# **Wireless Charging Coil Assembly**

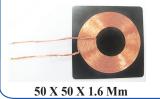
#### AWCCA-50N50H16-C51-B

# Moisture Sensitivity Level (MSL) - MSL = 1

#### **FEATURES:**

- Wireless Charging Receiver single Coil (12.5µH)
- Outline Dimensions: 50.0mm x 50.0mm x 1.6mm
- Can also be used for Rx applications
- High permeability shielding to protect sensitive electronics
- Durable construction
- RoHS / RoHS II Compliant & Pb free.





#### > APPLICATIONS:

- Wireless Charging Stations
- Automotive Industry (in car charging)
- Batteries Chargers
- Consumer Electronics Chargers
- Mobile Phone Charging Accessories
- Power Tool Charging Systems

## DESCRIPTION & KEY ELECTRICAL SPECIFICATIONS

The AWCCA-50N50H16-C51-B is a Wireless Charging Coils that can be used in transmitter or receive applications. This is a single coil design with inductance of  $12.5\mu H$ .

# **Maximum Ratings**

Item	Value		
Operating Temperature Range	T=-25°C ~ 85°C, RH≤ 90%.		
Storage Temperature Range	-25°C~85°C, 70%RH (Max.)		

Part Number	Inductance	DC Resistance	Q	
AWCCA-50N50H16-C51-B	$12.5\mu\text{H} \pm 10\%$	80±20% mΩ	80±30%	
Test Condition	100KHz / 1V	20±10°C	100KHz/1V	
Test Environment	Temperature: 20±10°C, RH: 65% ±20% Equipment: Chroma11025			

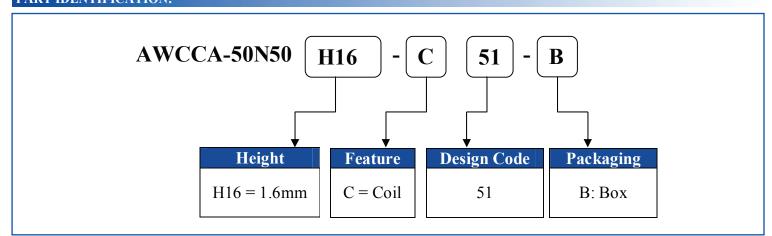
#### **Test Conditions**

Ambient Temperature:  $20\pm10^{\circ}$ 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%

### **PART IDENTIFICATION:**



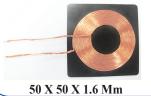




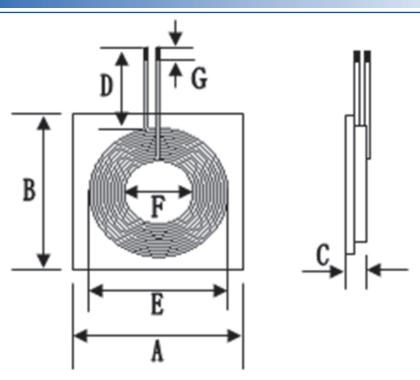
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Item	A	В	C	<b>D</b>	E	F	G
Spec	50±1.0	50±1.0	1.6±0.5	50±3.0	43.5REF	22REF	5±2.0

# **Winding Specifications**

Number of Coils	Wire	Number of Turns	Inductance
1	ø 0.12X30	13 Turns, 1 Layer	12.5±10%μH

Wave Soldering Profile: Not suitable for wave soldering

Manual Soldering: 350°C Max, 3secs

Packaging: Box, 100pcs MOQ

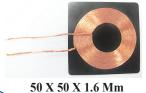




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#### STORAGE AND OPERATIONAL CONDITION:

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:  $T=-25^{\circ}C \sim 85^{\circ}C$ ,  $RH \le 90\%$ .

#### NOTE:

- i) The parts are manufactured in accordance with this specification. If other conditions and specifications which are required for this specification, please contact ABRACON for more information.
- ii) ABRACON will supply the parts in accordance with this specification unless we receive a written request to modify prior to an order placement.
- iii) In no case shall ABRACON be liable for any product failure from in appropriate handling or operation of the item beyond the scope of this specification.
- iv) When changing your production process, please notify ABRACON immediately.
- v) ABRACON LLC'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, Lifedependant 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 conset and authorization from ABRACON LLC is required. Please contact ABRACON LLC for more information.
- vi) All specifications and Marking will be subject to change without notice.

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