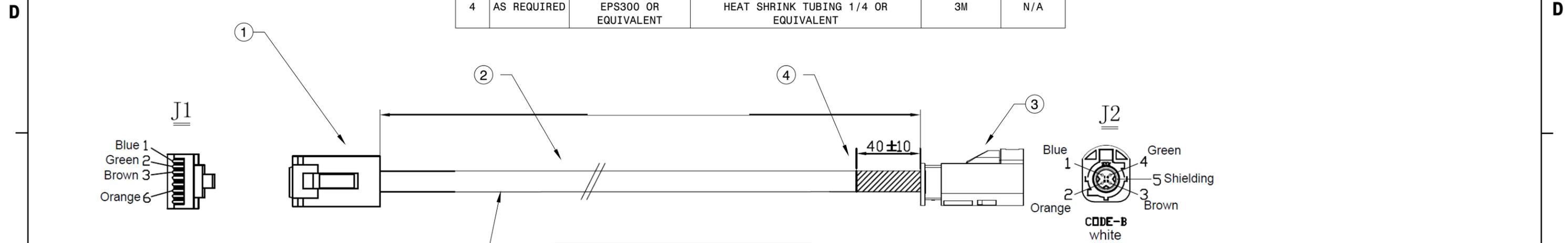


FOR BILL OF MATERIALS, REFER TO ITEM IN TESLA INC PLM TOOL.  
THE ITEM LIST ON THIS DRAWING IS PROVIDED FOR REFERENCE ONLY.

ITEM	QTY	PART NUMBER	DESCRIPTION	SUPPLIER	MATERIAL
1	1	N/A	MALE RJ-45-8P OR EQUIVALENT	GENERIC	N/A
2	1	LD5-881-3045 OR EQUIVALENT	HIGH SPEED DATE CABLE	ROSENBERGER	N/A
3	1	HD1-638-T13	HSD, CODE B WHALE WHITE	ROSENBERGER	N/A
4	AS REQUIRED	EPS300 OR EQUIVALENT	HEAT SHRINK TUBING 1/4 OR EQUIVALENT	3M	N/A

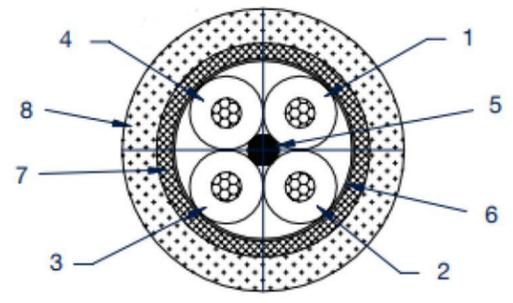
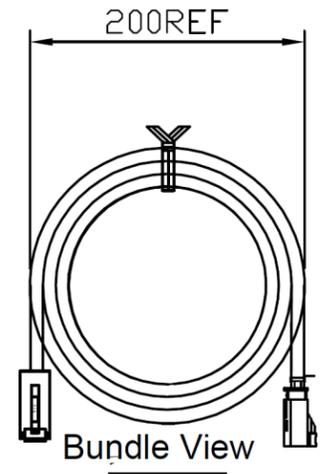
CA	DATE	REV	DESCRIPTION	APPD	APPD
	14-DEC-2011	1	INITIAL RELEASE	--	
	15-AUG-2014	2	IMPORTED DESIGN INTO CATIA. ADDED ITEM 4	--	
	08-JUN-2023	3	UPDATED FOR EXTERNAL USE	--	



LABEL LOCATED 70MM FROM RJ45 CONNECTOR  
LABEL TO INCLUDE:  
PART NAME, PART NUMBER, AND MANUFACTURED DATE

WIRE DIAGRAM		
J1	COLOR (SIGNAL)	J2
1	BLUE (TXP)	1
6	ORANGE (RXN)	2
3	BROWN (RXP)	3
2	GREEN (TXN)	4
	SHIELDING	5

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CABLE SPECIFICATIONS	
Number of Conductors	4
Nominal Impedance(Ω)	100±15%
Nominal Capacitance(pF/m@1KHz)	≤50
Attenuation(dB/100m@100MHz)	≤33
Skew conductor pairs(ps/m)	≤25
Crosstalk(dB@1GHz)	-40
Differential Shielding Effectiveness	
(dB @ ≤1GHz)	≥75
(dB @ ≤2GHz)	≥65
Cable Thickness (mm)	5
Single Bend Radius (x cable diam.)	3
Multiple Bend Rdaius (x cable diam.) (16k cycles min)	5
Operating Temperature(°C)	-40 to +105

DESIGN CHARACTERISTICS	
1-4	CONDUCTOR
5	STRANDING
6	FOIL
7	SHIELD
8	SHEATH

CONNECTOR SPECIFICATIONS	
IMPEDANCE (Ω)	100±15%
Insertion Loss(dV Max DC-1GHz)	-0.3
Near End Crosstalk (dB Max)	-30
Far End Crosstalk (dB Max)	-35
Contact Resistance (mΩMax)	50
Temperature Range (°C)	-40 to +85

CAD FILE NAME		TRACEABILITY GRADE	
		A	
DRAWN BY	--	DATE	08-JUN-2023
<b>TESLA</b>			
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MATERIAL		EST. MASS (g)	
N/A		MASS	
FINISH	N/A	SCALE	SHEET SIZE
THIRD ANGLE PROJECTION	DIMENSIONS ARE IN MILLIMETERS. ANGLES ARE IN DEGREES.	1:1	B
ITEM NAME			
HARNES, DIAGNOSTIC, HSD TO RJ45			
ITEM NUMBER	1013230-00-A	REVISION	SHEET
		03	1 of 1

B HARNES, DIAGNOSTIC, HSD TO ETHERNET REV 03 DRAWING VERSION 03

**ADDITIONAL NOTES:**  
 A1. SUMITOMO CONNECTOR (ITEM -1) REQUIRES THE HORIZONTAL LATCH COVER TO BE CLIPPED OF AT THE LINES DETAILED IN THE PICTURES ON PAGE 2.  
 A2. ITEM IS REQUIRED TO EXTEND CABLE LENGTH FOR EASE OF USE ONLY. NOT SHOWN IN DRAWING. TO BE INCLUDED WITH THIS CABLE AS A KIT.

ITEM	QTY	PART NUMBER	DEFINITION	SUPPLIER	NOTES
1	1	6098-3810	CONNECTOR, FEMALE, 0.64MM PIN DEPTH	SUMITOMO	
2	1	N/A	RJ45 ETHERNET PLUG, MALE, 8 PINS OR EQUIVALENT	--	
3	1	N/A	HIGH-FLEX CAT5E ETHERNET CABLE, TWISTED-PAIR, INTERNAL WIRES 24 AWG OR EQUIVALENT	ANIXTER	
4	4	8240-0182	SUMITOMO CONNECTOR TERMINAL, TIN, 0.64MM PIN DEPTH OR EQUIVALENT	SUMITOMO	
5	AS REQUIRED	N/A	ADHESIVE-LINED HEAT-SHRINK TUBING OR EQUIVALENT	--	
6	AS REQUIRED	N/A	RTV 162 ADHESIVE OR EQUIVALENT	--	
7	1	N/A	10' (MIN. CAT5E) ETHERNET CABLE TWISTED PAIR UNSHIELDED OR EQUIVALENT	--	A2
8	1	N/A	FEMALE TO FEMALE RJ45 COUPLER OR EQUIVALENT	--	A2

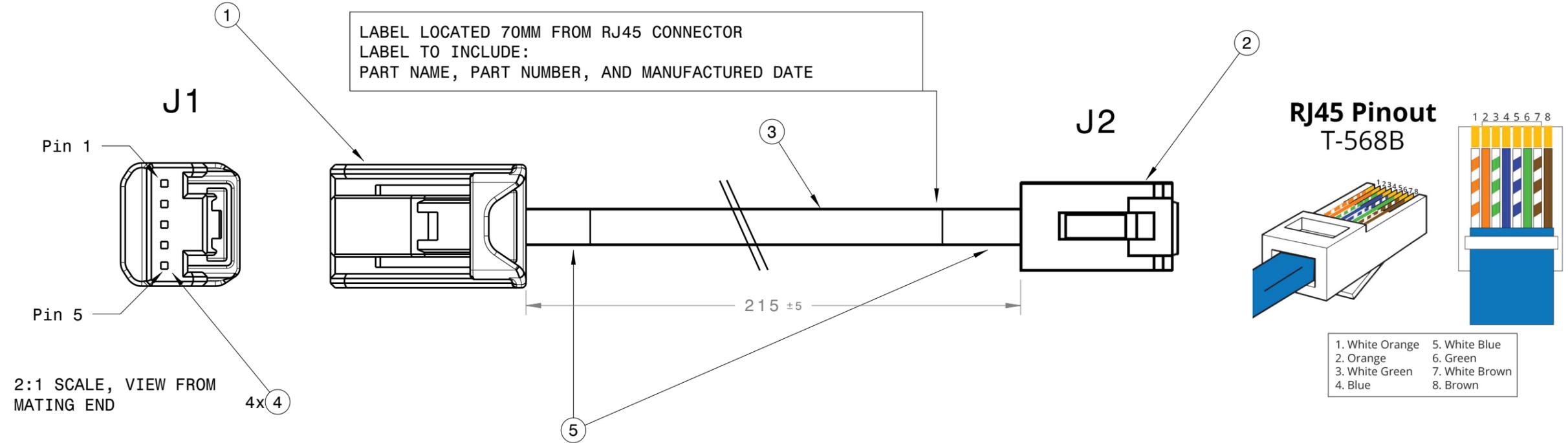
CA	DATE	REV	DESCRIPTION	APPD	APPD
	08-JUN-2023	01	UPDATED FOR EXTERNAL USE AND SUMITOMO CONNECTOR ADJUSTMENT	--	

D

C

B

A



- 1. White Orange
- 2. Orange
- 3. White Green
- 4. Blue
- 5. White Blue
- 6. Green
- 7. White Brown
- 8. Brown

J1	COLOR (SIGNAL)	J2
1	WHITE GREEN	3
2	GREEN	6
3	WHITE ORANGE	1
4	ORANGE	2
5		

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CAD FILE NAME		TRACEABILITY GRADE	
		A	
DRAWN BY	--	DATE	08-JUN-2023
<b>TESLA</b>			
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MATERIAL		EST. MASS (g)	
N/A		--	
FINISH		SCALE	
N/A		1:1	
THIRD ANGLE PROJECTION	DIMENSIONS ARE IN MILLIMETERS. ANGLES ARE IN DEGREES.	SHEET SIZE	
		B	
ITEM NAME			
HARNESS, DIAGNOSTIC, SUMITOMO TO RJ45			
ITEM NUMBER	1137658-00-D	REVISION	SHEET
		01	1 of 2

B HARNESS, DIAGNOSTIC, SUMITOMO TO RJ45 REV 01 DRAWING VERSION 01

D

D

C

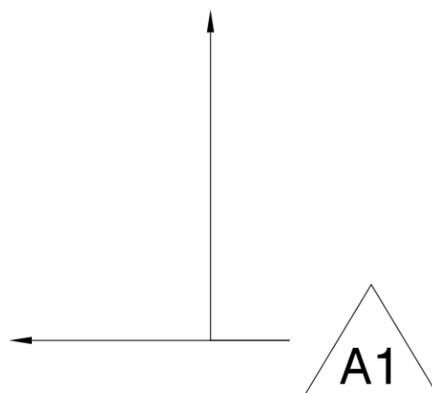
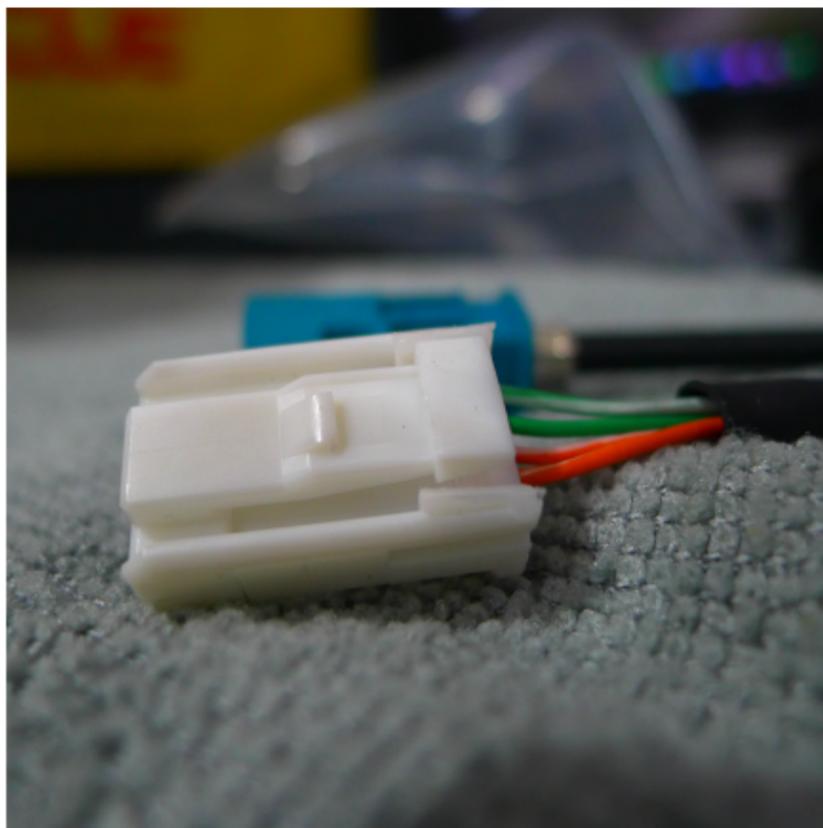
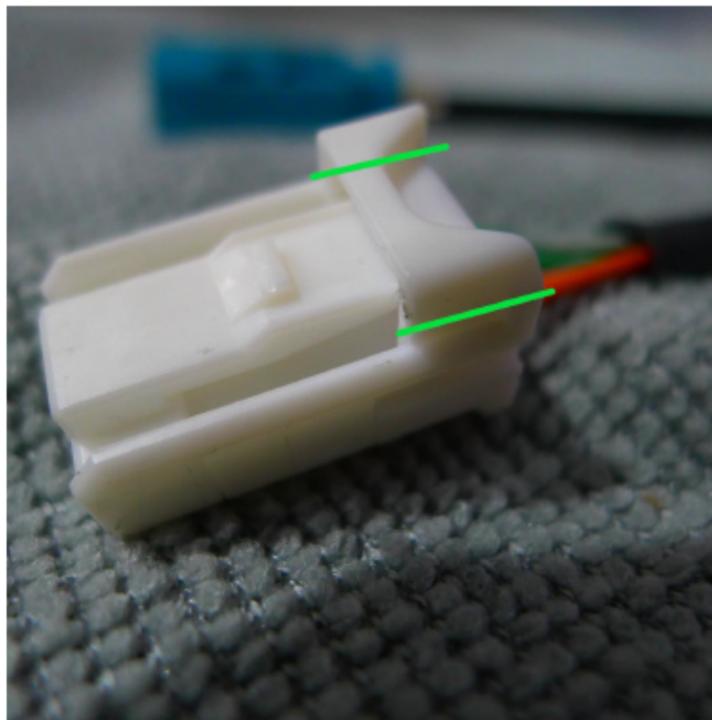
C

B

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A

A



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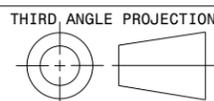
CAD FILE NAME		CAD FILE VERSION	
--		--	
DRAWN BY	--	DATE	08-JUN-2023

**TESLA**

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MATERIAL		EST. MASS (g)	
N/A		--	

FINISH		SCALE		SHEET SIZE	
N/A		--		B	



DIMENSIONS ARE IN MILLIMETERS. ANGLES ARE IN DEGREES.

ITEM NAME		
HARNES, DIAGNOSTIC, SUMITOMO TO RJ45		

ITEM NUMBER		REVISION	SHEET
1137658-00-D		01	2 of 2

**ADDITIONAL NOTES**

A1. TESLA HAS TESTED THIS MEDIA CONVERTER. OTHER 1000BASE-T1 CONVERTERS WITH SIMILAR WIRING COULD ALSO BE COMPATIBLE.

A2. PREVIOUS TECHNICA ENGINEERING PN:TE-1409 TESLA PN: 1533065-00-A

A3. INCLUDED AS COMPONENTS WITH ITEM -1

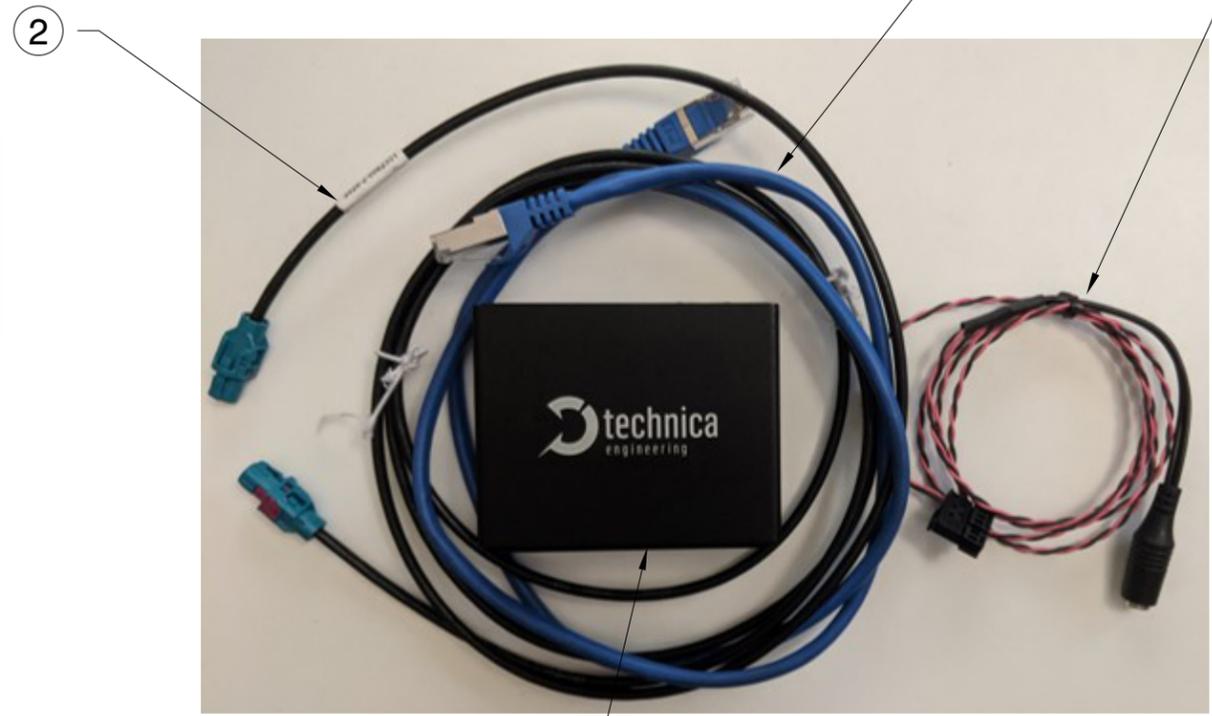
A4. BARREL JACK OPTIONAL TO USE WITH ITEM -5

A5. OPTIONAL

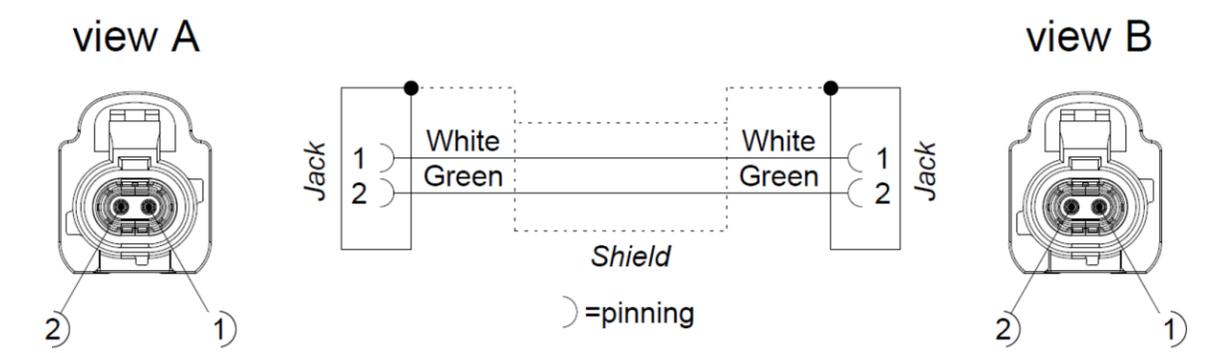
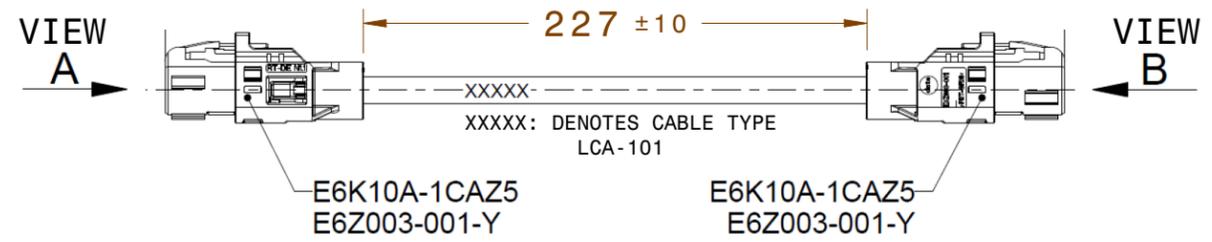
FOR BILL OF MATERIALS, REFER TO ITEM IN TESLA INC PLM TOOL. THE ITEM LIST ON THIS DRAWING IS PROVIDED FOR REFERENCE ONLY.

ITEM	QTY	PART NUMBER	DESCRIPTION	SUPPLIER	NOTES
1	1	TE-1403	100/1000BASET1 MEDIA CONVERTER H-MTD	TECHNICA ENGINEERING	A1
2	1	PRO_1050/ LCA-101-227-A-B_TES	CABLESET H-MTD TO H-MTD	TECHNICA ENGINEERING/ ROSENBERGER	A2, A3
3	1	N/A	WIRE TO 5.5MM BARREL JACK TO CONNECT TO PWR CONN	TECHNICA ENGINEERING	A3, A4
4	1	N/A	1M ETHERNET CABLE, RJ45 PLUG TO RJ45 PLUG	TECHNICA ENGINEERING	A3
5	1	N/A	12V LIGHTER PLUG TO 5.5MM BARREL PLUG	GENERIC	A5

CA	DATE	REV	DESCRIPTION	APPD	APPD
	08-MAR-21	01	INITIAL RELEASE	GH	
	26-JUL-23	02	UPDATED FOR EXTERNAL USE	GH	
	17-JAN-24	03	UPDATED TEXT AND DESCRIPTIONS	GH	



DETAIL FOR TESLA SPECIFIC ITEM-2 (LCA-101-227-A-B\_TES)



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CAD FILE NAME		TRACEABILITY GRADE	
		A	
DRAWN BY	--	DATE	2024-01-17
<b>TESLA</b>			
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MATERIAL			
N/A			
FINISH		EST. MASS (g)	
N/A		--	
THIRD ANGLE PROJECTION	DIMENSIONS ARE IN MILLIMETERS. ANGLES ARE IN DEGREES.	SCALE	SHEET SIZE
		1:1	<b>B</b>
ITEM NAME		REVISION	SHEET
MEDIA CONVERTER, ETHERNET DIAGNOSIS KIT, MODEL S/X PALLADIUM		03	1 of 1
ITEM NUMBER			
1669075-00-A			

B MEDIA CONV. ETHERNET DIAG. KIT, MSXP2 REV 03 DRAWING VERSION 01.0