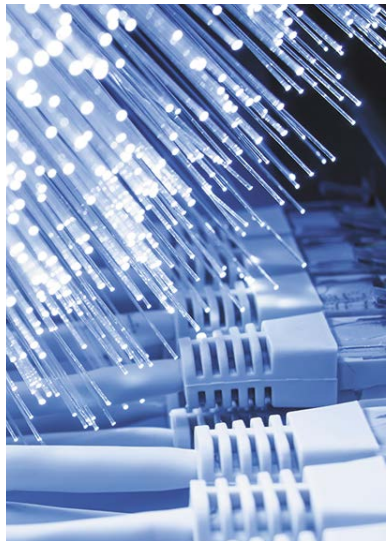


Broadband Series

XBL, UBL, UBZ Series



XBL Series

eXtra Broadband Capacitor



DESCRIPTION

- EIA 0402 Case size
- Capacitance: 100nF
- Low insertion loss up to 40 GHz
- RoHS Compliant

APPLICATIONS

- Optoelectronics / High-speed data
- Broadband test equipment & applications
- Broadband microwave / millimeter wave amplifiers and oscillators

CIRCUIT APPLICATIONS

- DC Blocking, Coupling, Bypassing

ELECTRICAL AND ENVIRONMENTAL SPECIFICATIONS

Electrical specifications

Parameter	Value
Capacitance	100nF
Tolerances	K (±10%)
Working voltage (WV _{DC})	16V
Temperature coefficient	X7R
Insulation Resistance	10 ⁹ Ω min.
Insertion Loss @ 10Ghz (typical)	<0.3 dB
Insertion Loss @ 20Ghz (typical)	<0.5 dB
Insertion Loss @ 40Ghz (typical)	<1.2 dB
DF	≤5%
Dielectric Withstanding (test voltage applied for 5 seconds)	1.5 WV _{DC}

Mechanical specification

Parameter	Value	Comment
Case size	L	0402

Termination type	Code
Standard (Tin-plated Nickel)	S

Packaging	Code
Tape and reel	E

Environmental specifications

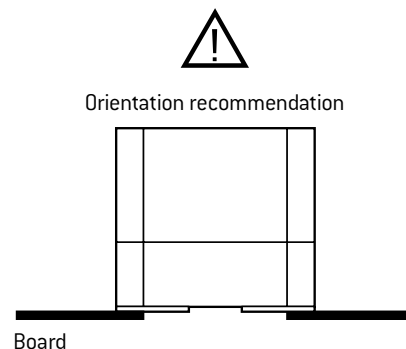
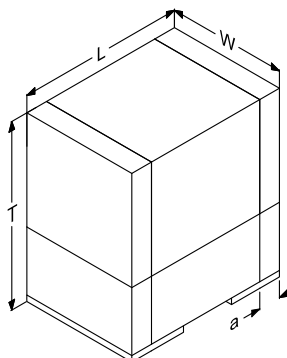
Parameter	Value
Life Test	1000 hours, +125°C at 1.5 WV _{DC}
Moisture Resistance	240 hours, 85% relative humidity at 85°C (ESA/SCC n°3009)

HOW TO ORDER

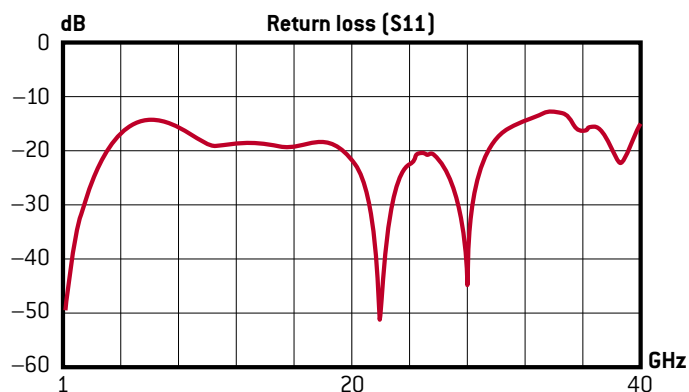
160	XB	L	104	K	S	E
Voltage code	Dielectric	Case size	Capacitance code	Tolerance code	Termination code	Tape and reel
160 = 16V	X7R	L = 0402	104 = 100nF	K = ±10%	S = Standard: tin-plated nickel	E = horizontal orientation

OUTLINE DIMENSIONS in inches (mm)

Size	0402	
Dimensions inches (mm)	L	0.039 ± 0.008 (1 ± 0.2)
	W	0.236 ± 0.004 (0.6 ± 0.1)
	T	0.039 max. / 0.033 typical (1 max. / 0.85 typical)
	a	0.010 ± 0.006 (0.25 ± 0.15)



PERFORMANCE CHARACTERISTICS



Typical responses of S11 and S21 Measurements on a PTFE 50 Ohm substrate

UBL Series

Ultra-Broadband Capacitor



DESCRIPTION

- EIA 0402 Case size
- Capacitance: 100nF
- Low insertion loss up to 40 GHz
- RoHS Compliant

APPLICATIONS

- Optoelectronics / High-speed data
- Broadband test equipment & applications
- Broadband microwave / millimeter wave amplifiers and oscillators

CIRCUIT APPLICATIONS

- DC Blocking, Coupling, Bypassing

ELECTRICAL AND ENVIRONMENTAL SPECIFICATIONS

Electrical specifications

Parameter	Value
Capacitance	100nF
Tolerances	K (±10%)
Working voltage (WV _{DC})	16V
Temperature coefficient	X7R
Insulation Resistance	10 ⁹ Ω min.
Insertion Loss @ 10Ghz (typical)	<0.5 dB
Insertion Loss @ 20Ghz (typical)	<1.2 dB
Insertion Loss @ 40Ghz (typical)	<1.5 dB
DF	≤5%
Dielectric Withstanding (test voltage applied for 5 seconds)	2 WV _{DC}

Mechanical specification

Parameter	Value	Comment
Case size	L	0402
Termination type		
	Code	
Standard (Tin-plated Nickel)	S	
Packaging		
	Code	Quantity
Parts per Reel	E	10 000

Environmental specifications

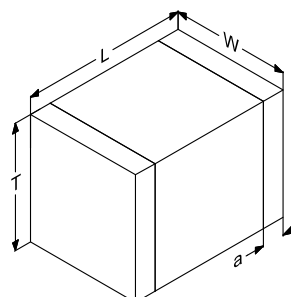
Parameter	Value
Life Test	1000 hours, +125°C at 1.5 WV _{DC}
Moisture Resistance	240 hours, 85% relative humidity at 85°C (ESA/SCC n°3009)

HOW TO ORDER

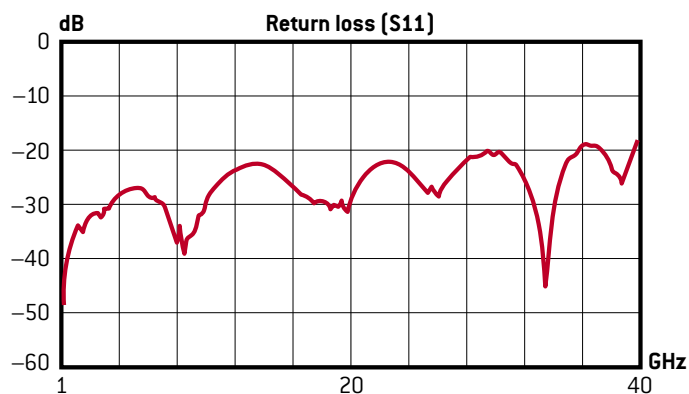
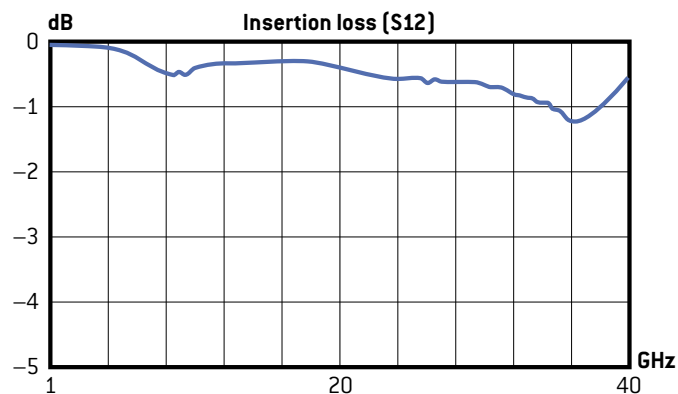
160	UB	L	104	K	S	E
Voltage code	Dielectric	Case size	Capacitance code	Tolerance code	Termination code	Tape and reel
160 = 16V	X7R	L = 0402	104 = 100nF	K = ±10%	S = Standard: tin-plated nickel	E = horizontal orientation

OUTLINE DIMENSIONS in inches (mm)

Size	0402	
Dimensions inches (mm)	L	0.039 ± 0.004 (1 ± 0.1)
	W	0.197 ± 0.004 (0.5 ± 0.1)
	T	0.236 max. (0.6 max.)
	a	0.010 ± 0.004 (0.25 ± 0.1)



PERFORMANCE CHARACTERISTICS



Typical responses of S11 and S21 Measurements on a PTFE 50 Ohm substrate

UBZ Series

Ultra-Broadband Capacitor



DESCRIPTION

- EIA 0201 Case size
- Capacitance: 100nF
- Low insertion loss up to 40 GHz
- RoHS Compliant

APPLICATIONS

- Optoelectronics / High-speed data
- Broadband test equipment & applications
- Broadband microwave / millimeter wave amplifiers and oscillators

CIRCUIT APPLICATIONS

- DC Blocking, Coupling, Bypassing

ELECTRICAL AND ENVIRONMENTAL SPECIFICATIONS

Electrical specifications

Parameter	Value
Capacitance	100nF
Tolerances	K ($\pm 10\%$)
Working voltage (WV_{DC})	10V
Temperature coefficient	X5R up to 85°C X6T up to 105°C
Insulation Resistance	$10^9 \Omega$ min.
Insertion Loss @ 10Ghz (typical)	<0.5 dB
Insertion Loss @ 28Ghz (typical)	<1 dB
DF	$\leq 15\%$
Dielectric Withstanding (test voltage applied for 5 seconds)	$2 WV_{DC}$

Mechanical specification

Parameter	Value	Comment
Case size	Z	0201
Termination type		
	Code	
Standard (Tin-plated Nickel)	S	
Packaging		
	Code	Quantity
Parts per Reel	E	15 000

Environmental specifications

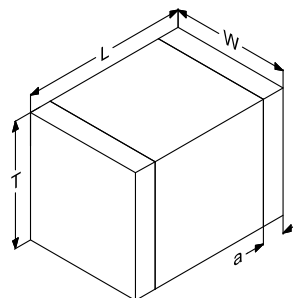
Parameter	Value
Life Test	1000 hours, +105°C at 1 WV_{DC}
Moisture Resistance	240 hours, 85% relative humidity at 85°C (ESA/SCC n°3009)

HOW TO ORDER

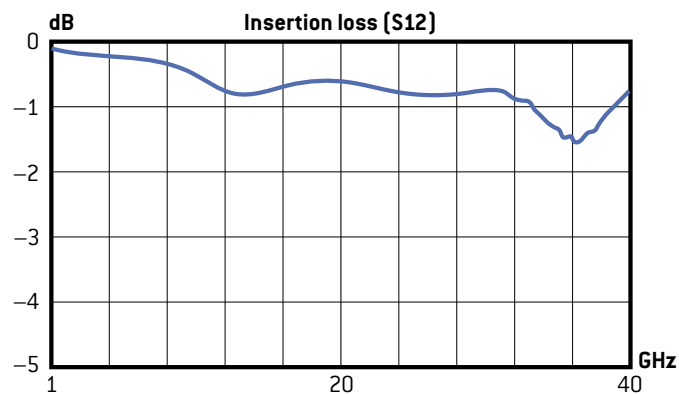
100	UB	Z	104	K	S	E
Voltage code	Dielectric	Case size	Capacitance code	Tolerance code	Termination code	Tape and reel
100 = 10V	X5R / X6T	Z = 0201	104 = 100nF	K = $\pm 10\%$	S = Standard: tin-plated nickel	E = horizontal orientation

OUTLINE DIMENSIONS in inches (mm)

Size		0201
Dimensions inches (mm)	L	0.024 ± 0.002 (0.6 ± 0.04)
	W	0.012 ± 0.002 (0.3 ± 0.04)
	T	0.014 max. (0.35 max.)
	a	0.006 ± 0.002 (0.15 ± 0.06)



PERFORMANCE CHARACTERISTICS



Typical responses of S11 and S21 Measurements on a PTFE 50 Ohm substrate



Headquarters

93, rue Oberkampf
75011 PARIS • FRANCE
Tel. : +33 1 49 23 10 00
info@exxelia.com
www.exxelia.com

AMERICAS

North America

1221 N. Highway 17-92,
Longwood, FL 32750 • USA
Tel.: +1 407 695-6562
sales.usa@exxelia.com

EUROPE

Western Europe

93, rue Oberkampf
F-75540 PARIS CEDEX 11 • FRANCE
Tel. : +33 1 49 23 10 00
sales.eu@exxelia.com

Northern Europe

Cylindervägen 18
SE-131 52 Nacka Strand • SWEDEN
Tel. : +46 76 16 50 014
sales.nordic@exxelia.com

APAC

India

Regus Millenia, Level 1, Tower B,
NO.1 & 2 Murphy Road, Ulsoor • INDIA
Tel. : +91 80 67 65 41 14
sales.india@exxelia.com

China

Mayfair Tower NO.83
Fu Min Road - 200040 Shanghai • CHINA
Tel. : +86 21 6132 7197
sales.china@exxelia.com