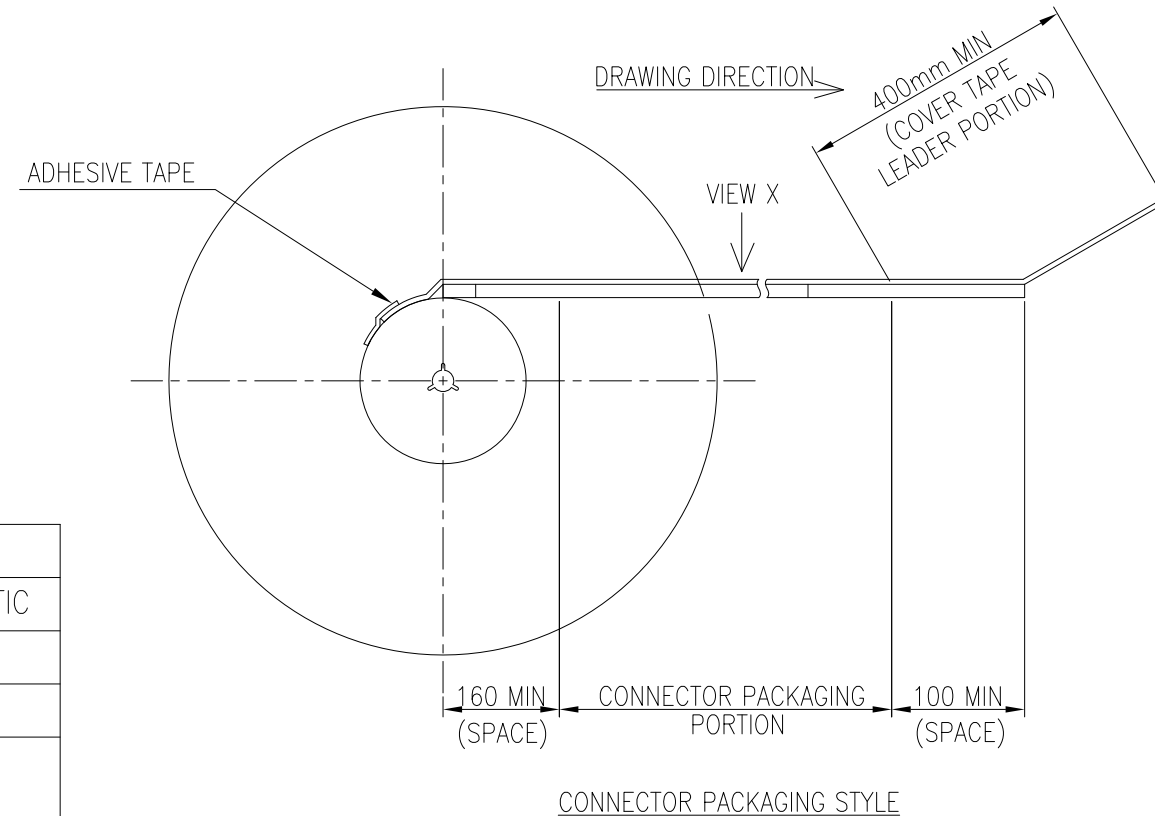
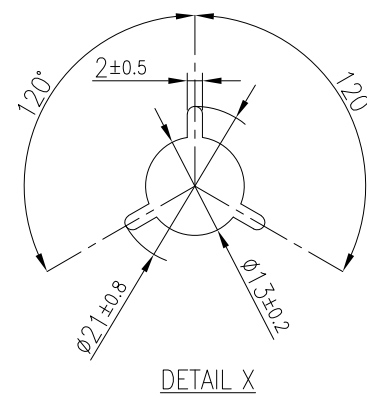
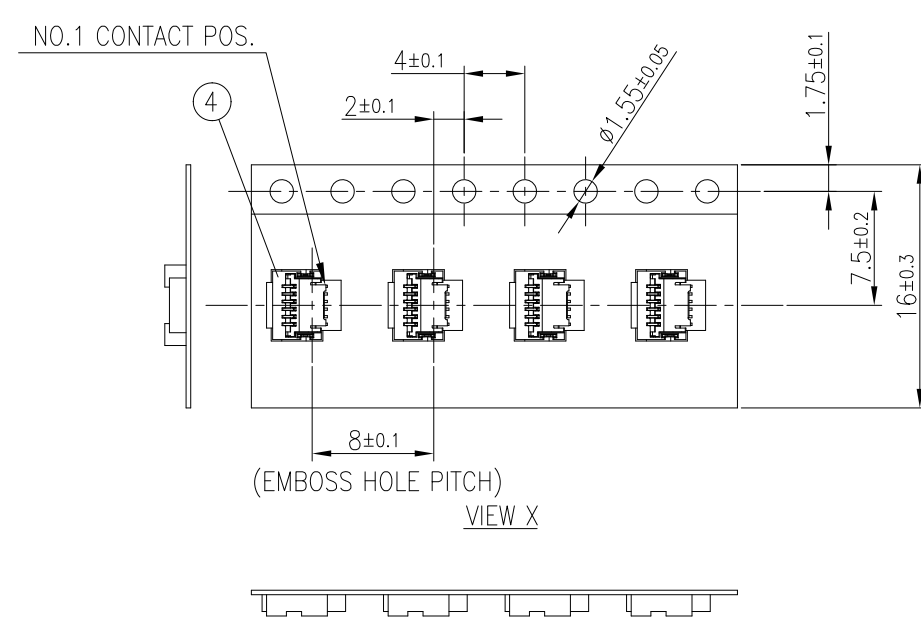
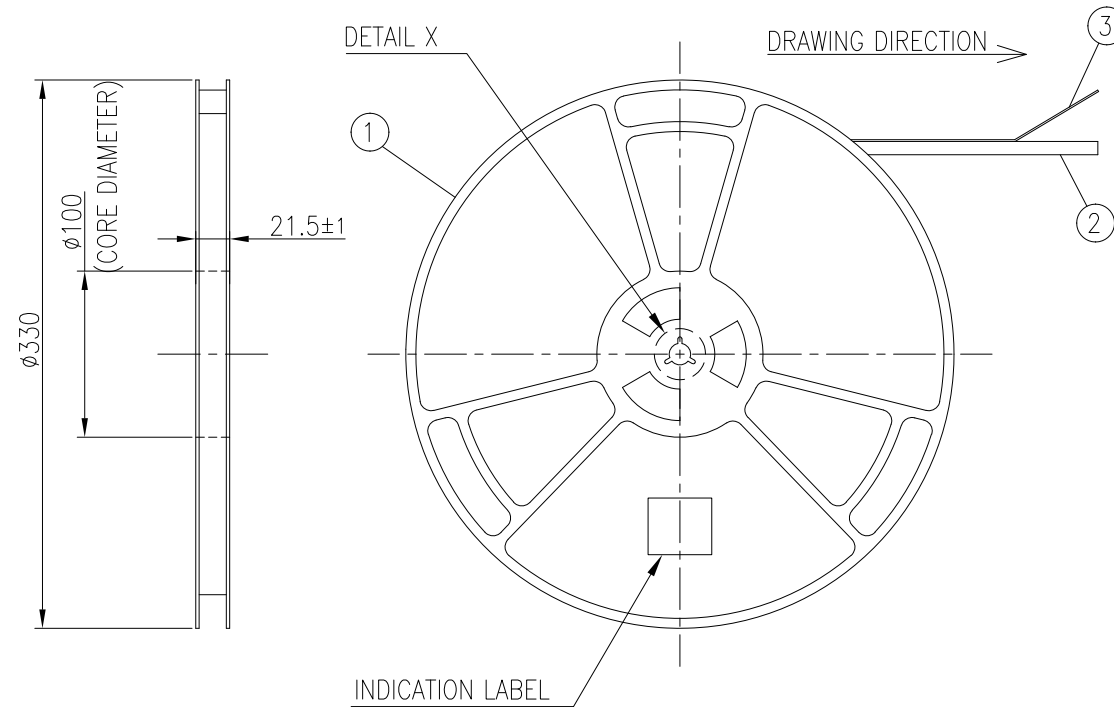


Product No.	No. of Contacts	Preferred Part
59453-041110EHLF	4	● ▲
59453-051110EHLF	5	● ▲
59453-061110EHLF	6	● ▲
59453-071110EHLF	7	● ▲
59453-081110EHLF	8	● ▲
59453-091110EHLF	9	● ▲
59453-121110EHLF	12	● ▲
59453-131110EHLF	13	● ▲
59453-041110EDHLF	4	
59453-051110EDHLF	5	
59453-061110EDHLF	6	
59453-071110EDHLF	7	
59453-081110EDHLF	8	
59453-091110EDHLF	9	
59453-121110EDHLF	12	
59453-131110EDHLF	13	

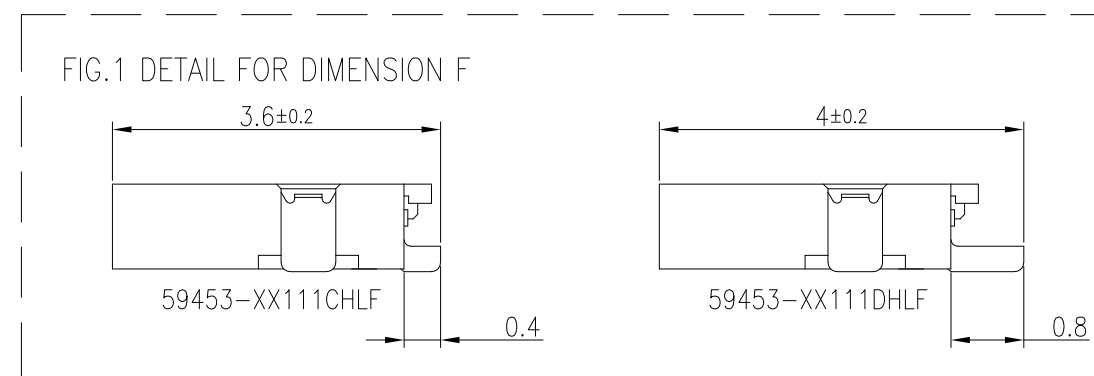
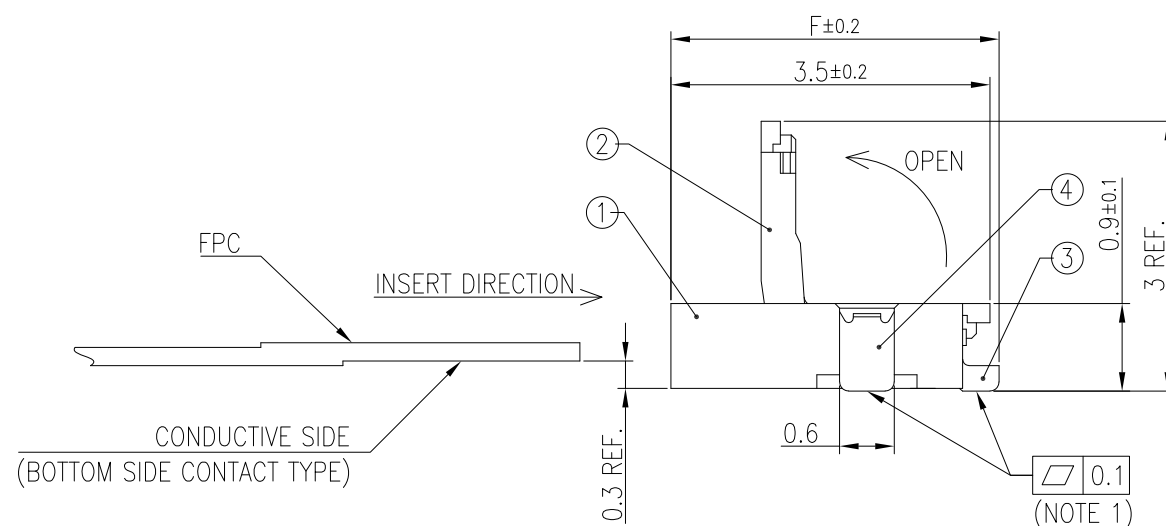
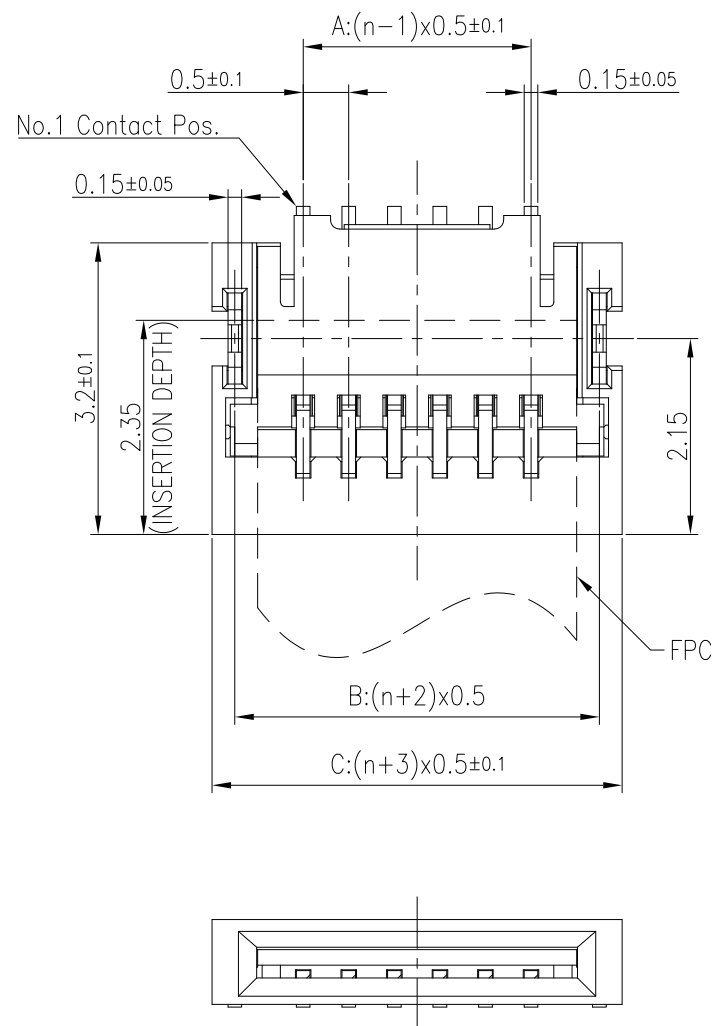


No.	PART NAME	PRODUCT No.	MATERIAL	Q'TY	NOTE
1	REEL	---	POLYSTYRENE	1	COLOR:WHITE OR BLACK, ANTI STATIC
2	PLASTIC(EMBOSS)TAPE	---	POLYSTYRENE	1	ANTI STATIC
3	COVER TAPE	---	POLYESTER/POLYETHYLENE	1	
4	CONNECTOR	59453-__111_HLF	SEE SHEET 2	5,000	CONTACT AREA PLATING:GOLD TERMINAL AREA PLATING:GOLD

NOTE
1.THIS IS PLASTIC TAPE PACKAGED CONNECTOR USED FPR FPC AND COPES WITH AUTOMATIC MOUNTING(SMT)
2.SEE JIS C 0806 (PACKING OF ELECTRONIC COMPONENTS ON CONTINUOUS TAPES (SURFACE MOUNTING DEVICES))
3.PRODUCT SPEC : GS-12-449
APPLICATION SPEC : GS-20-098
PACKAGING SPEC : GS-14-834

mat'l. code		surface		tolerance		projection		product family	
SEE_TABLE		ISO 1302		ISO 406 ISO 1101		MM		59CF	
ltr	ecn no	dr	date	tolerances unless otherwise specified		MM		title	
A	J08-0261	M.K	2008-01-19	angles linear		MM		PLASTIC TAPE PACKAGED 0.5MM PITCH FPC CONNECTOR BOTTOM SIDE CONTACT TYPE	
B	J09-0101	M.K	2009-03-12			scale NTS		dwg no	
C	J10-0167	M.K	2010-06-14					sheet 1 of 5	
D	ELX-J-20602	M.K	2015-03-16	dr	S.WATANABE	2024-04-22	Amphenol FCI		size
E	ELX-J-33206	N.S	2019-04-12	enr	S.WATANABE	2024-04-22	59453		A3
F	ELX-J-39784	S.W	2021-01-27	chr	AN.MOHAMMAD-NABEEL	2024-04-22	Product Customer Drawing		
G	ELX-J-51306	S.W	2024-04-22	app	Y.KAMEDA	2024-04-22			
sheet index	revision sheet	G	G	G	G	G			
		1	2	3	4	5			

Product No.	No. of Contacts	Dimensions					F (FIG.1)
		A	B	C	D	E	
59453-04111CHLF	4	1.5	3.0	3.5	2.5	1.8	3.6
59453-05111CHLF	5	2.0	3.5	4.0	3.0	2.3	
59453-06111CHLF	6	2.5	4.0	4.5	3.5	2.8	
59453-07111CHLF	7	3.0	4.5	5.0	4.0	3.3	
59453-08111CHLF	8	3.5	5.0	5.5	4.5	3.8	
59453-09111CHLF	9	4.0	5.5	6.0	5.0	4.3	
59453-12111CHLF	12	5.5	7.0	7.5	6.5	5.8	
59453-13111CHLF	13	6.0	7.5	8.0	7.0	6.3	
59453-04111DHLF	4	1.5	3.0	3.5	2.5	1.8	
59453-05111DHLF	5	2.0	3.5	4.0	3.0	2.3	
59453-06111DHLF	6	2.5	4.0	4.5	3.5	2.8	
59453-07111DHLF	7	3.0	4.5	5.0	4.0	3.3	
59453-08111DHLF	8	3.5	5.0	5.5	4.5	3.8	
59453-09111DHLF	9	4.0	5.5	6.0	5.0	4.3	
59453-12111DHLF	12	5.5	7.0	7.5	6.5	5.8	
59453-13111DHLF	13	6.0	7.5	8.0	7.0	6.3	



CONNECTOR PARTS LIST

No.	PART NAME	MATERIAL	Q'TY	NOTE
1	HOUSING	UL94V-0 GLASS FILLED THERMOPLASTIC RESIN	1	COLOR:BLACK, HALOGEN FREE
2	ACTUATOR	UL94V-0 GLASS FILLED THERMOPLASTIC RESIN	1	COLOR:BLACK, HALOGEN FREE
3	CONTACT	COPPER ALLOY	n	CONTACT AREA PLATING:GOLD TERMINAL AREA PLATING:GOLD UNDER Ni PLATING
4	FIXING TAB	BRASS	2	PLATING:TIN(LEAD FREE)

n=No. OF CONTACTS

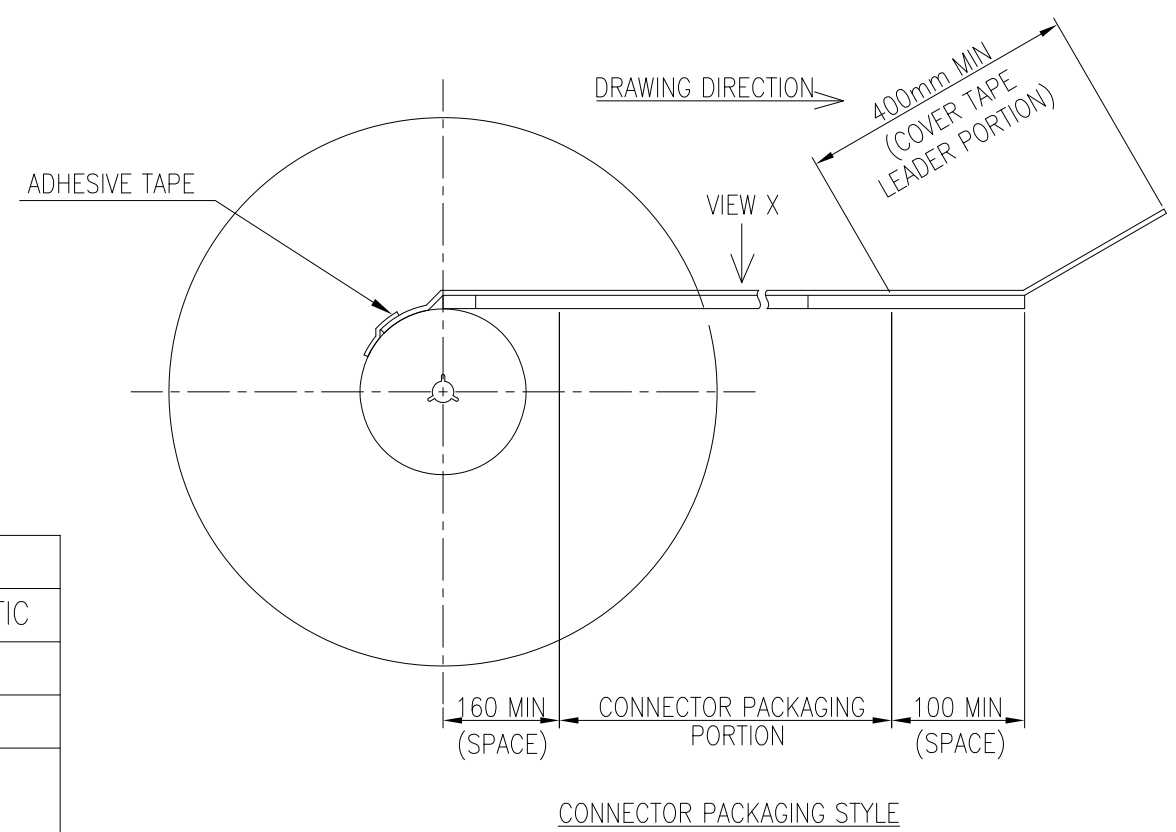
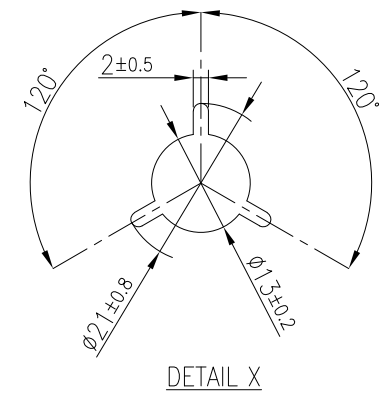
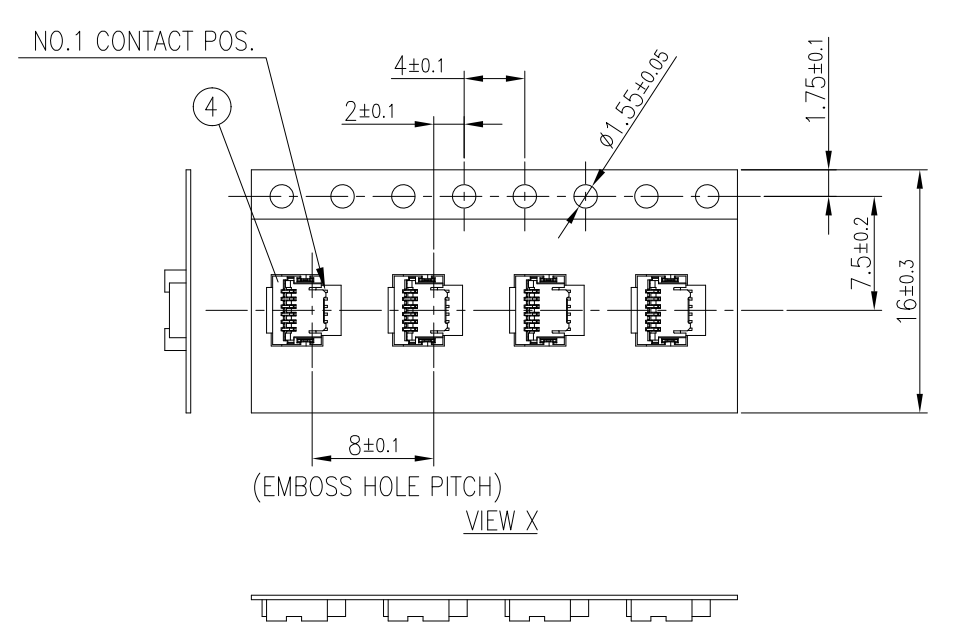
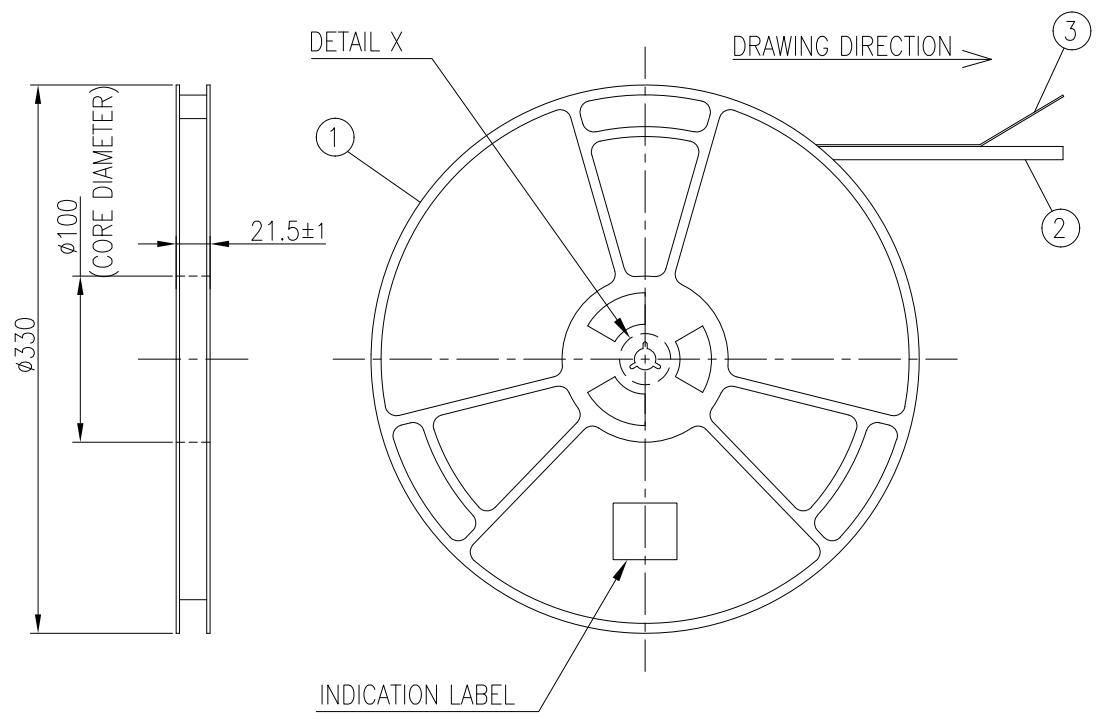
NOTE

- 1.COPLANARITY FOR CONTACT TERMINAL AND FIXING TAB MUST BE WITHIN 0.1mm.
- 2.THIS PRODUCT MEETS EUROPEAN UNION DIRECTIVES AND OTHER COUNTRY REGULATIONS AS DESCRIBED IN GS-47-0004.

mat'l. code SEE_TABLE		surface ISO 1302 ✓		tolerance ISO 406 ISO 1101		projection MM		product family 59CF	
ltr	ecn no	dr	date	tolerances unless otherwise specified		MM		title 0.5MM PITCH FPC CONNECTOR BOTTOM SIDE CONTACT TYPE	
G				angles	linear	scale 12:1		dwg no 59453	
						Amphenol FCi		sheet 2 of 5 A3	
				dr	S.WATANABE	2024-04-22		type Product Customer Drawing	
				enr	S.WATANABE	2024-04-22			
				chr	AN.MOHAMMAD-NABEEL	2024-04-22			
				app	Y.KAMEDA	2024-04-22			
sheet index	revision sheet								

Product No.	No. of Contacts	Preferred Part
59453-042110ECHLF	4	● ▲
59453-052110ECHLF	5	● ▲
59453-062110ECHLF	6	● ▲
59453-082110ECHLF	8	● ▲
59453-042110EDHLF	4	● ▲
59453-052110EDHLF	5	● ▲
59453-062110EDHLF	6	● ▲
59453-082110EDHLF	8	● ▲

EOL ▲
EOL ▲
EOL ▲
EOL ▲

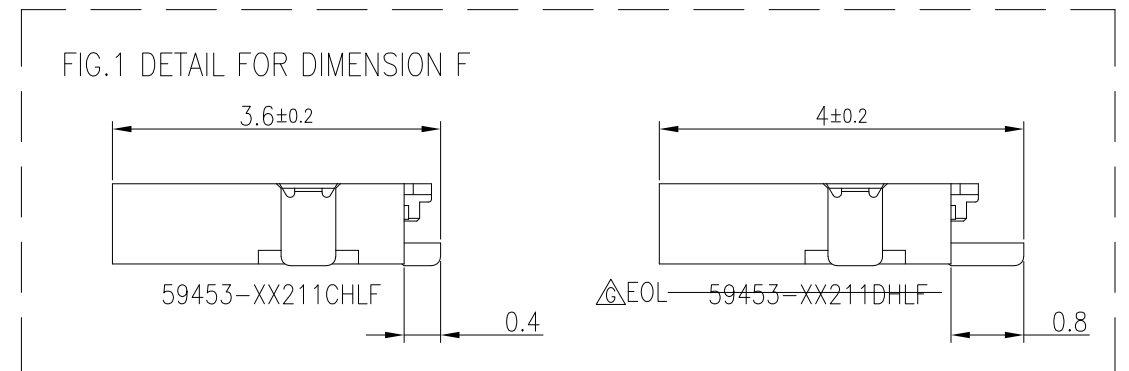
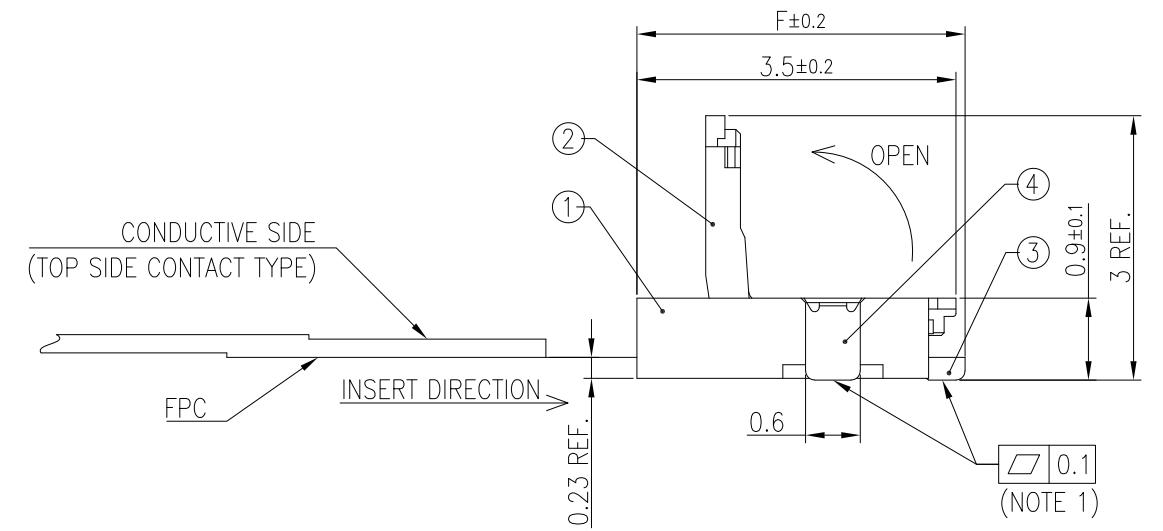
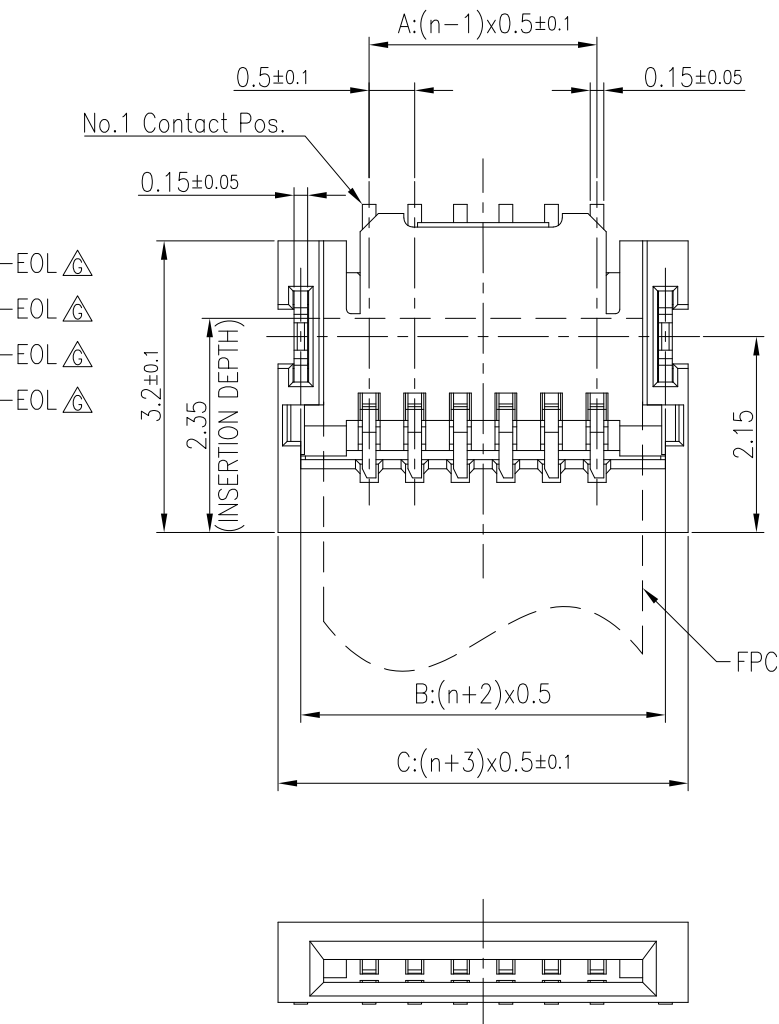


No.	PART NAME	PRODUCT No.	MATERIAL	Q'TY	NOTE
1	REEL	---	POLYSTYRENE	1	COLOR:WHITE OR BLACK, ANTI STATIC
2	PLASTIC(EMBOSS)TAPE	---	POLYSTYRENE	1	ANTI STATIC
3	COVER TAPE	---	POLYESTER/POLYETHYLENE	1	
4	CONNECTOR	59453-__211_HLF	SEE SHEET 4	5,000	CONTACT AREA PLATING:GOLD TERMINAL AREA PLATING:GOLD

NOTE
 1.THIS IS PLASTIC TAPE PACKAGED CONNECTOR USED FPR FPC AND COPES WITH AUTOMATIC MOUNTING(SMT)
 2.SEE JIS C 0806 (PACKING OF ELECTRONIC COMPONENTS ON CONTINUOUS TAPES (SURFACE MOUNTING DEVICES))
 3.PRODUCT SPEC : GS-12-449
 APPLICATION SPEC : GS-20-098
 PACKAGING SPEC : GS-14-834

mat'l. code SEE_TABLE		surface ISO 1302 ✓	tolerance ISO 406 ISO 1101	projection MM	product family 59DF
ltr	ecn no	dr	date	tolerances unless otherwise specified	title PLASTIC TAPE PACKAGED 0.5MM PITCH FPC CONNECTOR TOP SIDE CONTACT TYPE
G				angles linear ±5	
				scale NTS	dwg no 59453
					sheet 3 of 5 size A3
					type Product Customer Drawing
sheet index	revision sheet				

Product No.	No. of Contacts	Dimensions					F (FIG.1)
		A	B	C	D	E	
59453-04211CHLF	4	1.5	3.0	3.5	2.5	1.8	3.6
59453-05211CHLF	5	2.0	3.5	4.0	3.0	2.3	
59453-06211CHLF	6	2.5	4.0	4.5	3.5	2.8	
59453-08211CHLF	8	3.5	5.0	5.5	4.5	3.8	
59453-04211DHFLF	4	1.5	3.0	3.5	2.5	1.8	4.0
59453-05211DHFLF	5	2.0	3.5	4.0	3.0	2.3	
59453-06211DHFLF	6	2.5	4.0	4.5	3.5	2.8	
59453-08211DHFLF	8	3.5	5.0	5.5	4.5	3.8	



CONNECTOR PARTS LIST

No.	PART NAME	MATERIAL	Q'TY	NOTE
1	HOUSING	UL94V-0 GLASS FILLED THERMOPLASTIC RESIN	1	COLOR:BLACK, HALOGEN FREE
2	ACTUATOR	UL94V-0 GLASS FILLED THERMOPLASTIC RESIN	1	COLOR:WHITE, HALOGEN FREE
3	CONTACT	COPPER ALLOY	n	CONTACT AREA PLATING:GOLD TERMINAL AREA PLATING:GOLD UNDER Ni PLATING
4	FIXING TAB	BRASS	2	PLATING:TIN(LEAD FREE)

n=No. OF CONTACTS

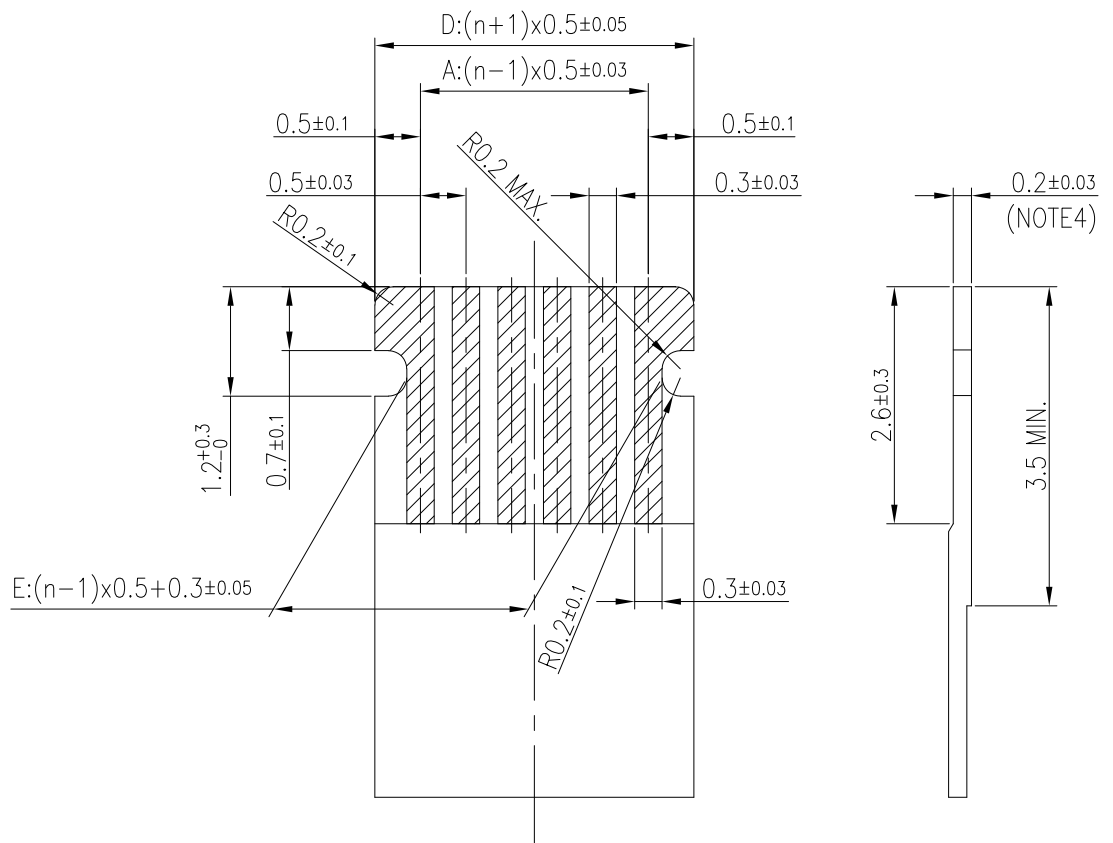
NOTE

- 1.COPLANARITY FOR CONTACT TERMINAL AND FIXING TAB MUST BE WITHIN 0.1mm.
- 2.THIS CONNECTOR WILL OCCUR THE BLACK POINT ON THE SURFACE OF ACTUATOR. IT IS NOT INFLUENCE THE CONNECTOR PERFORMANCE.
- 3.THIS PRODUCT MEETS EUROPEAN UNION DIRECTIVES AND OTHER COUNTRY REGULATIONS AS DESCRIBED IN GS-47-0004.

mat'l. code SEE_TABLE		surface ISO 1302 ✓		tolerance ISO 406 ISO 1101		projection MM		product family 59DF	
ltr	ecn no	dr	date	tolerances unless otherwise specified		MM		title 0.5MM PITCH FPC CONNECTOR TOP SIDE CONTACT TYPE	
G				angles	linear	scale 12:1		dwg no 59453	
				dr	S.WATANABE	2024-04-22	Amphenol FCi		sheet 4 of 5 A3
				enr	S.WATANABE	2024-04-22	type Product Customer Drawing		
				chr	AN.MOHAMMAD-NABEEL	2024-04-22			
				app	Y.KAMEDA	2024-04-22			
sheet index	revision sheet								

RECOMMENDED FPC DIMENSIONS
(NOTE2, NOTE3)

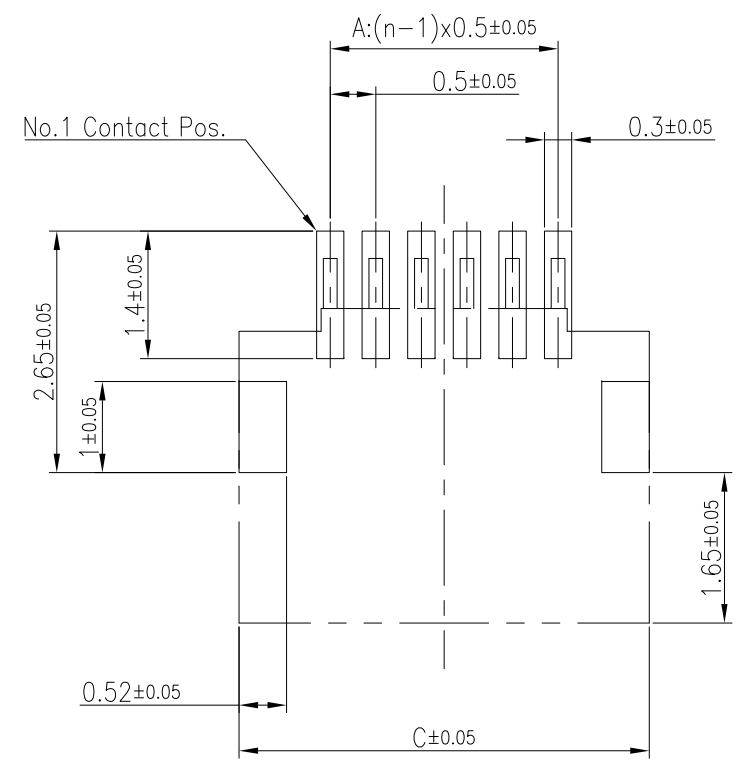
n : NO. OF CONTACTS



PT.NO.	DESCRIPTION	MATERIAL	NOTE
1	BASE FILM	POLYIMIDE OR EQUIVALENT	
2	CONDUCTOR	COPPER FOIL 35um	Au PLATING
3	OVERLAY	POLYIMIDE OR EQUIVALENT	
4	SUPPORTING TAPE	POLYIMIDE OR EQUIVALENT	

RECOMMENDED PCB LAYOUT (COMPONENT SIDE)
(NOTE5, NOTE6)

n : NO. OF CONTACTS



NOTES

- ADHESIVE METHOD OF SUPPORTING TAPE SHOULD BE HEAT CRIMPING METHOD AND THERMOSETTING ADHESIVE SHOULD BE USED.
- NO BURR AT EACH PORTION.
- NO PEELING IN COMMON USE.
- TOTAL THICKNESS LIMIT OF EACH MATERIAL (INCLUDING ADHESIVE AGENT) IS SPECIFIED.
- RECOMMENDED STENCIL THICKNESS IS 120~150um.
- RECOMMENDED STENCIL OPENING RATIO IS 100%.

mat'l. code SEE_TABLE		surface ISO 1302 <input checked="" type="checkbox"/>		tolerance ISO 406 ISO 1101		projection 		product family 59CF/DF		
ltr	ecn no	dr	date	tolerances unless otherwise specified		MM		title RECOMMENDED CABLE AND PCB LAYOUT		
G				angles	linear	0.X/±0.05 0.XX/±0.05		scale 12:1		
		dr	S.WATANABE	2024-04-22		Amphenol FCI		dwg no sheet 5 of 5		
		enr	S.WATANABE	2024-04-22	59453			size A3		
		chr	AN.MOHAMMAD-NABEEL	2024-04-22						
		app	Y.KAMEDA	2024-04-22						
sheet index		revision sheet						type Product Customer Drawing		