

1.0/2.3 Jack Bulkhead Connector Crimp/Solder Attachment For RG174, RG316, RG188, .217 inch DD Hole

1.0/2.3 jack bulkhead connector with crimp/solder attachment for .100 inch, RG316, RG174, RG188, LMR-100, LMR-100A and LMR-100A-FR (.217 inch DD hole), part number FMCN1820, from Fairview Microwave is in-stock and ships same day. Fairview's FMCN1820 bulkhead 1.0/2.3 connector enables designers to make external connections on product enclosures, and can be used in a variety of other rack mount and panel mount applications.

Fairview's 1.0/2.3 jack bulkhead connector FMCN1820 datasheet specifications and outline drawing are shown in this PDF below. Our extensive offering of RF, microwave and millimeter wave connectors allows designers to configure and customize their signal connections however they like. From providing an I/O for a board design to creating a custom cable assembly configuration, Fairview Microwave has a connector solution to meet your needs. Fairview Microwave also has the expertise to build your custom cable assemblies for you and ship them same-day.

Mechanical Specifications

Size	
Length	0.97 in [24.64 mm]
Width/Dia.	0.221 in [5.61 mm]
Height	0.156 in [3.96 mm]
Weight	0.008 lbs [3.63 g]

Material Specifications

Description	Material	Plating
Contact		Gold
Insulation	PTFE	
Body	Brass	Gold

Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:



Configuration:

- 1.0/2.3 Jack Connector
- 50 Ohms
- Straight Body Geometry
- .100 inch, RG316, RG174, RG188, LMR-100, LMR-100A, LMR-100A-FR Interface Type
- Crimp/Solder Attachment
- Bulkhead

Features:

- Gold Plated Contact

Applications:

- General Purpose Test
- Rack and Panel Mount Applications
- Custom Cable Assemblies

Fairview Microwave
301 Leora Ln., Suite 100
Lewisville, TX 75056
Tel: 1-800-715-4396 / (972) 649-6678
Fax: (972) 649-6689
www.fairviewmicrowave.com
sales@fairviewmicrowave.com

1.0/2.3 Jack Bulkhead Connector Crimp/Solder Attachment For RG174, RG316, RG188, .217 inch DD Hole from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

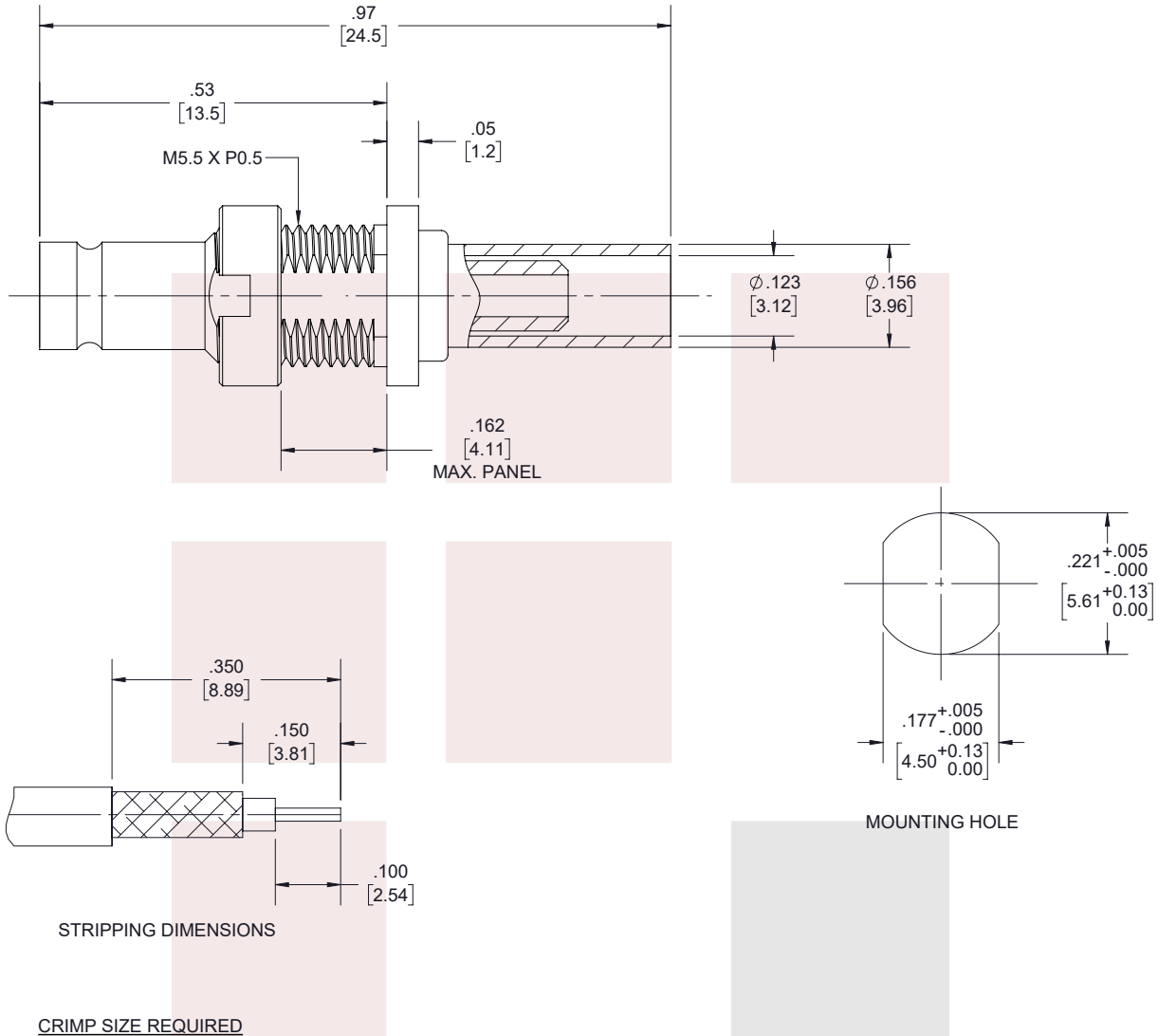
For additional information on this product, please click the following link: [1.0/2.3 Jack Bulkhead Connector Crimp/Solder Attachment For RG174, RG316, RG188, .217 inch DD Hole FMCN1820](#)

URL: <https://www.fairviewmicrowave.com/1.0-2.3-jack-.100-rg316-rg174-rg188-lmr-100-lmr-100a-lmr-100a-fr-connector-fmcn1820-p.aspx>

The information contained in this document is accurate to the best of our knowledge and representative of the part described herein. It may be necessary to make modifications to the part and/or the documentation of the part, in order to implement improvements. Fairview Microwave reserves the right to make such changes as required. Unless otherwise stated, all specifications are nominal. Fairview Microwave does not make any representation or warranty regarding the suitability of the part described herein for any particular purpose, and Fairview Microwave does not assume any liability arising out of the use of any part or documentation.



REVISIONS			
REV.	DESCRIPTION	DATE	APPROVED
A	INITIAL RELEASE	02/11/2022	A.GANWANI



CONTACT: SOLDER.
RERRULE: .218" [5.54] HEX CRIMP TOOL.

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TITLE

1.0/2.3 Jack Bulkhead Connector Crimp/Solder
Attachment For RG174, RG316, RG188, .217 inch DD
Hole

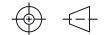
UNLESS OTHERWISE SPECIFIED LEADING DIMENSIONS ARE INCHES
DIMENSIONS IN [] ARE MILLIMETERS

TOLERANCES: CABLE LENGTH (L) TOLERANCES:

.X = ±.2 [5.08]	FRACTIONS	L ≤ 12 [305] = +1 [25] / -0
.XX = ±.02 [51]	± 1/32	12 [305] < L ≤ 60 [1524] = +2 [51] / -0
.XXX = ±.005 [13]	ANGLES ± 1°	60 [1524] < L ≤ 120 [3048] = +4 [102] / -0
		120 [3048] < L ≤ 300 [7620] = +6 [152] / -0
		300 [7620] < L = +5%L / -0

ALL DIMENSIONS SHOWN ARE FOR REFERENCE ONLY.

THIRD-ANGLE PROJECTION



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DESIGN IN THIS DOCUMENT
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SHEET 1 OF 1

SCALE

N/A

SIZE A	CAGE CODE 3FKR5	DRAWN BY K.GLEBOVA	ITEM NO. FMCN1820	REV A
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T-Rev.D

Right Angle 10-32 Male (Plug) Connector For .100 inch, RG316, RG174, RG188, LMR-100, LMR-100A, LMR-100-FR Cable, Crimp/Solder

RA 10-32 male connector with crimp/solder attachment for .100 inch, RG316, RG174, RG188, LMR-100, LMR-100A and LMR-100-FR, part number SC5561, from Fairview Microwave is in-stock and ships same day. This 10-32 male connector operates up to a maximum frequency of 2 GHz and offers good VSWR of 1.3:1. Its right angle body geometry facilitates connections in tight spaces.

Fairview's RA 10-32 male connector SC5561 datasheet specifications and outline drawing are shown in this PDF below. Our extensive offering of RF, microwave and millimeter wave connectors allows designers to configure and customize their signal connections however they like. From providing an I/O for a board design to creating a custom cable assembly configuration, Fairview Microwave has a connector solution to meet your needs. Fairview Microwave also has the expertise to build your custom cable assemblies for you and ship them same-day.

Electrical Specifications

Description	Min	Typ	Max	Units
Frequency Range	DC		2	GHz
VSWR			1.3:1	

Mechanical Specifications

Size	
Length	0.53 in [13.46 mm]
Width/Dia.	0.25 in [6.35 mm]
Height	0.64 in [16.26 mm]
Weight	0.012 lbs [5.44 g]

Material Specifications

Description	Material	Plating
Contact	Brass	Gold MIL-G-45204
Insulation	PTFE	
Body	Brass	Nickel QQ-N-290

Environmental Specifications

Temperature	
Operating Range	-55 to +155 deg C

Compliance Certifications (see [product page](#) for current document)

Plotted and Other Data

Notes:



Configuration:

- 10-32 Male Connector
- MIL-C-39012
- 50 Ohms
- Right Angle Body Geometry
- .100 inch, RG316, RG174, RG188, LMR-100, LMR-100A, LMR-100-FR Interface Type
- Crimp/Solder Attachment

Features:

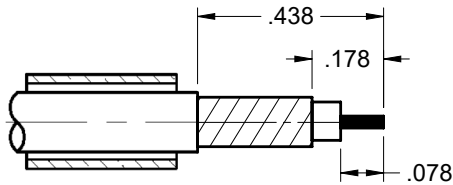
- Operating Frequency of 2 GHz Max.
- Good VSWR of 1.3:1
- Gold Plated Brass Contact
- Contact plating according to MIL-G-45204

Applications:

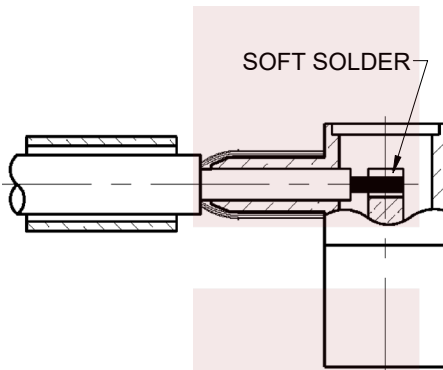
- General Purpose Test
- Custom Cable Assemblies

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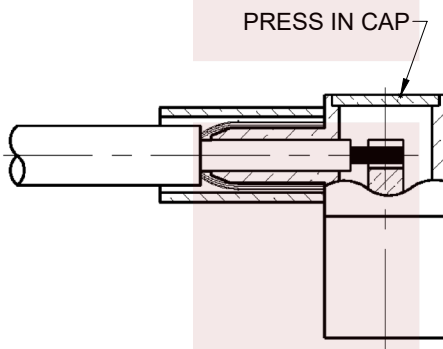
Assembly Instruction



- 1.) STRIP CABLE TO DIMENSIONS SHOWN. DO NOT NICK THE BRAID OR CENTER CONDUCTOR. SLIDE CRIMP TUBE AND ANY SHRINK-FIT TUBING ONTO CABLE AT THIS TIME.



- 2.) INSTALL CABLE INTO BODY ASSEMBLY SO THE TUBE PORTION OF THE BODY SLIDES UNDER THE CABLE BRAID. PUSH CABLE FORWARD UNTIL CENTER CONDUCTOR IS IN SLOT OF CONTACT AND CABLE BRAID MEETS CONNECTOR BODY. SOFT SOLDER CENTER CONDUCTOR IN PLACE.



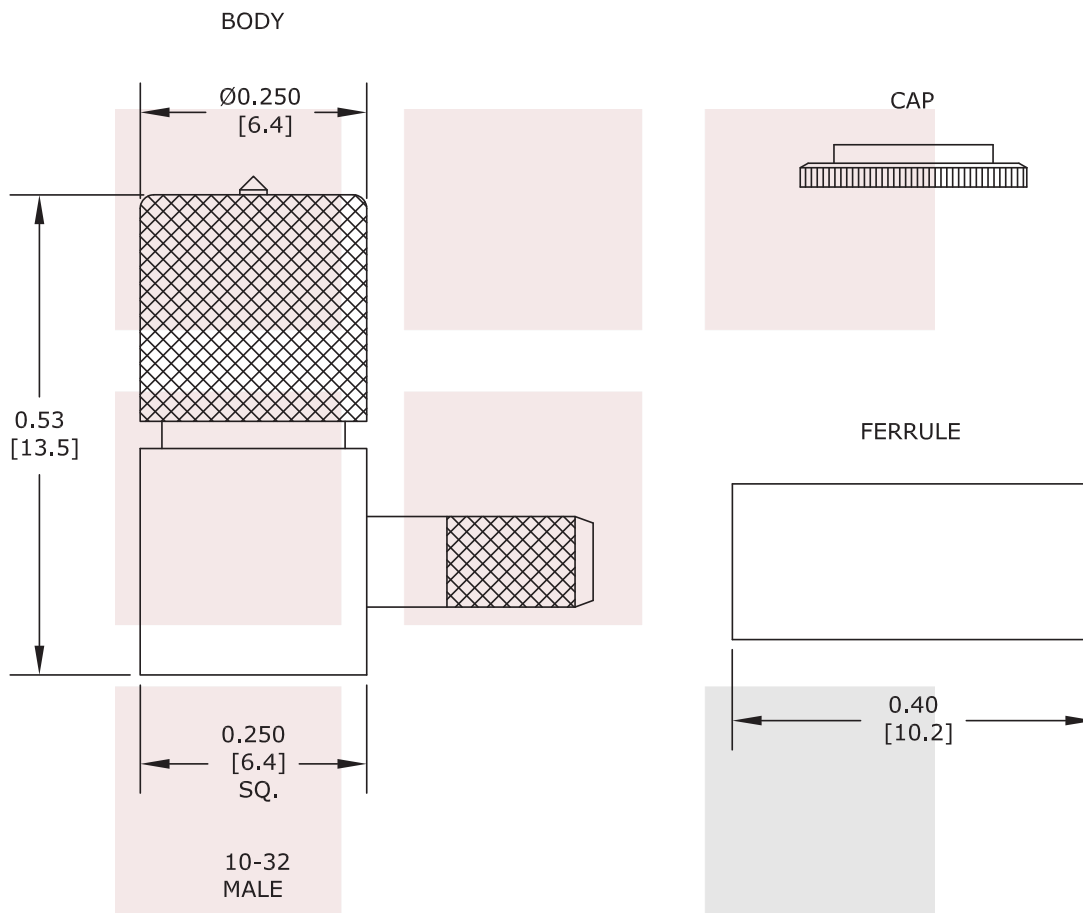
- 3.) SLIDE CRIMP TUBE OVER BRAID & UP AGAINST CONNECTOR BODY. CRIMP USING APPROPRIATE HEX CRIMPING TOOL AT .128 CRIMP SIZE. PLACE CAP INTO POSITION AND PRESS DOWN FLUSH WITH BODY.

Right Angle 10-32 Male (Plug) Connector For .100 inch, RG316, RG174, RG188, LMR-100, LMR-100A, LMR-100-FR Cable, Crimp/Solder from Fairview Microwave is in-stock and available to ship same-day. All of our RF/microwave products are available off-the-shelf from our ISO 9001:2008 certified facilities in Lewisville, Texas. Fairview Microwave is RF on-demand.

For additional information on this product, please click the following link: [Right Angle 10-32 Male \(Plug\) Connector For .100 inch, RG316, RG174, RG188, LMR-100, LMR-100A, LMR-100-FR Cable, Crimp/Solder SC5561](https://www.fairviewmicrowave.com/10-32-male-standard-rg174-rg316-connector-sc5561-p.aspx)

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STANDARD TOLERANCES

.X ±0.2
.XX ±0.1
.XXX ±0.05

*STANDARD TOLERANCES APPLY
ONLY TO DIMENSIONS IN INCHES

FAIRVIEW MICROWAVE INC.

ALLEN, TX 75013 WWW.FAIRVIEWMICROWAVE.COM

NOTES:

1. UNLESS OTHERWISE SPECIFIED ALL DIMENSIONS ARE NOMINAL.
2. ALL SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE AT ANY TIME.
3. DIMENSIONS ARE IN INCHES [mm].

TITLE

Right Angle 10-32 Male (Plug) Connector For .100
inch, RG316, RG174, RG188, LMR-100, LMR-100A,
LMR-100-FR Cable, Crimp/Solder

DWG NO

SC5561

CAGE CODE

3FKR5

CAD FILE

121316

SHEET

SCALE N/A

SIZE A

41742

LMR®-100A

Flexible Low Loss Communications Coax

Ideal for...

- Drop-in Replacement for RG-316/RG-174 (uses standard connectors)
- Jumper Assemblies in Wireless Communications Systems
- Short Antenna Feeder runs
- Any application (e.g. WLL, GPS, LMR, WLAN, WISP, WiMax, SCADA, Mobile Antennas) requiring an easily routed, low loss RF cable

• **LMR®-PVC** is designed for low loss general-purpose indoor/outdoor applications and is somewhat more flexible than the standard polyethylene jacketed LMR.

• **LMR®-PVC-W** is a white-jacketed version of LMR-PVC for marine and other indoor/outdoor applications where color compatibility is desired.

• **Flexibility** and bendability are hallmarks of the LMR-100A cable design. The flexible outer conductor enables the tightest bend radius available for any cable of similar size and performance.

• **Low Loss** is another hallmark feature of LMR-100A. Size for size LMR has the lowest loss of any flexible cable and comparable loss to semirigid hard-line cables.

• **RF Shielding** is 50 dB greater than typical single shielded coax (40 dB). The multi-ply bonded foil outer conductor is rated conservatively at > 90 dB (i.e. >180 dB between two adjacent cables).

• **Weatherability:** LMR-100A cables designed for outdoor exposure incorporate the best materials for UV resistance and have life expectancy in excess of 20 years.

• **Connectors:** A wide variety of connectors are available for LMR-100A cable, including all common interface types, reverse polarity, and a choice of solder or non-solder center pins. Most LMR connectors employ crimp outer attachment using standard hex crimp sizes.

• **Cable Assemblies:** All LMR-100A cable types are available as pre-terminated cable assemblies. Refer to the section on FlexTech for further details.

Part Description					Stock
Part Number	Application	Jacket	Color	Code	
LMR-100A-FR	Indoor/Outdoor Riser CMR	FRPE	Black	54037	
LMR-100A-PVC	Indoor/Outdoor	PVC	Black	54119	
LMR-100A-PVC-W	Indoor/Outdoor	PVC	White	54200	

PVC = Poly Vinyl Chloride; MTO = Made to Order



Construction Specifications			
Description	Material	In.	(mm)
Inner Conductor	Solid BCCS	0.018	(0.46)
Dielectric	Solid PE	0.060	(1.52)
Outer Conductor	Aluminum Tape	0.065	(1.65)
Overall Braid	Tinned Copper	0.083	(2.11)
Jacket	(see table above)	0.110	(2.79)

Mechanical Specifications			
Performance Property	Units	US	(metric)
Bend Radius: installation	in. (mm)	0.25	(6.4)
Bend Radius: repeated	in. (mm)	1	(25.4)
Bending Moment	ft-lb (N-m)	0.1	(0.014)
Weight	lb/ft (kg/m)	0.0092	(.014)
Tensile Strength	lb (kg)	15	(6.8)
Flat Plate Crush	lb/in. (kg/mm)	10	(0.18)

Environmental Specifications			
Performance Property	°F	°C	
Installation Temperature Range	-40/+185	-40/+85	
Storage Temperature Range	-94/+185	-70/+85	
Operating Temperature Range	-40/+185	-40/+85	

Electrical Specifications			
Performance Property	Units	US	(metric)
Velocity of Propagation	%	66	
Dielectric Constant	NA	2.30	
Time Delay	nS/ft (nS/m)	1.54	(5.05)
Impedance	ohms	50	
Capacitance	pF/ft (pF/m)	30.8	(101.1)
Inductance	uH/ft (uH/m)	0.077	(0.25)
Shielding Effectiveness	dB	>90	
DC Resistance			
Inner Conductor	ohms/1000ft (/km)	81.0	(266)
Outer Conductor	ohms/1000ft (/km)	9.5	(31.2)
Voltage Withstand	Volts DC	500	
Jacket Spark	Volts RMS	2000	
Peak Power	kW	0.6	

Attenuation vs. Frequency (typical)



Frequency (MHz)	30	50	150	220	450	900	1500	1800	2000	2500	5800
Attenuation dB/100 ft	3.9	5.1	8.9	10.9	15.8	22.8	30.1	33.2	35.2	39.8	64.1
Attenuation dB/100 m	12.9	16.7	29.4	35.8	51.9	74.9	98.7	109.0	115.5	130.6	210.3
Avg. Power kW	0.230	0.180	0.100	0.083	0.057	0.039	0.029	0.027	0.025	0.022	0.013

Calculate Attenuation = $(0.709140) \cdot \sqrt{\text{FMHz}} + (0.001740) \cdot \text{FMHz}$ (interactive calculator available at <http://www.timesmicrowave/telecom>)
Attenuation: VSWR=1.0 ; Ambient = +25°C (77°F) **Power:** VSWR=1.0; Ambient = +40°C; Inner Conductor = 100°C (212°F);
 Sea Level; dry air; atmospheric pressure; no solar loading



Connectors

Interface	Description	Part Number	Stock Code	VSWR ** Freq. (GHz)	Coupling Nut	Inner Contact Attach	Outer Contact Attach	Finish* Body /Pin	Length in	Width in (mm)	Weight lb (g)
SMA male	Straight Plug	TC-100-SM	3190-1551	<1.25:1 (<3)	Hex	Solder	Crimp	SS/G	1.0 (25.4)	0.32 (8.1)	0.015 (6.8)
TNC male	Straight Plug	TC-100-TM	3190-1552	<1.25:1 (<3)	Knurl	Solder	Crimp	S/G	1.4 (35.6)	0.59 (15.0)	0.045 (20.4)

* Finish metals: N=Nickel, S=Silver, G=Gold, SS=Stainless Steel, A=Alballoy **VSWR spec based on 3 foot cable with a connector pair



Install Tools

Type	Part Number	Stock Code	Description
Crimp Tool	CT-240/200/195/100	3190-667	Crimp tool for LMR-100, 195, 200 and 240 connectors
Cutting Tool	CCT-01	3190-1544	Cable end flush cut tool
Replacement Blade	RB-01	3190-1609	Replacement blade for cutting tool

