

2JE17

CELLULAR Surface Mount

Key Features

CELLULAR

- 791-960 MHz

- 1710-2170 MHz

Surface Mount

High Performance

Fiberglass Material

Ground Plane Dependent

Dimensions 26 x 7.6 x 3 mm



1. Antenna and electrical specifications

Parameters	CELLULAR Antenna	
Standards	2G and 3G	
Band (MHz)	800/850/900	1700/1800/1900/2100
Frequency (MHz)	791-960	1710-2170
Return Loss (dB)	~-11.65	~-13.3
VSWR	~2.0:1	~1.8:1
Efficiency (%)	~67.5	~70.8
Peak Gain (dBi)	~2.2	~2.2
Average Gain (dB)	~-1.7	~-1.6
Impedance (Ohm)	50	
Polarisation	Linear	
Radiation Pattern	Omni-Directional	
Max. Input Power (W)	25	

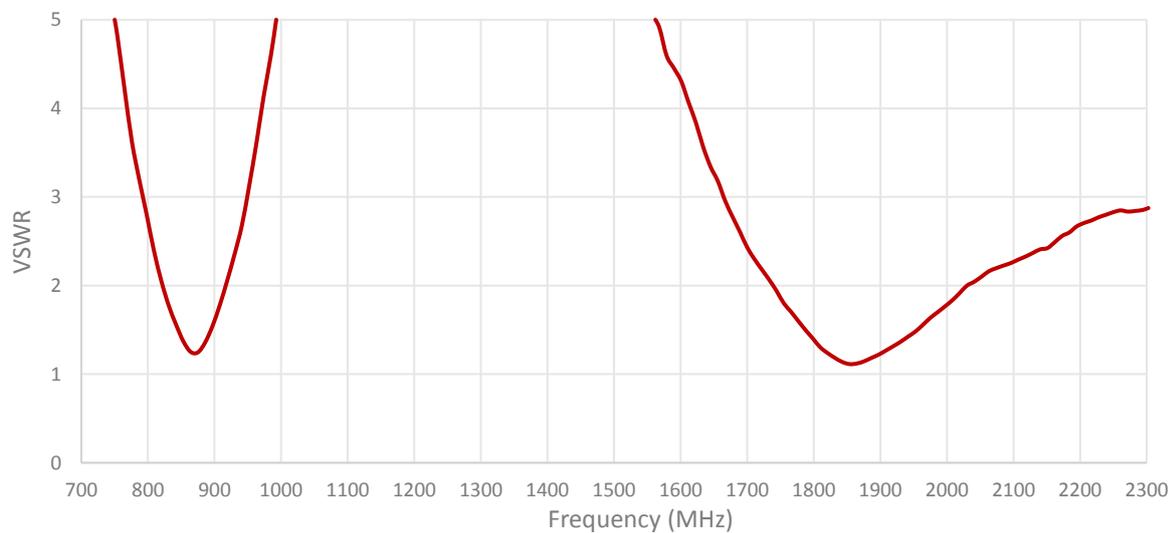
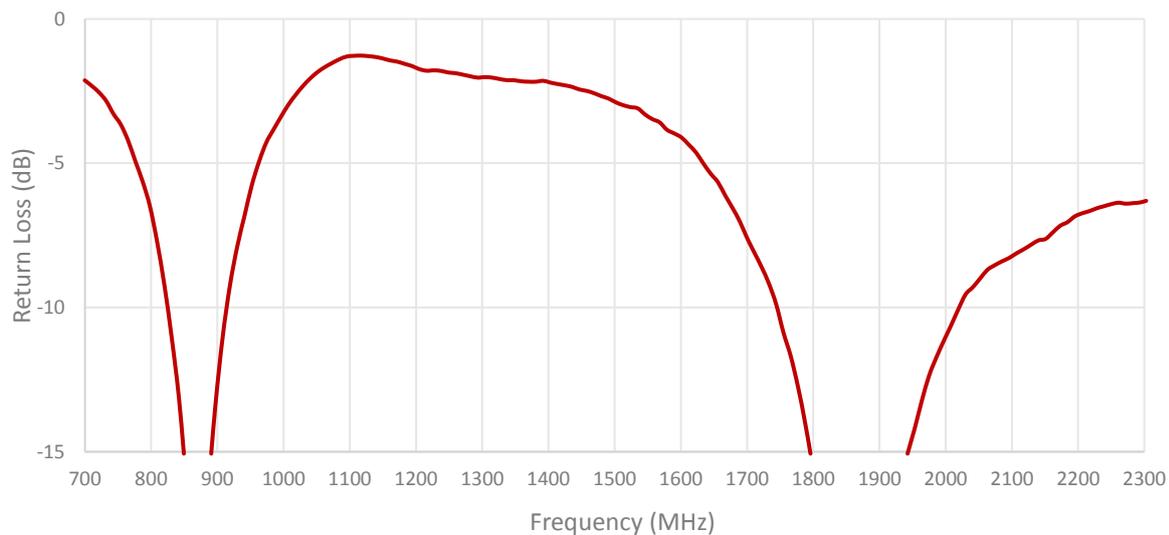
Antenna Measurement Conditions:

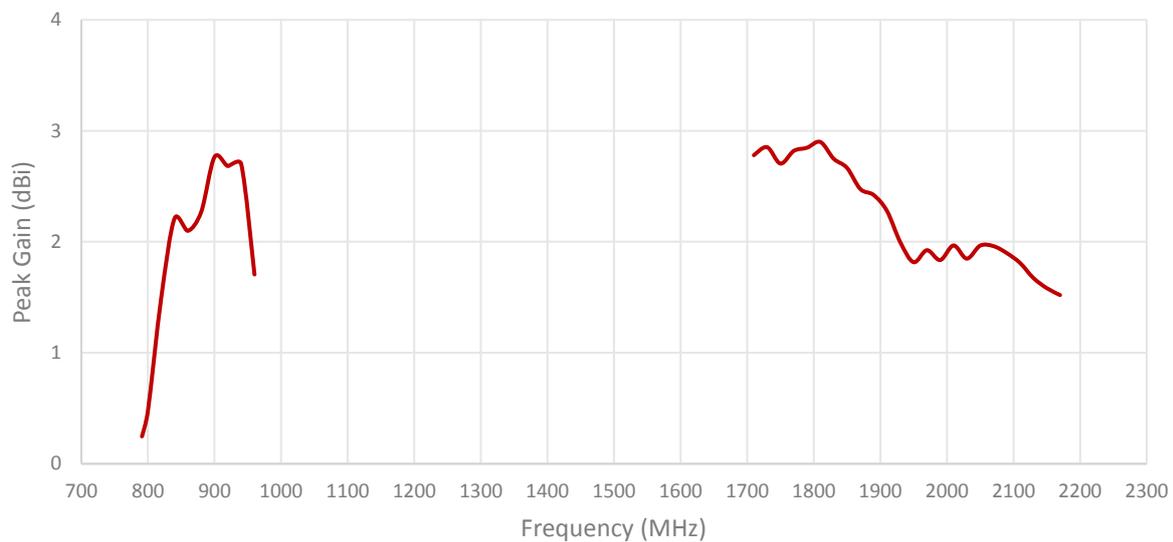
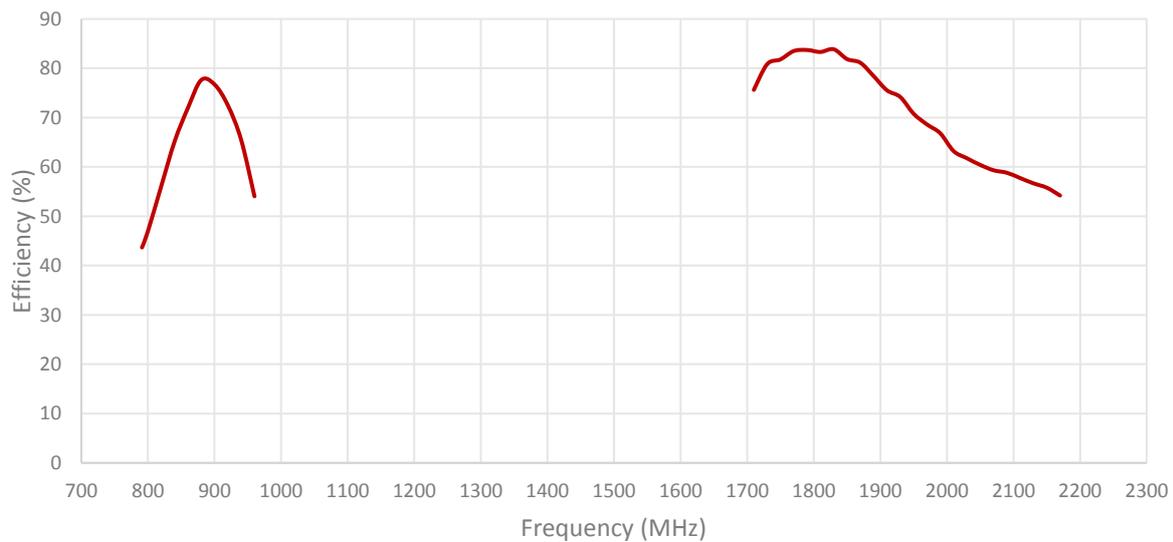
Mounted on ground plane of 113 x 40.5 mm
 Measured in Certified CTIA 3D Anechoic Chamber

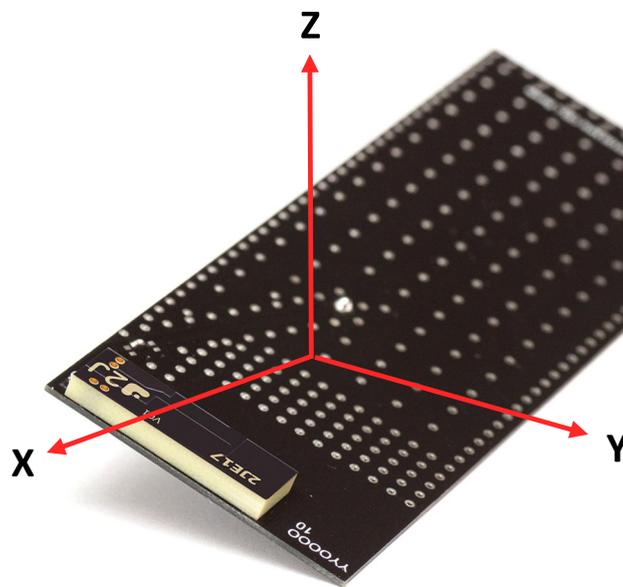
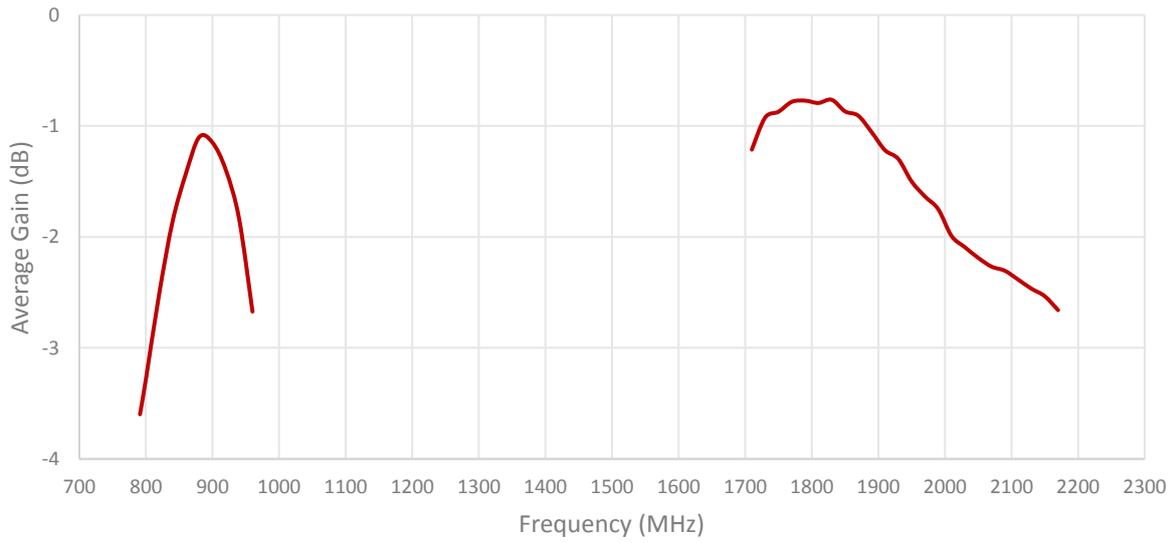
2. Mechanical and environmental specifications

Specifications	2JE17
Mounting Type	Surface Mount
Dimensions (mm)	26 x 7.6 x 3
Material	Fiberglass
Operating Temperature (C)	-40 to +105
Storage Temperature (C)	-40 to +85
Storage Relative Humidity (%)	Up to 93 at 30 C
Substance Compliance	RoHS
Shear Force Test	Minimum specified shear force: 50 kgf according to Relevant Standards for Tests: IEC62137-1-2 (2007) Test Report No.: TRSF-2J36058-01

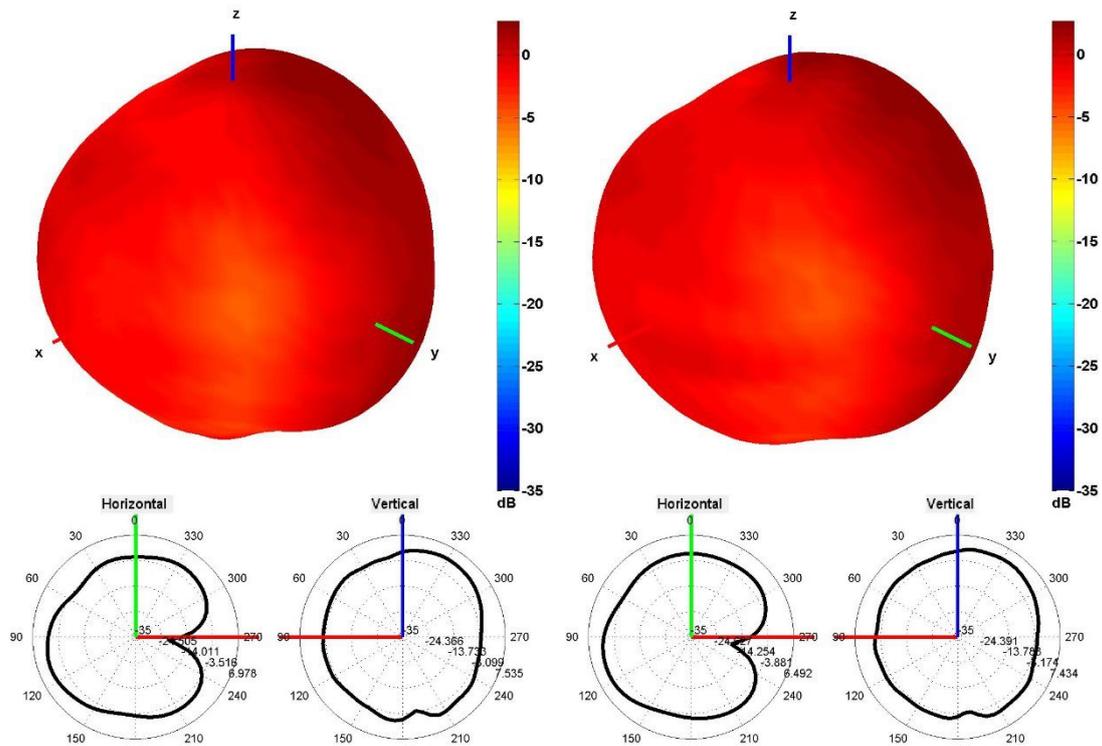
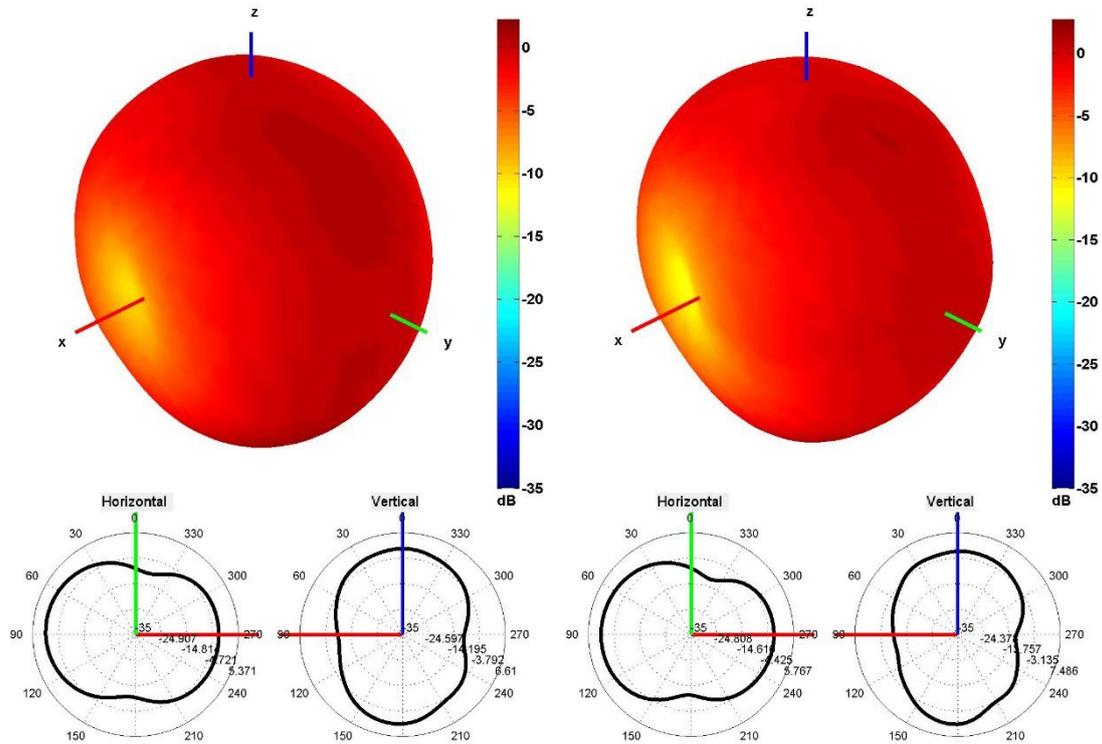
3. Antenna parameters

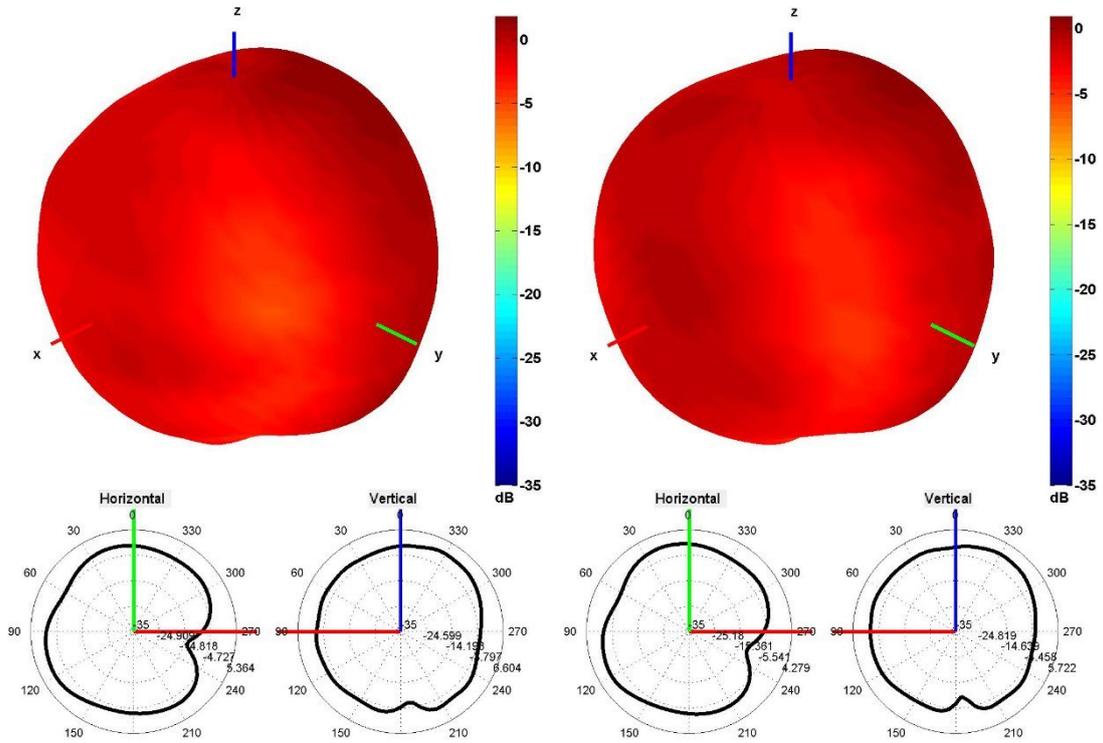






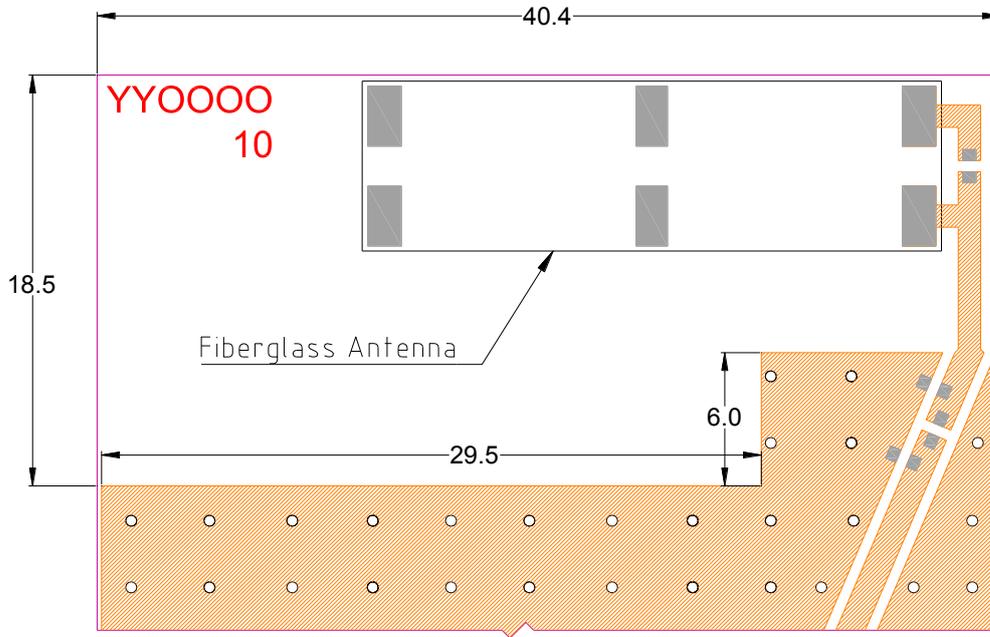
Radiation pattern reference





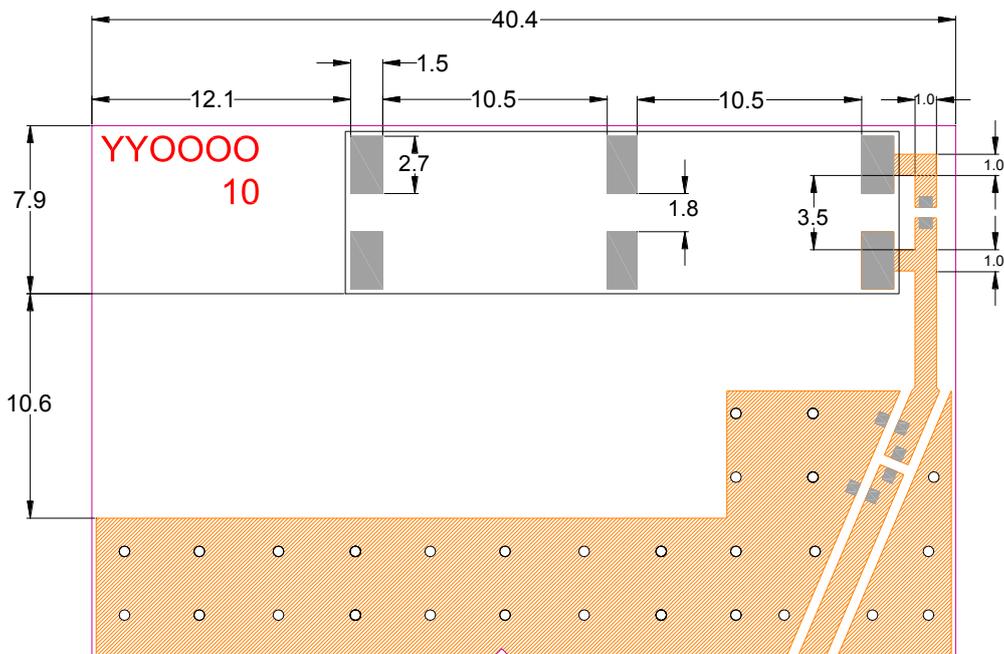
1950 and 2100 MHz Radiation pattern

4. PCB Layout



Minimum area required for antenna integration (40.4mm × 18.5mm)

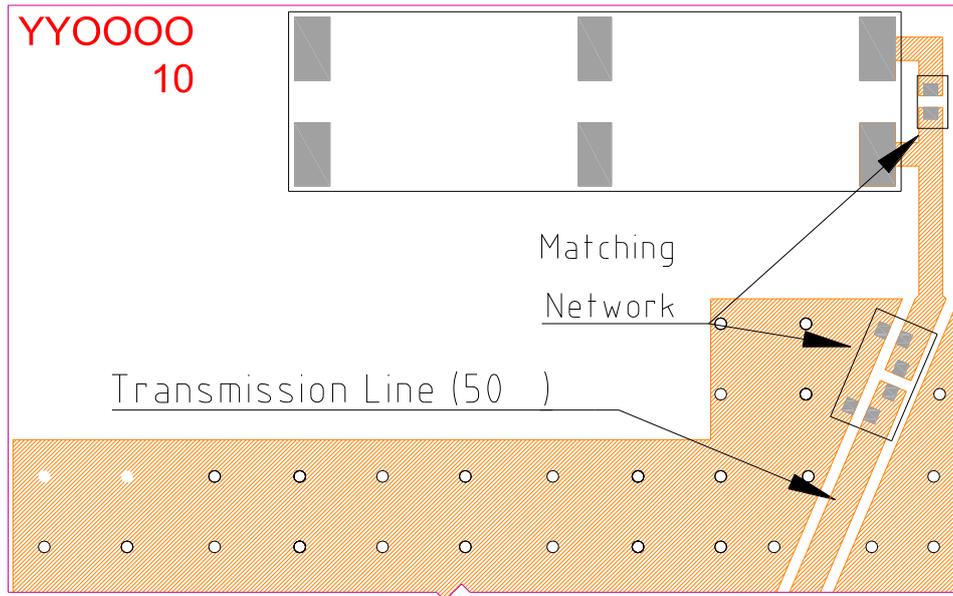
- Solder Region
- Copper Region
- Copper-Free Region



Layout dimensions for antenna integration (mm)

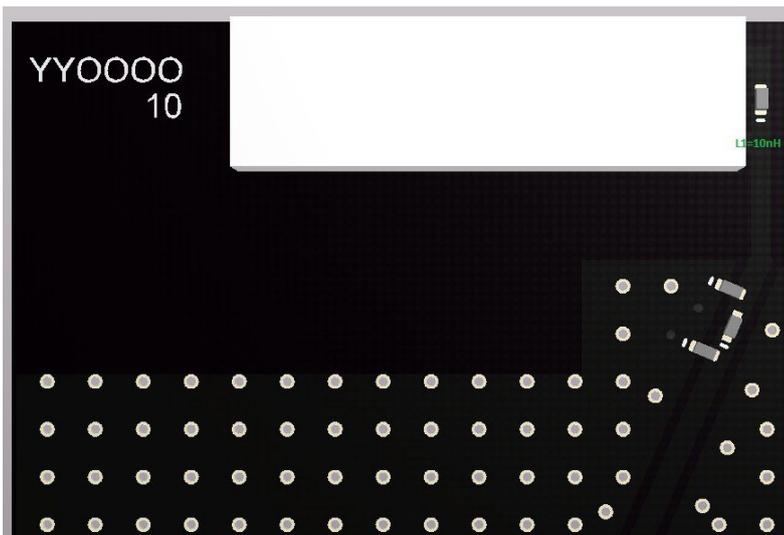
- Solder Region
- Copper Region
- Copper-Free Region

5. Matching Network

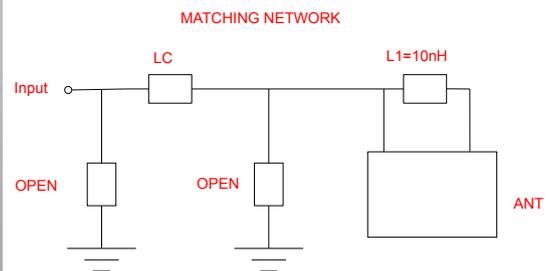


-  Solder Region
-  Copper Region
-  Copper-Free Region

Matching network drawing

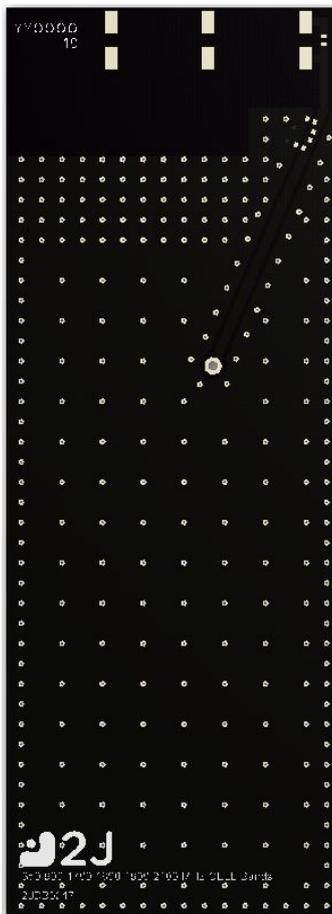


3D View of matching components and recommended values (LC = 00hm resistor)



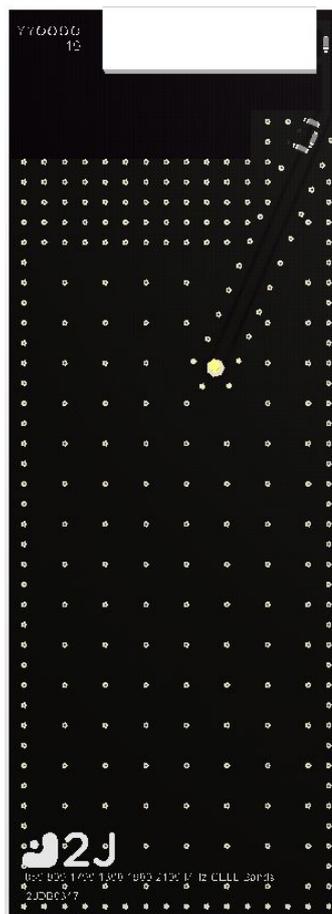
6. Evaluation Board

112.7mm x 40.4mm



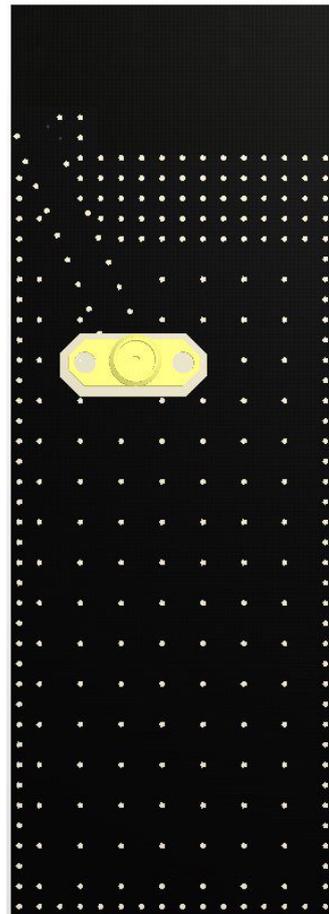
Front View without Antenna

112.7mm x 40.4mm



Front View with Antenna

112.7mm x 40.4mm



Back View

112.7mm x 40.4mm
(PCB: 0.8mm, Antenna: 3mm,
Connector: 9.5mm)



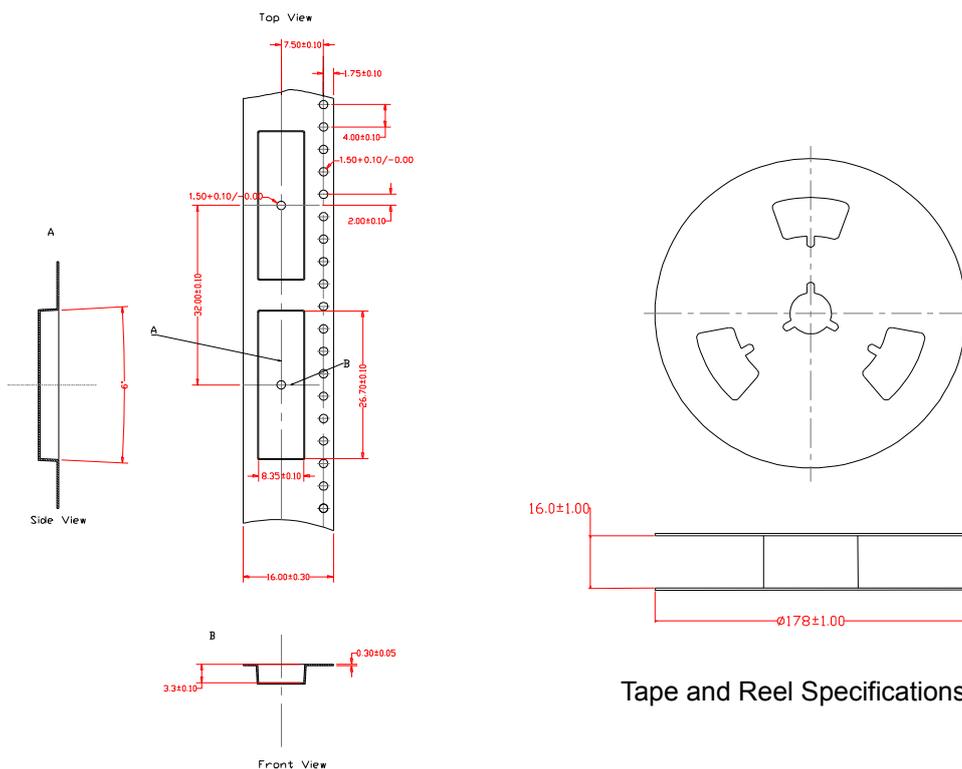
Side View

7. Packaging

PACKAGING SPECIFICATION

Antenna	2JE17
REEL	
Max Quantity per Reel	140
REEL CARTON	
Reels per Carton	10
Max Quantity per Carton	1400
Reel Carton Dimensions (cm)	40.5 x 23 x 16.5
Reel Carton Weight (Kg)	3.3
PALLET	
Max Cartons per Pallet	70
Cartons per Layer	10
Number of Layers	7
Max Quantities per Pallet	98,000
Total Cartons Dimensions (cm)	115 x 81 x 115.5
Total Cartons Weight (Kg)	231
Pallet size and weight not included above	
Typical Pallet Size (cm)	120 x 100 x 14.4
Typical Pallet Weight (Kg)	5-25

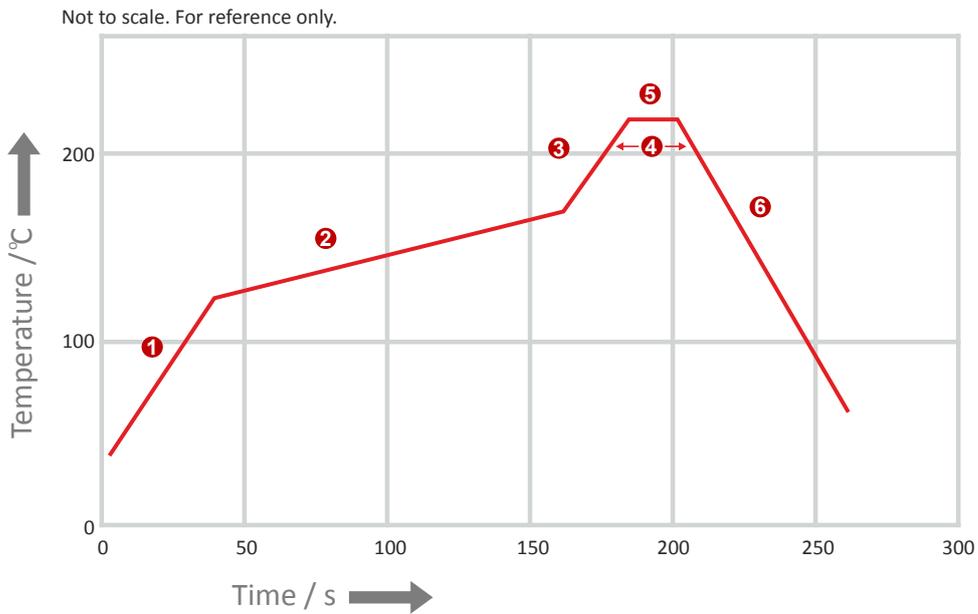
8. Tape and Reel Information



REFLOW TEMPERATURE PROFILE

Minimum Recommended Reflow Profile

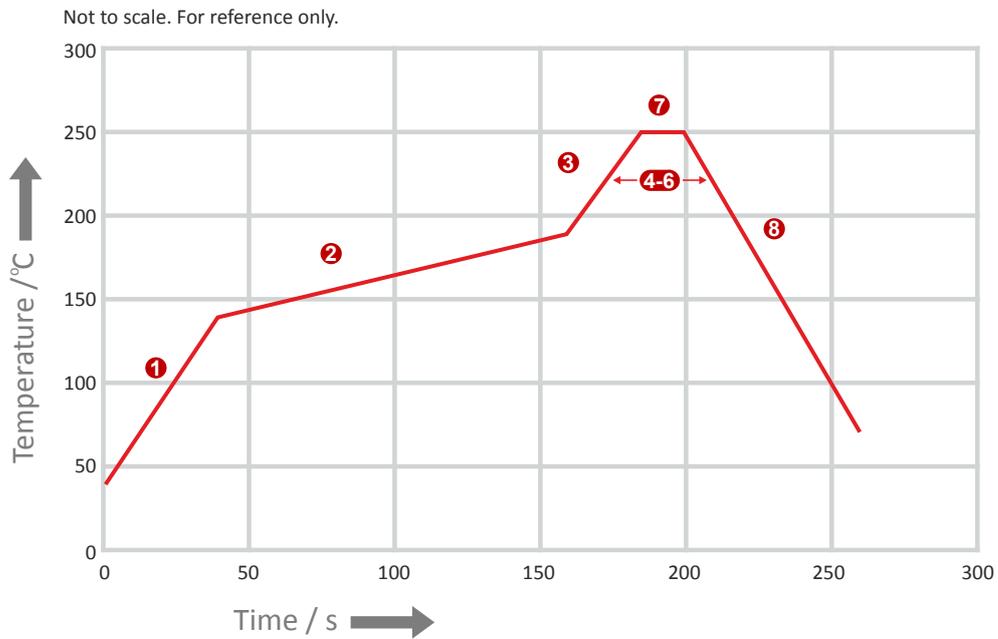
	Method of heat transfer	Controlled hot air convection
1	Average temperature gradient in preheating	2.5 °C/s
2	Soak time	2-3 minutes
3	Max temperature gradient in reflow	3 °C/s
4	Time above 217 °C	Max 30 sec
5	Peak temperature in reflow	230 °C for 10 seconds
6	Temperature gradient in cooling	Max -5 °C/s



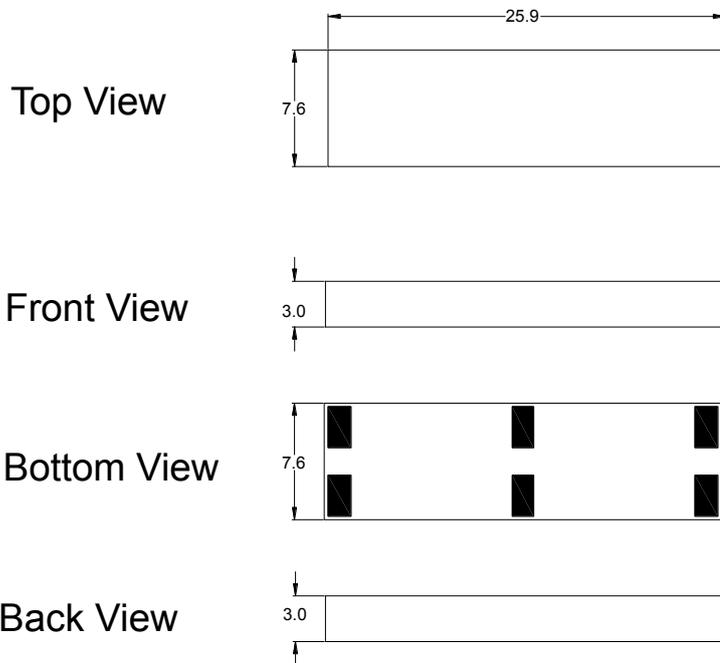
REFLOW TEMPERATURE PROFILE

Maximum Recommended Reflow Profile

	Method of heat transfer	Controlled hot air convection
1	Average temperature gradient in preheating	2.5 °C/s
2	Soak time	2-3 minutes
3	Max temperature gradient in reflow	3 °C/s
4	Time above 217 °C	Max 60 sec
5	Time above 230 °C	Max 50 sec
6	Time above 250 °C	Max 10 sec
7	Peak temperature in reflow	260 °C for 5 seconds
8	Temperature gradient in cooling	Max -5 °C/s

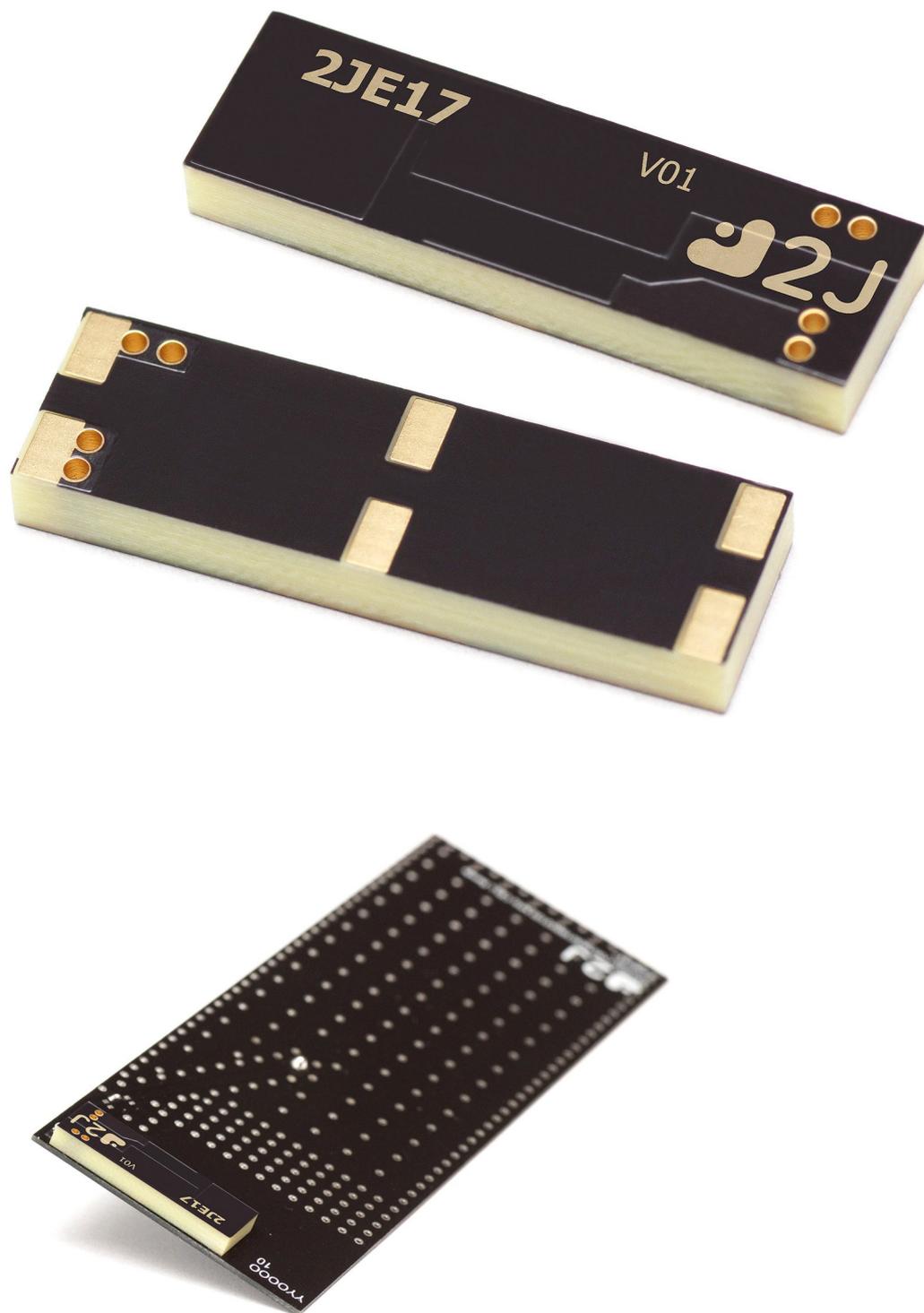


9. Antenna drawings



Dimensions for fiberglass antenna 25.9 x 7.6 x 3 mm +/-0.2mm

10. Antenna Images





**МАКРО
ГРУПП**

Макро Групп – это:

- дистрибьютор электронных компонентов с 1994 года
- контрактный производитель электроники с 2007 года с собственным производством в Санкт-Петербурге (компания Макро EMC, входит в ГК Макро Групп)
- поставщик полупроводниковых материалов
- комплексный поставщик электронных компонентов
- моделирование и производство полупроводниковых эпитаксиальных гетероструктур для задач оптоэлектроники

Головной офис расположен в Санкт-Петербурге. Собственные представительства в крупных промышленных городах России и стран СНГ.

Преимущества для наших заказчиков:

- работа по тендерам с 2012 года
- оформление банковских гарантий
- отсрочки платежей
- поставка электронных компонентов по проектным ценам
- инженерная поддержка проектов заказчиков
- сертификат системы менеджмента качества ISO 9001-2015
- необходимые сертификаты и лицензии

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