20W Wireless Charging Transmitter Triple Coils



AWCCA-TX1005545-F002



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

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
- 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% |

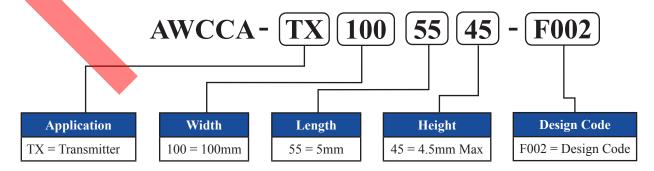
Electrical Specifications

| Part Number | | Coil | | Inductance | DC Resistance | Q |
|--|--|------|---|-------------|---------------|-------------|
| | | L1 | 4 | 12.5µH±10% | <75mΩ Max | |
| AWCCA-TX1005545-F002 | | 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





5101 Hidden Creek Ln Spicewood TX 78669 Phone: 512-371-6159 | Fax: 512-351-8858 For terms and conditions of sales, please visit: www.abracon.com

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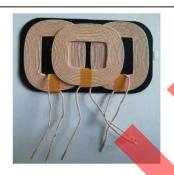


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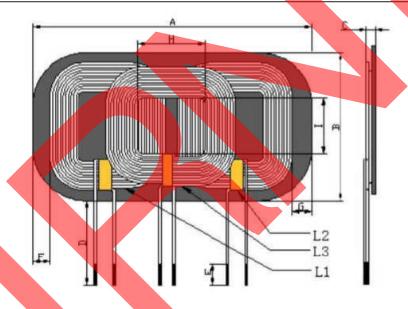


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Product Image



Mechanical Dimensions (Unit: mm)



Dimensions of AWCCA-TX1005545-F002

| Item | A | В | C | 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 | 0.08*105P copper wire covered with silk | | L1: 12.5μH±10% | |
| | | 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 side of the ferrite is pasted with black PET film, the other side is pasted with adhesive



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Soldering Information

Wave Soldering Profile:

Not suitable for wave soldering

Manual Soldering:

350°C Max, 3secs

Packaging

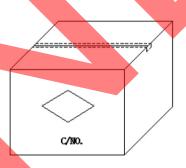
Tray: 112pcs

Outer Packaging: Box, 560pcs, containing 5 Trays

MOQ: 1000



Tray



Outer Packaging

| Item | Quantity | Dimensions | |
|-----------------|----------|---------------|--|
| Tray | 112pcs | 370*265*55mm | |
| Outer Packaging | 560pcs | 420*270*310mm | |

Storage and Operational Condition

Storage Conditions:

- Recommended storage conditions: -40°C~85°C, RH 65±20%
- Service life: 12 Month @ 40° C, RH $40 \sim 65\%$.

Operation Conditions:

- Use condition limit: $T=-25^{\circ}C \sim 85^{\circ}C$, RH 65±20%.

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