ATC 506WLSM1R10KT438T
Ultra-Broadband SMT Inductor

Features:
• Inductance: 1.10 µH
• Operating Frequency:
  3.3 MHz (-3 dB roll-off) through 40+ GHz, typ.
• Insertion Loss (shunt mounted): <0.6 dB, typ.
• Return Loss (shunt mounted): >22 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: 1.10 µH ±10%*
• Rated DC Current (I_{DC max.}): 438 mA**
• DC Resistance (R_{DC typ.}):
  0.64 Ω, 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.
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ATC PART NUMBER CODE

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The above part number refers to a 506WLS Series, Case Size M, 1.10 µH inductor, K tolerance (±10%, typ.), with Tin Termination (T), 438 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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