

Step 1

Slide the hood over the cable.
Strip the cable insulation ≥ 25 mm.



Step 2

Wrap the braid over the cable.
Trim and strip off the foil.



Step 3

Untwist the pairs and control that all wires are intact.

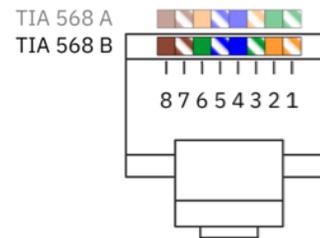


Assembly

- Plug **PS88INDX** (X = 1-6,A-Z)
- Hood optional
- Cable OD < 8.5 mm
(depending on hood)
- Cable STP, 4 pairs, profinet stranded or solid
- Wire $\varnothing < 1.35$ mm/ < 1.60 mm
- Crimp Tool Handtool K791 or die set U137 for air crimper

Step 4

Arrange the wires according to TIA 568 B color scheme.



Step 5

Sort the wires into upper and lower row and cut them straight at 20 mm.



Step 6

Take the plug with contacts pointing up.
Push the wires through until all wires are in front.



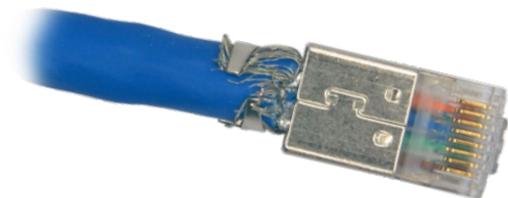
Step 7

Crimp the plug with the tool.
Control contacting and strain relief.



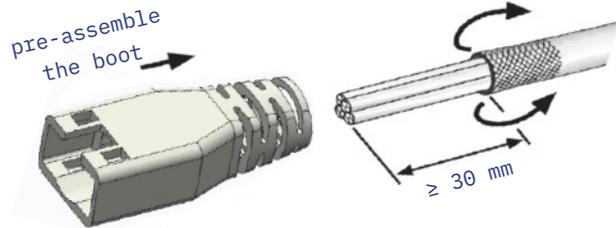
Step 8

Cut off the excess braid.
Slide the hood over the plug.



Step 1

Slide the hood over the cable.
Strip the cable insulation ≥ 30 mm.

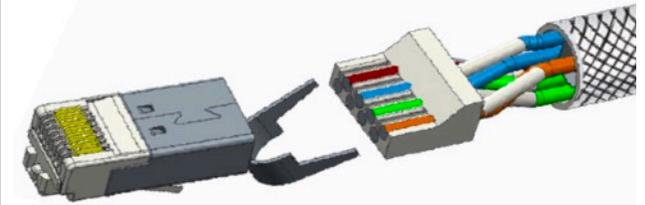


Assembly

- Plug **PS88C8M-HS**
- Insert **WMBC8M**
- Hood optional, **PC-A6M-75-XX**
- Cable OD < 7.5 mm, depending on hood
- Cable **STP, 4 pairs**
stranded or solid
- Wire \varnothing < 1.25 mm
- Crimp Tool **Handtool or crimp machine**

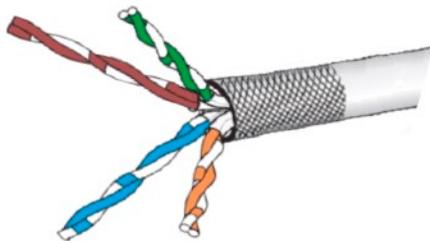
Step 6

Take the plug with contacts pointing up.
Push the insert through until all wires are in front.



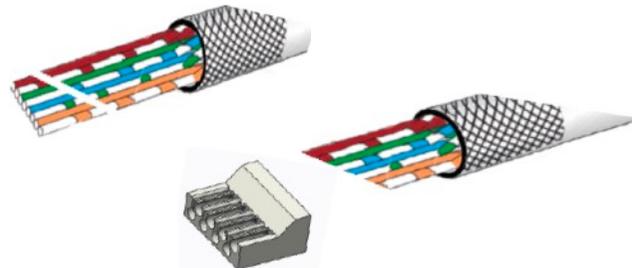
Step 2

Wrap the braid over the cable.
Trim and strip off the foil.



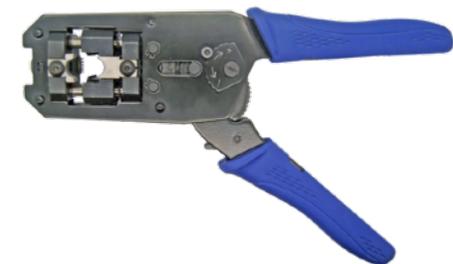
Step 4

Cut the wires diagonal for insertion.
Hold the insert's grooved side up.



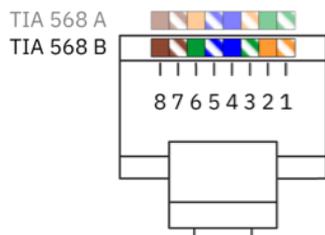
Step 7

Crimp the plug with the tool.
Control contacting and strain relief.



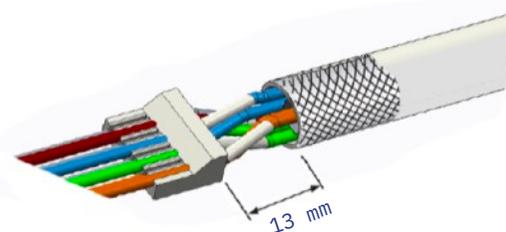
Step 3

Untwist the pairs and control that all wires are intact. Arrange them according to TIA 568 B color scheme.



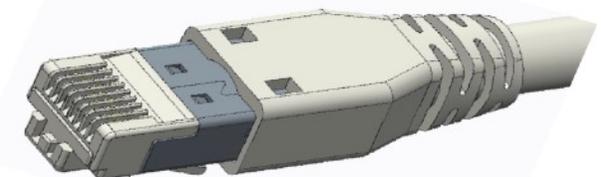
Step 5

Thread all wires through, leave 13 mm to the cable jacket then cut straight at the end of the insert.



Step 8

Cut off the excess braid.
Slide the hood over the plug.



Step 1

Slide the hood over the cable.
Strip the cable insulation ≥ 50 mm.



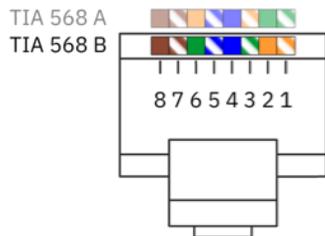
Step 2

Wrap the braid over the cable.
Trim and strip off the foil.



Step 3

Untwist the pairs and control that all wires are intact. Arrange them according to TIA 568 B color scheme.



Assembly

- Plug **PS88A6M**-HA or -HS
- Manager WMBA6M/ WMBA6M-08, MB-A6M
- Hood PCPA6M65 / 75 or PC-A6M
- Cable OD < 8.5 mm/ depending on hood
- Cable STP, 4 pair, stranded or solid
- Wire \varnothing < 1.0 mm / 0.8 mm
- Crimp Tool Handtool K791 or Insert U137 for crimp machine

Step 4

Sort the pairs into the metal manager.
Cut the wires diagonal for insertion.
Hold the insert's grooved side up.



Step 5

Thread all wires through then cut straight at the end of the insert.



Step 6

Take the plug with contacts pointing up.
Push the managers through until all wires are in front. 87654321



Step 7

Crimp the plug with the tool.
Control contacting and strain relief.



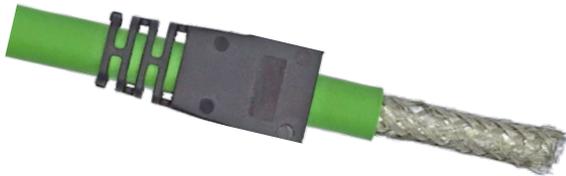
Step 8

Cut off the excess braid.
Slide the hood over the plug.



Step 1

Slide the hood over the cable.
Strip the cable insulation ≥ 25 mm.



Step 2

Wrap the braid over the cable.
Trim and strip off the foil.



Step 3

Strip off the inner insulation.
Control that all wires are intact.

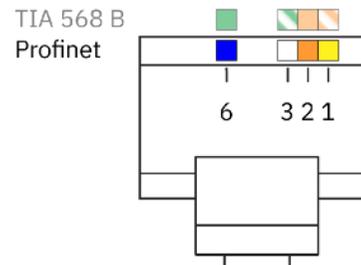


Assembly

- Plug **PS84INDX** (X = 1-6,A-Z)
- Hood optional PCPA6M65/75
- Cable OD 6.0 mm < OD < 7.5 mm (depending on hood)
- Cable STP, 2 pairs, profinet stranded or solid wires
- Wire \varnothing < 1.35 mm / < 1.60 mm
- Crimp Tool Handtool K795 or die set U134 for air crimper

Step 4

Arrange the wires according to Profinet or TIA 568 B color scheme.



Step 5

Shorten the exposed wires to a length of 20 mm from the end of the cable.



Step 6

Take the plug with contacts pointing up.
Push the wires through until all wires are in front.



Step 7

Crimp the plug with the tool.
Control contacting and strain relief.



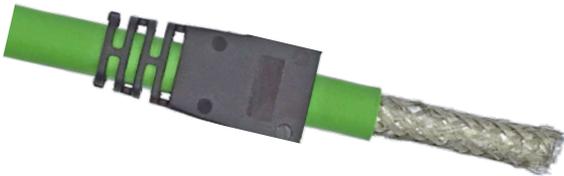
Step 8

Cut off the excess braid.
Slide the hood over the plug.



Step 1

Tülle zuerst auf das Kabel schieben
Mindestens 25 mm Isolierung entfernen.



Step 2

Schirmgeflecht über das Kabel schieben.
Folie entfernen.



Step 3

Isolierung entfernen und Unversehrtheit
der Adern kontrollieren.

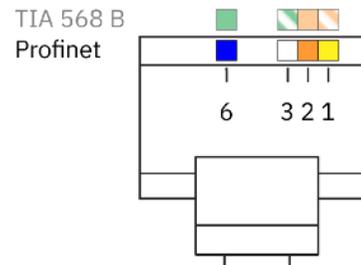


Konfektion

- Plug **PS84INDX** (X = 1-6,A-Z)
- Hood optional PCPA6M65/75
- Cable OD 6.0 mm < OD < 7.5 mm
(abhängig von Tülle)
- Cable STP, 2 Paare, Profinet
Litze- oder Verlegekabel
- Wire ø < 1.35 mm / < 1.60 mm
- Crimp Tool Handzange K795 oder
Einsatz U134 für Maschine

Step 4

Adern gemäß Profinet oder TIA 568 B
Farbschema anordnen.



Step 5

Die freigelegten Adern auf eine Länge
von 20 mm kürzen.



Step 6

Stecker mit Kontakten nach oben halten,
Adern bis ganz nach vorne einführen.



Step 7

Mit dem Werkzeug verpressen.
Zugentlastung und durchgängige
Kontaktierung kontrollieren.



Step 8

Überstehendes Schirmgeflecht abknipsen.
Tülle über den Stecker schieben.



Premium Plugs

High Data Transmission

AAT - Advanced Alignment Technology is a modular design with special wire alignment, metal wire manager and contacts for high speed applications

Specifications

- 6 ... 50 μ m gold plating, std 30 μ m
- W-Blades: solid and stranded wires
- Straight or angled latch
- PC, UL 94 V-0, many colors

Reliable Industrial Connection

- Unibody design for wire diameters of 1.35 mm and 1.6 mm
- Metal clamp strainrelief for a wide range of cable outer diameters

Shielded Plug Cat6A



Hoods, Cover, Color-Rings various colors



Industrial Plug 8P4C



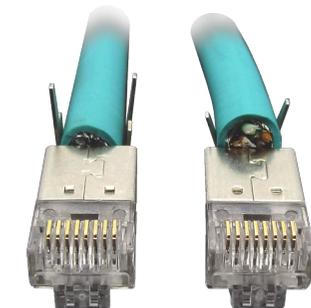
Shielded Plug Cat8



Unshielded Plug Cat6A



Industrial Plug 8P8C



Premium Plug

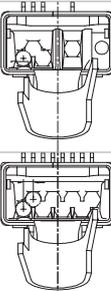
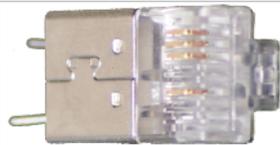
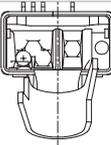
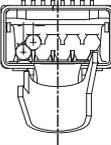
Description

The MODCON® modular PREMIUM plug series, with Advanced Alignment Technology, is a forward thinking development of a building block system for modular plugs, to be used for industrial and office environments. e.g. CAT6A, CAT8, 10Gbps + 40Gbps.



Features

- The performance exceeds CAT 6A / CAT 8.1 international standards incl. UL 94 V-0
- Excellent electrical performance with 360 degree shield termination
- Single-Step termination process, shield and contacts are crimped in 1 operation
- Smooth gold plated contacts which allows solid or stranded conductor termination
- Slim design for use in high density applications
- Hoods and color key rings in various sizes and colors
- For wire DIA 0,8 mm ... 1,7 mm

MODCON® MODULAR PREMIUM PLUG SERIES WITH ADVANCED ALIGNMENT TECHNOLOGY	CATEGORY	WIRE MAN. BAR CONDUCTOR OD				UNI-BODY PLUG				HOOD PC OR PA66
		0,8	1,0	1,15	1,25	1,3/1,6MM	CAT6A - AAT ALIGNER	ANGLED LATCH	STRAIGHT LATCH	CABLE OD < 6,5 OR 7,5 MM
										
	PROFINET 100M	-	✓	-	-	-	-	✓	✓	
	CAT5E	✓	✓	✓	-	-	-	✓	✓	
	CAT6	✓	✓	✓	-	-	-	✓	✓	
	CAT6A	✓	✓	✓	-	-	✓	✓	✓	
	CAT7	✓	✓	✓	-	-	✓	✓	✓	
	CAT8.1	-	-	-	✓	-	-	-	✓	
	PROFINET 100M	-	-	-	-		-	✓	✓	
	PROFINET 1GIG	-	-	-	-		-	-	✓	

Validation Documentation



No	Test Item	Requirement	Standard	Procedure	Result
1.0 Environmental Requirements					
	Operating Temperature Range	-10 °C to + 60 °C	ANSI/TIA-568.2-D Section 5.7.1		Pass
	Communications Cables - Safety	compliance	UL444 - communications cable NEC - National electrical code		Pass
	RoHS	compliance	2002/95/EC, 2011/65/EU, 2015/863		Pass
2.0 Electrical Requirements - Plug					
	Current Rating	1.5 A	IEC 60603-7 Section 7.4.3	IEC 60512 Test 5b	Pass
	Voltage Rating	30 V AC			Pass
	Flammability Rating	UL 94 V-0	UL 1863 Section 7	UL 94 Section 8	Pass
	Insulation Resistance (Mating)	500 MΩ minimum	IEC 60603-7 Section 7.4.7	IEC 60512 Test 3a	Pass
	Voltage Proof (Mating)	1,000 V DC or AC Peak one contact to all other contacts connected together 1,500 V DC or AC Peak all contacts connected together to shield (housing / mounting plate), if present	IEC 60603-7 Section 7.4.2	IEC 60512 Test 4a Method A	Pass
	Contact Resistance	20 mΩ maximum	IEC 60603-7 Section 7.4.4	IEC 60512 Test 2a	Pass
3.0 Physical Requirements					
	Contact Blade - Plug	Phosphor Bronze with Gold over Nickel Plating	TIA-1096-A Section 5		Pass
	Plug Dimensions	compliance	TIA-1096-A, IEC 60603-7 Section 4		Pass
	Crimp Height	min. 5.89 mm to 6.15 mm max.	IEC 60603-7 Section 4.2.2 (Parameter K2)		Pass
4.0 Mechanical Requirements					
	Pull Test	2lbf each wire	UL 1863 Section 40		Pass
	Flex Test	90 degrees	UL 1863 Section 39		Pass
	Strain-Relief Test	Withstand 1min without discontinuity of the signal (45 degree with 50 N (11.25 lbf))	UL 1863 Section 26		Pass
	Mechanical Operations	750 operations	TIA-568.2-D Section A.2 IEC 60603-7 Section 7.6.1	IEC 60512 Test 9a	Pass
5.0 Reliability Requirements - Plug					
	Mating Reliability Test Schedule	compliance	TIA-568-C.2 Annex A, A.5.3 IEC 60603-7		Pass
6.0 Transmission Requirements					
	Cord Transmission Performance - Return Loss	Table 144	ANSI/TIA-568.2-D Section 6.11.1	Annex C.5, C.7	
	Cord Transmission Performance - NEXT Loss	Equation 40	ANSI/TIA-568.2-D Section 6.11.2	Annex C.5, C.7	
	Plug Performance - DNEXT	Table C.2 and Table C.3	ANSI/TIA-568.2-D Annex C.6.4.3	Annex C.6.4.3 Table C.2	

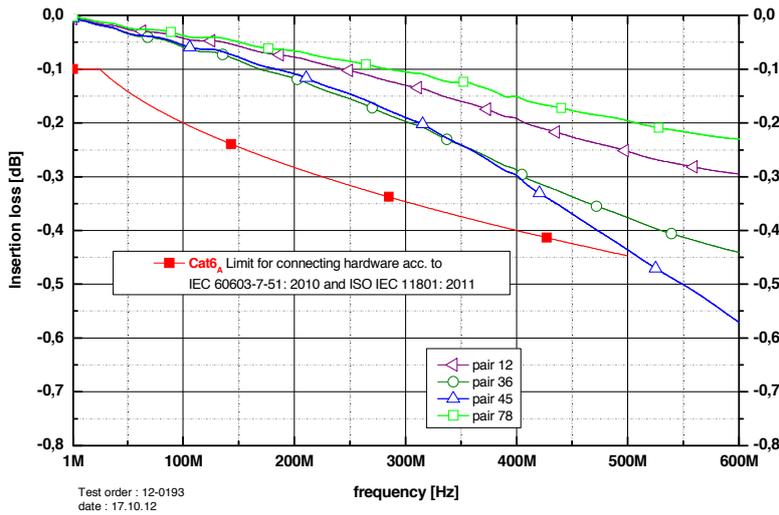
Transmission Characteristics of PS88A6M /CAT6_A shielded plug

PS88A6M shielded CAT6_A plug fulfills the requirements for electrical transmission performance according to IEC 60603-7-51; detail specification for 8-way, shielded, free and fixed connectors, for data transmissions with frequencies up to 500 MHz": 2010 and according to IEC11801 Ed. 2.2, Cat 6_A: 2011 :

- insertion loss
- return loss
- near-end crosstalk
- far-end crosstalk
- TCI
- TCTI
- transfer impedance

Different length (0,5m, 1 m, 13m) of CAT 6_A balanced cables assembled to PS88A6M fulfill the RF performance (return loss, near-end crosstalk) according to IEC 61935-2: 2010 "Specification for the testing of balanced and coaxial information technology cabling - Part 2: Cords as specified in ISO/IEC 11801 and related standards".

1. Insertion loss



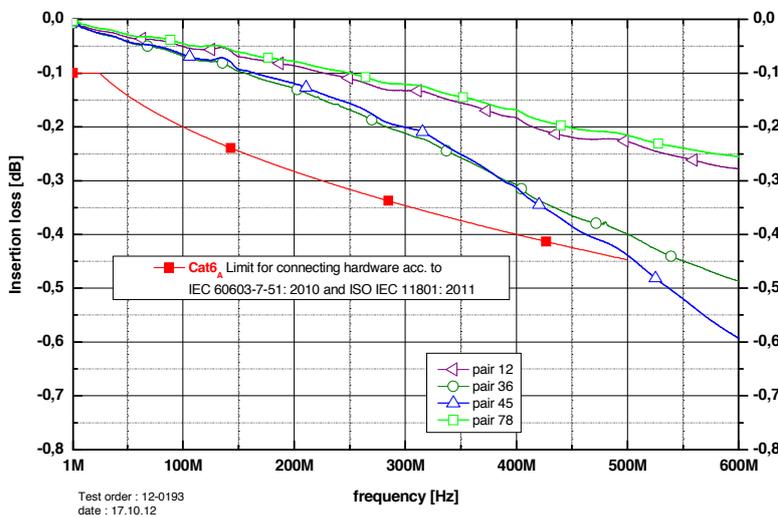
Insertion loss of
sample 1

INELCO CAT6_A
shielded plug
PS88A6M

mated to

Patchcord Test Head
Cat 6_A, Telegärtner

PASS



Insertion loss of
sample 2

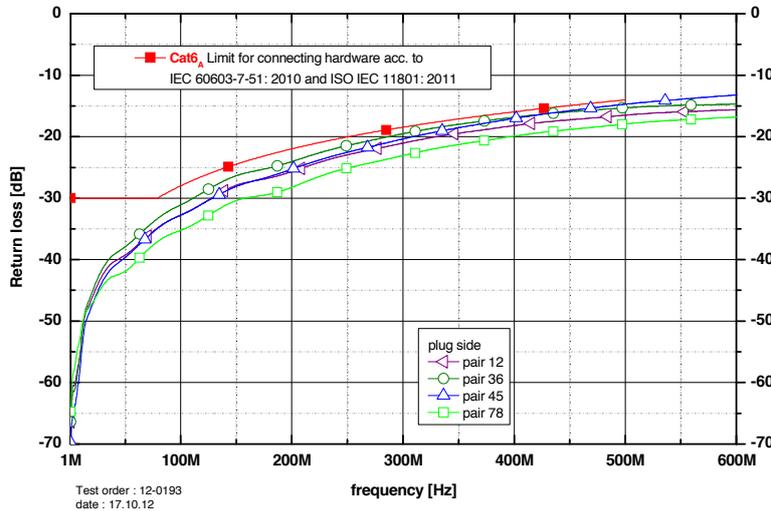
INELCO CAT6_A
shielded plug
PS88A6M

mated to

Patchcord Test Head
Cat 6_A, Telegärtner

PASS

2. Return loss



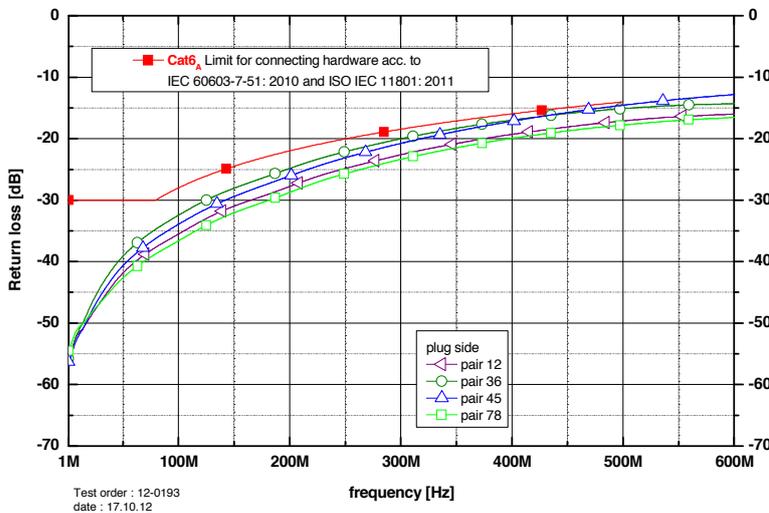
Return loss of
sample 1

INELCO CAT6_A
shielded plug
PS88A6M

mated to

Patchcord Test Head
Cat 6_A, Telegärtner

PASS



Return loss of
sample 2

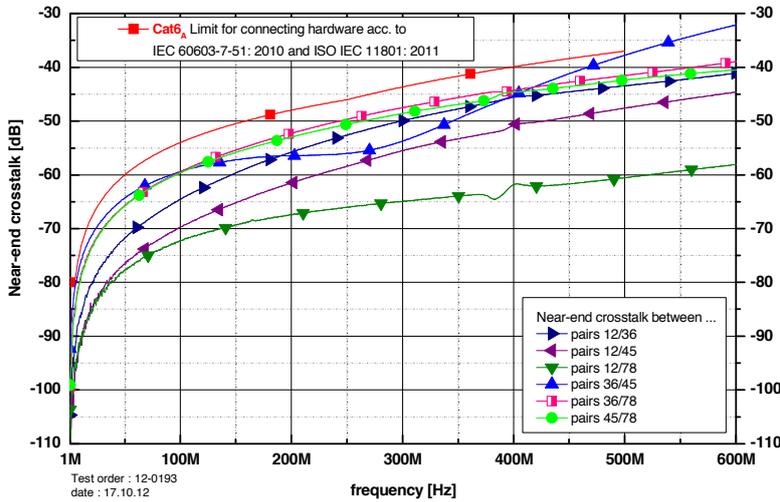
INELCO CAT6_A
shielded plug
PS88A6M

mated to

Patchcord Test Head
Cat 6_A, Telegärtner

PASS

3. Near-end crosstalk



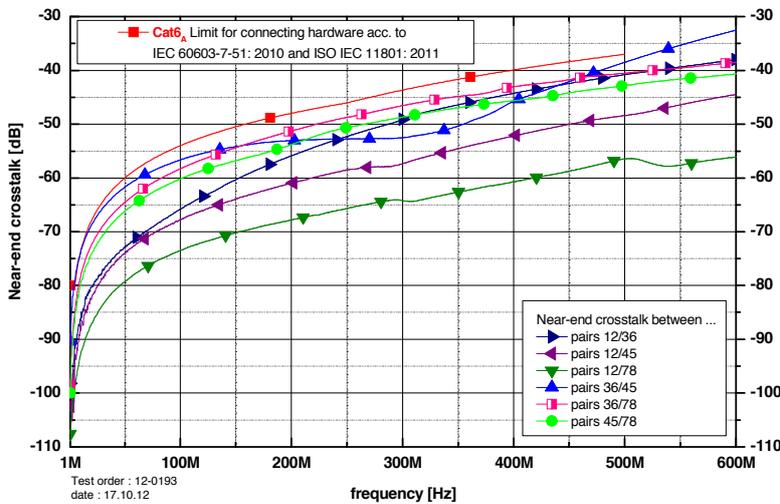
Near-end crosstalk of sample 1

INELCO CAT6_A
shielded plug
PS88A6M

mated to

Patchcord Test Head
Cat 6_A, Telegärtner

PASS



Near-end crosstalk of sample 2

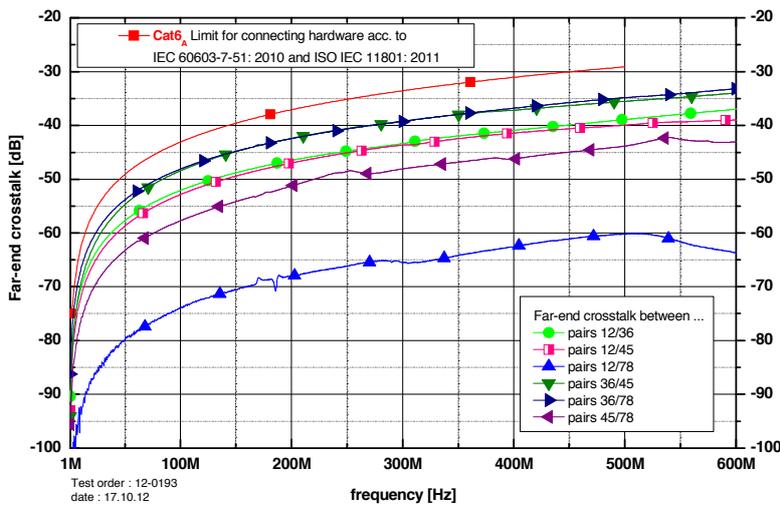
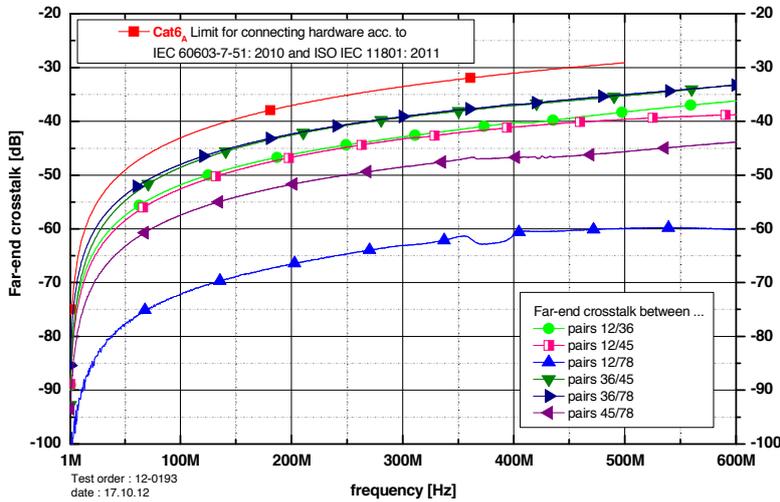
INELCO CAT6_A
shielded plug
PS88A6M

mated to

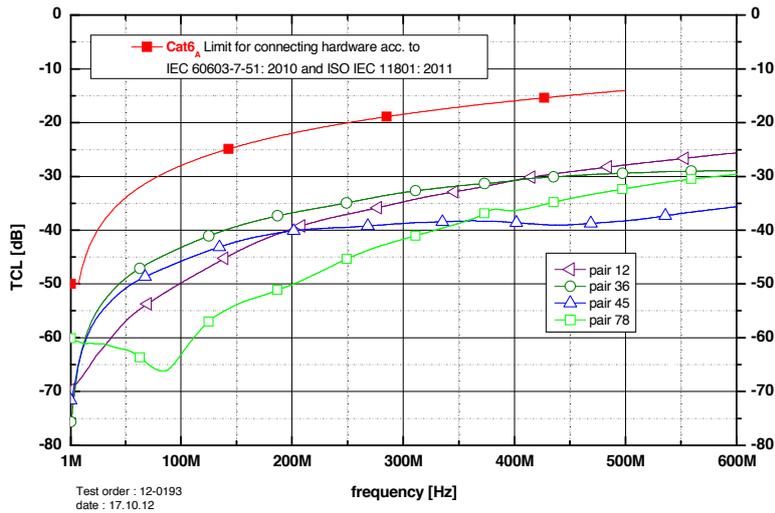
Patchcord Test Head
Cat 6_A, Telegärtner

PASS

4. Far-end crosstalk



5. TCL of connecting



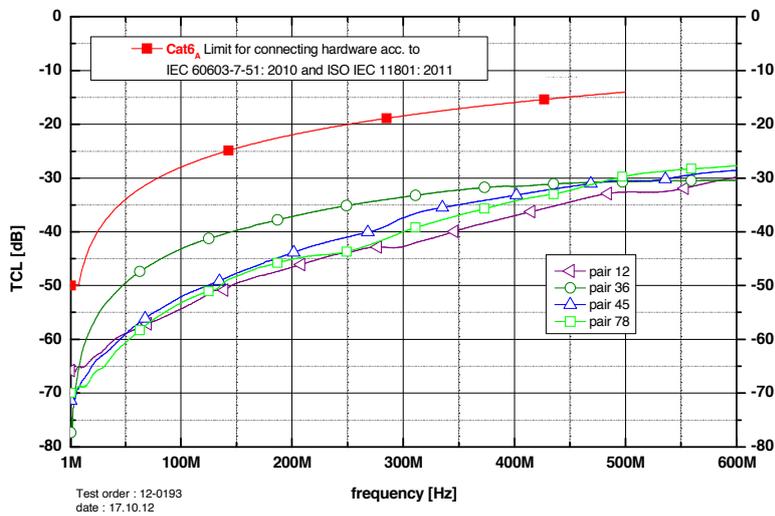
TCL of sample 1

INELCO CAT6_A
shielded plug
PS88A6M

mated to

Patchcord Test Head
Cat 6_A, Telegärtner

PASS



TCL of sample 2

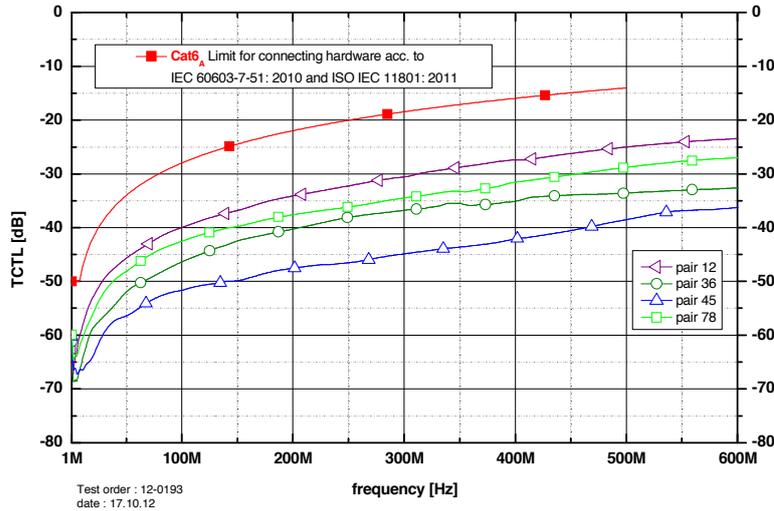
INELCO CAT6_A
shielded plug
PS88A6M

mated to

Patchcord Test Head
Cat 6_A, Telegärtner

PASS

6. TCTL

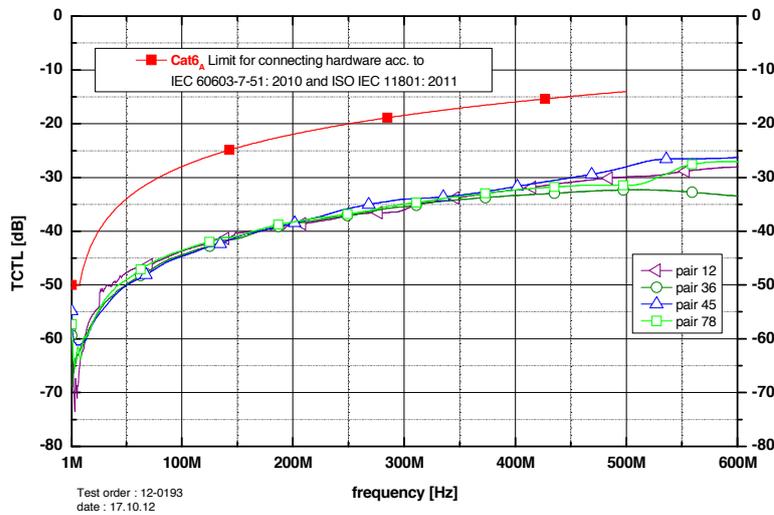


TCTL of sample 1

mated to

Patchcord Test Head
Cat 6_A, Telegärtner

PASS



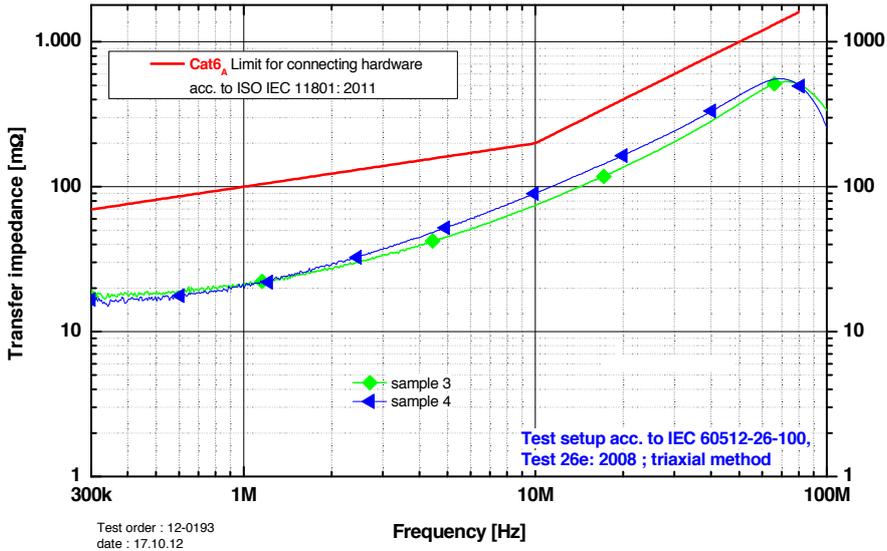
TCTL of sample 2

mated to

Patchcord Test Head
Cat 6_A, Telegärtner

PASS

7. Transfer impedance



Transfer impedance
of sample 3, 4

with Cat 7 cable;
couple length 39cm

PASS



Cable ID: 21-151, PC-CAT6A: 0,5M

Date / Time: 01.11.2012 09:58:53

Headroom 2.1 dB (NEXT 36-45)

Test Limit: ISO Patch Cord Cat6A 0.5m

Cable Type: Cat 6A FTP

Operator: P. Pardal

Software Version: 2.6300

Limits Version: 1.8100

NVP: 74.0%

Test Summary: PASS

Model: DTX-1800

Main S/N: 9132029

Remote S/N: 9132030

Main Adapter: DTX-PC6A/MN ISO/IEC

Remote Adapter: DTX-PC6A/MN ISO/IEC

Length (m)	[Pair 12]	0.4
Prop. Delay (ns)	[Pair 45]	3
Delay Skew (ns)	[Pair 45]	1
Resistance (ohms)	[Pair 45]	0.2

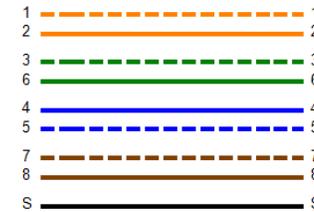


0.4 m



Wire Map (T568B)

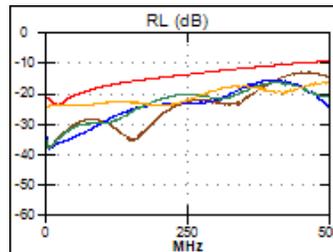
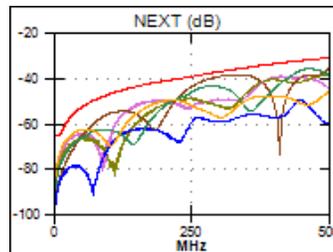
PASS



Worst Case Margin Worst Case Value

PASS	MAIN	SR	MAIN	SR
Worst Pair	36-45	36-45		
NEXT (dB)	2.1	4.8		
Freq. (MHz)	294.0	500.0		
Limit (dB)	37.5	30.9		

PASS	MAIN	SR	MAIN	SR
Worst Pair	12	78		
RL (dB)	0.0*	3.0		
Freq. (MHz)	24.1	450.0		
Limit (dB)	24.0	10.2		



* Measurement is within the accuracy limits of the instrument.



Cable ID: 21.151, PC-CAT6A: 1M

Date / Time: 01.11.2012 10:09:15

Headroom 2.3 dB (NEXT 36-45)

Test Limit: ISO Patch Cord Cat6A 1.0m

Cable Type: Cat 6A FTP

Operator: P. Pardal

Software Version: 2.6300

Limits Version: 1.8100

NVP: 74.0%

Test Summary: PASS

Model: DTX-1800

Main S/N: 9132029

Remote S/N: 9132030

Main Adapter: DTX-PC6A/MN ISO/IEC

Remote Adapter: DTX-PC6A/MN ISO/IEC

Length (m)	[Pair 12]	1.1
Prop. Delay (ns)	[Pair 45]	6
Delay Skew (ns)	[Pair 45]	1
Resistance (ohms)	[Pair 45]	0.4

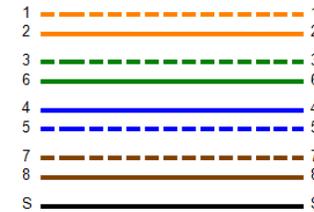


1.1 m



Wire Map (T568B)

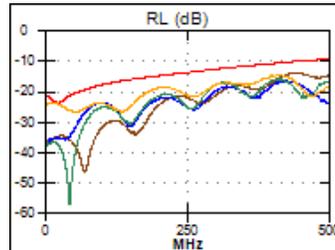
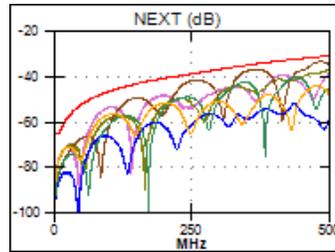
PASS



Worst Case Margin Worst Case Value

PASS	MAIN	SR	MAIN	SR
Worst Pair	36-45	36-45		
NEXT (dB)	2.3	2.3		
Freq. (MHz)	479.0	484.0		
Limit (dB)	31.5	31.3		

PASS	MAIN	SR	MAIN	SR
Worst Pair	12	78		
RL (dB)	0.3*	3.6		
Freq. (MHz)	19.1	441.0		
Limit (dB)	23.7	10.3		



* Measurement is within the accuracy limits of the instrument.



Cable ID: 21-151, PC-CAT6A: 13M

Date / Time: 01.11.2012 10:08:18

Headroom **4.6 dB (NEXT 36-45)**

Test Limit: ISO Patch Cord Cat6A 10.0m

Cable Type: Cat 6A FTP

Operator: P. Pardal

Software Version: 2.6300

Limits Version: 1.8100

NVP: 74.0%

Test Summary: PASS

Model: DTX-1800

Main S/N: 9132029

Remote S/N: 9132030

Main Adapter: DTX-PC6A/MN ISO/IEC

Remote Adapter: DTX-PC6A/MN ISO/IEC

Length (m)	[Pair 78]	13.5
Prop. Delay (ns)	[Pair 12]	62
Delay Skew (ns)	[Pair 12]	1
Resistance (ohms)	[Pair 45]	3.7

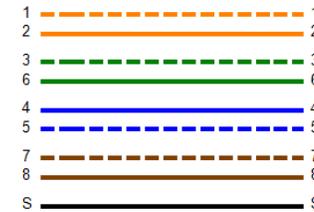


13.5 m



Wire Map (T568B)

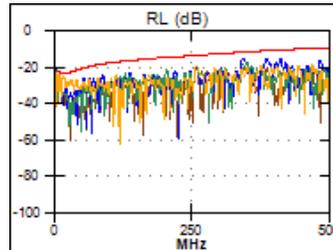
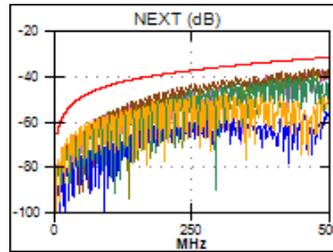
PASS



Worst Case Margin Worst Case Value

PASS	MAIN	SR	MAIN	SR
Worst Pair	36-45	36-45		
NEXT (dB)	4.6	4.6		
Freq. (MHz)	414.0	473.0		
Limit (dB)	33.3	32.2		

PASS	MAIN	SR	MAIN	SR
Worst Pair	45	45		
RL (dB)	0.3*	4.3		
Freq. (MHz)	4.0	387.0		
Limit (dB)	21.6	11.2		



* Measurement is within the accuracy limits of the instrument.