



TELECOMMUNICATIONS
INDUSTRY ASSOCIATION

1320 N. Courthouse Rd., Suite 200
Arlington, VA 22201 USA

Tel: +1.703.907.7700

Fax: +1.703.907.7727

www.tiaonline.org

TR-42 CORRESPONDENCE

Ray Emplit, TIA TR42 Engineering Committee Chair,
remlit@harger.com

Date: June 18, 2015

To: Chad Jones IEEE 802.3bt Four-Pair POE Task Force Chair, cmjones@cisco.com

Cc: David Law, IEEE 802.3 Working Group Chair, dlaw@hp.com
Adam Healey, IEEE 802.3 Working Group Vice Chair, adam.healey@avagotech.com
Steve Carlson, IEEE 802.3 Working Group Executive Secretary, scarlson@ieee.org
Pete Anslow, IEEE 802.3 Working Group Secretary, panslow@ciena.com
Greg Sandels, TIA TR-42 Engineering Committee Vice Chair, gsandels@ofsoptics.com
Jonathan Jew, TIA TR-42 Engineering Committee Secretary, jew@j-and-m.com
Wayne Larsen, TIA TR-42.7 Subcommittee Chair, wlarsen@commscope.com
Valerie Maguire, TIA Incoming Liaison to IEEE 802.3 Working Group,
valerie_maguire@siemon.com
Chris DiMinico, IEEE 802.3 Working Group Incoming Liaison to TIA, cdiminico@ieee.org
Germaine Palangdao, TIA, GPalangdao@tiaonline.org
Teesha Jenkins, TIA, tjenkins@tiaonline.org

RE: TR-42 Liaison to IEEE 802.3bt Task Force

Dear Mr. Jones,

In your communication of March 12, 2015 to TIA TR 42, a histogram of the DC resistance unbalance (pair to pair) data was requested. There were a number of contributions that were used to validate the DC resistance unbalance data shown in table 3. A representative sampling of this data is provided in figure 1 below:

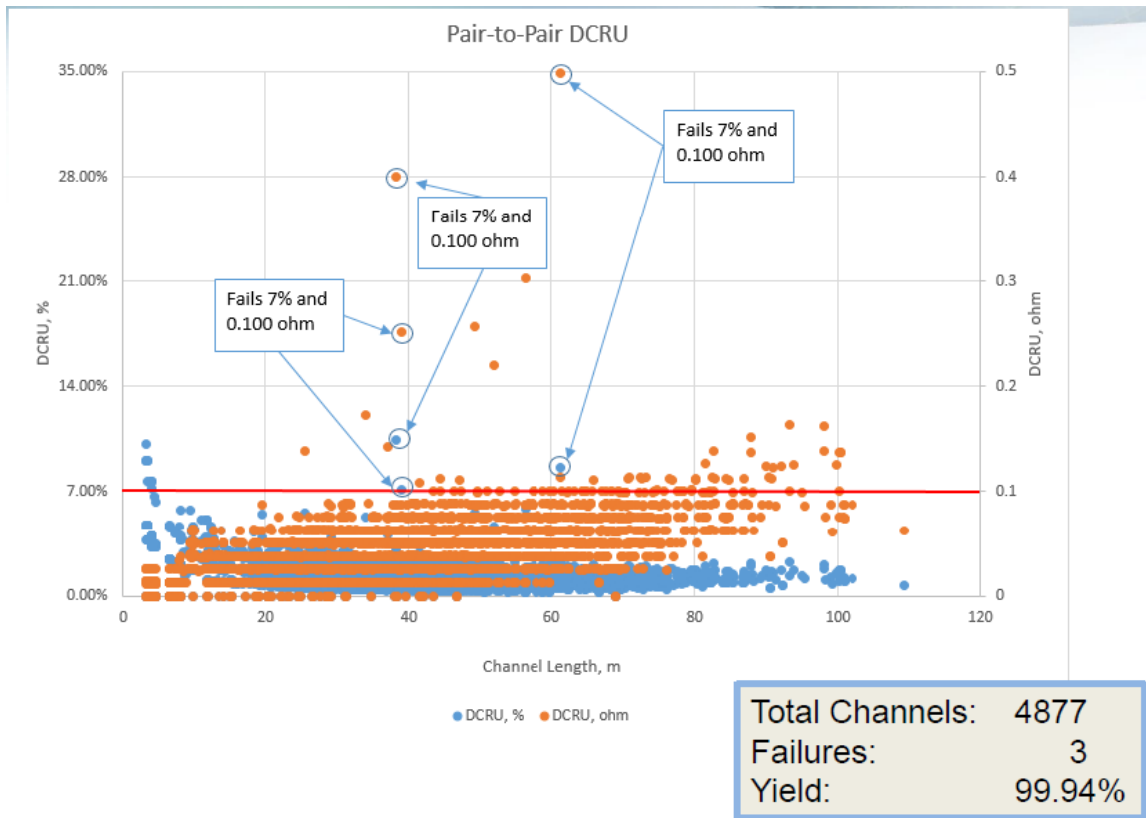


Figure 1 – DC Resistance Unbalance (pair to pair) for Channels

In figure 1, the DC resistance unbalance (pair to pair) when tested using the DC loop resistance method, expressed as a percentage is indicated as a blue dot and the same DC resistance unbalance value expressed in ohms, is indicated as an orange dot. A failure occurs when both the DC resistance unbalance is greater than 7% and the DC resistance unbalance value is greater than 0.1 ohms. For the results shown in Figure 1, there were only 3 failures in 4877 channels tested. These failures were examined and were determined to be installation specific, and are not due to cable or component deficiency.

We hope that this data is helpful in your ongoing development of the 4-pair Power over Ethernet Standard. If you have any questions regarding the data please let us know.

Sincerely,

Ray Emplit
 Chair, TIA TR-42 Engineering Committee