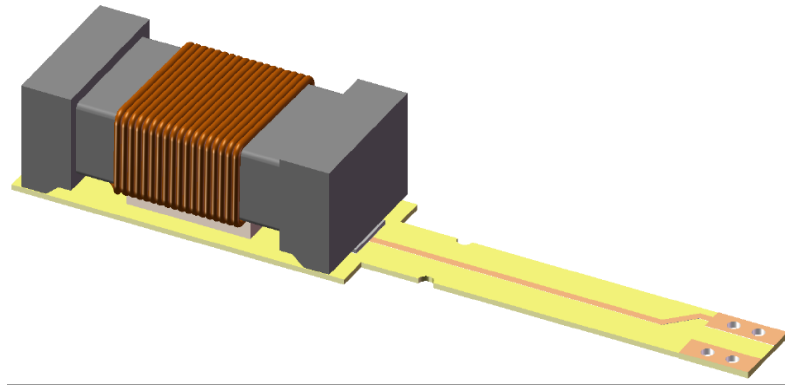


# NFMI antenna

## MTNF Series new product



### Overview

MTNF series antenna for NFMI technology can be employed as transmitter and receiver of left-right earphones for audio and data communication. Made of ferrite core and enameled copper wire, this product features low profile and high Q value, which meets the low loss requirement of wireless transmission. The antenna is SMD design, but product soldered on flexible PCB is also available to facilitate surface mount work. Meanwhile the flexible PCB can be customized at customers' requests. Our automatic production platform guarantees stable product quality and prompt delivery time. Currently, Sunlord MTNF series antenna have passed NXP NXH2280 verification.

### Background

NFMI (Near Field Magnetic Induction) is a technology utilized to transmit audio and data wirelessly based on short-distance magnetic field induction at 10MHz to 14MHz carrier frequency. Compared with RF technology, NFMI costs less energy to function due to the lower transmit power; besides, the effective distance of it constrains within 20-25cm, which grants it more privacy and robust anti-interference. By using single low power consumption chip, customer can build up stable and secure wireless connection between two earphones.

Combined NFMI with Bluetooth, this "truly wireless stereo dual earphones" with left-to-right earphones and earphone-to-device wireless connections are suitable for dynamic application scenes such as sports. After Apple releasing AirPods, this type of product will be the new highlight of earphone market.

With years' experience of magnetic materials and automatic wire wound production platform, Sunlord has developed MTNF series antenna products specifically fulfill the requirement of NFMI technology. The Q value of antenna at 10.6MHz is larger than 90, meanwhile products soldered on flexible PCB are also available, and can be customized according to customers' requirements.

## Features

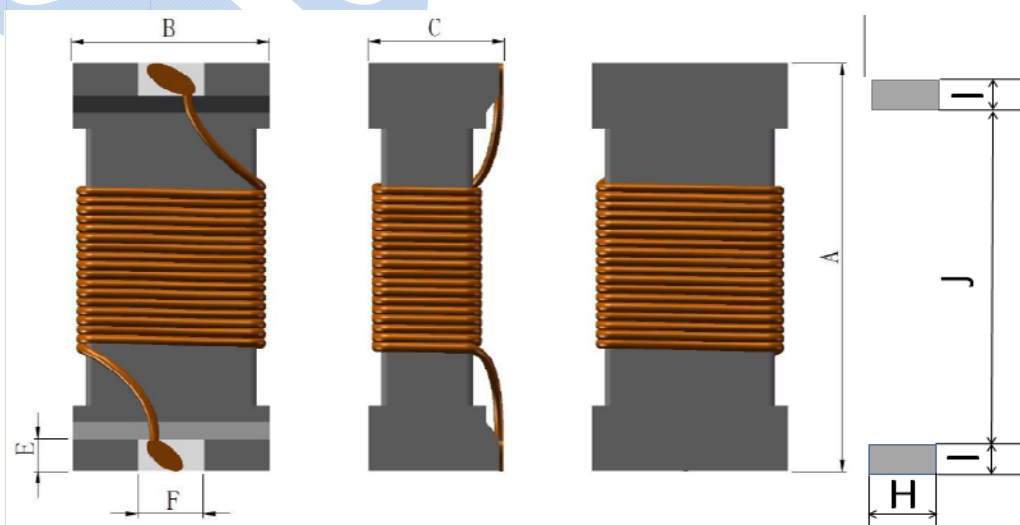
- Full automatic production platform, stable product quality, prompt delivery time;
- SMD design (FPC can be customized), easy to solder;
- Chip solderpad soldering, high soldering reliability;

## Application

- Wireless stereo earphones/earbuds
- Hearing-aids

## Dimensions

MTNFseries

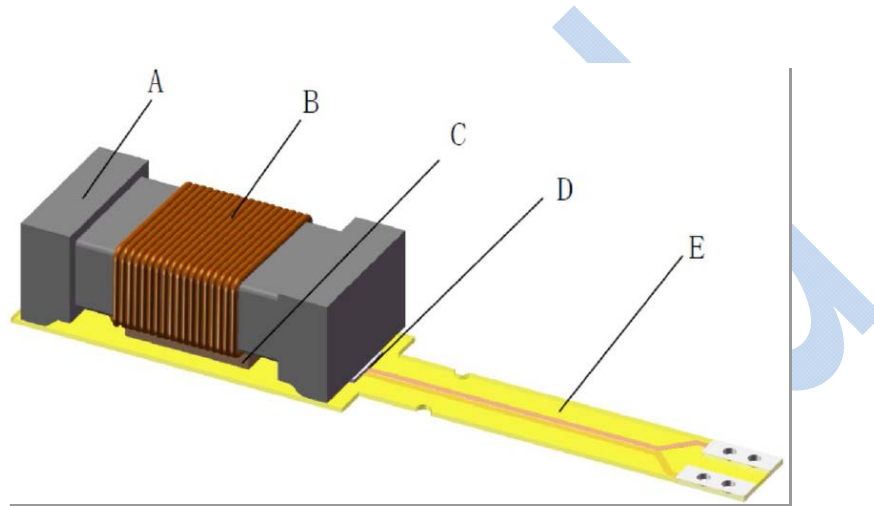


Unit: mm

Series	A	B	C	E	F	H	I	J
MTNF5520	5.50±0.20	2.00±0.20	2.00±0.20	0.50±0.10	1.00±0.10	1.10 Typ.	0.60 Typ.	5.10 Typ.
MTNF6030	6.20±0.20	3.00±0.20	2.00±0.20	0.50±0.10	1.00±0.10	1.10 Typ.	0.60 Typ.	5.10 Typ.
MTNF6040	6.20±0.20	4.00±0.20	2.00±0.20	0.50±0.10	1.50±0.10	1.60 Typ.	0.60 Typ.	5.10 Typ.

\*Other shapes customizable

MTNF (with FPC)



No.	Components	Material
A	Core	Ferrite
B	Wire	Polyurethane system enameled copper wire
C	Glue	Epoxy
D	Solder	Sn/3.0 Ag/0.5Cu
E	Connector	Flexible Printed Circuit Board

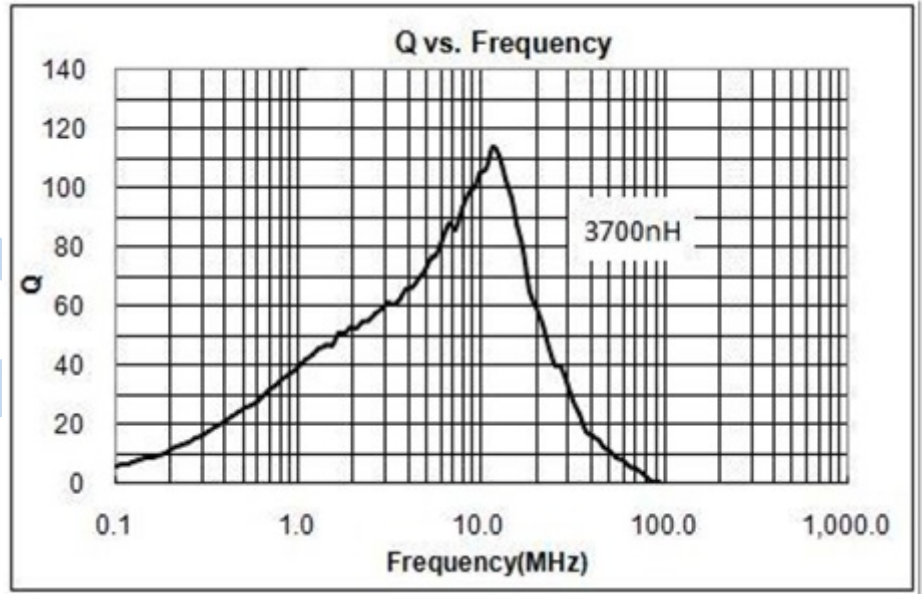
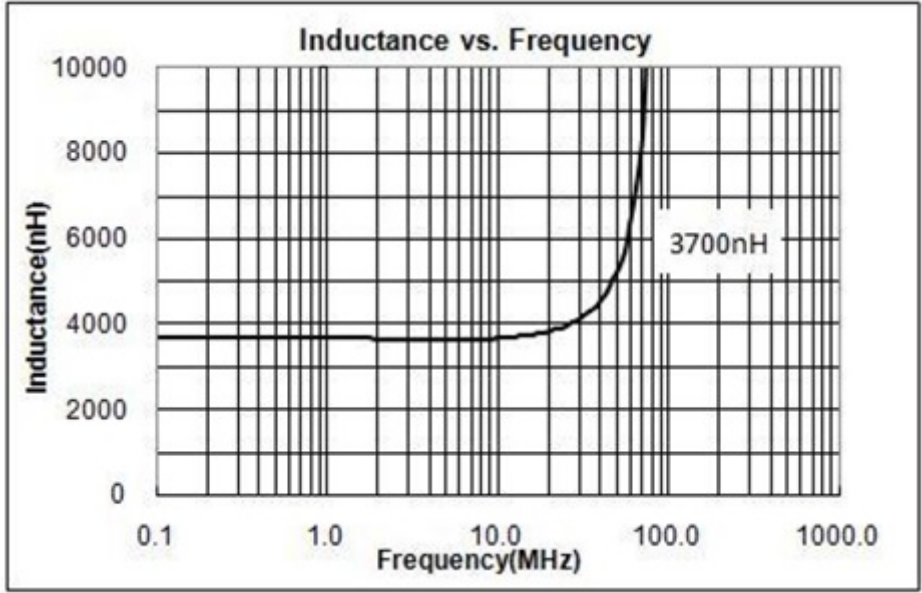
\*E Component Flexible PCB can be designed by earphone customers

## Electrical Characteristics

MTNF6030FS3R7JTFY01

Part Number	Inductance @10.6MHz	Q @10.6MHz	SRF
Units	uH	-	MHz
MTNF6030FS3R7JTFY01	3.7±5%	>50	40

Typical Value	3.7	90~110	100
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**Production**

- Mass Production