# 20W Wireless Charging Transmitter Triple Coils

# AWCCA-TX1005545-F002

# Features

- Ideal for 20W applications
- Outline Dimensions: 100.0 x 55.0 x 4.5mm
- High permeability shielding to protect sensitive electronics
- Very high-power density
- Low DCR / very high inductance

# Applications

- Batteries and battery chargers
- Charging accessories and fast chargers

(Pb)

- Portable electronics
- Roamable electronics
- Drones and robotics
- IoT and industrial IoT
- Power tools
- AR / VR
- Wearables

#### **Maximum Ratings**

Item	Value		
Operating Temperature Range	$T = -25^{\circ}C \sim 85^{\circ}C,$ RH 65±20%		
Storage Temperature Range	T = -40°C~85°C, RH 65±20%		

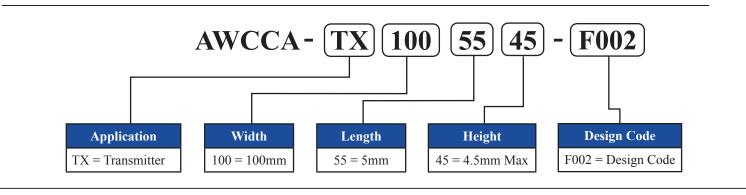
## **Electrical Specifications**

Part Number	Coil	Inductance	DC Resistance	Q	
AWCCA-TX1005545-F002	L1	12.5µH±10%	<75mΩ Max		
	L2	12.5µH±10%	<75mΩ Max	90 Ref	
	L3	11.5µH±10%	<75mΩ Max		
Test Condition		100KHz / 1V	20±15°C	100KHz / 1V	
Test Environment	Temperature: 25±10°C, RH: 65% ±20%. Equipment: LCZ METER 1062B, LCZ METER 502				

#### **Test Conditions**

Ambient Temperature: 20±10°C, RH: 65% ±20%.

#### **Part Identification**





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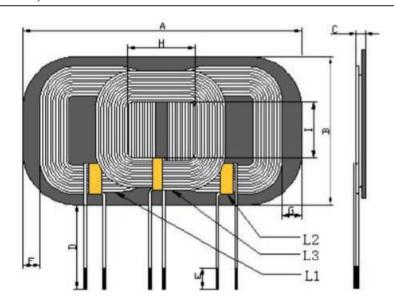
**REVISED: 03-15-19** 

100.0 x 55.0 x 4.5 mm RoHS/RoHS II Compliant MSL = 1





Mechanical Dimensions (Unit: mm)



#### Dimensions of AWCCA-TX1005545-F002

Item	Α	В	С	D	E	F	G	Н	Ι
Spec	100.0	55.0	4.5	50.0	2-5	3.0	3.0	27.5	19.5
Tol	±1.5	±1.0	Max	±3.0	-	Ref	Ref	±0.5	±0.5

## Winding Details of AWCCA-TX1005545-F002

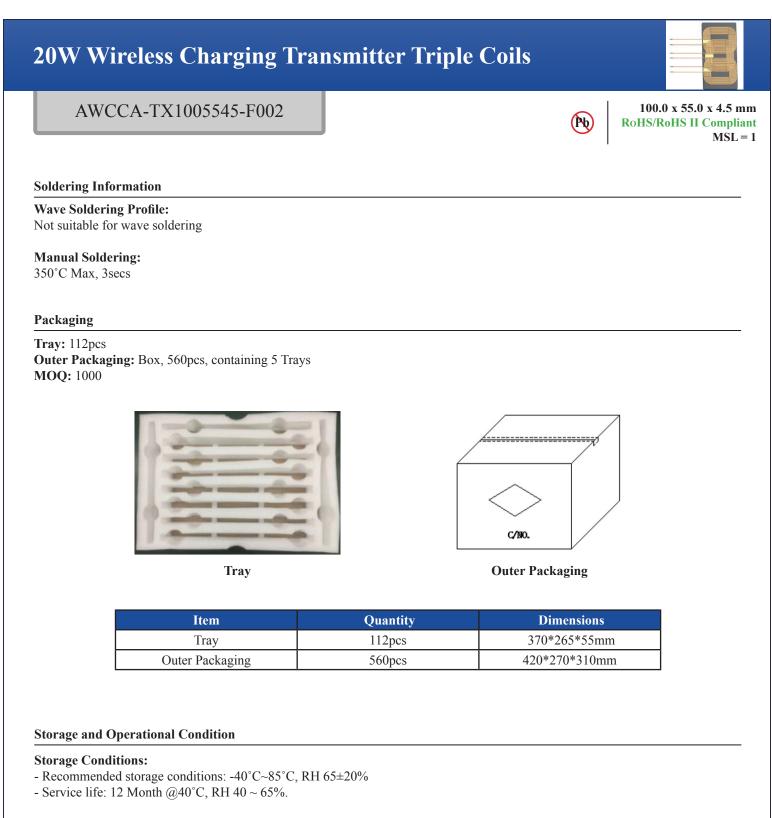
Number of Coils	Wire	Number of Turns	Inductance		
3	0.00*1050		L1: 12.5µH±10%		
	0.08*105P copper wire covered with silk	12 Turns, 1 Layer	L2: 12.5µH±10%		
			L3: 11.5µH±10%		
Yellow areas: 8mm (ref) high temperature adhesive tape wrapped around the outlet 1.5Ts; The start lead and terminated lead is crossed and fixed with 8mm high-temperature adhesive tape.					
Ferrite: 55*100*1mm, one si	de of the ferrite is pasted with black	PET film, the other side is pasted	with adhesive		



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#### **Operation Conditions:**

- Use condition limit: T=-25°C  $\sim$  85°C, RH 65 $\pm$ 20%.

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