

MS-TestPro

DC Resistance (DCR) *Optional Module*

The MSolutions DC Resistance and Looper modules for the MS-TestPro can be used to qualify the DC resistance of a CATx link, and to check the cables ability to provide a sufficient level of PoH (Power over HDBaseT) or PoE (Power over Ethernet) to the IEEE 802.3bt standard.

The DCR will check for:

- 1. Loop Resistance** which represents the DC loop resistance in Ohms (Ω) of a cable, and is calculated as the sum of the DC resistance of the two conductors in a pair.
- 2. Parallel DC Resistance Unbalanced** for the parallel resistance of the CATx two conductors in each cable pair. For each pair, the difference is expressed in Ohms (Ω).
- 3. Pair-to-Pair Resistance Unbalanced** which is the difference in DC resistance between all four twisted pairs in the cable. For each pair, the difference is expressed in Ohms (Ω).

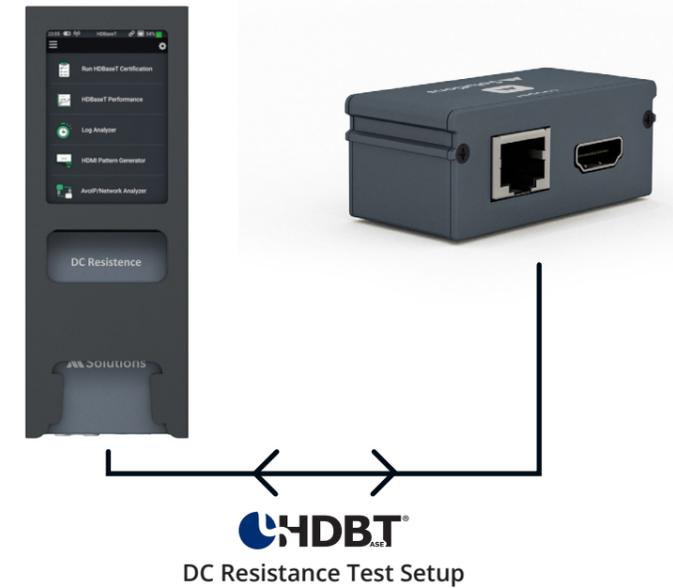


DC Resistance provides a deeper analysis of the infrastructure cabling quality, analyzing each twisted pair. It provides an inner look on the CATx wiring quality and its ability to support a high quality HDBaseT/Ethernet transmission while supplying PoE / PoH with high efficiency.

Loop resistance indicates the quality and ability of the individual twisted pair wiring, to transfer the transmitted signal without degradation of the quality.

For example: the loop resistance will affect the heat developed on the wires due to power and as a side effect it will influence the crosstalk that leads to transmission degradation.

The DC Resistance module was designed to meet IEEE Standard 802.3-2012, IEEE 802.3bt regulation regarding the CATx quality.



DC Resistance		
Loop Resistance	Parallel DC Resistance Unbalanced	Pair to Pair Resistance Unbalanced
A (1,2)	2.46 Ω	✓
B (3,6)	2.38 Ω	✓
C (4,5)	2.38 Ω	✓
D (7,8)	2.38 Ω	✓

SAVE REPORT

Loop Resistance

DC Resistance		
Loop Resistance	Parallel DC Resistance Unbalanced	Pair to Pair Resistance Unbalanced
A (1,2)	0.61 Ω	
B (3,6)	0.59 Ω	
C (4,5)	0.59 Ω	
D (7,8)	0.59 Ω	

SAVE REPORT

Parallel DC Resistance Unbalanced

DC Resistance			
Loop Resistance	Parallel DC Resistance Unbalanced	Pair to Pair Resistance Unbalanced	
A(1,2)	B (3,6)	0.02 Ω	✓
	C (4,5)	0.02 Ω	✓
	D (7,8)	0.02 Ω	✓
B(3,6)	C (4,5)	0 Ω	✓
	D (7,8)	0 Ω	✓
C(4,5)	D (7,8)	0 Ω	✓

SAVE REPORT

Pair to Pair Resistance

You can export your results in PDF format report, and also save them locally.