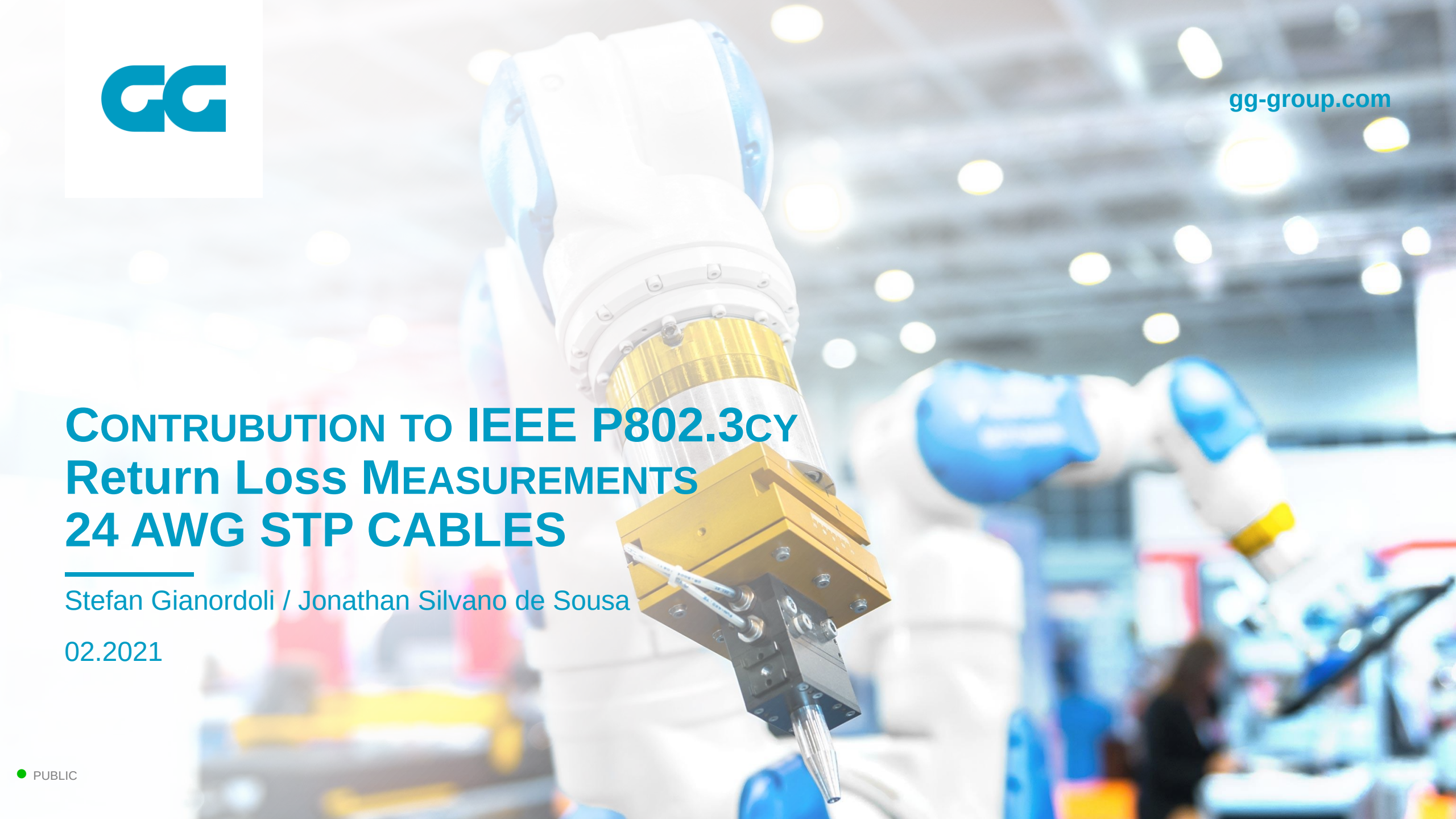

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CONTRUBUTION TO IEEE P802.3CY Return Loss MEASUREMENTS 24 AWG STP CABLES

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Background and Motivation

- The IL data of a 0.22mm² (24AWG) cable was presented*.
- In this presentation we show data on Return Loss.

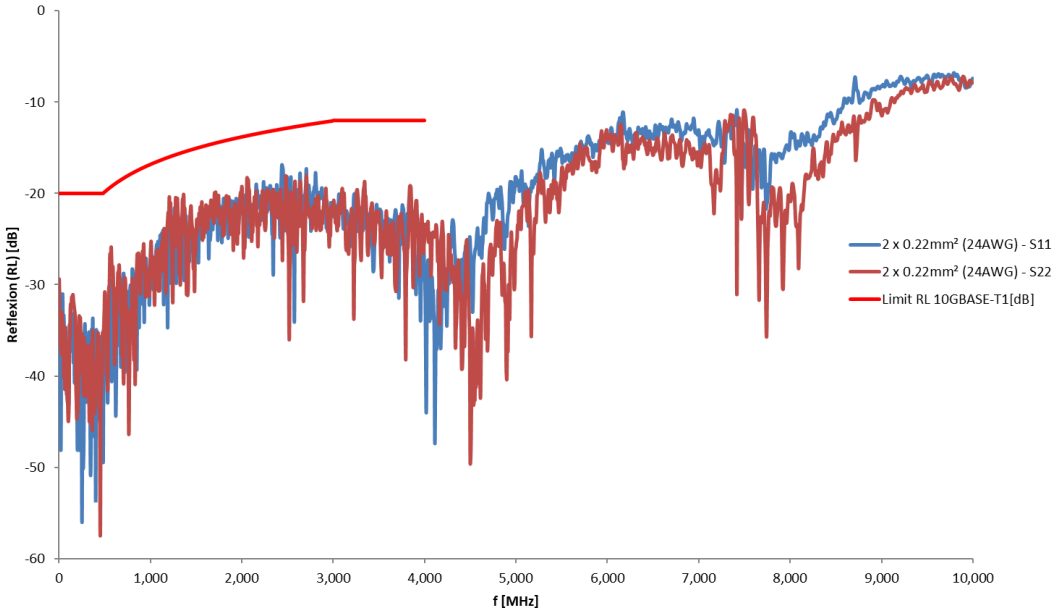
*Gianordoli_Silvano_de_Sousa_3cy_01a_02_09_21

Measured Cables

- Shielded Twisted Pair Cables (STP)
  - AWG24 (0.22mm²)
    - Z = 100Ω +/- 3 Ω
    - Frequency range up to 7.5 GHz (due to suck out)
- Measurements performed
  - Room Temperature (RT)
  - Sample length 10m
  - Measurement without Connector → with fixtures.

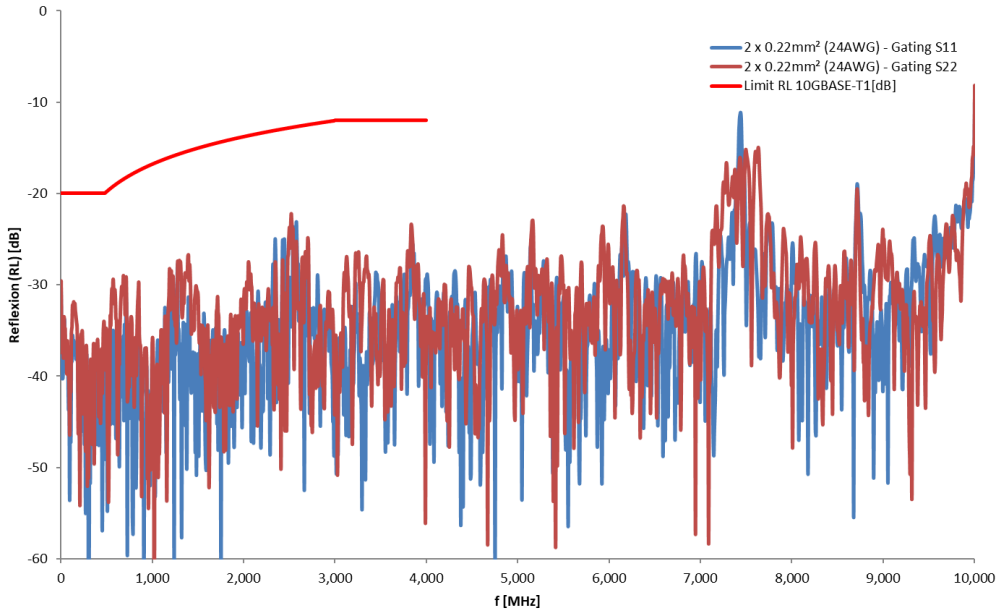
Current STP Development: 24 AWG (RT) – Return Loss (RL)

no Gating



TGBASE-T1 for N=0 (IEEE P802.3ch)

with Gating*



***max ~1ns taken out from each end of the cable to gate out the influence of the test fixture.**

Summary

In our previous contribution we presented the IL values for a 0.22mm² cable *.

Complementary Return Loss data for the 0.22mm² STP cable was presented. With and without gating.

Further developments and measurements ongoing.

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