

## ATC 506WLC2R0KG250B Ultra-Broadband Inductor

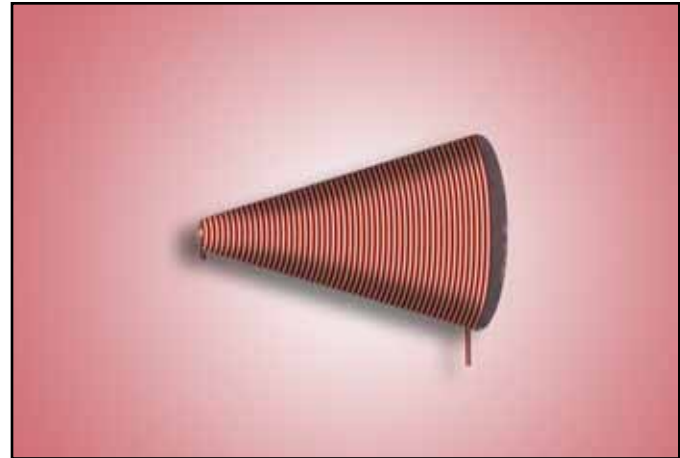
### Features:

- Inductance: 2.0  $\mu$ H, typ.
- Operating Frequency: 2.3 MHz (-3 dB roll-off) through 40 GHz, typ.
- Insertion Loss (shunt mounted): 0.5 dB, typ.
- Return Loss (shunt mounted): 17 dB, typ.
- Rated Current: 250 mA dc, max.\*
- DC Resistance: 1.45  $\Omega$ , typ. @ 10 mA
- Operating Temperature Range: -40°C to +85°C
- Gold plated leads: 15 – 25  $\mu$  in.

ATC, the industry leader, is introducing the new 506WLC Series High Frequency Ultra-Broadband Inductor (UBL). This unique component\*\* provides low insertion loss and an excellent match over multiple octaves of frequency spectrum.

The 506WLC is ideal for ultra-broadband DC decoupling networks and bias tee applications in optical communications systems and equipment using high-speed digital logic.

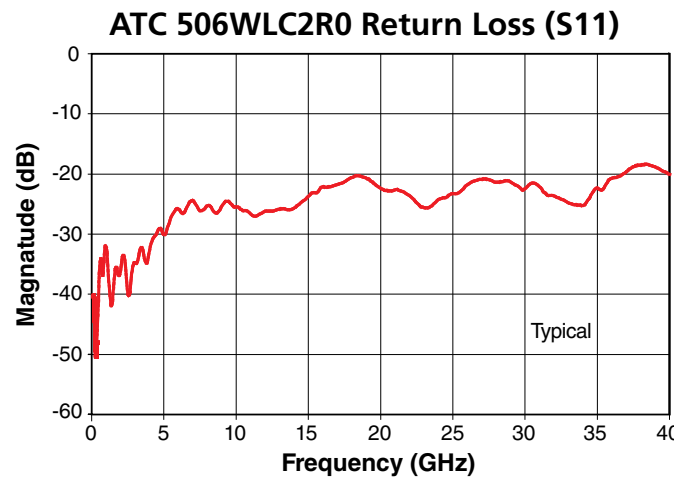
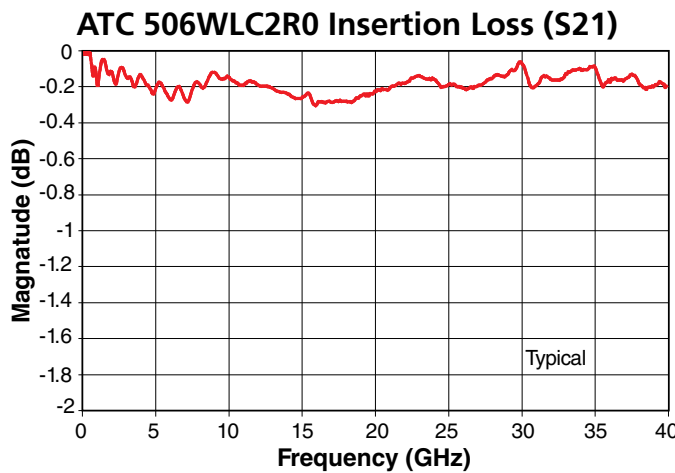
\* Current for 100 °C Temperature rise  
\*\*patent pending



### New Design

### Advantages:

- Ultra-Broadband Performance
- Ultra-Low Insertion Loss
- Flat Frequency Response
- Excellent Return Loss Through 40 GHz
- Unit-to-Unit Performance Repeatability
- Rugged Powdered Iron Core



### ATC 506WLC2R0KG250B Data Sheet Test Condition Description

All testing performed on 10-mil-thick Rogers RO4350 microstrip board, with the UBL leads connected between the microstrip trace and the underside ground plane (nominal 50-ohm characteristic impedance).



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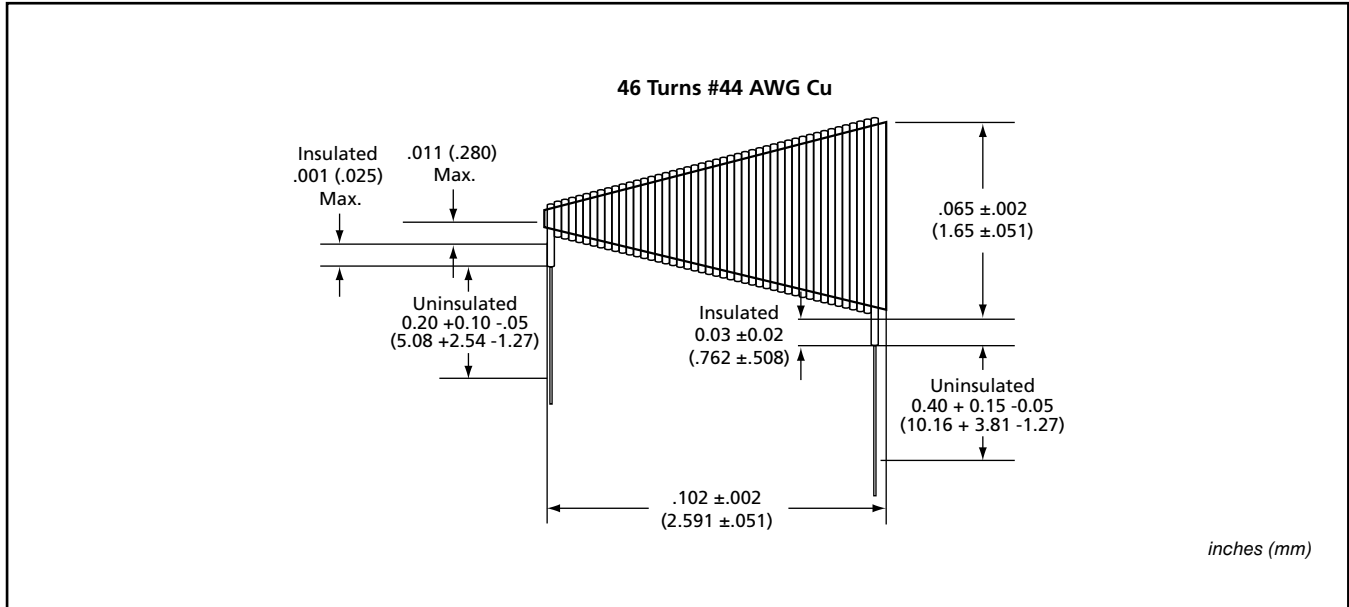
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Rev. D; 1/15

# ATC 506WLC SERIES UBL INDUCTORS

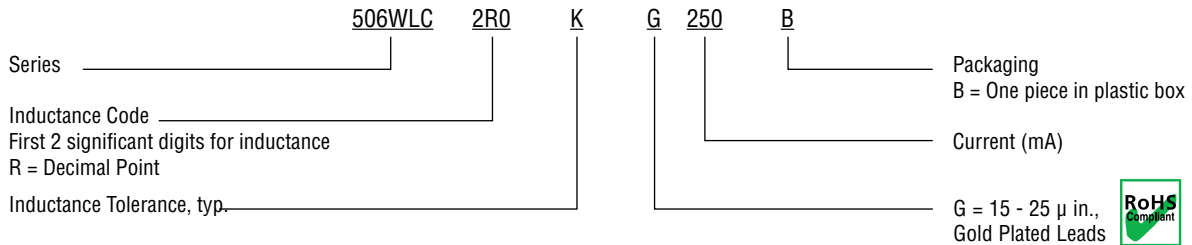
## Electrical Specifications:

- Inductance: 2.0  $\mu$ H, typ.
- Rated DC Current: 250 ma, max.
- DC Resistance: 1.45  $\Omega$ , typ. at +20°C, 10 mA current.

## Mechanical Dimensions



### ATC PART NUMBER CODE



The above part number refers to a 506WLC Series 2.0  $\mu$ H inductor, K tolerance ( $\pm 10\%$ , typ.), with Gold Plated Leads (G), 250 mA, one piece in plastic box.

ATC accepts orders for our parts using designations **with** or **without** the "ATC" prefix.

Consult factory for additional performance data.

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