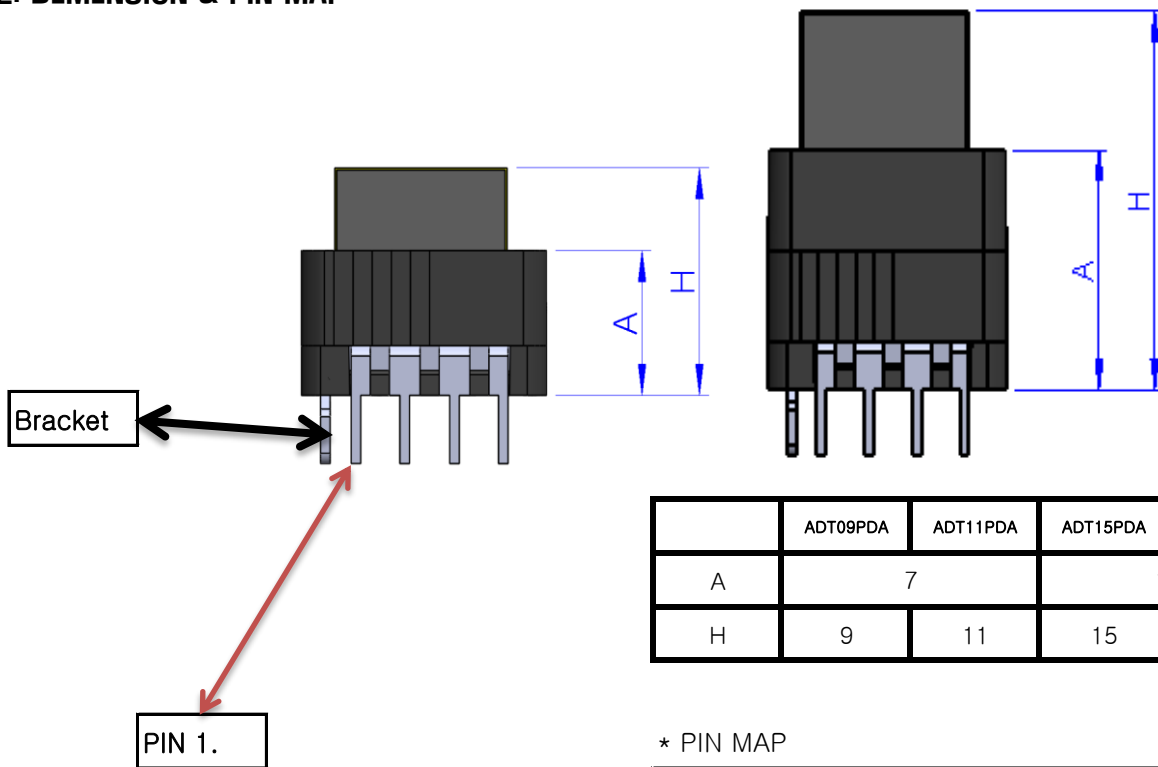


1. 제품사양

Product Name	Touch Cap Module
Touch Sensing Channel	1channel
Output	Open drain
Operation Temp.	-10℃ ~ 75℃
Demension	

2. DEMENSION & PIN MAP



	ADT09PDA	ADT11PDA	ADT15PDA	ADT19PDA
A	7		12	
H	9	11	15	19

* PIN MAP

Pin No.	Function	비고
1	N.C	
2	CS	TOUCH PAD
3	N.C	
4	N.C	
5	SYNC	Sensitivity selection input
6	VDD	Power (2.5V ~ 5.0V)
7	OUT	OPEN DRAIN
8	GND	Supply ground

SPECIFICATION SHEET

3. 제품 특성

at 25°C

구분	특성 항목			Min	Typ.	Max.	Unit
전기적 특성	Supply Voltage			2.5	3.3	5.0	VDC
	⁽¹⁾ Current Consumption	VDD 3.3V	BS		25	40	uA
			BF		140	185	
		VDD 5.0V	BS		40	70	
			BF		200	280	
	Operating Temperature			-10		75	°C
Storage Temperature			-10		85	°C	
성능 특성	Sensitivity (at VDD 5V)	ADJ	GND	7		10	T
			VDD	10		13	
			⁽²⁾ Rsync _(2M)	13		16	
기구적 특성	재질	Case / Sub Case		PC			Black
		Bracket		SN Plating Plate			
		Gasket		Conductive Fabric			
	Dimension-1			12.6	12.8	13.0	mm
	Dimension-2			-0.2	A	+0.2	mm
	Dimension-3			-0.2	H	+0.2	mm
	총 중량			1.4(1.7)	1.5(1.8)	1.6(1.9)	g

* ()는 Sub Case 포함.

(1) Current consumption at touch operation : External Pull Up 10K

- VDD 5VDC : Added External Pull Up Resistor Current : 500uA

- VDD 3VDC : Added External Pull Up Resistor Current : 330uA

(2) R_{ADJ}: ADJ 단자 Pull Down Resistor 2Mohm Connection

* Sensitivity Plate Material : PC

* Sensitivity pole : Alumium pole 12φ, 70mm, Gasket (12φ x 1.5T)

* Sensitivity Test 시 Module 주변에 GND 및 금속 물질 없을 것.

SPECIFICATION SHEET

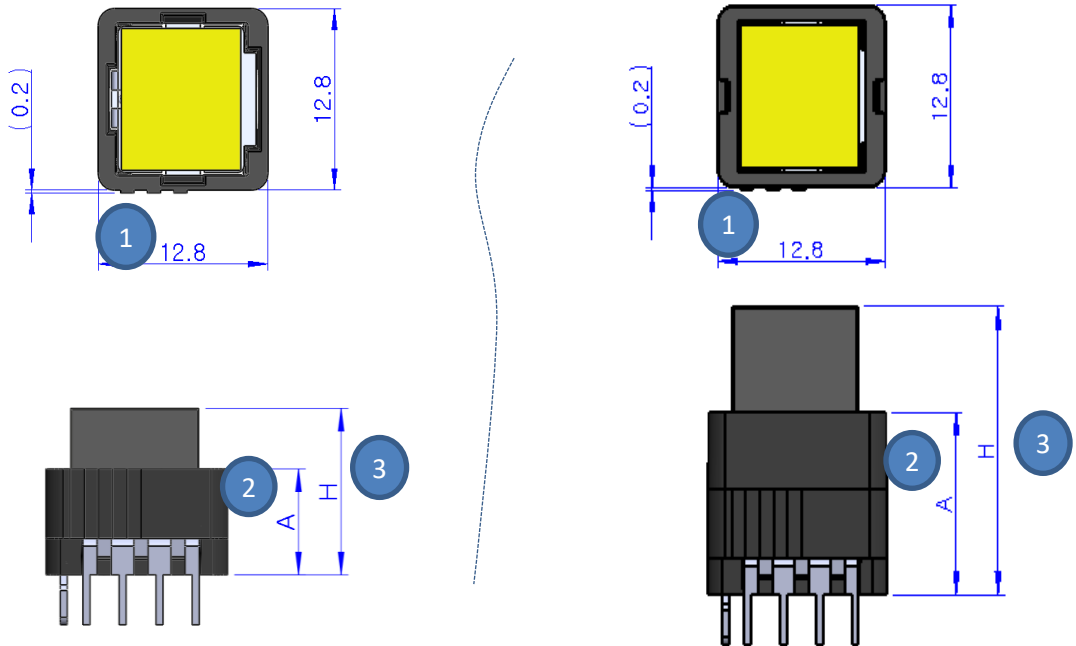
4. 검사 기준서

* sensitivity spec : min 동작 , max 미동작

(at 25°C / VDD 5Vdc)

구분	특성 항목	Min.	Typ.	Max.	평가 기준	unit	
Operating test	Touch On	0		0.1	이상이 없을것	Vdc	
	Touch Off	VDD-0.1		VDD	이상이 없을것		
Current Comsumotion	BS Mode		40	70	이상이 없을것	uA	
	BF Mode		200	280	이상이 없을것		
Sensitivity	SYNC	GND	7		10	이상이 없을것	T
		VDD	10		13	이상이 없을것	
		⁽²⁾ Rsync _(2M)	13		16	이상이 없을것	
Demension	Dimension ①	12.6	12.8	13.0	허용공차 이내일것	mm	
	Dimension ②	-0.2	A	+0.2			
	Dimension ③	-0.2	H	+0.2			
외관검사		스크래치나 깨짐이 없을것			이상이 없을 것		

* 제품 형상



	ADT09PDA	ADT11PDA	ADT15PDA	ADT19PDA
A	7		12	
H	9	11	15	19

제품 도면 참조

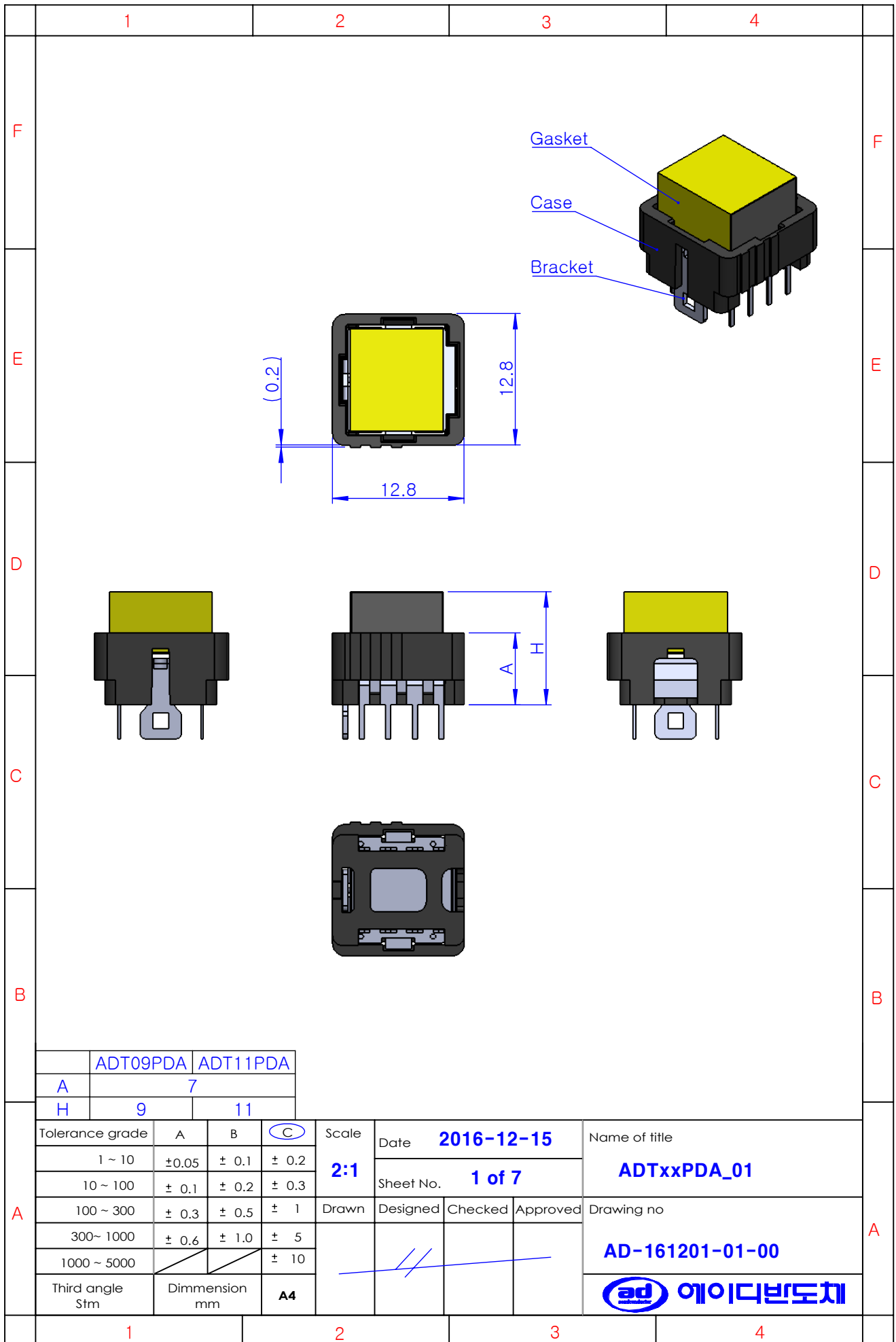
Parts List

AD Semiconductor, Co., Ltd

() W/S	Model Name	ADTxxPDA	Buyer		Written by	박현건
() E/S	Ass'y Name	8DIP Bracket Type touch Cap Module	Option Note		Checked by	
(V) P/P	Ass'y Code	438TAA0902 / 439TAA1104 / 440TAA1503 / 441TAA1907			Approved by	
() M/P	Issue Date	16. 12. 01.			Rev. No.	0

NO.	Bom code	Name	Description	Maker	Q'ty	Location No.	Remark
1		IC	TS01SAD_8DIP PACKAGE	AD	1		
2		Case	12.8 x 12.8 x 7T / PC / Black (도면 참조)	친우텍	1		
3		Sub Case	12.8 x 12.8 x 7.4T / PC / Black (도면 참조)	친우텍	0,1		
4		Bracket	SN Plating Plate (도면 참조)	엠에스메탈	1		
5		Gasket	9 x 10 x B (4,6,10,14T) / Conductive Fabric (도면 참조)	제가테크	1		
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							
23							
24							
25							

NOTE:



	ADT09PDA	ADT11PDA
A	7	
H	9	11

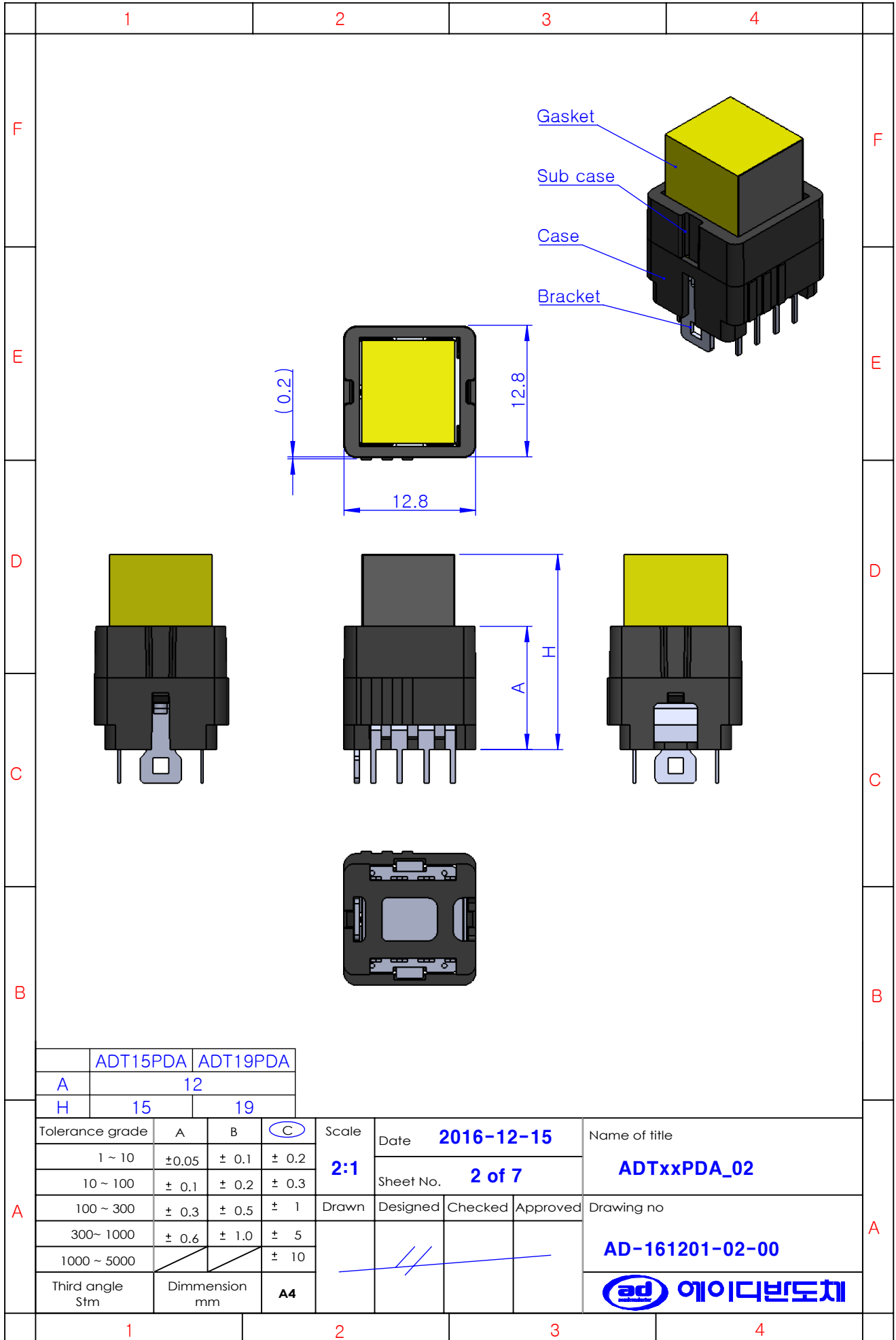
A	Tolerance grade	A	B	C	Scale 2:1	Date	2016-12-15			Name of title ADTxxPDA_01
	1 ~ 10	±0.05	± 0.1	± 0.2		Sheet No.	1 of 7			
	10 ~ 100	± 0.1	± 0.2	± 0.3	Drawn 	Designed	Checked	Approved	Drawing no AD-161201-01-00	
	100 ~ 300	± 0.3	± 0.5	± 1						
	300 ~ 1000	± 0.6	± 1.0	± 5						
	1000 ~ 5000	/		± 10						
Third angle Stm	Dimmension mm		A4					에이디반도치		

1

2

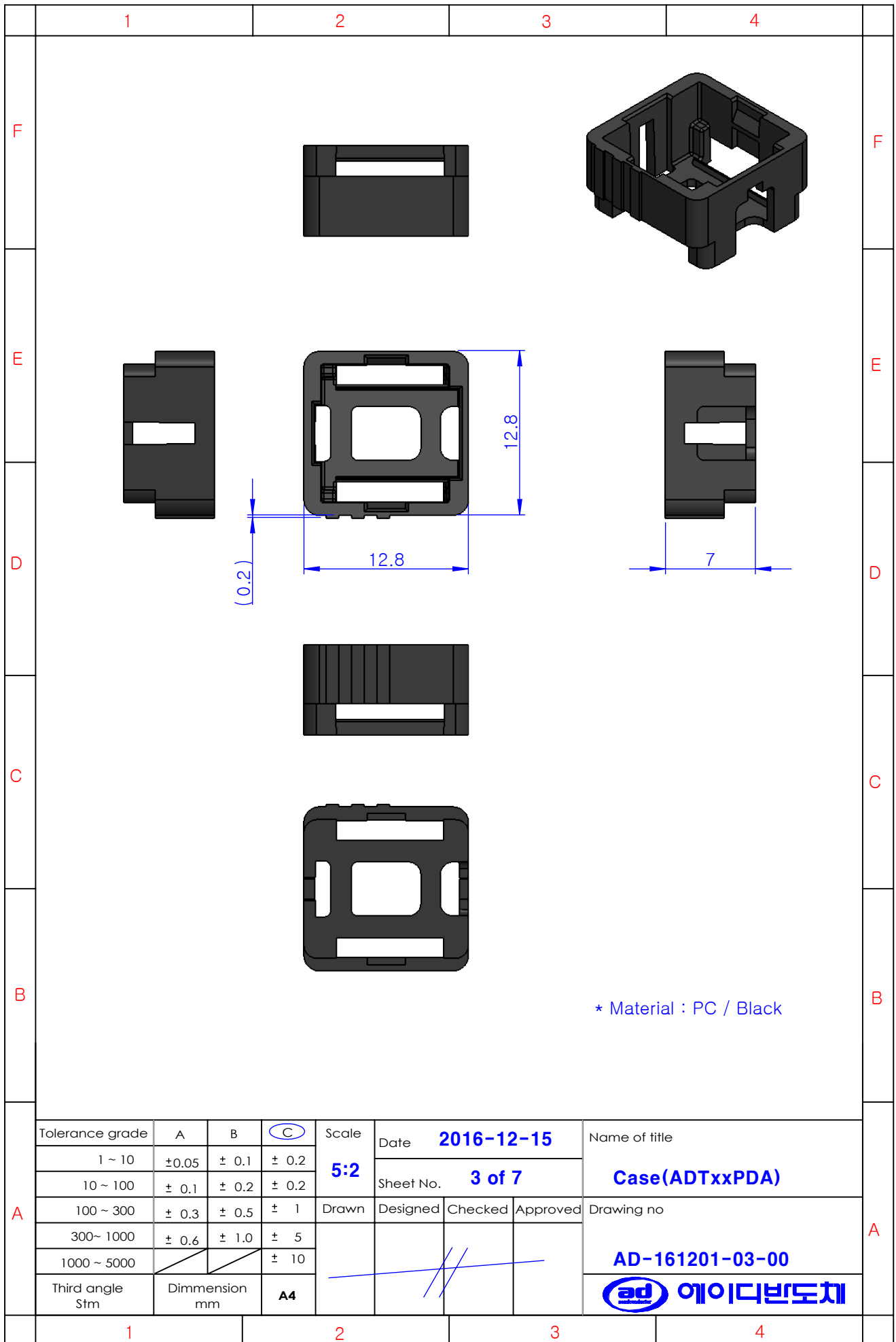
3

4

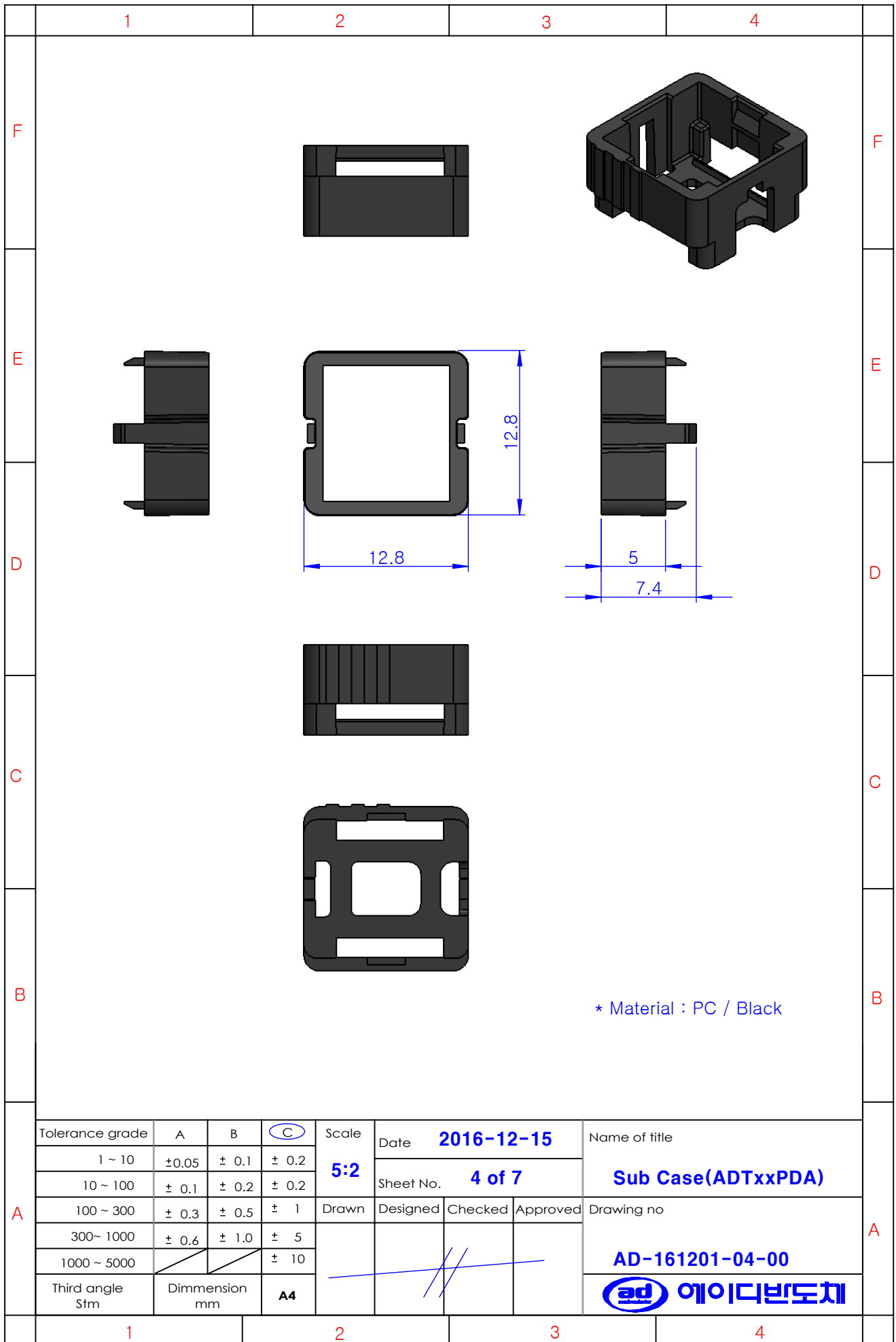


	ADT15PDA	ADT19PDA
A	12	
H	15	19

A	Tolerance grade	A	B	C	Scale 2:1	Date	2016-12-15			Name of title ADTxxPDA_02
	1 ~ 10	±0.05	± 0.1	± 0.2		Sheet No.	2 of 7			
	10 ~ 100	± 0.1	± 0.2	± 0.3	Drawn 	Designed	Checked	Approved	Drawing no AD-161201-02-00	
	100 ~ 300	± 0.3	± 0.5	± 1						
	300 ~ 1000	± 0.6	± 1.0	± 5						
	1000 ~ 5000	/		± 10						
Third angle Stm	Dimmension mm		A4					에이디반도치		

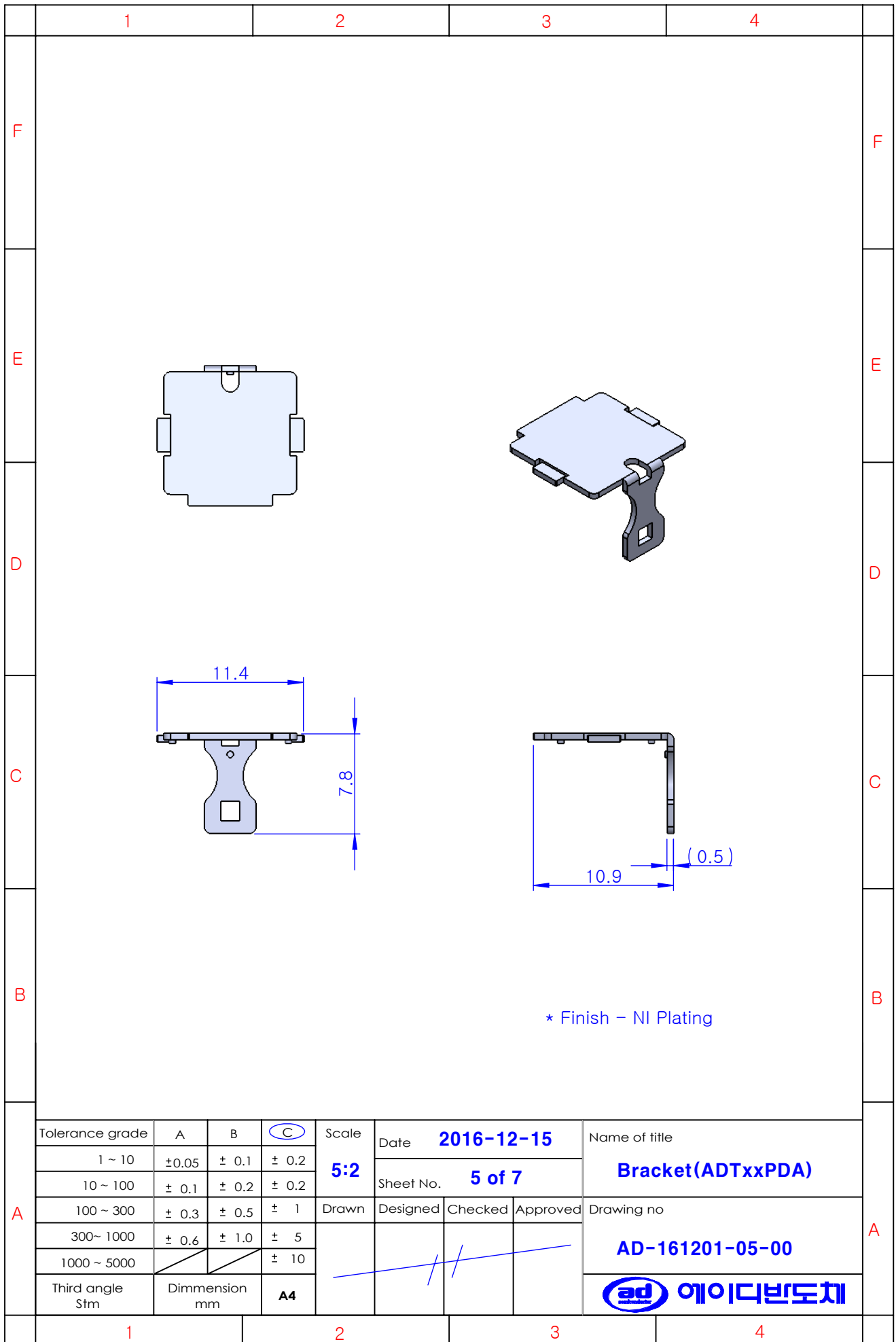


A	Tolerance grade	A	B	C	Scale 5:2	Date 2016-12-15				Name of title	
	1 ~ 10	±0.05	± 0.1	± 0.2		Sheet No. 3 of 7				Case(ADTxxPDA)	
	10 ~ 100	± 0.1	± 0.2	± 0.2	<div style="display: flex; align-items: center; justify-content: center;"> <div style="margin-right: 10px;">Drawn</div> <div style="margin-right: 10px;">Designed</div> <div style="margin-right: 10px;">Checked</div> <div style="margin-right: 10px;">Approved</div> </div>	Drawing no		AD-161201-03-00 에이디반도치			
	100 ~ 300	± 0.3	± 0.5	± 1		AD-161201-03-00					
	300~ 1000	± 0.6	± 1.0	± 5							
	1000 ~ 5000	/	/	± 10							
Third angle Stm	Dimmension mm		A4								




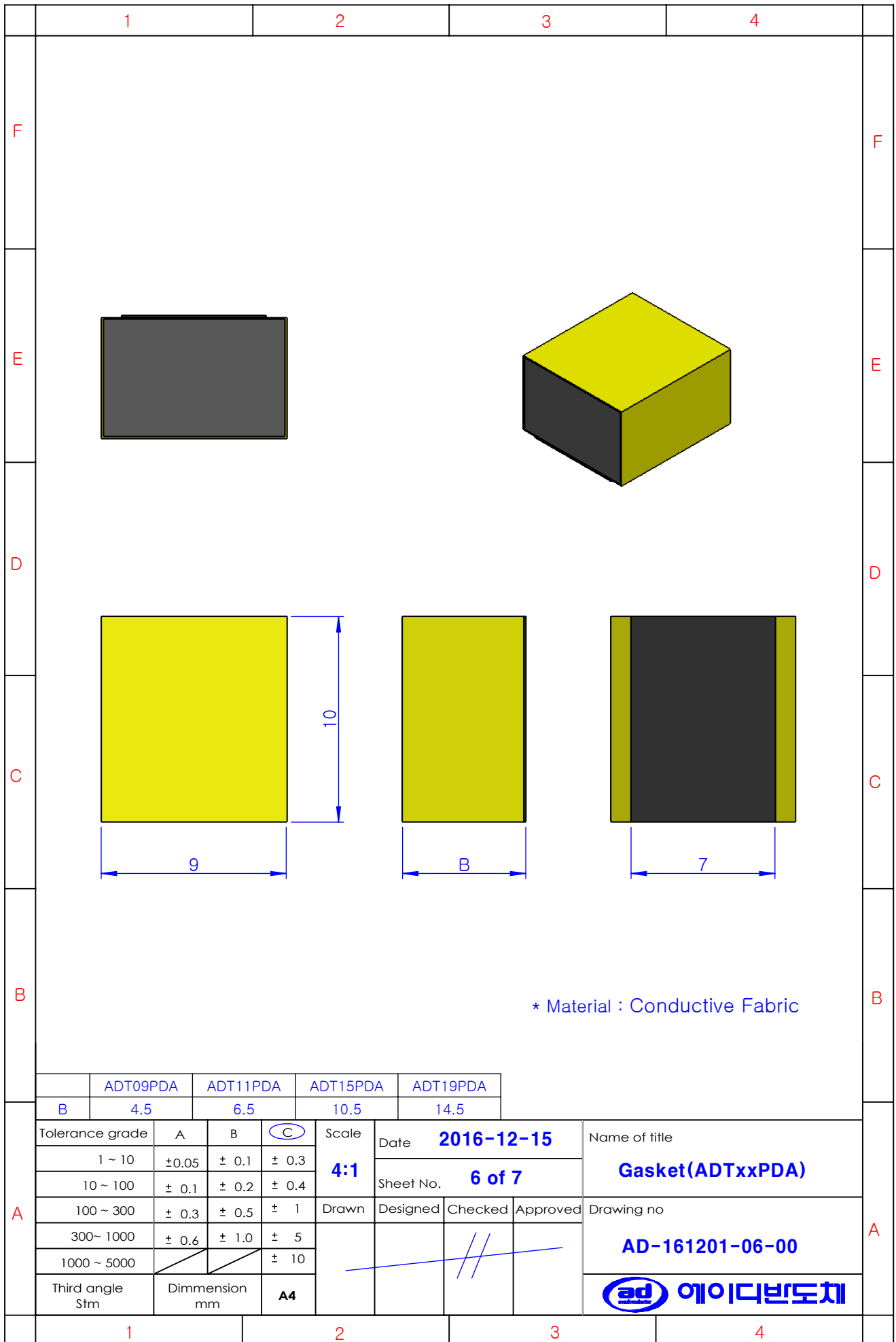
* Material : PC / Black

A	Tolerance grade	A	B	C	Scale	Date	2016-12-15			Name of title
	1 ~ 10	±0.05	± 0.1	± 0.2	5:2	Sheet No.	4 of 7			Sub Case(ADTxxPDA)
	10 ~ 100	± 0.1	± 0.2	± 0.2		Drawn	Designed	Checked	Approved	Drawing no
	100 ~ 300	± 0.3	± 0.5	± 1					AD-161201-04-00	
	300~ 1000	± 0.6	± 1.0	± 5						
	1000 ~ 5000			± 10						
Third angle Stm	Dimmension mm	A4			에이디반도치					
	1	2		3	4					



* Finish - NI Plating

A	Tolerance grade	A	B	<u>C</u>	Scale	Date	2016-12-15			Name of title
	1 ~ 10	±0.05	± 0.1	± 0.2	5:2	Sheet No.	5 of 7			Bracket(ADTxxPDA)
	10 ~ 100	± 0.1	± 0.2	± 0.2		Drawn	Designed	Checked	Approved	Drawing no
	100 ~ 300	± 0.3	± 0.5	± 1					AD-161201-05-00	
	300~ 1000	± 0.6	± 1.0	± 5						
	1000 ~ 5000			± 10						
Third angle Stm	Dimmension mm	A4					 에이디반도치			



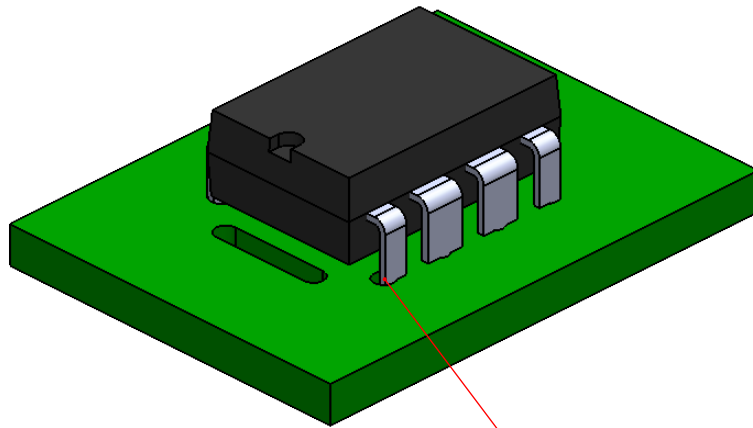
* Material : Conductive Fabric

	ADT09PDA	ADT11PDA	ADT15PDA	ADT19PDA
B	4.5	6.5	10.5	14.5

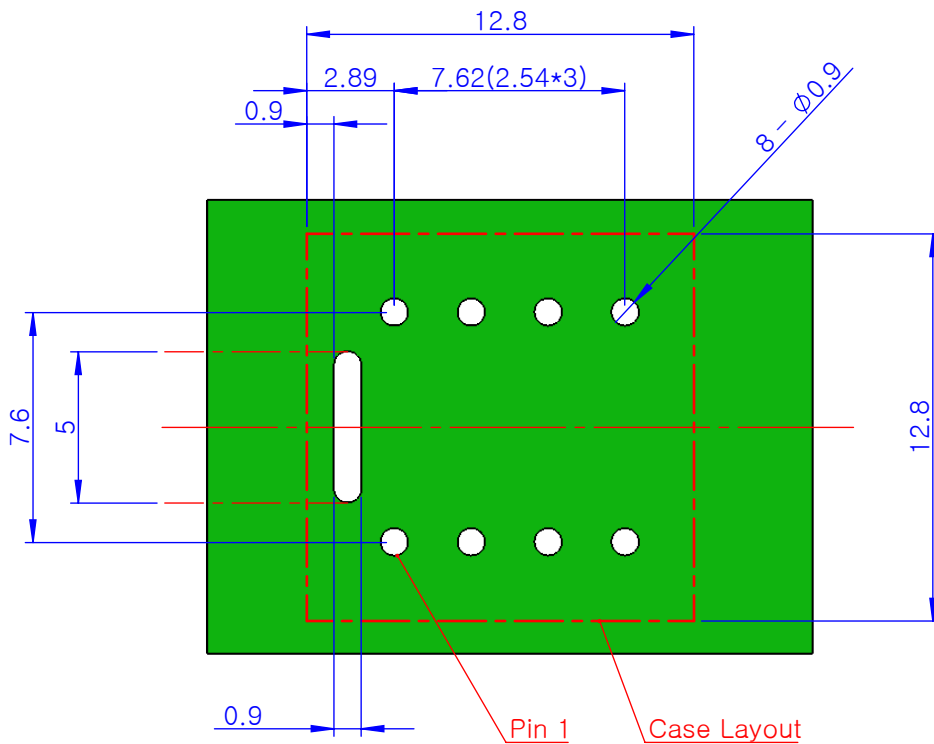
A	Tolerance grade	A	B	C	Scale	Date	Name of title		
	1 ~ 10	±0.05	± 0.1	± 0.3	4:1	2016-12-15	Gasket(ADTxxPDA)		
	10 ~ 100	± 0.1	± 0.2	± 0.4		Sheet No. 6 of 7			
	100 ~ 300	± 0.3	± 0.5	± 1	Drawn	Designed	Checked	Approved	Drawing no
	300~ 1000	± 0.6	± 1.0	± 5					AD-161201-06-00
	1000 ~ 5000	/		± 10					
Third angle Stm	Dimmension mm	A4							



0004



Pin 1



Pin 1

Case Layout

A	Tolerance grade	A	B	C	Scale	Date	Name of title		
	1 ~ 10	±0.05	± 0.1	± 0.2	4:1	2016-12-15	PCB Layout(ADTxxPDA)		
	10 ~ 100	± 0.1	± 0.2	± 0.2		Sheet No. 7 of 7			
	100 ~ 300	± 0.3	± 0.5	± 1	Drawn	Designed	Checked	Approved	Drawing no
	300~ 1000	± 0.6	± 1.0	± 5					AD-161201-07-00
	1000 ~ 5000			± 10					
Third angle Stm	Dimmension mm	A4					에이디반도치		

A