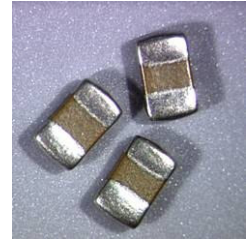




# C04 / C06 / C08 Broadband DC Blocks

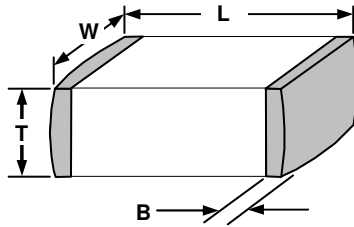
Low loss resonance free performance



## FUNCTIONAL APPLICATIONS:

Fiber Optic Links, High Isolation Decoupling, LAN's, VCO Frequency Stabilization, Diplexers, RF/Microwave Modules, Instruments and Test Equipment.

## Mechanical Specification



## BENEFITS:

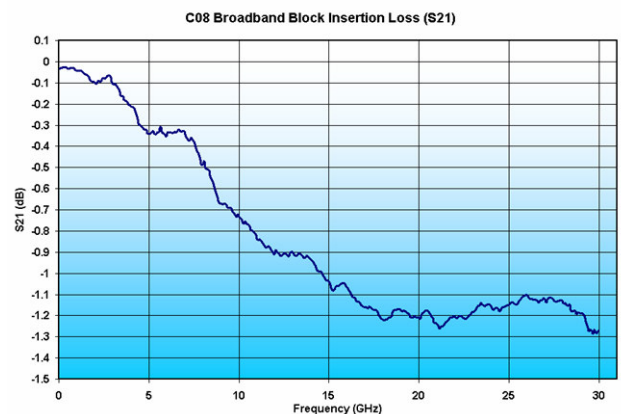
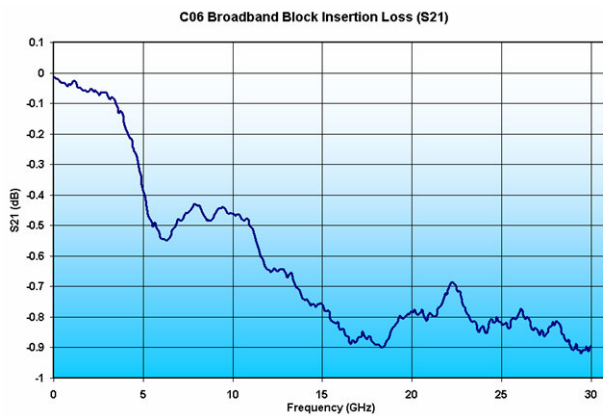
Resonance free DC Blocking / Decoupling.  
Less than 0.25 db loss @ 4 GHz (typical).  
Surface mountable.

Product Code	Body Dimensions			Band Dimensions
	Length (L)	Width (W)	Thickness (T)	Band (B)
C04 BL	.040" ± .004" (1.02 ± 0.1)	.020" ± .004" (.51 ± 0.1)	.024" (0.61) Max.	.008" ± .004" (.02 ± .01)
C06 BL	.060" ± .006" (1.52 ± .152)	.030" ± .006" (.762 ± .152)	.030" (.762) Max.	.010" + .010"/ - .005" (.254 + .254/ - .127)
C08 BL	.080" ± .008" (2.03 ± .203)	.050" ± .008" (1.27 ± .203)	.030" (.762) Max.	.035" ± .004" (.889 ± .102)

## Part Characteristics

Part Number	Capacitance Guaranteed Minimum Value	Voltage Rating	Temperature Coefficient -55°C to 125°C	Maximum Dissipation Factor	Insulation Resistance (MΩ Minimum)	Aging Rate	Frequency Range	Metallization
C04BLBB2X5_UX / ZX / SX 0402 case size	120pF @ 1KHz, .2Vrms	50 V dc	± 15%	3.0% @ 1KHz, .2Vrms	10 <sup>4</sup>	≤1.5% decade hours	5MHz – 30GHz	"U"=Ni barrier w / solder plate
C06BLBB2X5_UX / ZX / SX 0603 case size	850pF @ 1KHz, .2Vrms						2MHz – 30GHz	"S"=Ni barrier w / gold flash RoHS compliant
C08BLBB1X5_UX / ZX / SX 0805 case size	2400pF @ 1KHz, .2Vrms						1MHz – 20GHz	"Z"= Ni/Sn RoHS compliant

## Performance



## Dielectric Laboratories Inc.

2777 Route 20 East, Cazenovia, NY 13035-9433  
Phone: 315-655-8710 Facsimile: 315-655-0445

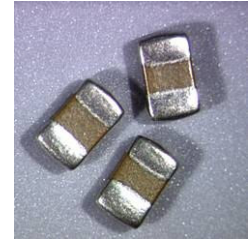
e-mail: [sales@dilabs.com](mailto:sales@dilabs.com) web: <http://www.dilabs.com>

QUALITY SYSTEM ISO 9001:1994 CERTIFIED ENVIRONMENTAL SYSTEM ISO 14001:1996 CERTIFIED

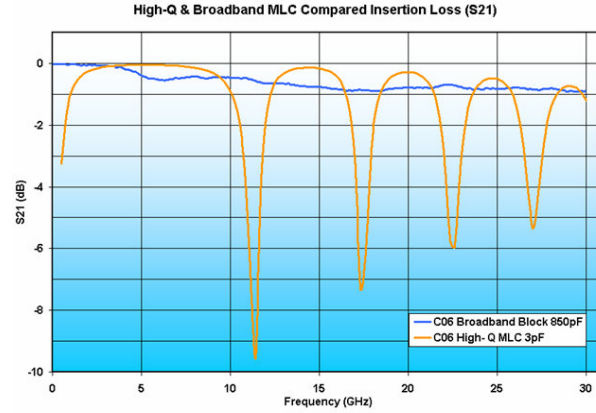
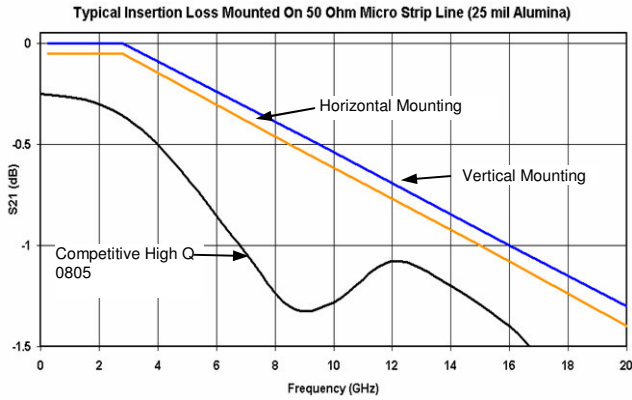


# C04 / C06 / C08 Broadband DC Blocks

Low loss resonance free performance



## Performance



### Dielectric Laboratories Inc.

2777 Route 20 East, Cazenovia, NY 13035-9477

Phone: 315-655-8710 Facsimile: 315-655-8179

e-mail: [sales@dilabs.com](mailto:sales@dilabs.com)

web: <http://www.dilabs.com>

QUALITY SYSTEM ISO 9001 CERTIFIED/ENVIRONMENTAL SYSTEM ISO 14001 CERTIFIED

# *DLI – New Broadband Block Part Number System*

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## **New Part Number Structure**

C	04	BL	121	X	-	5	U	N	-	X	0	T
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C	06	BL	851	X	-	5	U	N	-	X	0	T
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C	08	BL	242	X	-	5	U	N	-	X	0	T
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Multi-Layer Capacitor	Case size	Material System	Capacitance Value	Guaranteed Minimum Value	Voltage Code	Termination Code	Leading Code	Test Level Code	Laser Marking Code	Packaging
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## **Replaces Standard part number**

C	04	BL	BB2	X	5	U	X	T
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C	06	BL	BB2	X	5	U	X	T
---	----	----	-----	---	---	---	---	---

C	08	BL	BB1	X	5	U	X	T
---	----	----	-----	---	---	---	---	---

Multi-Layer Capacitor	Case size	Material System	Capacitance Value	Tolerance	Voltage Code	Termination Code	Test Level Code	Packaging
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# Multi-Layer – Standard P/N System

<b>C</b>	<b>17</b>	<b>CF</b>	<b>620</b>	<b>J</b>	-	<b>7</b>	<b>U</b>	<b>N</b>	-	<b>X</b>	<b>0</b>	<b>T</b>
Multi-Layer Capacitor	Case size	Material System	Capacitance Value	Tolerance		Voltage Code	Termination Code	Leading Code		Test Level Code	Laser Marking Code	Packaging

CASE SIZE	
Case	Dimensions
04	0.040" x 0.020"
06	0.060" x 0.030"
08	0.080" x 0.050"
11	0.055" x 0.055"
17	0.110" x 0.110"
18	0.110" x 0.110"
22	0.220" x 0.245"
40	0.380" x 0.380"

MATERIAL	
Material	Characteristics
AH	P90
CF	NPO High-Q
MS	NPO High-Q
UL	Ultra Low ESR
BL	DC Blocking

TERMINATION	
Code	Termination System
T	Ag Termination, Ni Barrier Layer, Heavy SnPb Plated Solder
U	Ag Termination, Ni Barrier Layer, SnPb Plated Solder
S	Ag Termination, Ni Barrier Layer, Gold Flash <span style="float:right">RoHS</span>
Z	Ag Termination, Ni Barrier Layer, Sn Plated Solder <span style="float:right">RoHS</span>
P	AgPd Termination <span style="float:right">RoHS</span>
M	Polymer Termination, Cu Barrier Layer, Sn Plated Solder <span style="float:right">RoHS</span>
W	Ag Termination, Cu Barrier Layer, Sn Plated Solder <span style="float:right">RoHS</span>
V	Ag Termination, Cu Barrier Layer, SnPb Plated Solder
R	Ag Termination, Cu Barrier Layer, Heavy SnPb Plated Solder

TEST LEVEL	
Code	Testing
X	Standard
Y	Reduced Visual
A	MIL-PRF-55681 Group A
C	MIL-PRF-55681 Group C
D	Customer Specified

VOLTAGE	
Code	Voltage
5	50V
1	100V
8	150V
6	200V
9	250V
3	300V
4	500V
7	1000V
A	1500V
G	2000V
B	2500V
D	3600V
F	5000V
H	7200V
S	SPECIAL

TOLERANCE	
Code	Value
A	+/- 0.05pF
B	+/- 0.1pF
C	+/- 0.25pF
D	+/- 0.5pF
F	+/- 1%
G	+/- 2%
J	+/- 5%
K	+/- 10%
M	+/- 20%
X	GMV
S	SPECIAL

CAPACITANCE	
1 <sup>st</sup> two digits	Significant figures in capacitance
3 <sup>rd</sup> digit	Additional number of zeros
R	Represents a decimal point
Examples: 620 = 62pF 152 = 1500pF	

LEADING	
Code	Lead Type
A	Axial Ribbon
B	Radial Ribbon
C	Center Ribbon
D	Specialty Customer Defined
E	Axial Wire
F	Radial Wire
N	NONE
NOTE: Consult factory for RoHS compliant leaded devices	

LASER MARK	
Code	Laser Marking
0	No Marking
1	Single-side marked
2	Double-side marked
3	Large single-side mark
4	Large double-side mark
5	Vertical Edge marked
9	Customer Specified

PACKAGING	
Code	Packaging
T	Tape & Reel – Horizontal
V	Tape & Reel – Vertical
W	Waffle Pack
B	Bulk
P	Plastic Box
R	Tube (Rail)
S	Customer Specified

Note: All fields are required. Any specials, please consult factory.