


品名 P/N : ACP-3216-P1-MC-S

1.Explanation of part number :

AC	P	3216	P1	MC	S
Product Type	Center Frequency/Band Code	Product Code (Unit: mm)	Design Revision Code	Antenna Type	Special Code
Chip Antenna	P: 6240 ~ 8500 MHz	Per 2 digits of length, width e.g.: 3216 3.2*1.6 (Length * Width)	P1:Rev.1	MC: Monopole Ceramic	S: RoHS Compliant

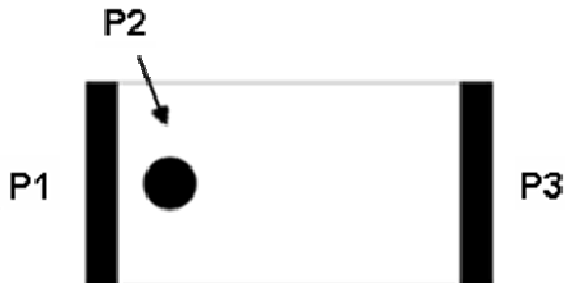
2.Electrical Specification :

	Specification
Working Frequency Range	6240 - 8500 MHz
Fc	7370 MHz
VSWR	2 max.
Gain	3 – 4.5 dBi
Efficiency	70 – 80 %
Power Capacity	3 W max.
Maximum Input Power	5 Watts for 5 minutes
Operation Temperature	- 40°C ~ +85°C
Polarization	Linear
Azimuth Beamwidth	Omni - Directional

UNLESS OTHER SPECIFIED TOLERANCES ON : X=N/A X.X=N/A X.XX=N/A ANGLES=N/A HOLEDIA=N/A			INPAQ TECHNOLOGY CO., LTD.
SCALE : N/A	UNIT : mm		
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TITLE : ACP-3216-P1-MC-S		DOCUMENT NO.	ENS070002030-000824000347
			SPEC REV. A0

3. Antenna Drawing :

CONSTRUCTION



PIN	Connection
1	Feeding
2	Identification Mark
3	Soldering terminal

DIMENSIONS

Figure	Symbol	Dimension (mm)
	L	3.20 ± 0.20
	W	1.60 ± 0.10
	T	1.10 ± 0.10
	A	0.25 ± 0.15

UNLESS OTHER SPECIFIED TOLERANCES ON :
 X=N/A X.X=N/A X.XX=N/A
 ANGLES=N/A HOLEDIA=N/A



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SCALE : N/A

UNIT : mm

DRAWN BY : 劉采璇

CHECKED BY : 詹惠雯

DESIGNED BY : 劉維頻

APPROVED BY : 陳振榮

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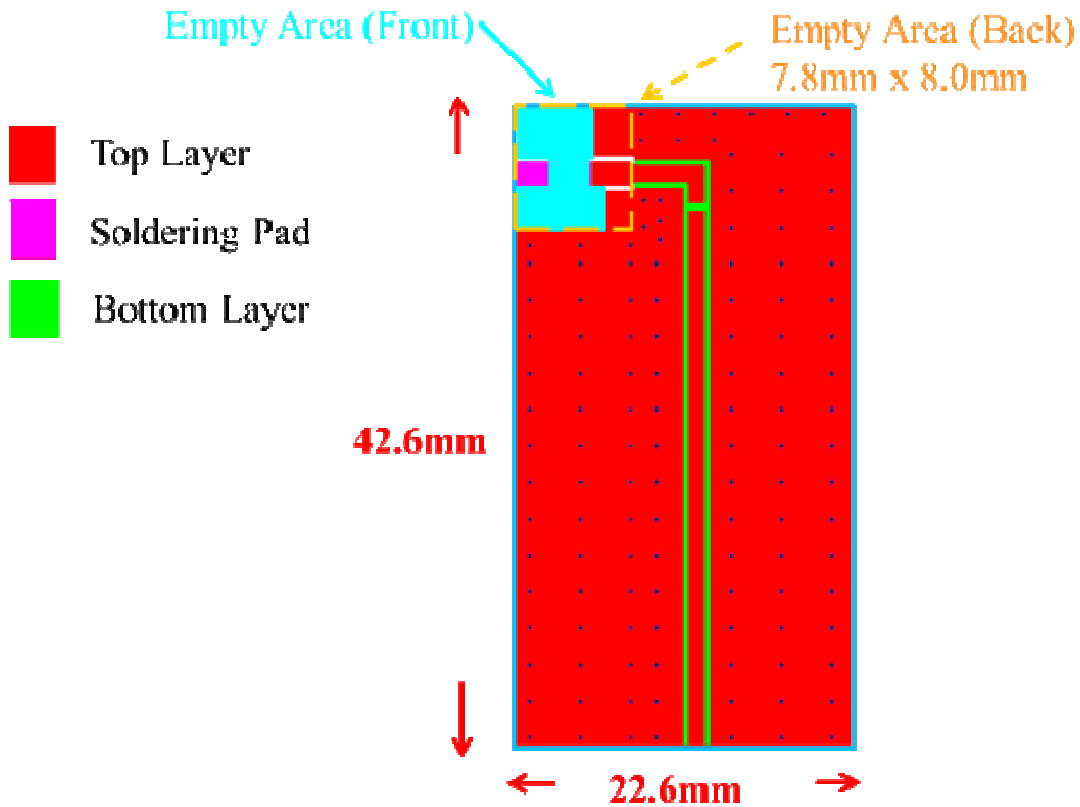
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4. Performance Report :

Figure

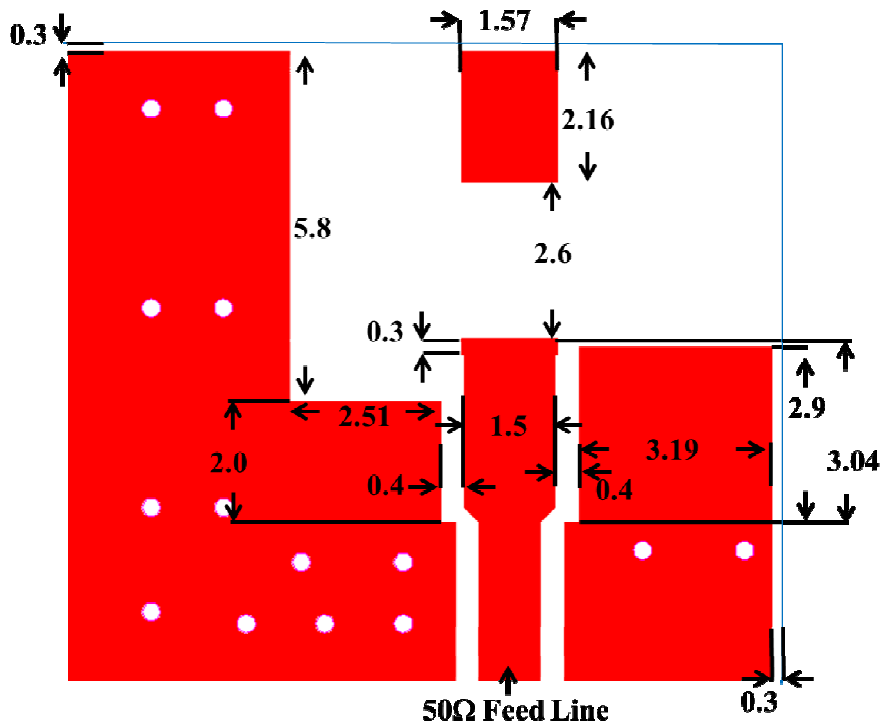


Antenna on Test Board (Thickness 0.8 mm)

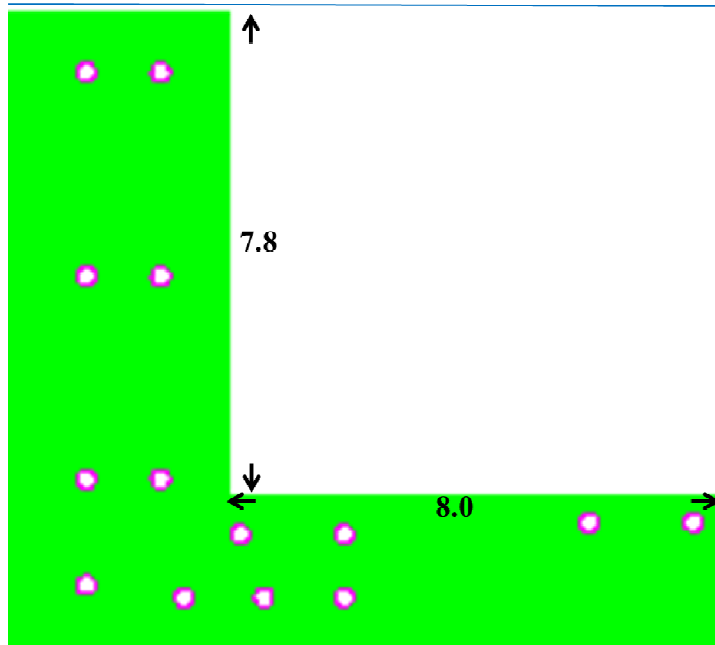
UNLESS OTHER SPECIFIED TOLERANCES ON : X=N/A X.X=N/A X.XX=N/A ANGLES=N/A HOLEDIA=N/A		 INPAQ TECHNOLOGY CO., LTD.
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Unit : mm

Front



Back



UNLESS OTHER SPECIFIED TOLERANCES ON :
 X=N/A X.X=N/A X.XX=N/A
 ANGLES=N/A HOLEDIA=N/A



INPAQ TECHNOLOGY CO., LTD.

SCALE : N/A

UNIT : mm

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CHECKED BY : 詹惠雯

DESIGNED BY : 劉維頻

APPROVED BY : 陳振榮

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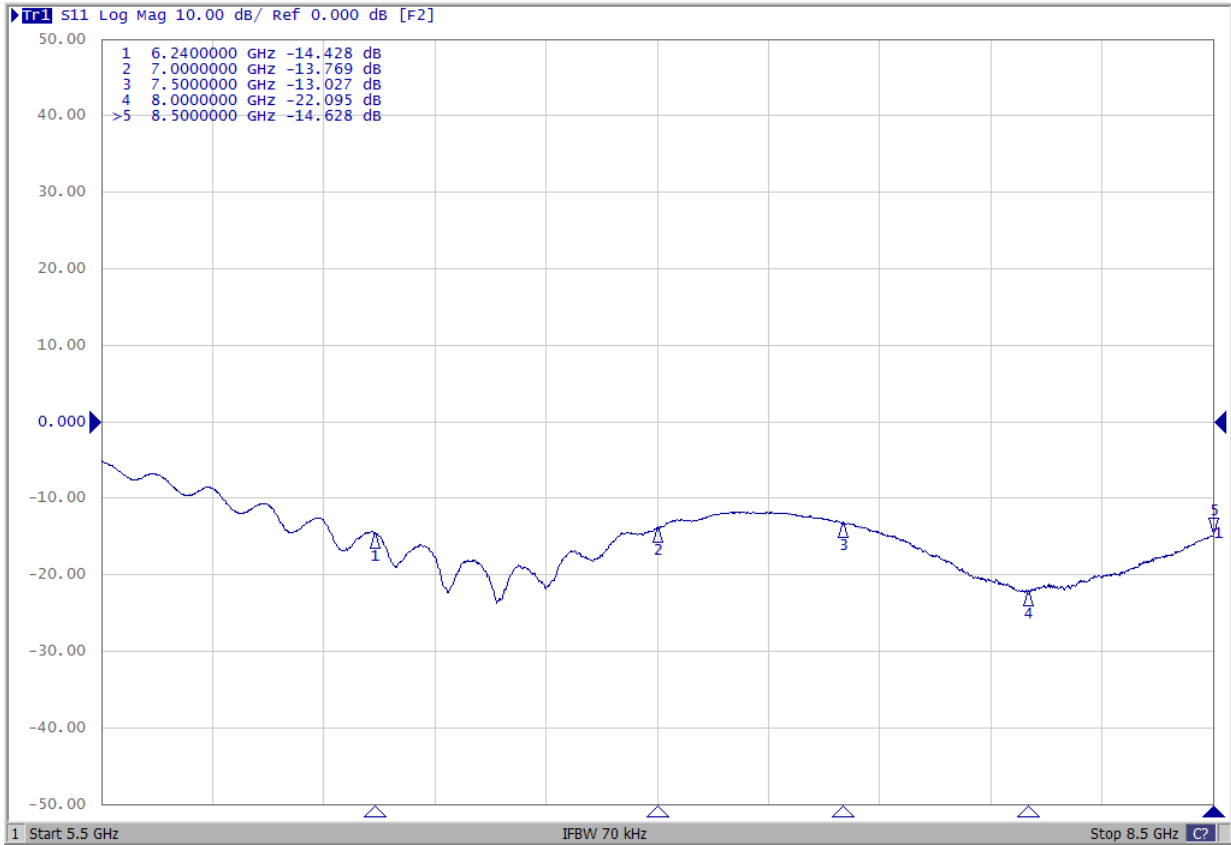
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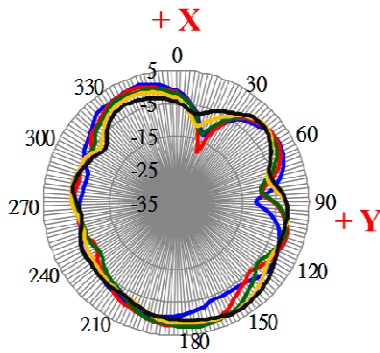
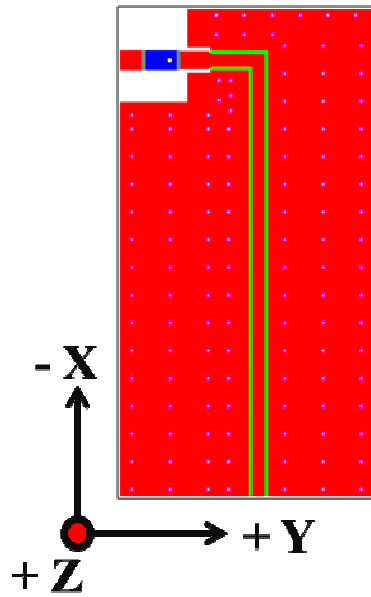
Antenna S11 on Test Board



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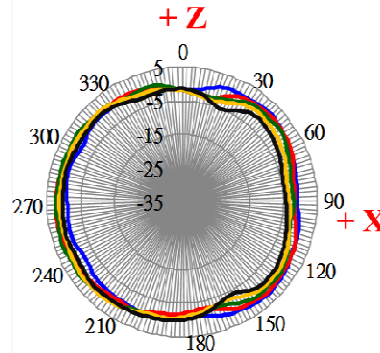
RADIATION PATTERNS

Radiation Pattern and Gain were dependent on measurement board design. The specification of ACP-3216-P1-MC-S antenna was measured based on the PCB size and installation position as shown in the below figure Test Board.



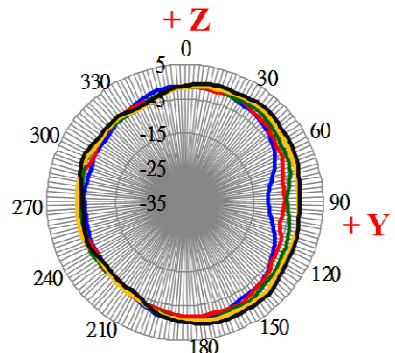
XY Plane

- 6240 MHz
- 7000 MHz
- 7500 MHz
- 8000 MHz
- 8500 MHz




ZX Plane

- 6240 MHz
- 7000 MHz
- 7500 MHz
- 8000 MHz
- 8500 MHz



ZY Plane

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ANGLES=N/A		HOLEDIA=N/A	
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5. RELIABILITY TEST

Test item	Test condition / Test method	Specification
Solderability JIS C 0050-4.6 JESD22-B102D	*Solder bath temperature : 235 ± 5°C *Immersion time : 2 ± 0.5 sec Solder : Sn3Ag0.5Cu for lead-free	At least 95% of a surface of each terminal electrode must be covered by fresh solder.
Resistance to soldering heat JIS C 0050-5.4	*Preheating temperature : 120~150°C , 1 minute. *Solder temperature : 270±5°C *Immersion time : 10±1 sec Solder : Sn3Ag0.5Cu for lead-free Measurement to be made after keeping at room temperature for 24±2 hrs	No mechanical damage. Electrical specification shall satisfy the descriptions in electrical characteristics under the operational temperature range within -40 ~ 85°C. Loss of metallization on the edges of each electrode shall not exceed 25%.
Drop Test JIS C 0044 Customer's specification.	*Height : 75 cm *Test Surface : Rigid surface of concrete or steel. *Times : 6 surfaces for each units ; 2 times for each side.	No mechanical damage. Electrical specification shall satisfy the descriptions in electrical characteristics under the operational temperature range within -40 ~ 85°C.
Vibration JIS C 0040	*Frequency : 10Hz~55Hz~10Hz(1min) *Total amplitude : 1.5mm *Test times : 6hrs.(Two hrs each in three mutually perpendicular directions)	No mechanical damage. Electrical specification shall satisfy the descriptions in electrical characteristics under the operational temperature range within -40 ~ 85°C.
Adhesive Strength of Termination JIS C 0051- 7.4.3	*Pressurizing force : 5N(≤0603) ; 10N(>0603) *Test time : 10±1 sec	No remarkable damage or removal of the termination.

UNLESS OTHER SPECIFIED TOLERANCES ON :
 X=N/A X.X=N/A X.XX=N/A
 ANGLES=N/A HOLEDIA=N/A




INPAQ TECHNOLOGY CO., LTD.

SCALE : N/A UNIT : mm
 DRAWN BY : 劉采璇 CHECKED BY : 詹惠雯
 DESIGNED BY : 劉維頻 APPROVED BY : 陳振榮

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Test item	Test condition / Test method	Specification
Bending test JIS C 0051- 7.4.1	The middle part of substrate shall be pressurized by means of the pressurizing rod at a rate of about 1 mm/s per second until the deflection becomes 1mm/s and then pressure shall be maintained for 5±1 sec. Measurement to be made after keeping at room temperature for 24±2 hours	No mechanical damage. Electrical specification shall satisfy the descriptions in electrical characteristics under the operational temperature range within -40 ~ 85°C.
Temperature cycle JIS C 0025	1. 30±3 minutes at -40°C±3°C, 2. 10~15 minutes at room temperature, 3. 30±3 minutes at +85°C±3°C, 4. 10~15 minutes at room temperature, Total 100 continuous cycles Measurement to be made after keeping at room temperature for 24±2 hrs	No mechanical damage. Electrical specification shall satisfy the descriptions in electrical characteristics under the operational temperature range within -40 ~ 85°C.
High temperature JIS C 0021	*Temperature : 85°C±2°C *Test duration : 1000+24/-0 hours Measurement to be made after keeping at room temperature for 24±2 hrs	No mechanical damage. Electrical specification shall satisfy the descriptions in electrical characteristics under the operational temperature range within -40 ~ 85°C.
Humidity (steady conditions) JIS C 0022	*Humidity : 90% to 95% R.H. *Temperature : 40±2°C *Time : 1000+24/-0 hrs. Measurement to be made after keeping at room temperature for 24±2 hrs ※ 500hrs measuring the first data then 1000hrs data	No mechanical damage. Electrical specification shall satisfy the descriptions in electrical characteristics under the operational temperature range within -40 ~ 85°C.
Low temperature JIS C 0020	*Temperature : -40°C±2°C *Test duration : 1000+24/-0 hours Measurement to be made after keeping at room temperature for 24±2 hrs	No mechanical damage. Electrical specification shall satisfy the descriptions in electrical characteristics under the operational temperature range within -40 ~ 85°C.

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SOLDERING CONDITION

Typical examples of soldering processes that provide reliable joints without any damage are given in Fig 2

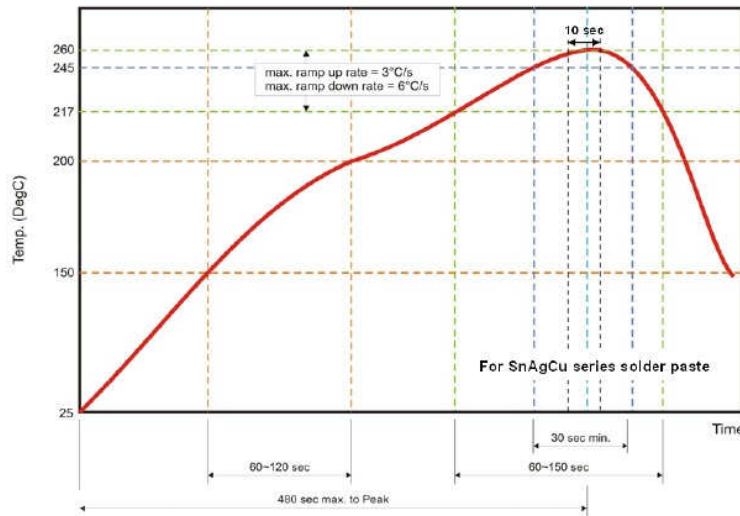

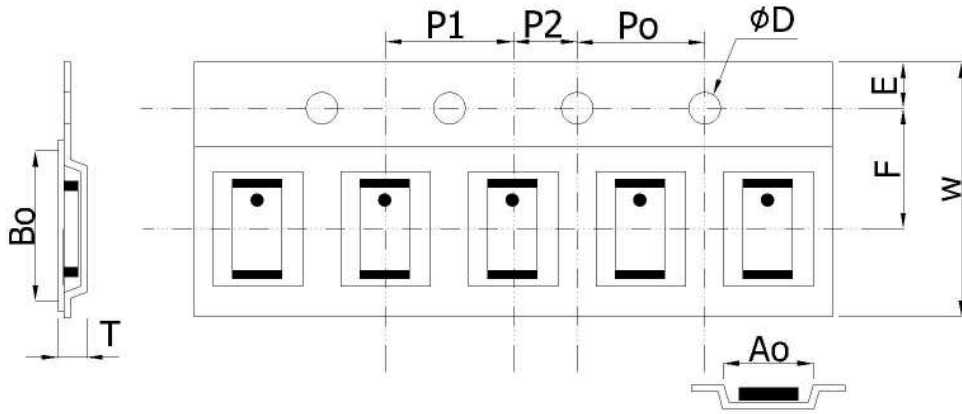


Fig 2. Infrared soldering

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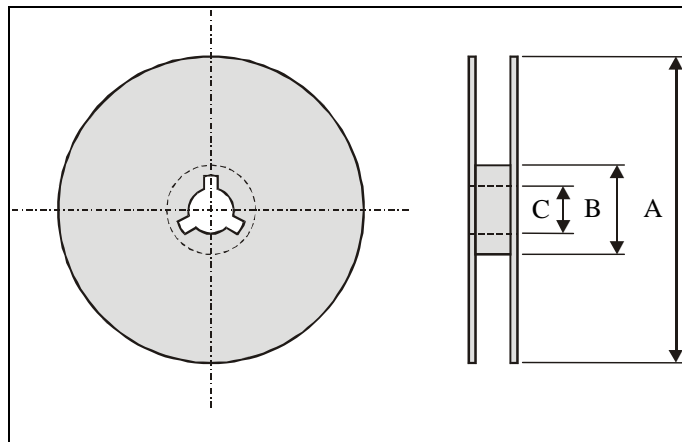
6. Package



Plastic Tape specifications (unit :mm)


Index	Ao	Bo	ϕD	T	W
Dimension (mm)	1.81 ± 0.10	3.42 ± 0.10	1.55 ± 0.05	1.26 ± 0.10	$8.20 +0.10$ -0.30
Index	E	F	Po	P1	P2
Dimension (mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10

Reel dimensions



Index	A	B	C
Dimension (mm)	$\phi 178$	$\phi 60.0$	$\phi 13.5$

Typing Quantity: 2000 pieces per 7" reel

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