

TRANSFORMATOR

Date Awarded:	poniedziałek, 10 grudnia 2018
Date Completed:	poniedziałek, 10 grudnia 2018
Date Prepared:	czwartek, 20 grudnia 2018

TRANSFORMATOR

Ratio Technika sieciowa Sp z o. o.
Friefleina 4-6
Kraków 30-009 Kraków



TRM 2.0.58.0

Project Summary

Job Name: TRANSFORMATOR

Date Awarded: poniedziałek, 10 grudnia 2018

Date Completed: poniedziałek, 10 grudnia 2018

Date Prepared: czwartek, 20 grudnia 2018

Results Summary:

Routes:	3	Singlemode Trace Count :	0
Cables:	4	Singlemode Wavelengths:	
Fibers:	12	Multimode Trace Count :	12
OLTS/OPM Results:	0	Multimode Wavelengths:	850, 1300
Traces:	12		

* Counts represent only valid fiber result items found

Route Summary

TRANSFORMATOR
07BAT10EU100 To 07BTC10

2 Cables
8 Fibers
0 OLTS/OPM Fiber Readings
8 Traces
0 Singlemode Traces
8 Multimode Traces

Cable Summary

Cable ID: 07BCT10F101.7004

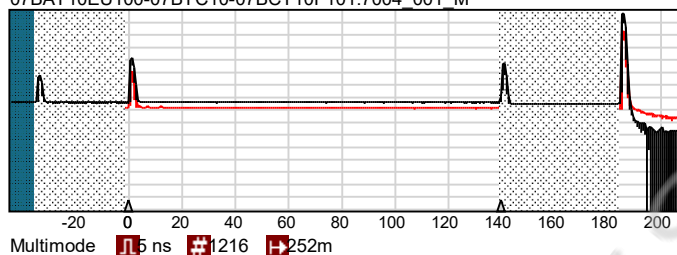
Cable ID :	07BCT10F101.7004	Tested By :	TOMASZ MOLIK	OTDR Setup :	Expert
End 1 :	07BAT10EU100	Launch Cable :	Użytkownika	End Thres :	3 dB
End 2 :	07BTC10	Tail Cable :	Użytkownika	Loss Thres :	0,1 dB
Date Of Test :	10.12.2018	GIR :	1,483	Refl Thres :	-65 dB
		Backscatter Coef :	-68,4 dB		

OTDR Summary

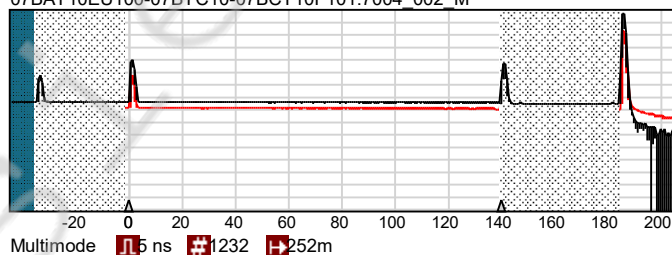
Length 140,5 Meters

Nr. Włókn	Tłumienie(dB) Koniec1->Koniec2		ORL(dB) Koniec1->Koniec2	
	850 nm	1300 nm	850 nm	1300 nm
1	0,37	-0,03	30,06	35,95
2	0,21	0,16	30,32	36,32
3	0,23	0,04	30,26	36,52
4	0,58	-0,44	30,45	36,56

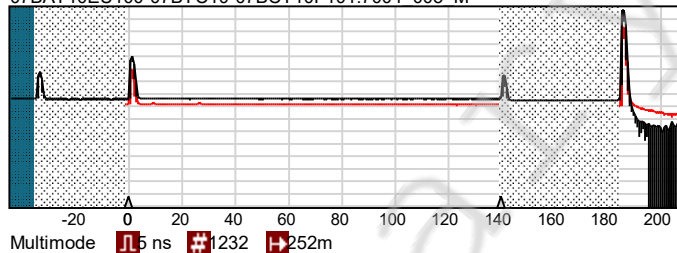
07BAT10EU100-07BTC10-07BCT10F101.7004_001_M



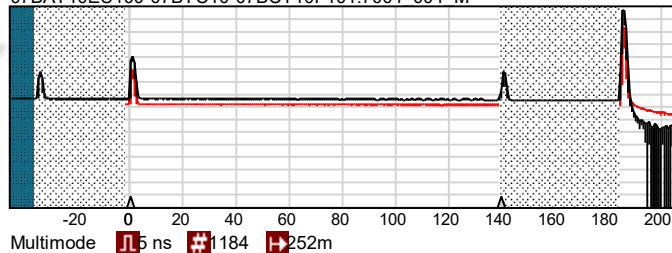
07BAT10EU100-07BTC10-07BCT10F101.7004_002_M



07BAT10EU100-07BTC10-07BCT10F101.7004_003_M



07BAT10EU100-07BTC10-07BCT10F101.7004_004_M



Cable Summary

Cable ID: 07BCT10GF101.7003

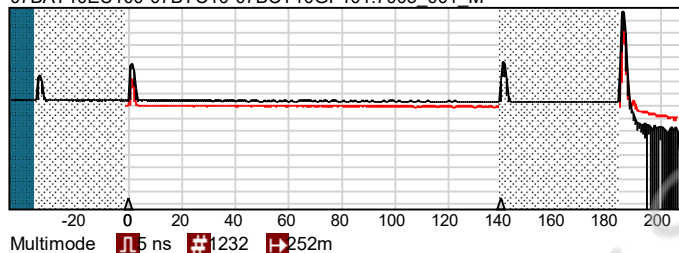
Cable ID :	07BCT10GF101.7003	Tested By :	TOMASZ MOLIK	OTDR Setup :	Expert
End 1 :	07BAT10EU100	Launch Cable :	Użytkownika	End Thres :	3 dB
End 2 :	07BTC10	Tail Cable :	Użytkownika	Loss Thres :	0,1 dB
Date Of Test :	10.12.2018	GIR :	1,483	Refl Thres :	-65 dB
		Backscatter Coef :	-68,4 dB		

OTDR Summary

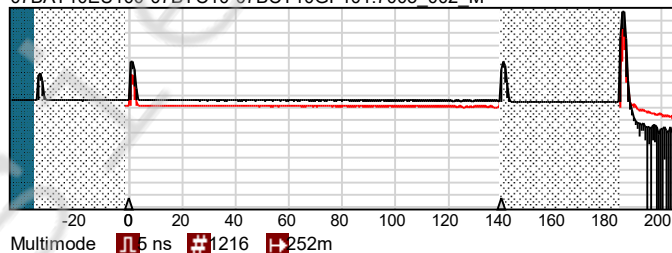
Length 140,4 Meters

Nr. Włókn	Tłumienie(dB) Koniec1->Koniec2		ORL(dB) Koniec1->Koniec2	
	850 nm	1300 nm	850 nm	1300 nm
1	0,35	0,09	30,53	36,77
2	0,31	0,20	30,38	36,63
3	0,22	0,01	30,44	36,56
4	0,49	0,05	30,73	37,20

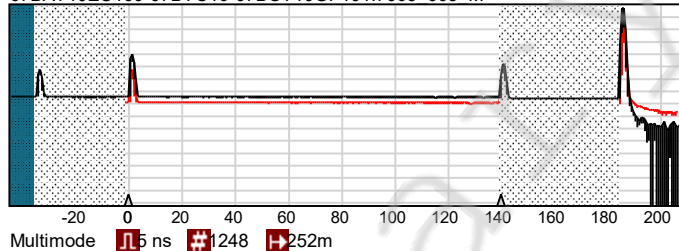
07BAT10EU100-07BTC10-07BCT10GF101.7003_001_M



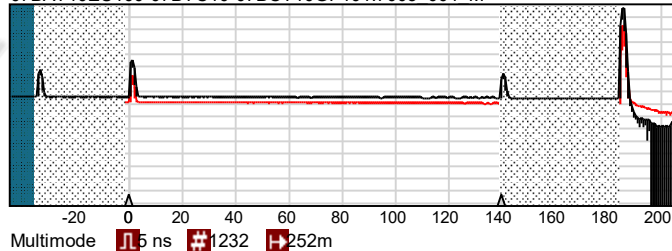
07BAT10EU100-07BTC10-07BCT10GF101.7003_002_M



07BAT10EU100-07BTC10-07BCT10GF101.7003_003_M



07BAT10EU100-07BTC10-07BCT10GF101.7003_004_M



Route Summary

TRANSFORMATOR
07CVQ07 To 07BTC10

1 Cables
2 Fibers
0 OLTS/OPM Fiber Readings
2 Traces
0 Singlemode Traces
2 Multimode Traces

Cable Summary

Cable ID: 07BCT10GF101.7001

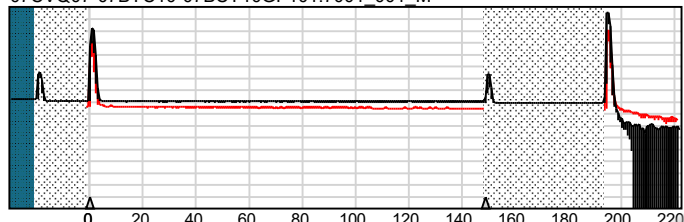
Cable ID :	07BCT10GF101.7001	Tested By :	TOMASZ MOLIK	OTDR Setup :	Expert
End 1 :	07CVQ07	Launch Cable :	Użytkownika	End Thres :	3 dB
End 2 :	07BTC10	Tail Cable :	Użytkownika	Loss Thres :	0,1 dB
Date Of Test :	10.12.2018	GIR :	1,483	Refl Thres :	-65 dB
		Backscatter Coef :	-68,4 dB		

OTDR Summary

Length 149,8 Meters

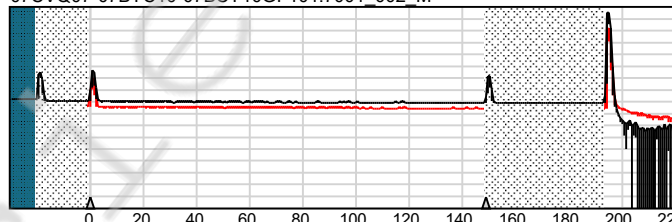
Nr. Włókn	Tłumienie(dB) Koniec1->Koniec2		ORL(dB) Koniec1->Koniec2	
	850 nm	1300 nm	850 nm	1300 nm
1	0,16	0,59	22,48	26,03
2	0,82	0,35	30,89	37,75

07CVQ07-07BTC10-07BCT10GF101.7001_001_M



Multimode 5 ns 168 252m

07CVQ07-07BTC10-07BCT10GF101.7001_002_M



Multimode 5 ns 168 252m

Route Summary

TRANSFORMATOR
07CVQ08 To 07BTC10

1 Cables
2 Fibers
0 OLTS/OPM Fiber Readings
2 Traces
0 Singlemode Traces
2 Multimode Traces

Cable Summary

Cable ID: 07BCT10GF101.7002

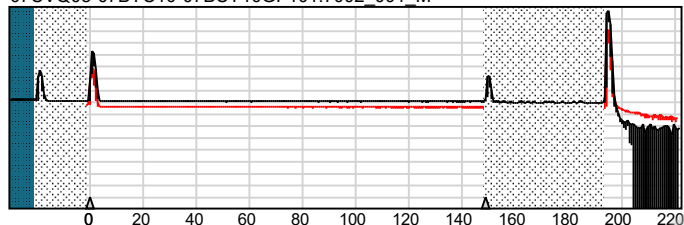
Cable ID :	07BCT10GF101.7002	Tested By :	TOMASZ MOLIK	OTDR Setup :	Expert
End 1 :	07CVQ08	Launch Cable :	Użytkownika	End Thres :	3 dB
End 2 :	07BTC10	Tail Cable :	Użytkownika	Loss Thres :	0,1 dB
Date Of Test :	10.12.2018	GIR :	1,483	Refl Thres :	-65 dB
		Backscatter Coef :	-68,4 dB		

OTDR Summary

Length 149,7 Meters

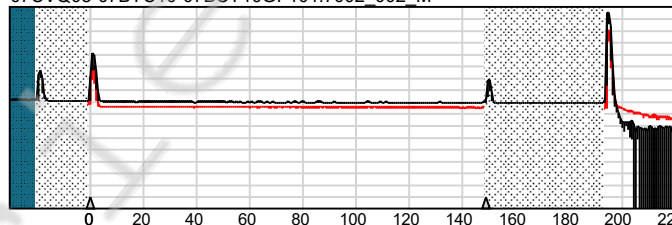
Nr. Włókn	Tłumienie(dB) Koniec1->Koniec2		ORL(dB) Koniec1->Koniec2	
	850 nm	1300 nm	850 nm	1300 nm
1	0,88	0,39	30,91	36,12
2	1,01	0,74	31,23	36,72

07CVQ08-07BTC10-07BCT10GF101.7002_001_M



Multimode 5 ns 184 252m

07CVQ08-07BTC10-07BCT10GF101.7002_002_M



Multimode 5 ns 1216 252m

Raport OTDR (1550 nm (9 μm))

Informacje ogólne

Nazwa pliku: Janinow_3M_SZAFA TR101_SZAFA TC500_A-B_1.trc
Data testu: 2018-09-10 Klient: 3M
Godzina testu: 12:25 Firma: Ratio
ID kabla: 12SM ID światłowodu: 1
ID zadania: Janinow
Komentarze:

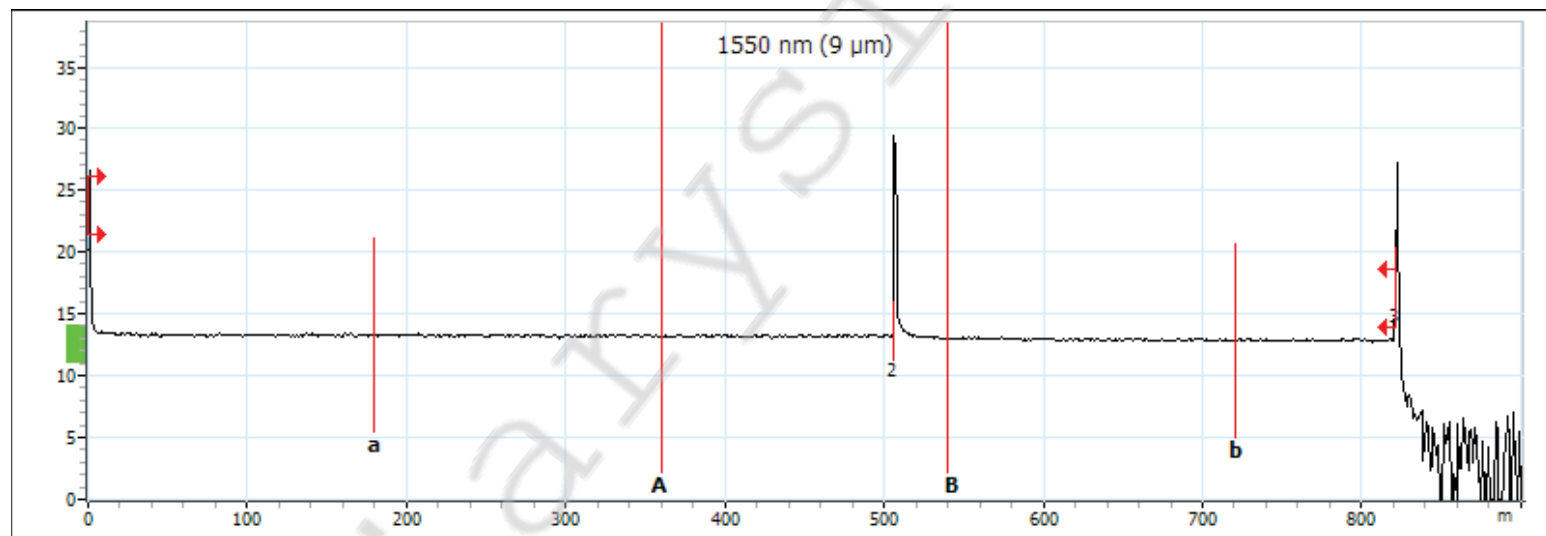
Lokalizacje

	Lokalizacja A	Lokalizacja B
Lokalizacja	SZAFA TR101	SZAFA TC500
Operator	Tomasz Molik	
Model	MAX-730C-SM2-EA	
Numer seryjny	898131	
Data kalibracji	2017-09-28 (UTC)	

Wyniki

Długość odcinka: 821,6 m Średnia stratność: 0,001 dB/m Poziom wtrącenia: 13,4 dB
Stratność odcinka: 0,529 dB Średnia stratność spoiny: ---
ORL odcinka: 35,43 dB Maksymalna stratność spoiny: ---

Wykres



Znaczniki

Znacznik	Pozycja (m)	Wartość (dB)	Tłumienie A-B LSA:	Śr. stratność A-B:
a	179,9	13,297	-4,364 dB/km	1,051 dB/km
A	359,9	13,254	Stratność A-B LSA: 0,000 dB	4-pkt stratność zdarzenia: 0,130 dB
B	540,1	13,064	A-B ORL: 35,83 dB	Maks. współczynnik odbicia: -36,2 dB
b	720,0	12,809		

Raport OTDR (1550 nm (9 μm))

Tabela zdarzeń

Typ	Nr	Poz./Długość (m)	Str. (dB)	Wsp. odbicia (dB)	Tłumienie (dB/km)	Zbiorczo (dB)
Pierwsze złącze	1	0,0	---	-41,9		0,000
Odcinek		506,0	0,167		0,331	0,167
Refleksyjne	2	506,0	0,151	-36,2		0,318
Odcinek		315,5	0,210		0,666	0,529
Refleksyjne	3	821,6	---	-42,8		0,529

Makrozgięcie

Pozycja (m)	Delta stratności (dB)

Wartości progowe P/NP

	1550 nm (9 μm)

Parametry testu

	A → B
Długość fali (nm)	1550 nm (9 μm)
Zakres (m)	900,0
Impuls (ns)	5
Czas trwania (s)	5

Ustawienia testu

	A → B
IOR	1,468325
Rozpraszanie wsteczne (dB)	-81,87
Współczynnik helisy (%)	0,00
Wartość progowa wykr. stratności spoiny (dB)	0,020
Wartość progowa wykrywania wsp. odbicia (dB)	-72,0
Wartość progowa wykrywania końca światłowodu (dB)	5,000

Długości fali na makrozgięciu	Delta stratności makrozgięcia (dB)

ID Kabla S1.P5-01	Skrót OK	Limit pomierowy ISO11801 Channel Class D	Długość 42.6 m	Headroom 8.3 dB (NEXT)	Data / Czas 2017-10-20 12:22 PM
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Długość ogółem:	42.6 m
Ilość raportów:	1
Ilość pozytywnych raportów:	1
Ilość negatywnych raportów:	0
Ilość raportów ostrzegawczych:	0
Tylko dokumentacja:	0



ID Kabla: S1.P5-01

Data / Czas: 2017-10-20 12:22:29 PM

Headroom 8.3 dB (NEXT 12-36)

Limit pomiarowy: ISO11801 Channel Class D

Rodzaj kabla: Cat 5e F/UTP

NVP: 69.0%

Operator: RATIO

Wersja oprogramowania: 2.7800

Wersja Limit: 1.9500

Data kalibracji:

Główna (Tester): 2017-04-24

Zdalna (Tester): 2017-04-24

Podsumowanie pomiaru: OK

Model: DTX-1800

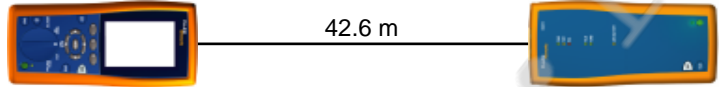
Nr seryjny jedn. głównej: 3037025

Nr seryjny jedn. zdalnej: 3037026

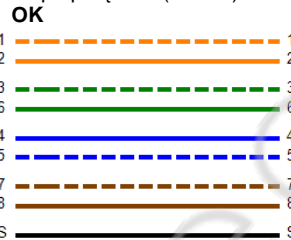
Adapter Główny: DTX-CHA002

Adapter Zdalny: DTX-CHA002

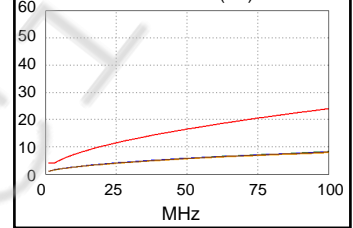
Długość (m)	[Para 78]	42.6
Opóźnienie Prop. (ns), Limit 555	[Para 36]	217
Różnica Opóźn. (ns), Limit 50	[Para 36]	11
Rezystancja (ohm), Limit 25.0	[Para 36]	8.2
Tłumienność Margines (dB)	[Para 36]	15.8
Częstotliwość (MHz)	[Para 36]	100.0
Limit (dB)	[Para 36]	24.0



Mapa połączeń (T568B)

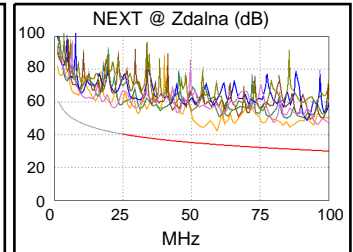
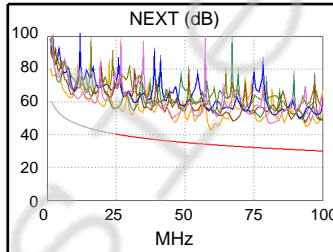


Tłumienność (dB)

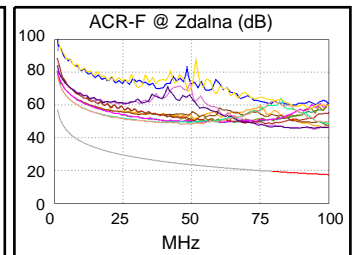
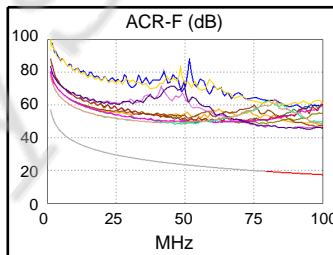


Najgorszy margines Najgorsza wartość

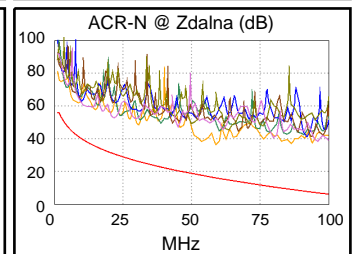
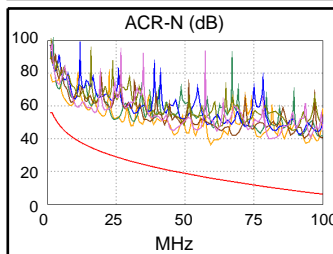
OK	MAIN	SR	MAIN	SR
Najgorsza para	12-36	12-36	12-36	12-36
NEXT (dB)	8.7	8.3	8.7	8.3
Częst. (MHz)	59.3	59.0	59.3	59.0
Limit (dB)	34.0	34.0	34.0	34.0
Najgorsza para	12	12	12	12
PS NEXT (dB)	11.2	11.0	11.2	11.0
Częst. (MHz)	59.5	59.0	59.5	59.0
Limit (dB)	31.0	31.0	31.0	31.0



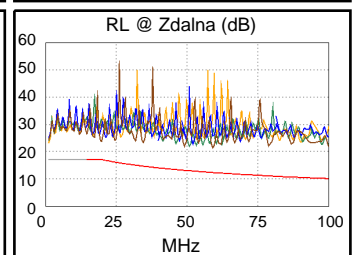
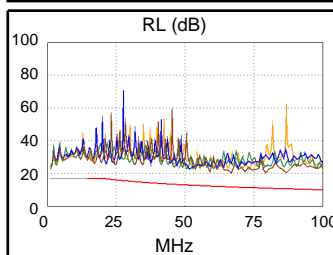
OK	MAIN	SR	MAIN	SR
Najgorsza para	45-78	78-45	78-36	36-78
ACR-F (dB)	20.7	20.7	27.2	27.3
Częst. (MHz)	4.0	3.9	95.0	94.5
Limit (dB)	45.4	45.6	17.8	17.9
Najgorsza para	45	45	36	36
PS ACR-F (dB)	21.6	21.6	28.4	28.2
Częst. (MHz)	4.0	4.0	94.5	94.3
Limit (dB)	42.4	42.4	14.9	14.9



OK	MAIN	SR	MAIN	SR
Najgorsza para	12-36	12-36	12-36	12-36
ACR-N (dB)	18.3	19.7	20.5	20.0
Częst. (MHz)	7.8	6.8	59.3	59.0
Limit (dB)	42.5	43.9	15.9	16.0
Najgorsza para	36	36	36	12
PS ACR-N (dB)	19.4	21.1	30.9	22.9
Częst. (MHz)	8.3	7.0	94.0	59.0
Limit (dB)	38.9	40.6	4.3	13.0



OK	MAIN	SR	MAIN	SR
Najgorsza para	78	78	78	78
RL (dB)	8.2	6.7	8.2	9.0
Częst. (MHz)	66.5	19.5	66.5	59.0
Limit (dB)	11.8	17.0	11.8	12.3



Normy zgodności sieci:

10BASE-T	100BASE-TX	100BASE-T4
1000BASE-T	ATM-25	ATM-51
ATM-155	100VG-AnyLan	TR-4
TR-16 Active	TR-16 Passive	

Job Name: JOB1.job

Test Standard: ISO/IEC 11801:2002

Test Summary: Pass

Date Tested: Października 10 2018

NVP:79 %



Time Tested: 12:44:18

Freq Range: 1 - 250MHz

Test Name: TC100-025

Operator: TOMASZ MOLIK

Firmware: 3.200

Contractor: 3M

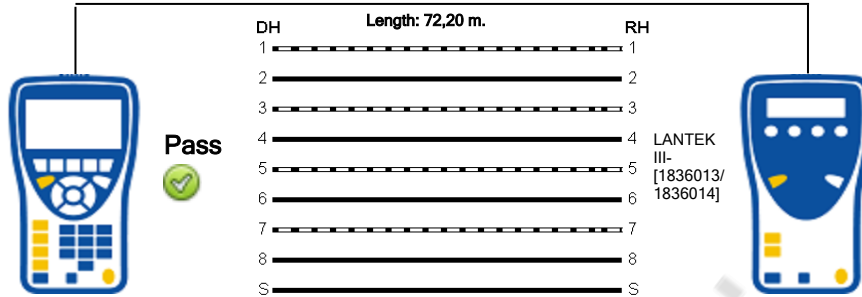
Limit: ISO E STP Perm

Company: RATIO

MFGDB:

User Notes:

Wiremap



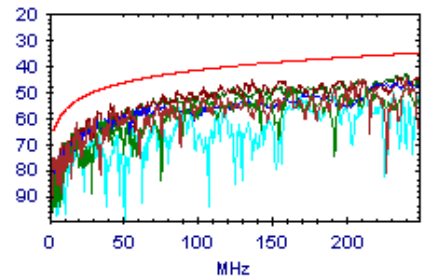
Pair	Propagation Delay (ns)	Delay Skew (ns)	DC Resistance (Ω)	Length (m.)	Capacitance (pF/m.)	Impedance (ohms)	Headroom (dB)
7-8	311,8	7,3	11,0	73,9			
3-6	330,9	26,4	11,6	78,4			
5-4	324,2	19,7	11,7	76,8			
1-2	304,5	,0	10,8	72,2			
Limit	<490,0	<44,0	<21,0	<,0			
Result	Pass	Pass	Pass	Pass			

NEXT

Pass

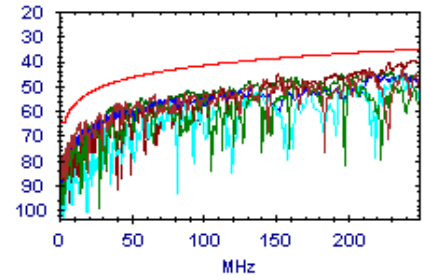
DH

Pair	Worst Case	Limit	Margin	Worst Overall Value	Limit	Margin
7,8-3,6	55.5dB @ 44.0MHz	47.6dB	7.9dB	45.1dB @ 241.0MHz	35.6dB	9.5dB
7,8-5,4	48.7dB @ 164.0MHz	38.3dB	10.4dB	48.2dB @ 214.0MHz	36.4dB	11.8dB
7,8-1,2	47.2dB @ 250.0MHz	35.3dB	11.9dB	47.2dB @ 250.0MHz	35.3dB	11.9dB
3,6-5,4	46.2dB @ 242.0MHz	35.6dB	10.6dB	46.2dB @ 242.0MHz	35.6dB	10.6dB
3,6-1,2	45.8dB @ 137.0MHz	39.6dB	6.2dB	44.8dB @ 237.0MHz	35.7dB	9.1dB
5,4-1,2	43.3dB @ 241.0MHz	35.6dB	7.7dB	43.3dB @ 241.0MHz	35.6dB	7.7dB



RH

Pair	Worst Case	Limit	Margin	Worst Overall Value	Limit	Margin
7,8-3,6	43.2dB @ 215.0MHz	36.4dB	6.8dB	43.2dB @ 215.0MHz	36.4dB	6.8dB
7,8-5,4	47.2dB @ 163.0MHz	38.4dB	8.8dB	47.1dB @ 164.0MHz	38.3dB	8.8dB
7,8-1,2	44.8dB @ 238.0MHz	35.7dB	9.1dB	44.8dB @ 238.0MHz	35.7dB	9.1dB
3,6-5,4	45.2dB @ 240.0MHz	35.6dB	9.6dB	45.2dB @ 240.0MHz	35.6dB	9.6dB
3,6-1,2	40.0dB @ 246.0MHz	35.5dB	4.5dB	40.0dB @ 246.0MHz	35.5dB	4.5dB
5,4-1,2	47.0dB @ 155.0MHz	38.7dB	8.3dB	44.4dB @ 231.0MHz	35.9dB	8.5dB



Job Name: JOB1.job

Test Standard: ISO/IEC 11801:2002

Test Summary: Pass

Date Tested: Października 10 2018

NVP:79 %



Time Tested: 12:44:18

Freq Range: 1 - 250MHz

Test Name: TC100-025

Operator: TOMASZ MOLIK

Firmware: 3.200

Contractor: 3M

Limit: ISO E STP Perm

Company: RATIO

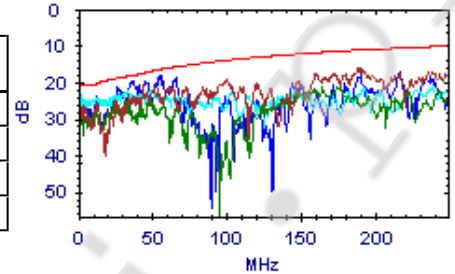
MFGDB:

User Notes:

Return Loss ✔ Pass

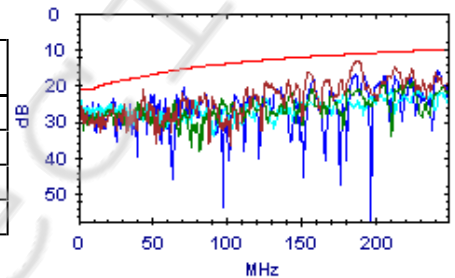
DH

Pair	Worst Case	Limit	Margin	Worst Overall Value	Limit	Margin
7,8	✔ 21.0dB @ 44.0MHz	17.6dB	3.4dB	16.0dB @ 189.0MHz	11.2dB	4.8dB
3,6	✔ 26.1dB @ 24.0MHz	19.1dB	7.0dB	21.3dB @ 175.0MHz	11.6dB	9.7dB
5,4	✔ 24.8dB @ 10.0MHz	21.0dB	3.8dB	21.3dB @ 239.0MHz	10.2dB	11.1dB
1,2	✔ 18.0dB @ 55.0MHz	16.6dB	1.4dB	17.3dB @ 217.0MHz	10.6dB	6.7dB



RH

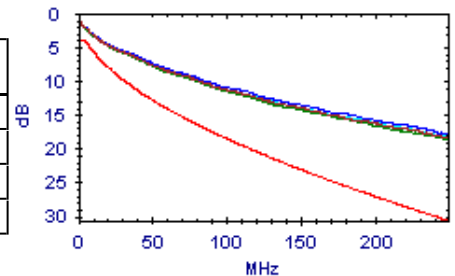
Pair	Worst Case	Limit	Margin	Worst Overall Value	Limit	Margin
7,8	✔ 13.3dB @ 187.0MHz	11.3dB	2.0dB	13.3dB @ 187.0MHz	11.3dB	2.0dB
3,6	✔ 24.7dB @ 40.0MHz	18.0dB	6.7dB	18.0dB @ 222.0MHz	10.5dB	7.5dB
5,4	✔ 26.5dB @ 10.0MHz	21.0dB	5.5dB	21.0dB @ 227.0MHz	10.4dB	10.6dB
1,2	✔ 24.9dB @ 10.0MHz	21.0dB	3.9dB	16.0dB @ 243.0MHz	10.1dB	5.9dB



Insertion Loss ✔ Pass

DH

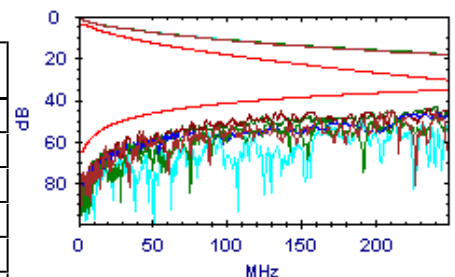
Pair	Worst Case	Limit	Margin	Worst Overall Value	Limit	Margin
7,8	✔ 2.1dB @ 4.6MHz	4.0dB	1.9dB	18.4dB @ 250.0MHz	30.7dB	12.3dB
3,6	✔ 2.2dB @ 5.1MHz	4.0dB	1.8dB	18.7dB @ 250.0MHz	30.7dB	12.0dB
5,4	✔ 2.2dB @ 5.2MHz	4.0dB	1.8dB	18.3dB @ 250.0MHz	30.7dB	12.4dB
1,2	✔ 2.0dB @ 4.3MHz	4.0dB	2.0dB	17.8dB @ 242.5MHz	30.1dB	12.3dB



ACR-N ✔ Pass

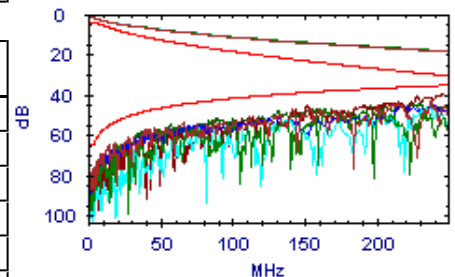
DH

Pair	Worst Case	Limit	Margin	Worst Overall Value	Limit	Margin
7,8-3,6	✔ 57.6dB @ 19.0MHz	45.7dB	11.9dB	26.7dB @ 241.0MHz	5.6dB	21.1dB
7,8-5,4	✔ 62.9dB @ 18.0MHz	46.3dB	16.6dB	30.6dB @ 242.0MHz	5.5dB	25.1dB
7,8-1,2	✔ 45.6dB @ 88.0MHz	25.4dB	20.2dB	28.8dB @ 250.0MHz	4.6dB	24.2dB
3,6-5,4	✔ 55.3dB @ 32.0MHz	39.7dB	15.6dB	28.0dB @ 242.0MHz	5.5dB	22.5dB
3,6-1,2	✔ 48.0dB @ 42.0MHz	36.2dB	11.8dB	26.4dB @ 248.0MHz	4.9dB	21.5dB
5,4-1,2	✔ 62.2dB @ 15.0MHz	48.2dB	14.0dB	25.2dB @ 241.0MHz	5.6dB	19.6dB



RH

Pair	Worst Case	Limit	Margin	Worst Overall Value	Limit	Margin
7,8-3,6	✔ 59.7dB @ 18.0MHz	46.3dB	13.4dB	25.6dB @ 238.0MHz	5.9dB	19.7dB
7,8-5,4	✔ 60.7dB @ 19.9MHz	45.2dB	15.5dB	31.0dB @ 202.0MHz	9.7dB	21.3dB
7,8-1,2	✔ 46.7dB @ 77.0MHz	27.6dB	19.1dB	26.9dB @ 238.0MHz	5.9dB	21.0dB
3,6-5,4	✔ 55.5dB @ 32.0MHz	39.7dB	15.8dB	27.0dB @ 240.0MHz	5.6dB	21.4dB
3,6-1,2	✔ 31.2dB @ 152.0MHz	15.6dB	15.6dB	21.5dB @ 246.0MHz	5.1dB	16.4dB
5,4-1,2	✔ 50.3dB @ 42.0MHz	36.2dB	14.1dB	26.7dB @ 248.0MHz	4.9dB	21.8dB



Job Name: JOB1.job

Test Standard: ISO/IEC 11801:2002

Test Summary: Pass

Date Tested: Października 10 2018

NVP:79 %



Time Tested: 12:44:18

Freq Range: 1 - 250MHz

Test Name: TC100-025

Operator: TOMASZ MOLIK

Firmware: 3.200

Contractor: 3M

Limit: ISO E STP Perm

Company: RATIO

MFGDB:

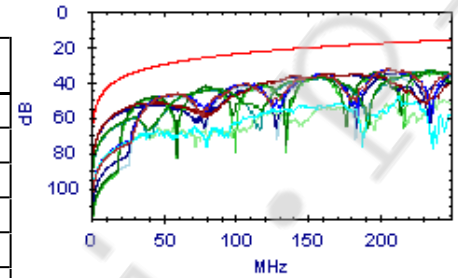
User Notes:

ACR-F

Pass

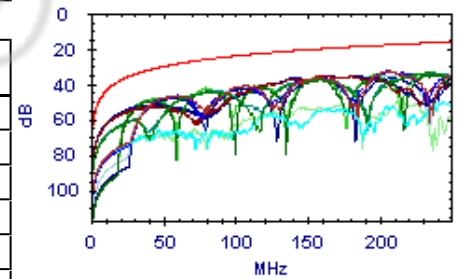
DH

Pair	Worst Case	Limit	Margin	Worst Overall Value	Limit	Margin
7,8-3,6	32.4dB @ 205.5MHz	17.9dB	14.5dB	32.4dB @ 206.0MHz	17.9dB	14.5dB
7,8-5,4	33.7dB @ 234.5MHz	16.8dB	16.9dB	33.7dB @ 234.5MHz	16.8dB	16.9dB
7,8-1,2	48.4dB @ 213.0MHz	17.6dB	30.8dB	48.4dB @ 213.5MHz	17.6dB	30.8dB
3,6-7,8	32.7dB @ 207.0MHz	17.9dB	14.8dB	32.7dB @ 207.5MHz	17.8dB	14.9dB
3,6-5,4	35.4dB @ 161.0MHz	20.1dB	15.3dB	35.2dB @ 164.5MHz	19.9dB	15.3dB
3,6-1,2	35.9dB @ 156.0MHz	20.3dB	15.6dB	33.2dB @ 235.5MHz	16.7dB	16.5dB
5,4-7,8	33.7dB @ 234.0MHz	16.8dB	16.9dB	33.7dB @ 234.0MHz	16.8dB	16.9dB
5,4-3,6	35.5dB @ 161.0MHz	20.1dB	15.4dB	35.5dB @ 162.0MHz	20.0dB	15.5dB
5,4-1,2	36.9dB @ 158.0MHz	20.2dB	16.7dB	34.5dB @ 213.0MHz	17.6dB	16.9dB
1,2-7,8	50.5dB @ 243.5MHz	16.5dB	34.0dB	50.4dB @ 244.0MHz	16.4dB	34.0dB
1,2-3,6	36.6dB @ 158.5MHz	20.2dB	16.4dB	34.7dB @ 236.5MHz	16.7dB	18.0dB
1,2-5,4	37.4dB @ 159.5MHz	20.1dB	17.3dB	36.4dB @ 209.0MHz	17.8dB	18.6dB



RH

Pair	Worst Case	Limit	Margin	Worst Overall Value	Limit	Margin
7,8-3,6	32.7dB @ 207.0MHz	17.9dB	14.8dB	32.7dB @ 207.5MHz	17.8dB	14.9dB
7,8-5,4	33.7dB @ 234.0MHz	16.8dB	16.9dB	33.7dB @ 234.0MHz	16.8dB	16.9dB
7,8-1,2	50.5dB @ 243.5MHz	16.5dB	34.0dB	50.4dB @ 244.0MHz	16.4dB	34.0dB
3,6-7,8	32.4dB @ 205.5MHz	17.9dB	14.5dB	32.4dB @ 206.0MHz	17.9dB	14.5dB
3,6-5,4	35.5dB @ 161.0MHz	20.1dB	15.4dB	35.5dB @ 162.0MHz	20.0dB	15.5dB
3,6-1,2	36.6dB @ 158.5MHz	20.2dB	16.4dB	34.7dB @ 236.5MHz	16.7dB	18.0dB
5,4-7,8	33.7dB @ 234.5MHz	16.8dB	16.9dB	33.7dB @ 234.5MHz	16.8dB	16.9dB
5,4-3,6	35.4dB @ 161.0MHz	20.1dB	15.3dB	35.2dB @ 164.5MHz	19.9dB	15.3dB
5,4-1,2	37.4dB @ 159.5MHz	20.1dB	17.3dB	36.4dB @ 209.0MHz	17.8dB	18.6dB
1,2-7,8	48.4dB @ 213.0MHz	17.6dB	30.8dB	48.4dB @ 213.5MHz	17.6dB	30.8dB
1,2-3,6	35.9dB @ 156.0MHz	20.3dB	15.6dB	33.2dB @ 235.5MHz	16.7dB	16.5dB
1,2-5,4	36.9dB @ 158.0MHz	20.2dB	16.7dB	34.5dB @ 213.0MHz	17.6dB	16.9dB

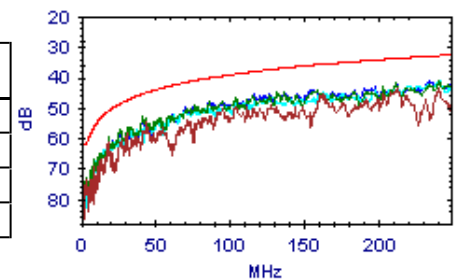


PS NEXT

Pass

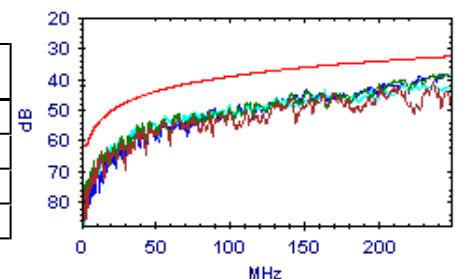
DH

Pair	Worst Case	Limit	Margin	Worst Overall Value	Limit	Margin
7,8	54.9dB @ 44.0MHz	45.1dB	9.8dB	43.5dB @ 241.0MHz	33.0dB	10.5dB
3,6	52.7dB @ 42.0MHz	45.5dB	7.2dB	41.5dB @ 241.0MHz	33.0dB	8.5dB
5,4	41.0dB @ 241.0MHz	33.0dB	8.0dB	41.0dB @ 242.0MHz	32.9dB	8.1dB
1,2	45.8dB @ 117.0MHz	38.2dB	7.6dB	41.5dB @ 235.0MHz	33.2dB	8.3dB



RH

Pair	Worst Case	Limit	Margin	Worst Overall Value	Limit	Margin
7,8	40.8dB @ 238.0MHz	33.1dB	7.7dB	40.8dB @ 238.0MHz	33.1dB	7.7dB
3,6	38.4dB @ 237.0MHz	33.1dB	5.3dB	38.4dB @ 237.0MHz	33.1dB	5.3dB
5,4	43.8dB @ 164.0MHz	35.8dB	8.0dB	41.6dB @ 231.0MHz	33.3dB	8.3dB
1,2	38.7dB @ 238.0MHz	33.1dB	5.6dB	38.7dB @ 246.0MHz	32.8dB	5.9dB



Job Name: JOB1.job

Test Standard: ISO/IEC 11801:2002

Test Summary: Pass

Date Tested: Października 10 2018

NVP:79 %



Time Tested: 12:44:18

Freq Range: 1 - 250MHz

Test Name: TC100-025

Operator: TOMASZ MOLIK

Firmware: 3.200

Contractor: 3M

Limit: ISO E STP Perm

Company: RATIO

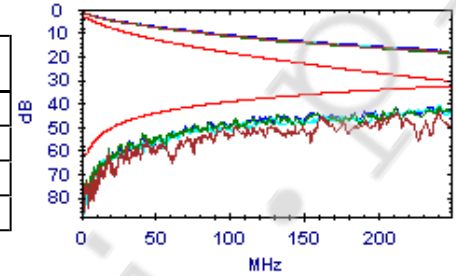
MFGDB:

User Notes:

PS ACR-N ✔ Pass

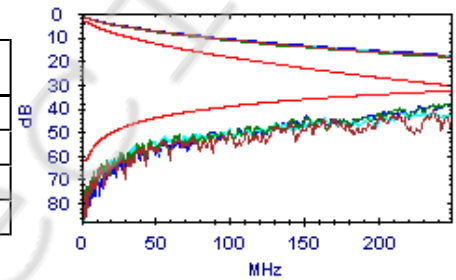
DH

Pair	Worst Case	Limit	Margin	Worst Overall Value	Limit	Margin
7,8	✔ 57.0dB @ 19.0MHz	43.3dB	13.7dB	25.3dB @ 241.0MHz	3.0dB	22.3dB
3,6	✔ 54.8dB @ 19.0MHz	43.3dB	11.5dB	23.1dB @ 241.0MHz	3.0dB	20.1dB
5,4	✔ 59.7dB @ 15.0MHz	45.8dB	13.9dB	22.9dB @ 241.0MHz	3.0dB	19.9dB
1,2	✔ 52.9dB @ 27.0MHz	39.3dB	13.6dB	24.0dB @ 250.0MHz	2.0dB	22.0dB



RH

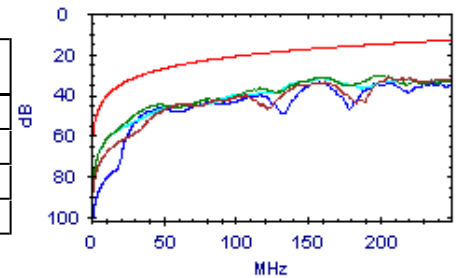
Pair	Worst Case	Limit	Margin	Worst Overall Value	Limit	Margin
7,8	✔ 59.4dB @ 18.0MHz	43.9dB	15.5dB	22.9dB @ 238.0MHz	3.3dB	19.6dB
3,6	✔ 48.7dB @ 38.0MHz	35.1dB	13.6dB	19.9dB @ 247.0MHz	2.3dB	17.6dB
5,4	✔ 49.9dB @ 36.0MHz	35.7dB	14.2dB	24.0dB @ 238.0MHz	3.3dB	20.7dB
1,2	✔ 51.1dB @ 36.0MHz	35.7dB	15.4dB	21.0dB @ 246.0MHz	2.4dB	18.6dB



PS ACR-F ✔ Pass

DH

Pair	Worst Case	Limit	Margin	Worst Overall Value	Limit	Margin
7,8	✔ 31.4dB @ 206.0MHz	14.9dB	16.5dB	31.4dB @ 206.0MHz	14.9dB	16.5dB
3,6	✔ 31.3dB @ 156.5MHz	17.3dB	14.0dB	30.5dB @ 202.0MHz	15.1dB	15.4dB
5,4	✔ 32.1dB @ 158.0MHz	17.2dB	14.9dB	32.0dB @ 161.0MHz	17.1dB	14.9dB
1,2	✔ 34.0dB @ 158.5MHz	17.2dB	16.8dB	34.0dB @ 158.5MHz	17.2dB	16.8dB



RH

Pair	Worst Case	Limit	Margin	Worst Overall Value	Limit	Margin
7,8	✔ 33.8dB @ 155.5MHz	17.4dB	16.4dB	31.8dB @ 207.5MHz	14.8dB	17.0dB
3,6	✔ 31.6dB @ 158.5MHz	17.2dB	14.4dB	30.9dB @ 206.0MHz	14.9dB	16.0dB
5,4	✔ 31.9dB @ 161.0MHz	17.1dB	14.8dB	31.9dB @ 161.5MHz	17.0dB	14.9dB
1,2	✔ 33.4dB @ 156.0MHz	17.3dB	16.1dB	32.9dB @ 197.5MHz	15.3dB	17.6dB

