

超六类多通道数字网络线缆

- 支持10BASE-T/100BASE-TX/1000BASE-T/1000BASE-TX/10GBASE-T。

A-NSGDT6-10G-SB CAT6A

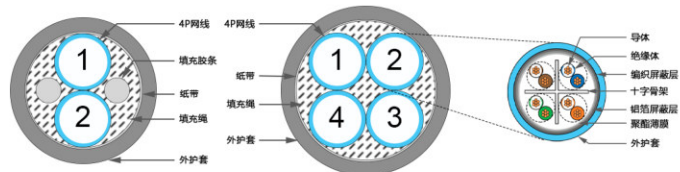
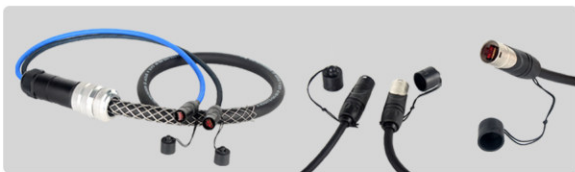
高带宽低延时

多通道数字传输

对应PoE/PoE+/4P PoE



- 针对流动场景多通道数字信号传输需求而研发，采用 CAT6A 双屏蔽网络线，传输速率：10Gbit/s，传输带宽：500MHz。
 - 屏蔽层采用优质铝箔+高密度镀锡铜丝编织网，编织密度达85%以上，能在1000V高压电环境下不受电磁干扰。
 - 外被采用雾面超耐磨软质PVC材料，适用于户外应用的苛刻条件。具有优异的耐用性，是重复铺设和拆卸的移动应用的理想选择。
 - 散尾使用铝合金锁头，具有IP68防水等级，带有不锈钢拉网，加强收放拉力，避免布线中损伤线缆，适合户外流动场景多次收放使用。
- * 可根据客户的需求指定，安装配套的金属外壳。



Dante

CobraNet

AVB

产品规格

导体材质：无氧铜(99.9%)
导体线径：Φ0.55mm(24AWG)
单芯网线线径：Φ7.8mm
通道数：2通道，4通道
2/4通道外径：Φ19/23mm
RJ45:日线水晶头(镀金50U)

物理特性

导体电阻：≤9.38Ω/100m
工作电容：≤5.6nF/100m
特性阻抗：100Ω±15
插拔次数：≥750，卡位弹片：≥1000
工作温度：-20℃~60℃
阻燃性符合GB/T18380.12，JIS C 3005标准。

生产标准及规范

国际ISO/IEC 11801：2002
欧洲EN50173：2002
美国ANSI/TIA-568.2-D
中国JB/T8593标准

传输性能

频率 MHz	近端串音衰减 NEXT[dB]	功率和近端串音 PS-NEXT[dB]	衰减远端串音比 ACRF [dB]	衰减远端串音比功率和 PS-ACRF [dB]	衰减 IL[dB/100m]	回波损耗 RL[dB]	相时延 [ns/100m]	时延差 [ns/100m]
MHz	Min	Min	Min	Min	Max	Min	Max	Max
1	74.3	72.3	67.8	64.8	2.5	20.0	570	45
10	59.3	57.3	47.8	44.8	7.1	25.0	545	45
20	54.8	52.8	41.8	38.8	10.0	25.0	542	45
31.25	51.9	49.9	37.9	34.9	12.6	23.3	540	45
62.5	47.4	45.4	31.9	28.9	18.0	20.7	540	45
100	44.3	42.3	27.8	24.8	22.9	19.0	538	45
250	38.3	36.3	19.8	16.8	37.3	15.6	536	45
300	37.1	35.1	18.3	15.3	41.2	14.9	536	45
400	35.3	33.3	15.8	12.8	48.1	13.8	536	45
500	33.8	31.8	13.8	10.8	54.4	13.0	536	45

订购信息

通道	产品型号	长度 (m)
	A-NSGDT6-10G-SB-2P-MP4D-T-□M	50
		75
		100
		100
	A-NSGDT6-10G-SB-4P-MP4D-T-□M	50
		75
		100
		100

Amphenol RJX8M



Amphenol RJX8MB





电缆识别名: 2022526-10[A-NSGDT6-10G-SB-2P]

测试总结果: 通过

测试限: TIA Cat 6A Channel

主测试仪: Versiv

远端测试仪: Versiv

测试限版本: V7.6

序列号: 1806196

序列号: 1807098

日期 / 时间: 05/26/2022 04:11:56 PM

软件版本: V6.7 Build 1

软件版本: V6.7 Build 1

操作人员: 17049

校准日期: 06/22/2021

校准日期: 06/22/2021

余量 7.6 dB (RL 1,2)

适配器: DSX-8000 (DSX-CHA804)

适配器: DSX-8000R (DSX-CHA804)

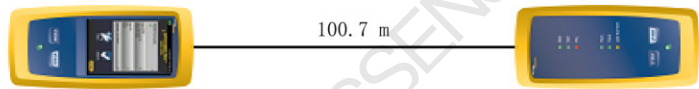
电缆类型: Cat 6A F/UTP

序列号: 1805818

序列号: 1804901

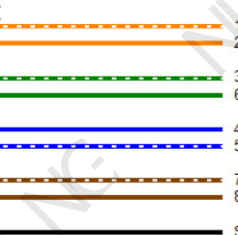
NVP: 74.0%

长度 (m), 极限值 100.0	[线对 7,8]	100.7
传输时延 (ns), 极限值 555	[线对 4,5]	491
时延偏离 (ns), 极限值 50	[线对 4,5]	37
电阻值 (欧姆)	[线对 4,5]	15.29
插入损耗 余量 (dB)	[线对 4,5]	10.9
频率 (MHz)	[线对 4,5]	500.0
极限值 (dB)	[线对 4,5]	49.3

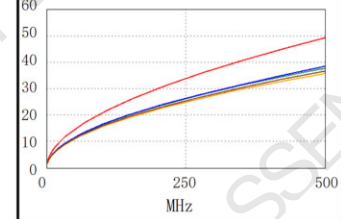


接线图 (T568B)

通过



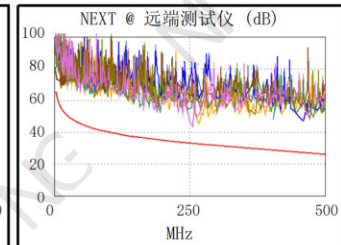
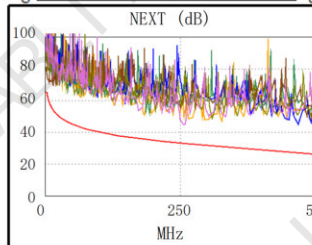
插入损耗 (dB)



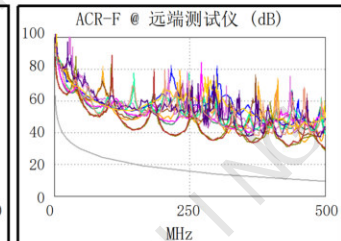
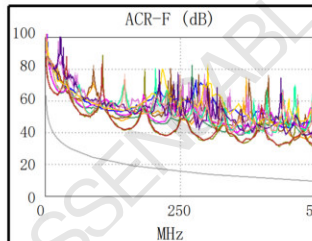
最差余量

最差值

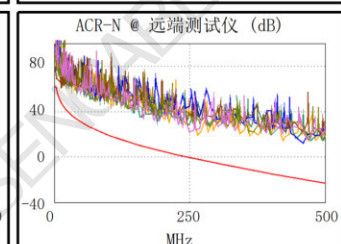
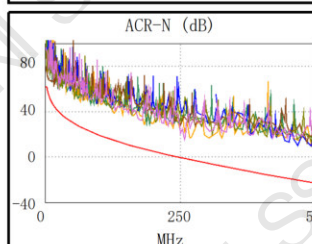
通过	主机	SR	主机	SR
最差线对	4,5-7,8	3,6-4,5	4,5-7,8	4,5-7,8
NEXT (dB)	8.4	9.1	8.4	10.4
频率 (MHz)	257.0	3.8	257.0	256.0
极限值 (dB)	32.9	63.5	32.9	32.9
最差线对	4,5	4,5	4,5	4,5
PS NEXT (dB)	11.4	11.4	11.4	13.1
频率 (MHz)	257.0	3.8	257.0	256.0
极限值 (dB)	29.9	61.0	29.9	30.0



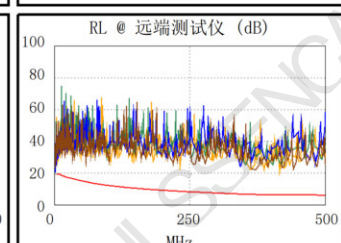
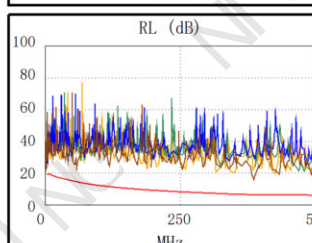
通过	主机	SR	主机	SR
最差线对	3,6-4,5	3,6-4,5	3,6-4,5	3,6-4,5
ACR-F (dB)	19.9	19.2	19.9	19.2
频率 (MHz)	500.0	500.0	500.0	500.0
极限值 (dB)	9.3	9.3	9.3	9.3
最差线对	3,6	4,5	3,6	4,5
PS ACR-F (dB)	22.1	21.8	22.1	21.8
频率 (MHz)	500.0	500.0	500.0	500.0
极限值 (dB)	6.3	6.3	6.3	6.3



不适用	主机	SR	主机	SR
最差线对	3,6-4,5	3,6-4,5	1,2-3,6	1,2-4,5
ACR-N (dB)	11.7	9.9	32.0	33.7
频率 (MHz)	3.9	3.8	492.0	478.0
极限值 (dB)	59.2	59.5	-22.6	-21.5
最差线对	3,6	4,5	3,6	7,8
PS ACR-N (dB)	13.8	12.2	33.4	32.7
频率 (MHz)	4.0	3.8	491.0	471.0
极限值 (dB)	56.4	57.0	-25.4	-23.8



通过	主机	SR	主机	SR
最差线对	1,2	1,2	7,8	1,2
RL (dB)	7.6	8.9	9.7	14.2
频率 (MHz)	3.6	4.9	385.0	364.0
极限值 (dB)	19.0	19.0	6.1	6.4



满足的标准:

100BASE-T	100BASE-TX	100BASE-T4
1000BASE-T	2.5GBASE-T	5GBASE-T
10GBASE-T	ATM-25	ATM-51
ATM-155	100VG-AnyLan	TR-4
TR-16 Active	TR-16 Passive	

LinkWare™ PC 版本 11.0

项目: 新项目
地点: 未设置
楼层: 未设置
机架: 未设置
220526国内.flw

建筑物: 未设置
房间: 未设置
跳线: 未设置

FLUKE
networks



电缆识别名: 2022526-10[A-NSGDT6-10G-SB-4P]

测试总结果: 通过

测试限: TIA Cat 6A Channel

主测试仪: Versiv

远端测试仪: Versiv

测试限版本: V7.6

序列号: 1806196

序列号: 1807098

日期 / 时间: 05/26/2022 04:14:24 PM

软件版本: V6.7 Build 1

软件版本: V6.7 Build 1

操作人员: 17049

校准日期: 06/22/2021

校准日期: 06/22/2021

余量 7.6 dB (RL 1,2)

适配器: DSX-8000 (DSX-CHA804)

适配器: DSX-8000R (DSX-CHA804)

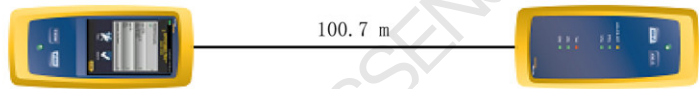
电缆类型: Cat 6A F/UTP

序列号: 1805818

序列号: 1804901

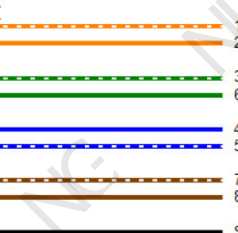
NVP: 74.0%

长度 (m), 极限值 100.0	[线对 7,8]	100.7
传输时延 (ns), 极限值 555	[线对 4,5]	491
时延偏离 (ns), 极限值 50	[线对 4,5]	37
电阻值 (欧姆)	[线对 4,5]	15.29
插入损耗 余量 (dB)	[线对 4,5]	10.9
频率 (MHz)	[线对 4,5]	500.0
极限值 (dB)	[线对 4,5]	49.3

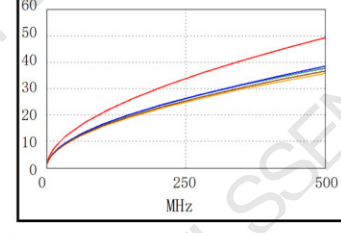


接线图 (T568B)

通过



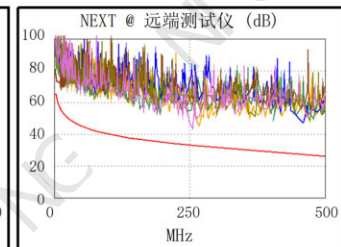
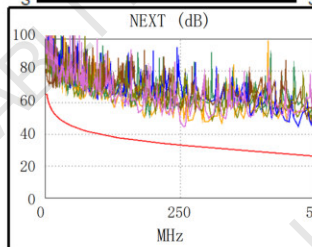
插入损耗 (dB)



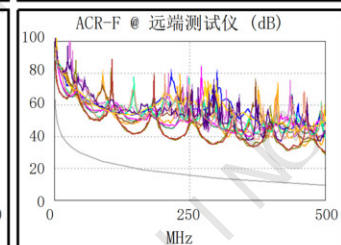
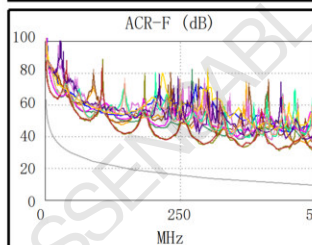
最差余量

最差值

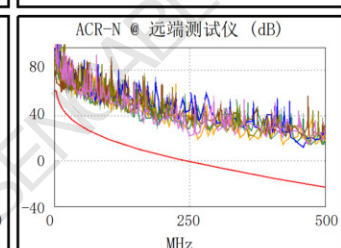
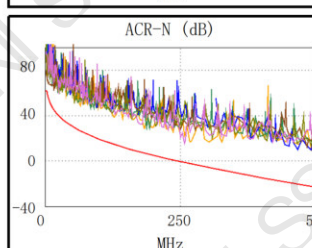
通过	主机	SR	主机	SR
最差线对	4,5-7,8	3,6-4,5	4,5-7,8	4,5-7,8
NEXT (dB)	8.4	9.1	8.4	10.4
频率 (MHz)	257.0	3.8	257.0	256.0
极限值 (dB)	32.9	63.5	32.9	32.9
最差线对	4,5	4,5	4,5	4,5
PS NEXT (dB)	11.4	11.4	11.4	13.1
频率 (MHz)	257.0	3.8	257.0	256.0
极限值 (dB)	29.9	61.0	29.9	30.0



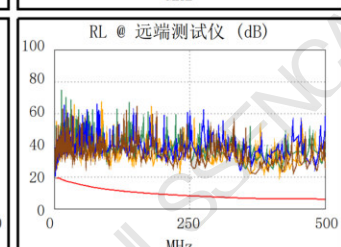
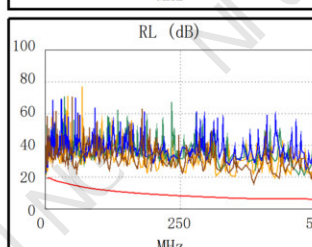
通过	主机	SR	主机	SR
最差线对	3,6-4,5	3,6-4,5	3,6-4,5	3,6-4,5
ACR-F (dB)	19.9	19.2	19.9	19.2
频率 (MHz)	500.0	500.0	500.0	500.0
极限值 (dB)	9.3	9.3	9.3	9.3
最差线对	3,6	4,5	3,6	4,5
PS ACR-F (dB)	22.1	21.8	22.1	21.8
频率 (MHz)	500.0	500.0	500.0	500.0
极限值 (dB)	6.3	6.3	6.3	6.3



不适用	主机	SR	主机	SR
最差线对	3,6-4,5	3,6-4,5	1,2-3,6	1,2-4,5
ACR-N (dB)	11.7	9.9	32.0	33.7
频率 (MHz)	3.9	3.8	492.0	478.0
极限值 (dB)	59.2	59.5	-22.6	-21.5
最差线对	3,6	4,5	3,6	7,8
PS ACR-N (dB)	13.8	12.2	33.4	32.7
频率 (MHz)	4.0	3.8	491.0	471.0
极限值 (dB)	56.4	57.0	-25.4	-23.8



通过	主机	SR	主机	SR
最差线对	1,2	1,2	7,8	1,2
RL (dB)	7.6	8.9	9.7	14.2
频率 (MHz)	3.6	4.9	385.0	364.0
极限值 (dB)	19.0	19.0	6.1	6.4



满足的标准:

100BASE-T	100BASE-TX	100BASE-T4
1000BASE-T	2.5GBASE-T	5GBASE-T
10GBASE-T	ATM-25	ATM-51
ATM-155	100VG-AnyLan	TR-4
TR-16 Active	TR-16 Passive	

LinkWare™ PC 版本 11.0

项目: 新项目
地点: 未设置
楼层: 未设置
机架: 未设置
220526国内.flw

建筑物: 未设置
房间: 未设置
跳线: 未设置

FLUKE
networks

DCM Test Report

Cable Type : 4x2x24 x PVC	Factory Number : D.N.C	Data File Name : DA070768.D3S
Cable I.D. : A-NSGDT6-10G-SB-2P(SB)	Order Number : K.Z.27.G.A# FE	Specification File : Cat6a-4th.S3S
Temperature : 22.00 °C	Relative Humidity : 50 %	Test Date/Time : 12/27/2021 05:29:41 PM
Length : 104.00 m	Number of Pairs to Test : 4	Operator : D.W.B
Starting Position : 17		Analyzer Type : ENA

Pass - Fail Test Certificate - 4 Pairs

High Frequency

Test Type	Test Result
Input Impedance (Zin)(Ohms)(Open/Short)	OK
Characteristic Impedance (Z0)(3rd Order)(Ohms)(Open/Short)	OK
Return Loss (RL)(dB)	OK
Structural Return Loss (SRL)(3rd Order)(dB)(Open/Short)	OK
Insertion Loss (IL)(Curve Fit)(dB/100.0 m)@20C	OK
Near End Crosstalk Loss (NEXT)(dB)	OK
ACR to FEXT Ratio (ACRF)(dB)	OK
Power Sum NEXT(PSNEXT)(dB)	OK
Power Sum ACRF (PSACRF)(dB)	OK
ATT to NEXT Ratio (ACR)(dB/100.0 m)	OK
Power Sum ACR (PS ACR)(dB/100.0 m)	OK
Propagation Delay (DELAY)(ns/100m)	OK
Propagation Delay Skew (SKEW)(ns/100m)	OK

Low Frequency

Test Type	Test Result
Conductor Resistance(Ohms/100.0 m)@20C	OK
Loop Resistance(Ohms/100.0 m)@20C	OK
Resistance Unbalance(%)	OK
Mutual Capacitance(nF/100.0 m)@1000Hz	OK
Cap. Unbalance to Ground(pF/100.0 m)@1000Hz	OK

Signature:	Approved:	Date:
------------	-----------	-------

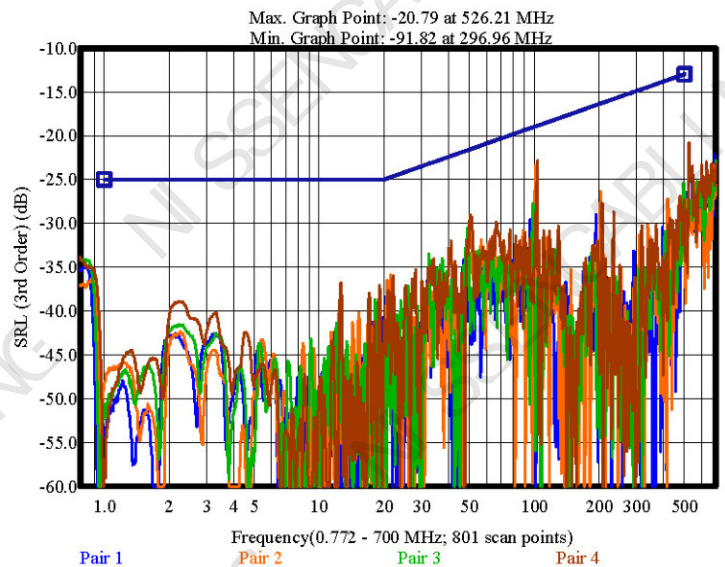
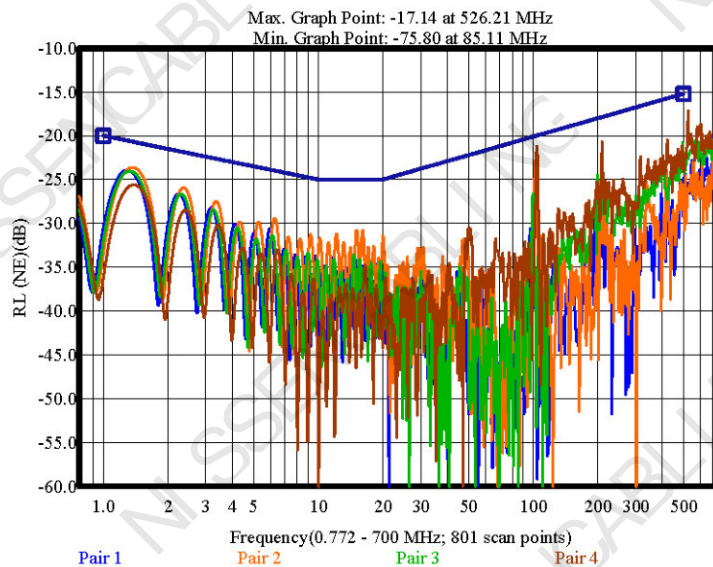
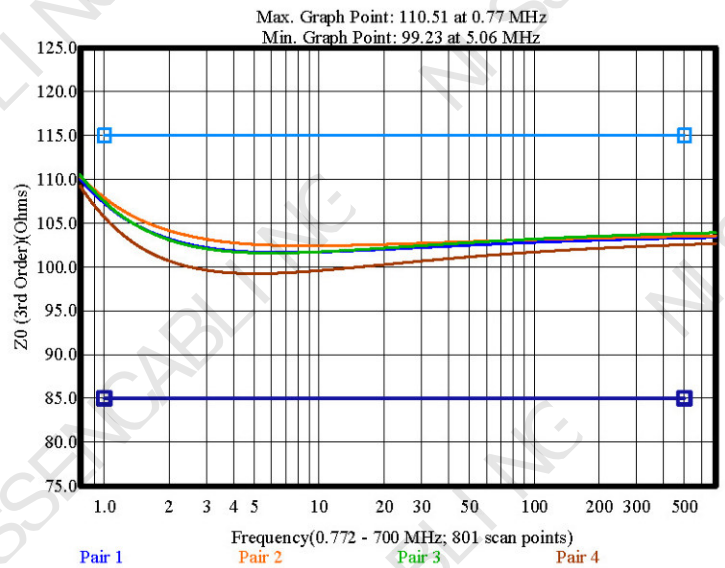
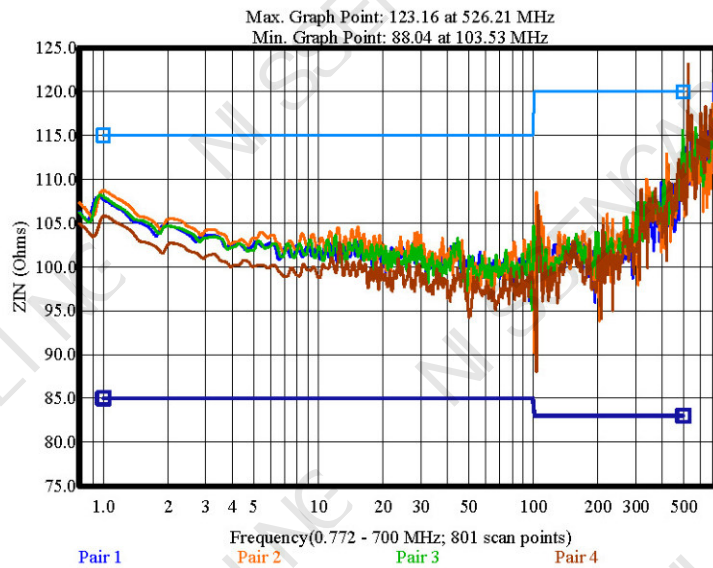
DCM Test Report

Cable Type	: 4x2x24 x PVC	Factory Number	: D.N.C	Data File Name	: DA070768.D3S
Cable I.D.	: A-NSGDT6-10G-SB-2P(SB)	Order Number	: K.Z.27.G.A# FE	Specification File	: Cat6a-4th.S3S
Temperature	: 22.00 °C	Relative Humidity	: 50 %	Test Date/Time	: 12/27/2021 05:29:41 PM
Length	: 104.00 m	Number of Pairs to Test	: 4	Operator	: D.W.B
Starting Position	: 17			Analyzer Type	: ENA

Worst Case Summary

High Frequency

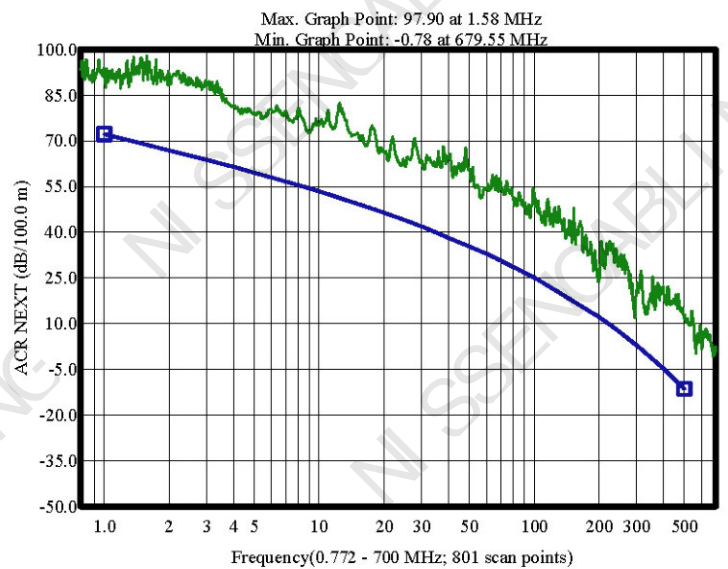
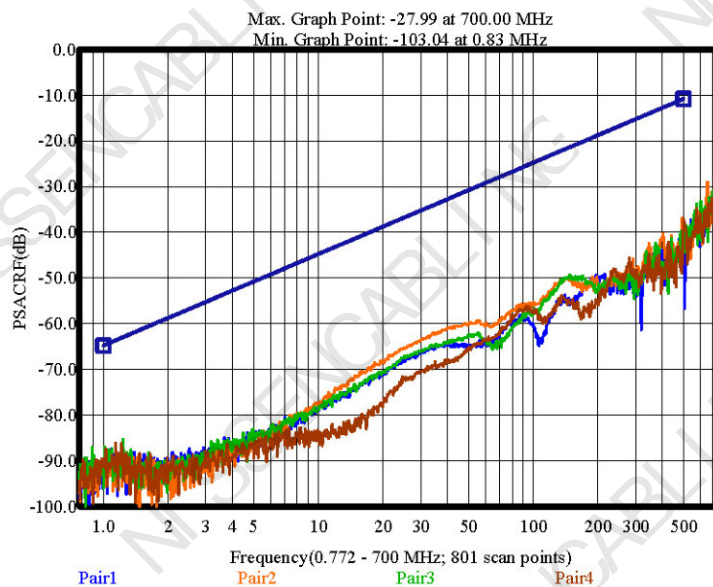
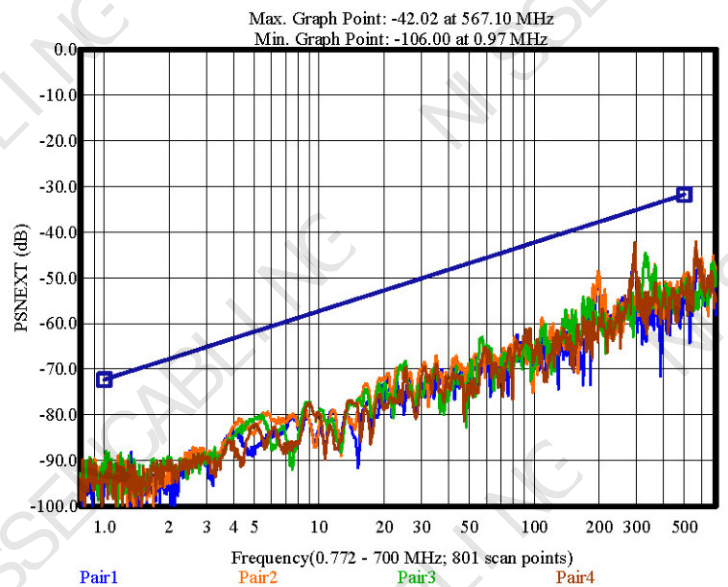
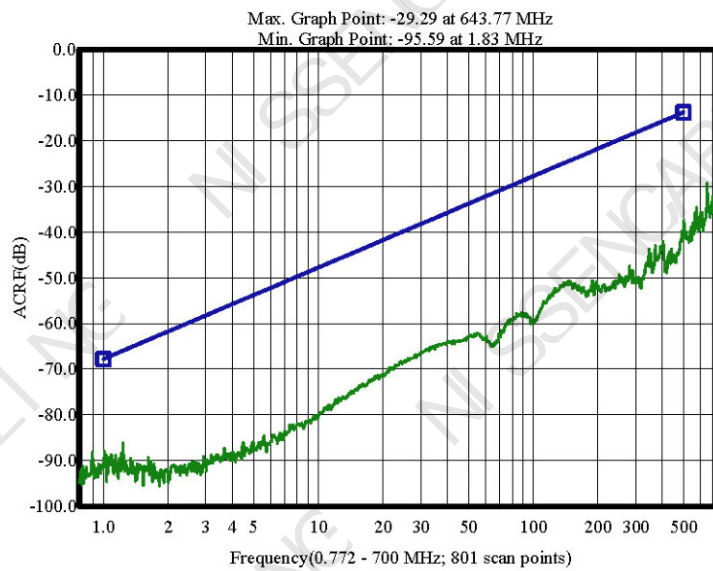
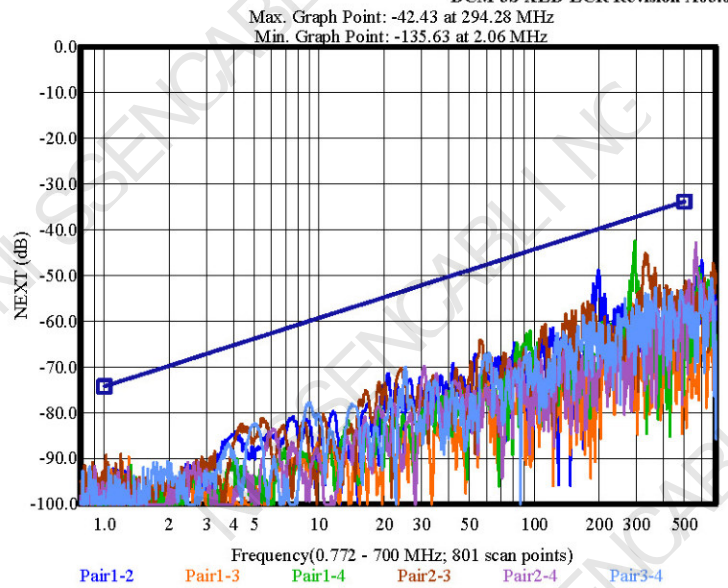
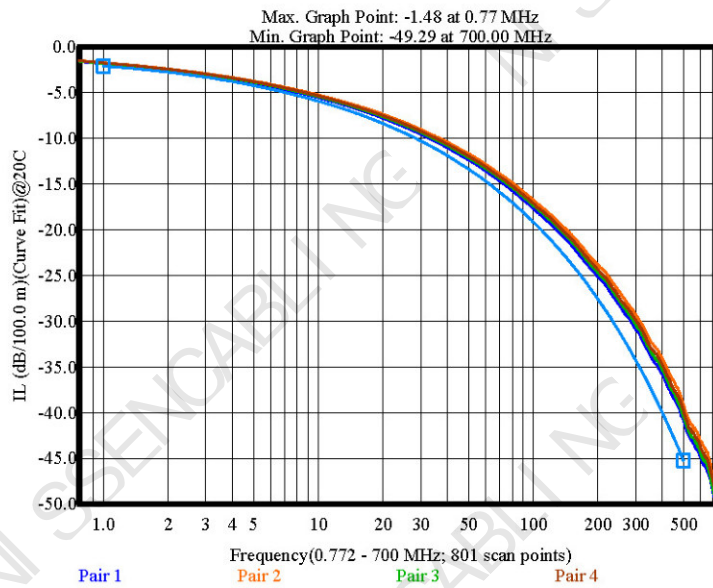
Test Type	Specification	Measured (Pair)	Margin	@ Frequency (MHz)	Test Result
Input Impedance (Zin)(Open/Short)	83.00 (Min)	88.04 (Pair 4)	5.04	103.53	Passed
Input Impedance (Zin)(Open/Short)	120.00 (Max)	115.58 (Pair 3)	4.42	495.45	Passed
Characteristic Impedance (Z0)(3)(O/S)	85.00 (Min)	99.23 (Pair 4)	14.23	4.71	Passed
Characteristic Impedance (Z0)(3)(O/S)	115.00 (Max)	107.84 (Pair 2)	7.16	1.00	Passed
Return Loss (RL)	19.97 (Min)	21.18 (Pair 4)	1.21	104.53	Passed
Structural Return Loss (SRL)(3)(O/S)	18.86 (Min)	22.85 (Pair 4)	3.99	103.53	Passed
Insertion Loss (IL)(Curve Fit)@20C	2.86 (Max)	2.64 (Pair 1)	0.22	2.16	Passed
Near End Crosstalk Loss (NEXT)	37.27 (Min)	42.43 (Pairs 1-4)	5.16	294.28	Passed
ACR to FEXT Ratio (ACRF)	65.95 (Min)	86.16 (Pairs 3-4)	20.21	1.24	Passed
Power Sum NEXT(PSNEXT)	35.27 (Min)	42.35 (Pair 1)	7.08	294.28	Passed
Power Sum ACRF (PSACRF)	64.70 (Min)	86.92 (Pair 3)	22.22	1.01	Passed
ATT to NEXT Ratio (ACR)	3.34 (Min)	11.88 (Pairs 1-4)	8.54	294.28	Passed
Power Sum ACR (PS ACR)	-30.35 (Min)	11.80 (Pair 1)	42.15	294.28	Passed
Propagation Delay (DELAY)	535.61 (Max)	513.53 (Pair 1)	22.08	497.09	Passed
Propagation Delay Skew (SKEW)	45.00 (Max)	35.47 (Pairs 1-4)	9.53	1.17	Passed



N/A = Not Applicable.
--- = Disable/Bypassed Pair.

* = Measured value out of spec.
xxx = No entry.

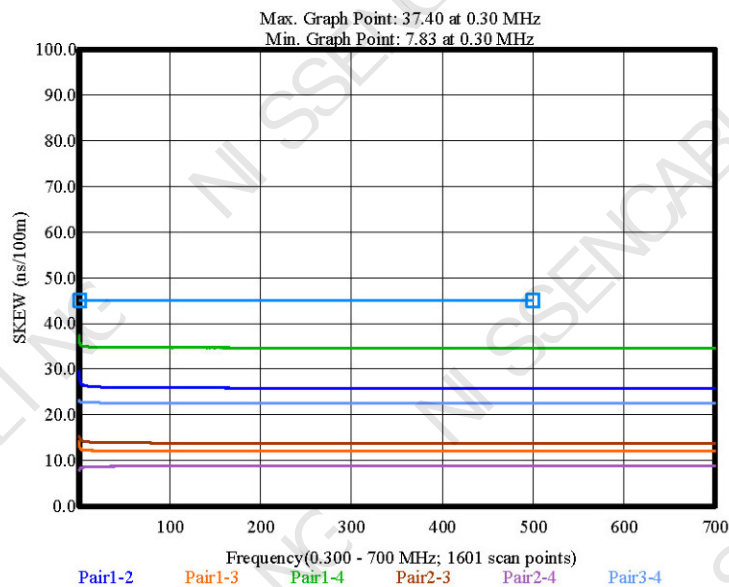
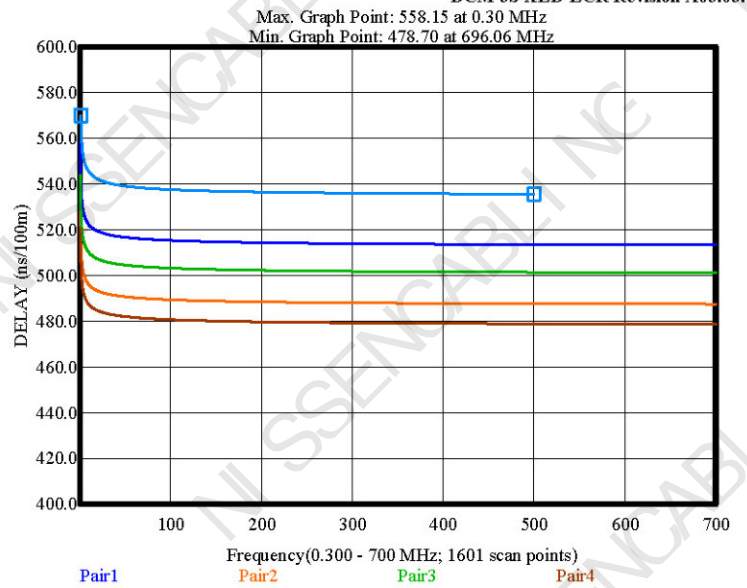
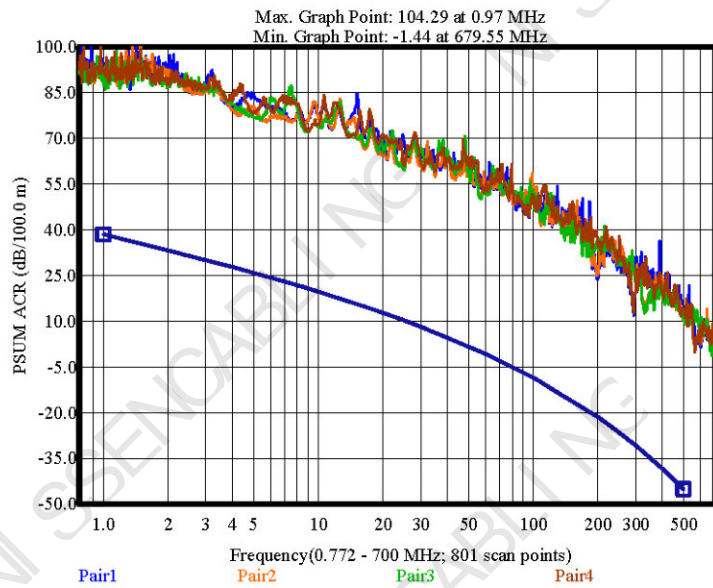
*** = Measured value is invalid.



N/A = Not Applicable.
--- = Disable/Bypassed Pair.

* = Measured value out of spec.
xxx = No entry.

*** = Measured value is invalid.



N/A = Not Applicable.
--- = Disable/Bypassed Pair.

* = Measured value out of spec.
xxx = No entry.

*** = Measured value is invalid.

Worst Case Summary

Low Frequency

Statistical Parameter	Maximum		Minimum		Average Maximum		Standard Deviation		
Test Type	Spec Limit	Measured	Spec Limit	Measured	Spec Limit	Measured	Spec Limit	Measured	Result
Conductor Resistance(Ohms/100.0 m)@20C	9.38	7.91	xxx	7.41	xxx	7.63	xxx	0.186	Passed
Loop Resistance(Ohms/100.0 m)@20C	18.76	15.78	xxx	14.84	xxx	15.26	xxx	0.371	Passed
Resistance Unbalance(%)	4.00	0.51	xxx	0.04	xxx	0.21	xxx	0.190	Passed
Mutual Capacitance(nF/100.0 m)@1000Hz	5.50	5.17	xxx	4.89	xxx	5.01	xxx	0.111	Passed
Cap. Unbalance to Ground(pF/100.0 m)@1000Hz	330.00	24.60	xxx	9.83	xxx	17.92	xxx	5.379	Passed

Summary: Conductor Resistance@20C

	Spec Limit	Measured Values		Result
Unit	Ohms/100.0 m	ohms/L	Ohms/100.0 m	
Maximum	9.38	8.29	7.91	Passed
Minimum	xxx	7.77	7.41	N/A
Avg. Max.	xxx	8.00	7.63	N/A
Std. Deviation	xxx	0.195	0.186	N/A

Summary: Loop Resistance@20C

	Spec Limit	Measured Values		Result
Unit	Ohms/100.0 m	ohms/L	Ohms/100.0 m	
Maximum	18.76	16.54	15.78	Passed
Minimum	xxx	15.55	14.84	N/A
Avg. Max.	xxx	16.00	15.26	N/A
Std. Deviation	xxx	0.389	0.371	N/A

Summary: Resistance Unbalance

	Spec Limit	Measured Values		Result
Unit	%	%	%	
Maximum	4.00	0.51	0.51	Passed
Minimum	xxx	0.04	0.04	N/A
Avg. Max.	xxx	xxx	0.21	N/A
Std. Deviation	xxx	xxx	0.190	N/A

Summary: Mutual Capacitance@1000 Hz

	Spec Limit	Measured Values		Result
Unit	nF/100.0 m	nF/L	nF/100.0 m	
Maximum	5.50	5.38	5.17	Passed
Minimum	xxx	5.08	4.89	N/A
Avg. Max.	xxx	5.21	5.01	N/A
Std. Deviation	xxx	0.116	0.111	N/A

Summary: Cap. Unbalance to Ground@1000 Hz

	Spec Limit	Measured Values		Result
Unit	pF/100.0 m	pF/L	pF/100.0 m	
Maximum	330.00	25.58	24.60	Passed
Minimum	xxx	10.22	9.83	N/A
Avg. Max.	xxx	18.64	17.92	N/A
Std. Deviation	xxx	5.594	5.379	N/A

Detail: Resistance/Capacitance Measurement -Normalized

Test Types	Conductor Resistance Ra @20C	Conductor Resistance Rb @20C	Loop Resistance @20C	Resistance Unbalance	Mutual Capacitance @1000 Hz	Capacitance Unbalance to Ground @1000 Hz	Test Result
Unit	Ohms/100.0 m	Ohms/100.0 m	Ohms/100.0 m	%	nF/100.0 m	pF/100.0 m	
Max Spec	9.38	9.38	18.76	4.00	5.50	330.00	
Min Spec	xxx	xxx	xxx	xxx	xxx	xxx	
Pair 1 [17]	7.91	7.87	15.78	0.51	5.17	9.83	Passed
Pair 2 [18]	7.50	7.50	15.00	0.04	4.89	-17.10	Passed
Pair 3 [19]	7.71	7.72	15.43	0.05	5.05	24.60	Passed
Pair 4 [20]	7.41	7.43	14.84	0.24	4.93	20.14	Passed

N/A = Not Applicable.
 --- = Disable/Bypassed Pair.

* = Measured value out of spec.
 xxx = No entry.

*** = Measured value is invalid.

DCM Test Report

Cable Type : 4x2x24 x PVC	Factory Number : D.N.C	Data File Name : DA067239.D3S
Cable I.D. : A-NSGDT6-10G-SB-4P(SB)	Order Number : K.6.25.G.H#-2 FE	Specification File : Cat6a-4th.S3S
Temperature : 22.00 °C	Relative Humidity : 50 %	Test Date/Time : 06/29/2021 03:25:10 PM
Length : 101.00 m	Number of Pairs to Test : 4	Operator : D.W.B
Starting Position : 17		Analyzer Type : ENA

Pass - Fail Test Certificate - 4 Pairs

High Frequency

Test Type	Test Result
Input Impedance (Zin)(Ohms)(Open/Short)	OK
Characteristic Impedance (Z0)(3rd Order)(Ohms)(Open/Short)	OK
Return Loss (RL)(dB)	OK
Structural Return Loss (SRL)(3rd Order)(dB)(Open/Short)	OK
Insertion Loss (IL)(Curve Fit)(dB/100.0 m)@20C	OK
Near End Crosstalk Loss (NEXT)(dB)	OK
ACR to FEXT Ratio (ACRF)(dB)	OK
Power Sum NEXT(PSNEXT)(dB)	OK
Power Sum ACRF (PSACRF)(dB)	OK
ATT to NEXT Ratio (ACR)(dB/100.0 m)	OK
Power Sum ACR (PS ACR)(dB/100.0 m)	OK
Propagation Delay (DELAY)(ns/100m)	OK
Propagation Delay Skew (SKEW)(ns/100m)	OK

Low Frequency

Test Type	Test Result
Conductor Resistance(Ohms/100.0 m)@20C	OK
Loop Resistance(Ohms/100.0 m)@20C	OK
Resistance Unbalance(%)	OK
Mutual Capacitance(nF/100.0 m)@1000Hz	OK
Cap. Unbalance to Ground(pF/100.0 m)@1000Hz	OK

Signature:	Approved:	Date:
------------	-----------	-------

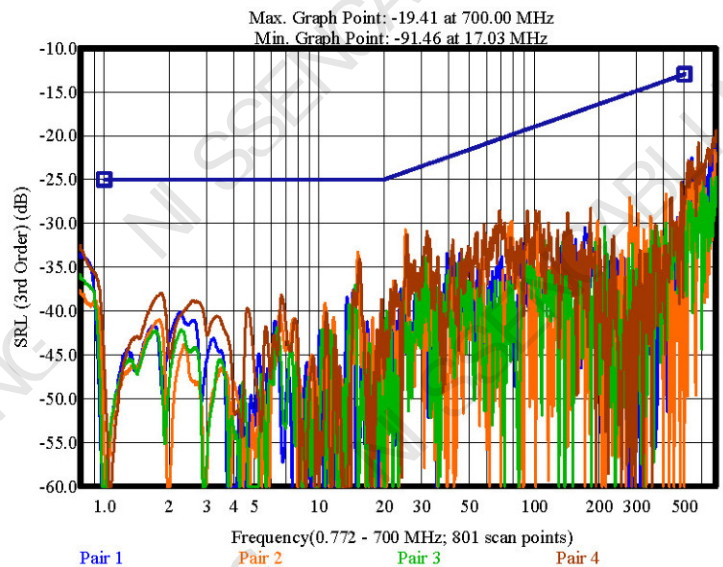
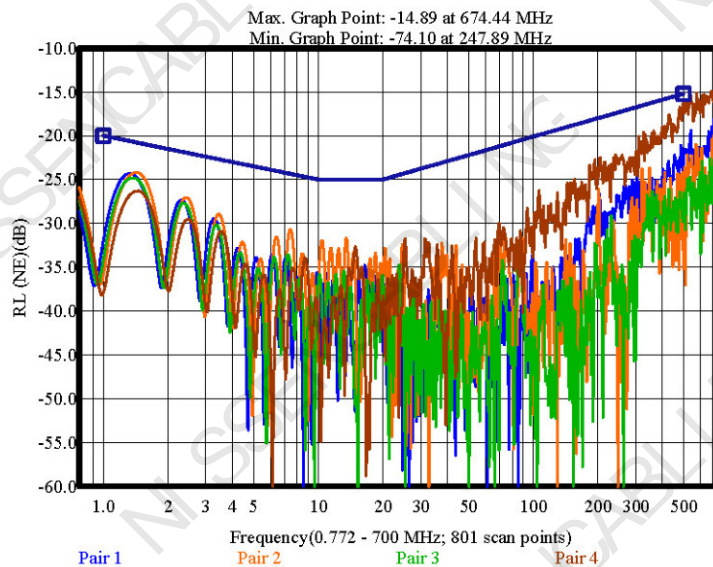
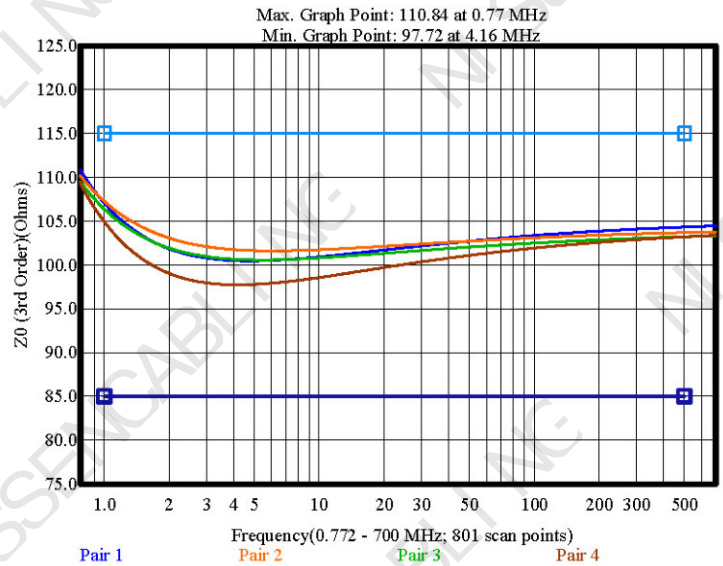
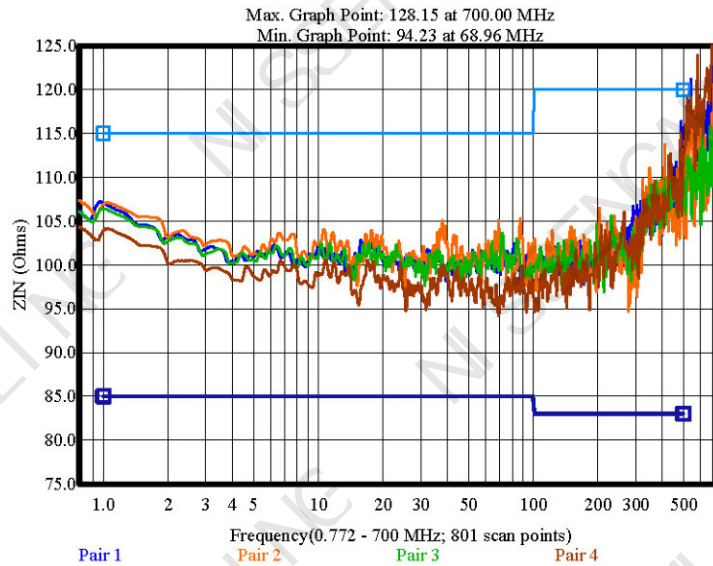
DCM Test Report

Cable Type	: 4x2x24 x PVC	Factory Number	: D.N.C	Data File Name	: DA067239.D3S
Cable I.D.	: A-NSGDT6-10G-SB-4P(SB)	Order Number	: K.6.25.G.H#-2 FE	Specification File	: Cat6a-4th.S3S
Temperature	: 22.00 °C	Relative Humidity	: 50 %	Test Date/Time	: 06/29/2021 03:25:10 PM
Length	: 101.00 m	Number of Pairs to Test	: 4	Operator	: D.W.B
Starting Position	: 17			Analyzer Type	: ENA

Worst Case Summary

High Frequency

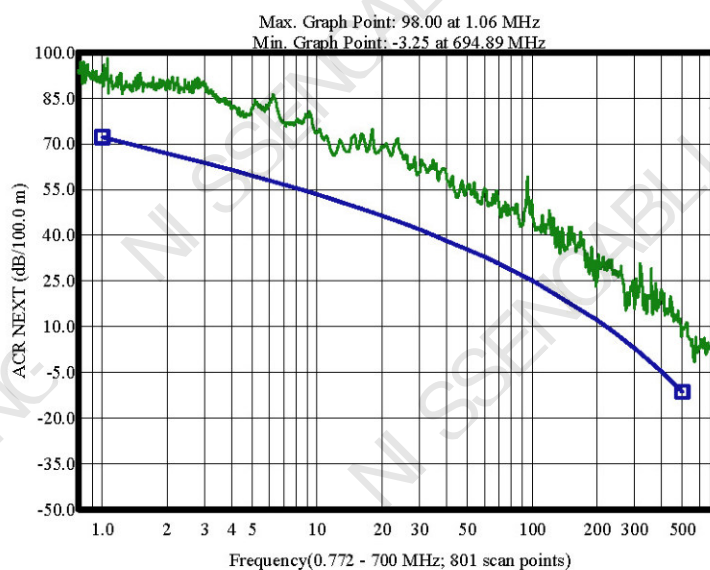
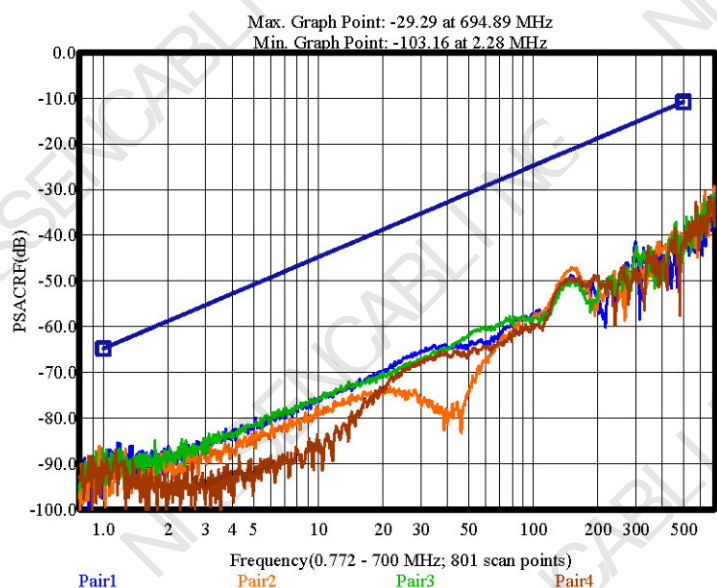
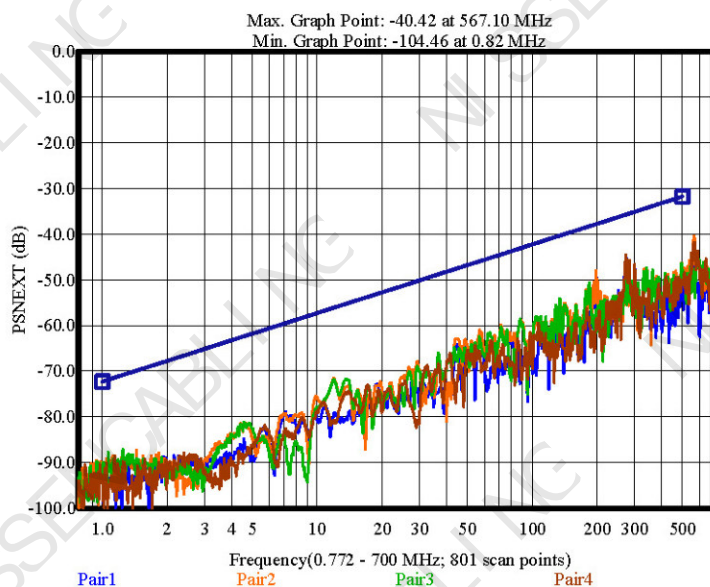
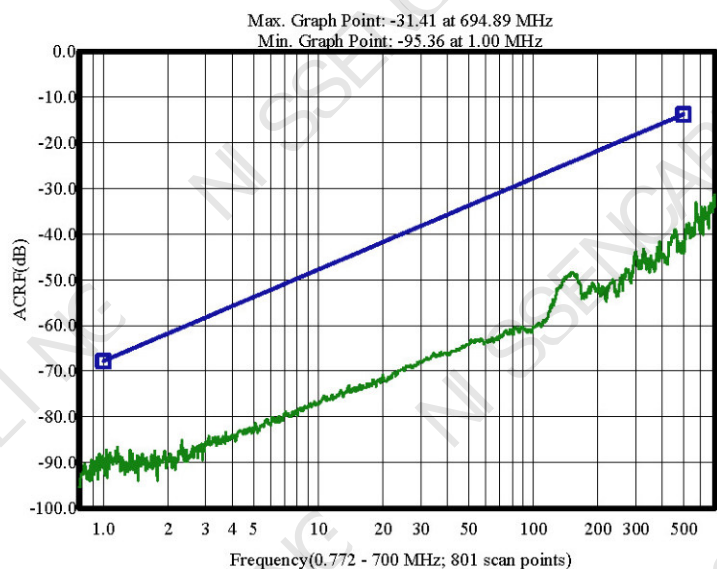
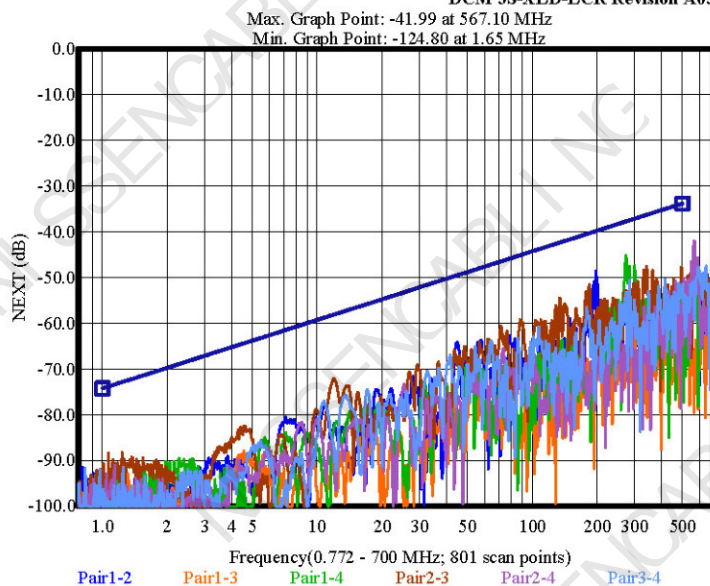
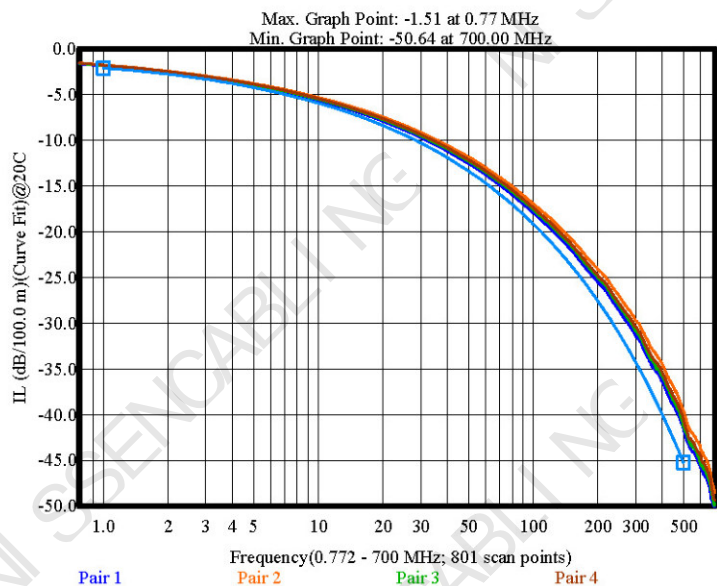
Test Type	Specification	Measured (Pair)	Margin	@ Frequency (MHz)	Test Result
Input Impedance (Zin)(Open/Short)	85.00 (Min)	94.23 (Pair 4)	9.23	68.96	Passed
Input Impedance (Zin)(Open/Short)	120.00 (Max)	116.39 (Pair 1)	3.61	488.05	Passed
Characteristic Impedance (Z0)(3)(O/S)	85.00 (Min)	97.72 (Pair 4)	12.72	4.12	Passed
Characteristic Impedance (Z0)(3)(O/S)	115.00 (Max)	107.22 (Pair 2)	7.78	1.00	Passed
Return Loss (RL)	15.24 (Min)	16.40 (Pair 4)	1.16	495.45	Passed
Structural Return Loss (SRL)(3)(O/S)	24.15 (Min)	30.69 (Pair 2)	6.54	25.14	Passed
Insertion Loss (IL)(Curve Fit)@20C	2.83 (Max)	2.65 (Pair 1)	0.18	2.10	Passed
Near End Crosstalk Loss (NEXT)	37.76 (Min)	45.19 (Pairs 1-4)	7.43	272.87	Passed
ACR to FEXT Ratio (ACRF)	67.50 (Min)	87.24 (Pairs 3-1)	19.74	1.03	Passed
Power Sum NEXT(PSNEXT)	35.76 (Min)	44.54 (Pair 4)	8.78	272.87	Passed
Power Sum ACRF (PSACRF)	63.49 (Min)	85.40 (Pair 1)	21.91	1.16	Passed
ATT to NEXT Ratio (ACR)	5.16 (Min)	15.31 (Pairs 1-4)	10.15	272.87	Passed
Power Sum ACR (PS ACR)	-28.53 (Min)	14.76 (Pair 1)	43.29	272.87	Passed
Propagation Delay (DELAY)	535.63 (Max)	516.64 (Pair 1)	18.99	484.84	Passed
Propagation Delay Skew (SKEW)	45.00 (Max)	35.68 (Pairs 1-4)	9.32	1.17	Passed



N/A = Not Applicable.
--- = Disable/Bypassed Pair.

* = Measured value out of spec.
xxx = No entry.

*** = Measured value is invalid.

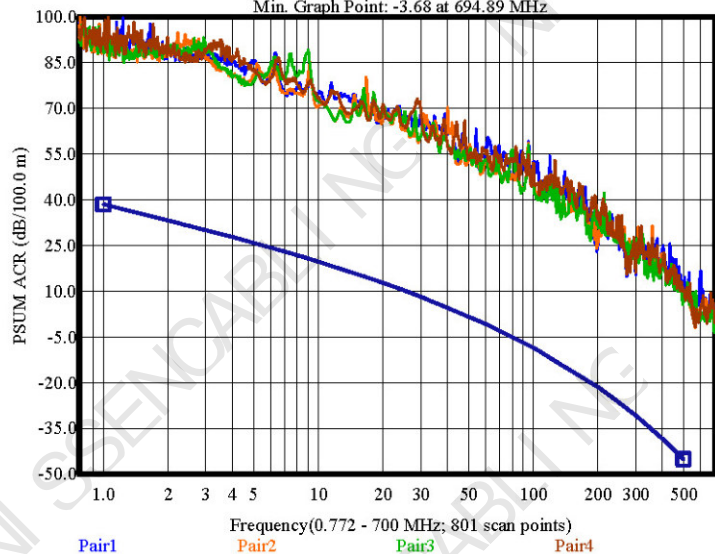


N/A = Not Applicable.
--- = Disable/Bypassed Pair.

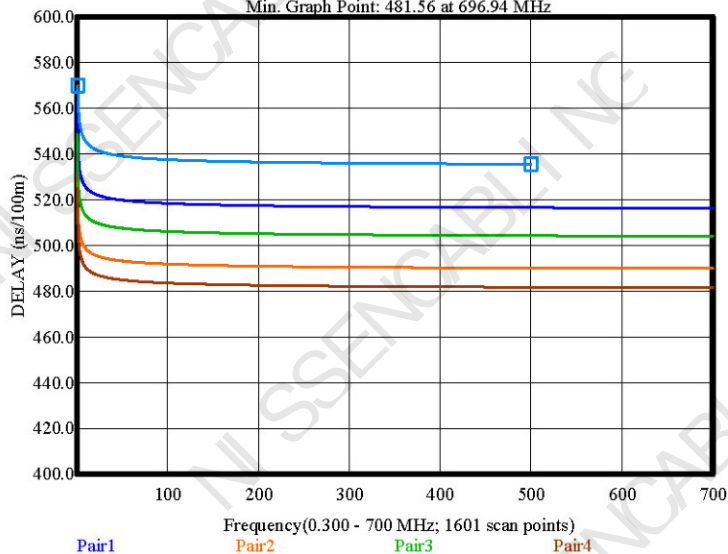
* = Measured value out of spec.
xxx = No entry.

*** = Measured value is invalid.

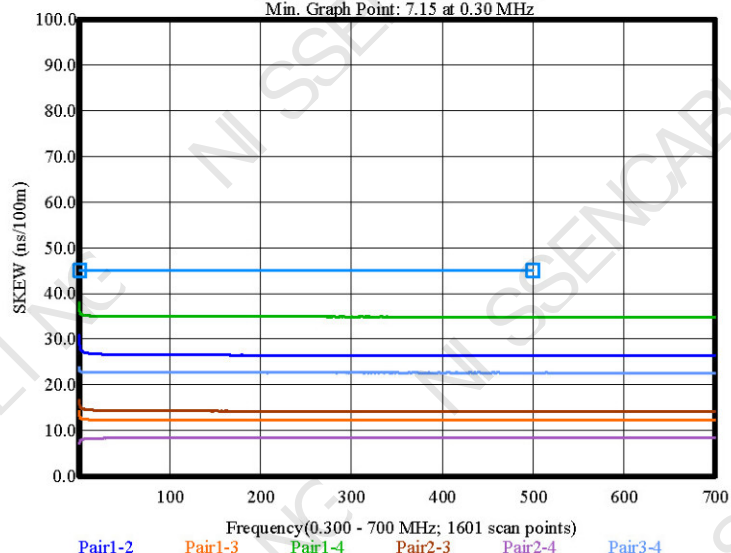
Max. Graph Point: 102.79 at 0.82 MHz
Min. Graph Point: -3.68 at 694.89 MHz



Max. Graph Point: 562.76 at 0.30 MHz
Min. Graph Point: 481.56 at 696.94 MHz



Max. Graph Point: 38.00 at 0.30 MHz
Min. Graph Point: 7.15 at 0.30 MHz



N/A = Not Applicable.
--- = Disable/Bypassed Pair.

* = Measured value out of spec.
xxx = No entry.

*** = Measured value is invalid.

Worst Case Summary

Low Frequency

Statistical Parameter	Maximum		Minimum		Average Maximum		Standard Deviation		
Test Type	Spec Limit	Measured	Spec Limit	Measured	Spec Limit	Measured	Spec Limit	Measured	Result
Conductor Resistance(Ohms/100.0 m)@20C	9.38	8.01	xxx	7.48	xxx	7.70	xxx	0.198	Passed
Loop Resistance(Ohms/100.0 m)@20C	18.76	15.98	xxx	14.96	xxx	15.41	xxx	0.394	Passed
Resistance Unbalance(%)	4.00	0.60	xxx	0.08	xxx	0.23	xxx	0.213	Passed
Mutual Capacitance(nF/100.0 m)@1000Hz	5.50	5.23	xxx	4.93	xxx	5.07	xxx	0.117	Passed
Cap. Unbalance to Ground(pF/100.0 m)@1000Hz	330.00	11.37	xxx	2.23	xxx	6.85	xxx	3.514	Passed

Summary: Conductor Resistance@20C

	Spec Limit	Measured Values		Result
Unit	Ohms/100.0 m	ohms/L	Ohms/100.0 m	
Maximum	9.38	8.16	8.01	Passed
Minimum	xxx	7.61	7.48	N/A
Avg. Max.	xxx	7.84	7.70	N/A
Std. Deviation	xxx	0.201	0.198	N/A

Summary: Loop Resistance@20C

	Spec Limit	Measured Values		Result
Unit	Ohms/100.0 m	ohms/L	Ohms/100.0 m	
Maximum	18.76	16.26	15.98	Passed
Minimum	xxx	15.23	14.96	N/A
Avg. Max.	xxx	15.68	15.41	N/A
Std. Deviation	xxx	0.401	0.394	N/A

Summary: Resistance Unbalance

	Spec Limit	Measured Values		Result
Unit	%	%	%	
Maximum	4.00	0.60	0.60	Passed
Minimum	xxx	0.08	0.08	N/A
Avg. Max.	xxx	xxx	0.23	N/A
Std. Deviation	xxx	xxx	0.213	N/A

Summary: Mutual Capacitance@1000 Hz

	Spec Limit	Measured Values		Result
Unit	nF/100.0 m	nF/L	nF/100.0 m	
Maximum	5.50	5.29	5.23	Passed
Minimum	xxx	4.98	4.93	N/A
Avg. Max.	xxx	5.12	5.07	N/A
Std. Deviation	xxx	0.118	0.117	N/A

Summary: Cap. Unbalance to Ground@1000 Hz

	Spec Limit	Measured Values		Result
Unit	pF/100.0 m	pF/L	pF/100.0 m	
Maximum	330.00	11.49	11.37	Passed
Minimum	xxx	2.25	2.23	N/A
Avg. Max.	xxx	6.92	6.85	N/A
Std. Deviation	xxx	3.549	3.514	N/A

Detail: Resistance/Capacitance Measurement -Normalized

Test Types	Conductor Resistance Ra @20C	Conductor Resistance Rb @20C	Loop Resistance @20C	Resistance Unbalance	Mutual Capacitance @1000 Hz	Capacitance Unbalance to Ground @1000 Hz	Test Result
Unit	Ohms/100.0 m	Ohms/100.0 m	Ohms/100.0 m	%	nF/100.0 m	pF/100.0 m	
Max Spec	9.38	9.38	18.76	4.00	5.50	330.00	
Min Spec	xxx	xxx	xxx	xxx	xxx	xxx	
Pair 1 [17]	8.01	7.96	15.98	0.60	5.23	-2.23	Passed
Pair 2 [18]	7.57	7.57	15.14	0.08	4.93	-8.86	Passed
Pair 3 [19]	7.77	7.79	15.56	0.16	5.12	-4.95	Passed
Pair 4 [20]	7.48	7.48	14.96	0.09	5.00	-11.37	Passed

N/A = Not Applicable.
 --- = Disable/Bypassed Pair.

* = Measured value out of spec.
 xxx = No entry.

*** = Measured value is invalid.