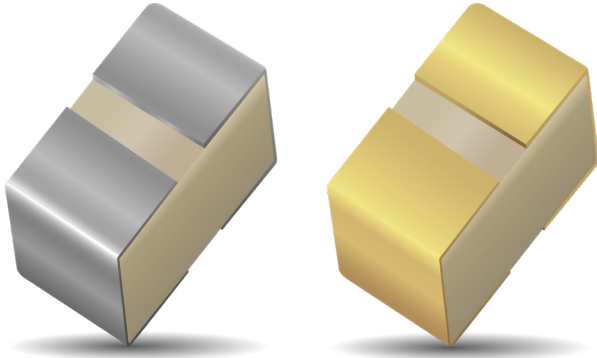


RF/Microwave Capacitors

RF/Microwave Multilayer Capacitors (MLC)

550U Series UBC™ Ultra-Broadband Capacitor



GENERAL DESCRIPTION

KYOCERA AVX new 550U Ultra-Broadband Capacitor is manufactured with highest quality materials to provide reliable and repeatable Ultra-Broadband performance from 16KHz through 70+ GHz. It exhibits ultra-low insertion loss, flat frequency response and excellent return loss, and is ideal for D.C. Blocking, Coupling, Bypassing and Feedback applications requiring Ultra-Broadband performance.

The 550U is a one-piece 0201* SMT package, fully compatible with high speed automated pick-and-place manufacturing. It is designed to meet the most stringent requirements of Ultra-Broadband applications.

ADVANTAGES

- Ultra-Broadband performance
- Ultra-Low Insertion Loss
- Flat Frequency Response
- Excellent Return Loss
- Unit-to-Unit Performance Repeatability
- Rugged Ceramic Construction

TYPICAL CIRCUIT APPLICATIONS

- Optoelectronics/High Speed Data
- Transimpedance amplifiers
- Receive and Transmit Optical Sub-Assembly (ROSA/TOSA)
- Synchronous Optical Network (SONET)
- Broadband test equipment
- Broadband Microwave/Millimeter Wave

FEATURES

- 0201* Case Size
- Capacitance: 100 nF
- Operating Frequency: 16 KHz (-3 dB roll-off) to 70+ GHz**
- Insertion Loss: 0.4 dB typical
- One Piece Construction
- Voltage Rating: 6.3 WVDC
- RoHS Compliant Terminations
- Gold Termination Available

* Please see Mechanical Dimensions section for exact dimensions
** 25°C, no bias applied

ELECTRICAL SPECIFICATIONS

Capacitance	100 nF
Rated Voltage	6.3 WVDC
Dielectric Withstanding Voltage	250% of rated WVDC for 5 secs.
Operating Temperature Range	-55°C to +85°C
Temperature Coefficient of Capacitance	±15%
Insulation Resistance	10 ¹⁰ Ω min. @ +25°C @ rated WVDC 10 ⁹ Ω min. @ +85°C @ rated WVDC

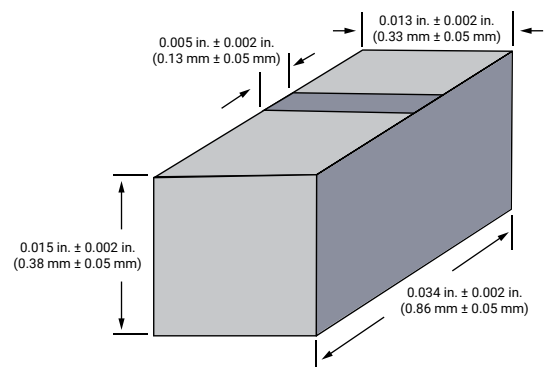
PACKAGING OPTIONS



Tape & Reel



MECHANICAL DIMENSIONS



RF/Microwave Capacitors
RF/Microwave Multilayer Capacitors (MLC)
550U Series UBC™ Ultra-Broadband Capacitor



HOW TO ORDER

Series _____

Case Size _____
See mechanical dimensions below

Capacitance _____
EIA Capacitance Code in pF.
First two digits = significant figures or "R" for decimal place.
Third digit = number of zeros or after "R" significant figures

Capacitance Tolerance Code _____

550

U

104

M

T

T

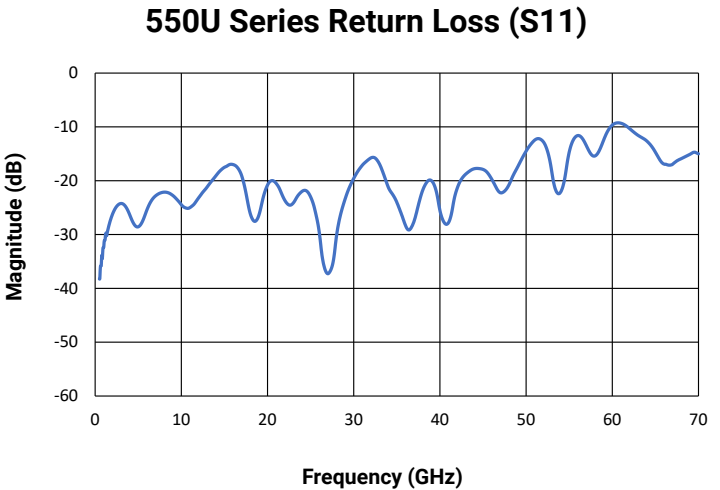
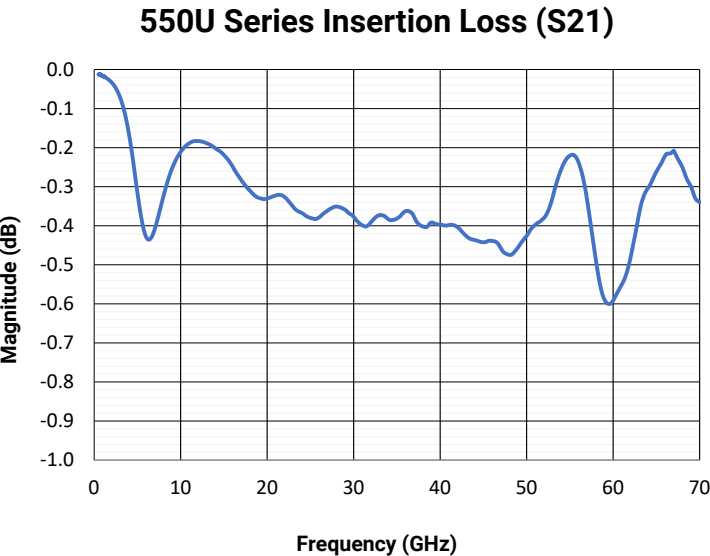
Packaging
T = Tape and Reel, 1000 pc qty.
T\500 = Tape and Reel, 500 pc qty

Termination Style Code
T = Tin Plated over Nickel Barrier (Standard)
CA = Gold Plated over Nickel Barrier

Code	M
Tol.	±20%

The above part number refers to a 550 Series (case size U) 100 nF capacitor, M tolerance (±20%), with T termination (Tin Plated over Nickel Barrier), tape and reel packaging, 4000 pc qty.

PERFORMANCE DATA



550U DATA SHEET TEST CONDITION DESCRIPTION

KYOCERA AVX testing to 70 GHz performed on 10-mil-thick Rogers R03006 microstrip broad, with the device under test substanding a 10 mil gap in a 13.4-mil-wide center trace (nominal 50-ohm characteristic impedance).