# **DUPLEX CSA LTD**

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Duplex F Series connectors interface with CATV, MATV and Satellite TV installations and are available in the widest range of configurations.

#### **Electrical Characteristics**

Impedence	75 Ohm
Operating frequency	0-3 Ghz
Voltage rating	250 V rms

#### **Materials**

Body including fittings Insulator Contact Nickel plated brass Polypropolene Phosphor bronze or beryllium copper

#### **Precision Connectors**

For applications where electronic performance is more critical, Duplex CSA have developed a range of precision F Series female connectors. These feature:

Return loss Contact Dielectric >30db at 3Ghz Gold plated, Berylium copper Delrin

Currently, standard precision types are the DPX range of connectors (see page 19-22.)

All styles of F Series female connectors can be adapted to precision standards. Talk to us about your requirements.

#### Waterproof Versions

All F Series female connectors can be supplied in waterproof versions. For waterproof versions of any F Series female connector add the suffix W to the relevant part number.

#### **Custom Connectors**

Duplex CSA F Series connectors can be manufactured in a wide range of plating and fixing styles in relatively low quantities. Our range is ever growing to meet customer requirements. For information on your own design of F Series connector contact our sales office.

#### **Fly Lead Assemblies**

Duplex CSA are Europe's largest manufacturer of Fly Lead Assemblies. All assemblies are manufactured in the U.K. from piece parts held in stock. This minimises cost and allows fast turnaround of assemblies to customer specifications.

We manufacture cable assemblies of any cable length, colour or type, and terminating with any style of connector. Telephone our sales office to discuss any requirements you may have.

## Duplex CSA Ltd

#### Tel: 00 44 (0)1480 406206

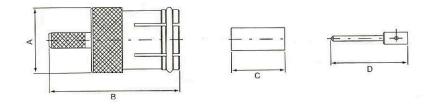
Email: sales@duplexcsa.com

Web: www.duplexcsa.com

## **Crimp Connectors**

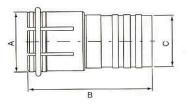


#### F QUICK MALE, Crimp type F-101



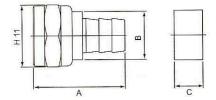
PART NO.	Ω	CABLE TYPE	Α	В	С	
F-101A		RG6U				/
F-101F	75	RG58U	11	21	12.7	
F-101G		RG59U				
F-101L	75	RG174U(316U)	11.5	23.2	9.5	13.6

F QUICK MALE, Attached grip ring F-104

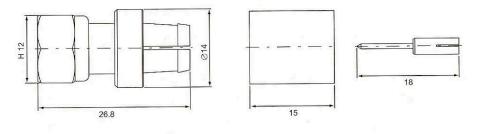


PART NO.	Ω	CABLE TYPE	A	В	· C
F-104A		RG6U	10.7	22	9.2
F-104F	75	RG58U	10.8	22	8.5
F-104G		RG59U	10.8	LL	0.0

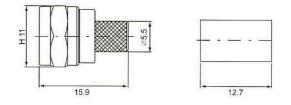
F MALE, Crimp type F-111



*F MALE*, *Crimp type* F-111 for RG11U

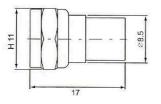


*F MALE*, *Crimp type* F-111G-1E for RG59U



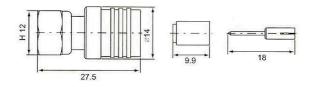
PART NO.	Ω	CABLE TYPE	A	В	С
F-111A		RG6U	16	8.5	5
F-111G	75	75	16.4	8.5	5
F-111G-1		RG59U	16.4	8.5	12.7

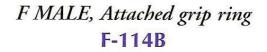
## F MALE, Attached grip ring F-114

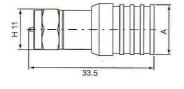


PART NO.	Ω	CABLE TYPE
F-114BA		RG6U
F-114BF	75	RG58U
F-114BG		RG59U





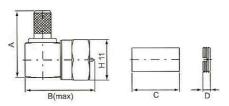




PART NO.	Ω	CABLE TYPE
F-114BA		RG6U
F-114BF	75	RG58U
F-114BG		RG59U

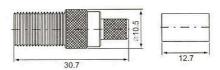


F MALE, Crimp type right angle F-121



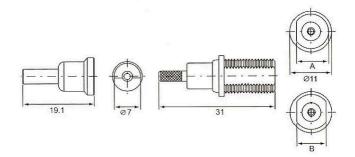
PART NO.	Ω	CABLE TYPE	А	В	С	D
F-121F		RG58U	10	18.6	12.7	2
F-121G	75	RG59U	18	10.0	12.7	2
F-121L		RG174U(316U)	16.5	18.3	12.7	2

#### F FEMALE, Crimp type F-211



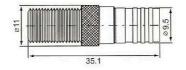
PART NO.	Ω	CABLE TYPE
F-211F	75	RG58U
F-211G	75	RG59U

## *F FEMALE*, *Crimp type* F-211L for RG17U (316U)



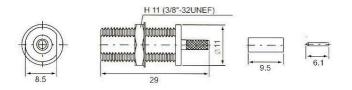
PART NO.	Ω	CABLE TYPE	А	В
F-211A[F,G,L,M,N]-D			8.5	
F-211A[F,G,L,M,N]-D/D	75	RG6U[RG58U, RG59U, RG174U(316U), 178U, RG179U]		7.7

#### F FEMALE, Attached grip ring F-214

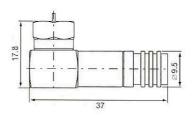


PART NO.	Ω	CABLE TYPE
F-214BA/9.5	76	RG6U
F-214BG/9.5	75	RG59U

### F FEMALE, Crimp type Bulkhead receptacle F-231L - 2B - D for RG179U



#### F MALE, Crimp type F-411/1



PART NO.	Ω	CABLE TYPE
F- 411A/1		RG6U
F- 411F/1	75	RG58U
F- 411G/1		RG59U







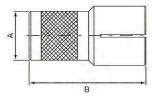
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## **Twist-on Connectors**

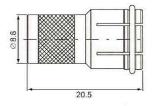
#### F QUICK MALE, Twist-on type F-103

DCSA

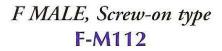


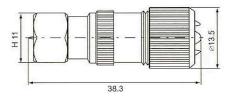
PART NO.	Ω	CABLE TYPE	А	В
F-103A		RG6U		
F-103F	75	RG58U	8.8	20.5
F-103G		RG59U		

## F QUICK MALE, Twist-on type F-103/1



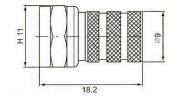
PART NO.	Ω	CABLE TYPE	Α	В	
F-103/1A		RG6U			
F-103/1F	75	RG58U	8.8	20.5	
F-103/1G		RG59U			



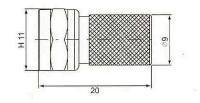


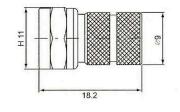
F MALE, Twist-on type F-113F for RG58U

F-113G for RG59U

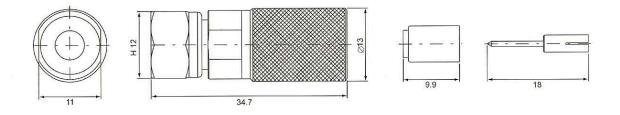


F-113A for RG6U





## F MALE, Twist-on type F-L113B / 11U





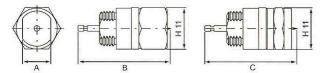






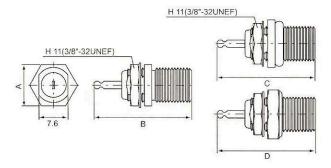
## **Bulkhead Connectors**

## F MALE, Solder type Bulkhead receptacle F-135



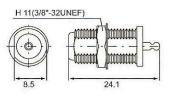
PART NO.	Ω	CABLE TYPE	А	В	С
F-135			7.6	24.4	
F-135-1	75	WELDING SPOT	7.6		24.4
F-135-2		a sent to be the second second second	7.4		24.4

## F FEMALE, Solder type Bulkhead receptacle F-235



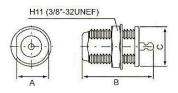
PART NO.	Ω	С	В	С	D	NOTE
F-235		11	26.1			Without NUT&WASHER
F-235NW	H1523		20.1			With NUT&WASHER
F-235-3B		11	19			Without NUT&WASHER
F-235NW-3B			10			With NUT&WASHER
F-235E	75	11	21.3			Without NUT&WASHER
F-235-HWP		12.7		25.8		Without NUT&WASHER
F-235NW-HWP		12.7		20.0		With NUT&WASHER
F-235HWP(F-61)		13			26	Without NUT&WASHER
F-235NW-HWP(F-61)		13			20	With NUT&WASHER

## F FEMALE, Solder type F-B0215-1



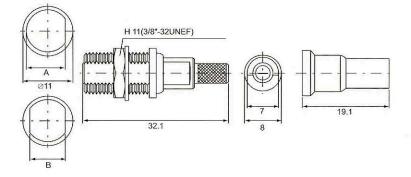
PART NO.	Ω	CABLE TYPE	NOTE	
F-B0215-1	75		Without NUT&WASHER	
F-B0215NW-1	75	WELDING SPOT	With NUT&WASHER	

## F FEMALE, Solder type F-B215

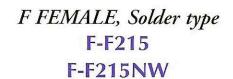


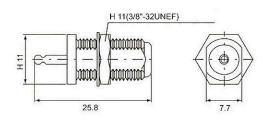
Ps. NW is NUT & WASHER

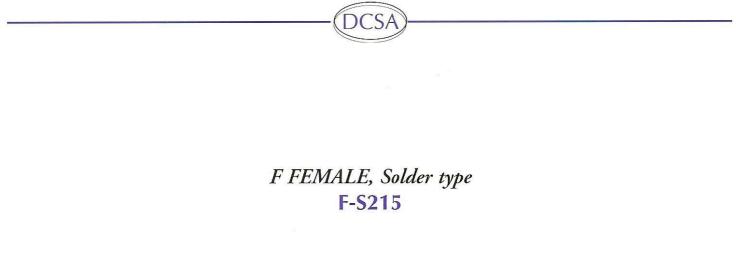
#### F FEMALE, Crimp type Bulkhead receptacle F-B231-1B-NW

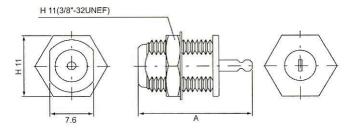


PART NO.	Ω	CABLE TYPE	A	В	С
F-B215			0.4	10.5	10.5
F-B215NW		WELDING SPOT	8.4	18.5	10.5
F-B215/#1					
F-B215/#1NW	75		8.4	18.8	10
F-B215-1					
F-B215NW-1	1 3 3 3 7 7 1 7		8.5	19	10.5



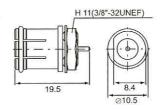




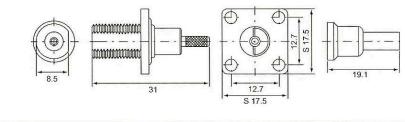


PART NO.	Ω	A		
F-S215	75	20.5		
F-S215NW	73	20.5		
F-S215-2	75	18.5		
F-S215NW-2	75	10.3		

## F QUICK MALE, Solder type F-P105NW-1B



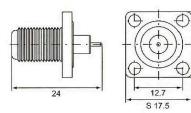
#### F MALE, Crimp type Panel receptacle F-241L - HWP



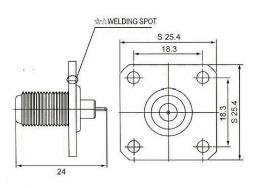
PART NO.	Ω	CABLE TYPE			
F-241L-HWP	75	RG174U(316U, 179U, 187U, 188U)			

## F FEMALE, Solder type Panel receptacle

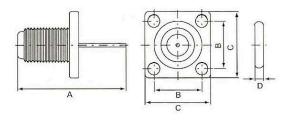
#### F-245 - SWP



#### **F - 245 - SWP WS**

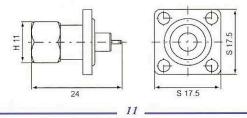


*F FEMALE, Solder type* **F-P245 panel receptacle** 



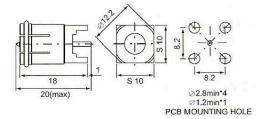
PART NO.	Ω	A	В	С	D
F-P245-25.4		31.9	18.3	25.4	
F-P245SWP-1C	75	28.6	12.7	17.5	1.8
F-P245-2C		31	12.7	17.5	

## F MALE, Solder type Panel receptacle F-145-SWP

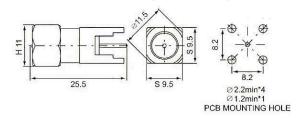


## **PCB** Connectors

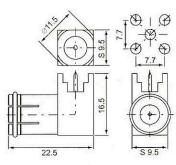
*F QUICK MALE, Solder type* **F-P105-1A PCB mount** 



*F MALE, Solder type* F-P115H PCB mount

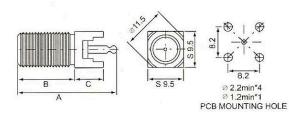


#### F QUICK MALE, Solder type F-P125 PCB mount



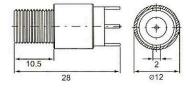
Ø 2.8min\*5 PCB MOUNTING HOLE

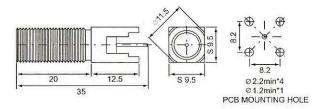
*F FEMALE*, *Solder type* F-P215 PCB mount



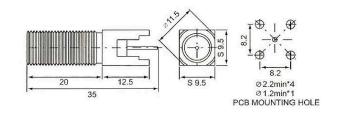
PART NO.	Ω	A	В	C
F-P215H		26.2	13	12.5
F-P215L		26.2	15	7.6
F-P215S/1	75	27.8	20.2	7.6
F-P215SS		22.5	15	7.5
F-P2151		21	13	6.5

F FEMALE, PCB mount F-P215-1A F FEMALE, PCB mount F-P215H/20

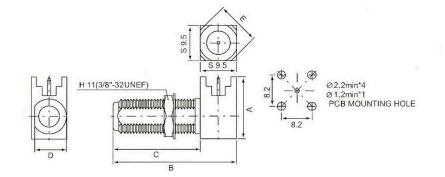




#### F FEMALE, PCB mount F-P215L-1A

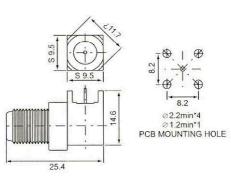


*F FEMALE*, *Solder type* **F-P225 PCB mount** 



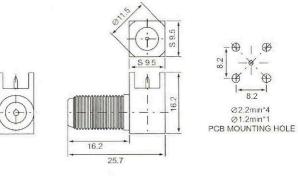
PART NO.	Ω	С	В	С	D	E	NOTE
F-P225		16.5	32.5	23	8.5	11.6	Without NUT&WASHER
F-P2255		10.5	52.5	2.5			With NUT&WASHER
F-P225/24		16.5	24	14.5		11.6	Without NUT&WASHER
F-P225/28		16.5	28	18.5		11.8	Without NUT&WASHER
F-P225NW/28			20	10.0		11.0	With NUT&WASHER
F-P225NW/28-1A		16.5	28	18.5	8.5	11.6	With NUT&WASHER
F-P225/28-1D	75	75 16.5 28 18.5 8.5 11.8	00	10 5	0.5	11.0	Without NUT&WASHER
F-P225NW/28-1D			11.0	With NUT&WASHER			
F-P225/35.8		110	05.0	00.0	0.5	11.0	Without NUT&WASHER
F-P225NW/35.8		14.2	35.8	26.3	8.5	11.6	With NUT&WASHER
F-P225/36.25		10.5	45.35	00.05	0 É		Without NUT&WASHER
F-P225NW/36.25		16.5	45.75	36.25	8.5	11.8	With NUT&WASHER

#### *F FEMALE, Solder type* **F-P225-3A PCB mount**



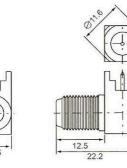
DCSA

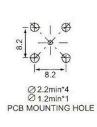
## F FEMALE, Solder type PCB mount F-P225SH



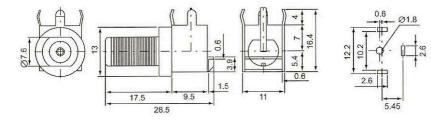
PART NO.	Ω	А	В	
F-P225SH	75	25.5	16	
F-P225SH/22	75	22	12.5	

### *F FEMALE*, *PCB mount* **F-P225SH/22.1**

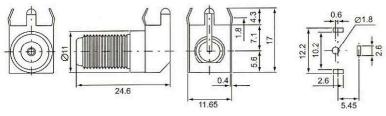




## F FEMALE, PCB mountF-P2253-1A

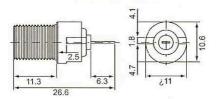


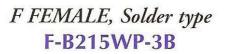
#### FFEMALE, PCB mount F-P2253-2A

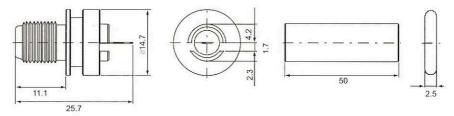


F FEMALE, Solder type F-B215-2B

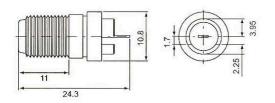
-F Series Connectors-



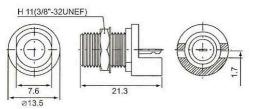




F FEMALE, Solder type F-B215-4B

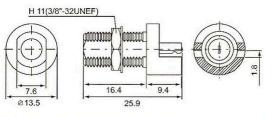






PART NO.	Ω	NOTE	
F-P2215	76	Without NUT&WASHER	
F-P2215NW	75	With NUT& WASHER	

## *F FEMALE*, *PCB mount* **F-P2215L**

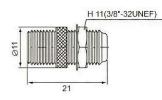


PART NO.		NOTE
F-P2215L	76	Without NUT&WASHER
F-P2215L-NW	75	With NUT& WASHER

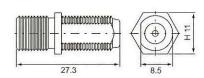
## **Adapters**



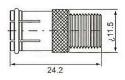




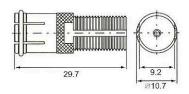
**Double F female F-81L-D-1B (75**Ω)



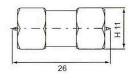
*F quick male - F female* **F-302 (75**Ω)



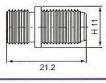
*F* quick male - *F* female F-302 D/D-14 (75<sup>Ω</sup>)



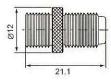
**Double F male F-311 (75**<sup>Ω</sup>)



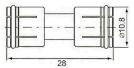
*F female Bulkhead receptacle* **F-332 (75** <sup>Ω</sup>)



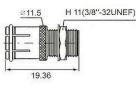
**Double** *F* female **F-81K-1** (75 Ω)



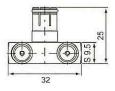
**Double F quick male F-301** (75 Ω)

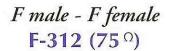


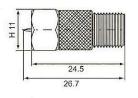
*F quick male - F female* F-302-2 / F-302NW-3 (75 Ω)



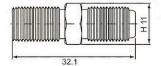
F quick male - double F female L type F-L302 (75  $\Omega$ )



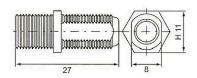




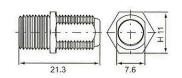
F female Bulkhead receptacle  $F-332-1-H11(75^{\Omega})$ 



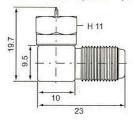
*F female Bulkhead receptacle* F-332-27 D/D (75 Ω)



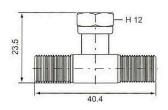
## *F female Bulkhead receptacle* F-332 D/D-L (75Ω)



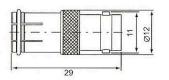
F male-F female right angle  $F-412 (75 \Omega)$ 

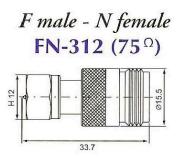


Double F female - single F male, T type  $F-512 (75^{\Omega})$ 

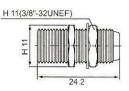


*F quick male - BNC female* **FB-302** (75<sup>Ω</sup>)

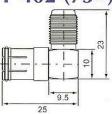




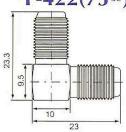




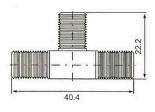
#### *F quick male - F female, right angle* **F-402** (75Ω)



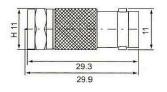
Double F female right angle  $F-422(75^{\Omega})$ 



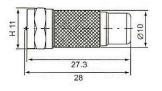
*Three F female*, *T type* **F-522** (75<sup>Ω</sup>)

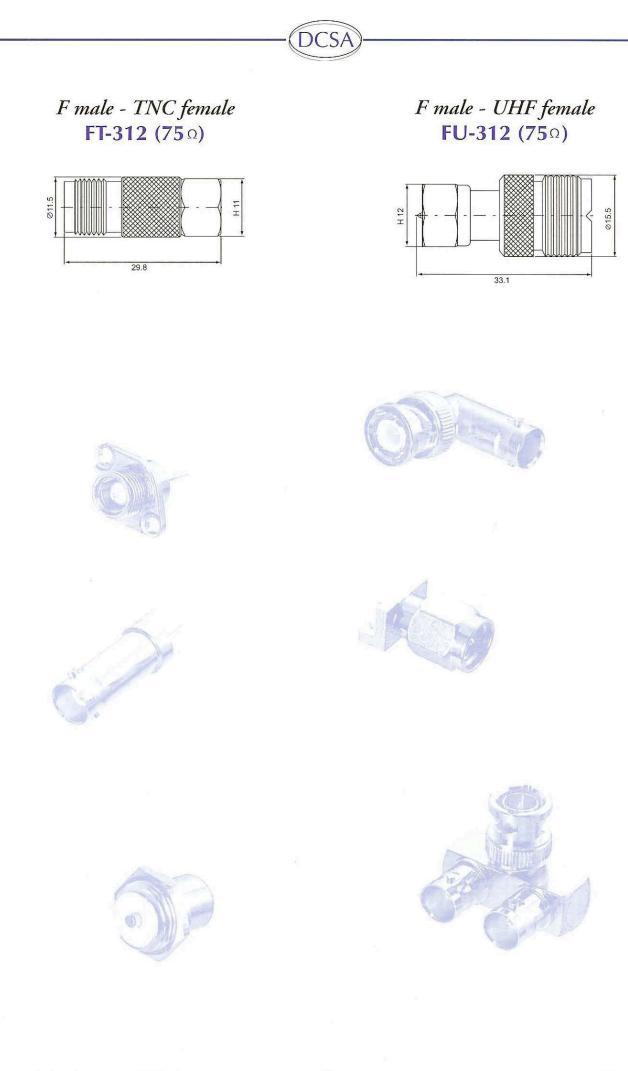


*F male - BNC female* **FB-312** (75<sup>Ω</sup>)



*F male - RCA female* **FR-312 (75** <sup>Ω</sup>)





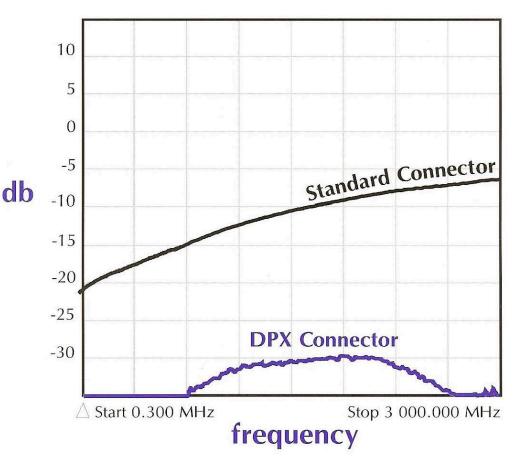
## **High Performance**

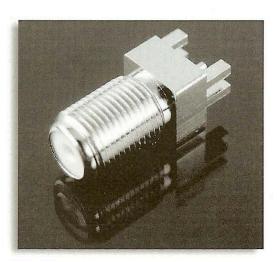


## **F Series Female DPX Connectors**

Exceptional performance - standard price

The DPX range of connectors has been designed to produce exceptional return loss performance at a highly competitive cost. Available in F series female, TV male and TV female variants, connectors can be supplied in all mounting types, (pcb mount, bulkhead mount etc.)





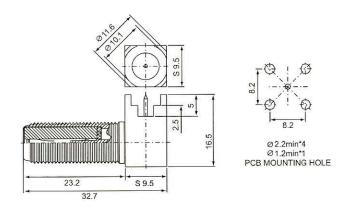
Frequency	F Female	TV Female	TV Male
80 Mhz	> 35 db		E.
470 Mhz	> 32 db	> 32 db	> 31 db
900 Mhz	> 32 db	> 28 db	> 27 db
2.15 Ghz	> 30 db	> 23 db	> 22 db
3.0 Ghz	> 30 db	> 23 db	> 22 db

## **Return Loss Figures**

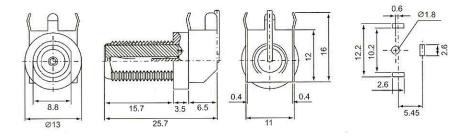
## 75 ohm 1 - 2Ghz

#### F FEMALE, Right angle, PCB mount F-P225 - DPX

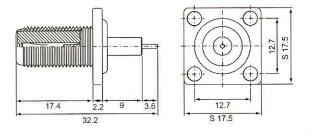
SA



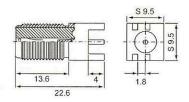
## F FEMALE, Right angle, PCB mount F-P225G D/D - DPX



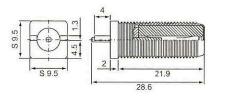
F FEMALE, Solder type panel receptacle F-P245SWP-1C-DPX



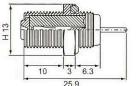
#### F FEMALE, PCB mount **EMIT-01-DPX** (75 Ω)



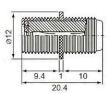
## F FEMALE, PCB mount **TRX-08-DPX (75**0)



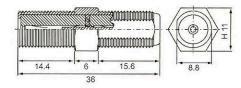
F FEMALE, Solder type Bulkhead receptacle F-235W-DPX-HO **(75**Ω)



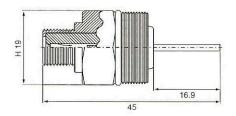
Double F FEMALE, Screw-on Bulkhead receptacle **F-332-DPXA (75**Ω)

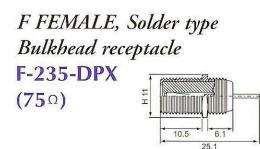


Double F FEMALE, Screw-on Bulkhead receptacle F-332H-LD-DPX (75 Ω)



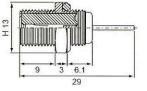






F FEMALE, Solder type Bulkhead receptacle F-235-HWP-DPX

**(75**Ω)



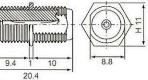
Double F FEMALE, Screw-on Bulkhead receptacle **F-332W-DPX** 

**(75**Ω)



Double F FEMALE, Screw-on Bulkhead receptacle

F-332-DPXA1 **(75**Ω)



35.5

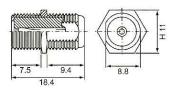
Double F FEMALE, Screw-on Bulkhead receptacle **F-332D-DPX (75**Ω)

14.2

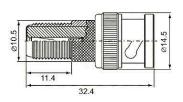


#### Double F FEMALE Screw-on Bulkhead receptacle F332LD-DPX

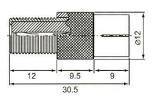
**(75**Ω**)** 



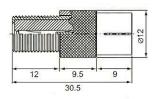
BNC MALE-F FEMALE BF-312-DPX (75 Ω)



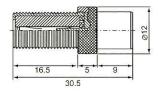
*TV MALE-F FEMALE* **EF-322-DPX-12** (75 Ω)



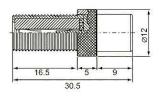
*TV FEMALE-F FEMALE* **EF-322-DPX-12** (75 Ω)



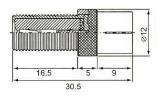
N MALE - F FEMALE NF-312-DPX (75 Ω)



*TV MALE-F FEMALE* **EF-312-DPX-16** (75 Ω)



*TV FEMALE-F FEMALE* **EF-322-DPX-16** (75Ω)



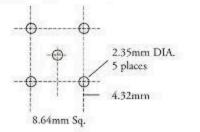
(DCSA)

## Cable Groups

To denote the cable group required add the following suffix to your part no. (E.g. N Series Male Crimp Type for RG/59 Camble = N - 111G)

Suffix		Cable Type - RG / U
A	120	5.5A, 6.6A, 212, 222
в	343	8.8A, 213
B C D E F		9.9A, 9B, 214
D	-	11, 11A
E	1.	22A, 22B
F		58, 58A, 58C, 141, 141A
G	101	59, 59A, 59B, 62
		2A, 62B, 62C, 210
н		71, 71A, 71B
1	(*)	108A
К	211	55, 55B, 142B, 400
L	941.1	174, 179A, 187, 188, 188A, 316
M		178, 178A, 179B, 196, 196A
N	07	179B, 187A
N Q R	10	55A, 142, 142A, 223
Q	- <b>H</b>	BELDEN 8281
R	10	BELDEN 8227 and 9207

#### PCB Board Drillings



Accessories





Part No. F-W Washer

For further information contact us now: Tel: 00 44 (0)1480 406206

> Email: sales@duplexcsa.com www.duplexcsa.com