



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## ATC 506WLSN2R00KT494T Ultra-Broadband SMT Inductor

### Features:

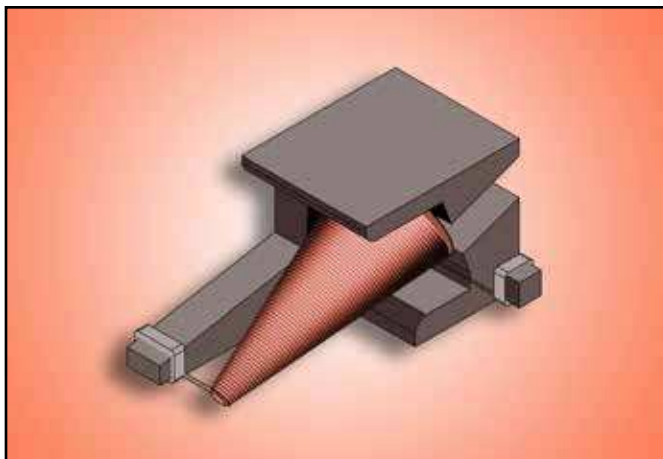
- Inductance: 2.00  $\mu\text{H}$
- Operating Frequency: 1.6 MHz (-3 dB roll-off) through 40+ GHz, typ.
- Insertion Loss (shunt mounted): <0.5 dB, typ.
- Return Loss (shunt mounted): >17 dB, typ.
- Operating Temperature Range: -55°C to +125°C
- Lead-Free, RoHS Compliant Terminations

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.

### Electrical Specifications:

- Inductance: 2.00  $\mu\text{H} \pm 10\%*$
- Rated DC Current ( $I_{\text{DC max.}}$ ): 494 mA\*\*
- DC Resistance ( $R_{\text{DC typ.}}$ ): 0.65  $\Omega$ , typ. at +20°C, 10 mA current.



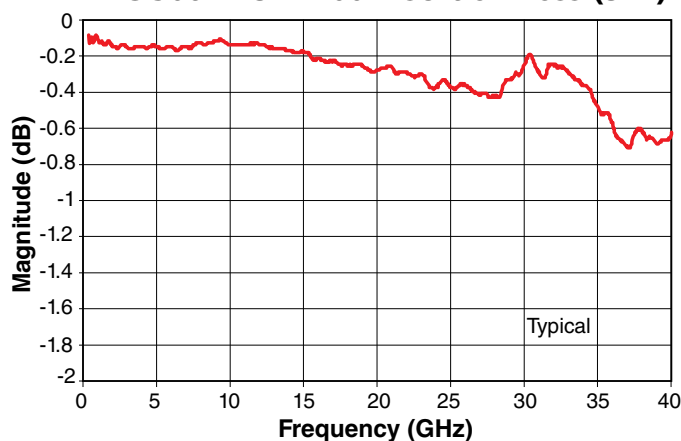
### Advantages:

- 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

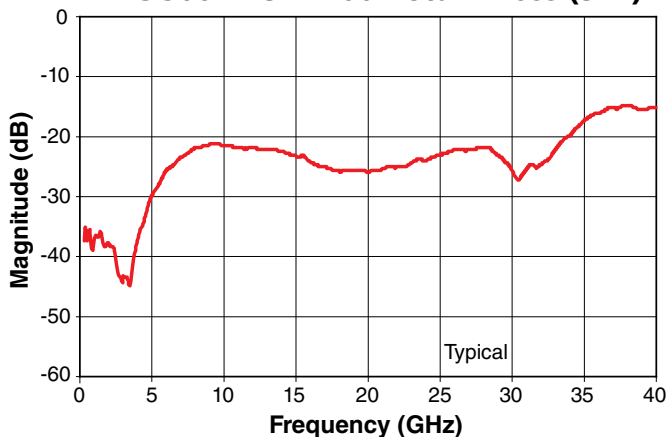
\*Inductance: measured at 1 MHz, 0.1 Vrms, 0 mA dc with HP4291A impedance analyzer

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

ATC 506WLSN2R00 Insertion Loss (S21)



ATC 506WLSN2R00 Return Loss (S11)



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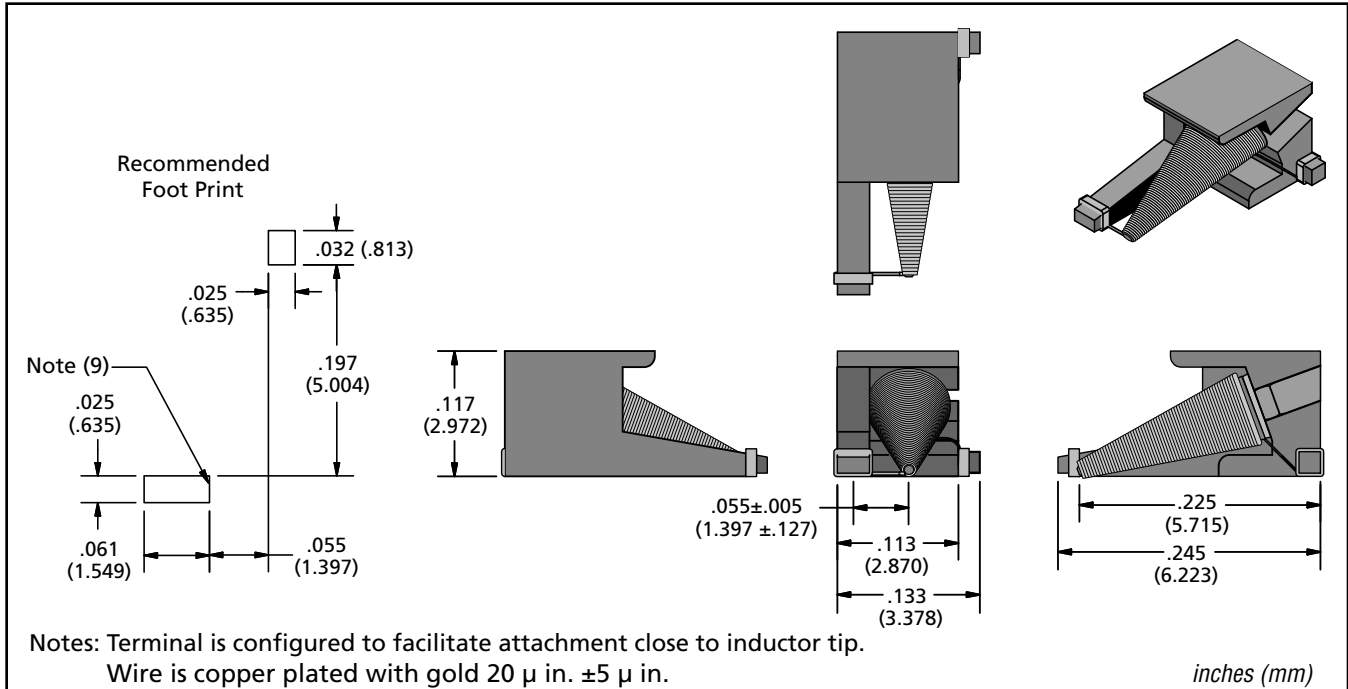
ATC # 001-1119  
Rev. F; 12/15

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# ATC 506WLS SERIES UBL SMT INDUCTORS

## Outline Dimensions



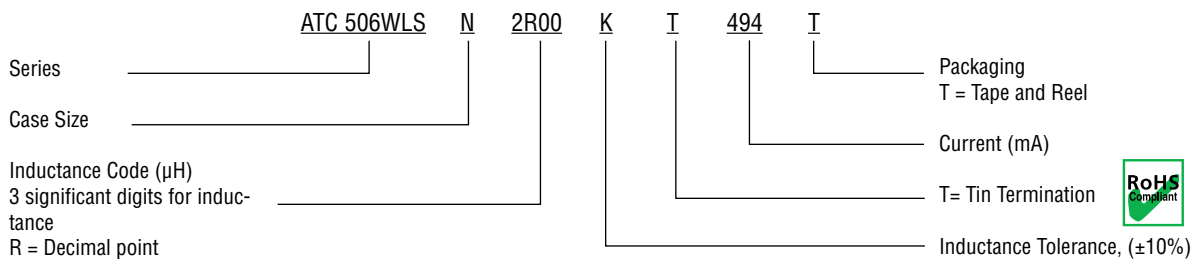
## Mechanical Configurations

Size	Length (L)	Width (W)	Height (H)	Cu Wire Size (AWG)	Number of Turns
N	0.245 (6.223)	0.133 (3.378)	0.117 (2.972)	40	48

Unless noted otherwise, all dimensions are held to  $\pm 0.10$  (.254)

inches (mm)

### ATC PART NUMBER CODE



The above part number refers to a 506WLS Series, Case Size N, 2.00  $\mu$ H inductor, K tolerance ( $\pm 10\%$ , typ.), with Tin Termination (T), 494 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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ATC # 001-1119 Rev. F; 12/15



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