

金具  
FITTING NAIL

30.5	29.3	25.65	24.5	54104-5033	50
28.5	27.3	23.65	22.5	54104-4633	46
28.0	26.8	23.15	22.0	54104-4533	45
25.5	24.3	20.65	19.5	54104-4033	40
24.5	23.3	19.65	18.5	54104-3833	38
23.5	22.3	18.65	17.5	54104-3633	36
23.0	21.8	18.15	17.0	54104-3533	35
22.5	21.3	17.65	16.5	54104-3433	34
22.0	20.8	17.15	16.0	54104-3333	33
21.5	20.3	16.65	15.5	54104-3233	32
20.5	19.3	15.65	14.5	54104-3033	30
D	C	B	A	オーダー番号	ORDER NO.
				CTK. NO.	1 MARK

CONNECTOR SERIES NO. 54104-\*\*22

GENERAL TOLERANCES (UNLESS SPECIFIED)	
10 UNDER	± 0.2
10 OVER 30 UNDER	± 0.25
30 OVER	± 0.3
ANGULAR	± --- °
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	

THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION

SCALE: 8:1

CURRENT REV DESC: REVISED

**molex**

0.5MM FPC CONN ZIF R/A HOUSING ASSY (UPPER CONTACT)

PRODUCT CUSTOMER DRAWING

EC NO: 600129  
DRWN: YCHEN128 2018/04/10  
CHK'D: KTAKAHASHI 2018/04/12  
APPR: NUKITA 2018/04/13

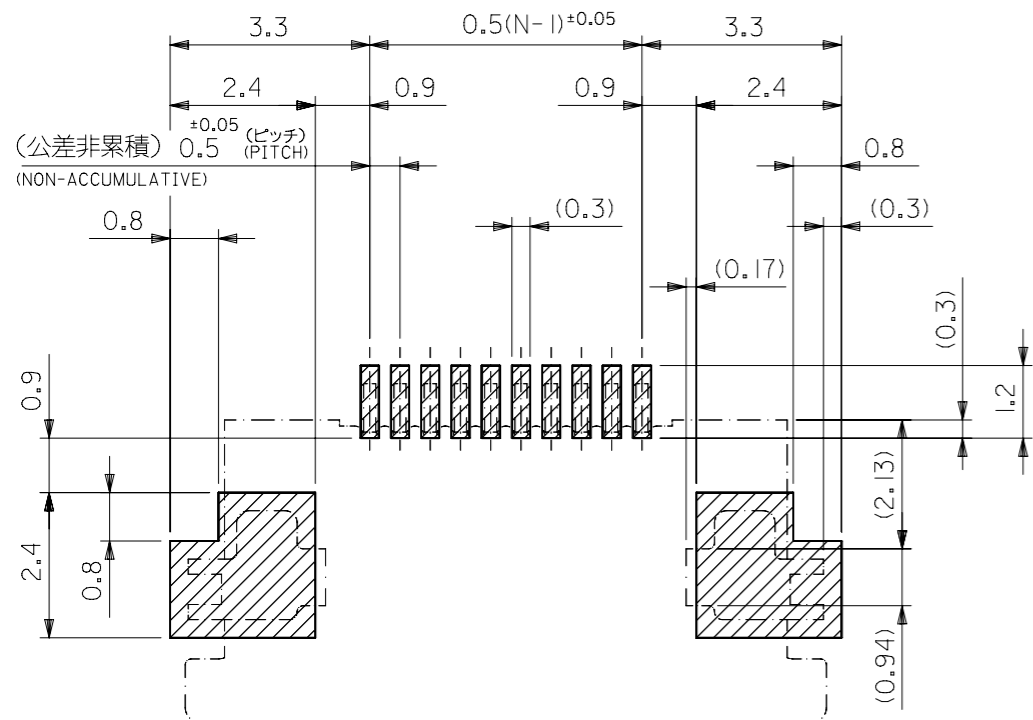
INITIAL REVISION:  
DRWN: KNAGUMO 2012/09/03  
APPR: KMORIKAWA 2013/03/15

THIRD ANGLE PROJECTION

DRAWING: A3-SIZE  
SERIES: 54104

DOCUMENT NUMBER: SD-54104-083  
DOC TYPE: PSD  
DOC PART: 001  
REVISION: D

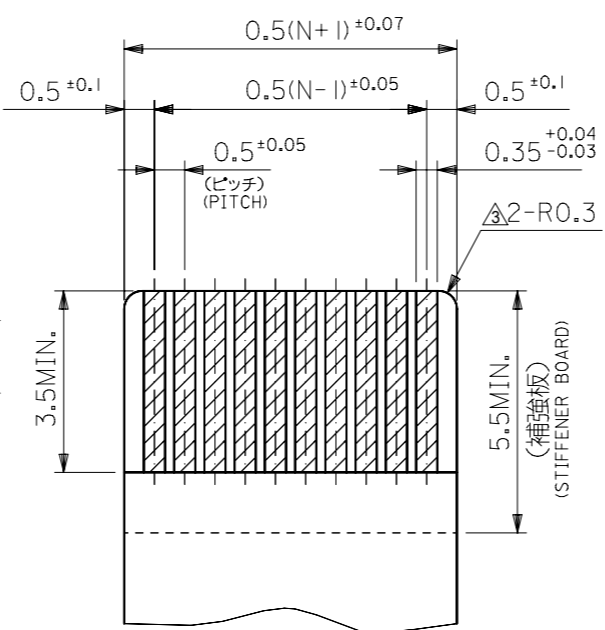
MATERIAL NUMBER: GENERAL MARKET  
CUSTOMER: GENERAL MARKET  
SHEET NUMBER: 1 OF 2



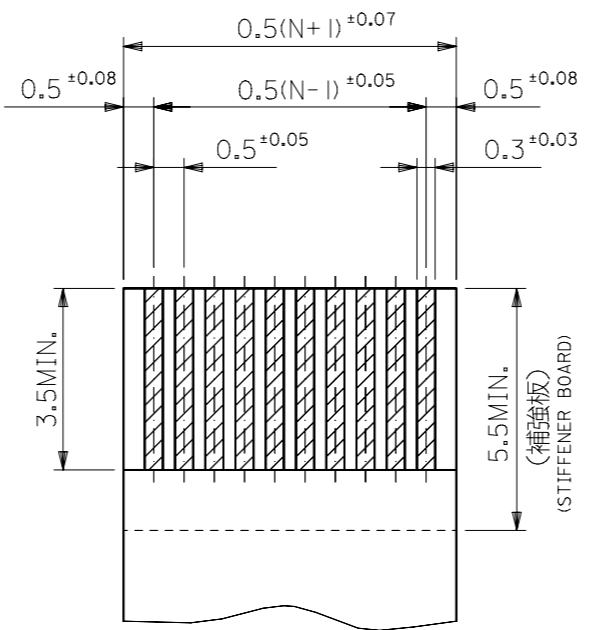
**推奨基板レイアウト**  
 RECOMMENDED P.C. BOARD  
 PATTERN DIMENSION (REF.)  
 (マウント面)  
 (MOUNTING SIDE)  
 マスク厚 : 100μm  
 マスク開口率 : 100%  
 SCREEN THICKNESS : 100 MICROMETER  
 SCREEN OPEN RATIO : 100%

**注記 NOTES**

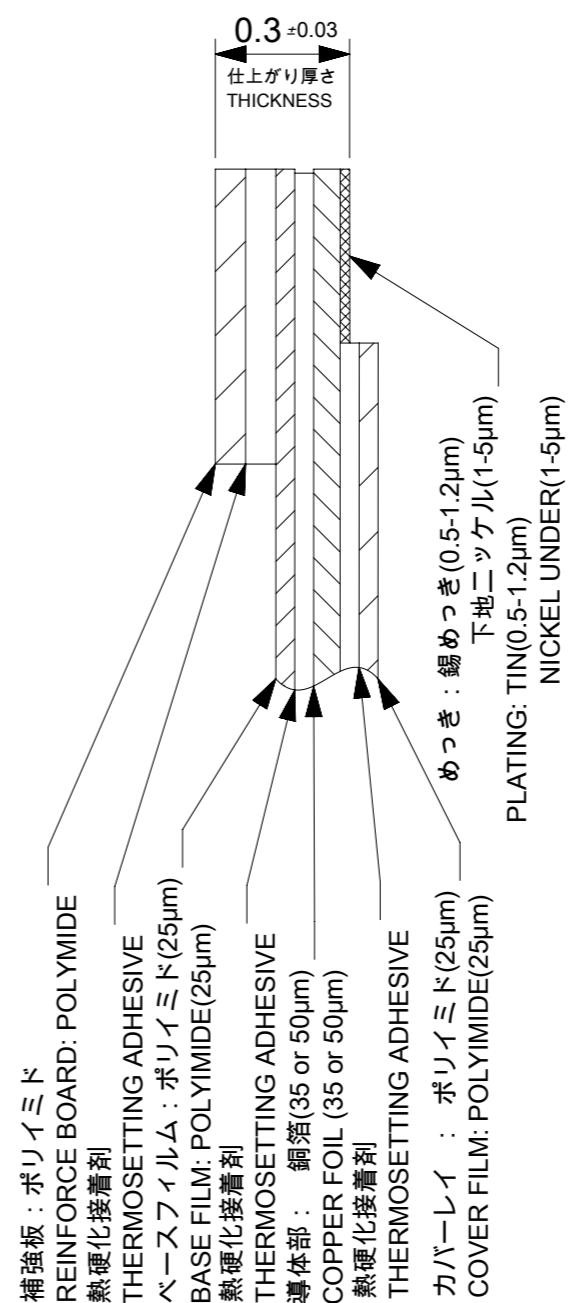
- 材質 MATERIAL  
 ハウジング : ポリアミド (PPS) 、ガラス充填、ナチュラル(白色)、UL94V-0  
 HOUSING : POLYAMIDE , GLASS FILLED, NATURAL(WHITE), UL94V-0  
 アクチュエータ : ポリフェニレンサルファイド、ガラス充填、ナチュラル (茶色) 、UL94V-0  
 ACTUATOR : POLYPHENYLENE SULFIDE , GLASS FILLED, NATURAL(BROWN), UL94V-0  
 ターミナル : リン青銅 (t=0.20)  
 TERMINAL : PHOSPHER BRONZE (t=0.20)  
 金具 : リン青銅 (t=0.2)  
 NAIL : PHOSPHER BRONZE (t=0.2)
- メッキ仕様 PLATING  
 ターミナル TERMINAL  
 錫銀ビスマスメッキ(1.0μm以上)  
 TIN SILVER BISMUTH PLATING(1.0 MICROMETER MINIMUM)  
 下地メッキ : ニッケルメッキ(1.0μm以上)  
 UNDER PLATING : NICKEL PLATING(1.0 MICROMETER MINIMUM)  
 金具 NAIL  
 錫メッキ(1.0μm以上)  
 TIN PLATING(1.0 MICROMETER MINIMUM)  
 下地メッキ : ニッケルメッキ(1.0μm以上)  
 UNDER PLATING : NICKEL PLATING(1.0 MICROMETER MINIMUM)
- R0.3はFPCの導体部にかからないこと  
 R0.3 MUST NOT BE OVERLAPED TO PATTERN OF FPC.
- 偶数極に適用  
 APPLY FOR EVEN CIRCUIT
- エンボステープ梱包時は、アクチュエータがロックした状態とする。  
 IN THE PACKAGE, ACTUATOR SHOULD BE LOCKED.
- ソルダーテール半田付け面のズレ量、及び金具半田付け面のズレ量は、基準面 [H] に対し、  
 上方向0.1MAX、下方向0.15MAXとし、相互のバラツキ量は0.1MAXとする  
 MISALIGNMENT OF SOLDER TAILS AND FITTING NAILS FROM [H] UPPER DIRECTION : 0.1MAX,  
 LOWER DIRECTION:0.15MAX. OFFSET BETWEEN UPPER AND LOWER 0.1MAX
- ソルダーテール及び金具の平坦度は、0.1ミリメートル以下とする。  
 SOLDER TAIL AND FITTING NAIL COPLANARITY TO BE 0.1MILLIMETERS.
- 本製品は54104シリーズの錫銀ビスマスめっき品である。  
 THIS PRODUCT IS Sn-Ag-Bi PLATING OF 54104 SERIES.
- ELV及びRoHS適合品  
 ELV & RoHS COMPLIAN



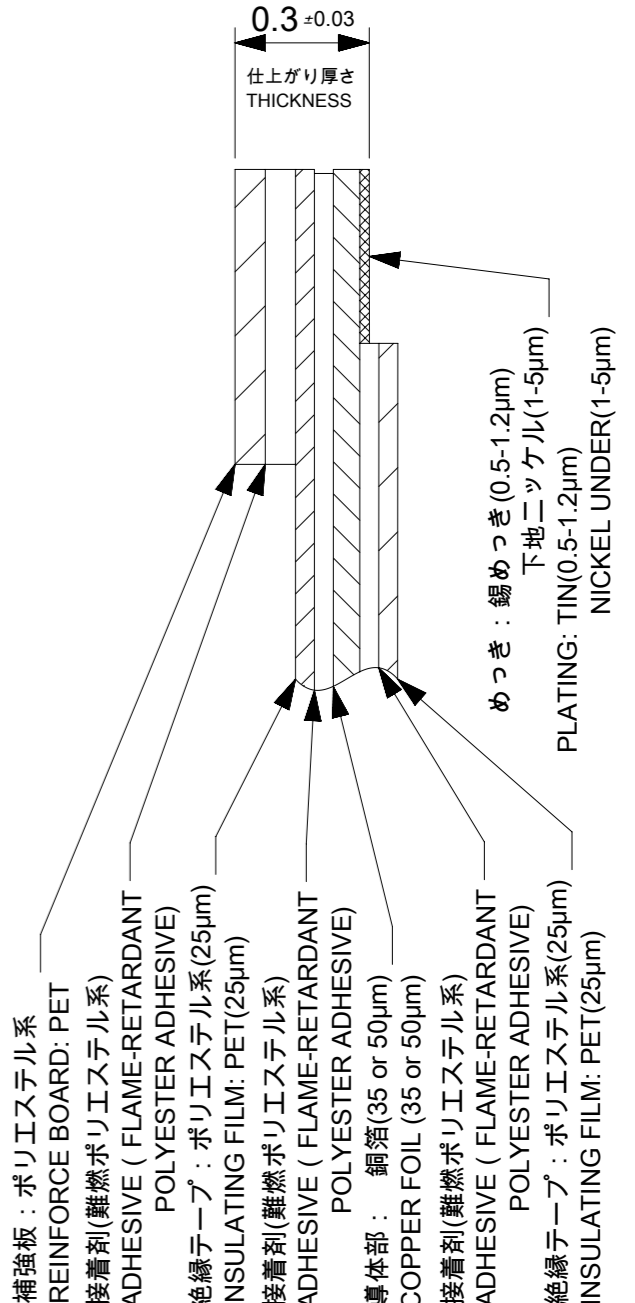
**適合FPC推奨寸法**  
 APPLICABLE FPC  
 RECOMMENDED DIMENSION  
 (仕上がり厚さ : 0.3±0.03)  
 (THICKNESS:0.3±0.03)



**適合FFC推奨寸法**  
 APPLICABLE FFC  
 RECOMMENDED DIMENSION  
 (仕上がり厚さ : 0.3±0.03)  
 (THICKNESS:0.3±0.03)



**FPC構成推奨仕様**  
 RECOMMENDED STRUCTURE OF FPC



**FFC構成推奨仕様**  
 RECOMMENDED STRUCTURE OF FFC

FPC/FFCについて:  
 抜き方向は、導体側から補強板側を推奨致します。  
 尚、接着剤の接点部への付着は導通不良の原因になりますので、  
 染み出しが無い様お願い致します。

ABOUT FPC/FFC:  
 RECOMMENDED PUNCHER DIRECTION:  
 FROM CONDUCTOR SIDE TO STIFFNER SIDE  
 PLEASE PUT APPROPRIATE AMOUNT OF ADHESIVE ON ADHEREND  
 BECAUSE THERE IS A POSSIBILITY THAT THE EXTRA ADHESIVE  
 CAUSES THE DEFECT IN ELECTRICAL CONTINUITY.

GENERAL TOLERANCES (UNLESS SPECIFIED)	
10 UNDER	± 0.2
10 OVER 30 UNDER	± 0.25
30 OVER	± 0.3
ANGULAR	± --- °
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS	

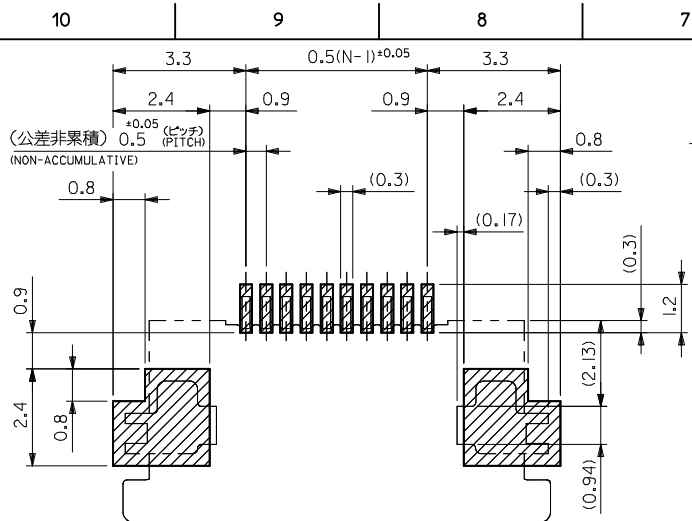
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX ELECTRONIC TECHNOLOGIES, LLC AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION		CURRENT REV DESC: REVISED	
DIMENSION UNITS: mm	SCALE: 8:1		
GENERAL TOLERANCES (UNLESS SPECIFIED)		EC NO: 600129	
10 UNDER	± 0.2	DRWN: YCHEN128	2018/04/10
10 OVER 30 UNDER	± 0.25	CHK'D: KTAKAHASHI	2018/04/12
30 OVER	± 0.3	APPR: NUKITA	2018/04/13
ANGULAR ± --- °		INITIAL REVISION:	
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		DRWN: KNAGUMO	2012/09/03
		APPR: KMORIKAWA	2013/03/15
		THIRD ANGLE PROJECTION	DRAWING SERIES
		A3-SIZE	54104
		MATERIAL NUMBER CUSTOMER SHEET NUMBER	
		GENERAL MARKET 2 OF 2	

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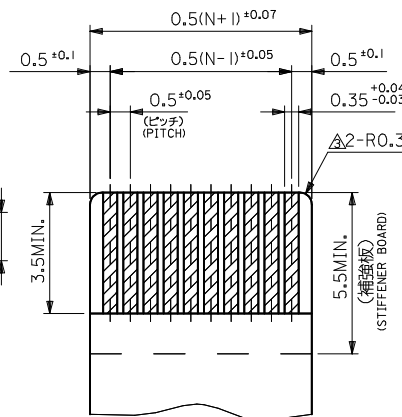
0.5MM FPC CONN ZIF R/A  
 HOUSING ASSY (UPPER CONTACT)

PRODUCT CUSTOMER DRAWING

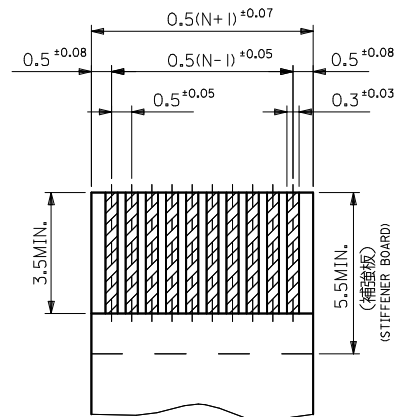
DOCUMENT NUMBER: SD-54104-083  
 DOC TYPE: PSD  
 DOC PART: 001  
 REVISION: D



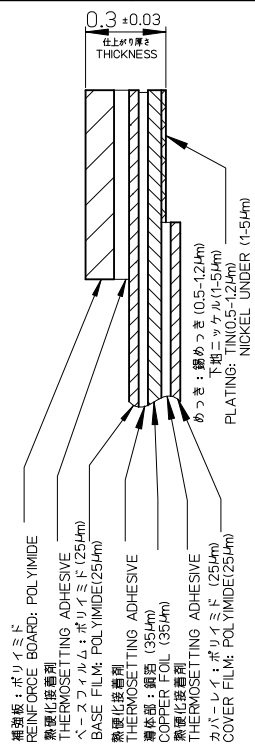
推奨基板レイアウト  
RECOMMENDED P.C.BOARD  
PATTERN DIMENSION (REF.)  
(マウント面)  
(MOUNTING SIDE)  
マスク厚 : 100 μm  
マスク開口率 : 100%  
SCREEN THICKNESS : 100 MICROMETER  
SCREEN OPEN RATIO: 100%



適合FPC推奨寸法  
APPLICABLE FPC  
RECOMMENDED DIMENSION  
(仕上がり厚さ : 0.3±0.03)  
(THICKNESS: 0.3±0.03)



適合FFC推奨寸法  
APPLICABLE FFC  
RECOMMENDED DIMENSION  
(仕上がり厚さ : 0.3±0.03)  
(THICKNESS: 0.3±0.03)



FPC構成推奨仕様  
STRUCTURE OF FPC

FPC/FFCについて ABOUT FPC/FFC  
打ち抜き方向は導体側から補強板側を推奨します。  
導体部については銅箔厚35 μmまたは50 μmを推奨します。  
RECOMMENDED PUNCHING DIRECTION: FROM CONDUCTOR SIDE TO STIFFENER SIDE  
RECOMMENDED CONDUCTOR SPEC: SOFT COPPER FOIL  
RECOMMENDED CONDUCTOR THICKNESS: 35 MICROMETER OR 50 MICROMETER

FPCについてABOUT FPC  
補強フィルム材質はポリイミドを推奨します。ベースフィルムは25 μmを推奨します。  
接着剤は熱硬化接着剤を推奨します。  
尚、接着剤の接点部への付着は導通不良の原因になりますので、染み出しが無い様、お願い致します。  
RECOMMENDED STIFFENER MATERIAL: POLYIMIDE  
RECOMMENDED BASE FILM THICKNESS: 25 MICROMETER  
RECOMMENDED ADHESIVE: THERMOSETTING ADHESIVE  
NOTE: PLEASE PUT APPROPRIATE AMOUNT OF ADHESIVE ON ADHEREND BECAUSE THERE IS A POSSIBILITY THAT THE EXTRA ADHESIVE CAUSES THE DEFECT IN ELECTRICAL CONTINUITY.

注記 NOTES

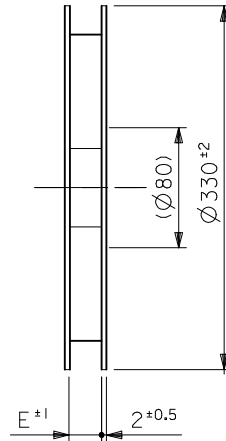
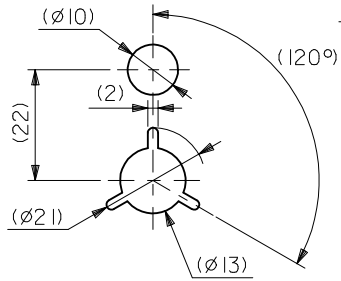
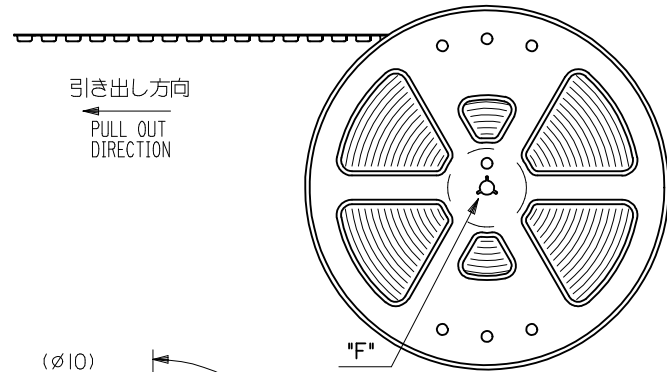
- 材質 MATERIAL  
ハウジング: ポリアミド (PPS), ガラス充填, ナチュラル(白色), UL94V-0  
HOUSING: POLYAMIDE, GLASS FILLED, NATURAL(WHITE), UL94V-0  
アクチュエータ: ポリフェニレンスルフィド, ガラス充填, ナチュラル(茶色), UL94V-0  
ACTUATOR: POLYPHENYLENE SULFIDE, GLASS FILLED, NATURAL(BROWN), UL94V-0  
ターミナル: リン青銅 (t = 0.20)  
TERMINAL: PHOSPHER BRONZE (t = 0.20)  
金具: リン青銅 (t = 0.2)  
NAIL: PHOSPHER BRONZE (t = 0.2)
- メッキ仕様 PLATING  
ターミナル TERMINAL  
銅銀ピスマスメッキ(1.0 μm以上)  
TIN SILVER BISMUTH PLATING(1.0 MICROMETER MINIMUM)  
下地メッキ: ニッケルメッキ(1.0 μm以上)  
UNDER PLATING: NICKEL PLATING(1.0 MICROMETER MINIMUM)  
金具  
NAIL  
銅メッキ(1.0 μm以上)  
TIN PLATING(1.0 MICROMETER MINIMUM)  
下地メッキ: ニッケルメッキ(1.0 μm以上)  
UNDER PLATING: NICKEL PLATING(1.0 MICROMETER MINIMUM)

- △ R0.3はFPCの導体部にかからないこと  
R0.3 MUST NOT BE OVERLAPED TO PATTERN OF FPC.
- △ 偶数極に適用  
APPLY FOR EVEN CIRCUIT
- △ エンボスターフ極合時は、アクチュエータがロックした状態とする。  
IN THE PACKAGE, ACTUATOR SHOULD BE LOCKED.
- △ ソルダータール半田付け面のズレ量、及び金具半田付け面のズレ量は、基準面 □ に対し、  
上方0.1MAX、下方0.15MAXとし、相互のバラツキ量は0.1MAXとする  
MISALIGNMENT OF SOLDER TAILS AND FITTING NAILS FROM □ UPPER DIRECTION: 0.1MAX,  
LOWER DIRECTION: 0.15MAX. OFFSET BETWEEN UPPER AND LOWER 0.1MAX
- △ ソルダータール及び金具の平坦度は、0.1ミリメートル以下とする。  
SOLDER TAIL AND FITTING NAIL COPLANARITY TO BE 0.1MILLIMETERS.
- △ 本製品は54104シリーズの銅銀ピスマスめっき品である。  
THIS PRODUCT IS Sn-Ag-Bi PLATING OF 54104 SERIES.
- △ ELV及びRoHS適合品  
ELV & RoHS COMPLIANT

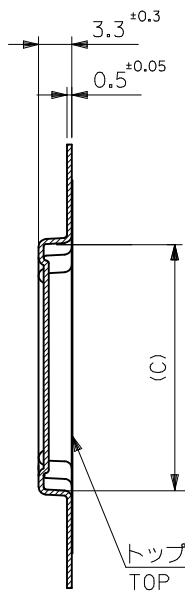
SEE SHEET 1 OF 2 EC NO: J2014-1557 DRW: AISHI 2014/04/15 CHKD: KAKAHASHI 2014/04/15 APPR: YOGAWA 2014/04/17	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE ---	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION	
	10 UNDER	±0.2	DRAWN BY KNAGUMO	DATE 2012/09/03	TITLE 0.5MM FPC CONN ZIF R/A HOUSING ASSY (UPPER CONTACT)			
	10 OVER 30 UNDER	±0.25	CHECKED BY KTAKAHASHI	DATE 2012/09/06				
	30 OVER	±0.3	APPROVED BY KMORIKAWA	DATE 2013/03/15				
ANGULAR ±---°		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO. SEE CHART		DOCUMENT NO. SD-54104-083		SHEET NO. 2 OF 2
SIZE A3 THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION								

NOTES

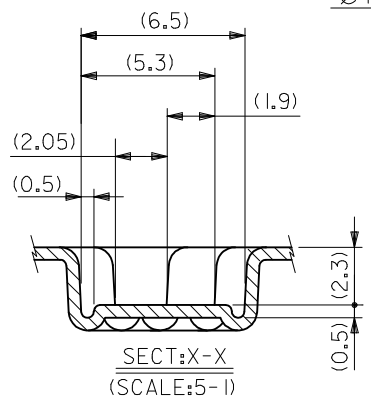
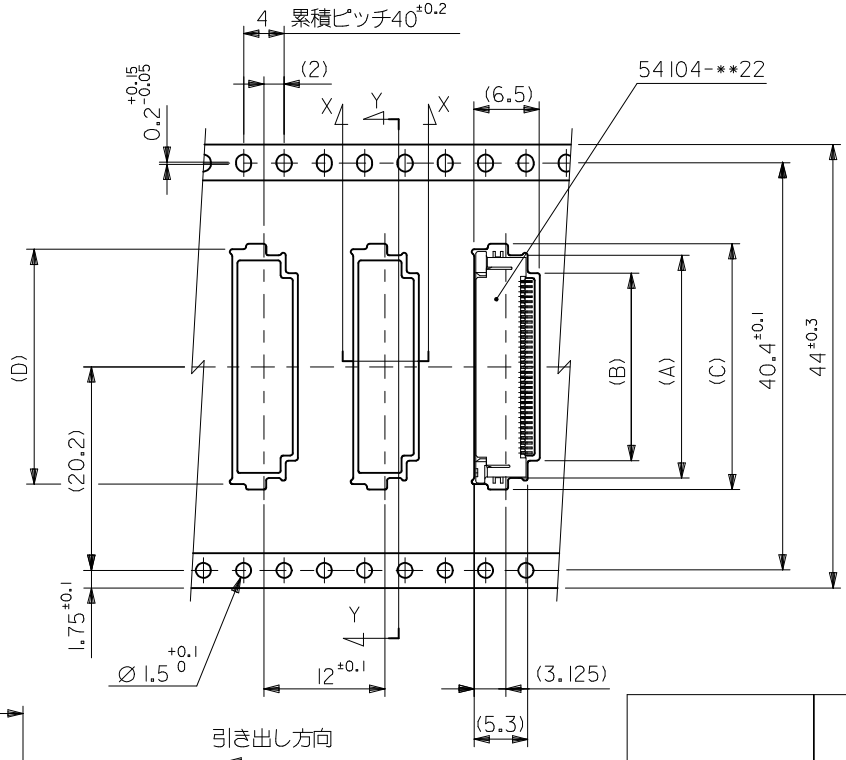
- 製品番号54104-\*\*22の梱包状態はアクチュエータがロックした状態とする。  
詳細寸法については図面SD-54104-083を参照下さい。  
IN THE PACKAGE, ACTUATOR OF PART NO.54104-\*\*22 SHOULD BE LOCKED  
DETAIL DIMENSIONS, SEE SD-54104-083
- 梱包数量：1500個/リール  
NUMBER OF CONNECTORS : 1500PCS/REEL
- リードテープ長さ LEAD TAPE LENGTH  
20PCS. MIN. トップテープ接着部 (空エンボス)  
TOP TAPE BONDED PART. (EMPTY)
- トップテープの剥離強度については、IEC60286-3に準拠  
TOP TAPE PEEL FORCE IS DEFINED BY IEC60286-3.
- 材料  
キャリアテープ：ポリプロピレン  
トップテープ：PET, PE, PEF  
リール：ポリスチレン (PE) <リサイクル材を含む>  
MATERIAL  
CARRIERTAPE : POLYPROPYLENE  
TOPTAPE : PET, PE, PEF  
REEL : POLYSTYREN (PE) <RECYCLE MATERIAL CONTAINED>
- ELV及びRoHS適合品  
ELV AND RoHS COMPLIANT



RELEASED EC NO: J2013-1003 DRWN:KNAGUMO 2012/09/05 CHKD:KAKAHASHI 2012/09/06 APP:KMORIKAWA 2013/03/15	DESCRIPTION REV 0	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE ---	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION		
		10 UNDER	± ---	DRAWN BY KNAGUMO	DATE 2012/09/05	TITLE EMBOSS TAPE PACKAGED FOR 0.5MM FPC CONN ZIF R/A HOUSING ASSY				
		10 OVER 30 UNDER	± ---	CHECKED BY KAKAHASHI	DATE 2012/09/06					
		30 OVER	± ---	APPROVED BY KMORIKAWA	DATE 2013/03/15					
ANGULAR ± --- °		DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		MATERIAL NO. SEE CHART		DOCUMENT NO. SD-54104-084		SHEET NO. 1 OF 2		
THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION										



SECT:Y-Y



SECT:X-X  
(SCALE:5-1)

44	45.5	30.8	31.9	26.1	29.6	54104-5033	50	
		28.8	29.9	24.1	27.6	-4633	46	
		28.3	29.4	23.6	27.1	-4533	45	
		25.8	26.9	21.1	24.6	-4033	40	
		24.8	25.9	20.1	23.6	-3833	38	
		23.8	24.9	19.1	22.6	-3633	36	
		23.3	24.4	18.6	22.1	-3533	35	
		22.8	23.9	18.1	21.6	-3433	34	
		22.3	23.4	17.6	21.1	-3333	33	
		21.8	22.9	17.1	20.6	-3233	32	
20.8	21.9	16.1	19.6	54104-3033	30			
キャリアテープ幅 CARRIER TAPE WIDTH		E	D	C	B	A	製品番号 MATERIAL NO.	極数 CKT.

SEE SHEET 1 OF 2 EC NO: J2013-1003 DRWN:KNAGUMO 2012/09/05 CHKD:KTAKAHASHI 2012/09/06 APPR:KMORIKAWA 2013/03/15	GENERAL TOLERANCES (UNLESS SPECIFIED)		DIMENSION STYLE MM ONLY		SCALE ---	DESIGN UNITS METRIC	THIRD ANGLE PROJECTION
	10 UNDER	± ---	DRAWN BY KNAGUMO	DATE 2012/09/05	TITLE EMBOSS TAPE PACKAGED FOR 0.5MM FPC CONN ZIF R/A HOUSING ASSY <b>molex</b> DOCUMENT NO. SD-54104-084 SHEET NO. 2 OF 2		
	10 OVER 30 UNDER	± ---	CHECKED BY KTAKAHASHI	DATE 2012/09/06			
	30 OVER	± ---	APPROVED BY KMORIKAWA	DATE 2013/03/15			
	ANGULAR	± --- °	MATERIAL NO.	SEE CHART			
DRAFT WHERE APPLICABLE MUST REMAIN WITHIN DIMENSIONS		SIZE A3	THIS DRAWING CONTAINS INFORMATION THAT IS PROPRIETARY TO MOLEX INCORPORATED AND SHOULD NOT BE USED WITHOUT WRITTEN PERMISSION				