

REV.	DESCRIPTION	DRAWN	DATE
4	New frame	Willis	2012/08/03
5	ECR2000003	FROS	2020/04/16
5.1	ECR2100003	TIM	2021/01/27

### SPECIFICATION:

1. ELECTRICAL
  - 1.1 Current Rating: 0.5A per pin
  - 1.2 Voltage Rating: 50V AC
  - 1.3 Contact Resistance: 55mΩ Max
  - 1.4 Insulation Resistance: 500MΩ Min
  - 1.5 Dielectric Withstanding Voltage: 300VAC
2. MECHANICAL
  - 2.1 Durability: 50 Cycles
  - 2.2 Total Mating/Unmating Force: 2.3Kgf max.
3. ENVIRONMENTAL
  - 3.1 Operating temperature range: -40°C ~ +85°C
  - 3.2 Storage temperature range: -40°C ~ +85°C
4. SOLDER ABILITY
  - 4.1 Recommended IR-Reflow Temperature: 260°C 10Sec

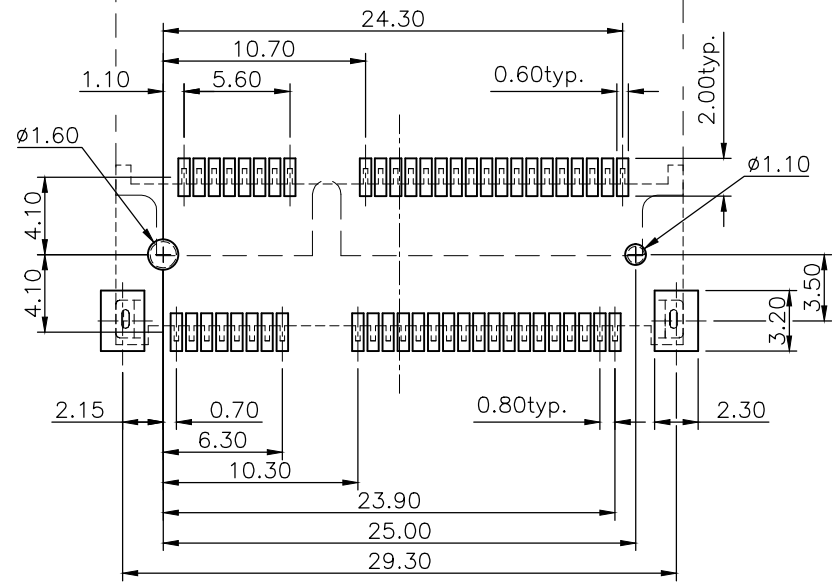
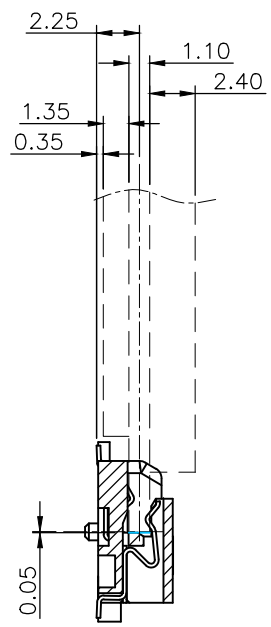
Date Code: Y WW D

Year | | Day(1~7)  
Week(1~52)

3	HOLDDOWN	Brass, Tin plated under nickel plating	
2	CONTACT	Phosphor Bronze, contact area: G/F solder area: Tin, under plating Nickel	
1	HOUSING	LCP UL94V-0, Black	
NO. PART NAME		DESCRIPTION	
UNLESS OTHERWISE SPECIFIED TOLERANCE			
UNIT:	DECIMAL	LINEAR	ANGLES
mm	X.	±0.50	±5°
	X.X	±0.25	±3°
	X.XX	±0.12	±1°
www.attend.com.tw			
DRAWN	Willis	2009/11/11	DRAWN NAME:
CHECKED	Angel	2009/11/11	Mini PCI Express Socket H: 4.0mm
APPROVED	Ken	2009/11/11	PRODUCT NO.
			119A-40A00-R02
	SCALE	SHEET	SIZE
	2.25/1	1/2	A4
	FILE NAME	119A-40A00-R02_B_5.1	





REV.	DESCRIPTION	DRAWN	DATE
	see sheet one		

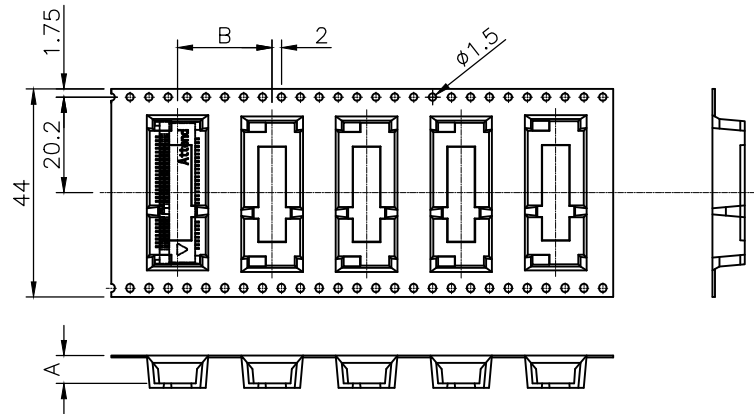
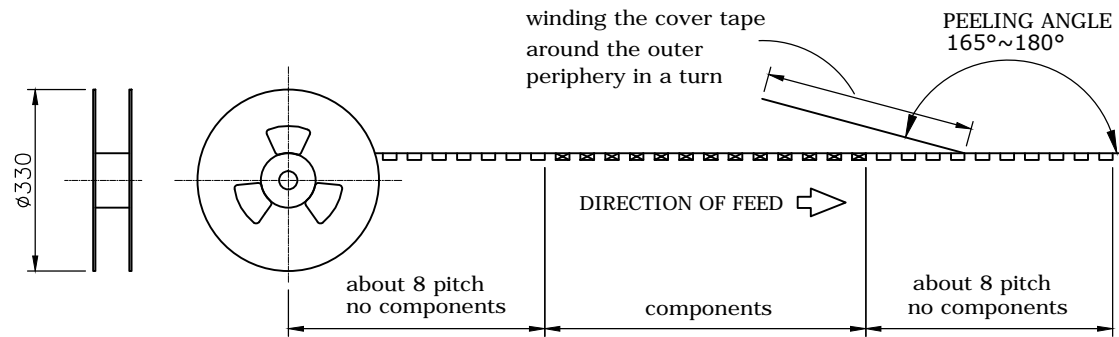


--- CARD  
 --- PAD LAYOUT

**RECOMMEND LAYOUT (TOP VIEW)**  
**GENERAL TOLERANCE: ±0.05**

UNLESS OTHERWISE SPECIFIED TOLERANCE					
UNIT:	DECIMAL	LINEAR	ANGLES		
mm	X.	±0.50	±5°	www.attend.com.tw	
	X.X	±0.25	±3°		
	X.XX	±0.12	±1°		
DRAWN	Willis	2009/11/11	DRAWN NAME: Mini PCI Express Socket H: 4.0mm		
CHECKED	Angel	2009/11/11			
APPROVED	Ken	2009/11/11	PRODUCT NO.	119A-40A00-R02	
	SCALE 2.25/1	SHEET 2/2	SIZE A4	FILE NAME	119A-40A00-R02_B_5.1

REV.	DESCRIPTION	DRAWN	DATE
3	Note 9.2H 300 PCS/REEL	Willis	2010/04/30
4	New frame	Willis	2012/08/03
5	ECR2000003	FROS	2020/04/16



Dimension table:

P/N	DIM. A	DIM. B
119A-40A00-R02	4.30	16.00
119A-56A00-R02	5.90	16.00
119A-80A00-R02	8.30	16.00
119A-92A00-R02	9.50	20.00

## PACKAGING SPECIFICATION:

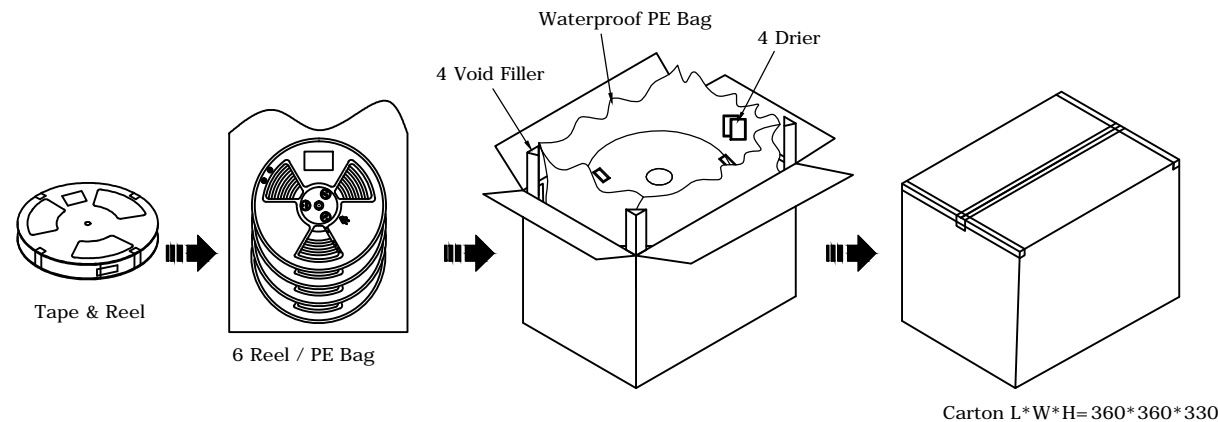
### 1. MATERIAL

- 1.1 Embossed Carrier Tape: PS Black
- 1.2 Top Cover Tape: PET 20-80g (Peel Speed 300mm/Minute)
- 1.3 Taping Reel: Plastic

### 2. PACKING

#### 2.1 Quantity:

P/N	PCS/ REEL	PCS/ CARTON
119A-40A00-R02	700	4200
119A-56A00-R02	550	3300
119A-80A00-R02	400	2400
119A-92A00-R02	300	1800



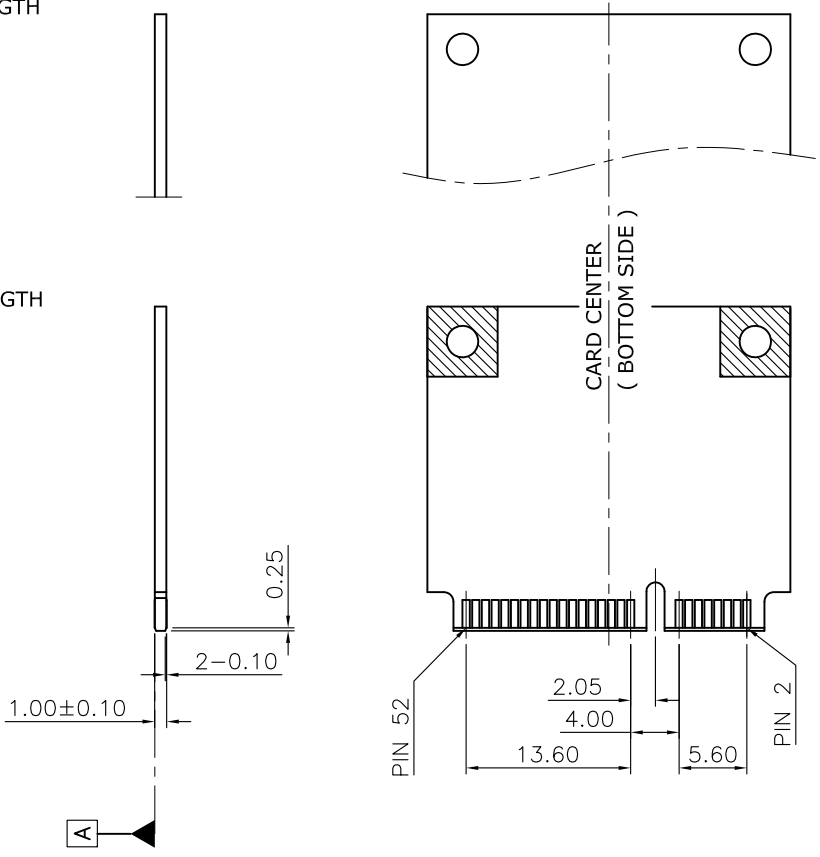
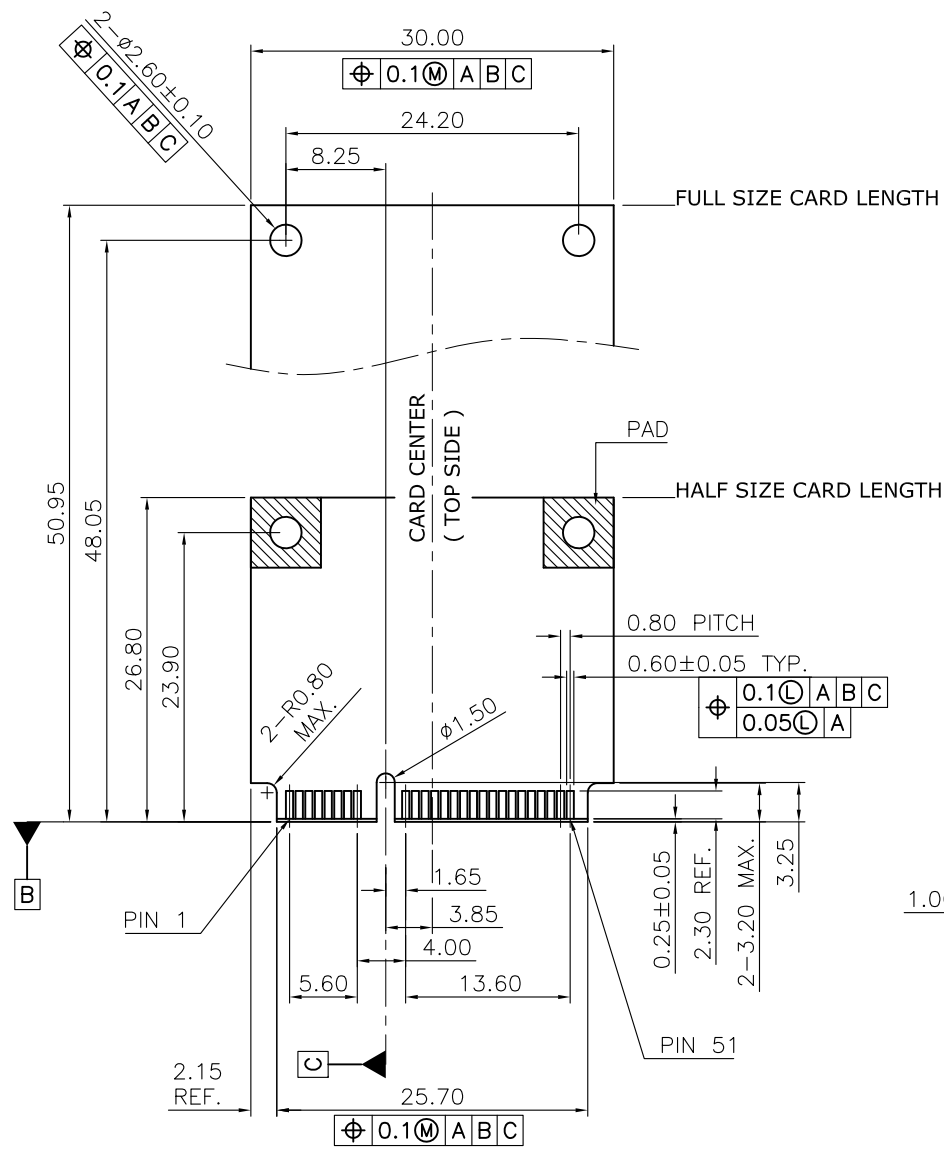
UNLESS OTHERWISE SPECIFIED TOLERANCE			
UNIT:	DECIMAL	LINEAR	ANGLES
mm	X.	±0.50	±5°
	X.X	±0.25	±3°
	X.XX	±0.12	±1°




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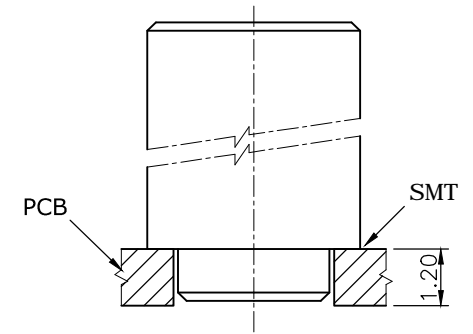
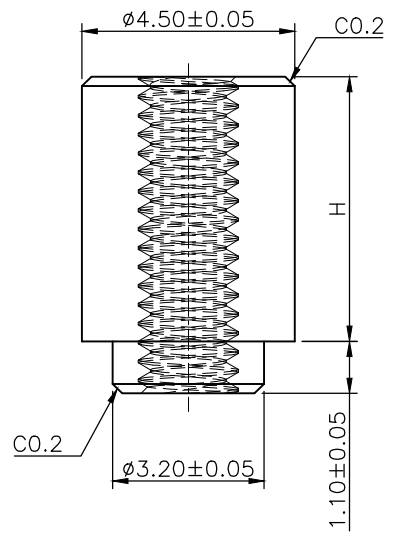
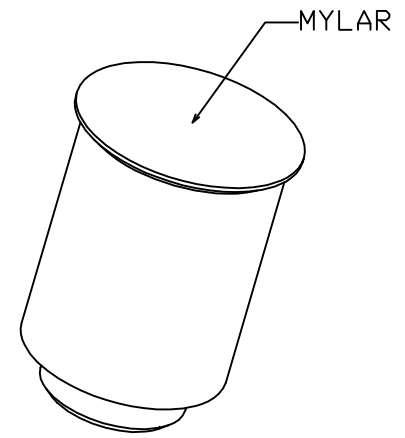
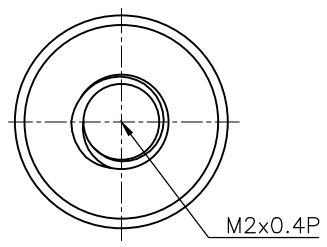
DRAWN	Willis	2009/11/11	DRAWN NAME:	
CHECKED	Angel	2009/11/11	Mini PCI Express Socket Packaging drawing	
APPROVED	Ken	2009/11/11	PRODUCT NO.	see table
SCALE	n/a	SHEET 1/1	SIZE A4	FILE NAME 119A-XXA00-R02_D_5

REV.	DESCRIPTION	DRAWN	DATE
1	Initial Release	FROS	2014/12/03

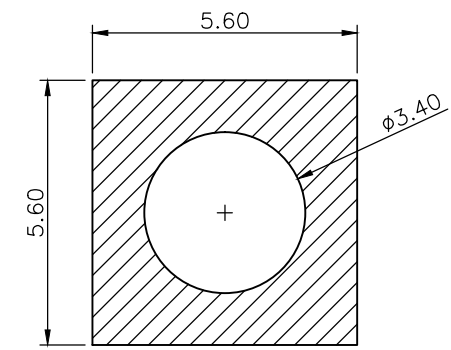


UNLESS OTHERWISE SPECIFIED TOLERANCE					
UNIT:	DECIMAL	LINEAR	ANGLES		
mm	X.	±0.50	±5°	WWW.ATTEND.COM.TW	
	X.X	±0.25	±3°		
	X.XX	±0.12	±1°		
DRAWN	Fros	2014/12/03	DRAWN NAME:		
CHECKED	Ron	2014/12/03	PHYSICAL DIMENSIONS OF		
APPROVED	Albert	2014/12/03	PCI EXPRESS MINI CARD		
SCALE	1.6/1	SHEET	1/1	SIZE	A4
				PRODUCT NO.	
				FILE NAME	119A-CARD_1

REV.	DESCRIPTION	DRAWN	DATE
2	Revised frame	Willis	2013/01/25
3	Revised frame & p/n table	FROS	2017/06/14
4	ECR2000003	TIM	2020/04/24





NOTE:  
 1. MATERIAL: Copper Alloy  
 2. Plating: Sn.

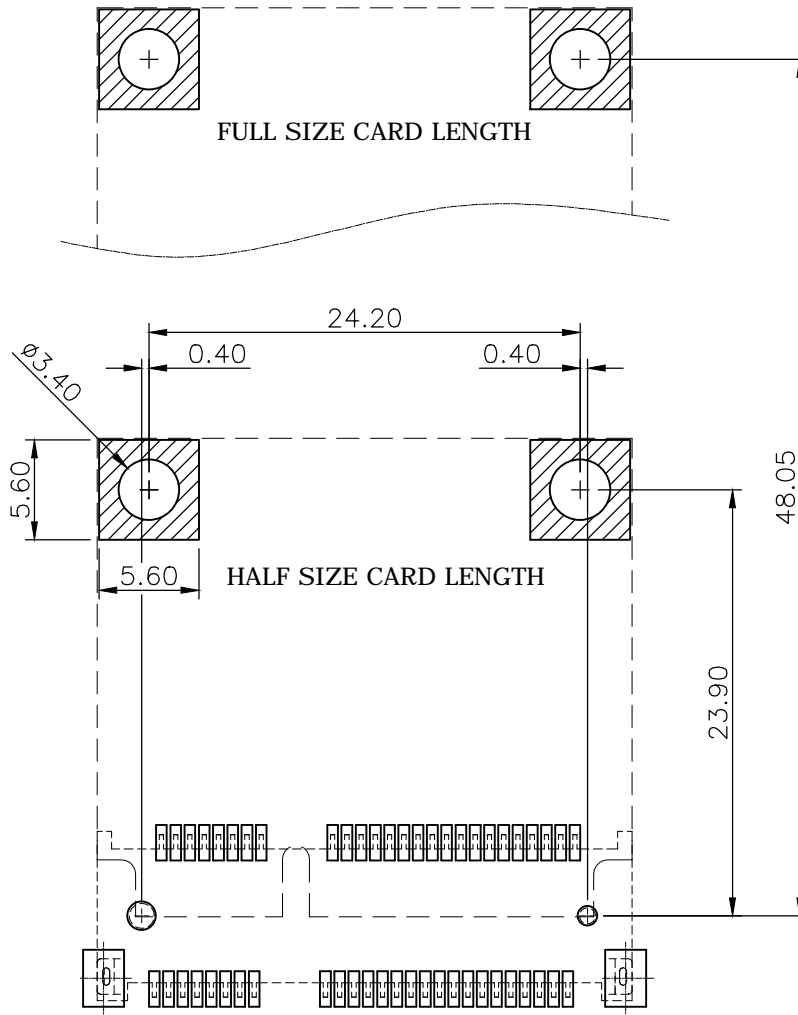


PCB Recommend Layout Pattern



NUT P/N	"H"±0.1	Mini PCI E P/N
119A-NUT-40-R02	1.6	119A-40A00-R02
119A-NUT-40-R02	1.6	119A-40A00-R04
119A-NUT-56-R02	3.2	119A-56A00-R02
119A-NUT-56-R02	3.2	119A-56A00-R04
119A-NUT-80-R02	5.6	119A-80A00-R02
119A-NUT-92-R02	6.8	119A-92A00-R02

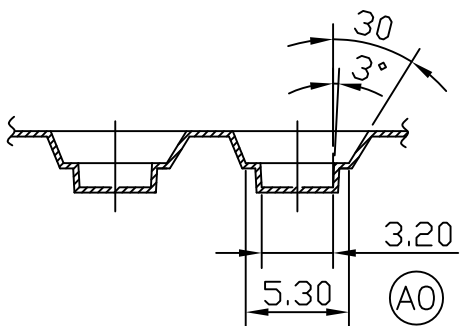
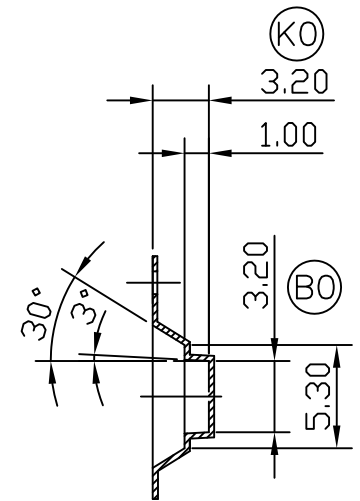
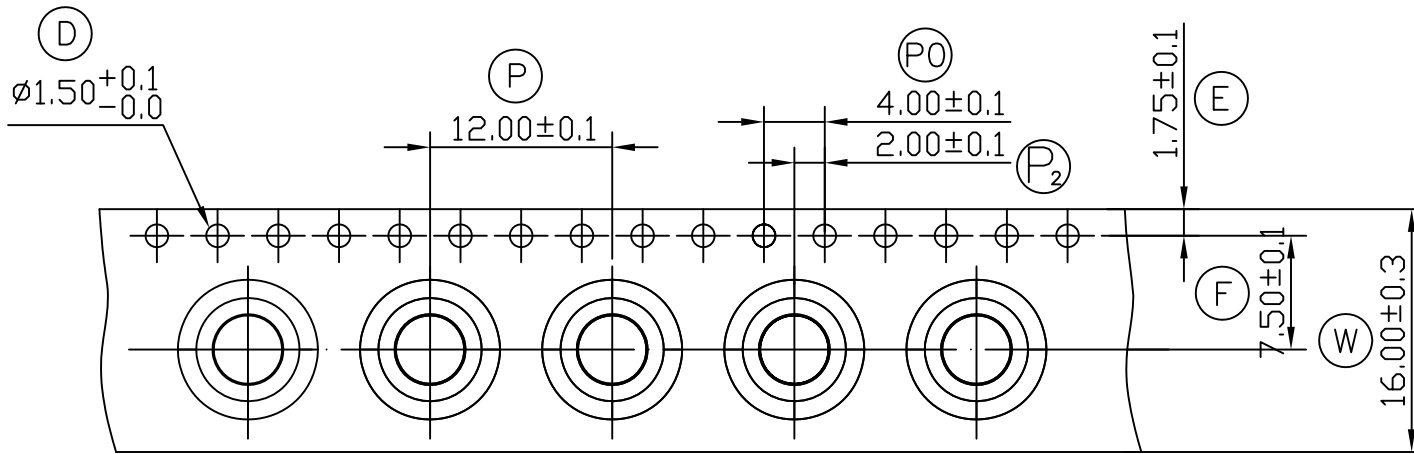
UNLESS OTHERWISE SPECIFIED TOLERANCE				 WWW.ATTEND.COM.TW
UNIT:	DECIMAL	LINEAR	ANGLES	
mm	X.	±0.50	±5°	
	X.X	±0.25	±3°	
	X.XX	±0.12	±1°	
DRAWN	Willis	2012/12/10	DRAWN NAME:	
CHECKED	Angel	2012/12/10	Mini PCI Express Stand Off	
APPROVED	Ken	2012/12/10	PRODUCT NO. see p/n table	
	SCALE 6.25	SHEET 1/1	SIZE A4	FILE NAME 119A-NUT-XX-R02_B_4

REV.	DESCRIPTION	DRAWN	DATE
1	Initial Release	FROS	2020/04/16



**RECOMMEND LAYOUT (TOP VIEW)**  
**GENERAL TOLERANCE: ±0.05**

UNLESS OTHERWISE SPECIFIED TOLERANCE					
UNIT:	DECIMAL	LINEAR	ANGLES		
mm	X.	±0.50	±5°	WWW.ATTEND.COM.TW	
	X.X	±0.25	±3°		
	X.XX	±0.12	±1°		
DRAWN	Fros	2020/04/16	DRAWN NAME: Mini PCI Express Stand Off Layout		
CHECKED	Tim	2020/04/16	PRODUCT NO.		
APPROVED	Ken	2020/04/16	FILE NAME 119A-NUT-XX-R02_LAYOUT		
		SCALE 6.25	SHEET 1/1	SIZE A4	



- 1. Material: PS Black-Thickness :  $0.35 \pm 0.05$  mm.
- 2. Packing Length Per 22" Reel : 68 Meters (1:3).
- 3. Component Load Per 13" Reel : 1800 Pcs.

ITEM	W	A <sub>0</sub>	B <sub>0</sub>	K <sub>0</sub>	K <sub>1</sub>	P	F	E	D	D <sub>1</sub>	P <sub>0</sub>	P <sub>2</sub>
DIM	16.0 <sup>+0.30</sup> <sub>-0.30</sub>	3.20 <sup>+0.20</sup> <sub>-0.10</sub>	3.20 <sup>+0.20</sup> <sub>-0.10</sub>	3.20 <sup>+0.20</sup> <sub>-0.10</sub>	0.00 <sup>+0.20</sup> <sub>-0.10</sub>	8.00 <sup>+0.10</sup> <sub>-0.10</sub>	7.50 <sup>+0.10</sup> <sub>-0.10</sub>	1.75 <sup>+0.10</sup> <sub>-0.10</sub>	1.50 <sup>+0.10</sup> <sub>-0.00</sub>	0.00 <sup>+0.25</sup> <sub>-0.00</sub>	4.00 <sup>+0.10</sup> <sub>-0.10</sub>	2.00 <sup>+0.10</sup> <sub>-0.10</sub>

UNLESS OTHERWISE SPECIFIED TOLERANCE		
ANGLES	ANG.	±5°
LINEAR	0.	±0.3
	0.0	±0.25
	0.00	±0.20
SCALE	AS SHOWN	UNIT: mm
DRAWN	Willis	2012/12/10
CHECKED	Angel	2012/12/10
APPROVED	Ken	2012/12/10



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DRAWN NAME:  
Mini PCI Express Stand Off

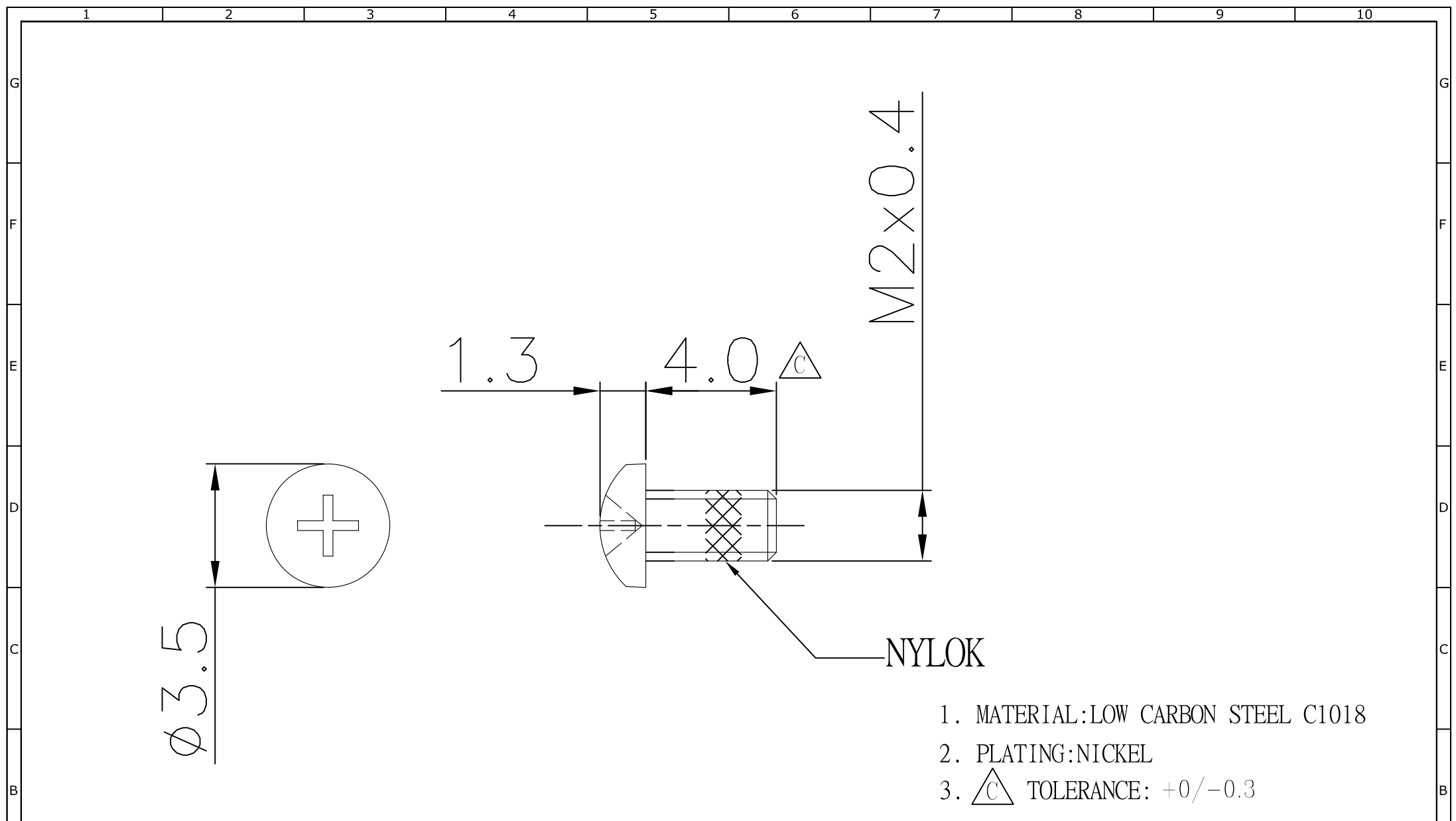
PRODUCT NO. 119A-NUT-40-R02

REV.	DESCRIPTION	DATE	REV.	DESCRIPTION	DATE



SIZE A4 REV. 1.0

FILE NAME 119A-NUT-40-R02\_D\_2



1. MATERIAL: LOW CARBON STEEL C1018
2. PLATING: NICKEL
3.  $\triangle C$  TOLERANCE:  $+0/-0.3$

REV.	DESCRIPTION	DATE	REV.	DESCRIPTION	DATE	SIZE	REV.	FILE NAME
1			4			A4	1.0	119A-Screw-R02_B_2

A	△	Revise:				<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th colspan="3">UNLESS OTHERWISE SPECIFIED TOLERANCE</th> </tr> <tr> <td>ANGLES</td> <td>ANG.</td> <td>±5°</td> </tr> <tr> <td rowspan="2">LINEAR</td> <td>0.0</td> <td>±0.3</td> </tr> <tr> <td>0.00</td> <td>±0.25</td> </tr> <tr> <td></td> <td></td> <td>±0.20</td> </tr> <tr> <td>SCALE</td> <td>AS SHOWN</td> <td>UNIT: mm</td> </tr> <tr> <td>DRAWN</td> <td>Willis</td> <td>2013/01/25</td> </tr> <tr> <td>CHECKED</td> <td>Angel</td> <td>2013/01/25</td> </tr> <tr> <td>APPROVED</td> <td>Ken</td> <td>2013/01/25</td> </tr> </table>	UNLESS OTHERWISE SPECIFIED TOLERANCE			ANGLES	ANG.	±5°	LINEAR	0.0	±0.3	0.00	±0.25			±0.20	SCALE	AS SHOWN	UNIT: mm	DRAWN	Willis	2013/01/25	CHECKED	Angel	2013/01/25	APPROVED	Ken	2013/01/25
	UNLESS OTHERWISE SPECIFIED TOLERANCE																															
	ANGLES	ANG.	±5°																													
	LINEAR	0.0	±0.3																													
0.00		±0.25																														
		±0.20																														
SCALE	AS SHOWN	UNIT: mm																														
DRAWN	Willis	2013/01/25																														
CHECKED	Angel	2013/01/25																														
APPROVED	Ken	2013/01/25																														
△	Revise:					DRAWN NAME: Mini PCI Express M2 Nylok Screw																										
△	Revise:					PRODUCT NO.	119A-Screw-R02																									
△	Revise:					FILE NAME	119A-Screw-R02_B_2																									

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