

Configuration of Customer Documents List

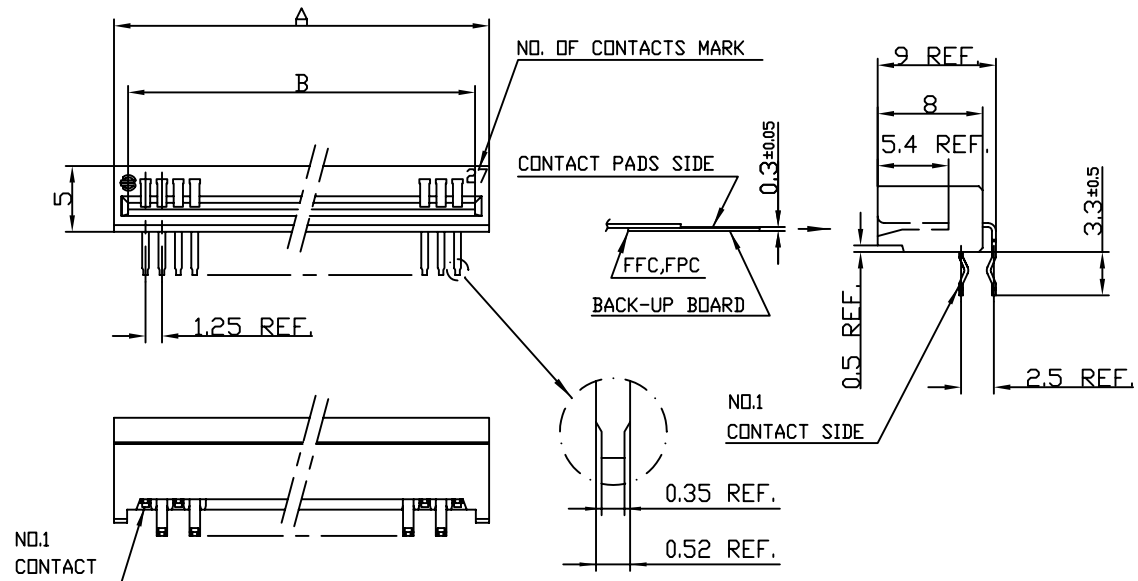
P/N	Documents	No.	Title
HLEM_R/S-1	Specification	SC-HLEM 01	
	Dwg.	JSA93270	1.25mm Spacing Connector for FPC/FFC (HLEM_R/S-)
		JSA93271	1.25mm Spacing Connector for FPC/FFC (HLEM_S-1)
	Cable Manual	JSA28789 BJM-HLEM101	Recommended cable and P.C. board (HLEM_R/S-)
HLEM_R/S-2	Specification	SC-HLEM 01	
	Dwg.	JSC29055	1.25mm Spacing Connector for FPC/FFC (HLEM_R-2)
		JSC29054	1.25mm Spacing Connector for FPC/FFC (HLEM_S-2)
	Cable Manual	JSA28789 BJM-HLEM101	Recommended cable and P.C. board (HLEM_R/S-)
HLEM_R/S-1RLF (See Note ②③)	Specification	SC-HLEM 01	
	Dwg.	JSA94071	1.25mm Spacing Connector for FPC/FFC (HLEM_R-1RLF)
		JSA94072	1.25mm Spacing Connector for FPC/FFC (HLEM_S-1RLF)
	Cable Manual	JSA28789 BJM-HLEM101	Recommended cable and P.C. board (HLEM_R/S-)
HLEM_R/S-1RFLF (See Note ②③)	Specification	SC-HLEM 01	
	Dwg.	JSA94073	1.25mm Spacing Connector for FPC/FFC (HLEM_R-1RFLF)
		JSA94074	1.25mm Spacing Connector for FPC/FFC (HLEM_S-1RFLF)
	Cable Manual	JSA28789 BJM-HLEM101	Recommended cable and P.C. board (HLEM_R/S-)
HLEM_R/S-2RLF (See Note ②③)	Specification	SC-HLEM 01	
	Dwg.	JSA96132	1.25mm Spacing Connector for FPC/FFC (HLEM_R-2RLF)
		JSA96133	1.25mm Spacing Connector for FPC/FFC (HLEM_S-2RLF)
	Cable Manual	JSA28789 BJM-HLEM101	Recommended cable and P.C. board (HLEM_R/S-)
HLEM_R/S-2RFLF (See Note ②③)	Specification	SC-HLEM 01	
	Dwg.	JSA96134	1.25mm Spacing Connector for FPC/FFC (HLEM_R-2RFLF)
		JSA96135	1.25mm Spacing Connector for FPC/FFC (HLEM_S-2RFLF)
	Cable Manual	JSA28789 BJM-HLEM101	Recommended cable and P.C. board (HLEM_R/S-)

NOTES

- THE HOUSING WILL WITHSTAND EXPOSURE TO 260 DEGREE PEAK TEMPERATURE FOR 10 SECONDS IN A WAVE SOLDER APPLICATION WITH A 1.57MM MINIMUM THICK CIRCUIT BOARD.
- THIS PRODUCT MEETS EUROPEAN UNION DIRECTIVES AND OTHER COUNTRY REGULATIONS AS DESCRIBED IN GS-22-008.
- PART NUMBERS ENDING IN "LF" MEANS FOR NOTE ② LEAD FREE IDENTIFICATION.
HLEMxxR/S-1/2R(F)LF IS EQUIVALENT TO PREVIOUS P/N HLEMxxR/S-1/2R(F).

mat'l. code		surface	tolerance	projection	product family
		ASME Y14.5	ASME Y14.5		58KF
ltr	ecn no	dr	date	tolerances unless otherwise specified	title
A	J04-0253	H.T	2004-08-03	angles	1.25mm Spacing Connector
B	J05-0014	H.T	2005-01-13	radius	(Customer documents list)
C	S05-0145	D.T	2005-06-15	0'±2'	scale -
D	S05-0290	D.T	2005-10-14	dr	sheet 1 of 1 size
E	S06-0252	P.C	2006-07-28	engr	JSA96023
		chr	Patrick Chua	2006-07-28	A4
		app	Joey Ng	2006-07-28	type Product Customer Drawing
sheet index	revision	E			
	sheet	1			

TOLERANCES
UNLESS OTHERWISE SPECIFIED : ± 0.2



MATERIAL : INSULATOR : PBT RESIN GLASS REINFORCED (UL94V-0)
COLOR : BLACK
CONTACT : PHOSPHOR BRONZE (TIN PLATED ; THICKNESS: 1 micron)

NO. OF CONTACTS	(See Note 3) CAT. NO.	DIMENSIONS					
		A ± 0.3	B ± 0.1				
3	HLEM 3R-1RLF	7.30	5.16	21	HLEM21R-1RLF	29.80	27.66
4	HLEM 4R-1RLF	8.55	6.41	22	HLEM22R-1RLF	31.05	28.91
5	HLEM 5R-1RLF	9.80	7.66	23	HLEM23R-1RLF	32.30	30.16
6	HLEM 6R-1RLF	11.05	8.91	24	HLEM24R-1RLF	33.55	31.41
7	HLEM 7R-1RLF	12.30	10.16	25	HLEM25R-1RLF	34.80	32.66
8	HLEM 8R-1RLF	13.55	11.41	26	HLEM26R-1RLF	36.05	33.91
9	HLEM 9R-1RLF	14.80	12.66	27	HLEM27R-1RLF	37.30	35.16
10	HLEM10R-1RLF	16.05	13.91	28	HLEM28R-1RLF	38.55	36.41
11	HLEM11R-1RLF	17.30	15.16	29	HLEM29R-1RLF	39.80	37.66
12	HLEM12R-1RLF	18.55	16.41	30	HLEM30R-1RLF	41.05	38.91
13	HLEM13R-1RLF	19.80	17.66	31	HLEM31R-1RLF	42.30	40.16
14	HLEM14R-1RLF	21.05	18.91	32	HLEM32R-1RLF	43.55	41.41
15	HLEM15R-1RLF	22.30	20.16	33	HLEM33R-1RLF	44.80	42.66
16	HLEM16R-1RLF	23.55	21.41	34	HLEM34R-1RLF	46.05	43.91
17	HLEM17R-1RLF	24.80	22.66	35	HLEM35R-1RLF	47.30	45.16
18	HLEM18R-1RLF	26.05	23.91	36	HLEM36R-1RLF	48.55	46.41
19	HLEM19R-1RLF	27.30	25.16	37	HLEM37R-1RLF	49.80	47.66
20	HLEM20R-1RLF	28.55	26.41	38	HLEM38R-1RLF	51.05	48.91
				39	HLEM39R-1RLF	52.30	50.16
				40	HLEM40R-1RLF	53.55	51.41

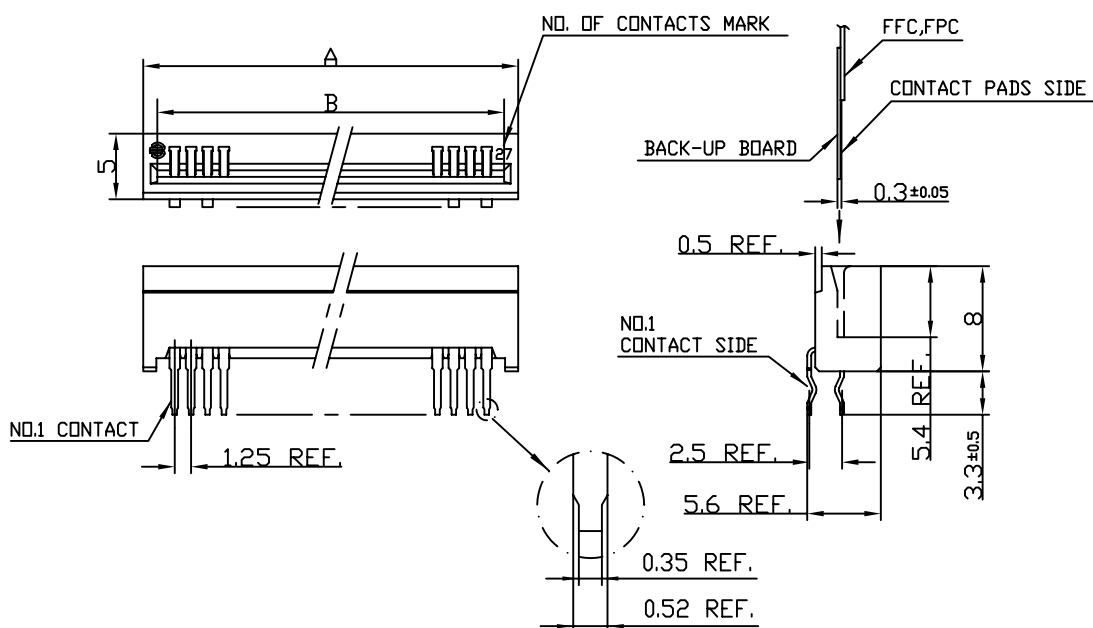
NOTES

- THE HOUSING WILL WITHSTAND EXPOSURE TO 260 DEGREE PEAK TEMPERATURE FOR 10 SECONDS IN A WAVE SOLDER APPLICATION WITH A 1.57MM MINIMUM THICK CIRCUIT BOARD.
- THIS PRODUCT MEETS EUROPEAN UNION DIRECTIVES AND OTHER COUNTRY REGULATIONS AS DESCRIBED IN GS-22-008.
- PART NUMBERS ENDING IN 'LF' MEANS FOR NOTE 2 LEAD FREE IDENTIFICATION.
HLEMxxR/S-1RLF IS EQUIVALENT TO PREVIOUS P/N HLEMxxR/S-1R.

Cat. No. HLEM_R-1RLF (See Note 3)

mat'l. code				surface ☒ ISO 1302		tolerance ☒ ISO 406		projection ☒ 101		product family			
										58KF			
ltr	ecn no	dr	date	tolerances unless otherwise specified		mm		mm		title			
AA	J04-0253	H.T	2004-08-03							1.25mm Spacing Connector for FPC/FFC			
AB	S05-0145	D.T	2005-06-24										
AC	S06-0252	P.C	2006-07-28										
				dr		M.Itsuka		1997-02-13		dwg no			
				enrg		S.Ito		1997-02-13		sheet 1 of 1			
				chr		Patrick Chua		2006-07-28		JSA 94071			
				appd		Joey Ng		2006-07-28		A4			
										type Product Customer Drawing			
sheet index		revision		AC									
		sheet		1									

TOLERANCES
UNLESS OTHERWISE SPECIFIED : ± 0.2



MATERIAL: INSULATOR : PBT RESIN GLASS REINFORCED (UL94V-0)
COLOR : BLACK
CONTACT : PHOSPHOR BRONZE (TIN PLATED ; THICKNESS: 1 micron)

NO. OF CONTACTS	(See Note 3) CAT. NO.	DIMENSIONS					
		A ± 0.3	B ± 0.1				
3	HLEM 3S-1RLF	7.30	5.16	21	HLEM21S-1RLF	29.80	27.66
4	HLEM 4S-1RLF	8.55	6.41	22	HLEM22S-1RLF	31.05	28.91
5	HLEM 5S-1RLF	9.80	7.66	23	HLEM23S-1RLF	32.30	30.16
6	HLEM 6S-1RLF	11.05	8.91	24	HLEM24S-1RLF	33.55	31.41
7	HLEM 7S-1RLF	12.30	10.16	25	HLEM25S-1RLF	34.80	32.66
8	HLEM 8S-1RLF	13.55	11.41	26	HLEM26S-1RLF	36.05	33.91
9	HLEM 9S-1RLF	14.80	12.66	27	HLEM27S-1RLF	37.30	35.16
10	HLEM10S-1RLF	16.05	13.91	28	HLEM28S-1RLF	38.55	36.41
11	HLEM 11S-1RLF	17.30	15.16	29	HLEM29S-1RLF	39.80	37.66
12	HLEM12S-1RLF	18.55	16.41	30	HLEM30S-1RLF	41.05	38.91
13	HLEM13S-1RLF	19.80	17.66	31	HLEM31S-1RLF	42.30	40.16
14	HLEM14S-1RLF	21.05	18.91	32	HLEM32S-1RLF	43.55	41.41
15	HLEM15S-1RLF	22.30	20.16	33	HLEM33S-1RLF	44.80	42.66
16	HLEM16S-1RLF	23.55	21.41	34	HLEM34S-1RLF	46.05	43.91
17	HLEM17S-1RLF	24.80	22.66	35	HLEM35S-1RLF	47.30	45.16
18	HLEM18S-1RLF	26.05	23.91	36	HLEM36S-1RLF	48.55	46.41
19	HLEM19S-1RLF	27.30	25.16	37	HLEM37S-1RLF	49.80	47.66
20	HLEM20S-1RLF	28.55	26.41	38	HLEM38S-1RLF	51.05	48.91
				39	HLEM39S-1RLF	52.30	50.16
				40	HLEM40S-1RLF	53.55	51.41

NOTES

1. THE HOUSING WILL WITHSTAND EXPOSURE TO 260 DEGREE PEAK TEMPERATURE FOR 10 SECONDS IN A WAVE SOLDER APPLICATION WITH A 1.57MM MINIMUM THICK CIRCUIT BOARD.
2. THIS PRODUCT MEETS EUROPEAN UNION DIRECTIVES AND OTHER COUNTRY REGULATIONS AS DESCRIBED IN GS-22-008.
3. PART NUMBERS ENDING IN "LF" MEANS FOR NOTE 2 LEAD FREE IDENTIFICATION.
HLEMxxR/S-1RLF IS EQUIVALENT TO PREVIOUS P/N HLEMxxR/S-1R.

HLEM_S-1RLF (See Note 3)

mat'l. code				surface ☒ ISO 1302		tolerance ☒ ISO 406		projection ☒ 101		product family			
										58KF			
ltr	ecn no	dr	date	tolerances unless otherwise specified		mm		mm		title			
AA	J04-0253	H.T	2004-08-03			.0±.3				1.25mm Spacing Connector for FPC/FFC			
AB	S05-0145	D.T.	2005-06-24	angles linear									
AC	S06-0252	P.C	2006-07-28	0°±2°									
				dr	M.Itsuka	1997-02-13		FCI		dwg no		sheet 1 of 1	size
				engr	S.Ito	1997-02-13				JSA 94072		A4	
				chr	Patrick Chua	2006-07-28				type		Product Customer Drawing	
				appd	Joey Ng	2006-07-28							
sheet index		revision sheet		AC	1								

Technical drawing of a 10-pin connector assembly, showing top, side, and detail views with dimensions and labels.

Top View:

- Overall width: A
- Internal width: B
- Pin pitch: 1.25
- Pin height: 5
- Labels: "NO. OF CONTACTS MARK", "CONTACT PADS SIDE", "FFC, FPC", "BACK-UP BOARD"

Side View:

- Pin height: 8
- Pin width: 3.3 ± 0.5000
- Pin spacing: 0.3 REF.
- Pin offset: 0.95
- Pin length: 2.5 REF.
- Pin thickness: 0.5 REF.
- Pin width: 1.55
- Pin offset: 0.5 REF.
- Pin width: 0.35 REF.
- Pin width: 0.52 REF.

Detail View (NO.1 CONTACT SIDE):

- Pin width: 0.35 REF.
- Pin width: 0.52 REF.

Labels:

- NO.1 CONTACT
- NO. OF CONTACTS MARK
- CONTACT PADS SIDE
- FFC, FPC
- BACK-UP BOARD
- NO.1 CONTACT SIDE

CONTACT : PHOSPHOR BRONZE (TIN PLATED) THICKNESS: 1 micron)

NO. OF CONTACTS	CAT. NO.	DIMENSIONS		21	HLEM21R-2R	29.80	27.66
		A ±0.3	B ±0.1	22	HLEM22R-2R	31.05	28.91
3	HLEM 3R-2R	7.30	5.16	23	HLEM23R-2R	32.30	30.16
4	HLEM 4R-2R	8.55	6.41	24	HLEM24R-2R	33.55	31.41
5	HLEM 5R-2R	9.80	7.66	25	HLEM25R-2R	34.80	32.66
6	HLEM 6R-2R	11.05	8.91	26	HLEM26R-2R	36.05	33.91
7	HLEM 7R-2R	12.30	10.16	27	HLEM27R-2R	37.30	35.16
8	HLEM 8R-2R	13.55	11.41	28	HLEM28R-2R	38.55	36.41
9	HLEM 9R-2R	14.80	12.66	29	HLEM29R-2R	39.80	37.66
10	HLEM 10R-2R	16.05	13.91	30	HLEM30R-2R	41.05	38.91
11	HLEM 11R-2R	17.30	15.16	31	HLEM31R-2R	42.30	40.16
12	HLEM 12R-2R	18.55	16.41	32	HLEM32R-2R	43.55	41.41
13	HLEM 13R-2R	19.80	17.66	33	HLEM33R-2R	44.80	42.66
14	HLEM 14R-2R	21.05	18.91	34	HLEM34R-2R	46.05	43.91
15	HLEM 15R-2R	22.30	20.16	35	HLEM35R-2R	47.30	45.16
16	HLEM 16R-2R	23.55	21.41	36	HLEM36R-2R	48.55	46.41
17	HLEM 17R-2R	24.80	22.66	37	HLEM37R-2R	49.80	47.66
18	HLEM 18R-2R	26.05	23.91	38	HLEM38R-2R	51.05	48.91
19	HLEM 19R-2R	27.30	25.16	39	HLEM39R-2R	52.30	50.16
20	HLEM 20R-2R	28.55	26.41	40	HLEM40R-2R	53.55	51.41

1. THE HOUSING WILL WITHSTAND EXPOSURE TO 260 DEGREE PEAK TEMPERATURE FOR 10 SECONDS IN A WAVE SOLDERAPPLICATION WITH A 1.75MM MINIMUM THICK CIRCUIT BOARD.
2. THIS PRODUCT MEETS EUROPEAN UNION DIRECTIVES AND OTHER COUNTRY REGULATIONS AS DESCRIBED IN GS-22-008.
3. PART NUMBERS ENDING IN "LF" MEANS FOR NOTES 2 LEAD FREE IDENTIFICATION. HLEMxxR-2RLF IS EQUIVALENT TO PREVIOUS P/N HLEMxxR-2R.

(Cat. No. HLEM_R-2R) (See Note 3)

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UNLESS OTHERWISE SPECIFIED : ± 0.2



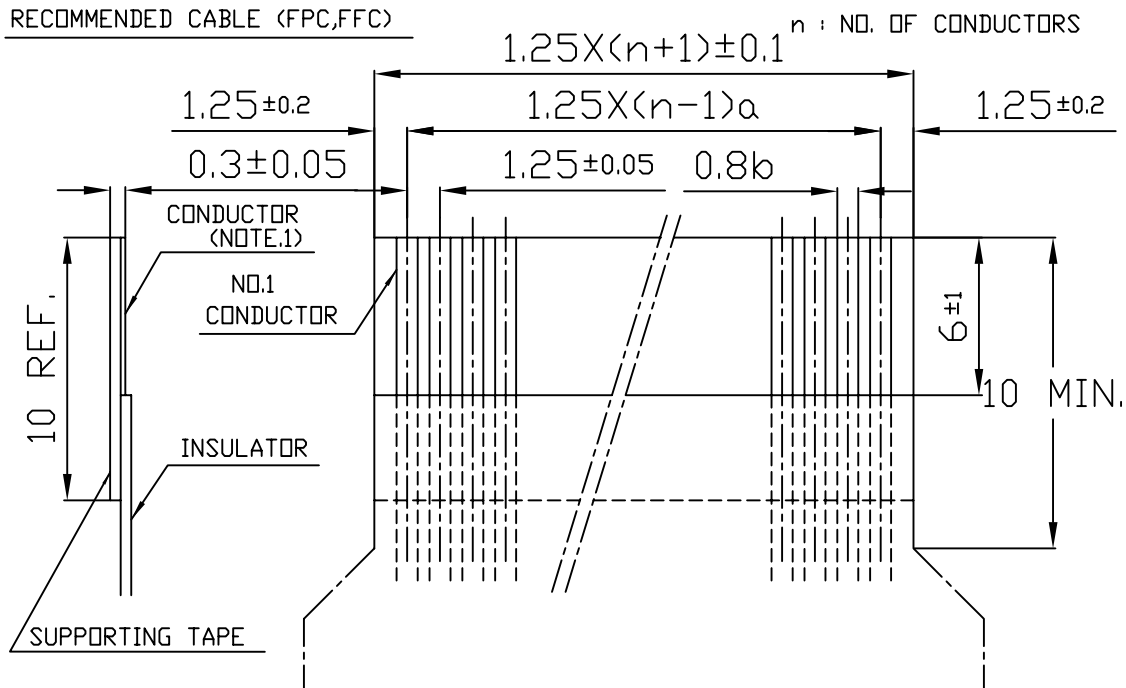
CONTACT : PHOSPHOR BRONZE :TIN PLATED(LEAD FREE)

NO. OF CONTACTS	CAT. NO.	DIMENSIONS		21	HLEM21S-2R	29.80	27.66
		A ± 0.3	B ± 0.1	22	HLEM22S-2R	31.05	28.91
3	HLEM 3S-2R	7.30	5.16	23	HLEM23S-2R	32.30	30.16
4	HLEM 4S-2R	8.55	6.41	24	HLEM24S-2R	33.55	31.41
5	HLEM 5S-2R	9.80	7.66	25	HLEM25S-2R	34.80	32.66
6	HLEM 6S-2R	11.05	8.91	26	HLEM26S-2R	36.05	33.91
7	HLEM 7S-2R	12.30	10.16	27	HLEM27S-2R	37.30	35.16
8	HLEM 8S-2R	13.55	11.41	28	HLEM28S-2R	38.55	36.41
9	HLEM 9S-2R	14.80	12.66	29	HLEM29S-2R	39.80	37.66
10	HLEM 10S-2R	16.05	13.91	30	HLEM30S-2R	41.05	38.91
11	HLEM 11S-2R	17.30	15.16	31	HLEM31S-2R	42.30	40.16
12	HLEM 12S-2R	18.55	16.41	32	HLEM32S-2R	43.55	41.41
13	HLEM 13S-2R	19.80	17.66	33	HLEM33S-2R	44.80	42.66
14	HLEM 14S-2R	21.05	18.91	34	HLEM34S-2R	46.05	43.91
15	HLEM 15S-2R	22.30	20.16	35	HLEM35S-2R	47.30	45.16
16	HLEM 16S-2R	23.55	21.41	36	HLEM36S-2R	48.55	46.41
17	HLEM 17S-2R	24.80	22.66	37	HLEM37S-2R	49.80	47.66
18	HLEM 18S-2R	26.05	23.91	38	HLEM38S-2R	51.05	48.91
19	HLEM 19S-2R	27.30	25.16	39	HLEM39S-2R	52.30	50.16
20	HLEM 20S-2R	28.55	26.41	40	HLEM40S-2R	53.55	51.41

(Cat. No. HLEM__S-2R)

mat'l. code				surface ISO 1302 ✓				tolerance ISO 406 ISO				projection 1:1 				product family 58KF																	
ltr		ecn no		dr		date		tolerances unless otherwise specified								 mm scale -				title 1.25mm Spacing Connector for FPC/FFC													
A		J04-0439		H.T		2004-12-06		angles		linear										dwg no sheet 1 of 1 size JSA 96133 A4 type Product Customer Drawing													
B		S05-0176		D.T		2005-06-24																											
C		S06-0252		P.C		2006-07-28																											
								dr																									
								engr																									
								chr		Patrick Chua		2006-07-28																					
								appd		Joey Ng		2006-07-28																					
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RECOMMENDED CABLE (FPC,FFC)



NOTE

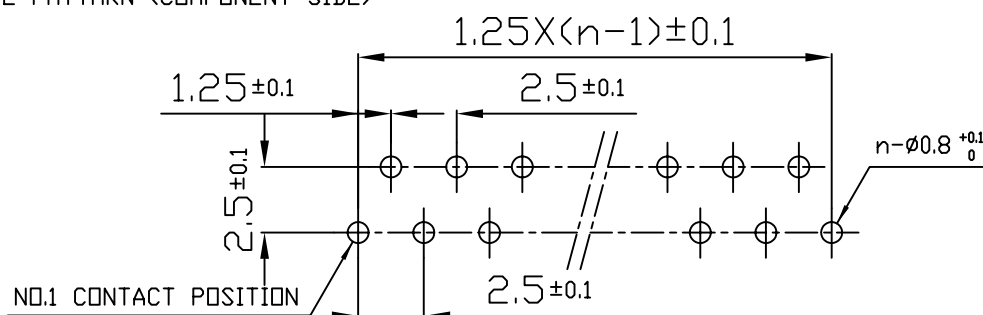
1. FINISH : SOLDER OR TIN PLATED. (1um MIN.)
2. NO BURR AT EACH POSITION.
3. NO PEELING IN COMMON USE.

TYPE	TOLERANCES	
	a	b
FPC	±0.05	±0.1
FFC	±0.1	±0.03

RECOMMENDED P.C. BOARD

THICKNESS : ±0.9 - 2
HOLE PATTERN (COMPONENT SIDE)

n : NO. OF CONTACTS



Cat. No. hLEM_R/S----

mat'l. code				surface ISO 1302	tolerance ISO 406	projection ISO 1101	product family 58EX			
ltr	ecn no	dr	date	tolerances	unless otherwise specified	mm	title RECOMMENDED CABLE AND P.C. BOARD			
AA	J04-0253	H.T	2004-08-03	angles	.0±.3	mm	dwg no JSA 28789			
AB	S06-0252	P.C	2006-07-28	linear		scale -				
				0°±2°			sheet 1 of 1			
				dr			size A4			
				engr			type Product Customer Drawing			
				chr	Patrick Chua	2006-07-28				
				appd	Joey Ng	2006-07-28				
sheet index	revision	AB								
	sheet	1								