

ATC 506WLC6R00KG200B Ultra-Broadband Inductor

Features:

- Inductance: 6.0 μ H, typ.
- Operating Frequency: 880 KHz (-3 dB roll-off) through 40 GHz, typ.
- Insertion Loss (shunt mounted): 0.6 dB, typ.
- Return Loss (shunt mounted): 18 dB, typ.
- Rated Current: 200 mA dc, max.*
- DC Resistance: 2.9 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

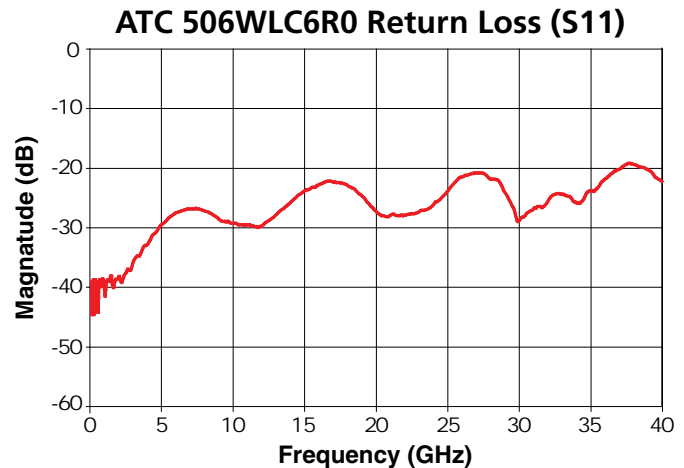
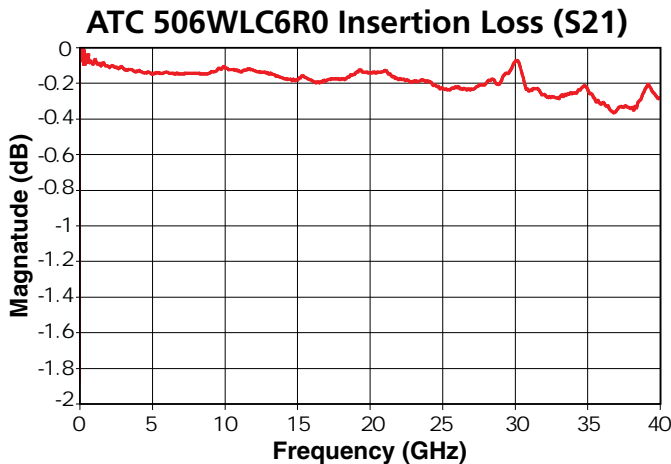
**patent pending



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 506WLC6R0KG200B 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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ISO 9001 REGISTERED

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ATC # 001-1083

Rev. C; 9/12

ATC 506WLC SERIES UBL INDUCTORS

Electrical Specifications:

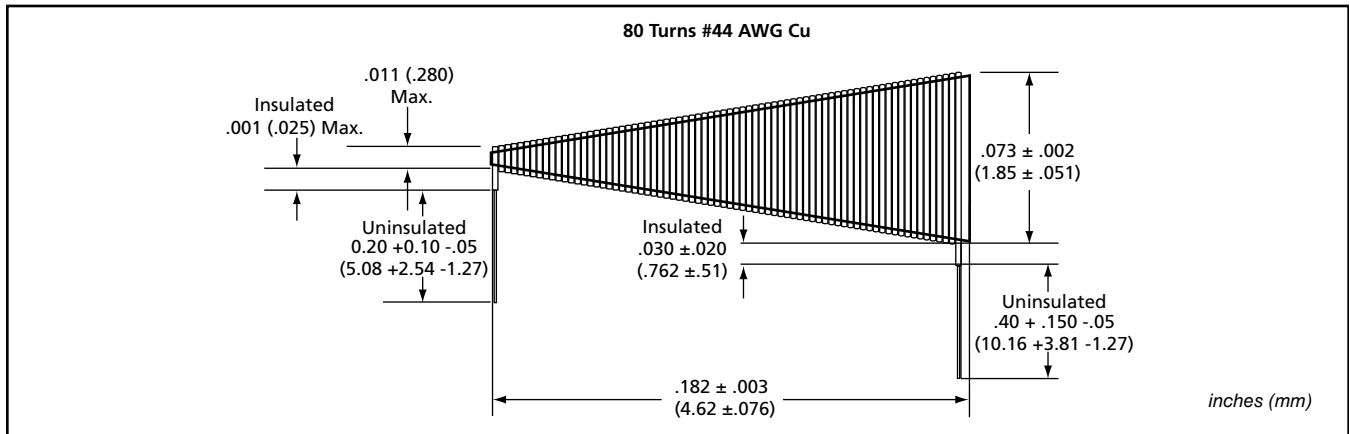
- Inductance: 6.0 μ H, typ.
- Rated Current: 200 ma, max.

- Operating Temperature: -40°C to + 85°C
- Resistance: 2.9 Ω , typ. at +20°C, 10 mA current.

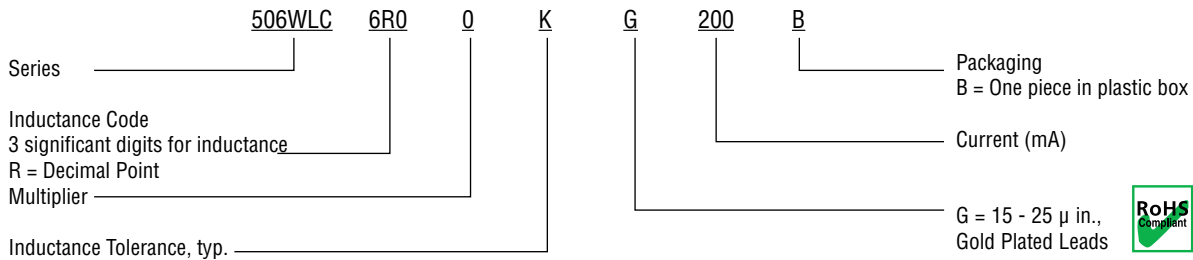
Inductance Values

Inductance (μ H)	Tolerance Code	R_{DC} (Ω)	I_{DC} (mA), max.	Number of Turns	Cu Wire Size (AWG)
6.0	K ($\pm 10\%$), typ.	2.9	200	80	44

Mechanical Dimensions



ATC PART NUMBER CODE



The above part number refers to a 506WLC Series 6.0 μ H inductor, K tolerance ($\pm 10\%$, typ.), with Gold Plated Leads (G), 200 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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