

RF Coaxial IDC

00-6791



Designed to simplify the connection process, the new 6791 series wire to board connectors for coaxial cables enable simple termination with one press. Expanded the proven-reliable IDC (Insulation displacement connector) from signal/power transmission to high frequency transmission field up to 6GHz, the IDC contact pierces the jacket and insulation of the cable and makes direct contact with the strands and conductor of the wire at the same time. Comparing with direct soldering the soldering quality is no more depending on operator's skill which is hard to be unified and controlled. Hand soldering is now not preferred/allowed in automotive field. Comparing with costly traditional 2-piece solution which is generally taller than 10mm, the new 6791 Series offers a cost-effective solution and the on board height is less than 5mm after the cap is pressed. Process to prepare coaxial cable with a 2-piece connector is time consuming and costly, with the launch of the new 6791 series the process is now simplified and the cost is reduced.

APPLICATIONS

- The connector comes in multiple types for different coaxial cables.
- Small package size and mechanical strength allows usage in automotive and industrial antenna applications
- Reference Application Notes 201-01-214

FEATURES AND BENEFITS

- Can replace costly traditional RF connector systems.
- Good RF performance up to 6GHz.
- Mechanically strong with peel off force up to 70N
- Easy assembly process with ability to automate.

ELECTRICAL

- Current Rating: 0.5 Amps
(Current limit is cable dependent)
- Voltage Rating: 125Vac

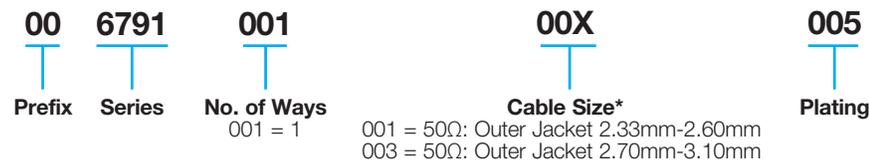
ENVIRONMENTAL

- Operating Temperature:
-40°C to +105°C

MECHANICAL

- Insulator Material: Glass-Filled Nylon 46; UL94V-0
- Contact Material: Copper Alloy
- Plating: Lead-Free Tin Over Nickel

HOW TO ORDER



See comparison of cable dimensions in below chart

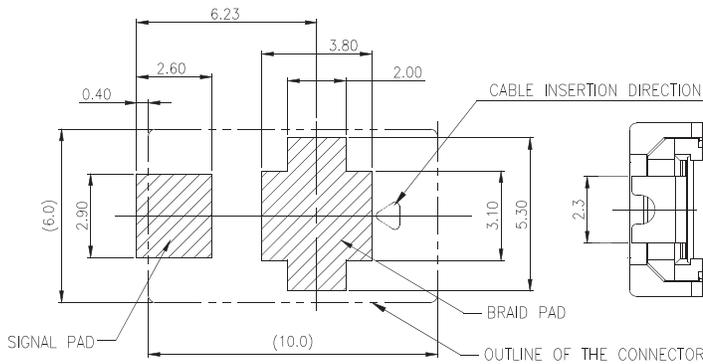
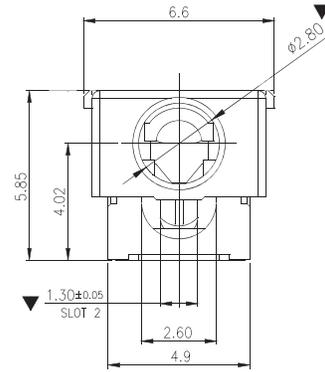
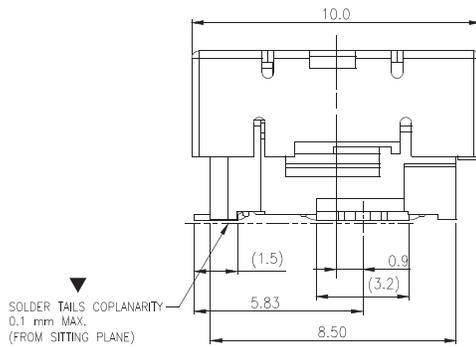
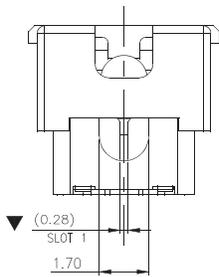
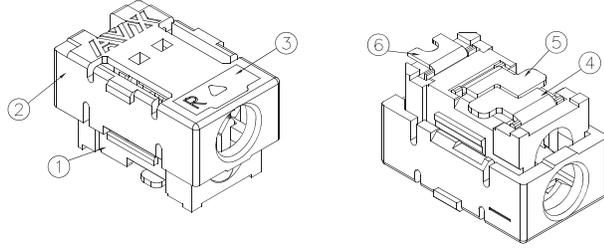
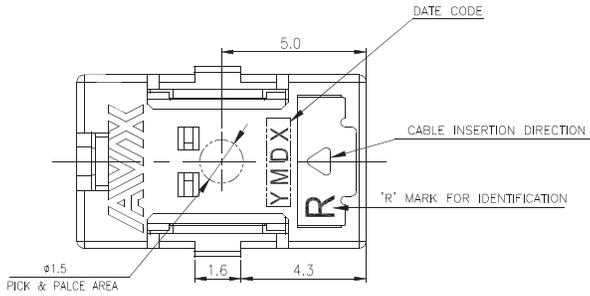
IDC COAX CABLE SIZE

Component	Diameter (mm)			
	-001		-003	
	Lower Limit	Upper Limit	Lower Limit	Upper Limit
Conductor	0.43	0.54	0.46	0.57
Dielectric	1.44	1.68	1.45	1.70
Braid Shield	1.84	2.08	1.85	2.10
Jacket	2.33	2.60	2.70	3.10

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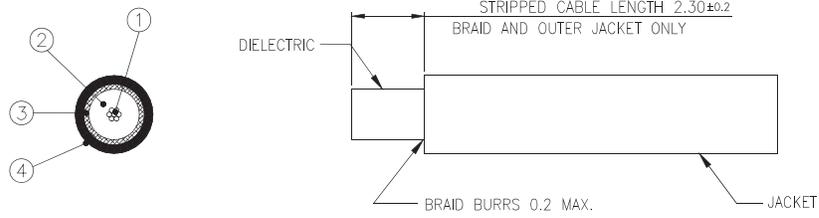
RECOMMENDED PCB LAYOUT
NOTE: TOLERANCE FOR PCB LAYOUT IS $\pm 0.05\text{mm}$

- NOTES:
- VOLTAGE RATING: 125V.
 - OPERATING TEMPERATURE: -40°C TO $+105^{\circ}\text{C}$.
 - FOR REFLOW SOLDERING LEAD-FREE PROCESS.
 - SOLDERING HEAT RESISTANCE REFLOW SOLDERING 260°C .
 - RECOMMENDED PRESSING STOP HEIGHT AS $3.9 \pm 0.2\text{mm}$.
 - ALLOW CABLE INSERT TOLERANCE: 0.3mm MAX.
 - CRITICAL DIMENSION: ∇
 - GENERAL TOLERANCE $\pm 0.20\text{mm}$.

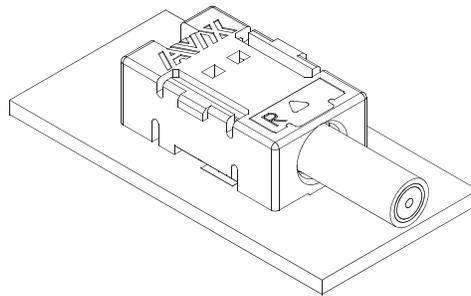
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⑥	SIGNAL CONTACT	COPPER ALLOY	Tin OVERALL, NICKEL UNDERPLATED	1	
⑤	BRAID CONTACT(2)	COPPER ALLOY	Tin OVERALL, NICKEL UNDERPLATED	1	
④	BRAID CONTACT(1)	COPPER ALLOY	Tin OVERALL, NICKEL UNDERPLATED	1	
③	SUPPORT PLATE	STAINLESS STEEL		1	
②	CAP	PA-46	UL94HB, BLACK	1	
①	HOUSING	PA-46	UL94HB, BLACK	1	

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CONSTRUCTION

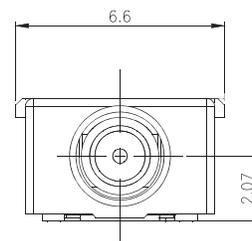
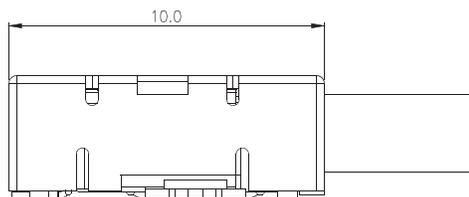


NOTE: JACKET STRIP OD DEFORMED MUST BE THAN LESS $\phi 2.75\text{mm}$ AFTER CUT OFF.



APPLICABLE COAXIAL CABLE DIMENSIONS:

COMPONENT	DIAMETER (mm)	
	LOWER LIMIT	UPPER LIMIT
(1) CONDUCTOR	$\phi 0.43$	$\phi 0.54$
(2) DIELECTRIC	$\phi 1.44$	$\phi 1.68$
(3) BRAID SHIELD	$\phi 1.84$	$\phi 2.08$
(4) JACKET	$\phi 2.33$	$\phi 2.60$

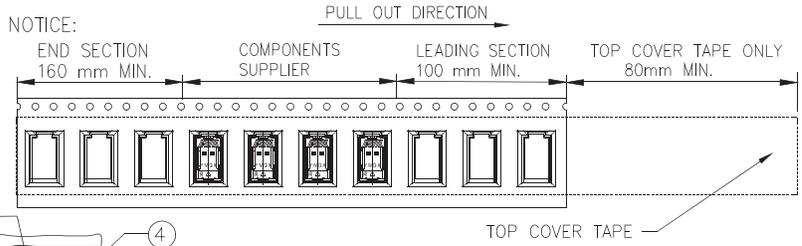
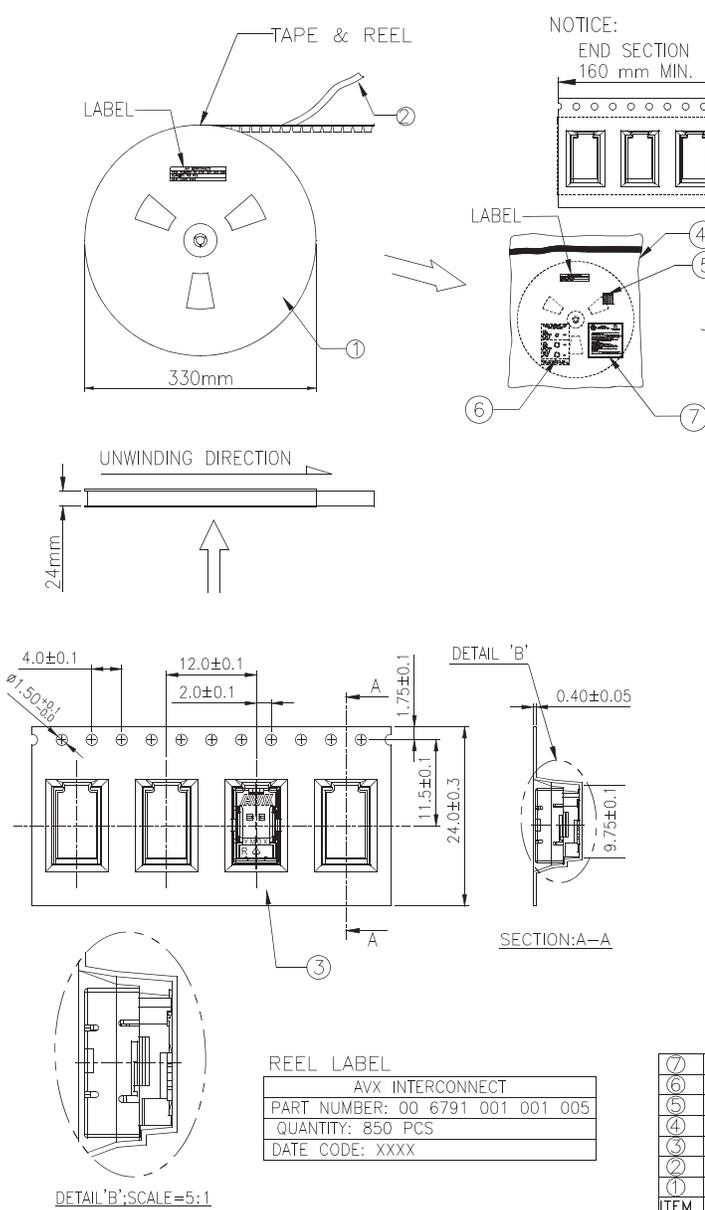


WIRED CONNECTOR

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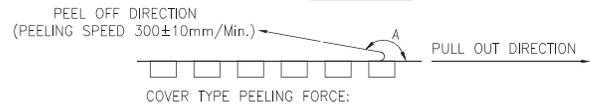
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NOTE :

- MATERIAL :
REEL: BLUE PS
CARRIER: BLACK PS
COVER TAPE: TRANSPARENT PE
- DIMENSION :
REEL SIZE:
DIA=330mm, W=24mm
- QUANTITY:
850PCS/REEL
- HUMIDITY REQUIREMENTS FOLLOW
MSL LEVEL 3

A	165°~180°
F	35~125g

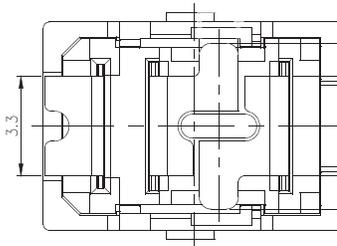
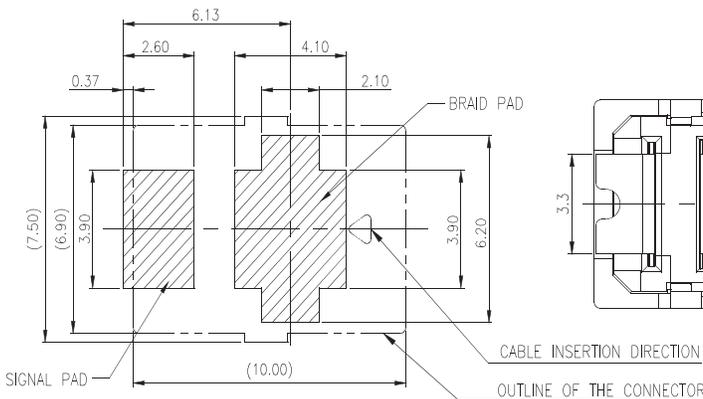
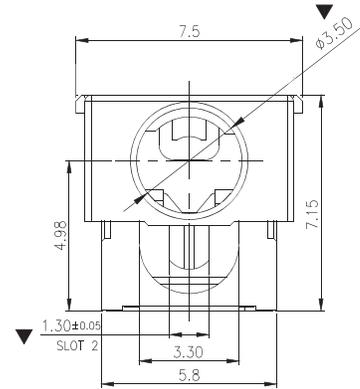
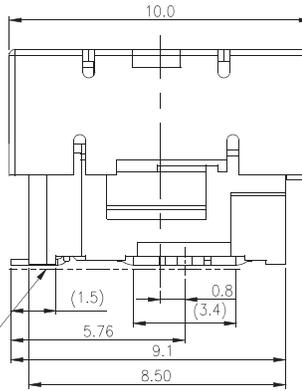
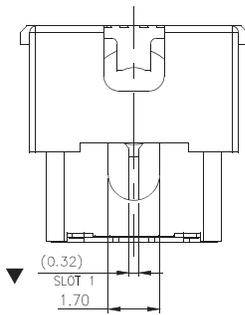
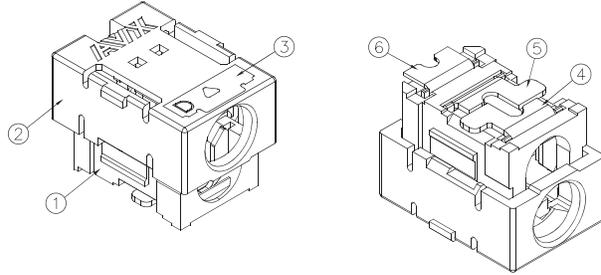
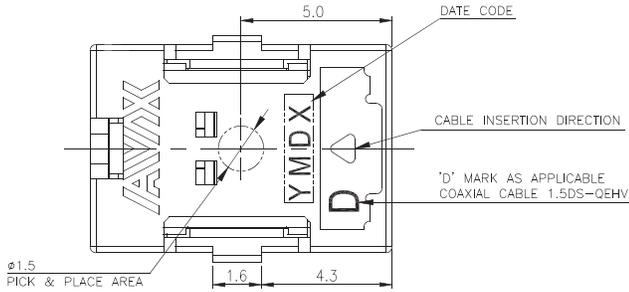


ITEM	DESCRIPTIONs	MATERIAL	FINISH	Q'TY	NOTE	COLOR
⑦	CAUTION LABEL	---	---	1	---	---
⑥	HUMIDITY INDICATOR CARD	---	---	1	---	---
⑤	DESICCANT	---	20g/Bag	1	---	---
④	ESD BAG	FOIL	VACUUM SEAL	1	---	---
③	ESD CARRIER TAPE	PS	---	1	---	---
②	ESD COVER TAPE	PE	---	1	---	---
①	REEL ASS'Y	PS	---	1	---	BLUE

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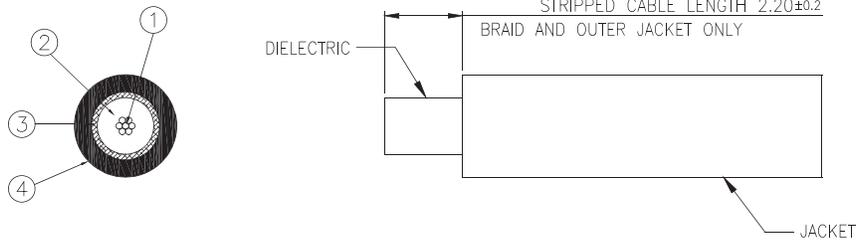


- NOTES:
- VOLTAGE RATING: 125v
 - OPERATING TEMPERATURE: -40°C TO +105°C.
 - FOR REFLOW SOLDERING LEAD-FREE PROCESS.
 - SOLDERING HEAT RESISTANCE REFLOW SOLDERING 260°C.
 - RECOMMENDED PRESSING STOP HEIGHT AS 4.5±0.05mm.
 - ALLOW CABLE INSERT TOLERANCE: 0.3mm MAX.
 - CRITICAL DIMENSION: ▼
 - GENERAL TOLERANCE ±0.20mm.

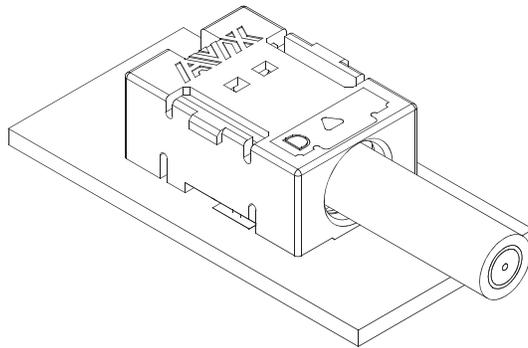
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③	SUPPORT PLATE	STAINLESS STEEL		1	
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CONSTRUCTION

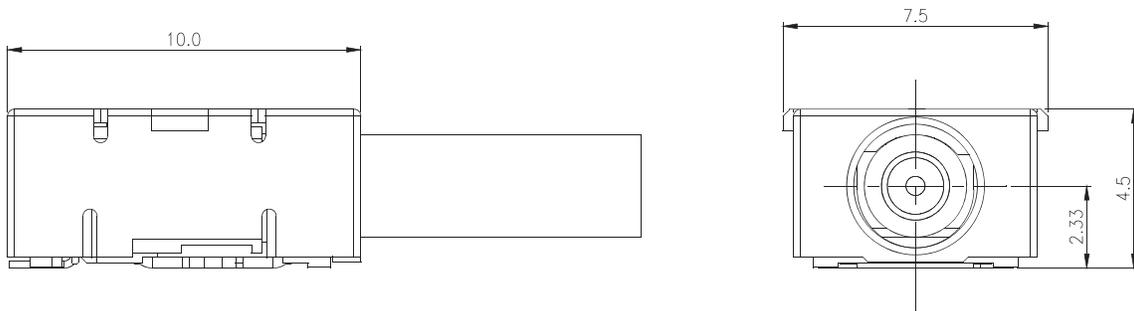


NOTE: JACKET STRIP OD DEFORMED MUST BE THAN LESS $\phi 3.30\text{mm}$ AFTER CUT OFF.



APPLICABLE COAXIAL CABLE DIMENSIONS:

COMPONENT	DIAMETER (mm)	
	LOWER LIMIT	UPPER LIMIT
(1) CONDUCTOR	$\phi 0.46$	$\phi 0.57$
(2) DIELECTRIC	$\phi 1.45$	$\phi 1.70$
(3) BRAID SHIELD	$\phi 1.85$	$\phi 2.10$
(4) JACKET	$\phi 2.70$	$\phi 3.10$

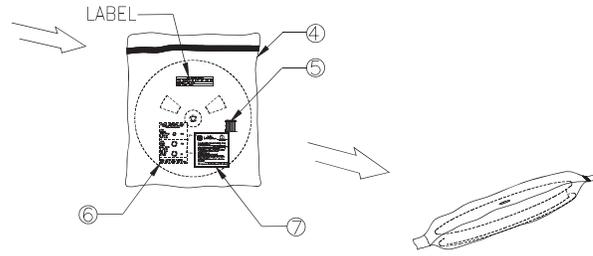
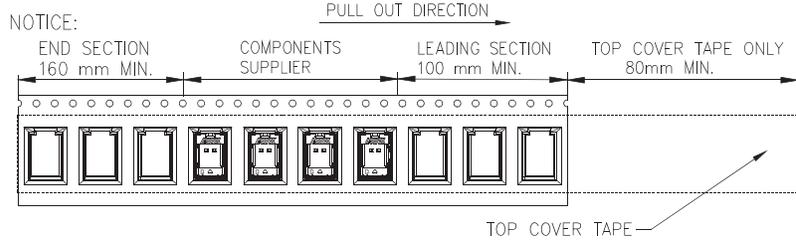
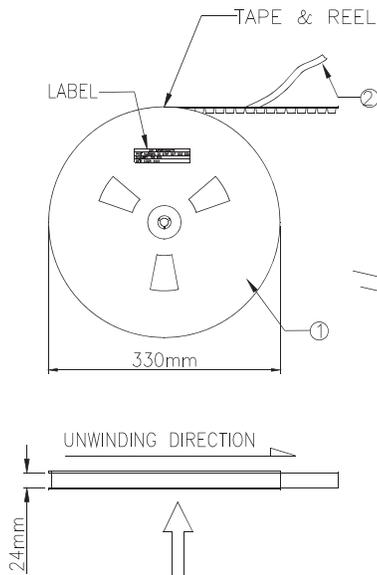


WIRED CONNECTOR

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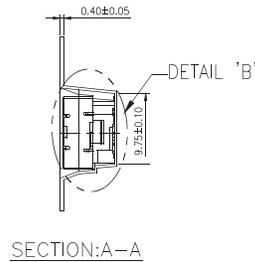
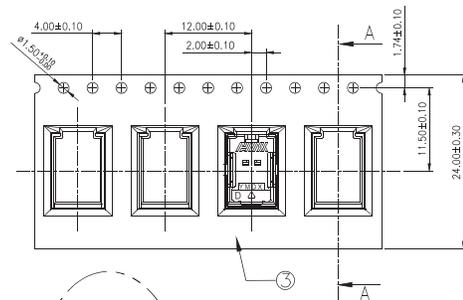
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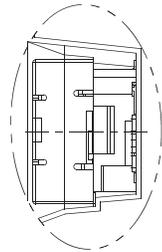
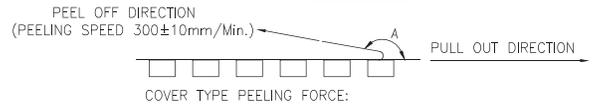


NOTE :

- 1.MATERIAL :
REEL: BLUE PS
CARRIER: BLACK PS
COVER TAPE: TRANSPARENT PE
- 2.DIMENSION :
REEL SIZE:
DIA=330mm, W=24mm
- 3.QUANTITY:
700PCS/REEL
- 4.HUMIDITY REQUIREMENTS FOLLOW
MSL LEVEL 3



A	165°~180°
F	35~125g



DETAIL 'B'; SCALE=5:1

REEL LABEL	
AVX INTERCONNECT	
PART NUMBER: 00 6791 001 003 005	
QUANTITY: 700 PCS	
DATE CODE: XXXX	

ITEM	DESCRIPTIONs	MATERIAL	FINISH	Q'TY	NOTE	COLOR
⑦	CAUTION LABEL	---	---	1	---	---
⑥	HUMIDITY INDICATOR CARD	---	---	1	---	---
⑤	DESICCANT	---	20g/Bag	1	---	---
④	ESD BAG	FOIL	VACUUM SEAL	1	---	---
③	ESD CARRIER TAPE	PS	---	1	---	---
②	ESD COVER TAPE	PE	---	1	---	---
①	REEL ASS'Y	PS	---	1	---	BLUE