

ATC 506WLSM0R47KT815T

Ultra-Broadband

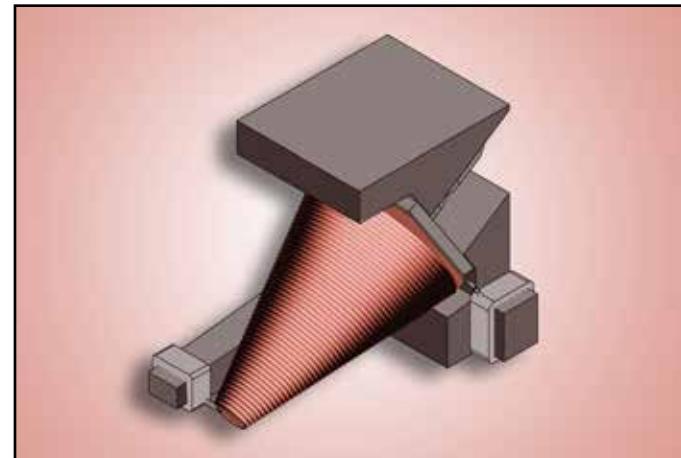
SMT Inductor

Features:

- Inductance: 0.47 μ H
- Operating Frequency: 9.5 MHz (-3 dB roll-off) through 40+ GHz, typ.
- Insertion Loss (shunt mounted): <0.5 dB, typ.
- Return Loss (shunt mounted): >20 dB, typ.
- Operating Temperature Range: -55°C to +125°C
- Lead-Free, RoHS Compliant Terminations

ATC, the industry leader, is introducing the new 506WLS 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 506WLS is ideal for ultra-broadband DC decoupling networks and bias tee applications in optical communications systems and equipment using high-speed digital logic.



New Design

Advantages:

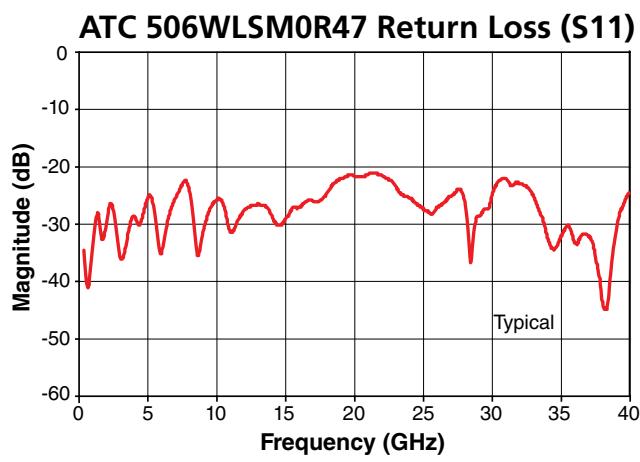
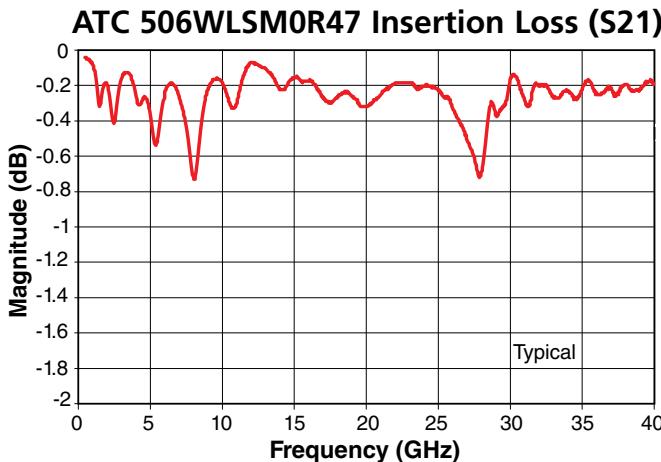
- Ultra-Broadband Performance
- Ultra-Low Insertion Loss
- Flat Frequency Response
- Excellent Return Loss Through 40 GHz
- Unit-to-Unit Performance Repeatability
- Rugged Powdered Iron Core

Electrical Specifications:

- Inductance: 0.47 μ H $\pm 10\%$ *
- Rated DC Current (I_{DC} max.): 815 mA**
- DC Resistance (R_{DC} typ.): 0.19 Ω , typ. at +20°C, 10 mA current.

*Inductance: measured at 1 MHz, 0.1 Vrms, 0 mA dc with HP4291A impedance analyzer

**Current Rating: based on a 100 °C temperature rise from a 25°C ambient.



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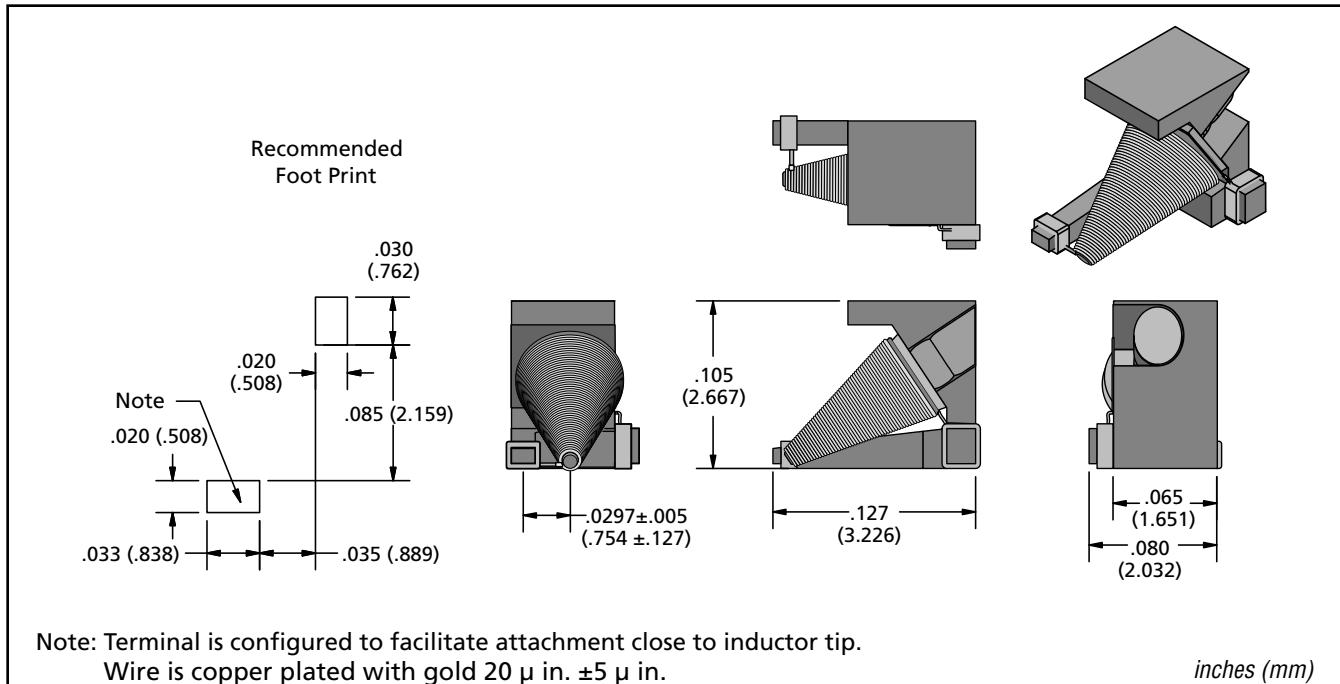
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Outline Dimensions



Mechanical Configurations

Size	Length (L)	Width (W)	Height (H)	Cu Wire Size (AWG)	Number of Turns
M	0.127 (3.226)	0.08 (2.032)	0.105 (2.667)	38	22

Unless noted otherwise, all dimensions are held to ± 0.10 (.254)

inches (mm)

ATC PART NUMBER CODE

ATC 506WLS M 0R47 K T 815 T

Series _____

Case Size _____

Inductance Code (μ H)
3 significant digits for inductance _____

Packaging
T = Tape and Reel

Current (mA)

T = Tin Termination

Inductance Tolerance, ($\pm 10\%$)

RoHS Compliant

The above part number refers to a 506WLS Series, Case Size M, 0.47 μ H inductor, K tolerance ($\pm 10\%$, typ.), with Tin Termination (T), 815 mA, tape and reel packaging..

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

Consult factory for additional performance data.

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