Technical Specifications: CT-RJ45 & CTD-RJ45

1 Mechanical characteristics

Number of mating cycles: n ≥ 10’000

2 Electrical values

Description	Symbol	Value	Comments
Insulation resistance	$R_{\text{insulation}}$	≥ 500 MΩ	The insulation resistance was measured from contact to contact and from contact to shield.
Rated voltage	U_{R}	50 V	Maximum permitted nominal voltage of the connected transmission system.

3 Transmission quality

3.1 Measurement setup:

The measurement equipment in Table 1 was used to determine the transmission quality. The measurement was performed by using a Permanent Link measuring adapter (see Figure 1).

Measuring instrument	Measurement adapter
Manufacturer: *Softing* Type: *WireXpert WX500*	Permanent Link

Table 1: Measuring equipment

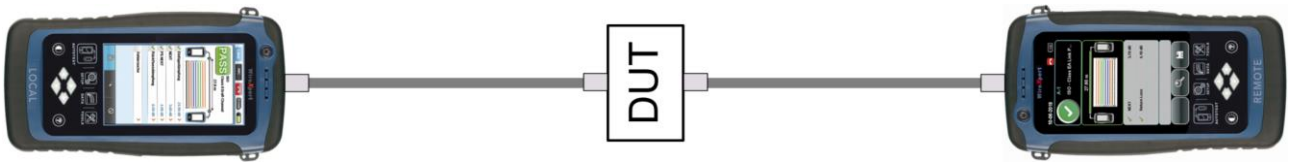
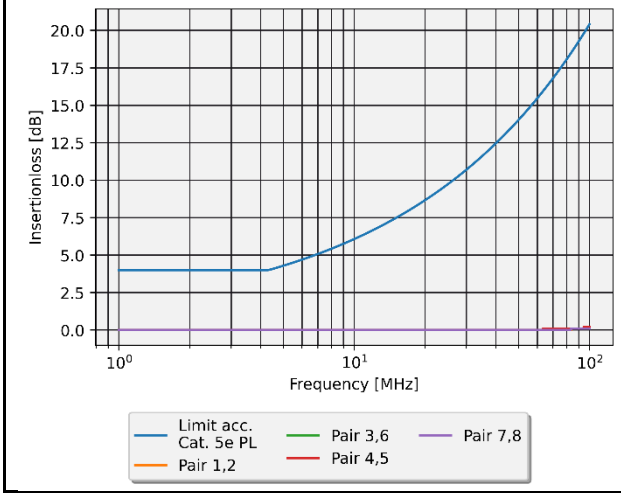
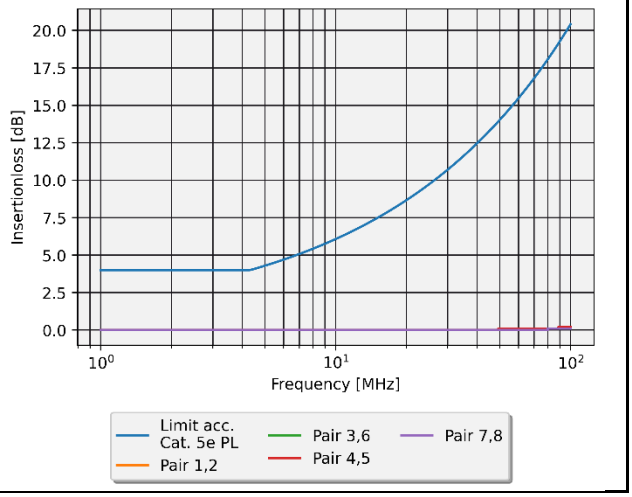


Figure 1: Measurement setup for the device under test (DUT) in this case the CT-NET/CTD-NET

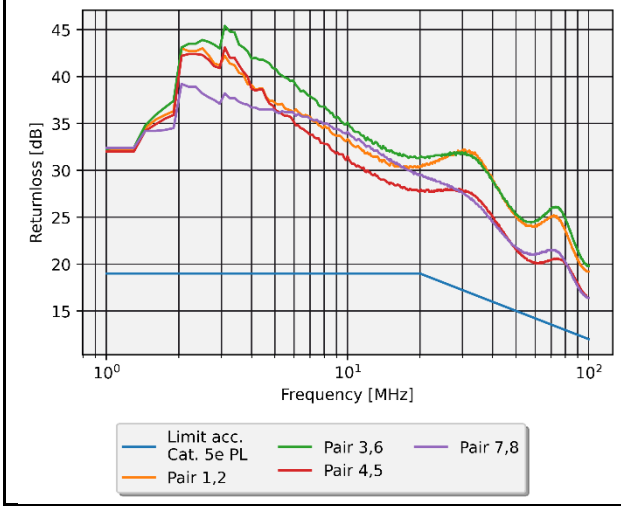
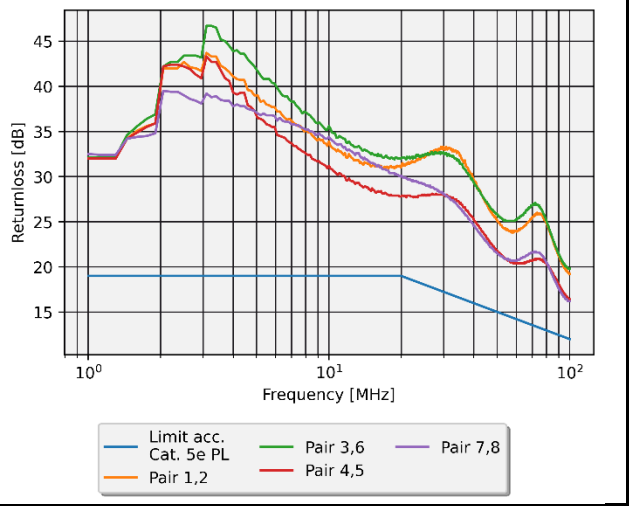
3.2 Attenuation characteristics:

All limits given below refer to category 5e according to the IEC 11801-1 standard for the "Permanent Link (PL)" configuration.

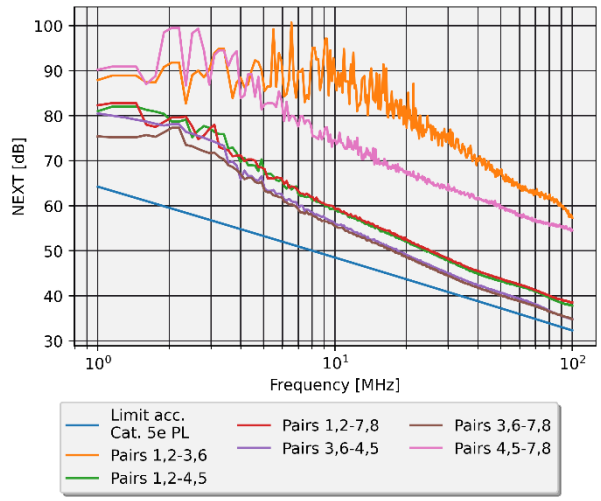
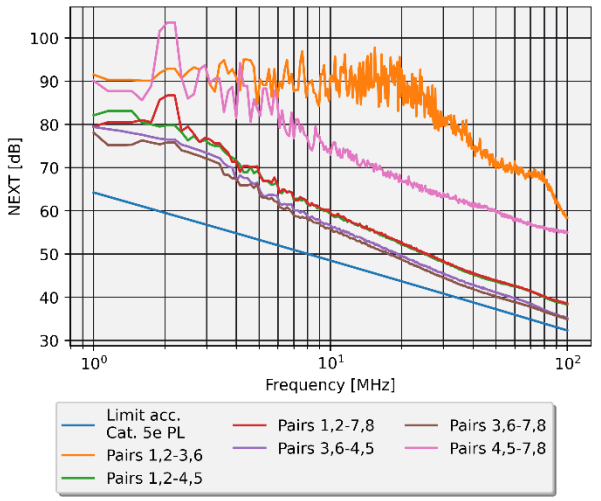
3.2.1 Insertionloss:

In new state	After 10'000 mating cycles
	

3.2.2 Returnloss:

In new state	After 10'000 mating cycles
	

3.2.3 NEXT:

In new state	After 10'000 mating cycles
	

4 EMC tests

Measurement of shielding quality in conformity with standards by ESD Test and Burst Test.

4.1 Burst Test:

Voltage [V]	Pol.	Freq. [kHz]	Dur. [ms]	Per. [ms]	T [s]	Operation* with shield only via pin	Operation* with housing connected to shield pin	Severity level
260	+/-	5	15	300	60	OK	OK	
260	+/-	100	0,75	300	60	OK	OK	
500	+/-	5	15	300	60	OK	OK	1
500	+/-	100	0,75	300	60	OK	OK	1
1000	+/-	5	15	300	60	OK	OK	2
1000	+/-	100	0,75	300	60	OK	OK	2
1500	+/-	5	15	300	60	OK	OK	3
1500	+/-	100	0,75	300	60	OK	OK	3
2000	+/-	5	15	300	60	OK	OK	4
2000	+/-	100	0,75	300	60	OK	OK	4

**Ethernet ping command*

The test was passed. The highest level of severity (severity level 4) defined in the IEC 61000-4-4 standard was achieved.

4.2 ESD Test:

Voltage [kV]	Discharge	Pole.	t [s]	Operation* with shield only via pin	Operation* with housing connected to the shield pin	Severity level
2	Contact	-	1	OK	OK	1
4	Contact	-	1	OK	OK	2
6	Contact	-	1	OK	OK	3
8	Contact	-	1	OK	OK	4
2	Air	-	1	OK	OK	1
4	Air	-	1	OK	OK	2
8	Air	-	1	OK	OK	3
15	Air	-	1	OK	OK	4

**Ethernet ping command*

The test was passed. The highest level of severity (severity level 4) defined in the IEC 61000-4-4 standard was achieved.

Shield attenuation: 86dB