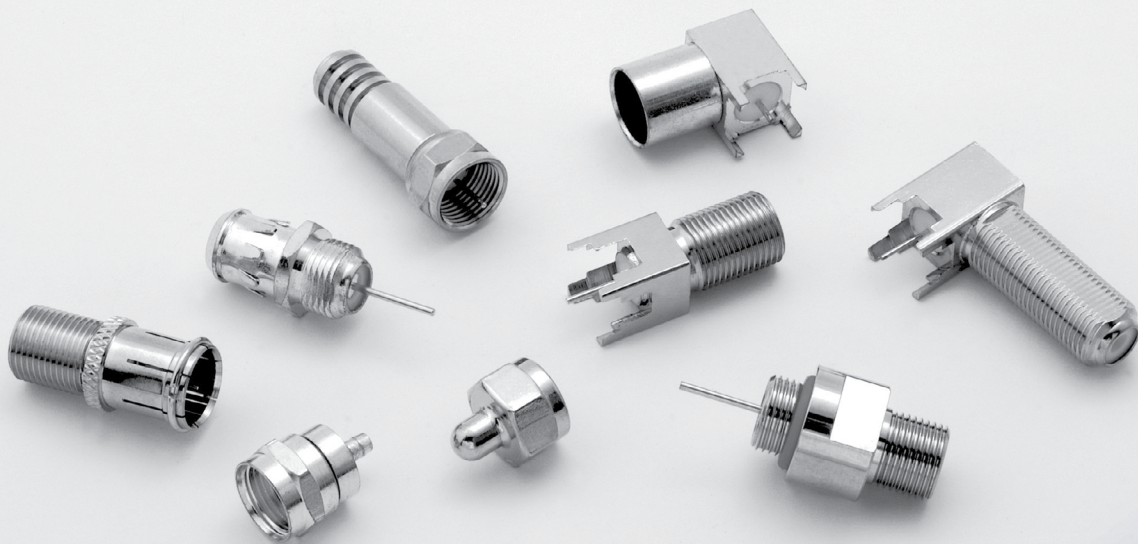


F & G Series - (TF & TG)



FEATURES :

- F Connector is Threaded
- G Connector is Push-on
- Multiple PCB Mount Types
- High retention contacts available
- Zinc alloy body is available
- Water proof options available

APPLICATIONS :

- CATV
- Set Top Boxes
- Cable Assemblies
- Cable Modems
- Docsis 2.0/3.0/3.1



ELECTRICAL SPECIFICATIONS

<u>Impedance</u>	<u>75 Ω</u>
<u>Frequency Range</u>	<u>0 – 3GHz</u>
<u>Return Loss</u>	<u>-30 dB @DC-3GHz</u>
<u>RF Leakage</u>	<u>-100 dB min. @1GHz</u>

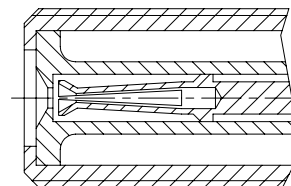
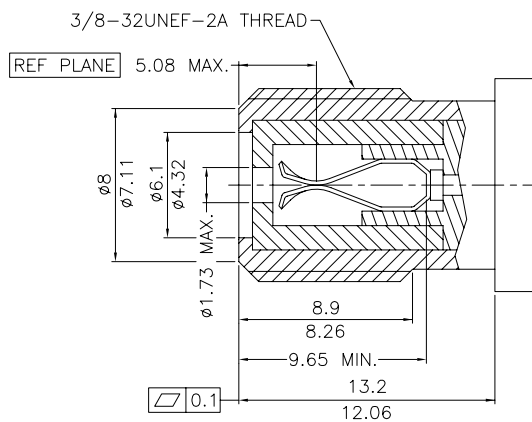
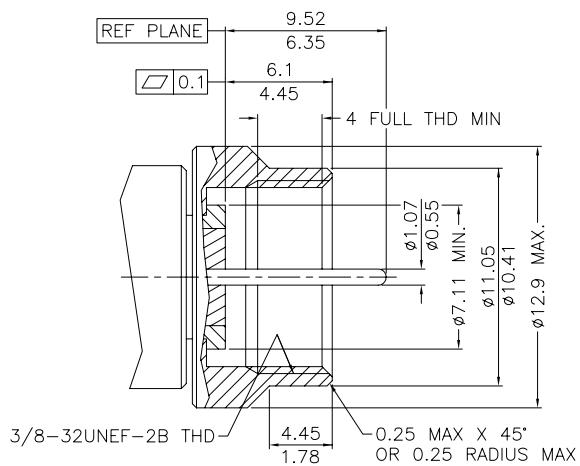
MATERIAL SPECIFICATIONS

<u>Body</u>	<u>Brass or Die Cast, nickel or tin plated</u>
<u>Male contact</u>	<u>Brass, gold or tin plated</u>
<u>Female contact</u>	<u>BeCu, P. Bronze or Brass, gold or tin plated</u>
<u>Insulator</u>	<u>PTFE, P.P. or Delrin</u>
<u>Crimp ferrule</u>	<u>Copper or Brass, nickel or tin plated</u>
<u>Clip</u>	<u>BeCu, nickel or tin plated</u>

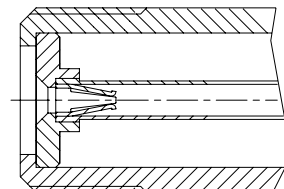
ENVIRONMENTAL

<u>Temperature Range</u>	<u>-40°C to +140°C</u>
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INTERFACE MATING DIMENSIONS



ACCEPTS $\phi 0.55 \sim \phi 1.02$
CENTER CONDUCTOR

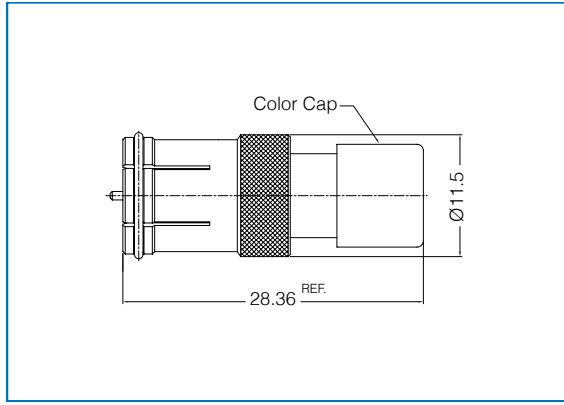


ACCEPTS $\phi 0.55 \sim \phi 1.5$
CENTER CONDUCTOR

**Terminator Plug - Push-on
1/4 Watt (1%)**

TGM11A-TERN01

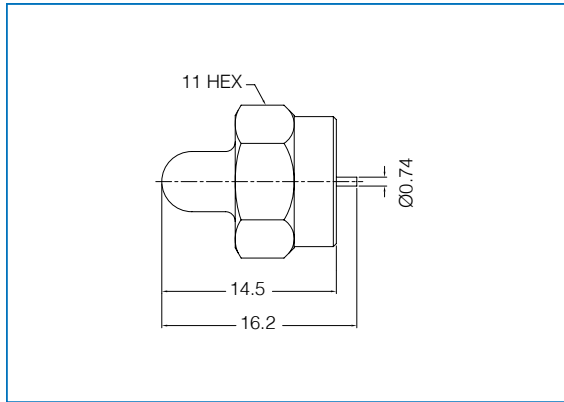
* Color Cap



**Terminator Plug
1/2 Watt (1%)**

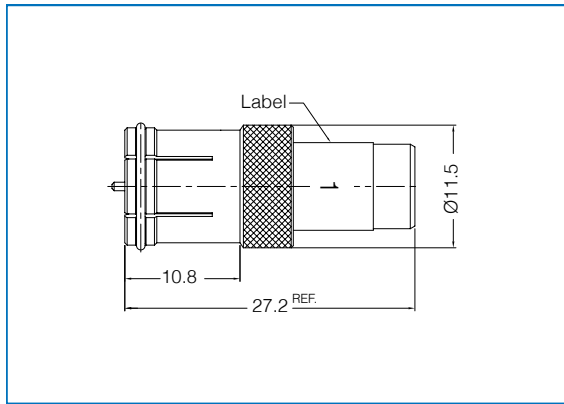
TFM11A-TERN01

* Material : Die Cast



**Terminator Plug - Push-on
1/4 Watt (5%)**

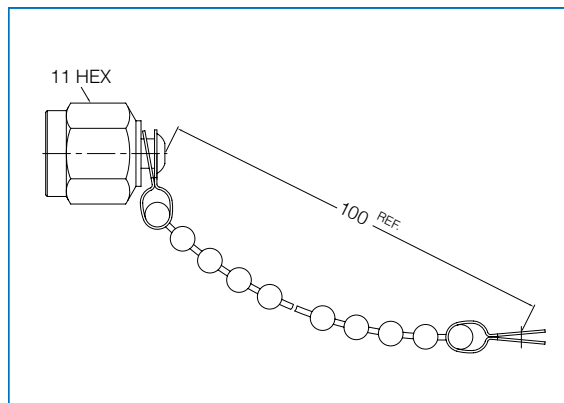
TGM11B-TERN01



Male Cap with Chain

TFM12A-TERN01

* Chain Length : 100mm

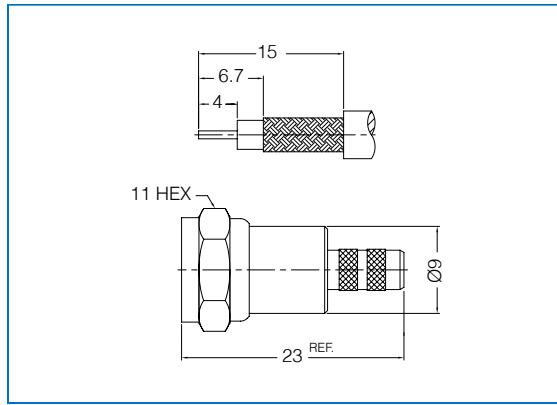


Straight Plug, Crimp

TFM11A-AXXN01

Cable group : [03](#), [05](#), [10](#), [11](#), [13](#), [14](#), [15](#)

* Hex Nut : Die Cast

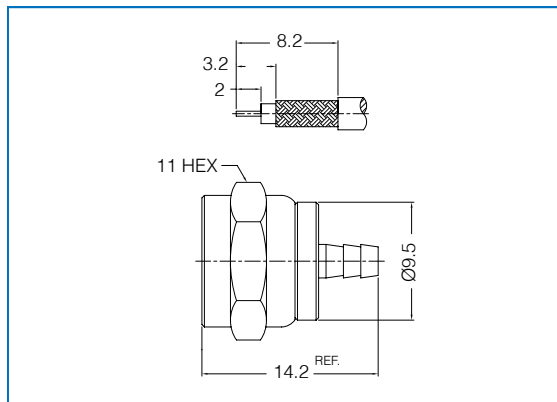


Cable Groups

Straight Plug, Crimp

TFM12A-AXXN01

Cable group : [02](#), [03](#), [04](#), [06](#), [08](#), [16](#), [20](#),
[21](#), [22](#), [23](#)

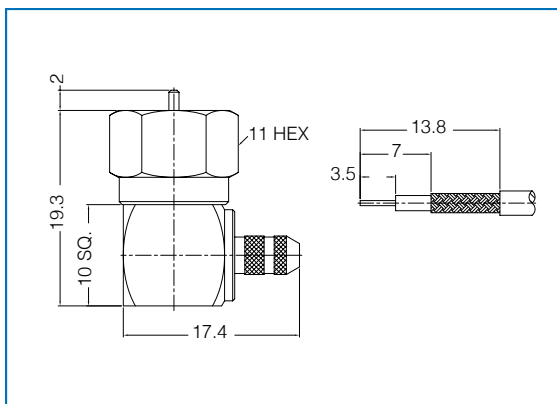


A01 - 500 - RG-178, 196
A02 - 500 - RG-174, 188A, 316, LMR100
A03 - 750 - RG-179, 187
A04 - 500 - RD-316U
A05 - 750 - RD-179U
A06 - 500 - RG-58, 58A, 58C, 141, LMR195
A07 - 500 - RG-55, 142, 223, 400
A08 - 500 - LMR200
A09 - 500 - RG-59U Plenum
A10 - 750 - RG-59, 62
A11 - 750 - Belden 1505A
A12 - 750 - Belden 8281
A13 - 750 - RG-59U Quad Shield
A14 - 750 - RG-59U Plenum

Right Angle Plug, Crimp

TFM21A-AXXN01

Cable group : [03](#), [05](#), [10](#), [11](#), [13](#), [14](#), [15](#)



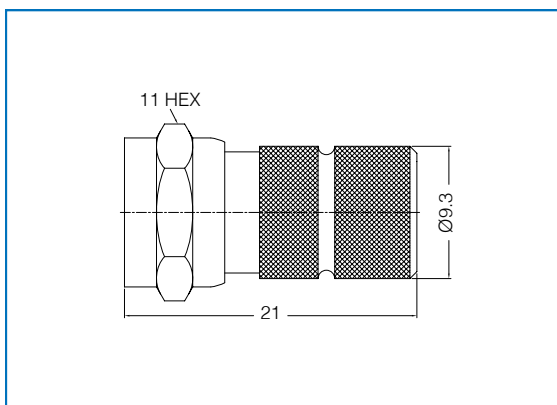
A15 - 750 - RG-6
A16 - 500 - 8X, LMR240
A17 - 500 - LMR400, Belden 9913
A18 - 500 - RG-8, 8A, 9, 213, 214
A19 - 750 - RG6U Quad
A20 - 750 - RG-11
A21 - 750 - Belden 1694A
A22 - 750 - AT&T 734A
A23 - 750 - AT&T 735A
A24 - 500 - LMR800
A25 - 750 - Belden 1696A
A26 - 750 - Belden 8218
A27 - 750 - BT-3002
A28 - 500 - 0885/0885RF, RG-405U

Twist On Plug

TFM13A-AXXN01

Cable group : [10](#), [15](#)

* Material : Die Cast



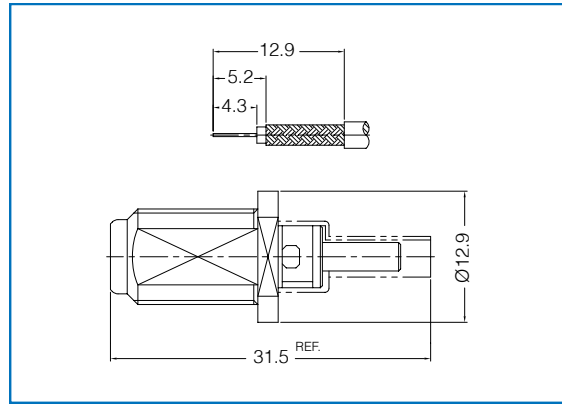
A29 - 500 - 141SR, RG-402U
A30 - 500 - 1.13mm OD micro
A31 - 500 - 1.32mm OD micro
A32 - 500 - 1.37mm OD micro
A33 - 500 - 047SR cable
A34 - 750 - FLEX 2
A35 - 750 - FLEX 3
A37 - 750 - FLEX 5
A38 - 500 - 30-2V
A39 - 500 - 5D-2V
A40 - 500 - 8D-2V
A41 - 500 - 5D-FB, LMR300
A42 - 500 - 1/4" Superflex
A43 - 500 - 1/2" Superflex

Bulkhead Jack, Crimp

TFF31A-AXXN01

Cable group : 03

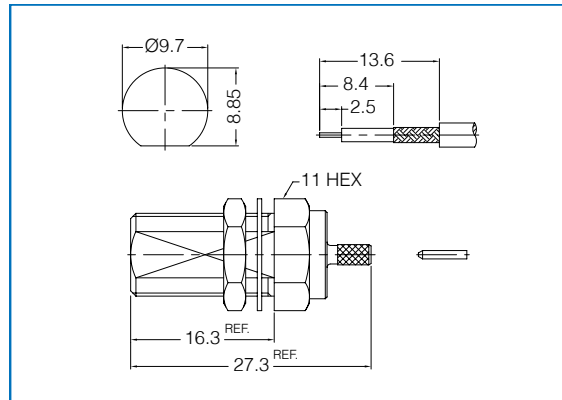
* Material : Die Cast



Bulkhead Jack, Crimp-Pin in Pin

TFF32A-AXXN01

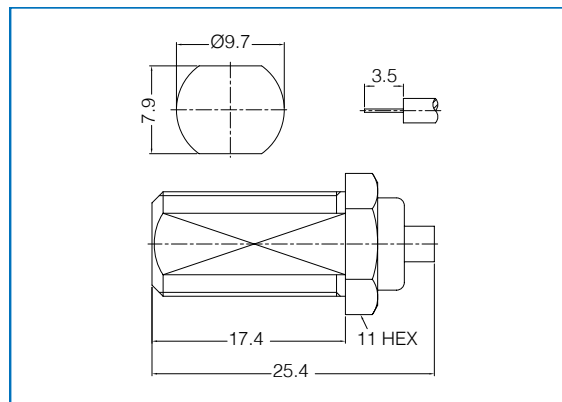
Cable group : 03, 05



Bulkhead Jack, Solder

TFF33A-AXXN01

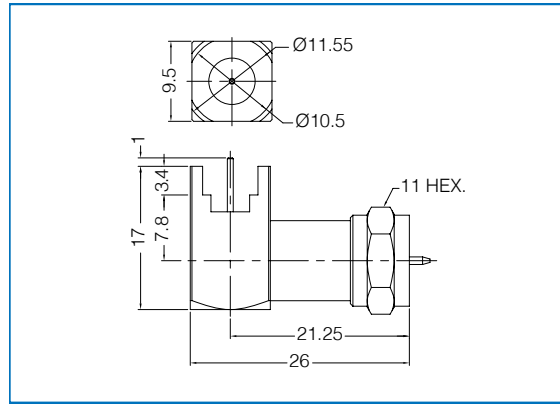
Cable group : RG 405 -75Ω



Right Angle Plug, PCB Mount

TFM21A-TPCN01

Mounting hole : "K"

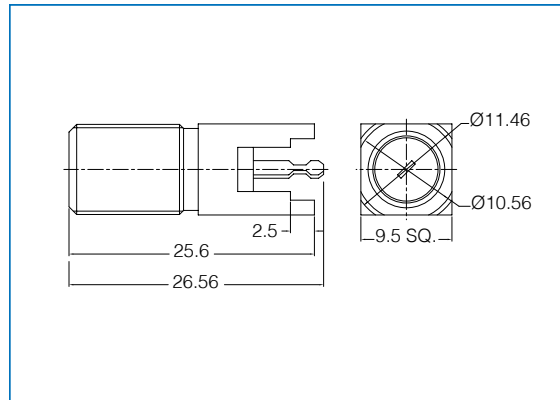


Cable Groups

Straight Jack, PCB Mount

TFF11A-TPCN01

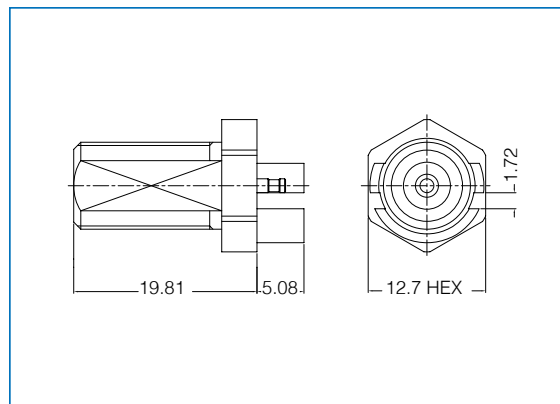
Mounting hole : "K"



- A01 - 50Ω - RG-178, 196
- A02 - 50Ω - RG-174, 188A, 316, LMR100
- A03 - 75Ω - RG-179, 187
- A04 - 50Ω - RD-316U
- A05 - 75Ω - RD-179U
- A06 - 50Ω - RG-58, 58A, 58C, 141, LMR195
- A07 - 50Ω - RG-55, 142, 223, 400
- A08 - 50Ω - LMR200
- A09 - 50Ω - RG-59U Plenum
- A10 - 75Ω - RG-59, 62
- A11 - 75Ω - Belden 1505A
- A12 - 75Ω - Belden 8281
- A13 - 75Ω - RG-59U Quad Shield
- A14 - 75Ω - RG-59U Plenum

Straight Jack, Edgecard Mount

TFF11A-EPCN01

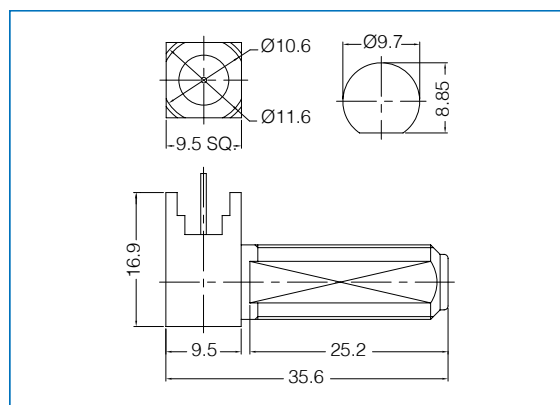


- A15 - 75Ω - RG-6
- A16 - 50Ω - 8X, LMR240
- A17 - 50Ω - LMR400, Belden 9913
- A18 - 50Ω - RG-8, 8A, 9, 213, 214
- A19 - 75Ω - RG6U, Quad
- A20 - 75Ω - RG-11
- A21 - 75Ω - Belden 1694A
- A22 - 75Ω - AT&T 734A
- A23 - 75Ω - AT&T 735A
- A24 - 50Ω - LMR600
- A25 - 75Ω - Belden 1695A
- A26 - 75Ω - Belden 8218
- A27 - 75Ω - BT-3002
- A28 - 50Ω - 0885, 0885RF, RG-405U

Right Angle Jack, PCB Mount

TFF21A-TPCN01

Mounting hole : "K"

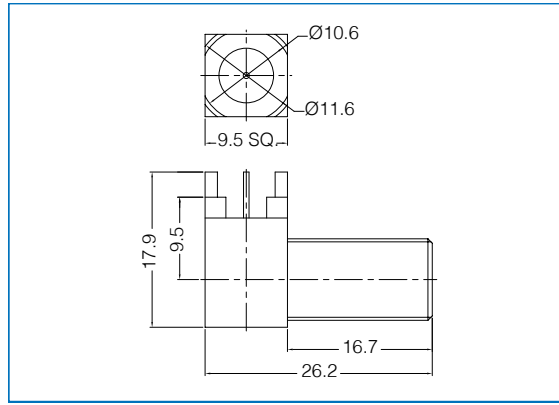


- A29 - 50Ω - 141SR, RG-402U
- A30 - 50Ω - 1.13mm OD micro
- A31 - 50Ω - 1.32mm OD micro
- A32 - 50Ω - 1.37mm OD micro
- A33 - 50Ω - 047SR cable
- A34 - 75Ω - FLEX 2
- A35 - 75Ω - FLEX 3
- A37 - 75Ω - FLEX 5
- A38 - 50Ω - 30-2V
- A39 - 50Ω - 5P-2V
- A40 - 50Ω - 8D-2V
- A41 - 50Ω - 5D-FB, LMR300
- A42 - 50Ω - 1/4" Superflex
- A43 - 50Ω - 1/2" Superflex

Right Angle Jack, PCB Mount

TFF22A-TPCN01

* Mounting hole : "K"

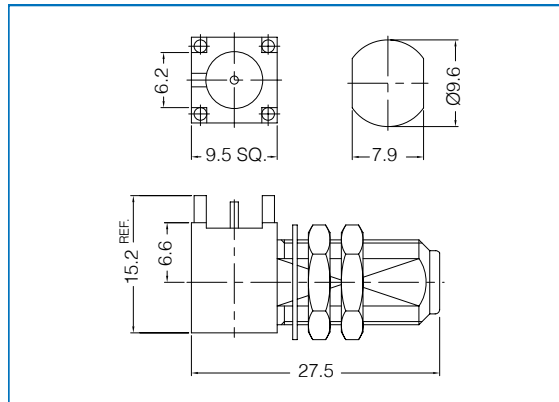


Right Angle Jack, PCB Mount

TFF23A-TPCN01

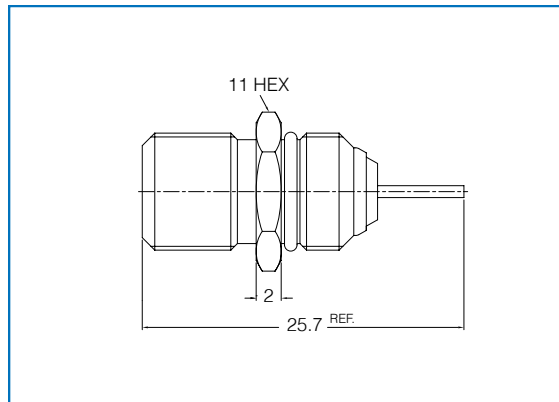
* Material : Die Cast

* Mounting hole : "K"



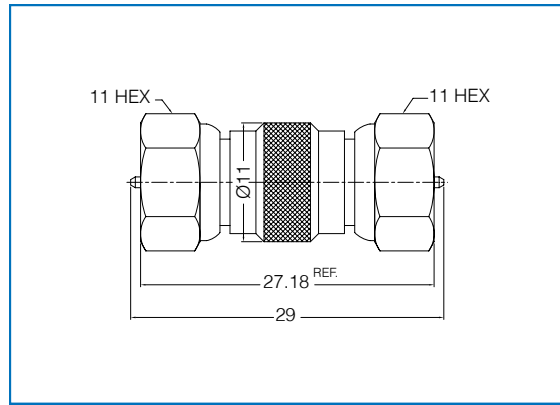
Bulkhead Receptacle Jack

TFF11A-RECN01



Adapter, Plug To Plug

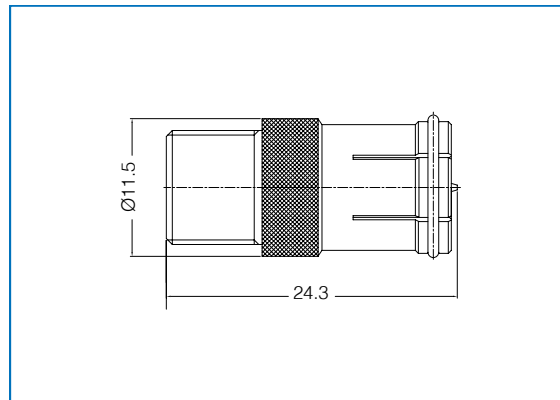
TFM11A-ADPN01



Cable Groups

Adapter, Quick Plug To Jack

TFA11A-ADPN01

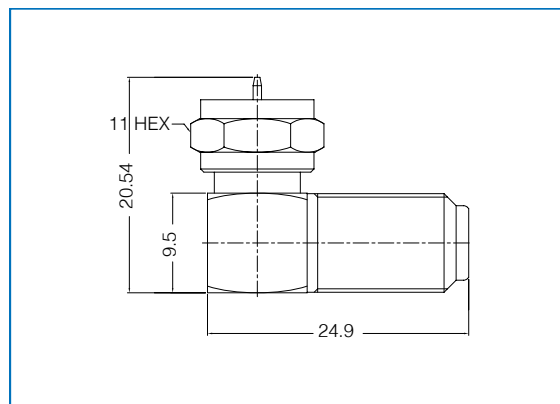


A01 - 500 - RG-178, 196
 A02 - 500 - RG-174, 188A, 316, LMR100
 A03 - 750 - RG-179, 187
 A04 - 500 - RD-316U
 A05 - 750 - RD-179U
 A06 - 500 - RG-58, 58A, 58C, 141, LMR195
 A07 - 500 - RG-55, 142, 223, 400
 A08 - 500 - LMR200
 A09 - 500 - RG-59U Plenum
 A10 - 750 - RG-59, 62
 A11 - 750 - Belden 1505A
 A12 - 750 - Belden 8281
 A13 - 750 - RG-59U Quad Shield
 A14 - 750 - RG-59U Plenum

Right Angle Adapter, Plug To Jack

TFA21A-ADPN01

*Hex Nut: Die Cast

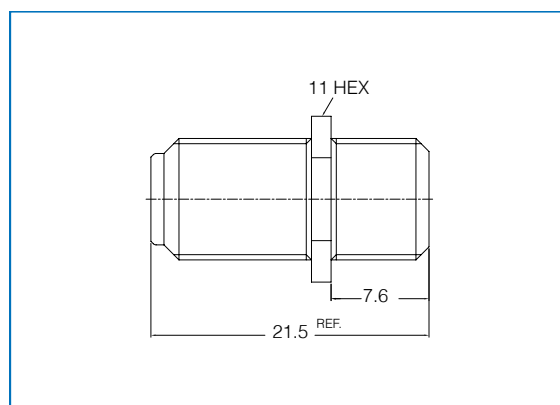


A15 - 750 - RG-6
 A16 - 500 - 8X, LMR240
 A17 - 500 - LMR400, Belden 9913
 A18 - 500 - RG-8, 8A, 9, 213, 214
 A19 - 750 - RG6U, Quad
 A20 - 750 - RG-11
 A21 - 750 - Belden 1694A
 A22 - 750 - AT&T 734A
 A23 - 750 - AT&T 735A
 A24 - 500 - LMR600
 A25 - 750 - Belden 1695A
 A26 - 750 - Belden 8218
 A27 - 750 - BT-3002
 A28 - 500 - 0885, 0885RF, RG-405U

Adapter, Jack To Jack

TFF11A-ADPN01

* Material : Die Cast

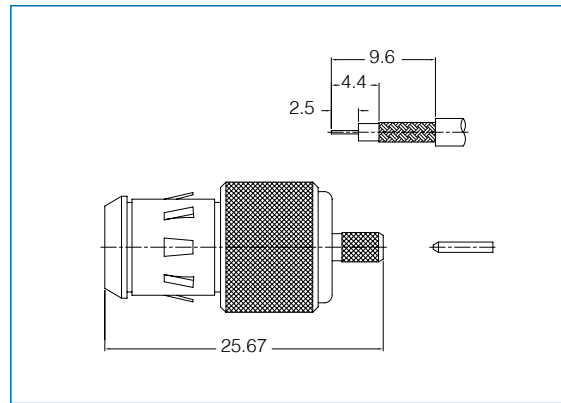


A29 - 500 - 141SR, RG-402U
 A30 - 500 - 1.13mm OD micro
 A31 - 500 - 1.32mm OD micro
 A32 - 500 - 1.37mm OD micro
 A33 - 500 - 047SR cable
 A34 - 750 - FLEX 2
 A35 - 750 - FLEX 3
 A37 - 750 - FLEX 5
 A38 - 500 - 30-2V
 A39 - 500 - 50-2V
 A40 - 500 - 80-2V
 A41 - 500 - 50-FB, LMR300
 A42 - 500 - 1/4" Superflex
 A43 - 500 - 1/2" Superflex

Crimp Jack

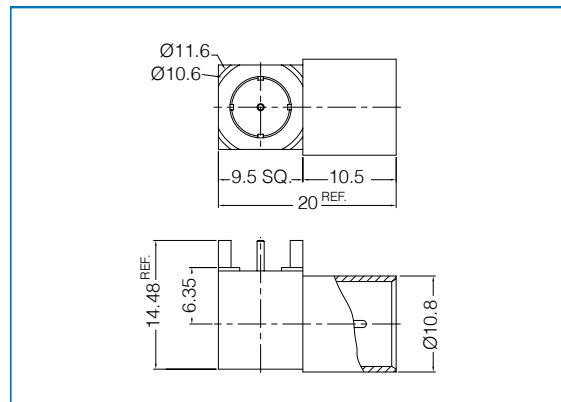
TGF11A-AXXN01

Cable group : 03, 05, 10, 11

**Right Angle Plug, PCB Mount**

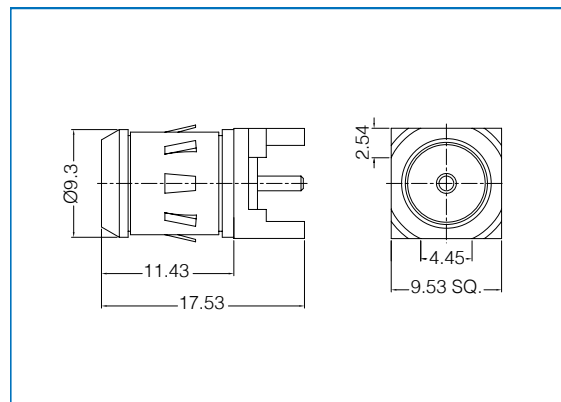
TGM21A-TCPN01

Mounting hole : "K"

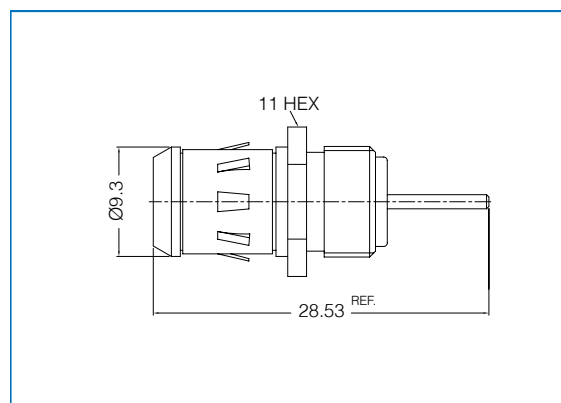
**Jack, PCB Mount**

TGF11A-TCPN01

Mounting hole : "K"

**Receptacle Jack, Front Mount**

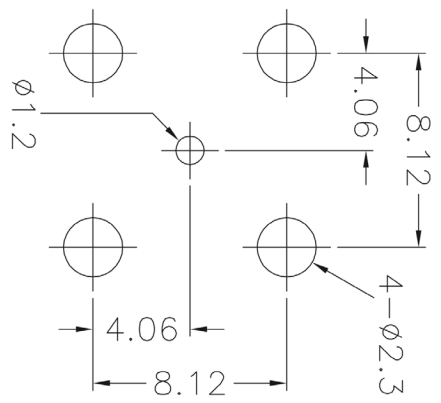
TGF11A-RECN01





PCB Layouts

Layout-K



Cable Groups

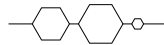
A01 - 50Ω - RG-178, 196	A08 - 50Ω - LMR200	A15 - 75Ω - RG-6	A22 - 75Ω - AT&T 734A	A29 - 50Ω - 141SR, RG-402U	A37 - 75Ω - FLEX 5
A02 - 50Ω - RG-174, 188A, 316, LMR100	A09 - 50Ω - RG-59U Plenum	A16 - 50Ω - 8X, LMR240	A23 - 75Ω - AT&T 735A	A30 - 50Ω - 1.13mm OD micro	A38 - 50Ω - 3D-2V
A03 - 75Ω - RG-179, 187	A10 - 75Ω - RG-59, 62	A17 - 50Ω - LMR400, Belden 9913	A24 - 50Ω - LMR600	A31 - 50Ω - 1.32mm OD micro	A39 - 50Ω - 5P-2V
A04 - 50Ω - RD-316U	A11 - 75Ω - Belden 1505A	A18 - 50Ω - RG-8, 9A, 9, 213, 214	A25 - 75Ω - Belden 1695A	A32 - 50Ω - 1.37mm OD micro	A40 - 50Ω - 8D-2V
A05 - 75Ω - RD-179U	A12 - 75Ω - Belden 8281	A19 - 75Ω - RG6U, Quad	A26 - 75Ω - Belden 8218	A33 - 50Ω - 047SR cable	A41 - 50Ω - 5D-FB, LMR300
A06 - 50Ω - RG-58, 58A, 58C, 141, LMR195	A13 - 75Ω - RG-59U Quad Shield	A20 - 75Ω - RG-11	A27 - 75Ω - BT-3002	A34 - 75Ω - FLEX 2	A42 - 50Ω - 1/4" Superflex
A07 - 50Ω - RG-55, 142, 223, 400	A14 - 75Ω - RG-59U Plenum	A21 - 75Ω - Belden 1694A	A28 - 50Ω - 0885R, RG-405U	A35 - 75Ω - FLEX 3	A43 - 50Ω - 1/2" Superflex



Application Chart of Crimping Dies

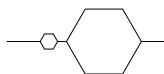


Die Set No. 1317



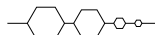
Hex Sizes : .213 / .255 / .068
Ferrule O.D. : 7.5mm / 6.5mm
Contact O.D. : 2.1mm
Cable Group : RG-58, 59, 62, 223, LMR-195, LMR-200, LMR-240
For : BNC, TNC, N, Mini-UHF

Die Set No. 1319



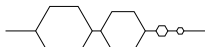
Hex Sizes : .10 / .429
Ferrule O.D. : 12.4mm
Contact O.D. : 3.0mm
Cable Group : RG-8, 11, 213, 214
For : N

Die Set No. 1346



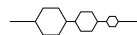
FHex Sizes : .213 / .178 / .068 / .042
ferrule O.D. : 6.5mm / 5.3mm
Contact O.D. : 2.1mm / 1.35mm
Cable Group : RG-58, 174, Belden-1855A, Belden-8218, AT&T 735A, BT-3002
For : BNC, True 75Ω BNC, TNC, N, SMA

Die Set No. 1347



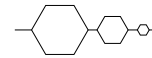
Hex Sizes : .324 / .255 / .068 / .042
Ferrule O.D. : 9.5mm / 7.5mm
Contact O.D. : 2.1mm / 1.35mm
Cable Group : RG-6, 59, Belden-8241, Belden-8281, AT&T 734A, LMR-240
For : BNC, True 75Ω BNC, TNC, N, SMA

Die Set No. 1351



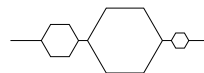
Hex Sizes : .178 / .128 / .068
Ferrule O.D. : 5.3mm / 3.9mm
Contact O.D. : 2.1mm
Cable Group : RG-174, 188, 196, 316, 179, LMR-100
For : BNC, TNC, SMA, SMB, SMC, MCX, MMCX

Die Set No. 1352



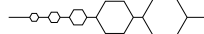
Hex Sizes : .324 / .178 / .068
Ferrule O.D. : 9.5mm / 5.3mm
Contact O.D. : 2.1mm
Cable Group : RG-174, 179, 316, LMR-100, Belden-8281, RG-6, LMR-300
For : BNC, TNC, N, SMA, SMB, SMC

Die Set No. 1353



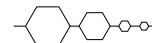
Hex Sizes : .213 / .429 / .10
Ferrule O.D. : 6.5mm / 12.4mm
Contact O.D. : 3.0mm
Cable Group : RG-58, 8, 223, LMR-195, LMR-200
For : N

Die Set No. 1355



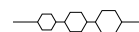
Hex Sizes : .052 / .068 / .10 / .213 / .255
Ferrule O.D. : 7.5mm / 6.5mm
Contact O.D. : 3.0mm / 2.1mm / 1.5mm
Cable Group : RG-58, 59, 62, 223, LMR-195
For : BNC, TNC, SMA, SMB, SMC, Mini-UHF, N

Die Set No. 1376



Hex Sizes : .255 / .178 / .068 / .052
Ferrule O.D. : 7.5mm / 5.3mm
Contact O.D. : 2.1mm / 1.5mm
Cable Group : RG-59, 62, 223, 174, 179, 316, LMR-100
For : BNC, TNC, N, SMA, SMB, SMC

Die Set No. 1377



Hex Sizes : .105 / .128 / .151
Ferrule O.D. : 4.4mm / 3.9mm
Contact O.D. : 3.0mm
Cable Group : RG-178, 316, 179, RD-179, RD-316, LMR-100
For : SMA, SMB, SMC, MCX, MMCX

Die Set No. 1380



Hex Sizes : .429 / .118
Ferrule O.D. : 12.4mm
Contact O.D. : 3.5mm
Cable Group : Belden-9913, LMR-400
For : BNC, TNC, N

Reflection → Conversion Table

VSWR	Rf	RL (dB)
1.010	0.005	46.06
1.020	0.0099	40.09
1.030	0.0148	36.61
1.040	0.0196	34.15
1.050	0.0244	32.26
1.060	0.0291	30.71
1.070	0.0338	29.42
1.080	0.0385	28.30
1.090	0.0431	27.32
1.100	0.0476	26.44
1.110	0.0521	25.66
1.120	0.0566	24.94
1.130	0.061	24.29
1.140	0.0654	23.69
1.150	0.0698	23.13
1.160	0.0741	22.61
1.170	0.0783	22.12
1.180	0.0826	21.66
1.190	0.0868	21.23
1.200	0.0909	20.83
1.210	0.095	20.44
1.220	0.0991	20.08
1.230	0.1031	19.73
1.240	0.1071	19.40
1.250	0.1111	19.08
1.260	0.115	18.78
1.270	0.1189	18.49
1.280	0.1228	18.22
1.290	0.1266	17.95
1.300	0.1304	17.69
1.310	0.1342	17.45
1.320	0.1379	17.21
1.330	0.1416	16.98
1.340	0.1453	16.75
1.350	0.1489	16.54
1.360	0.1525	16.33
1.370	0.1561	16.13
1.380	0.1597	15.94
1.390	0.1632	15.75

RL (dB)	Rf	VSWR
50.00	0.0032	1.006
49.00	0.0035	1.007
48.00	0.004	1.008
47.00	0.0045	1.009
46.00	0.005	1.010
45.00	0.0056	1.011
44.00	0.0063	1.013
43.00	0.0071	1.014
42.00	0.0079	1.016
41.00	0.0089	1.018
40.00	0.01	1.020
39.00	0.0112	1.023
38.00	0.0126	1.025
37.00	0.0141	1.029
36.00	0.0158	1.032
35.00	0.0178	1.036
34.00	0.02	1.041
33.00	0.0224	1.046
32.00	0.0251	1.052
31.00	0.0282	1.058
30.00	0.0316	1.065
29.00	0.0355	1.074
28.00	0.0398	1.083
27.00	0.0447	1.094
26.00	0.0501	1.106
25.00	0.0562	1.119
24.00	0.0631	1.135
23.00	0.0708	1.152
22.00	0.0794	1.173
21.00	0.0891	1.196
20.00	0.1	1.222
19.00	0.1122	1.253
18.00	0.1259	1.288
17.00	0.1413	1.329
16.00	0.1585	1.377
15.00	0.1778	1.433
14.00	0.1995	1.499
13.00	0.2239	1.577
12.00	0.2512	1.671

Rf	RL (dB)	VSWR
0.005	46.02	1.010
0.010	40.00	1.020
0.015	36.48	1.030
0.020	33.98	1.041
0.025	32.04	1.051
0.030	30.46	1.062
0.035	29.12	1.073
0.040	27.96	1.083
0.045	26.94	1.094
0.050	26.02	1.105
0.055	25.19	1.116
0.060	24.44	1.128
0.065	23.74	1.139
0.070	23.10	1.151
0.075	22.50	1.162
0.080	21.94	1.174
0.085	21.41	1.186
0.090	20.92	1.198
0.095	20.45	1.210
0.100	20.00	1.222
0.105	19.58	1.235
0.110	19.17	1.247
0.115	18.79	1.260
0.120	18.42	1.273
0.125	18.06	1.286
0.130	17.72	1.299
0.135	17.39	1.312
0.140	17.08	1.326
0.145	16.77	1.339
0.150	16.48	1.353
0.155	16.19	1.367
0.160	15.92	1.381
0.165	15.65	1.395
0.170	15.39	1.410
0.175	15.14	1.424
0.180	14.88	1.439
0.185	14.66	1.454
0.190	14.42	1.469
0.195	14.20	1.484

VSWR = Voltage Standing Wave Ratio Rf = Reflection Coefficient RL = Return Loss