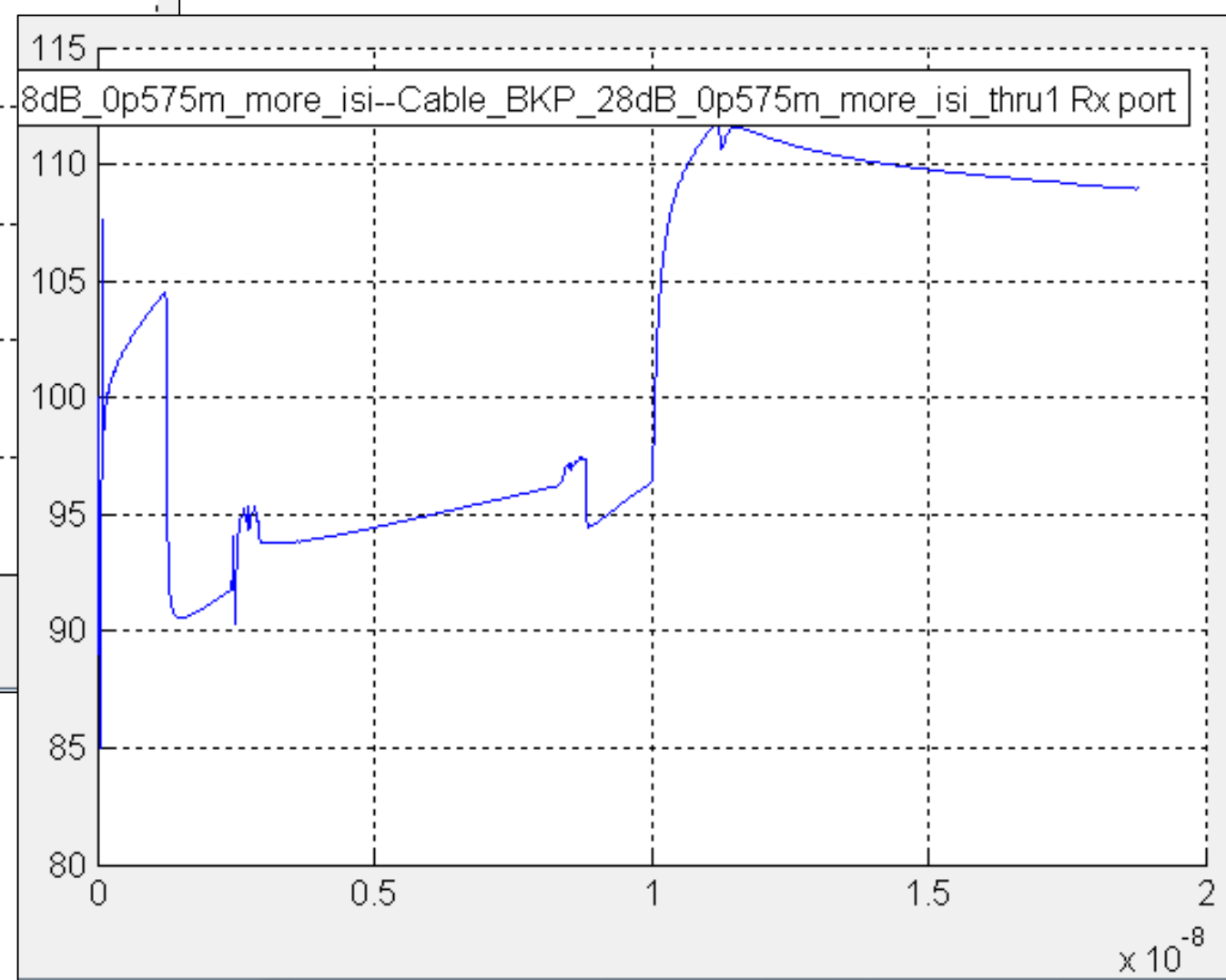
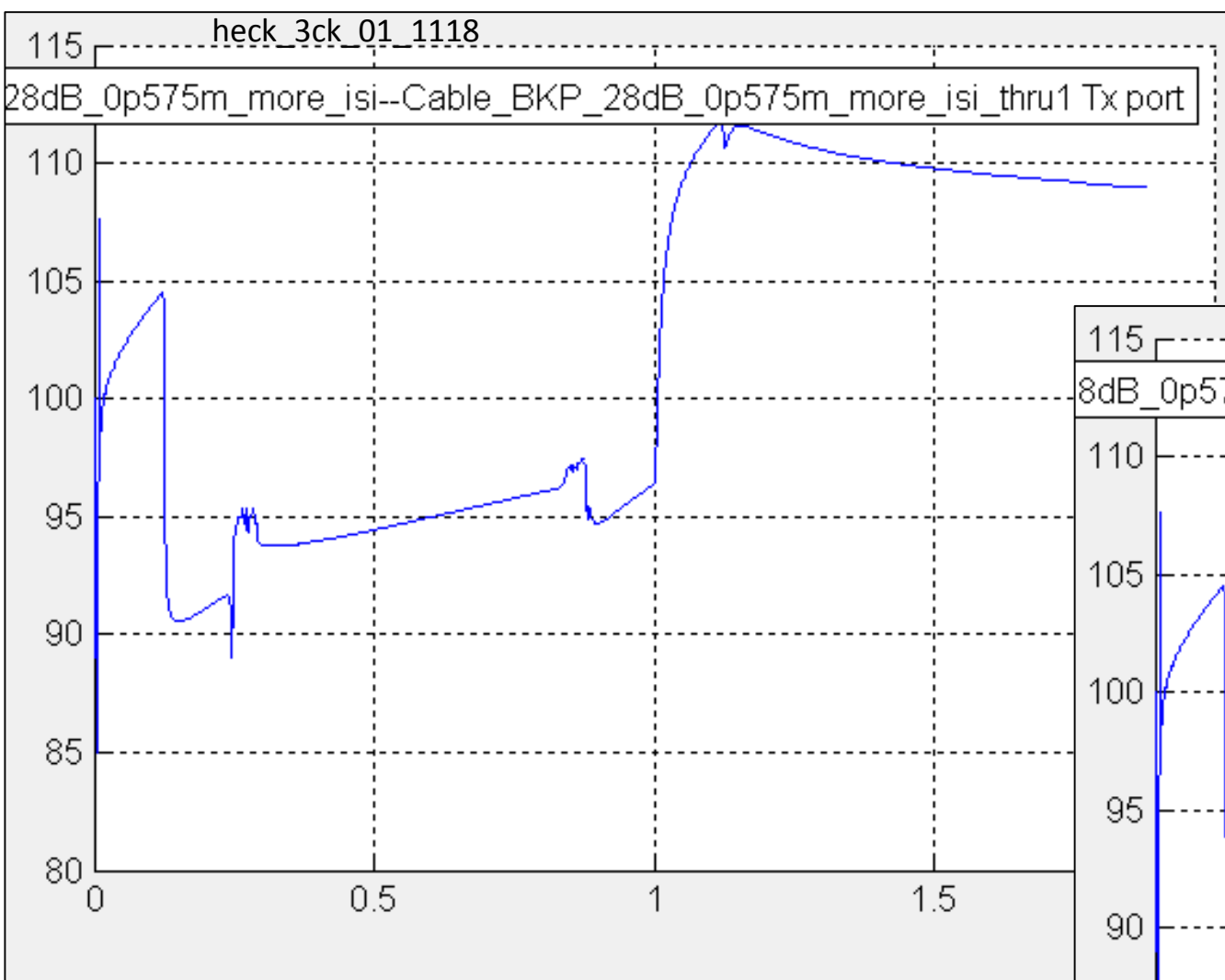
Thank you to the contributors for the help!

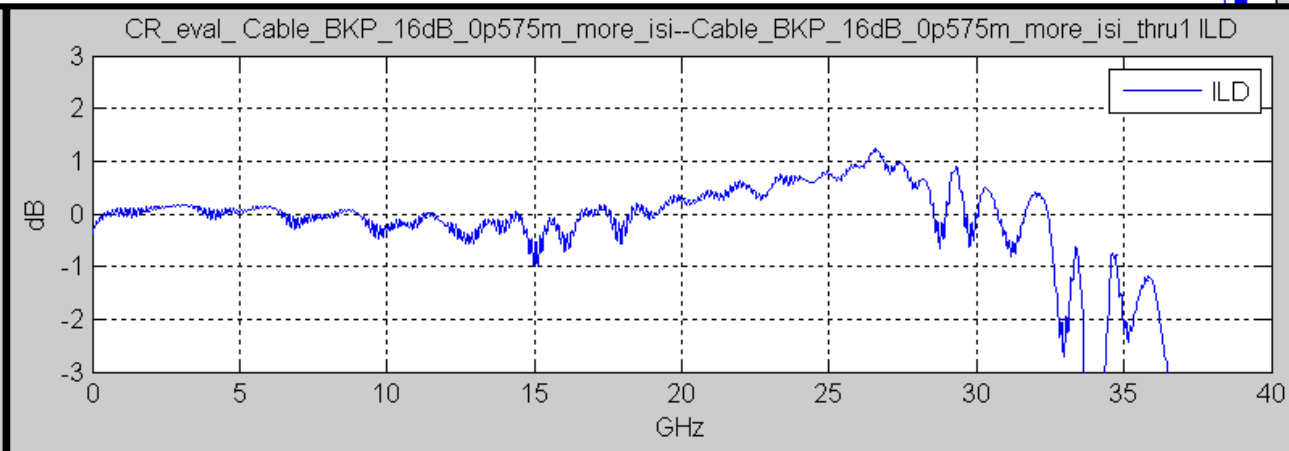
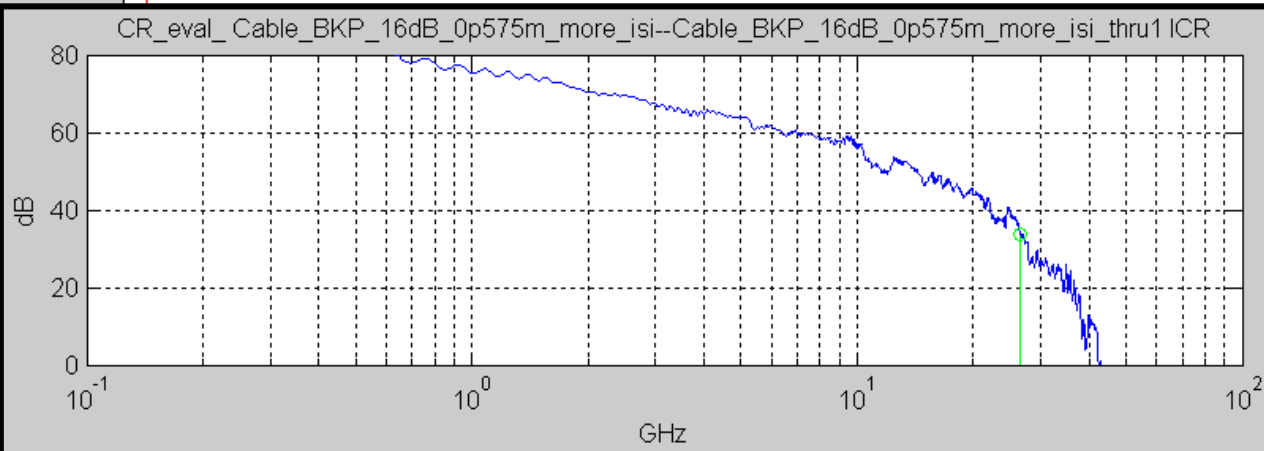
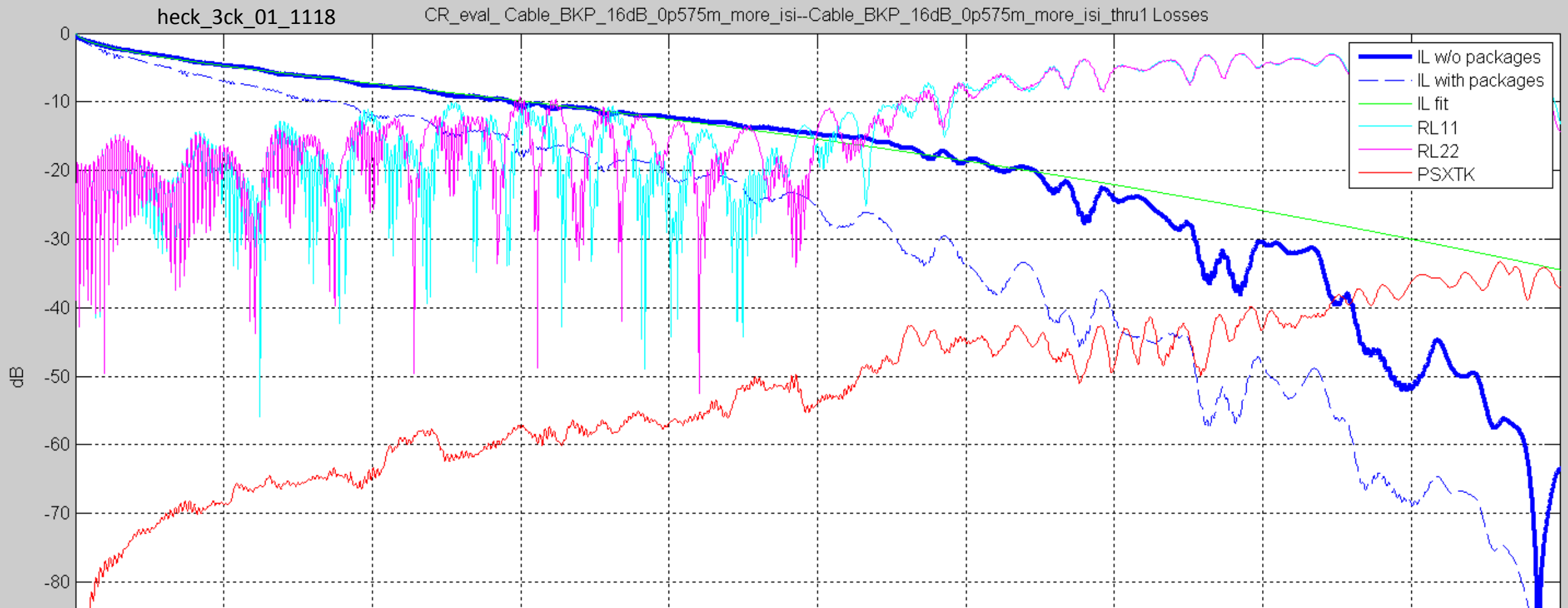
And thank *YOU* for your time.

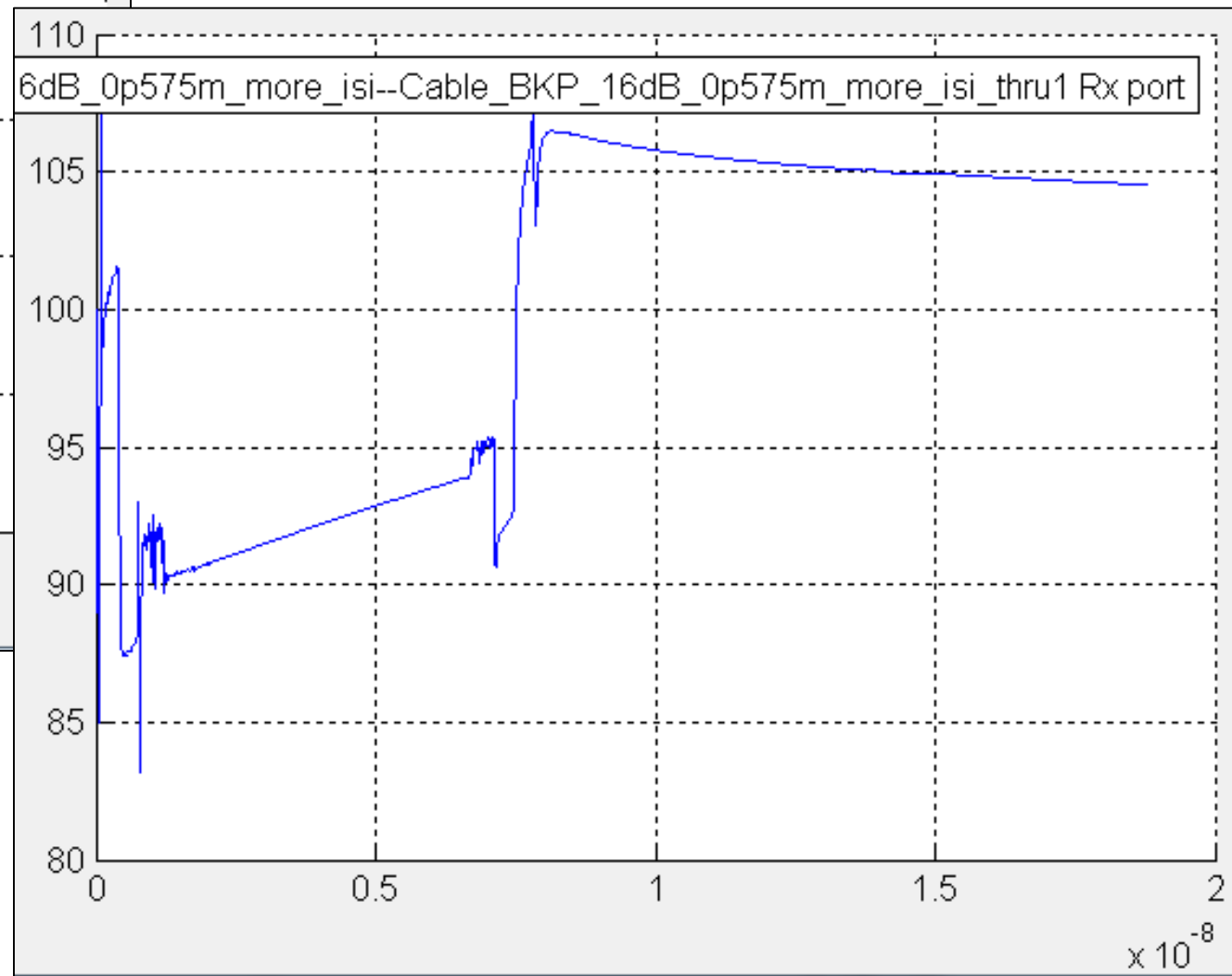
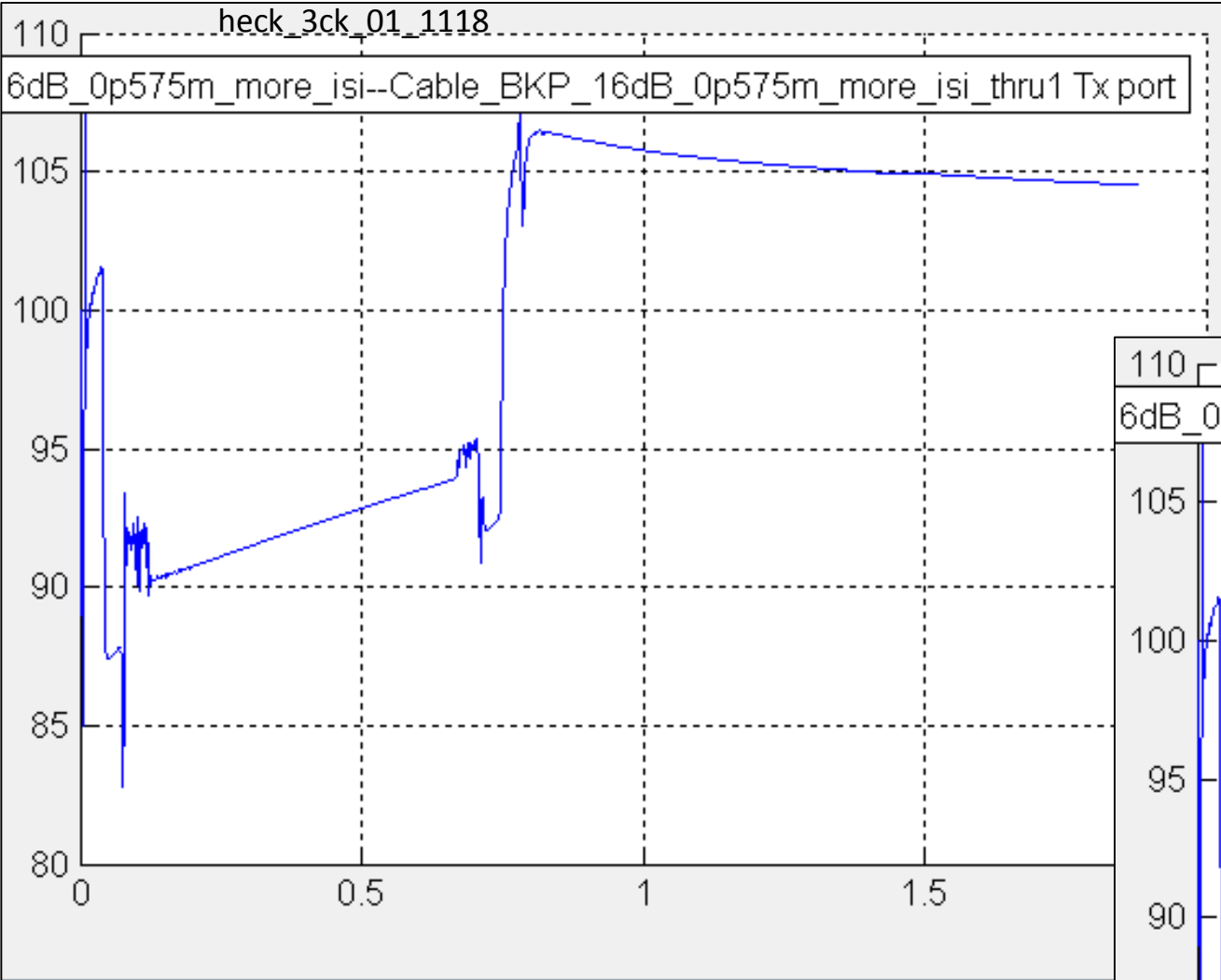


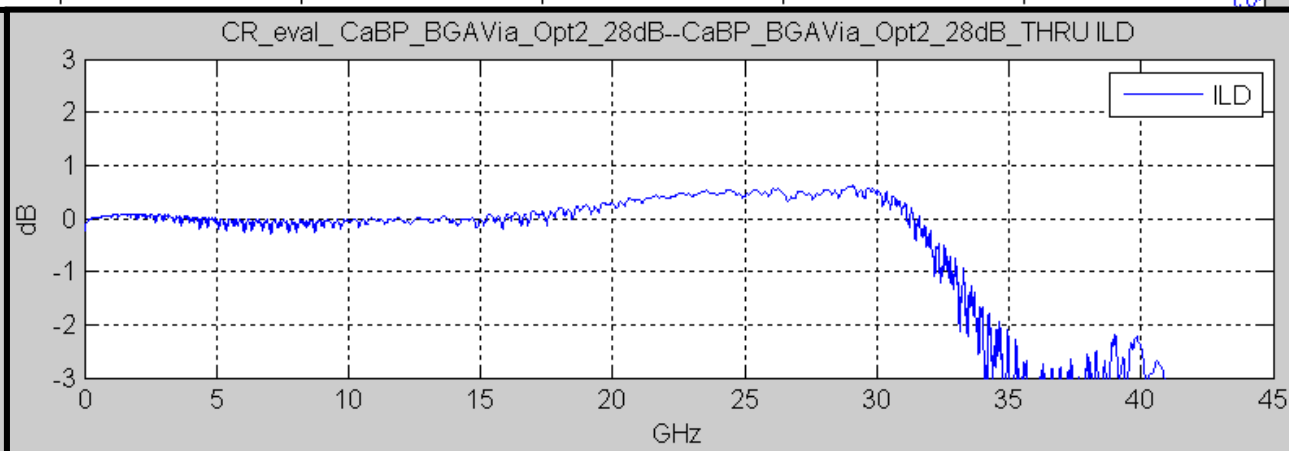
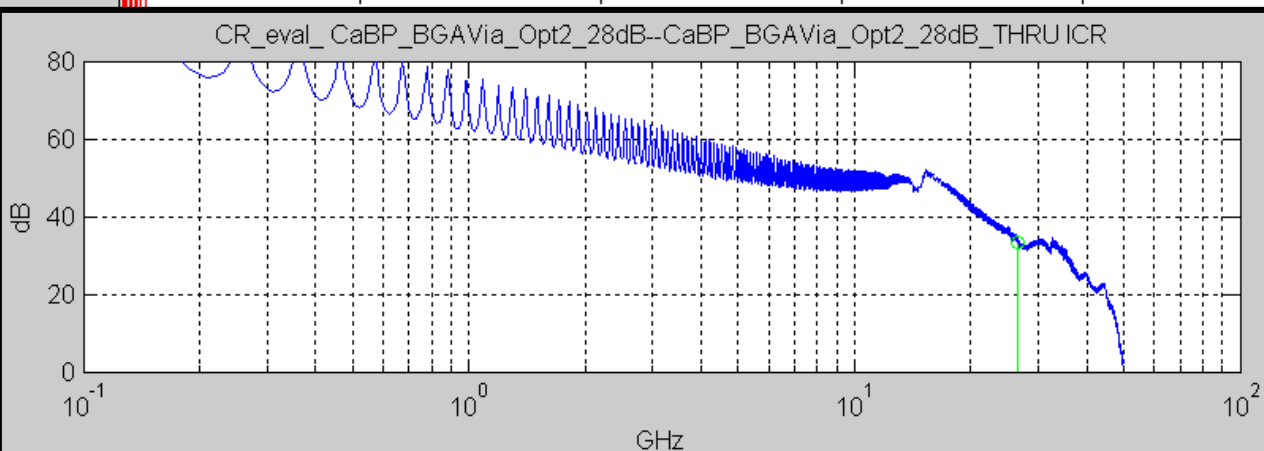
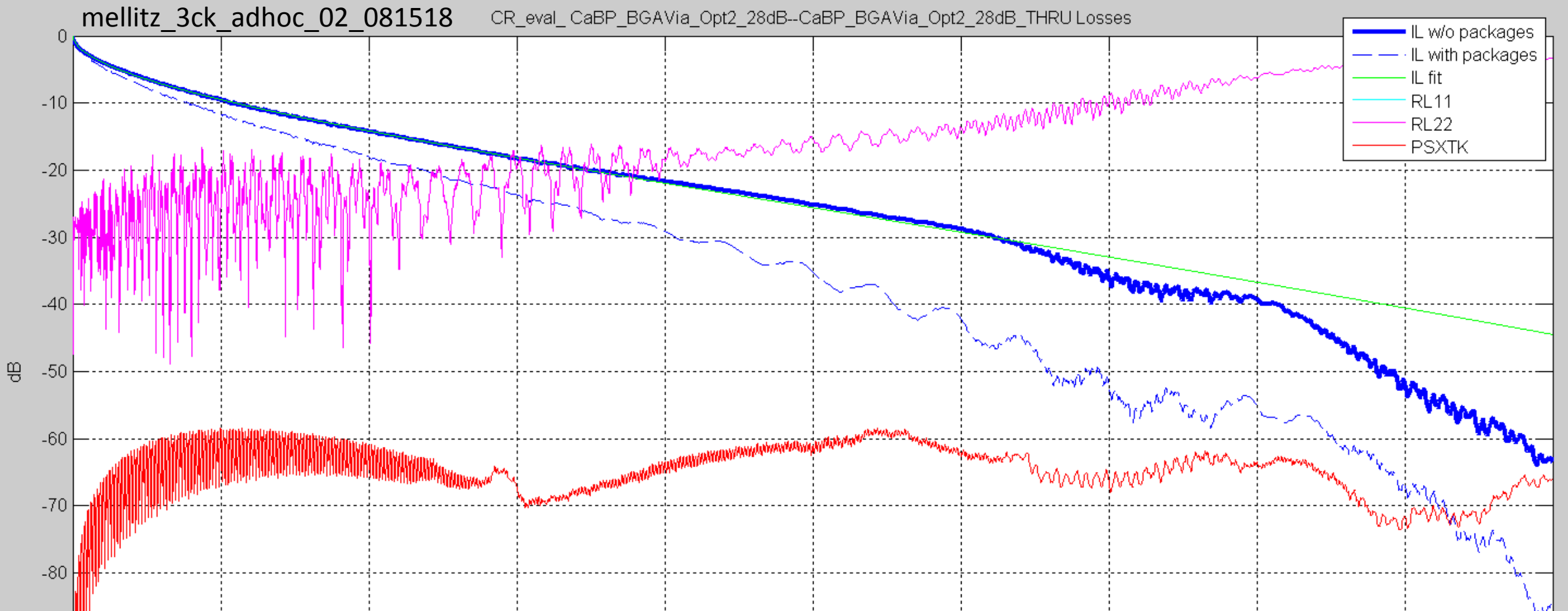
**Backup**

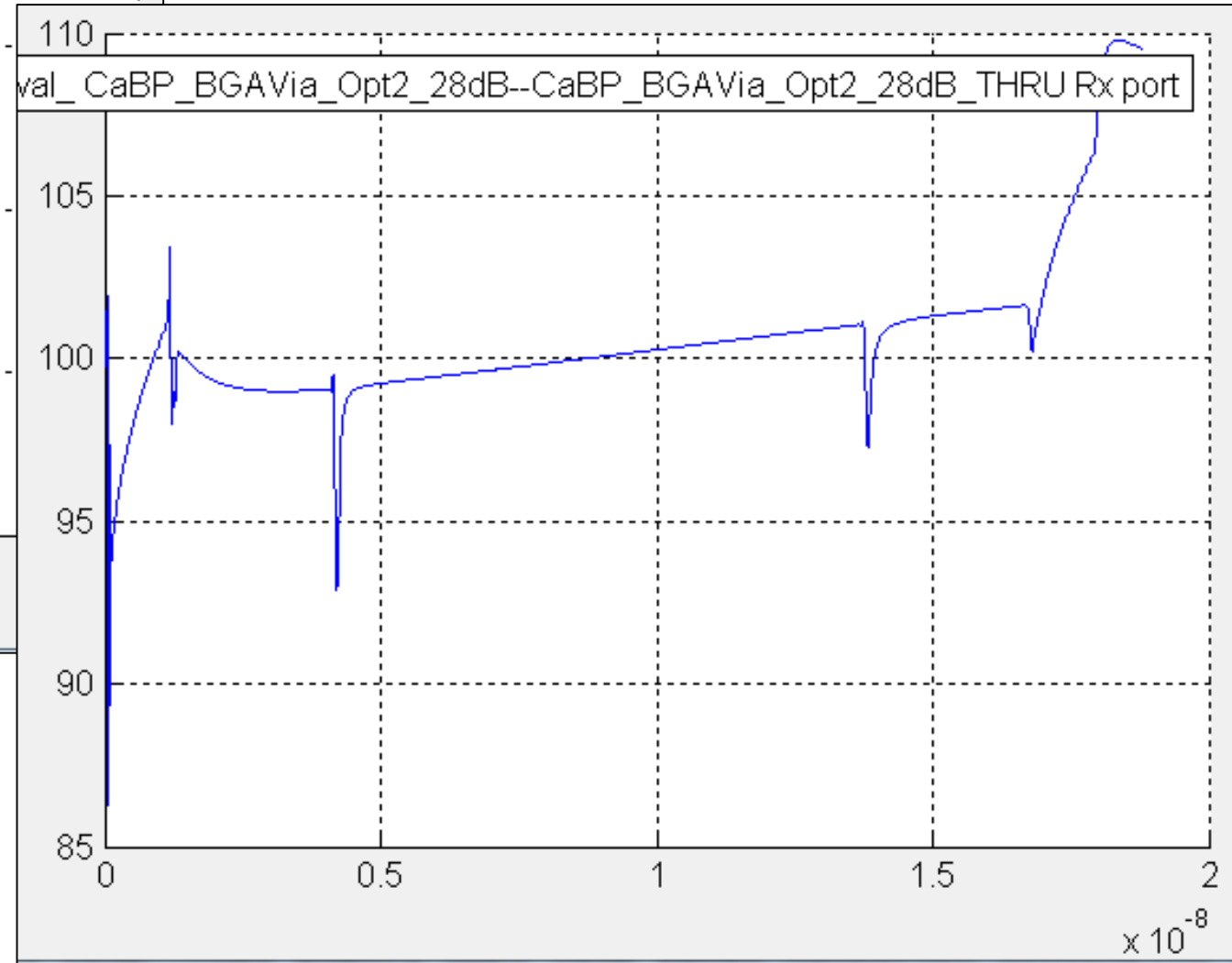
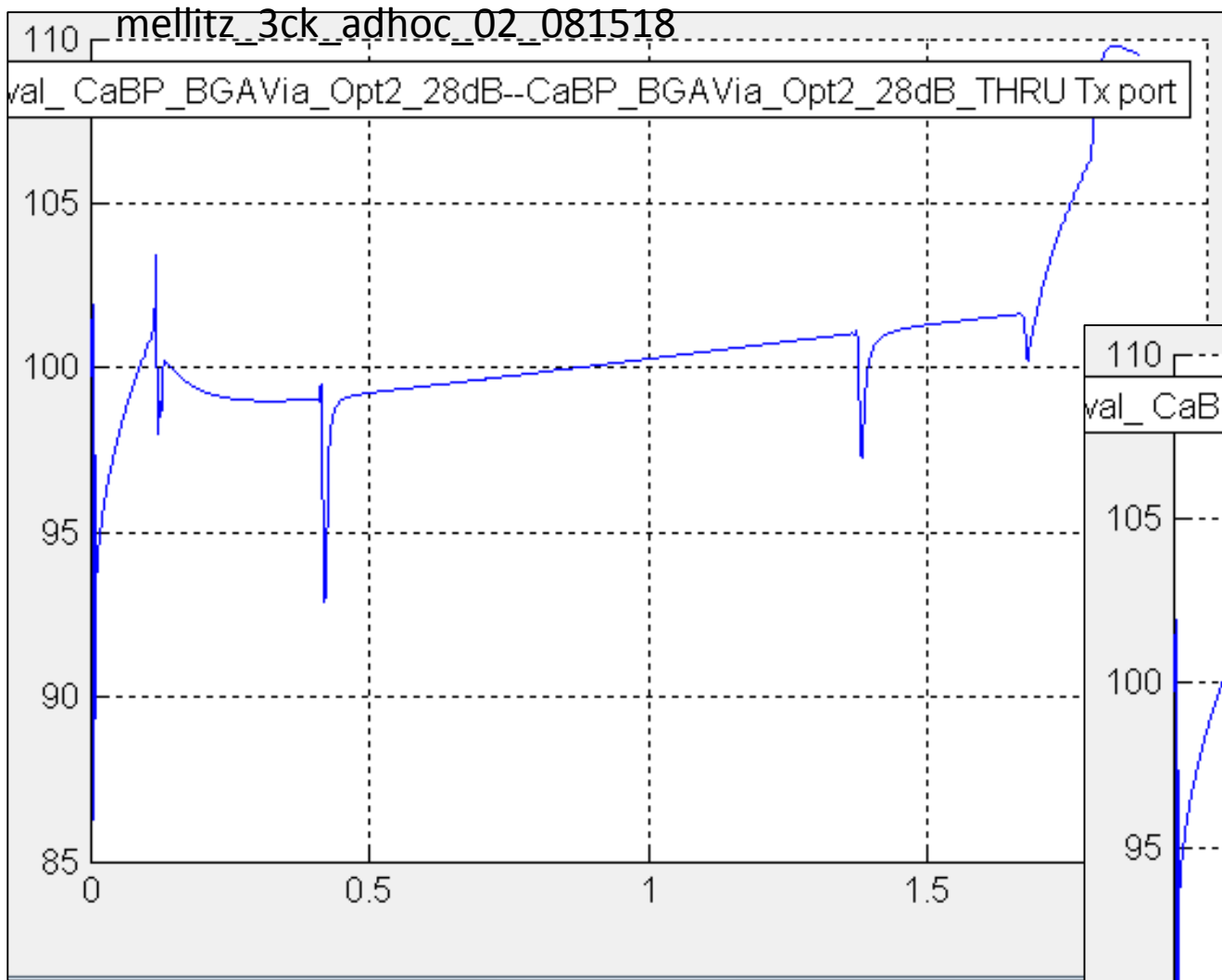






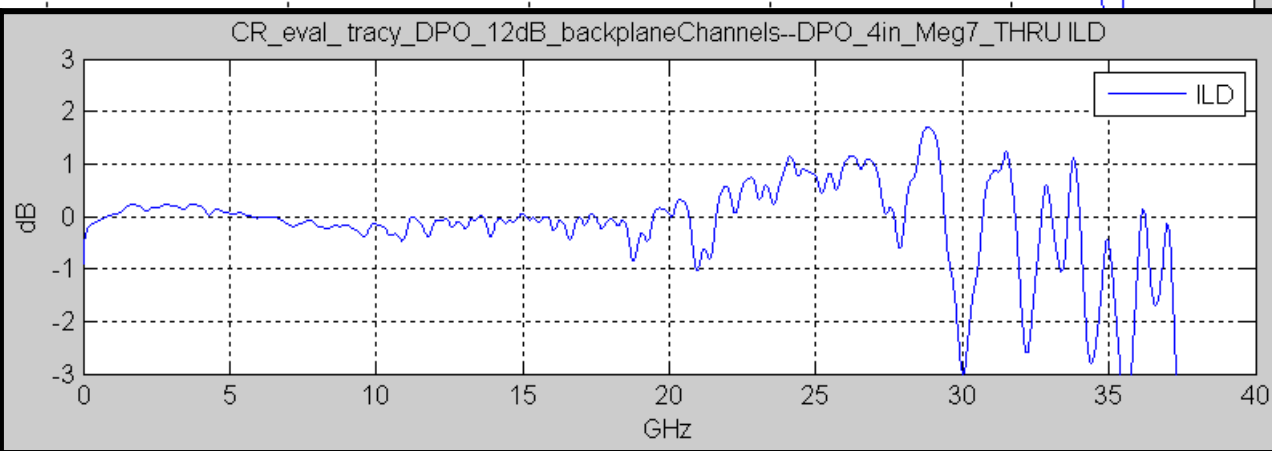
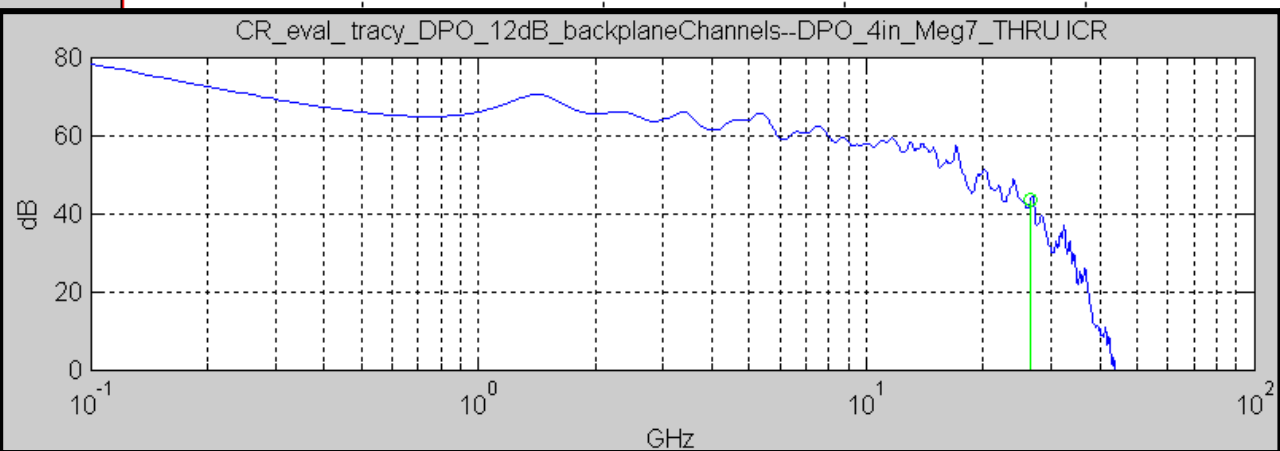
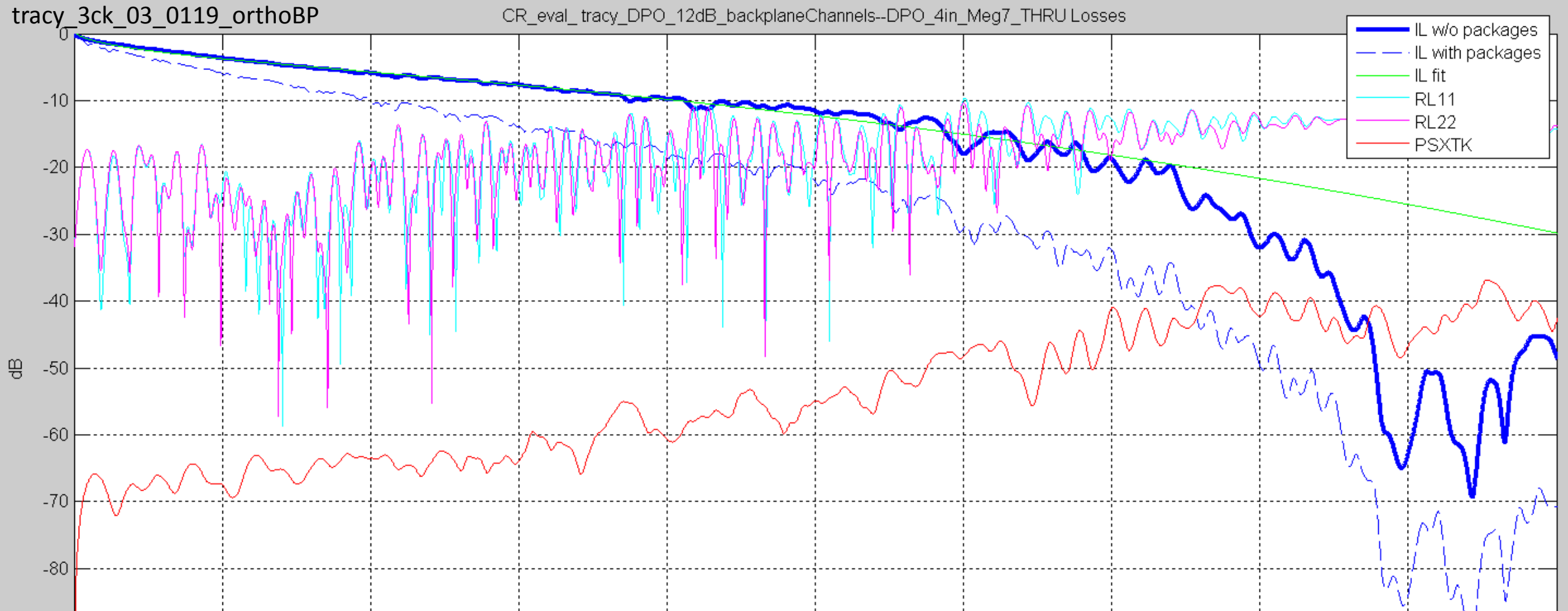


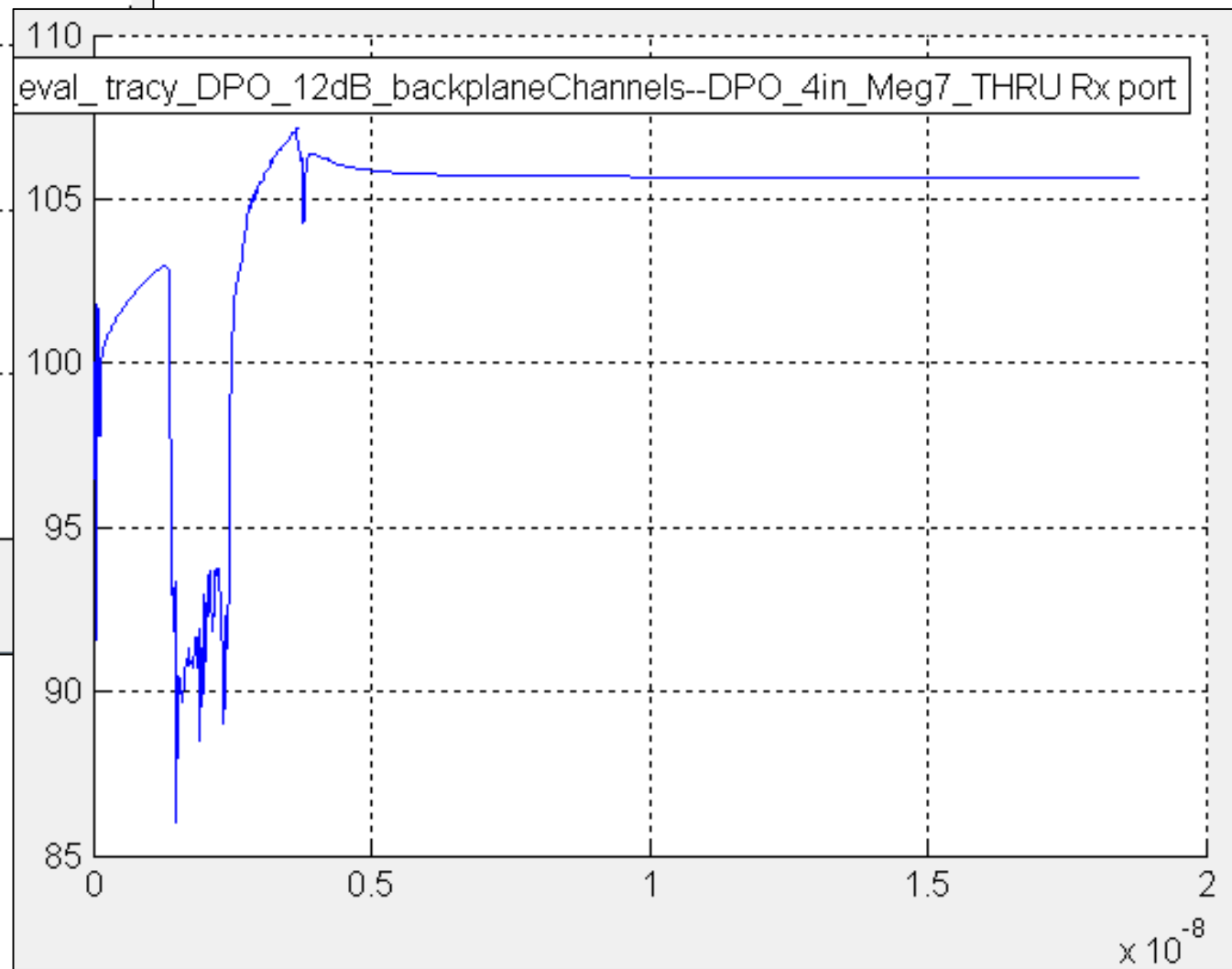
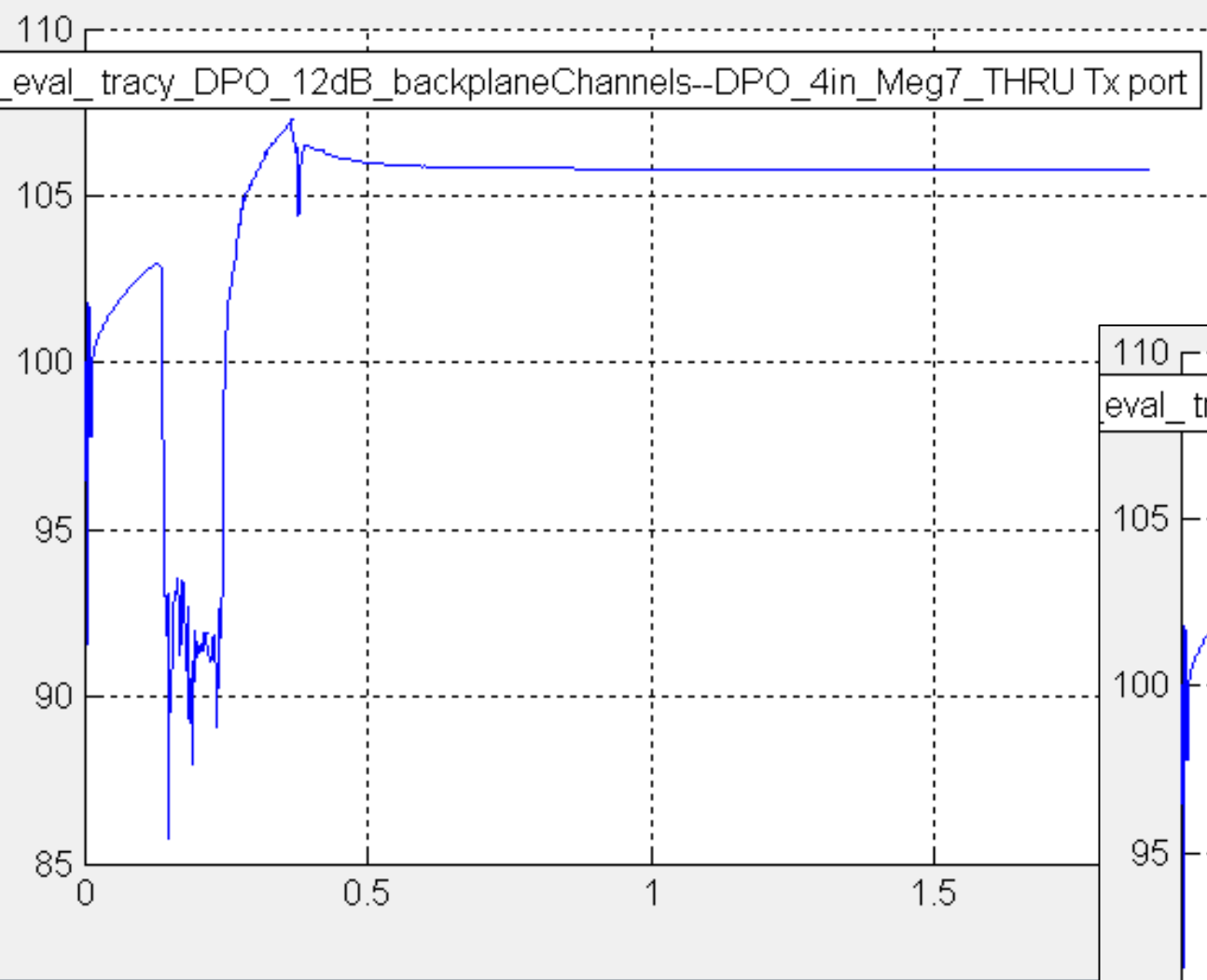


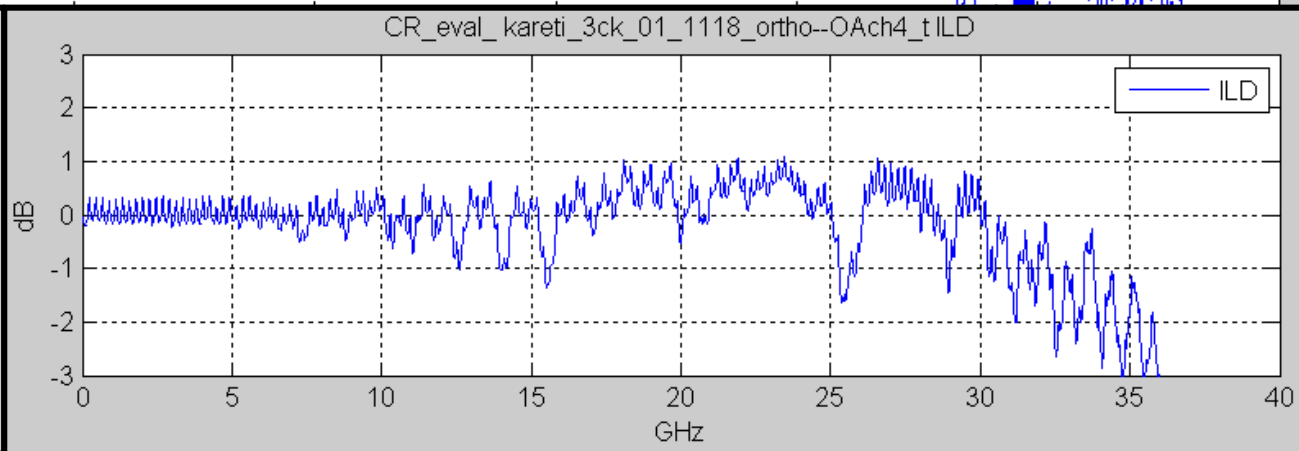
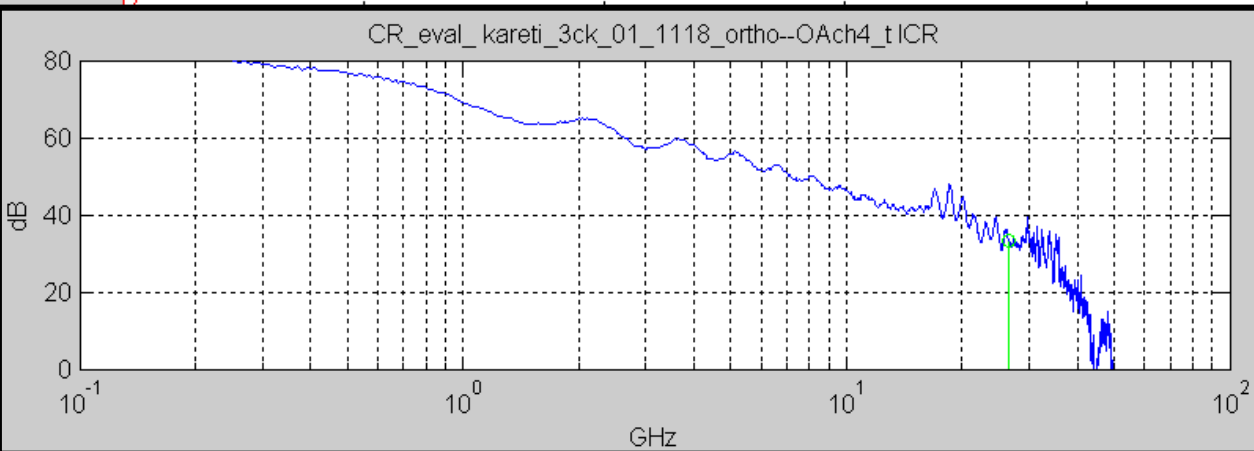
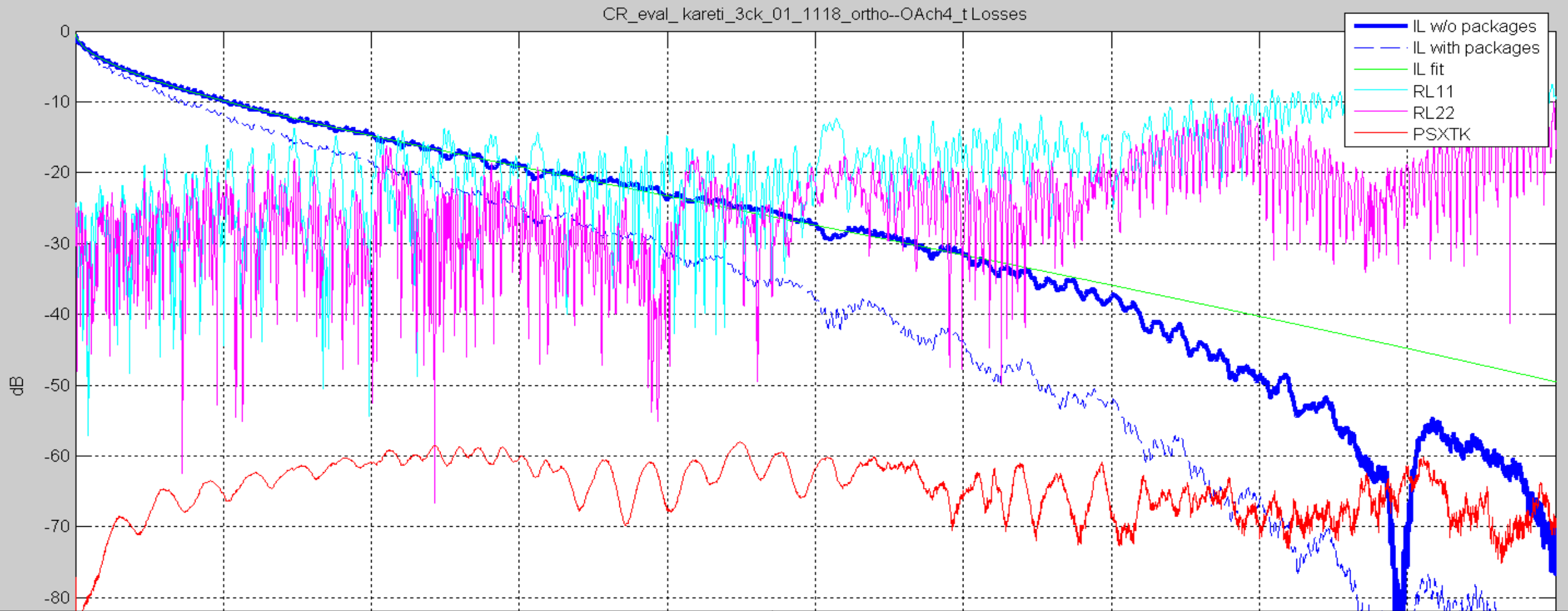


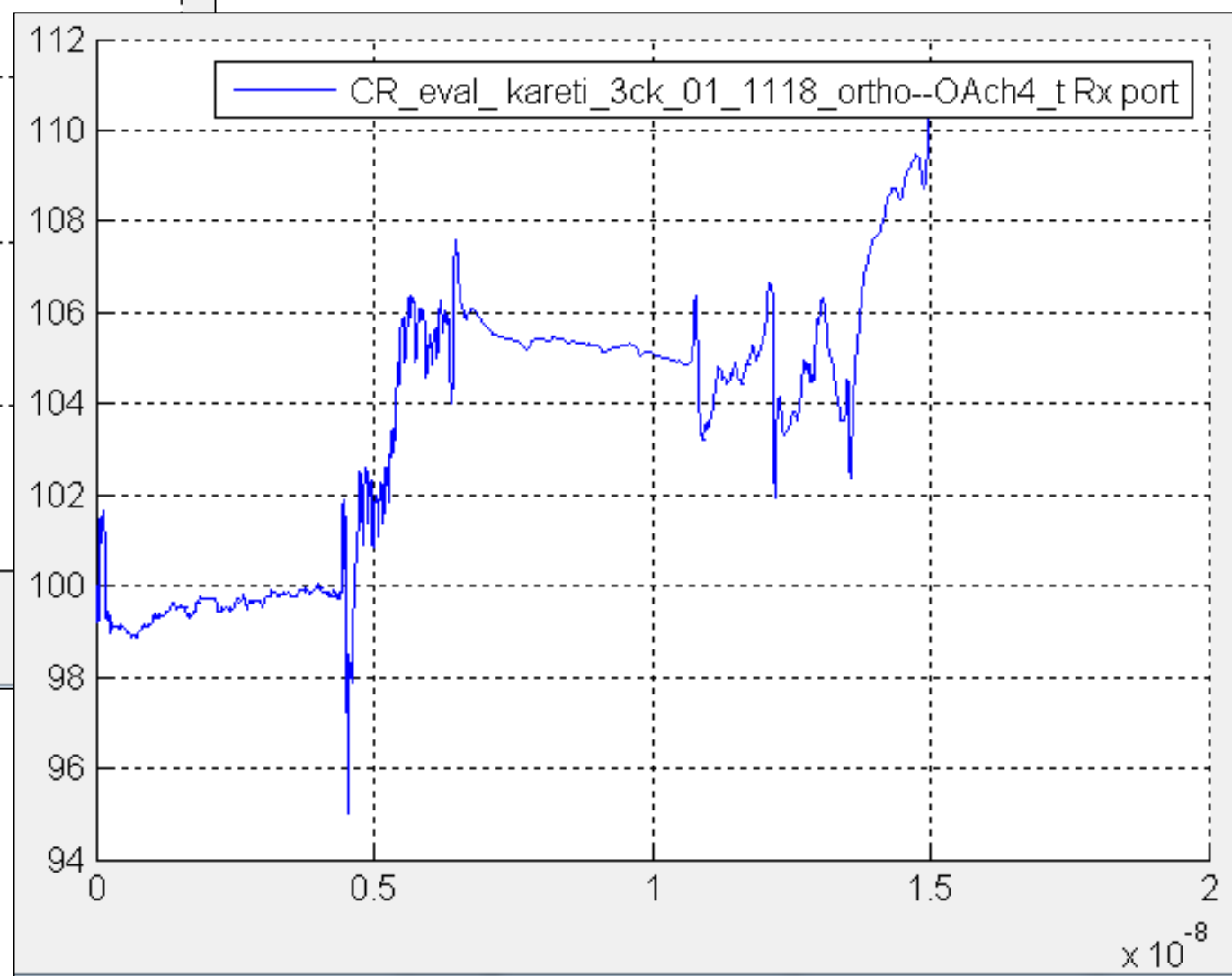
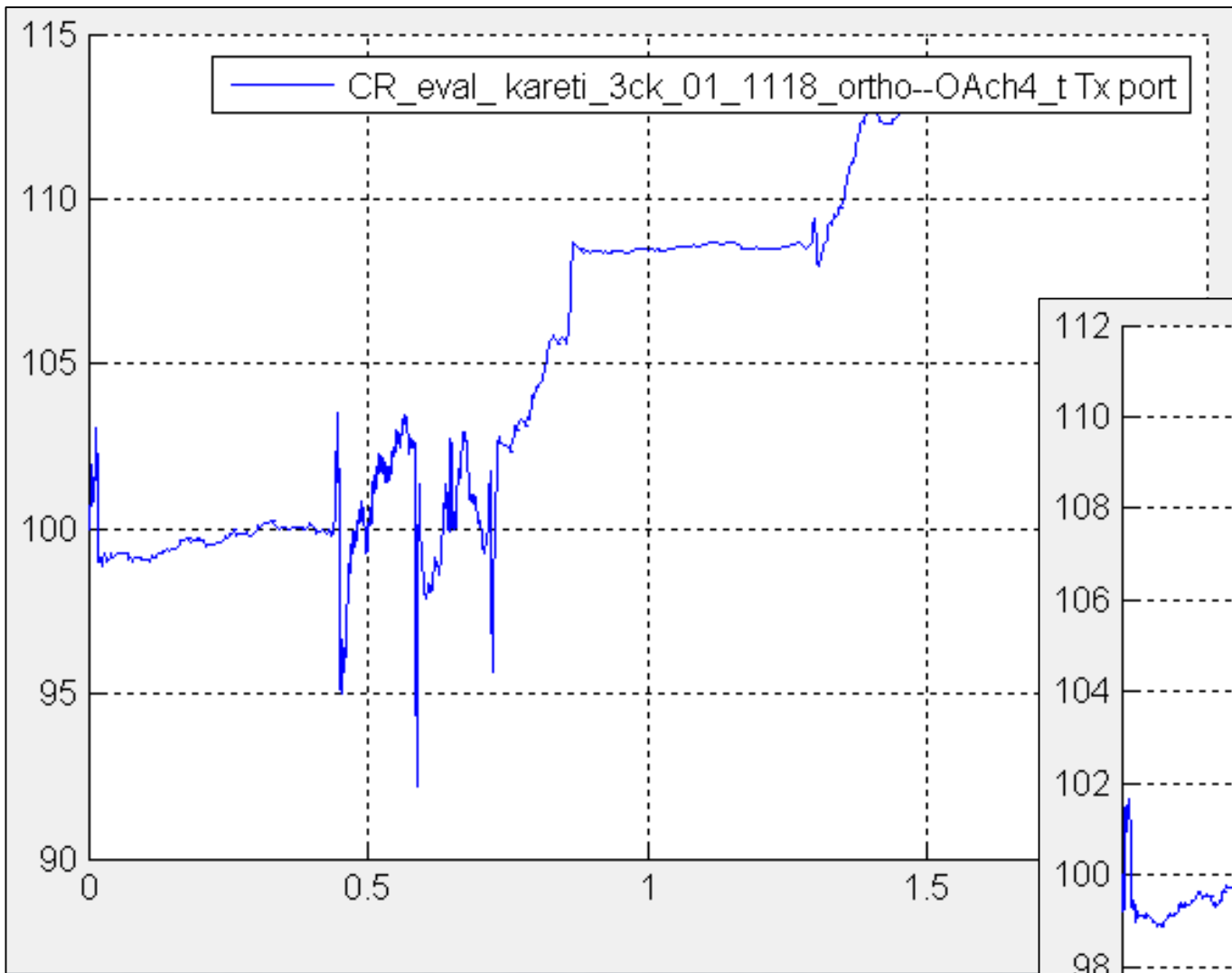
tracy\_3ck\_03\_0119\_orthoBP

CR\_eval\_tracy\_DPO\_12dB\_backplaneChannels--DPO\_4in\_Meg7\_THRU Losses

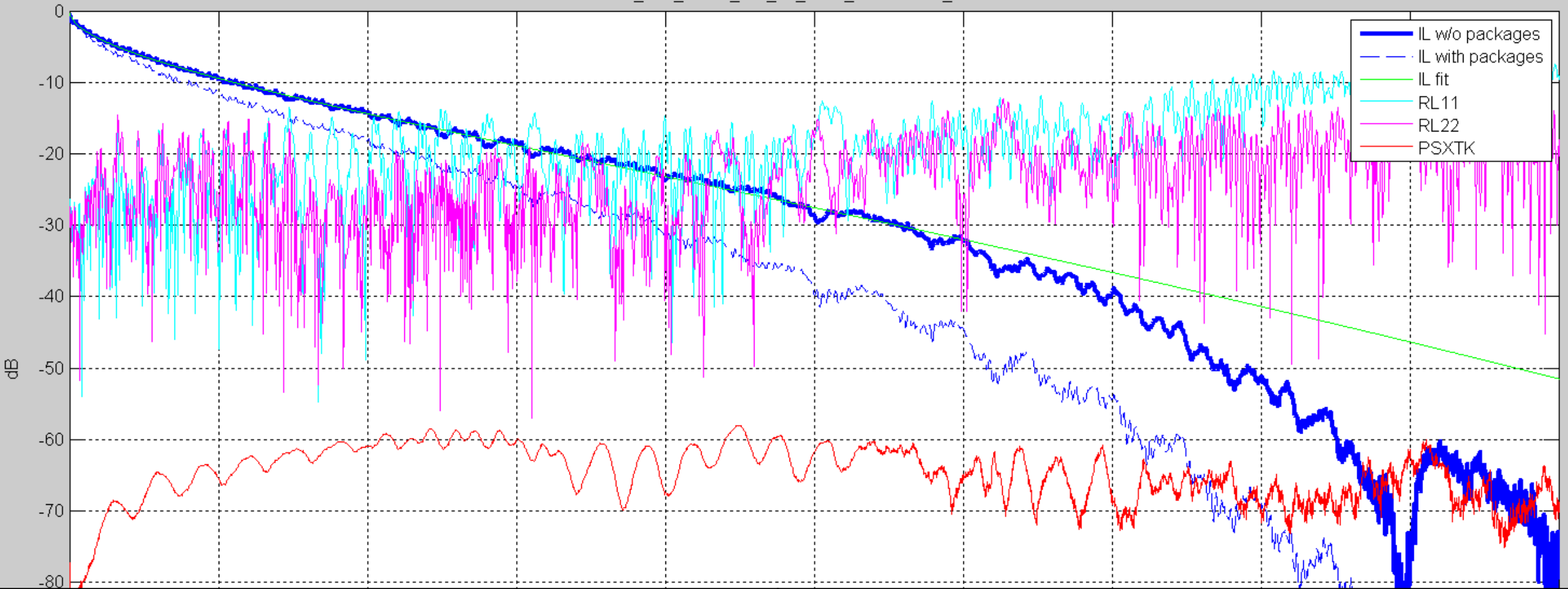




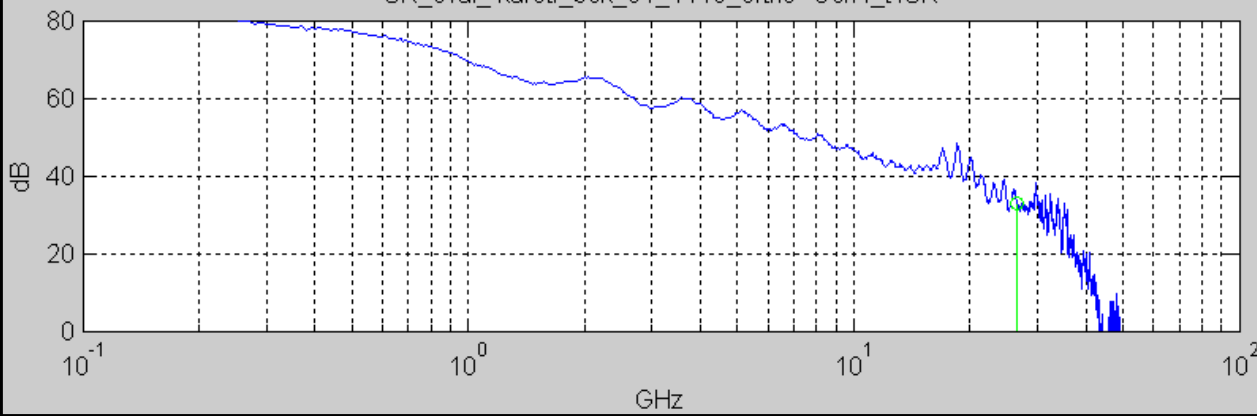




CR\_eval\_kareti\_3ck\_01\_1118\_ortho--Och4\_tLosses



CR\_eval\_kareti\_3ck\_01\_1118\_ortho--Och4\_tICR



CR\_eval\_kareti\_3ck\_01\_1118\_ortho--Och4\_tILD

