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TDK Corporation

## Wireless Power Transfer

Tx Pattern Coil Units

# WCTA9565-N7E1SFC203

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# Wireless Power Transfer

Tx Pattern Coil Units



## WCTA9565-N7E1SFC203

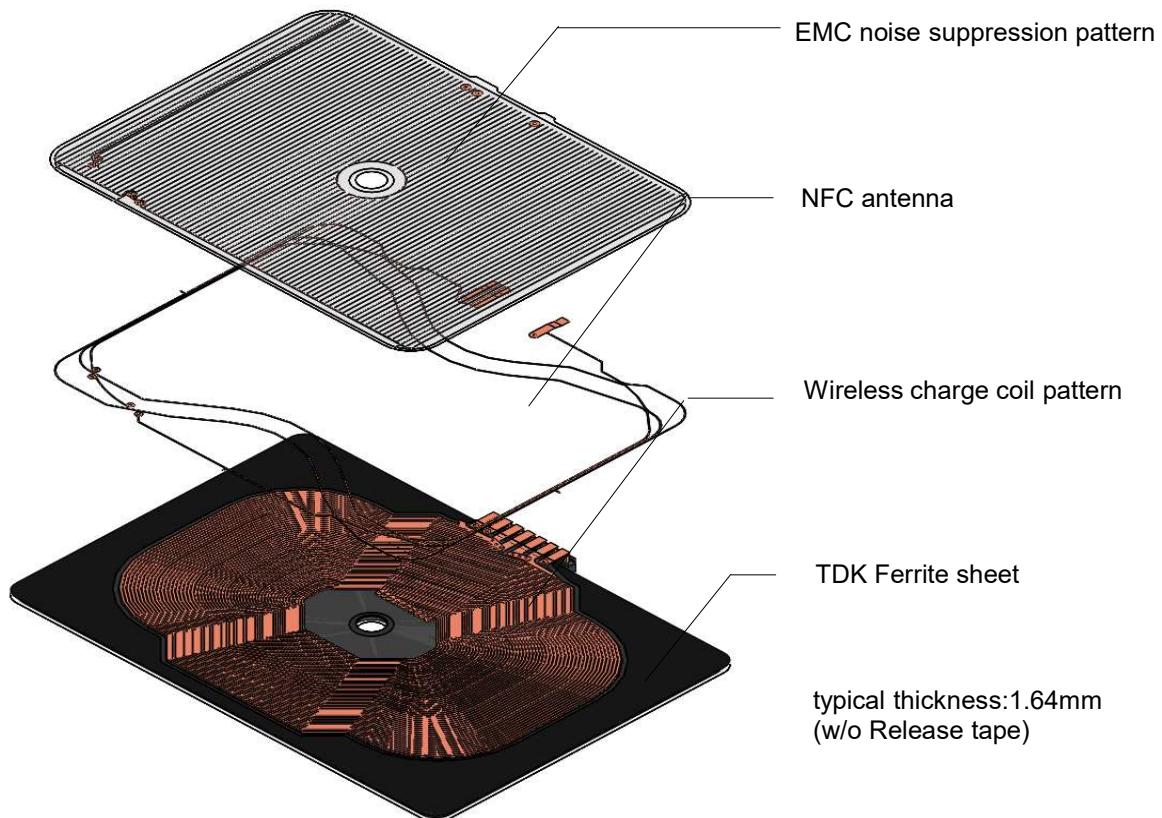
### ■ FEATURES

- TDK original thin coil pattern film
- EMC noise suppression sheet
- NFC antenna for IC card detection
- All in one combined above function unit within small product thickness

### ■ APPLICATION

- A coil of the customer wireless power transfer module (Wireless Charge Tx Coil part) for various types of battery chargers.

### ■ SHAPE

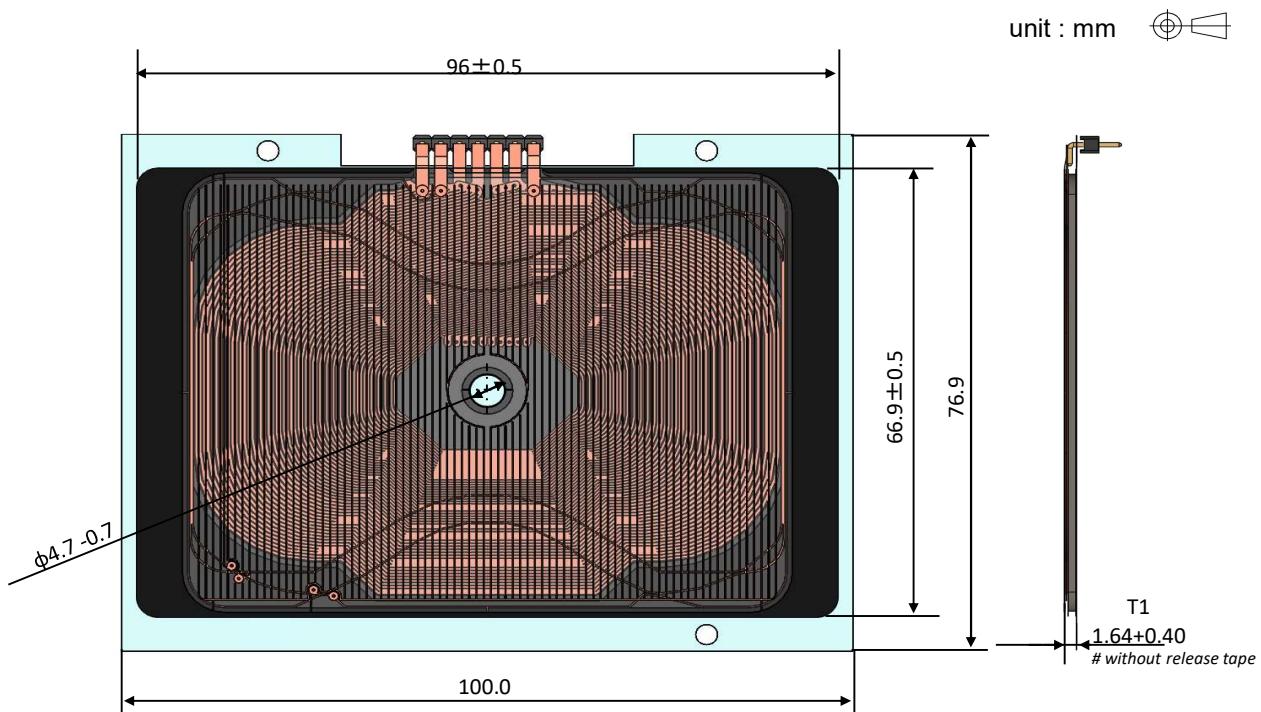


### ■ COIL SPECIFICATIONS (WPC)

Number of Coils	Dimensions	Coil Turns
1	66.9mm x 96mm	11 turns

## WCTA9565-N7E1SFC203

## ■ DIMENSIONS



## ■ CONNECTION



Pin No.	Connect to
1	EMC_GND
2	NFC_A
3	WPC Tx coil_A
4	WPCTx coil_A
5	WPCTx coil_B
6	WPCTx coil_B
7	NFC_B

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## ■ ELECTRICAL CHARACTERISTICS

## ■ Tx coil

Inductance [100kHz] (uH)	Resistance [100kHz] (Ω)	Transmission Power
9.4±0.5	0.139 (max.0.149)	15W (max.)

## ■ NFC

Inductance [100kHz] (uH)	Resistance [100kHz] (Ω)
3.1±0.3	1.6 (max.2.35)

Antenna size x direction [mm]	Antenna size Y direction [mm]	Turns of NFC antenna	Antenna Gain (G) [dBi]
82	64	3	-35.66

# above antenna gain can be calculated when below conditions

Radiation impedance(Rr) 0.02 ohm

Antenna Impedance(Rl) 58.1 ohm

<Note; the antenna gain and the parameters shall change as the customer install condition.>

## ■ NOTES

## 1. No reflow capability

This product is NOT suitable for reflow process.

## 2. For wireless charge Tx coil

This product should be used under

max. 64V (0 - peak) voltage

max. 4.5 Arms current

of 128kHz.

# REMINDERS FOR USING THESE PRODUCTS

Before using these products, be sure to request the delivery specifications.

## SAFETY REMINDERS

Please pay sufficient attention to the warnings for safe designing when using these products.

### REMINDERS

The product of this specification is intended for use in electronic equipment under a normal operation and use condition.

The product is not designed or warranted to meet the requirements of the applications listed below, whose performance and/or quality require a more stringent level of safety or reliability, or whose failure, malfunction or trouble could cause serious damage to society, person or property. When the damage occurs by having been used the products in the applications listed below or if you have special requirements exceeding the range or conditions set forth in the each catalog, please understand that the responsibility cannot be taken.

- (1) Aerospace/Aviation equipment
- (2) Transportation equipment (electric trains, ships, etc.)
- (3) Medical equipment
- (4) Power-generation control equipment
- (5) Atomic energy-related equipment
- (6) Seabed equipment
- (7) Transportation control equipment
- (8) Public information-processing equipment
- (9) Military equipment
- (10) Electric heating apparatus, burning equipment
- (11) Disaster prevention/crime prevention equipment
- (12) Safety equipment
- (13) Other applications that are not considered general-purpose applications

When designing your equipment even for automotive-purpose applications, you are kindly requested to take into consideration securing protection circuit/device or providing backup circuits in your equipment.