# AVX Broadband Surface Mount Inductors







## GLMR47KAT1A

AVX, the industry leader, in introducing the new GLM 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 GLM is ideal for ultra-broadband DC decoupling networks and bias tee applications in optical communications systems and equipment using high-speed digital logic.

### **FEATURES**

- Operating Frequency: 9.5 MHz (-3 dB roll-off) through 40+ GHz typ.
- Insertion Loss (shunt mounted: ≤0.5 dB, typ.
- Return Loss (shunt mounted: > 20 dB, typ.
- Operating Temperature Range: -55°C to +125°C
- Lead-Free, RoHs Compliant Terminations

### **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



### **ELECTRICAL SPECIFICATION**

- Inductance: 0.47  $\mu$ H ±10%
- Rated Current (R<sub>DC</sub> max.): 815 mA\*
- Resistance (I<sub>DC</sub> max.): 0.19  $\Omega$ , typ. at +20°C, 10 mA Current

\*Current for 100°C Temperature rise

### Notes:

Inductance: measured at 1 MHz, 0.1 Vrms, 0 mA dc with HP4291A impedance analyser

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

Wire: Copper, plated with gold 20  $\mu$  in.  $\pm 5 \mu$  in.

### **DIMENSIONS** mm (inches)

Terminal is configured to facilitate attachment close to inductor tip.









←1.62→ (0.065) ←2.032→ (0.080)

Size	Length (L)	Width (W)	Height (H)	Cu Wire Size (AWG)	Number of Times
М	3.226 (0.127)	2.032 (0.080)	2.670 (0.105)	38	22





# Ultra-Broadband SMT Inductor GLMR47KAT1A



### HOW TO ORDER



## GLMR70KAT1A

AVX, the industry leader, in introducing the new GLM 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 GLM is ideal for ultra-broadband DC decoupling networks and bias tee applications in optical communications systems and equipment using high-speed digital logic.

### **FEATURES**

- Operating Frequency: 6.6 MHz (-3 dB roll-off) through 40+ GHz typ.
- Insertion Loss (shunt mounted: ≤0.5 dB, typ.
- Return Loss (shunt mounted: > 20 dB, typ.
- Operating Temperature Range: -55°C to +125°C
- Lead-Free, RoHs Compliant Terminations

### **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



### **ELECTRICAL SPECIFICATION**

- Inductance: 0.70 µH ±10%
- Rated Current (R<sub>DC</sub> max.): 619 mA\*
- Resistance (I<sub>DC</sub> max.): 0.32  $\Omega$ , typ. at +20°C, 10 mA Current

\*Current for 100°C Temperature rise

### Notes:

Inductance: measured at 1 MHz, 0.1 Vrms, 0 mA dc with HP4291A impedance analyser

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

Wire: Copper, plated with gold 20  $\mu$  in.  $\pm 5 \mu$  in.

### **DIMENSIONS** mm (inches)

Terminal is configured to facilitate attachment close to inductor tip.











Size	Length (L)	Width (W)	Height (H)	Cu Wire Size (AWG)	Number of Times
М	3.226 (0.127)	2.032 (0.080)	2.670 (0.105)	40	27



# Ultra-Broadband SMT Inductor GLMR70KAT1A



### **HOW TO ORDER**



## GLM1R1KAT1A

AVX, the industry leader, in introducing the new GLM 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 GLM is ideal for ultra-broadband DC decoupling networks and bias tee applications in optical communications systems and equipment using high-speed digital logic.

### **FEATURES**

- 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

### **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



### **ELECTRICAL SPECIFICATION**

- Inductance: 1.10  $\mu$ H ±10%
- Rated Current (R<sub>DC</sub> max.): 438 mA\*
- Resistance (I<sub>DC</sub> max.): 0.64  $\Omega$ , typ. at +20°C, 10 mA Current

\*Current for 100°C Temperature rise

### Notes:

Inductance: measured at 1 MHz, 0.1 Vrms, 0 mA dc with HP4291A impedance analyser

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

Wire: Copper, plated with gold 20  $\mu$  in.  $\pm 5 \mu$  in.

### **DIMENSIONS** mm (inches)

Terminal is configured to facilitate attachment close to inductor tip.











Size	Length (L)	Width (W)	Height (H)	Cu Wire Size (AWG)	Number of Times
М	3.226 (0.127)	2.032 (0.080)	2.670 (0.105)	42	34





# Ultra-Broadband SMT Inductor GLM1R1KAT1A



### **HOW TO ORDER**



## GLM2R0KAT1A

AVX, the industry leader, in introducing the new GLM 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 GLM is ideal for ultra-broadband DC decoupling networks and bias tee applications in optical communications systems and equipment using high-speed digital logic.

### **FEATURES**

- Operating Frequency: 2.1 MHz (-3 dB roll-off) through 40+ GHz typ.
- Insertion Loss (shunt mounted: ≤0.4 dB, typ.
- Return Loss (shunt mounted: > 20 dB, typ.
- Operating Temperature Range: -55°C to +125°C
- Lead-Free, RoHs Compliant Terminations

### **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



### **ELECTRICAL SPECIFICATION**

- Inductance: 2.00  $\mu$ H ±10%
- Rated Current (R<sub>DC</sub> max.): 277 mA\*
- Resistance (I<sub>DC</sub> max.): 1.60  $\Omega$ , typ. at +20°C, 10 mA Current

\*Current for 100°C Temperature rise

### Notes:

Inductance: measured at 1 MHz, 0.1 Vrms, 0 mA dc with HP4291A impedance analyser

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

Wire: Copper, plated with gold 20  $\mu$  in.  $\pm 5 \mu$  in.

### **DIMENSIONS** mm (inches)

Terminal is configured to facilitate attachment close to inductor tip.











Size	Length (L)	Width (W)	Height (H)	Cu Wire Size (AWG)	Number of Times
М	3.226 (0.127)	2.032 (0.080)	2.670 (0.105)	44	46





# GLM2R0KAT1A

### **HOW TO ORDER**

GL

Series



## GLM3R8KAT1A

AVX, the industry leader, in introducing the new GLM 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 GLM is ideal for ultra-broadband DC decoupling networks and bias tee applications in optical communications systems and equipment using high-speed digital logic.

### **FEATURES**

- Operating Frequency: 1.1 MHz (-3 dB roll-off) through 40+ GHz typ.
- Insertion Loss (shunt mounted: ≤0.4 dB, typ.
- Return Loss (shunt mounted: > 25 dB, typ.
- Operating Temperature Range: -55°C to +125°C
- Lead-Free, RoHs Compliant Terminations

### **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



### **ELECTRICAL SPECIFICATION**

- Inductance: 3.8 µH ±10%
- Rated Current (R<sub>DC</sub> max.): 182 mA\*
- Resistance (I<sub>DC</sub> max.): 3.70  $\Omega$ , typ. at +20°C, 10 mA Current

\*Current for 100°C Temperature rise

### Notes:

Inductance: measured at 1 MHz, 0.1 Vrms, 0 mA dc with HP4291A impedance analyser

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

Wire: Copper, plated with gold 20  $\mu$  in.  $\pm 5 \mu$  in.

### **DIMENSIONS** mm (inches)

Terminal is configured to facilitate attachment close to inductor tip.











Size	Length (L)	Width (W)	Height (H)	Cu Wire Size (AWG)	Number of Times
М	3.226 (0.127)	2.032 (0.080)	2.670 (0.105)	47	60





# Ultra-Broadband SMT Inductor GLM3R8KAT1A





GL

Series



## GLN1R47KAT1A

AVX, the industry leader, in introducing the new GLN 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 GLN is ideal for ultra-broadband DC decoupling networks and bias tee applications in optical communications systems and equipment using high-speed digital logic.

### **FEATURES**

- Operating Frequency: 2.8 MHz (-3 dB roll-off) through 40+ GHz typ.
- Insertion Loss (shunt mounted: ≤0.4 dB, typ.
- Return Loss (shunt mounted: > 17 dB, typ.
- Operating Temperature Range: -55°C to +125°C
- Lead-Free, RoHs Compliant Terminations

### **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



### **ELECTRICAL SPECIFICATION**

- Inductance: 1.47  $\mu$ H ±10%
- Rated Current (R<sub>DC</sub> max.): 694 mA\*
- Resistance (I<sub>DC</sub> max.): 0.33  $\Omega$ , typ. at +20°C, 10 mA Current

\*Current for 100°C Temperature rise

### Notes:

Inductance: measured at 1 MHz, 0.1 Vrms, 0 mA dc with HP4291A impedance analyser

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

Wire: Copper, plated with gold 20  $\mu$  in.  $\pm 5 \mu$  in.

# DIMENSIONS mm (inches)

Terminal is configured to facilitate attachment close to inductor tip.

2.972 (0.117)







Size	Length (L)	Width (W)	Height (H)	Cu Wire Size (AWG)	Number of Times
Ν	6.223 (0.245)	3.378 (0.133)	2.972 (0.117)	38	40







# GLN1R47KAT1A

### **HOW TO ORDER**

GL

Series



## GLN2R0KAT1A

AVX, the industry leader, in introducing the new GLN 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 GLN is ideal for ultra-broadband DC decoupling networks and bias tee applications in optical communications systems and equipment using high-speed digital logic.

### **FEATURES**

- 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

### **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



### **ELECTRICAL SPECIFICATION**

- Inductance: 2.00  $\mu$ H ±10%
- Rated Current (R<sub>DC</sub> max.): 494 mA\*
- Resistance (I<sub>DC</sub> max.): 0.65  $\Omega$ , typ. at +20°C, 10 mA Current

\*Current for 100°C Temperature rise

### Notes:

Inductance: measured at 1 MHz, 0.1 Vrms, 0 mA dc with HP4291A impedance analyser

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

Wire: Copper, plated with gold 20  $\mu$  in.  $\pm 5 \mu$  in.

# DIMENSIONS mm (inches)

Terminal is configured to facilitate attachment close to inductor tip.

2.972 (0.117)







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

₩

-2.87-

(0.113)

- 3.39 -(0.133)

1.32 ± 0.127-

 $(0.052 \pm 0.005)$ 



# Ultra-Broadband SMT Inductor GLN2R0KAT1A



### **HOW TO ORDER**



## GLN3R3KAT1A

AVX, the industry leader, in introducing the new GLN 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 GLN is ideal for ultra-broadband DC decoupling networks and bias tee applications in optical communications systems and equipment using high-speed digital logic.

### **FEATURES**

- Operating Frequency: 1.3 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

### **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



### **ELECTRICAL SPECIFICATION**

- Inductance: 3.30  $\mu$ H ±10%
- Rated Current (R<sub>DC</sub> max.): 350 mA\*
- Resistance (I<sub>DC</sub> max.): 1.29  $\Omega$ , typ. at +20°C, 10 mA Current

\*Current for 100°C Temperature rise

### Notes:

Inductance: measured at 1 MHz, 0.1 Vrms, 0 mA dc with HP4291A impedance analyser

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

Wire: Copper, plated with gold 20  $\mu$  in.  $\pm 5 \mu$  in.

## DIMENSIONS mm (inches) Terminal is configured to facilitate

attachment close to inductor tip.

2.972 (0.117)







Size	Length (L)	Width (W)	Height (H)	Cu Wire Size (AWG)	Number of Times
Ν	6.223 (0.245)	3.378 (0.133)	2.972 (0.117)	42	60





# **Ultra-Broadband SMT Inductor GLN3R3KAT1A**



### **HOW TO ORDER**

GL



## GLN6R0KAT1A

AVX, the industry leader, in introducing the new GLN 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 GLN is ideal for ultra-broadband DC decoupling networks and bias tee applications in optical communications systems and equipment using high-speed digital logic.

### **FEATURES**

- Operating Frequency: 700 KHz (-3 dB roll-off) through 40+ GHz typ.
- Insertion Loss (shunt mounted: ≤0.4 dB, typ.
- Return Loss (shunt mounted: > 48 dB, typ.
- Operating Temperature Range: -55°C to +125°C
- Lead-Free, RoHs Compliant Terminations

### **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



### **ELECTRICAL SPECIFICATION**

- Inductance: 6.00 µH, typ.
- Rated Current (R<sub>DC</sub> max.): 236 mA\*
- Resistance (I<sub>DC</sub> max.): 2.85  $\Omega$ , typ. at +20°C, 10 mA Current

\*Current for 100°C Temperature rise

### Notes:

Inductance: measured at 1 MHz, 0.1 Vrms, 0 mA dc with HP4291A impedance analyser

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

(0.061)

Wire: Copper, plated with gold 20  $\mu$  in.  $\pm 5 \mu$  in.

# DIMENSIONS mm (inches)

Terminal is configured to facilitate attachment close to inductor tip.

2.972 (0.117)



1.32 ± 0.127 (0.052 ± 0.005) (0.113) (0.113) (0.133)



 $\begin{array}{c} 0.813\\ (0.032)\\ \downarrow\\ 0.635\\ (0.025)\\ 0.635\\ (0.025)\\ \downarrow\\ 1.549\\ 0.055\\ \end{array}$ 

Size	Length (L)	Width (W)	Height (H)	Cu Wire Size (AWG)	Number of Times
Ν	6.223 (0.245)	3.378 (0.133)	2.972 (0.117)	44	78



# Ultra-Broadband SMT Inductor GLN6R0KAT1A



### **HOW TO ORDER**

GL

Series



## GLN10R7KAT1A

AVX, the industry leader, in introducing the new GLN 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 GLN is ideal for ultra-broadband DC decoupling networks and bias tee applications in optical communications systems and equipment using high-speed digital logic.

### FEATURES

- Operating Frequency: 400 KHz (-3 dB roll-off) through 40+ GHz typ.
- Insertion Loss (shunt mounted: ≤0.4 dB, typ.
- Return Loss (shunt mounted: > 17 dB, typ.
- Operating Temperature Range: -55°C to +125°C
- Lead-Free, RoHs Compliant Terminations

### **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



### **ELECTRICAL SPECIFICATION**

- Inductance: 10.7 µH ±10%
- Rated Current (R<sub>DC</sub> max.): 150 mA\*
- Resistance ( $I_{DC}$  max.): 7.10  $\Omega$ , typ. at +20°C, 10 mA Current

\*Current for 100°C Temperature rise

### Notes:

Inductance: measured at 1 MHz, 0.1 Vrms, 0 mA dc with HP4291A impedance analyser

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

Wire: Copper, plated with gold 20  $\mu$  in.  $\pm 5 \mu$  in.

## **DIMENSIONS** mm (inches) Terminal is configured to facilitate

attachment close to inductor tip.

2.972 (0.117)







		0.813 (0.032)
0.635	0.635→ (0.025)	↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓ ↓

**RECOMMENDED FOOTPRINT** 



Cu Wire Size Number Size Length (L) Width (W) Height (H) (AWG) of Times 6.223 3.378 2.972 47 110 Ν (0.245)(0.133)(0.117)







# GLN10R7KAT1A

### **HOW TO ORDER**

GL

Series



### **AMERICAS**

AVX Greenville, SC Tel: 864-967-2150

AVX Northwest, WA Tel: 360-699-8746

AVX Midwest, IN Tel: 317-861-9184

AVX Mid/Pacific, CA Tel: 408-988-4900

AVX Northeast, MA Tel: 617-479-0345

AVX Southwest, CA Tel: 949-859-9509

AVX Canada Tel: 905-238-3151

AVX South America Tel: +55-11-4688-1960

### EUROPE

AVX Limited, England Tel: +44-1276-697000

AVX S.A.S., France Tel: +33-1-69-18-46-00

AVX GmbH, Germany Tel: +49-0811-95949-0

AVX SRL, Italy Tel: +39-02-614-571

AVX Czech Republic Tel: +420-57-57-57-521

AVX/ELCO UK Tel: +44-1638-675000

ELCO Europe GmbH Tel: +49-2741-299-0

AVX S.A., Spain Tel: +34-91-63-97-197

AVX Benelux Tel: +31-187-489-337

### **ASIA-PACIFIC**

AVX/Kyocera (S) Pte Ltd., Singapore Tel: +65-6286-7555

AVX/Kyocera, Asia, Ltd., Hong Kong Tel: +852-2363-3303

AVX/Kyocera Yuhan Hoesa, South Korea Tel: +82-2785-6504

AVX/Kyocera HK Ltd., Taiwan Tel: +886-2-2656-0258

AVX/Kyocera (M) Sdn Bhd, Malaysia Tel: +60-4228-1190

AVX/Kyocera International Trading Co. Ltd., Shanghai Tel: +86-21-3255 1933

AVX/Kyocera Asia Ltd., Shenzen Tel: +86-755-3336-0615

AVX/Kyocera International Trading Co. Ltd., Beijing Tel: +86-10-6588-3528

> AVX/Kyocera India Liaison Office Tel: +91-80-6450-0715

ASIA-KED (KYOCERA Electronic Devices)

KED Hong Kong Ltd. Tel: +852-2305-1080/1223

KED Hong Kong Ltd. Shenzen

Tel: +86-755-3398-9600

KED Company Ltd. Shanghai Tel: +86-21-3255-1833

KED Hong Kong Ltd. Beijing Tel: +86-10-5869-4655

KED Taiwan Ltd. Tel: +886-2-2950-0268

KED Korea Yuhan Hoesa, South Korea Tel: +82-2-783-3604/6126

> KED (S) Pte Ltd. Singapore Tel: +65-6509-0328

Kyocera Corporation Japan Tel: +81-75-604-3449

### **Contact:**



## **Mouser Electronics**

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

Kyocera AVX:

GLN3R3KAT1A GLN1R47KAT1A GLM3R8KAT1A GLN6ROKAT1A GLM2R0KAT1A GLMR70KAT1A GLM1R1KAT1A GLMR47KAT1A GLN2R0KAT1A