

[illegible]

公司名稱:佳邦科技股份有限公司

地址:350 苗栗縣竹南鎮公義里 11 鄰科義街 11 號

品名 P/N : ACP-3216-P1-MC-S

客戶 : 迪芬尼 Seoul

客戶料號 : T690800040400

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

DRAWN BY : 劉采璇

CHECKED BY : 詹惠雯

DESIGNED BY : 劉維頻

APPROVED BY : 陳振榮

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TITLE : ACP-3216-P1-MC-S

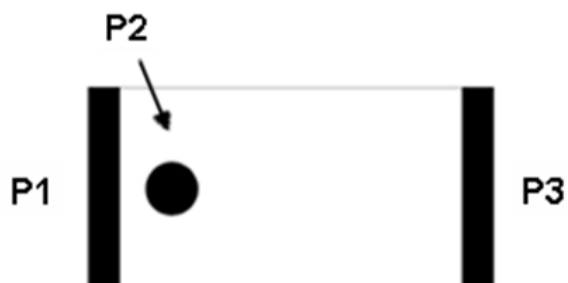
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3. Antenna Drawing :

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

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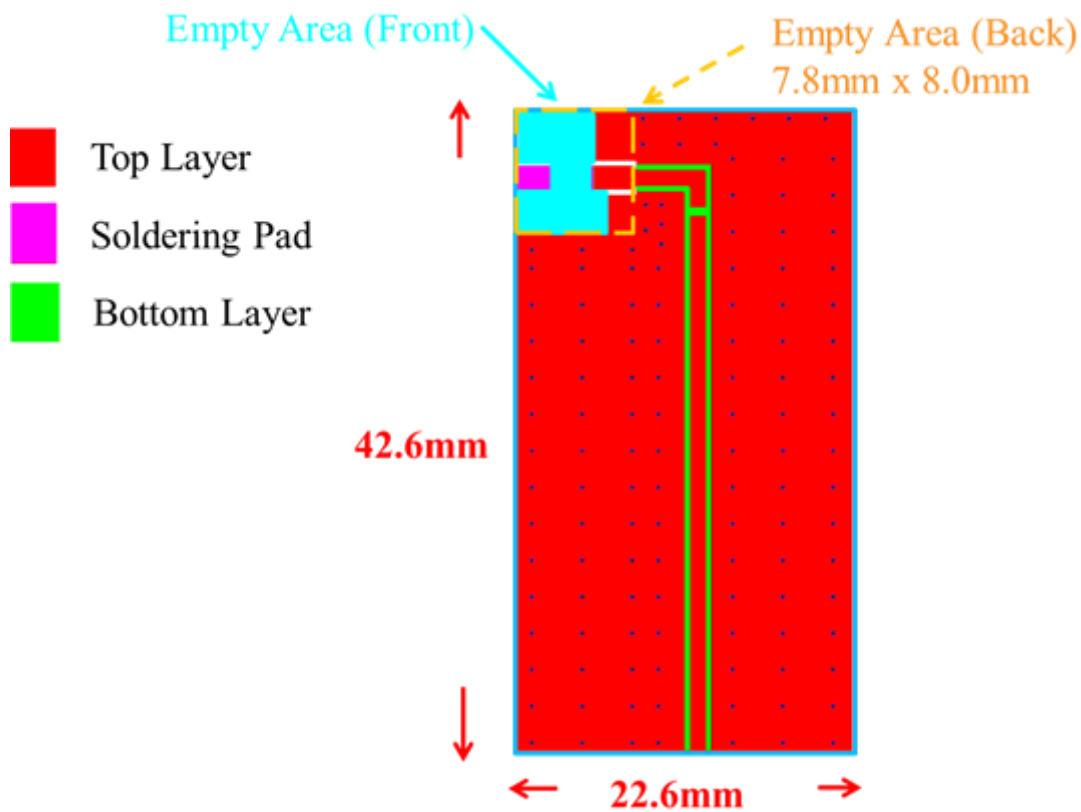
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4. Performance Report :

Figure



Antenna on Test Board (Thickness 0.8 mm)

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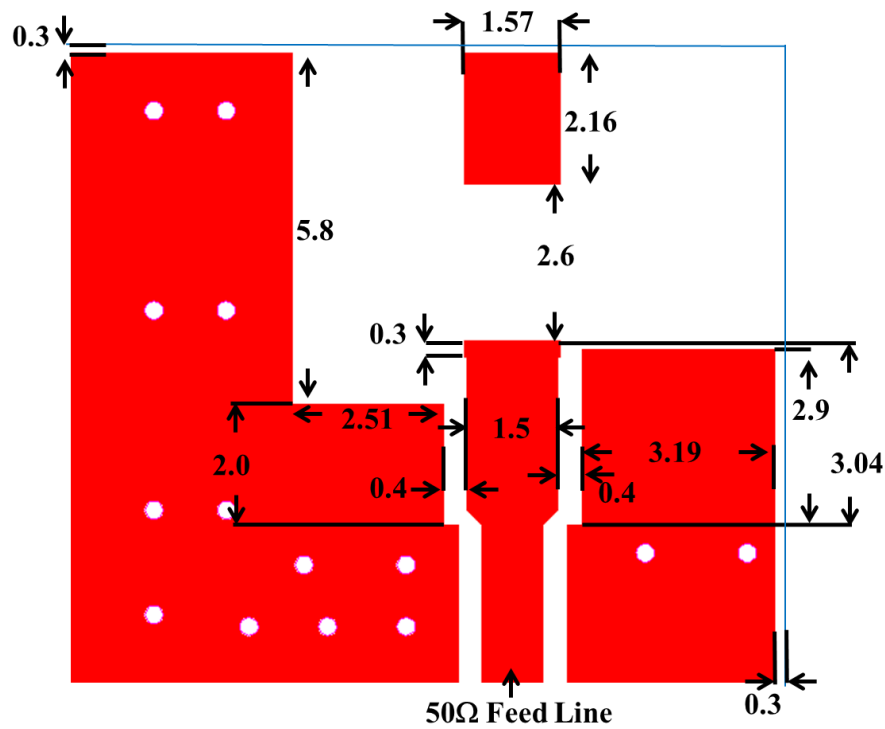
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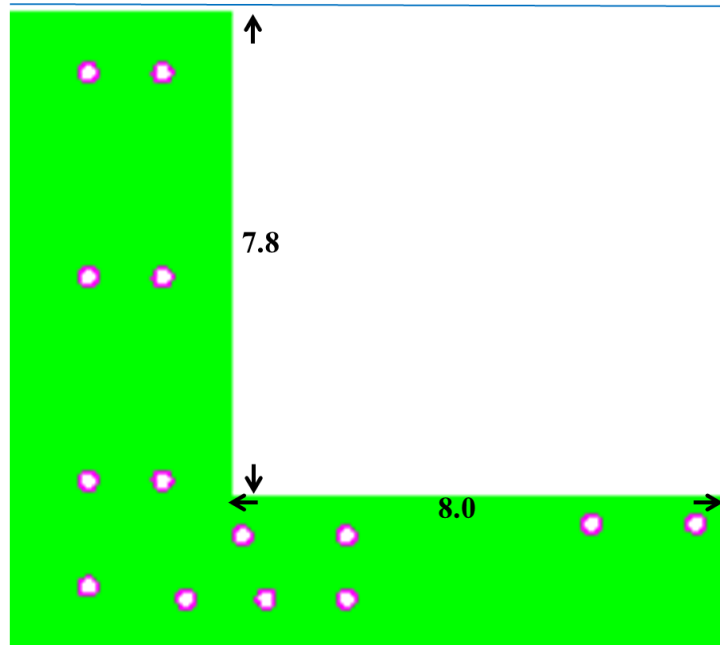
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Unit : mm

Front



Back



UNLESS OTHER SPECIFIED TOLERANCES ON :
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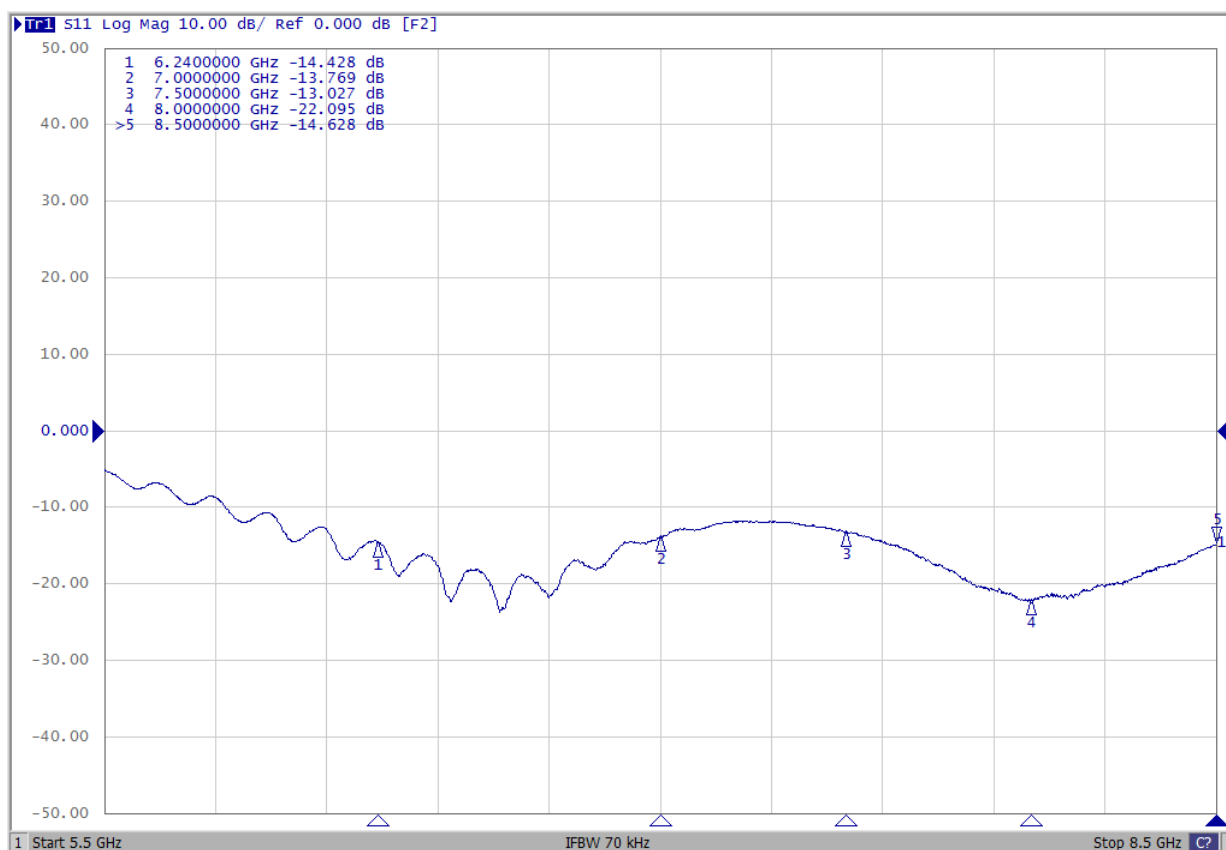
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Antenna S11 on Test Board



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 ANGLES = N/A HOLEDIA = N/A



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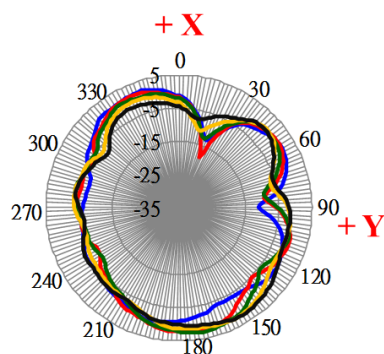
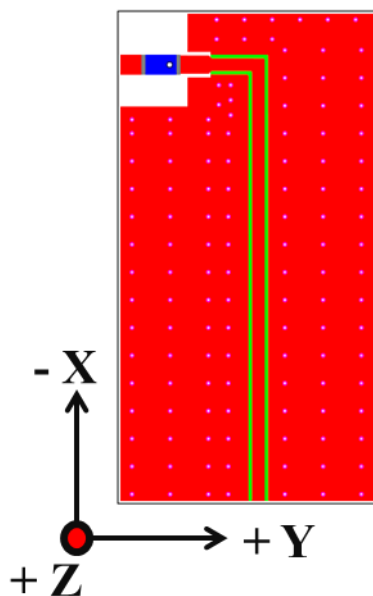
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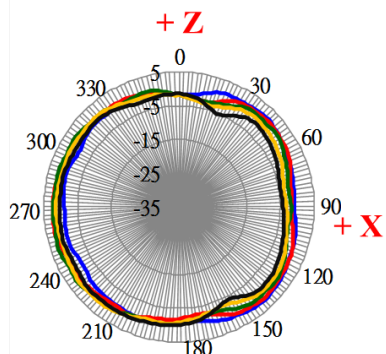
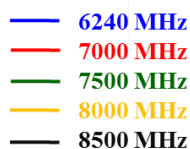
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RADIATION PATTERNS

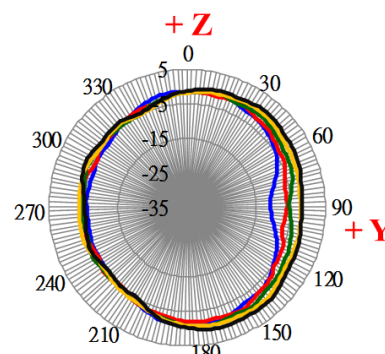
Radiation Pattern and Gain were dependent on measurement board design. The specification of ACP-3216-P1-MC-S antenna was measured based on the PCB size and installation position as shown in the below figure Test Board.



XY Plane



ZX Plane



ZY Plane

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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 : $235 \pm 5^{\circ}\text{C}$ *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 : $120\sim 150^{\circ}\text{C}$, 1 minute. *Solder temperature : $270 \pm 5^{\circ}\text{C}$ *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 $-40 \sim 85^{\circ}\text{C}$. 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 $-40 \sim 85^{\circ}\text{C}$.
Vibration JIS C 0040	*Frequency : $10\text{Hz}\sim 55\text{Hz}\sim 10\text{Hz}(1\text{min})$ *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 $-40 \sim 85^{\circ}\text{C}$.
Adhesive Strength of Termination JIS C 0051- 7.4.3	*Pressurizing force : $5\text{N}(\leq 0603)$; $10\text{N}(>0603)$ *Test time : 10 ± 1 sec	No remarkable damage or removal of the termination.

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SCALE : N/A

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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

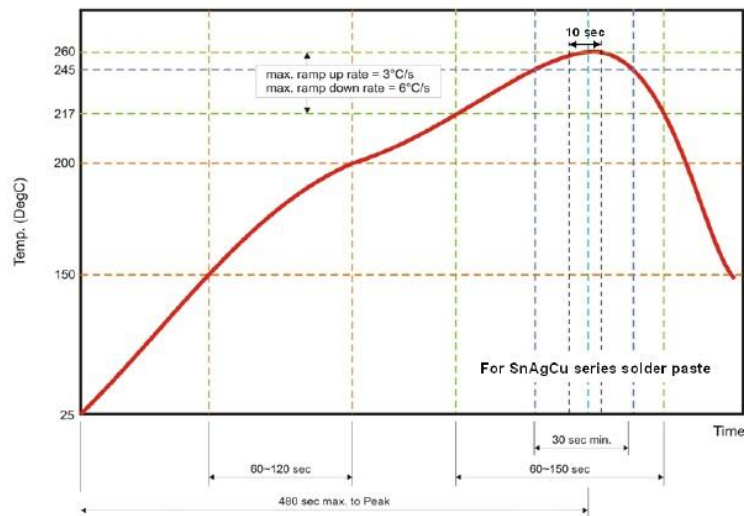


Fig 2. Infrared soldering

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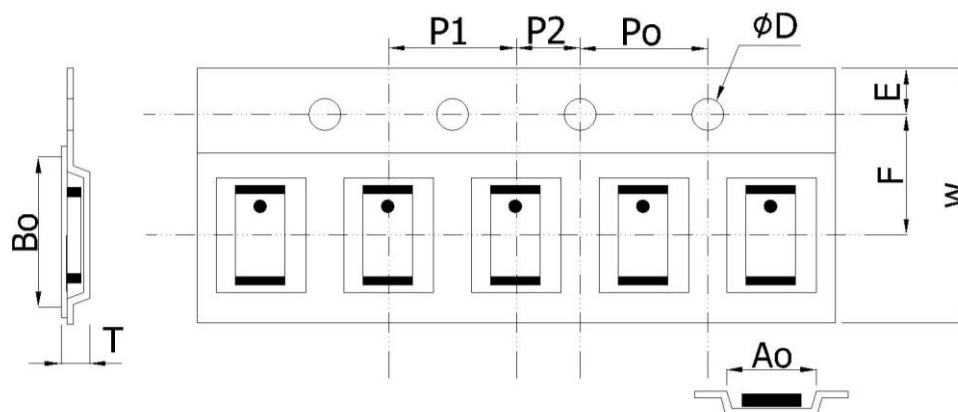
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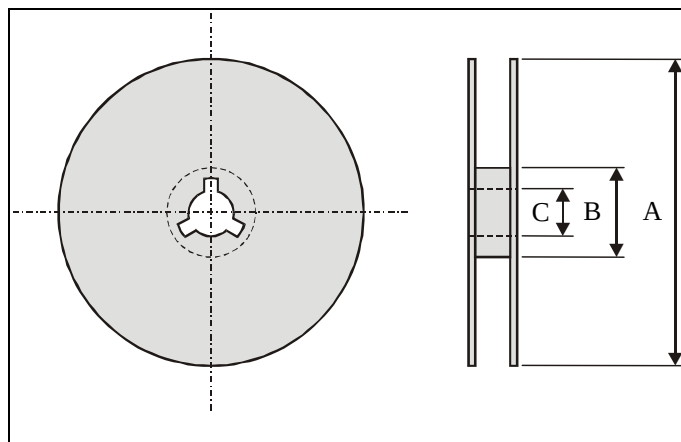
6. Package



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)	Φ178	Φ60.0	Φ13.5

Typing Quantity: 2000 pieces per 7" reel

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