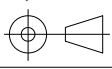




List of "HFW__R-1/2STE1HLF" customer document

DOCUMENT NO.	LIST
10089213(sheet1)	DOCUMENT LIST
10089213(sheet2)	CAT. NO. TABLE FOR 1mm SPACING SMT CONNECTOR (HFW__R-1/2ST_HLF)
10089213(sheet3)	1mm SPACING SURFACE MOUNT FPC/FFC CONNECTOR (HFW__R-1ST_HLF)
10089213(sheet4)	1mm SPACING SURFACE MOUNT FPC/FFC CONNECTOR (HFW__R-2ST_HLF)
10089213(sheet5)	CAT. NO. TABLE FOR PLASTIC TAPE PACKAGED 1mm SPACING SMT CONNECTOR (HFW__R-1/2STE1HLF)
10089213(sheet6)	1mm SPACING SMT CONNECTOR (HFW__R-1STE1HLF)
10089213(sheet7)	1mm SPACING SMT CONNECTOR (HFW__R-2STE1HLF)
10089213(sheet8)	RECOMMENDED CABLE (FPC) (HFW__R-1/2__)
10089213(sheet9)	RECOMMENDED CABLE (FFC) (HFW__R-1/2__)
GS-12-563	PRODUCT SPEC.
BJM-HFWR101	HANDLING PROCEDURES

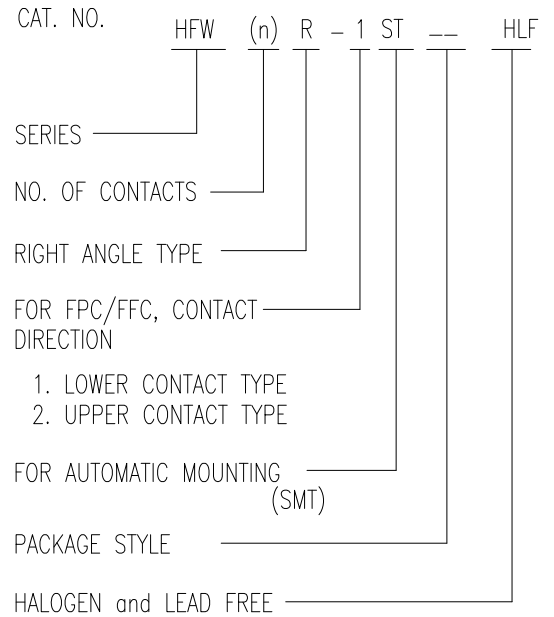
Amphenol FCI

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mat'l. code				surface ISO 1302 <input checked="" type="checkbox"/>		tolerance ISO 406 ISO 1101		projection 		product family 58NF									
ltr	ecn no	dr	date	tolerances unless otherwise specified						MM 		title							
A	S08-0199	DGOH	08/06/26	angles	linear			scale N/A		1mm SPACING FPC/FFC CONNECTOR DOCUMENT LIST (Cat. No. : HFW__R-1/2STE1HLF)									
B	ELX-J-32905	S.W	2019-3-13							dwg no sheet 1 of 9 size									
				dr	S.WATANABE	2019-3-13				10089213 A4									
				enr	S.WATANABE	2019-3-13				type Product Customer Drawing									
				chr	S-H.THIO	2019-3-13													
				appd	Y.KAMEDA	2019-3-13													
sheet index	revision sheet	B	B	B	B	B	B	B	B	B									
		1	2	3	4	5	6	7	8	9									

CAT. NO. & DIMENSIONS

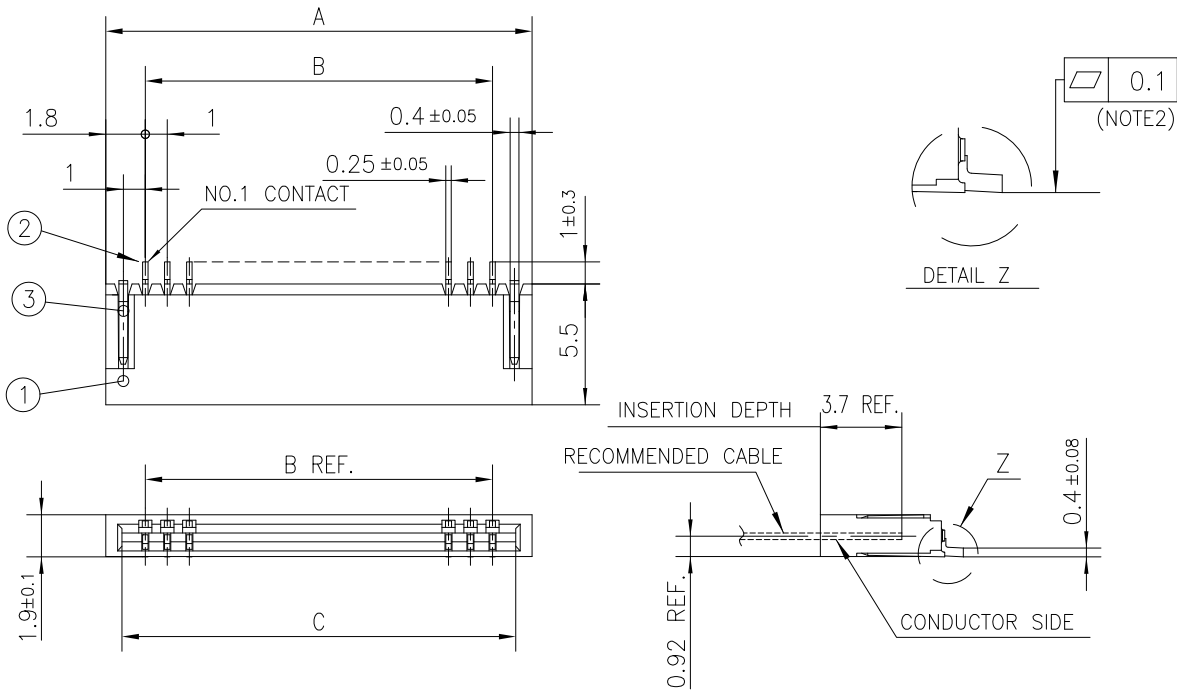
(NOTE3)	NO. OF CONTACTS (n)	CAT. NO.	DIMENSIONS (NOTE2)		
			A ± 0.2	B ± 0.2	C ± 0.1
	4	HFW4R-1/2ST__HLF	6.6	3	5.14
	5	HFW5R-1/2ST__HLF	7.6	4	6.14
	6	HFW6R-1/2ST__HLF	8.6	5	7.14
	7	HFW7R-1/2ST__HLF	9.6	6	8.14
	8	HFW8R-1/2ST__HLF	10.6	7	9.14
	9	HFW9R-1/2ST__HLF	11.6	8	10.14
	10	HFW10R-1/2ST__HLF	12.6	9	11.14
	11	HFW11R-1/2ST__HLF	13.6	10	12.14
	12	HFW12R-1/2ST__HLF	14.6	11	13.14
	13	HFW13R-1/2ST__HLF	15.6	12	14.14
	14	HFW14R-1/2ST__HLF	16.6	13	15.14
	15	HFW15R-1/2ST__HLF	17.6	14	16.14
	16	HFW16R-1/2ST__HLF	18.6	15	17.14
	17	HFW17R-1/2ST__HLF	19.6	16	18.14
	18	HFW18R-1/2ST__HLF	20.6	17	19.14
	19	HFW19R-1/2ST__HLF	21.6	18	20.14
	20	HFW20R-1/2ST__HLF	22.6	19	21.14
	21	HFW21R-1/2ST__HLF	23.6	20	22.14
	22	HFW22R-1/2ST__HLF	24.6	21	23.14
	23	HFW23R-1/2ST__HLF	25.6	22	24.14
	24	HFW24R-1/2ST__HLF	26.6	23	25.14
	25	HFW25R-1/2ST__HLF	27.6	24	26.14
	26	HFW26R-1/2ST__HLF	28.6	25	27.14
	27	HFW27R-1/2ST__HLF	29.6	26	28.14
*	28	HFW28R-1/2ST__HLF	30.6	27	29.14
*	29	HFW29R-1/2ST__HLF	31.6	28	30.14
	30	HFW30R-1/2ST__HLF	32.6	29	31.14



NOTES

1. THIS PRODUCT IS THE CONNECTOR DESIGNED TO TERMINATE FPC/FFC AND COPE WITH AUTOMATIC MOUNTING (SMT).
2. SEE PART DRAWINGS FOR DIMENSIONS A~C.
3. PLEASE CONSULT US IN CASE OF USING PARTS WITH * MARK.

mat'l. code		surface ISO 1302 <input checked="" type="checkbox"/>		tolerance ISO 406 ISO 1101		projection		product family 58NF			
ltr	ecn no	dr	date	tolerances unless otherwise specified		MM		title CAT. NO. TABLE FOR 1mm SPACING SMT CONNECTOR (Cat.No. HFW__R-1/2ST__HLF)			
B				angles	linear	scale N/A		dwg no		sheet 2 of 9	size
				dr	S.WATANABE	2019-3-13		10089213		A4	
				enr	S.WATANABE	2019-3-13		Product Customer Drawing			
				chr	S-H.THIO	2019-3-13					
				appd	Y.KAMEDA	2019-3-13					
sheet index	revision sheet										



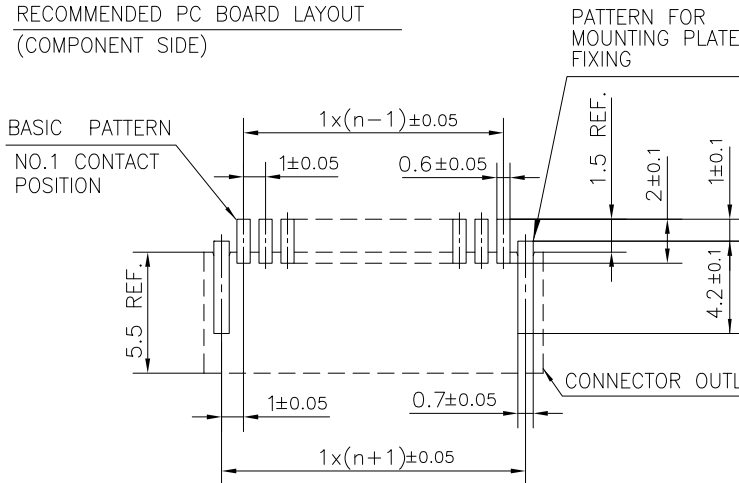
PT. NO.	PARTS NAME	MATERIAL	Q'TY	NOTE
1	HOUSING	PA6T RESIN GLASS REINFORCED (UL94V-0)	1	COLOR : BLACK (HALOGEN FREE)
2	CONTACT	PHOSPHOR BRONZE	n	PLATING : TIN
3	MOUNTING PLATE		2	(LEAD FREE)

n : NO. OF CONTACTS

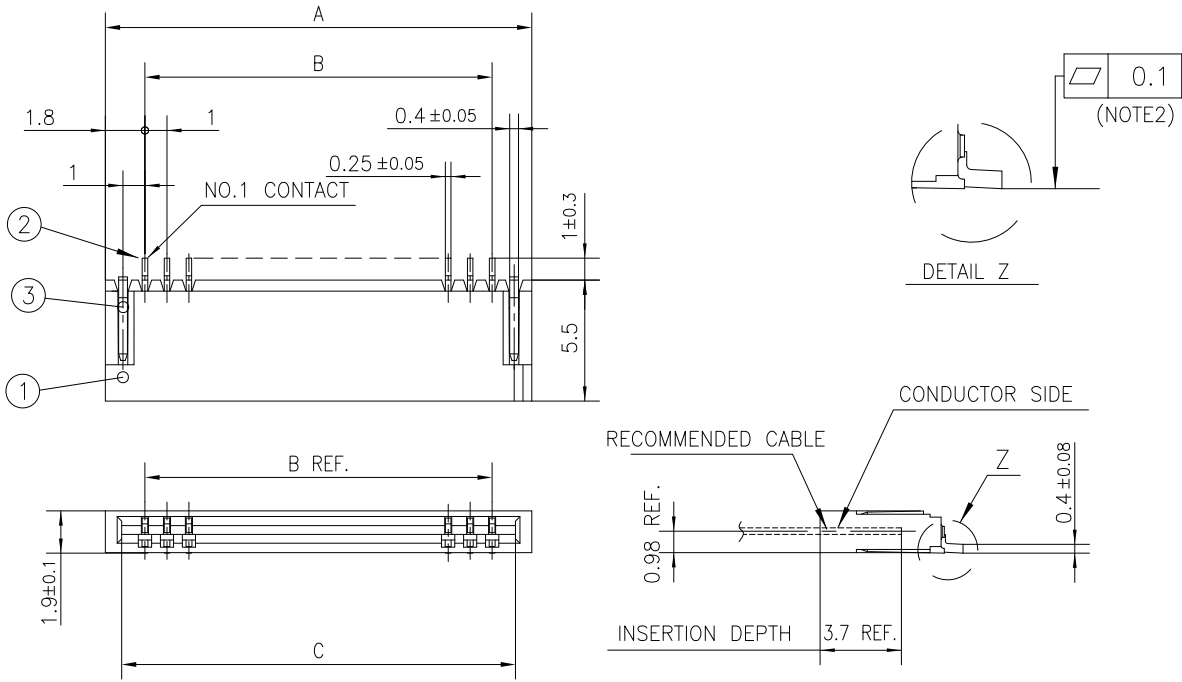
NOTES

1. THIS PRODUCT IS THE CONNECTOR DESIGNED TO TERMINATE FPC/FFC AND COPES WITH AUTOMATIC MOUNTING (SMT).
2. FLATNESS OF CONTACT TERMINAL FOR HOUSING MUST BE WITHIN TOLERANCE IN Z PORTION DETAILED DRAWING.
3. THIS PRODUCT IS LOWER CONTACT TYPE CONNECTOR.
4. THIS PRODUCT MEETS EUROPEAN UNION DIRECTIVES AND OTHER COUNTRY REGULATIONS AS DESCRIBED IN GS-22-008
5. THE HOUSING WILL WITHSTAND EXPOSURE TO 260°C PEAK TEMPERATURE FOR 10 SECONDS IN A REFLOW SOLDERING OVEN.

RECOMMENDED PC BOARD LAYOUT (COMPONENT SIDE)



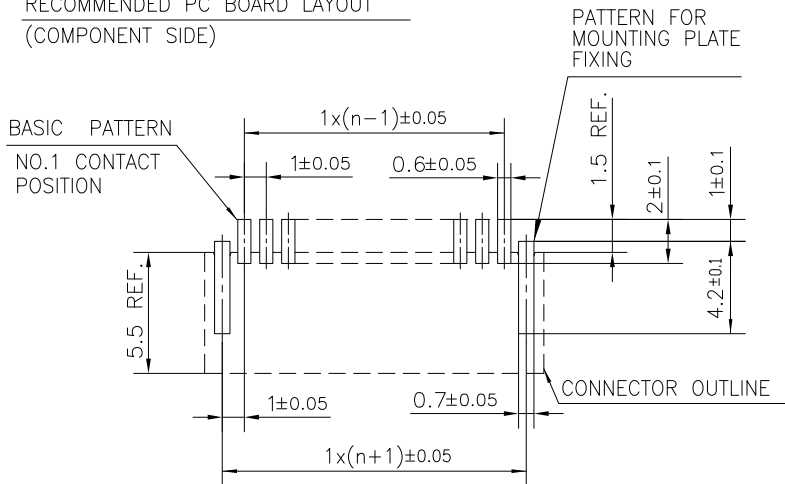
mat'l. code		surface ISO 1302		tolerance ISO 406 ISO 1101		projection		product family 58NF	
ltr	ecn no	dr	date	tolerances unless otherwise specified		MM		title	
B				angles	linear	scale N/A		1mm SPACING SURFACE MOUNT FPC/FFC CONNECTOR (Cat.No. HFW__R-1ST__HLF)	
				dr	S.WATANABE	2019-3-13	Amphenol FCI	dwg no sheet 3 of 9 size	
				enr	S.WATANABE	2019-3-13		10089213 A4	
				chr	S-H.THIO	2019-3-13			
				appd	Y.KAMEDA	2019-3-13		type Product Customer Drawing	
sheet index	revision sheet								



PT. NO.	PARTS NAME	MATERIAL	Q'TY	NOTE
1	HOUSING	PA6T RESIN GLASS REINFORCED (UL94V-0)	1	COLOR : BLACK (HALOGEN FREE)
2	CONTACT	PHOSPHOR BRONZE	n	PLATING : TIN
3	MOUNTING PLATE		2	(LEAD FREE)

n : NO. OF CONTACTS

RECOMMENDED PC BOARD LAYOUT
(COMPONENT SIDE)



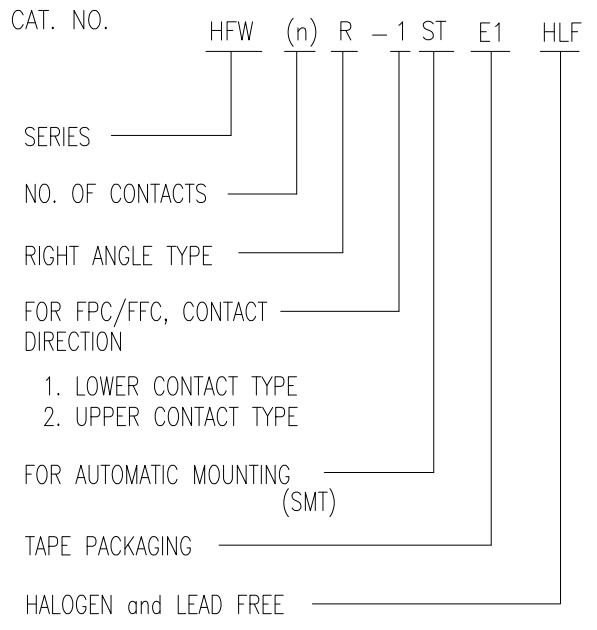
NOTES

1. THIS PRODUCT IS THE CONNECTOR DESIGNED TO TERMINATE FPC/FFC AND COPES WITH AUTOMATIC MOUNTING (SMT).
2. FLATNESS OF CONTACT TERMINAL FOR HOUSING MUST BE WITHIN TOLERANCE IN Z PORTION DETAILED DRAWING.
3. THIS PRODUCT IS UPPER CONTACT TYPE CONNECTOR.
4. THIS PRODUCT MEETS EUROPEAN UNION DIRECTIVES AND OTHER COUNTRY REGULATIONS AS DESCRIBED IN GS-22-008
5. THE HOUSING WILL WITHSTAND EXPOSURE TO 260°C PEAK TEMPERATURE FOR 10 SECONDS IN A REFLOW SOLDERING OVEN.

mat'l. code		surface ISO 1302		tolerance ISO 406 ISO 1101		projection		product family 58NF	
ltr	ecn no	dr	date	tolerances unless otherwise specified		MM		title	
B				angles	linear	scale N/A		1mm SPACING SURFACE MOUNT FPC/FFC CONNECTOR (Cat.No. HFW__R-2ST__HLF)	
				dr	S.WATANABE	2019-3-13	Amphenol FCI	dwg no sheet 4 of 9 size	
				enr	S.WATANABE	2019-3-13		10089213 A4	
				chr	S-H.THIO	2019-3-13			
				appd	Y.KAMEDA	2019-3-13		type Product Customer Drawing	
sheet index	revision sheet								

CAT. NO. & DIMENSIONS

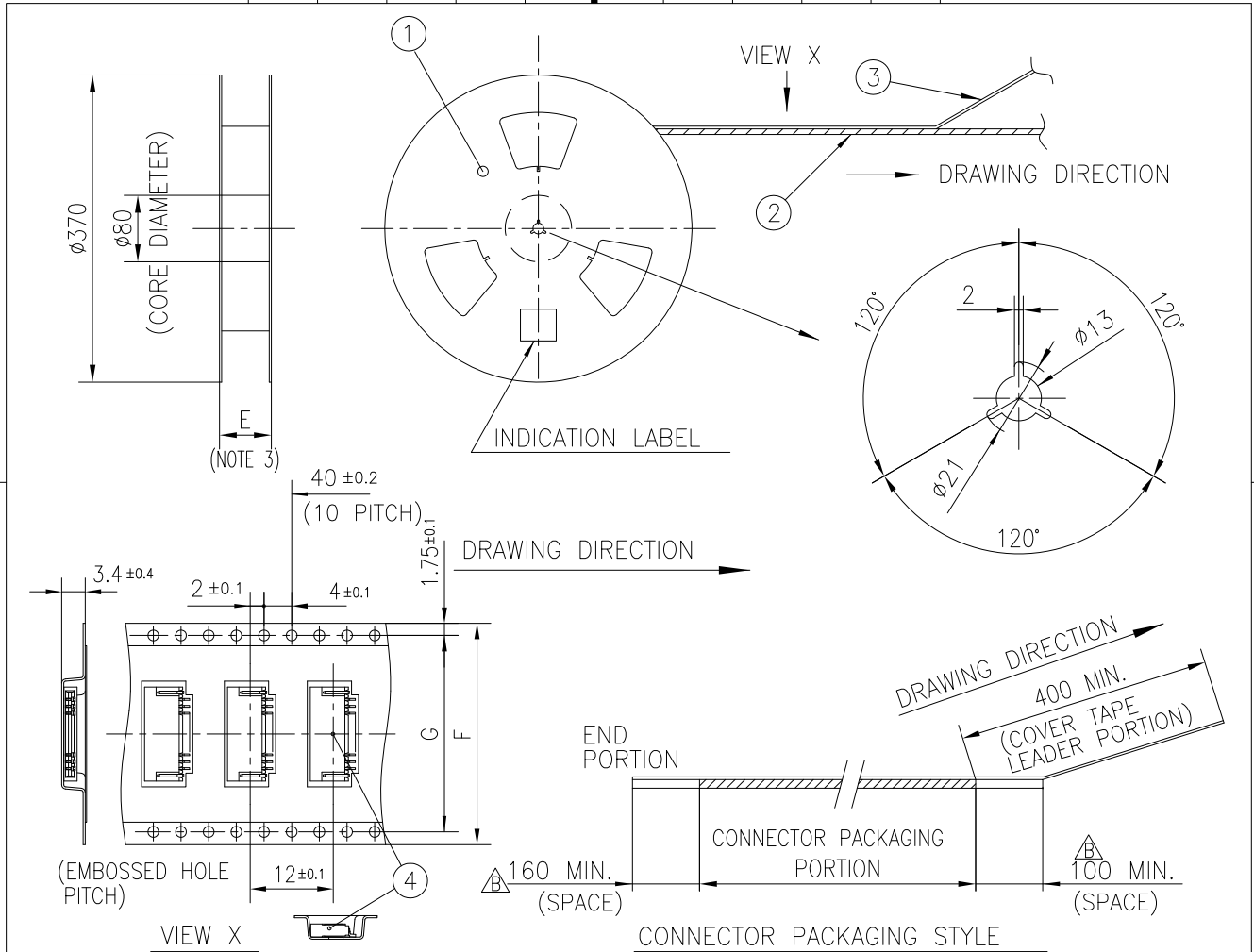
(NOTE4)	NO. OF CONTACTS (n)	CAT. NO. (NOTE2)	DIMENSIONS (NOTE3)		
			E ± 0.5	F ± 0.3	G ± 0.1
	4	HFW4R-1/2STE1HLF	28.4	24	—
	5	HFW5R-1/2STE1HLF	28.4	24	—
	6	HFW6R-1/2STE1HLF	28.4	24	—
	7	HFW7R-1/2STE1HLF	28.4	24	—
	8	HFW8R-1/2STE1HLF	28.4	24	—
	9	HFW9R-1/2STE1HLF	28.4	24	—
	10	HFW10R-1/2STE1HLF	28.4	24	—
	11	HFW11R-1/2STE1HLF	28.4	24	—
	12	HFW12R-1/2STE1HLF	28.4	24	—
	13	HFW13R-1/2STE1HLF	28.4	24	—
	14	HFW14R-1/2STE1HLF	28.4	24	—
	15	HFW15R-1/2STE1HLF	36.4	32	28.4
	16	HFW16R-1/2STE1HLF	36.4	32	28.4
	17	HFW17R-1/2STE1HLF	36.4	32	28.4
	18	HFW18R-1/2STE1HLF	36.4	32	28.4
	19	HFW19R-1/2STE1HLF	48.4	44	40.4
	20	HFW20R-1/2STE1HLF	48.4	44	40.4
	21	HFW21R-1/2STE1HLF	48.4	44	40.4
	22	HFW22R-1/2STE1HLF	48.4	44	40.4
	23	HFW23R-1/2STE1HLF	48.4	44	40.4
	24	HFW24R-1/2STE1HLF	48.4	44	40.4
	25	HFW25R-1/2STE1HLF	48.4	44	40.4
	26	HFW26R-1/2STE1HLF	48.4	44	40.4
	27	HFW27R-1/2STE1HLF	48.4	44	40.4
*	28	HFW28R-1/2STE1HLF	48.4	44	40.4
*	29	HFW29R-1/2STE1HLF	48.4	44	40.4
	30	HFW30R-1/2STE1HLF	60.4	56	52.4



NOTES

1. THIS PRODUCT IS THE CONNECTOR DESIGNED TO TERMINATE FPC/FFC AND COPEs WITH AUTOMATIC MOUNTING (SMT).
2. THIS CATALOG NO. INDICATES PLASTIC TAPE PACKAGED CONNECTOR.
3. SEE PART DRAWINGS FOR DIMENSIONS E~G.
4. PLEASE CONSULT US IN CASE OF USING PARTS WITH * MARK.

mat'l. code		surface ISO 1302		tolerance ISO 406 ISO 1101		projection		product family 58NF	
ltr	ecn no	dr	date	tolerances unless otherwise specified		MM		title	
B				angles	linear	scale N/A		CAT. NO. TABLE FOR PLASTIC TAPE PACKAGED 1mm SPACING SMT CONN. (Cat.No. HFW__R-1/2STE1HLF)	
				dr	S.WATANABE	2019-3-13	Amphenol FCI	dwg no sheet 5 of 9 size	
				enr	S.WATANABE	2019-3-13		10089213 A4	
				chr	S-H.THIO	2019-3-13			
				appd	Y.KAMEDA	2019-3-13		type Product Customer Drawing	
sheet index	revision sheet								

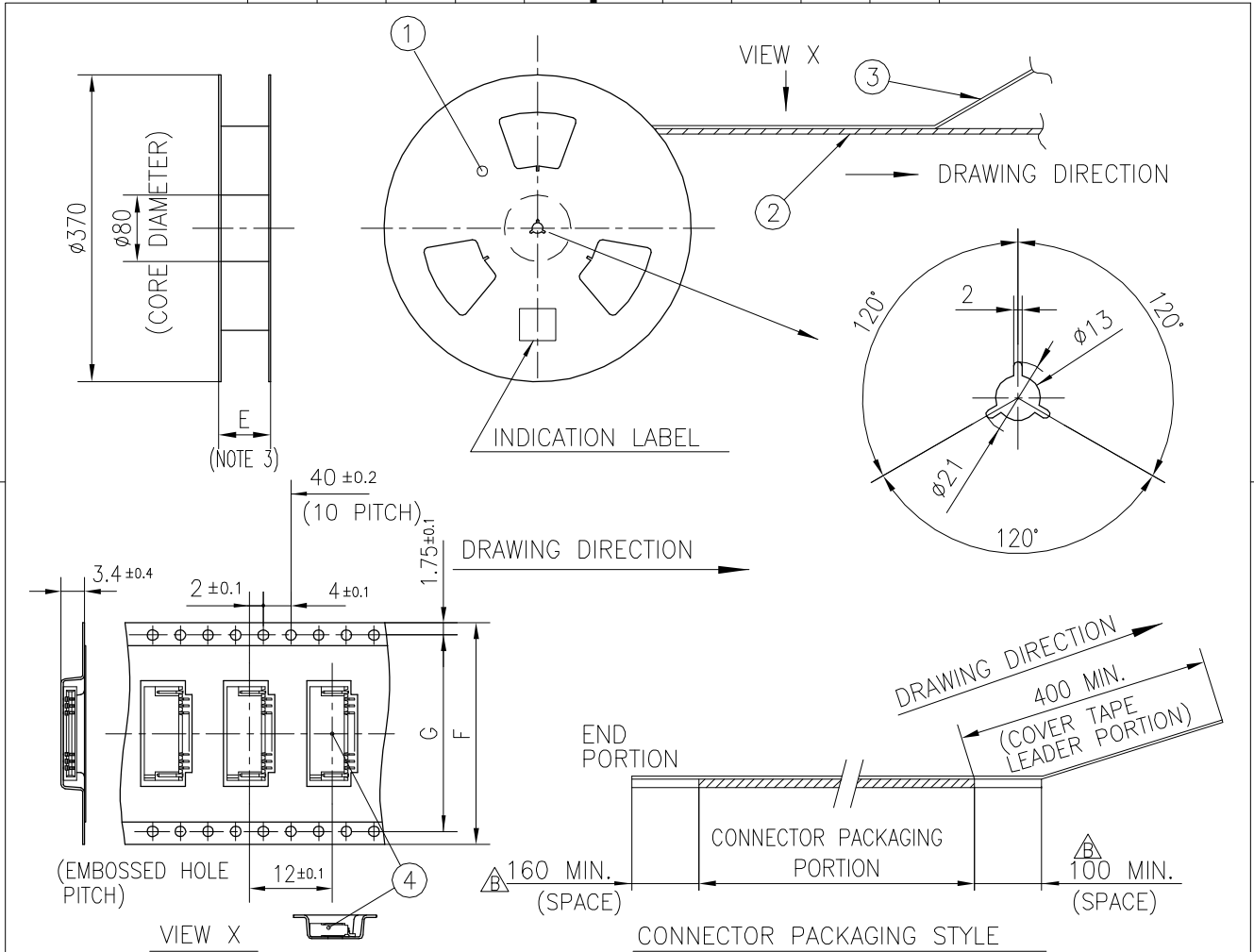


PT. NO.	PARTS NAME	CAT. NO.	MATERIAL	Q'TY	NOTE
1	REEL	—	CARDBOARD	1	COLOR:WHITE
2	PLASTIC (EMBOSSD) TAPE	—	△PS or A-PET	—	COLOR:TRANSPARENCY
3	COVER	—	△POLYESTER,POLYETHYLENE	—	COLOR:TRANSPARENCY
4	CONNECTOR	HFV__R-1ST__HLF	SEE SHEET 3	2000	LOWER CONTACT TYPE

NOTES

1. THIS IS PLASTIC TAPE PACKAGED CONNECTOR DESIGNED TO TERMINATE FPC/FFC AND COPES WITH AUTOMATIC MOUNTING (SMT).
2. SEE JIS C 0806 (PACKING OF ELECTRONIC COMPONENTS ON CONTINUOUS TAPES (SURFACE MOUNTING DEVICES)) FOR SHAPE AND DIMENSIONS OF PLASTIC (EMBOSSD) TAPE AND REEL.
3. E DIMENSION IS PORTION OF THE CORE.

mat'l. code		surface ISO 1302 ✓		tolerance ISO 406 ISO 1101		projection		product family 58NF	
ltr	ecn no	dr	date	tolerances unless otherwise specified		MM		title	
B				angles	±5	← →		1mm SPACING SMT CONNECTOR (Cat.No. HFV__R-1STE1HLF)	
				linear	±5'	scale N/A		dwg no sheet 6 of 9 size	
				dr	S.WATANABE	2019-3-13	Amphenol FCI	10089213	
				enr	S.WATANABE	2019-3-13		A4	
				chr	S-H.THIO	2019-3-13			
				appd	Y.KAMEDA	2019-3-13		type Product Customer Drawing	
sheet index	revision sheet								



PT. NO.	PARTS NAME	CAT. NO.	MATERIAL	Q'TY	NOTE
1	REEL	—	CARDBOARD	1	COLOR:WHITE
2	PLASTIC (EMBOSS) TAPE	—	△PS or A-PET	—	COLOR:TRANSPARENCY
3	COVER	—	△POLYESTER,POLYETHYLENE	—	COLOR:TRANSPARENCY
4	CONNECTOR	HFV__R-2ST__HLF	SEE SHEET 4	2000	UPPER CONTACT TYPE

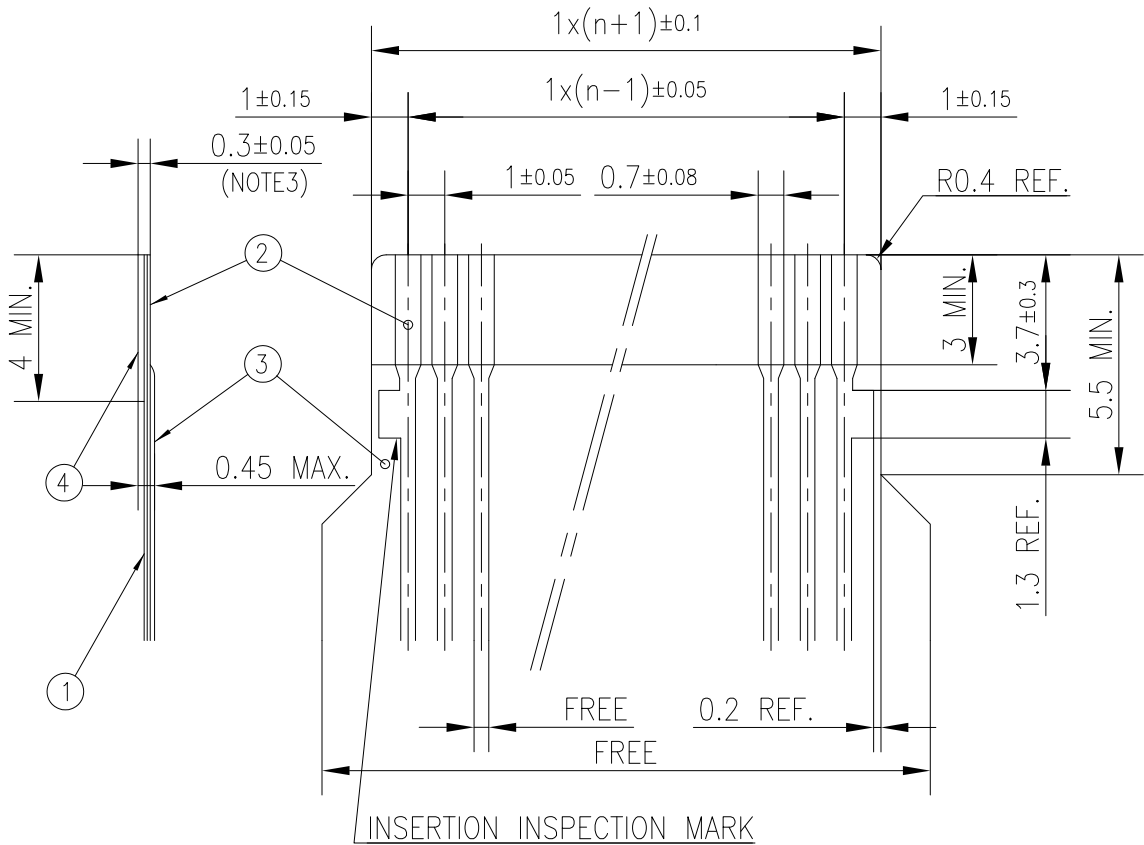
NOTES

- THIS IS PLASTIC TAPE PACKAGED CONNECTOR DESIGNED TO TERMINATE FPC/FFC AND COPES WITH AUTOMATIC MOUNTING (SMT).
- SEE JIS C 0806 (PACKING OF ELECTRONIC COMPONENTS ON CONTINUOUS TAPES (SURFACE MOUNTING DEVICES)) FOR SHAPE AND DIMENSIONS OF PLASTIC (EMBOSS) TAPE AND REEL.
- E DIMENSION IS PORTION OF THE CORE.

mat'l. code		surface ISO 1302		tolerance ISO 406 ISO 1101		projection		product family 58NF	
ltr	ecn no	dr	date	tolerances unless otherwise specified		MM		title	
B				angles	±5	scale N/A		1mm SPACING SMT CONNECTOR (Cat.No. HFV__R-2STE1HLF)	
				linear	±5°	Amphenol FCI		dwg no sheet 7 of 9 size	
				dr	S.WATANABE	2019-3-13	10089213		△4
				enr	S.WATANABE	2019-3-13	type Product Customer Drawing		
				chr	S-H.THIO	2019-3-13			
				appd	Y.KAMEDA	2019-3-13			
sheet index	revision sheet								

RECOMMENDED CABLE (FPC)

n : NO. OF CONDUCTORS



PT. NO.	DESCRIPTION	MATERIAL	THICKNESS (um)
1	BASE FILM	POLYIMIDE OR POLYESTER OR EQUIVALENT	25
2	CONDUCTOR	COPPER FOIL (PLATING : TIN OR SOLDER 1um MIN.)	35
3	OVERLAY	POLYIMIDE OR POLYESTER OR EQUIVALENT	—
4	SUPPORTING TAPE	POLYESTER OR POLYIMIDE OR EQUIVALENT	188

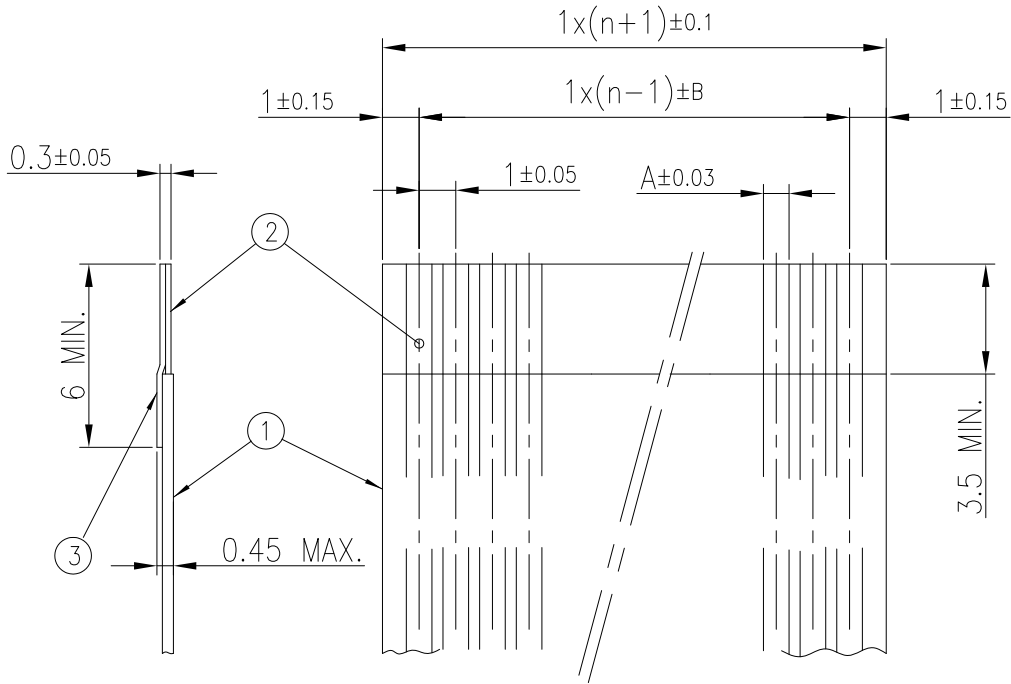
NOTES

1. NO BURR AT EACH PORTION.
2. NO PEELING IN COMMON USE.
3. TOTAL THICKNESS LIMIT OF EACH MATERIAL (INCLUDING ADHESIVE AGENT) IS SPECIFIED.

mat'l. code		surface		tolerance		projection		product family		
—		ISO 1302 ✓		ISO 406 ISO 1101				58NF		
ltr	ecn no	dr	date	tolerances unless otherwise specified				title		
B				angles		MM		RECOMMENDED CABLE		
				linear				(Cat. No. HFW__R-1/2__)		
		dr	S.WATANABE	2019-3-13			dwg no		sheet 8 of 9	size
		enr	S.WATANABE	2019-3-13			10089213		A4	
		chr	S-H.THIO	2019-3-13						
		appd	Y.KAMEDA	2019-3-13						
sheet index	revision sheet									

RECOMMENDED CABLE (FFC)

n : NO. OF CONDUCTORS



(NOTE3)	DIMENSION A	TOLERANCE B
1	0.7	0.1
2	0.6	0.07

PT. NO.	DESCRIPTION	MATERIAL
1	INSULATOR	FLAME RESISTING POLYESTER OR EQUIVALENT
2	CONDUCTOR	COPPER FOIL (PLATING : TIN OR SOLDER 1um MIN.)
3	SUPPORTING TAPE	FLAME RESISTING POLYESTER OR EQUIVALENT

NOTES

1. NO BURR AT EACH PORTION.
2. NO PEELING IN COMMON USE.
3. BOTH COMBINATION IS ALLOWED.

Amphenol FCI

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mat'l. code		surface		tolerance		projection		product family	
-		ISO 1302 ✓		ISO 406 ISO 1101				58NF	
ltr	ecn no	dr	date	tolerances unless otherwise specified				title	
B				angles	linear	MM		RECOMMENDED CABLE (Cat. No. HFW__R-1/2ST__)	
						scale N/A		dwg no	
				dr	S.WATANABE	2019-3-13		sheet 9 of 9	
				enr	S.WATANABE	2019-3-13		10089213	
				chr	S-H.THIO	2019-3-13		A4	
				appd	Y.KAMEDA	2019-3-13		type Product Customer Drawing	
sheet index	revision sheet								