

FIBER OPTIC CONNECTORS & COMPONENTS

LC series



RADIAL 
The next connexion

**A high-density fiber optic connector solution for Small Form Factor applications.
A new generation of technically advanced products designed for high optical performances.**

The LC connector meets all requirements where high density is necessary. It is the ideal compromise to provide space-saving advantages and guarantee performance and reliability of the optical transmission.

This series benefits from all the technical advantages mastered by Radiall, such as secured bonding and crimping reliability.

Features :

- ▶ One-piece / pull-proof design,
- ▶ Easy to install
- ▶ Available for multimode PC and single-mode PC, UPC and APC terminations
- ▶ Crimping reliability (ensuring the protection of the fiber and an excellent cable retention)
- ▶ Secured bonding (protection of the floating mechanism during the resin-injection process)
- ▶ RJ-45 or SC cutout for duplex
- ▶ High precision alignment
- ▶ Color coding (beige for multimode / blue for single-mode UPC / green for single-mode APC)
- ▶ Tunable (adjustable to 6 positions)
- ▶ Tested according to GR-326-CORE Telcordia and IEC 874 specification.

Applications :

Telecom Equipment, Telecommunication Networks, Fiber Channel (SAN), Broadband Subscriber Networks, CATV, Local Area Networks (LAN), Multimedia, industrial applications, etc.

OPTICAL PERFORMANCES

		Singlemode PC		Singlemode APC		Multimode PC	
		Random	To master	Random	To master	Random	To master
Wave length		1300 / 1550 nm		1300 / 1550 nm		1300 / 1550 nm	
Insertion loss	Mean Standard deviation	0.10 dB 0.07 dB	0.10 dB 0.05 dB	0.15 dB 0.12 dB	0.15 dB 0.10 dB	0.10 dB 0.07 dB	0.10 dB 0.05 dB
Return Loss		PC > 30 dB SPC > 40 dB UPC > 50 dB		> 60 dB - -		> 20 dB - -	

Random : IEC 61300-3-34

To master : IEC 61300-3-4 Method B

Return Loss : IEC 61300-3-6 (Maximum loss variation)

MECHANICAL and ENVIRONMENTAL PERFORMANCES

		0.9 mm	1.6 / 2.2 & 3 mm
Cable retention		7 N	68 N
Mechanical endurance		200 matings	
Operating temperature		-40° / +70° C	
Storage temperature		-40° / +85° C	
Materials	Moulded plastic parts Optical ferrule (connector) Alignment sleeve (adapter)	V O (UL94) Zirconia Zirconia or phosphor bronze	

INTERNATIONAL STANDARD DOCUMENTS

GR-326-CORE Telcordia specification

IEC 61754-20 Basic Standard for Interface dimensions

IEC 61300 Fiber Optic Interconnection Devices and Passive Components Basic Test and Measurement procedures.

SIMPLEX CONNECTORS *(Delivered with straight boot and crimping accessories)*

Cable diameter	Packaging*	PC125,3 (+1µm)	PC126 (+1µm)	PC 128	PC 230*	APC125,3 (+1µm)	APC126 (+1µm)
		Singlemode blue		Multimode beige		Singlemode green	
0.9 mm (buffer) short	100	F727 100 100	F727 102 100	F727 103 100	F727 005 100	F727 150 100	F727 152 100
0.9 mm (buffer) long (1)	100	F727 100 101	F727 102 101	F727 103 101	-	F727 150 101	F727 152 101
1.6 mm	100	F727 100 400	F727 102 400	F727 103 400	F727 005 400	F727 150 400	F727 152 400
2 mm	100	F727 100 500	F727 102 500	F727 103 500	F727 005 500	F727 150 500	F727 152 500
2.4 mm	100	F727 100 600	F727 102 600	F727 103 600	-	F727 150 600	F727 152 600
3 mm (2)	100	F727 100 700	F727 102 700	F727 103 700	F727 005 700	F727 150 700	F727 152 700

* Excepted PC 230 version : unit pack

APC 8° PRE-ANGLED SIMPLEX CONNECTORS

Cable diameter	packaging	APC125,3 (+1µm)	APC126 (+1µm)
		Singlemode green	
0.9 mm (short)	100	F727 130 100	F727 132 100
2 mm	100	F727 130 500	F727 132 500



DUPLEX CLIP *(Use the duplex clip to transform the simplex connector in a duplex one)*



Color	part number	packaging
Beige	F718 197 206	100
Blue	F718 197 201	100
Green	F718 197 205	100

(1) Long version 0.9 mm connector is compatible with the duplex clip.

(2) The simplex connector for 3 mm cable dia. Is not standardized. Some dimensions are different compared to the LC standard version. The technical data sheet is available on request.

Ask Radiall for Technical Data Sheet or consult www.radiall.com

The connectors are delivered with boots, dust caps and crimping accessories. Part numbers mentioned in the tables below allow to order additional boots for specific needs or various color codes requirements. It is also possible to order additional inner sleeves and crimping rings as well as dust caps in case of lost.

STRAIGHT BOOTS *(bag of 100)*

	0.9 mm cable dia.	1.6 mm cable dia.	2 / 2.2 mm cable dia.	3 mm cable dia.	Universal boot for 1.6 / 2 / 3 mm cable dia.
Black	F718 166 200	F718 161 200	F718 162 200	F718 193 200	-
Yellow	F718 166 202	F718 161 202	F718 162 202	-	-
Red	F718 166 203	F718 161 203	F718 162 203	F718 193 203	-
White	F718 166 204	F718 161 204	F718 162 204	F718 193 204	-
Blue	F718 166 201	F718 161 201	F718 162 201	F718 193 201	F718 169 201
Beige	F718 166 206	F718 161 206	F718 162 206	F718 193 206	F718 169 206
Green	F718 166 205	F718 161 205	F718 162 205	F718 193 205	F718 169 205

INNER SLEEVES and CRIMP RINGS

	packaging	1.6 mm cable dia.	2 / 2.2 mm cable dia.	3 mm cable dia.
Inner Sleeves	100	F718 157 200	F718 158 200	F718 158 200
Crimp rings	100	F718 159 200	F718 160 200	F718 170 200

DUST CAPS



part number	packaging
F718 183 204	100

ANGLED BOOTS *(Optional accessories)*



	part number	packaging
90° Short style, grey color	F718 185 200	100
90° Long style, grey color	F718 186 200	100
47° Short style, black color	F718 199 200	100

SIMPLEX ADAPTERS

Adapter type	packaging	Alignment sleeve	PC multimode beige	PC singlemode blue	APC singlemode green
LC cutout	100	Zirconia	F727 710 700	F727 710 000	F727 710 100
Snap-in mounting (Fig.1)	100	PH / BR	F727 710 800	F727 710 200	-
LC and low profile cutout	100	Zirconia	F727 711 700	F727 711 000	F727 711 100
Snap-in mounting (Fig.2)	100	PH / BR	F727 711 800	F727 711 200	-



DUPLEX ADAPTERS

Adapter type	packaging	Alignment Sleeve	PC multimode beige	PC singlemode blue	APC singlemode green
RJ-45 cutout snap-in mouting (Fig.3)	100	Zirconia	F727 750 700	F727 750 000	F727 750 100
	100	PH / BR	F727 750 800	F727 750 200	-
RJ-45 and low profile cutout (Fig.4)	100	Zirconia	F727 751 700	F727 751 000	F727 751 100
	100	PH / BR	F727 751 800	F727 751 200	-
SC cutout with panel clip (Fig.5)	100	Zirconia	-	F727 752 000	F727 752 100
	100	PH / BR	F727 752 800	-	-
SC RJ-45 cutout with panel clip (Fig.6)	100	Zirconia	F727 754 700	F727 754 000	F727 754 100
	100	PH / BR	F727 754 800	F727 754 200	-



ASSEMBLY KIT

110 V	F780 850 000
220 V	F780 851 000

Contents (The referenced products can be ordered separately)

Quantity	Tools	Part number
1	<i>Curing oven 220V</i>	<i>F780 483 000</i>
1	<i>Or : or Curing oven 110V</i>	<i>F780 484 000</i>
1	Cable stripping tool	F780 033 000
1	« Miller primary stripper (for 900µm coating)	F780 025 000
1*	Bag of 10 polishing films / 0.3µm	F780 827 000
2*	Bag of 10 polishing films / 1µm	F780 826 000
1*	Bag of 10 polishing films / 3µm	F780 825 000
1*	Bag of 10 abrasive strips (12µm)	F780 508 000
1	Soft rubber polishing base	F780 812 000
1*	Bag of 6 epoxy resin OE184	F780 242 000
1*	Bag of 5 syringes (size of needle)	F780 217 000
1	Ceramic scoring blade	F780 136 000
1	Microscope X100 (LC fitted)	F780 652 000
1	Ceramic scissors	F780 039 000
1	Solvent dispenser	F780 809 000
6	Set of cleaning paper	F780 527 000
1	Waste container	F780 811 000
1	<i>Manual polishing tool (PC straight polishing)</i>	<i>F780 633 000</i>
1	<i>Crimp tool (print 3.40mm)</i>	<i>F780 057 000</i>
1	<i>Inner-sleeve insertion tool</i>	<i>F780 290 000</i>

* consumable

Others : ruler, tweezers, adhesive paper, containers for resin preparation, thermometer.

The part numbers in italic make it possible to transform the Radiall SC/FC/ST tool kit into LC version. Their use is highly advised for the respect of the mechanical and optical performances.

OPTIONAL

F780 482 000	Metal unit block for curing oven (1)
F780 653 000	LC microscope adapter (1)
F780 634 000	APC 8° manual polishing tool

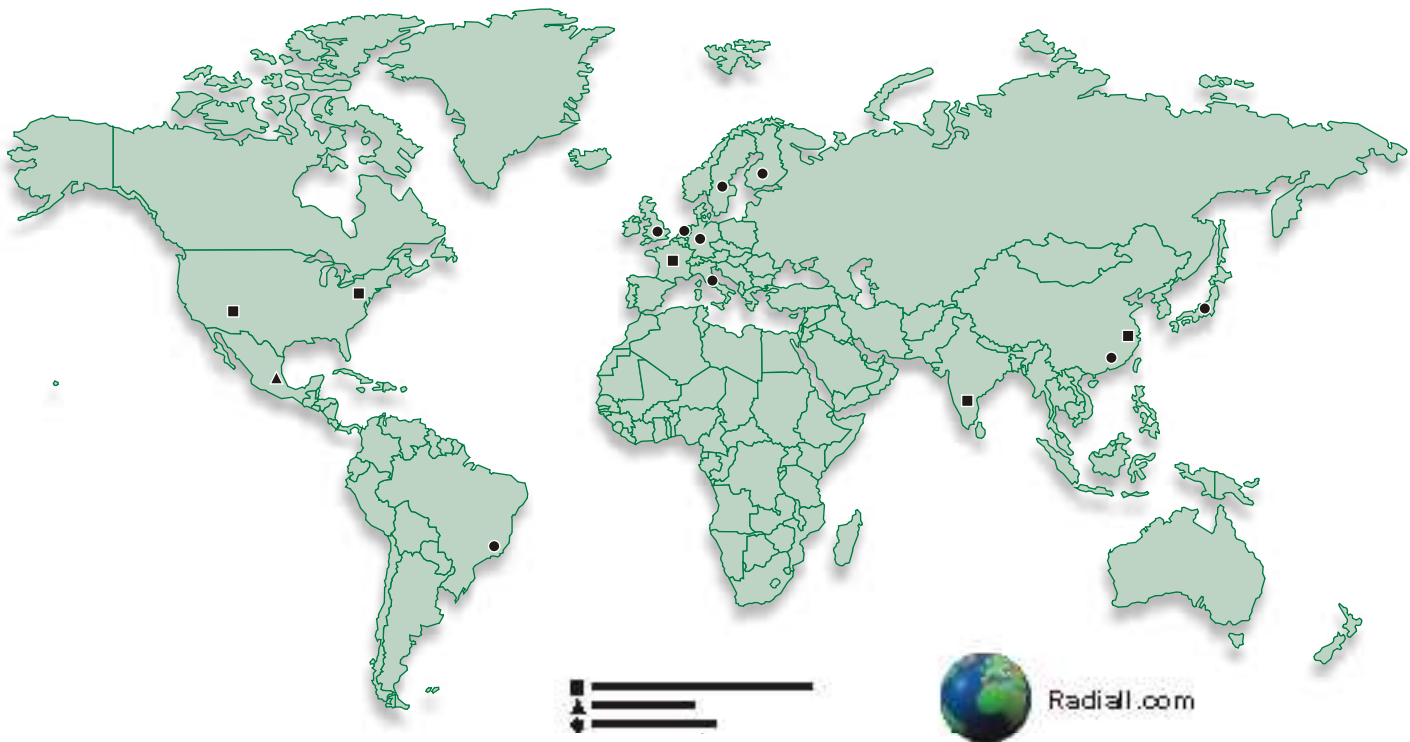
(1) These parts allow to convert standard Radiall tools in **LC** version.

JIGS FOR AUTOMATIC POLISHING MACHINES

Please consult Radiall for all information on jigs, accessories, consumables and procedures.



Refer to the ASSEMBLY INSTRUCTIONS manual for cabling operations.



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For the above countries, please contact the local agent or RADIALL at info@radiall.com

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This information is intended as a guide only. To ensure a continuing policy of product improvement, Radiall reserves the right to modify its specifications without prior notification.