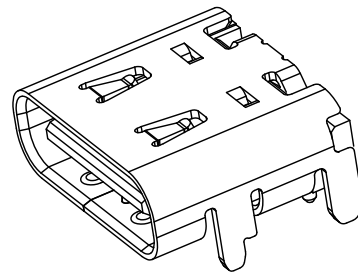
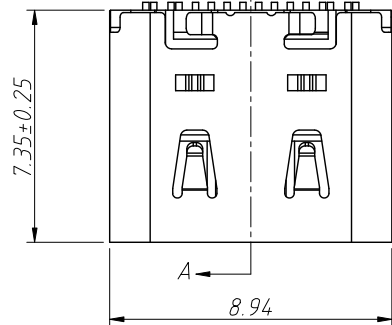


1 RoHS Compliance

2 16-0.20±0.05



Order Information

L-KLS1-5416S-L1-01-R

RoHS

USB Type

Length:

Length:

L1=0.96(H1=0.90)

L2=2.3(H2=2.0)

Plating Code:

01=AU 1u" 03=AU 3u"

15=AU 15u" 30=AU 30u"

Packing:R=Reel

REV	SYM	Revision Record	Appr.	Date
V0	KLS01640	New Version Release	Song	2024-07-09

NOTES:

1.Material:

1-1.Housing:High Temperature Resistant Plastic,UL94 V-0

1-2.Contacts:Copper Alloy

1-3.Mid Plate:Stainless Steel

1-4.Front Shell:Stainless Steel

2.Plating Specification:

2-1.Contacts:Ni 50u" Min.Under Plated Over All

Au Plated On The Functional Area Of Contact

Au Plated On The Solder Area

2-2.Front Shell:Ni 30u"Min Under Plated Over All

2-3.Mid Plate:Clear Only

3.Mechanical:

3-1.Insertion Force:0.5~2.0kgf

3-2.Removal Force:0.8kgf~2.0kgf

3-3.Durability:10000 Cycles

4.Electrical:

4-1.Current Rating:5.0A,Voltage Rating:5.0V

4-2.LLCR:Vbus & GND Pins And Other Pins:40mΩ/Pin Max

LLCR Max.Change Of All Pins:10mΩ

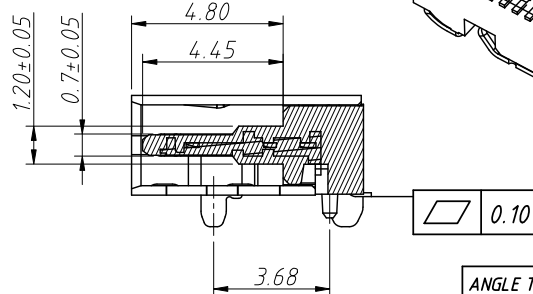
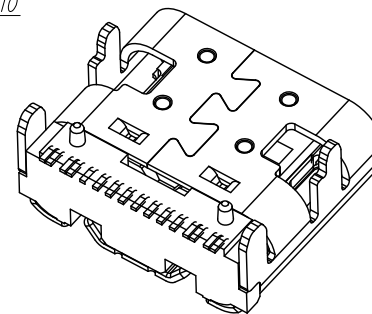
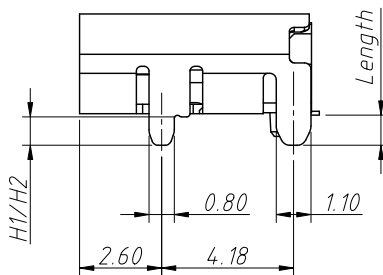
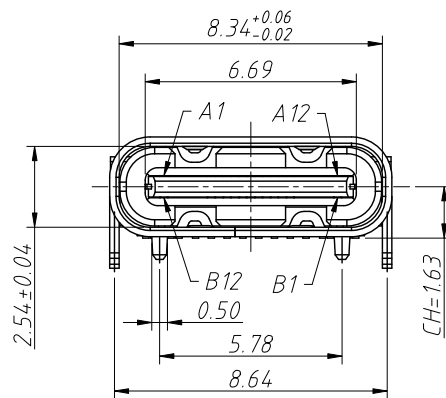
4-3.Insulation Resistance:100MΩ Min

4-4.Dielectric Withstand Voltage:AC 100V For 1 Minute

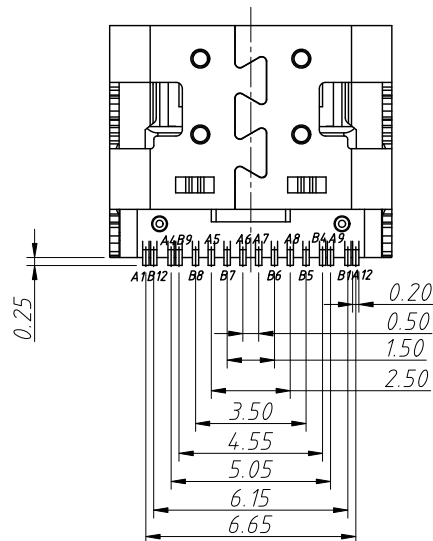
5.Operating Temperature:-25°C~+85°C

6.IR Reflow:The Peak Temperature On The Board Shall Be

Maintained For 10 Seconds At 260°C



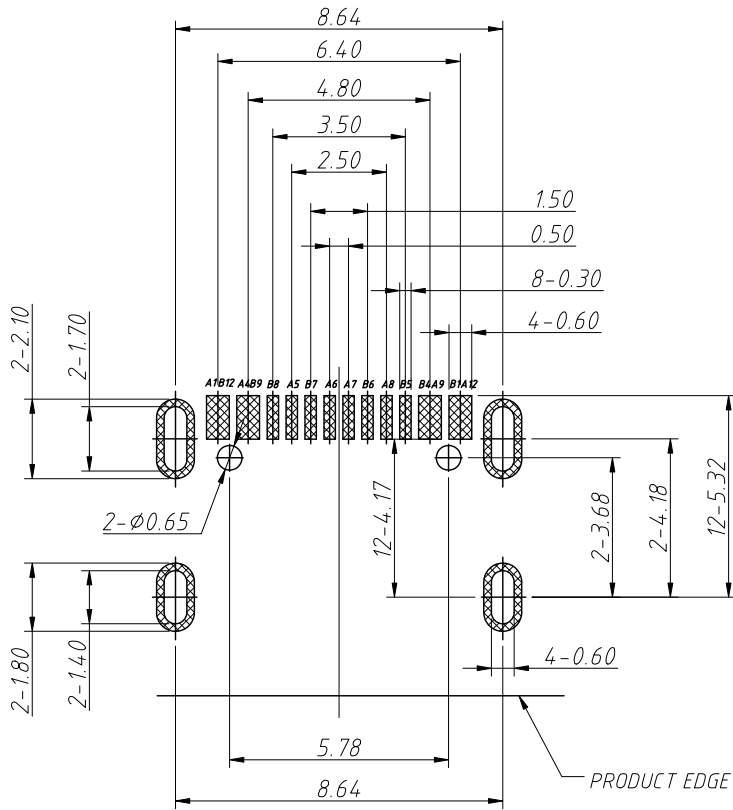
SECTION:A-A



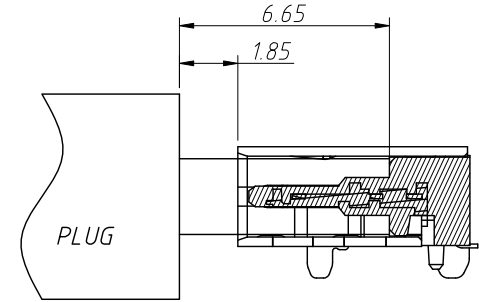
ANGLE TOLERANCE	PROJECTION	Description:	USB Connector	
±3°				
GENERAL TOLERANCE	UNITS	mm	KLS P/N:	L-KLS1-5416S-LX-XX-R
.x ±0.30	SHEET SIZE	A4	1 of 3	
.xx ±0.20	Draw:	Song	2024-07-09	NingBo KLS ELECTRONIC CO.,LTD.
.xxx ±0.10	Check:	Daniel	2024-07-09	

1  
RoHS Compliance

6	7	8
REV	SYM	Revision Record
V0	KLS01640	New Version Release
		Appr. Date
		Song 2024-07-09



Recommended PCB Layout  
Tolerance: ±0.05mm, T=0.80



AFTER MATING

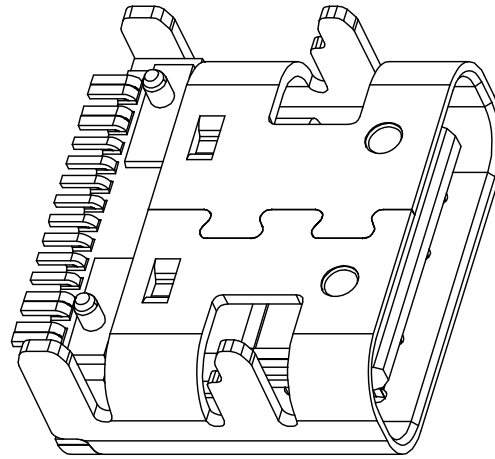
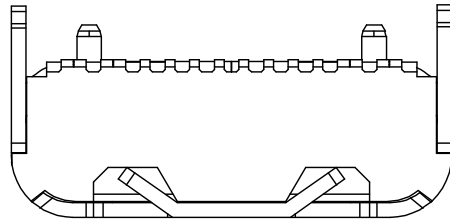
USB TYPE-C Pin Assignments

PIN	Signal Name	PIN	Signal Name
A1	GND	B12	GND
A4	VBUS	B9	VBUS
A5	CC1	B8	SBU2
A6	DP1	B7	DN2
A7	DN1	B6	DP2
A8	SBU1	B5	CC2
A9	VBUS	B4	VBUS
A12	GND	B1	GND

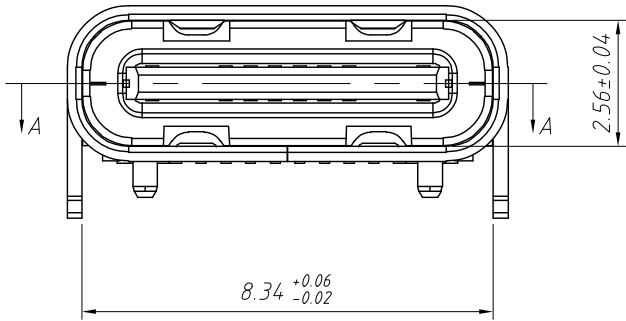
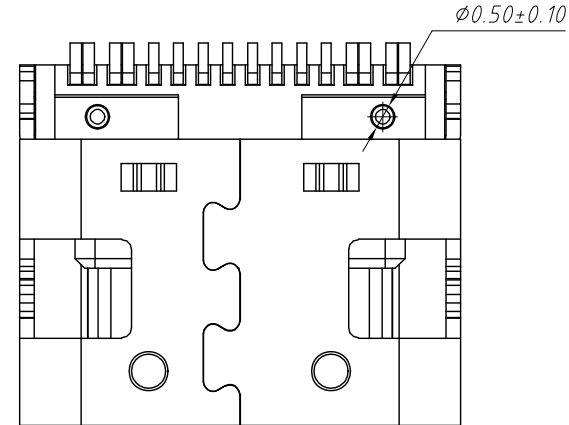
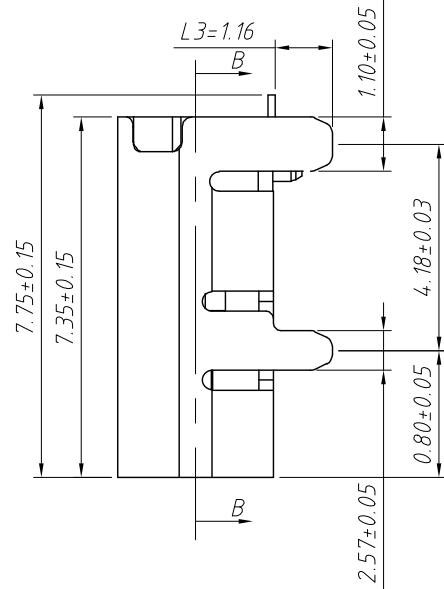
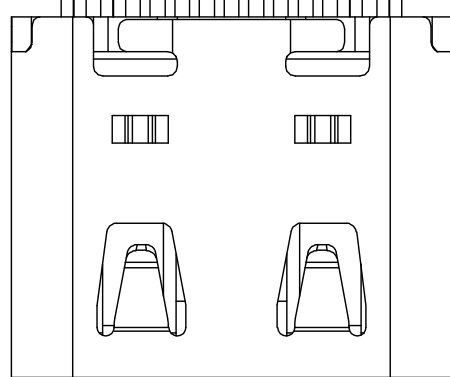
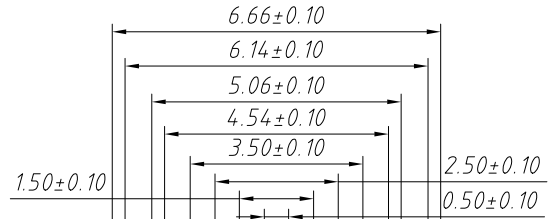
ANGLE TOLERANCE	PROJECTION	Description:	USB Connector	
±3°				
GENERAL TOLERANCE	UNITS	mm	KLS P/N:	L-KLS1-54.16S-LX-XX-R
.x ±0.30	SHEET SIZE	A4	2 Of 3	NingBo KLS ELECTRONIC CO.,LTD.
.xx ±0.20	Draw:	Song	2024-07-09	
.xxx ±0.10	Check:	Daniel	2024-07-09	

1  
RoHS Compliance

2		3		4		5		6		7		8	
REV	SYM	Revision Record				Appr.	Date						
V0	KLS01323	New Version Release				WuHao	2025-08-18						



Order Information  
 L-KLS1-5416S-L3-01-R  
 RoHS  
 USB Type  
 Length: L3=1.16  
 Plating Code:  
 01=AU 1u" 03=AU 3u"  
 15=AU 15u" 30=AU 30u"  
 Packing:R=Reel

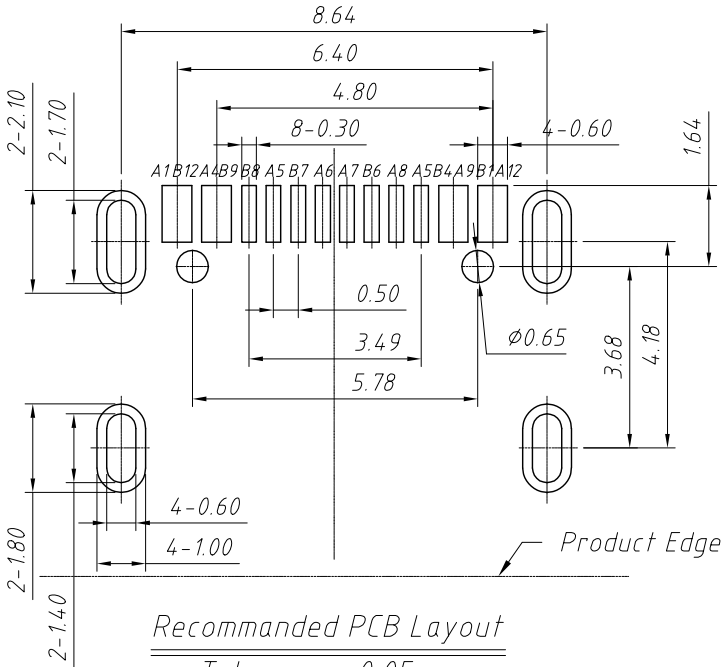


ANGLE TOLERANCE	PROJECTION	Description:	
±3°		USB Connector	
GENERAL TOLERANCE	UNITS	mm	KLS P/N:
x.x ±0.30	SHEET SIZE	A4	L-KLS1-5416S-L3-XX-R
x.xx ±0.20	Draw:	WuHao	2025-08-18
x.xxx ±0.10	Check:	Daniel	2025-08-18



RoHS Compliance

REV	SYM	Revision Record	Appr.	Date
V0	KLS01323	New Version Release	WuHao	2025-08-18



Recommended PCB Layout  
Tolerance: ±0.05mm

USB TYPE-C Pin Assignments

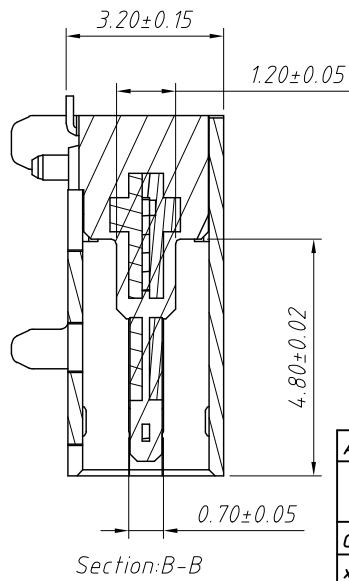
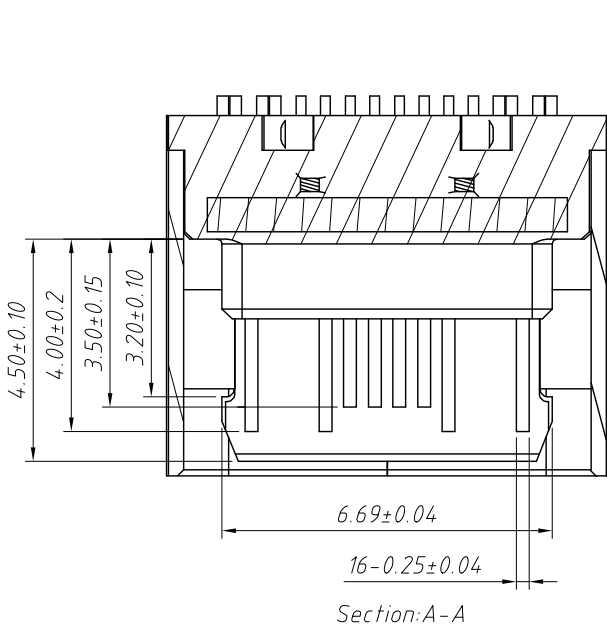
PIN	Signal Name	PIN	Signal Name
A1	GND	B12	GND
A4	VBUS	B9	VBUS
A5	CC1	B8	SBU2
A6	DP1	B7	DN2
A7	DN1	B6	DP2
A8	SBU1	B5	CC2
A9	VBUS	B4	VBUS
A12	GND	B1	GND

Material:  
Housing:LCP+30%G.F,UL94 V-0  
Contacts:Copper Alloy C2680  
Shell:SUS201,T=0.30mm  
Middle Clip:SUS301

Plating Specification:  
Contacts:Ni 50u" Min.Under Plated Over All  
Gold Plated On The Functional Area Of Contact  
Gold Plated On The Solder Area  
Shell:Ni 50u"Min Under Plated Over All

Electrical:  
Current Rating:3.0A  
Contact Impedance:40mΩ Max (Initial Value)  
50mΩ Max (After Testing)  
Insulation Impedance:100MΩ Min  
Pressure Resistance:100V AC R.M.S  
Overall Insertion Force:5~20 N  
5~20 N (After Durability)  
Overall Pulling Force:8~20 N  
6~20 N (After Durability)

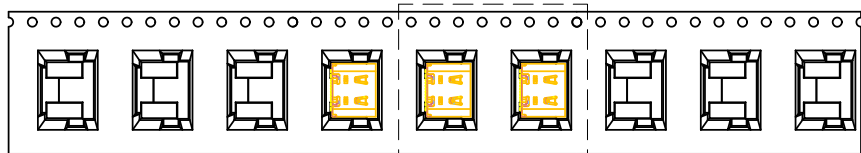
Life:10000 Cycles  
High temperature resistance: SMT reflow soldering  
(Peak 260 °C±5°C), plastic should not have bubbles,  
melting defects, discoloration, warping and deformation  
within the tolerance range  
The product must undergo soldering testing, with a  
soldering area of over 95%  
Salt Spray Test:24h Min  
Operating Temperature:-30°C~+85°C



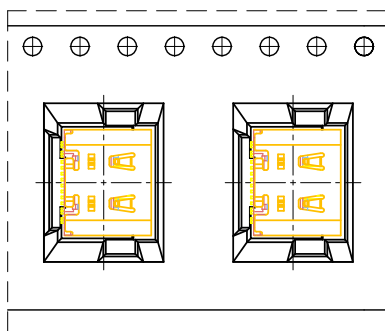
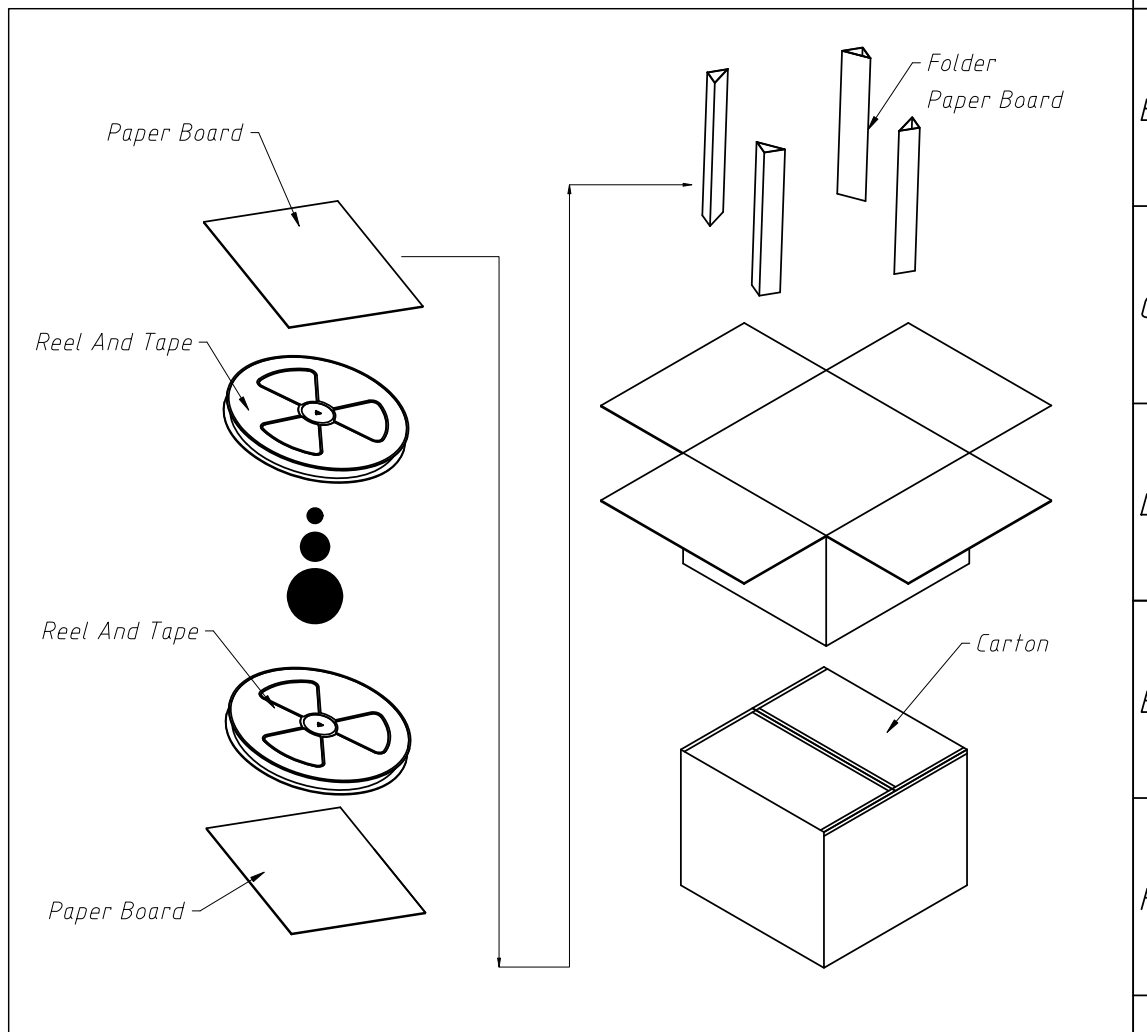
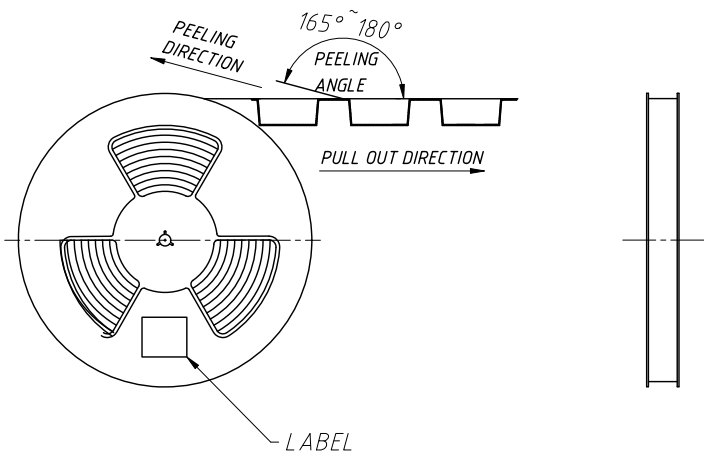
ANGLE TOLERANCE	PROJECTION	Description:	USB Connector	
±3°				
GENERAL TOLERANCE	UNITS	mm	KLS P/N:	L-KLS1-5416S-L3-XX-R
x.x ±0.30	SHEET SIZE	A4	2/2	NingBo KLS ELECTRONIC CO.,LTD.
x.xx ±0.20	Draw:	WuHao	2025-08-18	
x.xxx ±0.10	Check:	Daniel	2025-08-18	

1 RoHS Compliance

6	7	8
REV	SYM	Revision Record
V0	KLS01640	New Version Release
		Appr. Song
		Date 2024-07-09



SEE DETAIL X



DETAIL X

ANGLE TOLERANCE	PROJECTION	Description:	USB Connector
±3°			
GENERAL TOLERANCE	UNITS	mm	KLS P/N: L-KLS1-54.16S-LX-XX-R
.x ±0.30	SHEET SIZE	A4	3 Of 3
.xx ±0.20	Draw:	Song	2024-07-09
.xxx ±0.10	Check:	Daniel	2024-07-09

