

RF Connectors

KLSelectronic
www.cnkls.com

SMB Connector Series

KLS1-SMB001 SMB Connector Series

Electrical Specifications

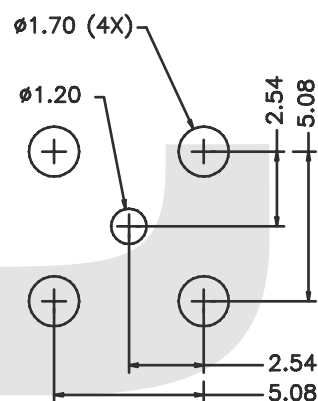
Impedance: 50 Ω
Frequency Range: 0-4 GHz with low reflection; usable to 10.0 GHz
Voltage Rating for RG-188/U Cable:
335 volts at sea level and 85 volts at 70,000 feet
Dielectric Withstanding Voltage: RG-196: 750 VRMS;
RG-188: 1,000 VRMS
VSWR: Straight connector, RG-196/U: 1.30 ± 0.04 f (GHz)
Right angle connector, RG-196/U: 1.45 ± 0.06 f (GHz)
Straight connector, RG-188/U: 1.25 ± 0.04 f (GHz)
Right angle connector, RG-188/U: 1.35 ± 0.04 f (GHz)
Contact Resistance:
Center contact: 6.0 m Ω initial, 8.0 after environmental;
Outer contact: 1.0 m Ω initial, 1.5 after environmental
Braid to body: 1.0 m Ω initial, after environmental N/A
Insulation Resistance: 1,000 M Ω Min.
Insertion Loss: Straight connector: 0.30 dB @ 1.5 GHz
Right angle connector: 0.60 dB @ 1.5 GHz
RF Leakage: -55 dB Min. @ 2-3 GHz

Mechanical

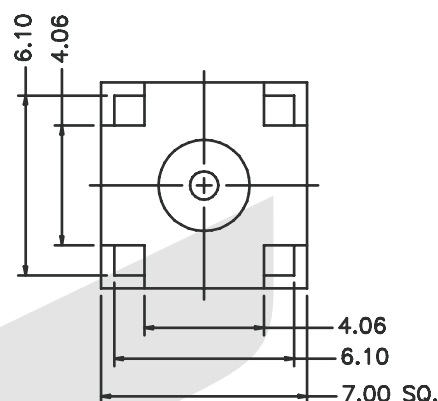
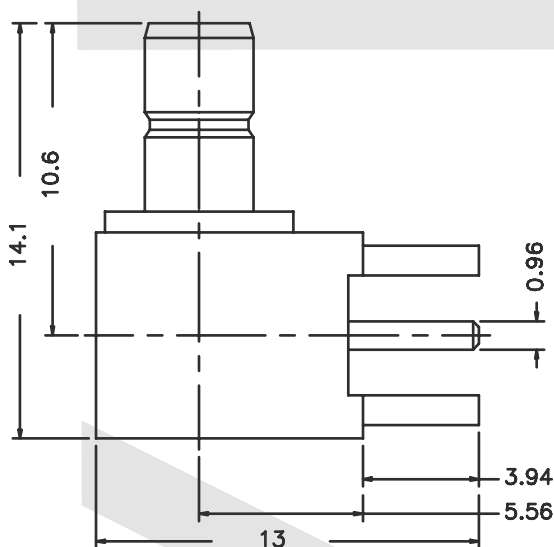
Mating: Snap-on coupling per MIL-STD-348
Braid/Jacket Cable Affixment: Hex crimp
Center Conductor Cable Affixment: Solder
Engagement Forces: Engagement: 14 lbs maximum
Disengagement: 2 lbs minimum
Durability: 500 cycles Min.
Temperature Range: -65°C to +165°C

Material

Center Contact:
Female: beryllium copper, gold-plated
Male: brass or beryllium copper, gold-plated
Outer Contact Plating: Nickel or gold plating
Body: Brass or zinc
Body Plating: Nickel or gold plating
Insulator: TFE
Crimp Ferrule: Annealed copper alloy



PCB MOUNTING HOLES



ORDER INFORMATION

Product NO.: KLS1-SMB001

Pos. NO. _____

SMB Connector Type _____

All specification & dimensions are subject to change, please call your nearest KLS sales representative for update information

SMB Connector Series

KLS1-SMB002 SMB Connector Series

Electrical Specifications

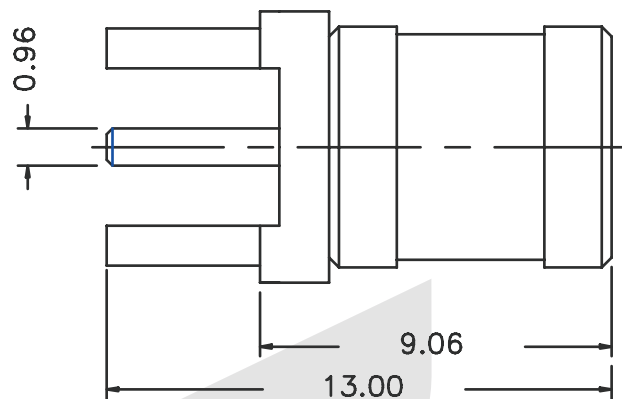
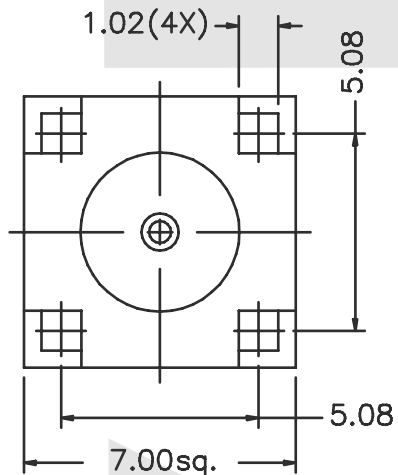
Impedance: 50 Ω
Frequency Range: 0-4 GHz with low reflection; usable to 10.0 GHz
Voltage Rating for RG-188/U Cable:
335 volts at sea level and 85 volts at 70,000 feet
Dielectric Withstanding Voltage: RG-196: 750 VRMS;
RG-188: 1,000 VRMS
VSWR: Straight connector, RG-196/U: 1.30 ± 0.04 f (GHz)
Right angle connector, RG-196/U: 1.45 ± 0.06 f (GHz)
Straight connector, RG-188/U: 1.25 ± 0.04 f (GHz)
Right angle connector, RG-188/U: 1.35 ± 0.04 f (GHz)
Contact Resistance:
Center contact: 6.0 m Ω initial, 8.0 after environmental;
Outer contact: 1.0 m Ω initial, 1.5 after environmental
Braid to body: 1.0 m Ω initial, after environmental N/A
Insulation Resistance: 1,000 M Ω Min.
Insertion Loss: Straight connector: 0.30 dB @ 1.5 GHz
Right angle connector: 0.60 dB @ 1.5 GHz
RF Leakage: -55 dB Min. @ 2-3 GHz

Mechanical

Mating: Snap-on coupling per MIL-STD-348
Braid/Jacket Cable Affixment: Hex crimp
Center Conductor Cable Affixment: Solder
Engagement Forces: Engagement: 14 lbs maximum
Disengagement: 2 lbs minimum
Durability: 500 cycles Min.
Temperature Range: -65°C to +165°C

Material

Center Contact:
Female: beryllium copper, gold-plated
Male: brass or beryllium copper, gold-plated
Outer Contact Plating: Nickel or gold plating
Body: Brass or zinc
Body Plating: Nickel or gold plating
Insulator: TFE
Crimp Ferrule: Annealed copper alloy



ORDER INFORMATION

Product NO.: KLS1-SMB002

Pos. NO. _____

SMB Connector Type _____

SMB Connector Series

KLS1-SMB003 SMB Connector Series

Electrical Specifications

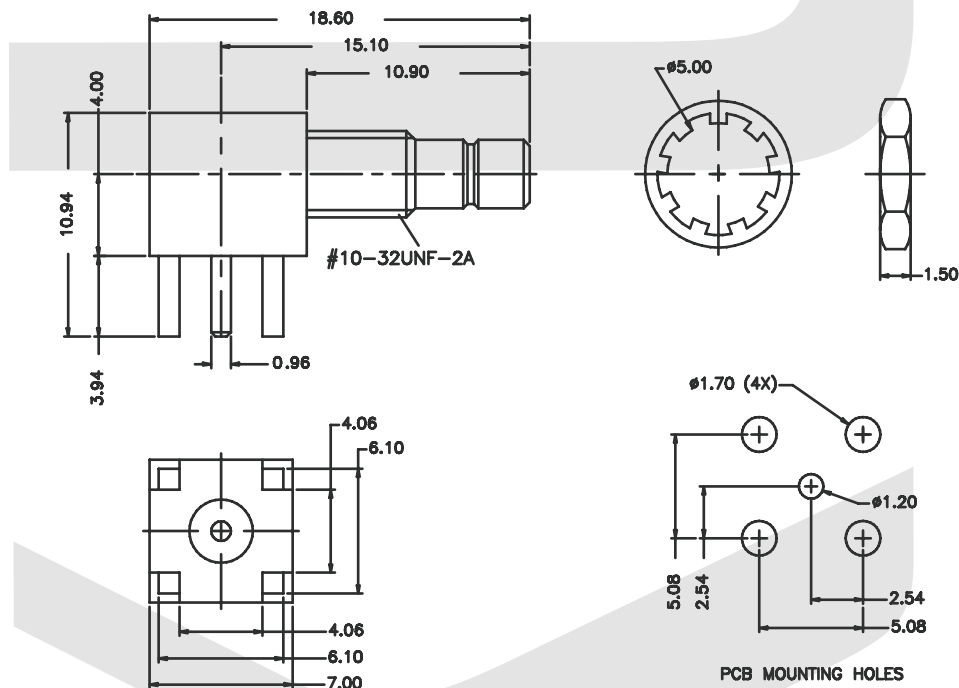
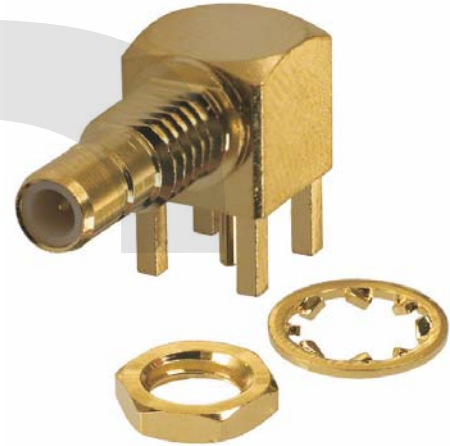
Impedance: 50 Ω
Frequency Range: 0-4 GHz with low reflection; usable to 10.0 GHz
Voltage Rating for RG-188/U Cable:
335 volts at sea level and 85 volts at 70,000 feet
Dielectric Withstanding Voltage: RG-196: 750 VRMS;
RG-188: 1,000 VRMS
VSWR: Straight connector, RG-196/U: 1.30 ± 0.04 f (GHz)
Right angle connector, RG-196/U: 1.45 ± 0.06 f (GHz)
Straight connector, RG-188/U: 1.25 ± 0.04 f (GHz)
Right angle connector, RG-188/U: 1.35 ± 0.04 f (GHz)
Contact Resistance:
Center contact: 6.0 m Ω initial, 8.0 after environmental;
Outer contact: 1.0 m Ω initial, 1.5 after environmental
Braid to body: 1.0 m Ω initial, after environmental N/A
Insulation Resistance: 1,000 M Ω Min.
Insertion Loss: Straight connector: 0.30 dB @ 1.5 GHz
Right angle connector: 0.60 dB @ 1.5 GHz
RF Leakage: -55 dB Min. @ 2-3 GHz

Mechanical

Mating: Snap-on coupling per MIL-STD-348
Braid/Jacket Cable Affixment: Hex crimp
Center Conductor Cable Affixment: Solder
Engagement Forces: Engagement: 14 lbs maximum
Disengagement: 2 lbs minimum
Durability: 500 cycles Min.
Temperature Range: -65°C to +165°C

Material

Center Contact:
Female: beryllium copper, gold-plated
Male: brass or beryllium copper, gold-plated
Outer Contact Plating: Nickel or gold plating
Body: Brass or zinc
Body Plating: Nickel or gold plating
Insulator: TFE
Crimp Ferrule: Annealed copper alloy



ORDER INFORMATION

Product NO.: KLS1-SMB003

Pos. NO. _____

SMB Connector Type _____

SMB Connector Series

KLS1-SMB004 SMB Connector Series

Electrical Specifications

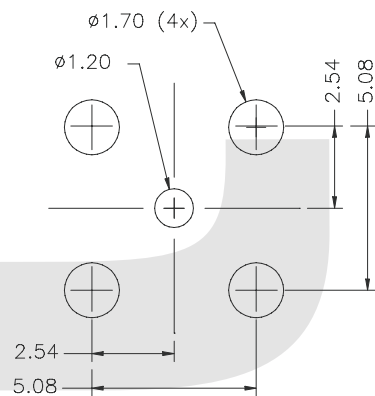
Impedance: 50 Ω
Frequency Range: 0-4 GHz with low reflection; usable to 10.0 GHz
Voltage Rating for RG-188/U Cable:
335 volts at sea level and 85 volts at 70,000 feet
Dielectric Withstanding Voltage: RG-196: 750 VRMS;
RG-188: 1,000 VRMS
VSWR: Straight connector, RG-196/U: 1.30 ± 0.04 f (GHz)
Right angle connector, RG-196/U: 1.45 ± 0.06 f (GHz)
Straight connector, RG-188/U: 1.25 ± 0.04 f (GHz)
Right angle connector, RG-188/U: 1.35 ± 0.04 f (GHz)
Contact Resistance:
Center contact: 6.0 m Ω initial, 8.0 after environmental;
Outer contact: 1.0 m Ω initial, 1.5 after environmental
Braid to body: 1.0 m Ω initial, after environmental N/A
Insulation Resistance: 1,000 M Ω Min.
Insertion Loss: Straight connector: 0.30 dB @ 1.5 GHz
Right angle connector: 0.60 dB @ 1.5 GHz
RF Leakage: -55 dB Min. @ 2-3 GHz

Mechanical

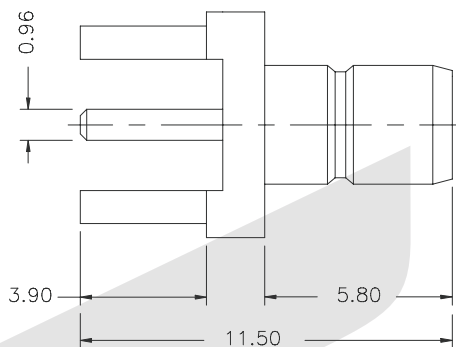
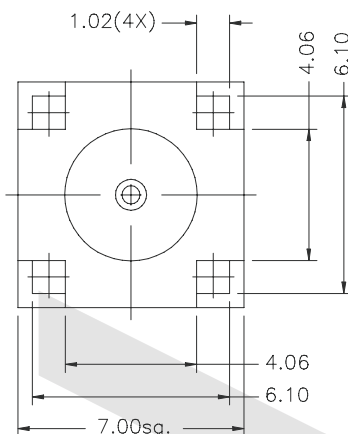
Mating: Snap-on coupling per MIL-STD-348
Braid/Jacket Cable Affixment: Hex crimp
Center Conductor Cable Affixment: Solder
Engagement Forces: Engagement: 14 lbs maximum
Disengagement: 2 lbs minimum
Durability: 500 cycles Min.
Temperature Range: -65°C to +165°C

Material

Center Contact:
Female: beryllium copper, gold-plated
Male: brass or beryllium copper, gold-plated
Outer Contact Plating: Nickel or gold plating
Body: Brass or zinc
Body Plating: Nickel or gold plating
Insulator: TFE
Crimp Ferrule: Annealed copper alloy



PCB MOUNTING HOLE



ORDER INFORMATION

Product NO.: KLS1-SMB004

Pos. NO. _____

SMB Connector Type _____

SMB Connector Series

KLS1-SMB005 SMB Connector Series

Electrical Specifications

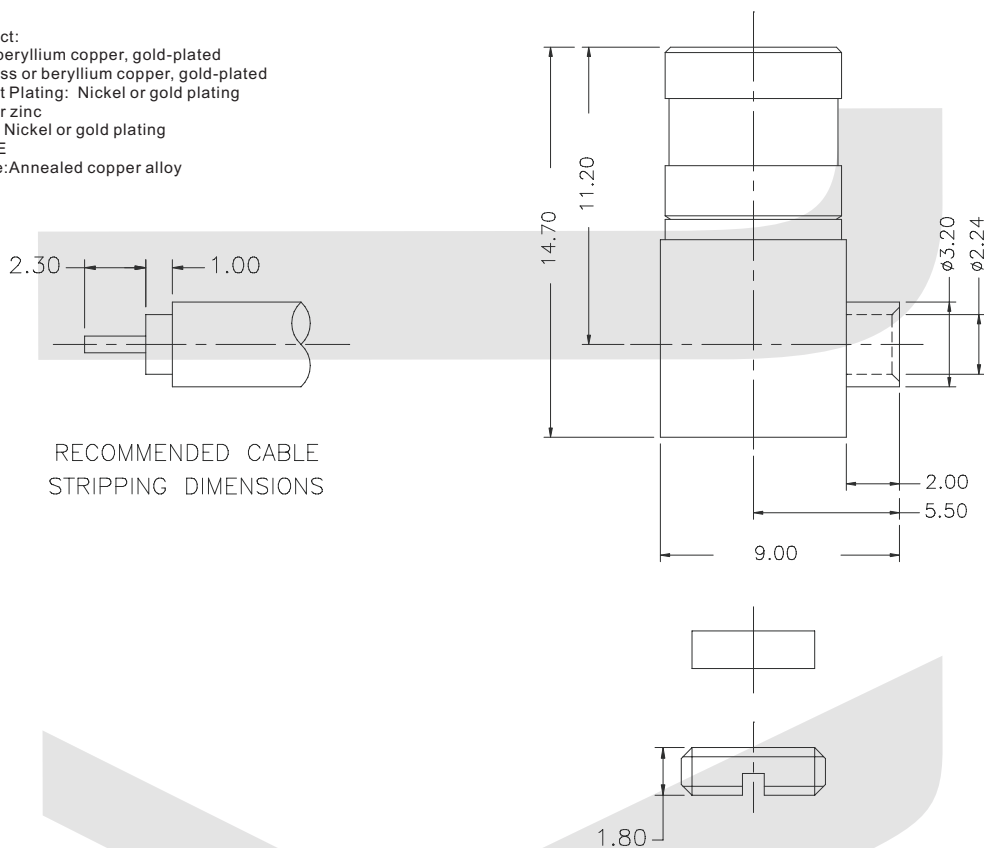
Impedance: 50 Ω
Frequency Range: 0-4 GHz with low reflection; usable to 10.0 GHz
Voltage Rating for RG-188/U Cable:
335 volts at sea level and 85 volts at 70,000 feet
Dielectric Withstanding Voltage: RG-196: 750 VRMS;
RG-188: 1,000 VRMS
VSWR: Straight connector, RG-196/U: 1.30 ± 0.04 f (GHz)
Right angle connector, RG-196/U: 1.45 ± 0.06 f (GHz)
Straight connector, RG-188/U: 1.25 ± 0.04 f (GHz)
Right angle connector, RG-188/U: 1.35 ± 0.04 f (GHz)
Contact Resistance:
Center contact: 6.0 m Ω initial, 8.0 after environmental;
Outer contact: 1.0 m Ω initial, 1.5 after environmental
Braid to body: 1.0 m Ω initial, after environmental N/A
Insulation Resistance: 1,000 M Ω Min.
Insertion Loss: Straight connector: 0.30 dB @ 1.5 GHz
Right angle connector: 0.60 dB @ 1.5 GHz
RF Leakage: -55 dB Min. @ 2-3 GHz

Mechanical

Mating: Snap-on coupling per MIL-STD-348
Braid/Jacket Cable Affixment: Hex crimp
Center Conductor Cable Affixment: Solder
Engagement Forces: Engagement: 14 lbs maximum
Disengagement: 2 lbs minimum
Durability: 500 cycles Min.
Temperature Range: -65°C to +165°C

Material

Center Contact:
Female: beryllium copper, gold-plated
Male: brass or beryllium copper, gold-plated
Outer Contact Plating: Nickel or gold plating
Body: Brass or zinc
Body Plating: Nickel or gold plating
Insulator: TFE
Crimp Ferrule: Annealed copper alloy



ORDER INFORMATION

Product NO.: KLS1-SMB005

Pos. NO. _____

SMB Connector Type _____

SMB Connector Series

KLS1-SMB006 SMB Connector Series

Electrical Specifications

Impedance: 50 Ω
Frequency Range: 0-4 GHz with low reflection; usable to 10.0 GHz
Voltage Rating for RG-188/U Cable:
335 volts at sea level and 85 volts at 70,000 feet
Dielectric Withstanding Voltage: RG-196: 750 VRMS;
RG-188: 1,000 VRMS
VSWR: Straight connector, RG-196/U: 1.30 ± 0.04 f (GHz)
Right angle connector, RG-196/U: 1.45 ± 0.06 f (GHz)
Straight connector, RG-188/U: 1.25 ± 0.04 f (GHz)
Right angle connector, RG-188/U: 1.35 ± 0.04 f (GHz)
Contact Resistance:
Center contact: 6.0 m Ω initial, 8.0 after environmental;
Outer contact: 1.0 m Ω initial, 1.5 after environmental
Braid to body: 1.0 m Ω initial, after environmental N/A
Insulation Resistance: 1,000 M Ω Min.
Insertion Loss: Straight connector: 0.30 dB @ 1.5 GHz
Right angle connector: 0.60 dB @ 1.5 GHz
RF Leakage: -55 dB Min. @ 2-3 GHz

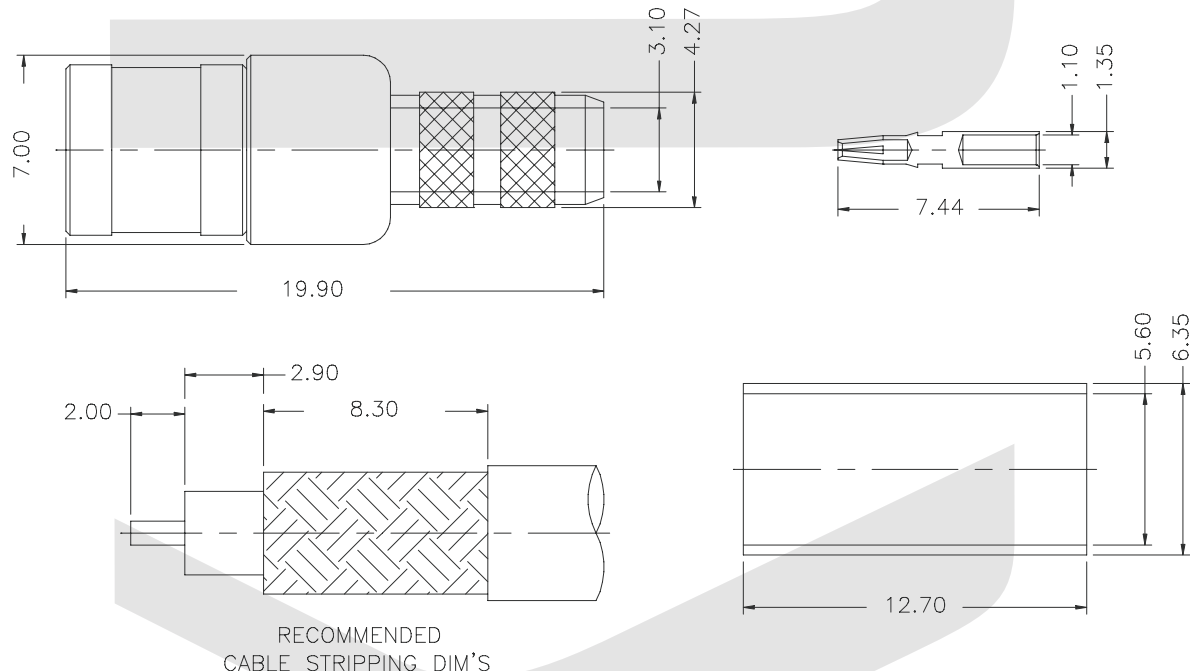
Mechanical

Mating: Snap-on coupling per MIL-STD-348
Braid/Jacket Cable Affixment: Hex crimp
Center Conductor Cable Affixment: Solder
Engagement Forces: Engagement: 14 lbs maximum
Disengagement: 2 lbs minimum
Durability: 500 cycles Min.
Temperature Range: -65°C to +165°C

Material

Center Contact:
Female: beryllium copper, gold-plated
Male: brass or beryllium copper, gold-plated
Outer Contact Plating: Nickel or gold plating
Body: Brass or zinc
Body Plating: Nickel or gold plating
Insulator: TFE
Crimp Ferrule: Annealed copper alloy

Cable Group: RG-55, RG-142, RG-223, RG-400



ORDER INFORMATION

Product NO.: KLS1-SMB006

Pos. NO. _____

SMB Connector Type _____

SMB Connector Series

KLS1-SMB007 SMB Connector Series

Electrical Specifications

Impedance: 50 Ω
Frequency Range: 0-4 GHz with low reflection; usable to 10.0 GHz
Voltage Rating for RG-188/U Cable:
335 volts at sea level and 85 volts at 70,000 feet
Dielectric Withstanding Voltage: RG-196: 750 VRMS;
RG-188: 1,000 VRMS
VSWR: Straight connector, RG-196/U: 1.30 ± 0.04 f (GHz)
Right angle connector, RG-196/U: 1.45 ± 0.06 f (GHz)
Straight connector, RG-188/U: 1.25 ± 0.04 f (GHz)
Right angle connector, RG-188/U: 1.35 ± 0.04 f (GHz)
Contact Resistance:
Center contact: 6.0 m Ω initial, 8.0 after environmental;
Outer contact: 1.0 m Ω initial, 1.5 after environmental
Braid to body: 1.0 m Ω initial, after environmental N/A
Insulation Resistance: 1,000 M Ω Min.
Insertion Loss: Straight connector: 0.30 dB @ 1.5 GHz
Right angle connector: 0.60 dB @ 1.5 GHz
RF Leakage: -55 dB Min. @ 2-3 GHz

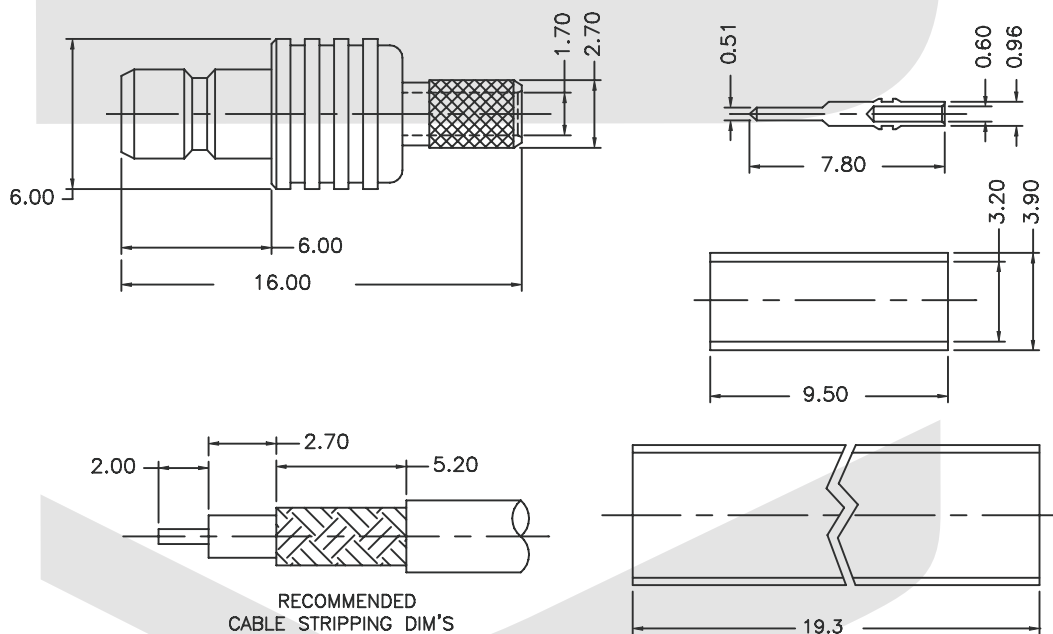
Mechanical

Mating: Snap-on coupling per MIL-STD-348
Braid/Jacket Cable Affixment: Hex crimp
Center Conductor Cable Affixment: Solder
Engagement Forces: Engagement: 14 lbs maximum
Disengagement: 2 lbs minimum
Durability: 500 cycles Min.
Temperature Range: -65°C to +165°C

Material

Center Contact:
Female: beryllium copper, gold-plated
Male: brass or beryllium copper, gold-plated
Outer Contact Plating: Nickel or gold plating
Body: Brass or zinc
Body Plating: Nickel or gold plating
Insulator: TFE
Crimp Ferrule: Annealed copper alloy

Cable Group: RG-174, RG-188A, RG-316



ORDER INFORMATION

Product NO.: KLS1-SMB007

Pos. NO. _____

SMB Connector Type _____

KLS1-SMB008 SMB Connector Series

Impedance: 50 Ω

Frequency Range: 0-4 GHz with low reflection; usable to 10.0 GHz

Voltage Rating for RG-188/U Cable:

335 volts at sea level and 85 volts at 70,000 feet

Dielectric Withstanding Voltage: RG-196: 750 VRMS;
 RG-188: 1,000 VRMS

VSWR: Straight connector, RG-196/U: 1.30±0.04 f (GHz)
 Right angle connector, RG-196/U: 1.45±0.06 f (GHz)

 Straight connector, RG-188/U: 1.25±0.04 f (GHz)
 Right angle connector, RG-188/U: 1.35±0.04 f (GHz)

Contact Resistance:

Center contact: 6.0 mΩ initial, 8.0 after environmental;
Outer contact: 1.0 mΩ initial, 1.5 after environmental
Braid to body: 1.0 mΩ initial, after environmental N/A

Insulation Resistance: 1,000 MΩ Min.

Insertion Loss: Straight connector: 0.30 dB @ 1.5 GHz
 Right angle connector: 0.60 dB @ 1.5 GHz

RF Leakage: -55 dB Min. @ 2-3 GHz

Mating: Snap-on coupling per MIL-STD-348
Braid/Jacket Cable Affixment: Hex crimp
Center Conductor Cable Affixment: Solder
Engagement Forces: Engagement: 14 lbs maximum
Disengagement: 2 lbs minimum
Durability: 500 cycles Min.
Temperature Range:- 65°C to +165°C

Center Contact:
 Female: beryllium copper, gold-plated
 Male: brass or beryllium copper, gold-plated
 Outer Contact Plating: Nickel or gold plating
 Body: Brass or zinc
 Body Plating: Nickel or gold plating
 Insulator: TFE
 Crimp Ferrule: Annealed copper alloy

6.35 HEX

1.50

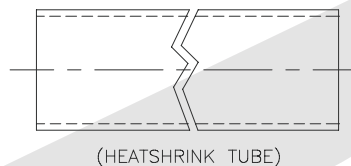
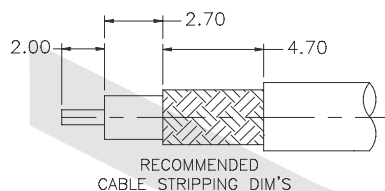
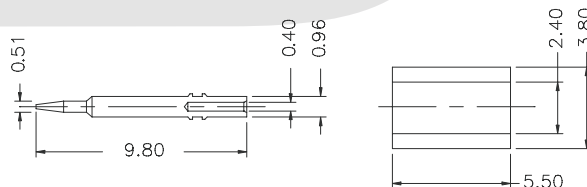
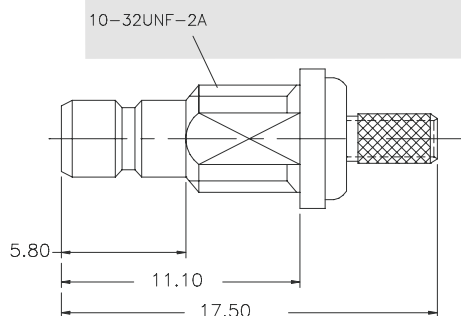
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Ø5.00

5.10

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RECOMMENDED MOUNTING HOLE



Product NO.: KLS1-SMB008

SMB Connector Type

SMB Connector Series

KLS1-SMB009 SMB Connector Series

Electrical Specifications

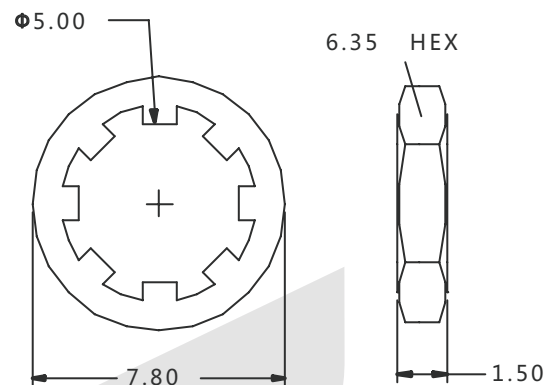
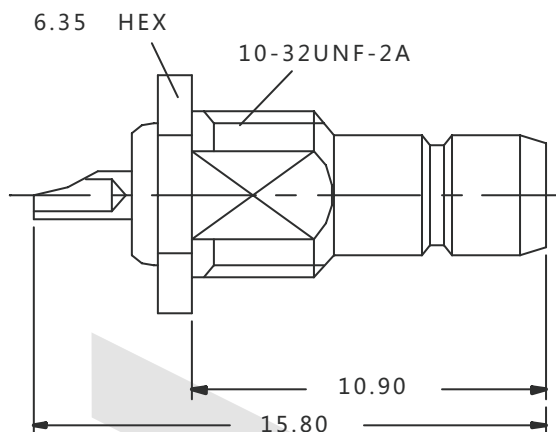
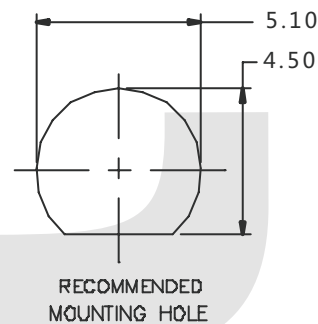
Impedance: 50 Ω
Frequency Range: 0-4 GHz with low reflection; usable to 10.0 GHz
Voltage Rating for RG-188/U Cable:
335 volts at sea level and 85 volts at 70,000 feet
Dielectric Withstanding Voltage: RG-196: 750 VRMS;
RG-188: 1,000 VRMS
VSWR: Straight connector, RG-196/U: 1.30 ± 0.04 f (GHz)
Right angle connector, RG-196/U: 1.45 ± 0.06 f (GHz)
Straight connector, RG-188/U: 1.25 ± 0.04 f (GHz)
Right angle connector, RG-188/U: 1.35 ± 0.04 f (GHz)
Contact Resistance:
Center contact: 6.0 m Ω initial, 8.0 after environmental;
Outer contact: 1.0 m Ω initial, 1.5 after environmental
Braid to body: 1.0 m Ω initial, after environmental N/A
Insulation Resistance: 1,000 M Ω Min.
Insertion Loss: Straight connector: 0.30 dB @ 1.5 GHz
Right angle connector: 0.60 dB @ 1.5 GHz
RF Leakage: -55 dB Min. @ 2-3 GHz

Mechanical

Mating: Snap-on coupling per MIL-STD-348
Braid/Jacket Cable Affixment: Hex crimp
Center Conductor Cable Affixment: Solder
Engagement Forces: Engagement: 14 lbs maximum
Disengagement: 2 lbs minimum
Durability: 500 cycles Min.
Temperature Range: -65°C to +165°C

Material

Center Contact:
Female: beryllium copper, gold-plated
Male: brass or beryllium copper, gold-plated
Outer Contact Plating: Nickel or gold plating
Body: Brass or zinc
Body Plating: Nickel or gold plating
Insulator: TFE
Crimp Ferrule: Annealed copper alloy



ORDER INFORMATION

Product NO.: KLS1-SMB009

Pos. NO. _____

SMB Connector Type _____