Wireless Charging Coil Assembly

AWCCA-48R32 Series

Moisture Sensitivity Level (MSL) – MSL = 1

FEATURES:

- Wireless Charging Receiver single Coil (11.1µH)
- Outline Dimensions: 38.5mm x 32.5mm x 1.0mm
- For Rx applications
- High permeability shielding to protect sensitive electronics
- Durable construction
- RoHS / RoHS II Compliant & Pb free.

> APPLICATIONS:

• Batteries and Battery Chargers

(Pb)

- Consumer Electronics
- Smart Watches
- Digital Cameras and Camcorders
- Wireless Charging Stations
- Mobile Phones & Charging Accessories

RoHS / RoHS II Compliant

- Power Supplies
- Power Tool Manufacturers

STANDARD SPECIFICATIONS

Maximum Ratings

| Item | Value | |
|-----------------------------|--|--|
| Operating Temperature Range | $T = -25^{\circ}C \sim 85^{\circ}C,$ $RH \le 90\%.$ | |
| Storage Temperature Range | -25°C~85°C, 70%RH (Max.) | |

Electrical Characteristics

| Part Number | Inductance | Q-Factor | Current Rating (rms) | Saturated Current (rms) | DC Resistance | SRF |
|------------------------------|--|-----------|---------------------------|-------------------------------|------------------|-------|
| AWCCA- 48R32H11 -C01-B | $10.5 \mu H \pm 10\%$ | 28±30% | 2.6А Тур. | 15A | 190mΩ±20% | 11MHz |
| Test Condition | 100KHz / 1V | 100KHz/1V | $\Delta T = 40 \text{ K}$ | 100KHz/1V | 20±15°C | |
| Test Environment | Ambient Temperature: 20±15°C,RH:65%±20%. | | | | | |

Test Conditions

A) - Ambient Temperature: $20\pm15^{\circ}$ C, RH: $65\%\pm20\%$. If any doubt on the results, measurements/tests should be made within the following limits: Ambient Temperature: 20±2°C, RH: 65%±5%

B) - Isat: DC current at which the inductance drops approximate 5% from its value without current.





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48.5 x 32.5mm

OUTLINE DIMENSIONS:



| Item | Α | В | С | D | E | F | G | H |
|------|----------|----------|---------|------|------|------|------|------|
| Spec | 48.5 Max | 32.5 Max | 1.2 Max | 50.0 | 41.4 | 31.0 | 22.2 | 11.5 |

Winding Specifications

| Number of Coils | oer of Coils Wire Number of Turns | | Inductance |
|-----------------|-----------------------------------|----|----------------------|
| 1 | φ0.30 x 2 | 15 | $10.5\mu H \pm 10\%$ |

Product Customization

Products can be customized according to the Wireless Charging Coil Standards or to customer requirements. Please refer to the following table for the feature ranges, and contact ABRACON or authorized distributor / agent for further details.

| Inductance Range [µH] | DC Resistance Range [mΩ] | Dimension Range [mm] | Thickness range [mm] |
|--------------------------|-----------------------------|-------------------------|-------------------------|
| 1~100 | $10 \sim 1000$ | 10 ~ 200 | 0.4 ~ 10 |
| L | | | - |

Manual Soldering: 350°C Max, 3secs

Storage condition

- Recommended storage conditions: -25°C~85°C, 70%RH (Max.)
- Service life: Within the limits of six month from being produced.
- The appearance and solder ability should be check, if product is not in expiry date.

Operation Conditions

- Use condition limit: T=-25°C ~ 85°C, RH \leq 90%.

ATTENTION: Abracon Corporation's products are COTS – Commercial-Off-The-Shelf products; suitable for Commercial, Industrial and, where designated, Automotive Applications. Abracon's products are not specifically designed for Military, Aviation, Aerospace, Life-dependant Medical applications or any application requiring high reliability where component failure could result in loss of life and/or property. For applications requiring high reliability and/or presenting an extreme operating environment, written consent and authorization from Abracon Corporation is required. Please contact Abracon Corporation for more information.







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