

ATC 506WLC2R0KG250B Ultra-Broadband Inductor

Features:

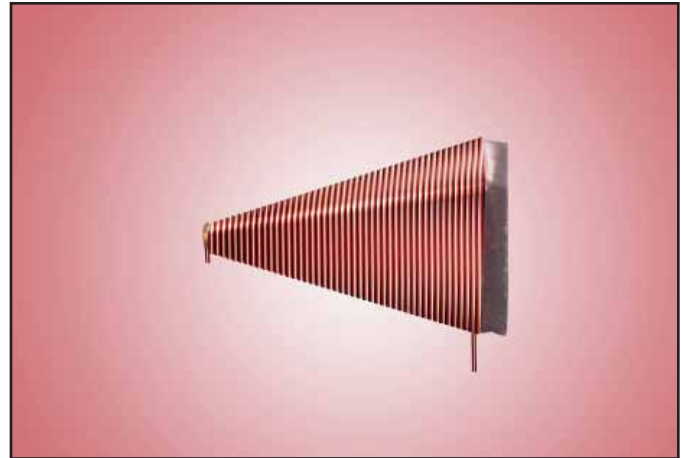
- Inductance: 2.0 μ H, typ.
- Operating Frequency: 2.3 MHz (-3 dB roll-off) through 40 GHz, typ.
- Insertion Loss (shunt mounted): 0.5 dB, typ.
- Return Loss (shunt mounted): -17 dB, typ.
- Rated Current: 250 mA dc, max.*
- DC Resistance: 1.45 Ω , typ. @ 10 mA
- Operating Temperature Range: -40°C to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

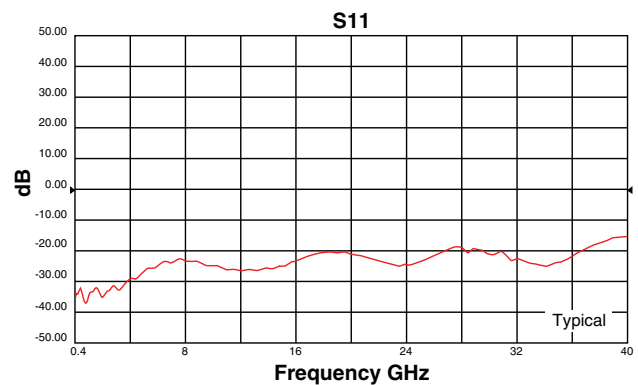
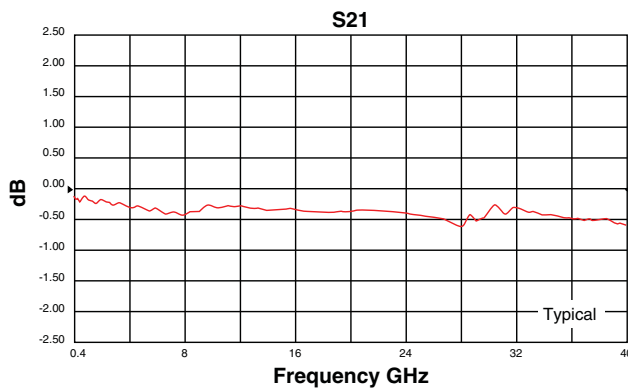


New Design

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 506WLC Series Insertion Loss / Shunt Mounted (S21)



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).



AMERICAN TECHNICAL CERAMICS

ATC North America
+1-631-622-4700
sales@atceramics.com

ATC Europe
+46 8 6800410
sales@atceramics-europe.com

ATC Asia
+86-755-2386-8759
sales@atceramics-asia.com

THE ENGINEERS' CHOICE®
ISO 9001 REGISTERED

ATC 506WLC SERIES UBL INDUCTORS

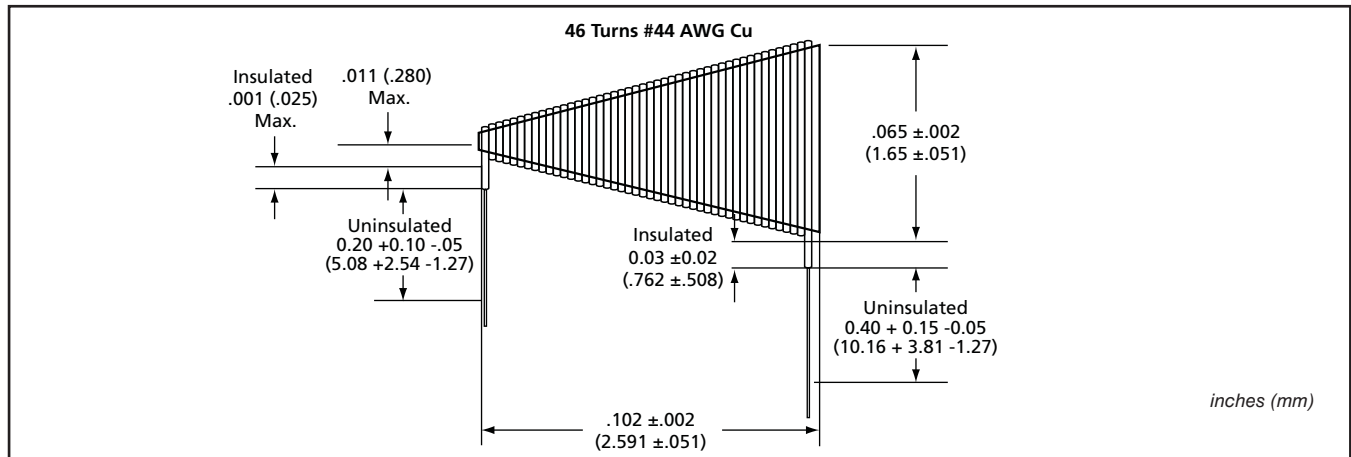
Electrical Specifications:

- Inductance: 2.0 μ H, typ.
- Rated Current: 250 ma, max.

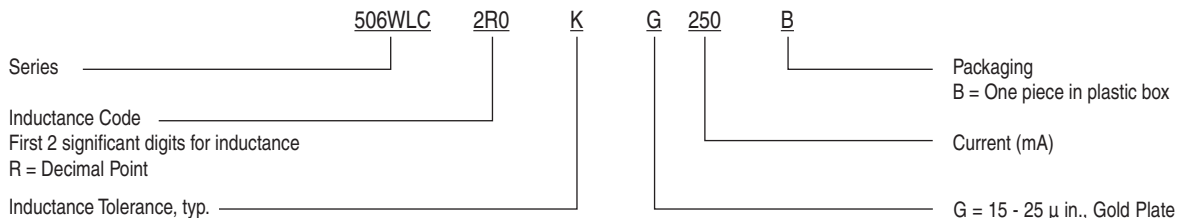
- Operating Temperature: -40°C to + 85°C
- Resistance: 1.45 Ω , typ. at +20°C, 10 mA current.

Inductance (μ H)	Tolerance Code	R_{DC} (Ω)	I_{DC} (mA), max.	Number of Turns	Cu Wire Size (AWG)
2.0	K ($\pm 10\%$), typ.	1.45	250	44	44

Mechanical Dimensions



ATC PART NUMBER CODE



The above part number refers to a 506WLC Series 2.0 μ H inductor, K tolerance ($\pm 10\%$, typ.), with Gold Plate (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.

Sales of ATC products are subject to the terms and conditions contained in American Technical Ceramics Corp. Terms and Conditions of Sale (ATC document #001-992 Rev. A 10/03). Copies of these terms and conditions will be provided upon request. They may also be viewed on ATC's website at www.atceramics.com/productfinder/default.asp. Click on the link for Terms and Conditions of Sale.

ATC has made every effort to have this information as accurate as possible. However, no responsibility is assumed by ATC for its use, nor for any infringements of rights of third parties which may result from its use. ATC reserves the right to revise the content or modify its product line without prior notice.

© 2010 American Technical Ceramics Corp. All Rights Reserved.

ATC # 001-1084 Rev. A; 5/10



AMERICAN TECHNICAL CERAMICS
 ATC North America
 +1-631-622-4700
 sales@atceramics.com

ATC Europe
 +46 8 6800410
 sales@atceramics-europe.com

ATC Asia
 +86-755-2386-8759
 sales@atceramics-asia.com

THE ENGINEERS' CHOICE®
 ISO 9001 REGISTERED

www.atceramics.com