



**OSIS by Radiall™**  
**One Step Interconnection Solution**

# Introduction

## THE EASIEST OUTDOOR INTERCONNECTION SOLUTION: IN ONLY ONE CLICK !

To meet the requirements of telecommunication operators in new generation of flexible base stations using FTTA links (fiber-to-the-antenna), Radiall has developed a new fast waterproof connection system: OSIS™, the One Step Interconnection Solution.

The OSIS by Radiall (Trademark) connection system makes secure and waterproof standard LC connection to SFP transceiver at the panel front of the equipment. It has been designed to withstand environmental constraints of outdoor applications in field conditions.

OSIS™ is available as a component (Kit Plug) to fit on any conventional LC connector or as a complete cable assembly.

## BENEFITS & FEATURES

### Easy to Install

- Quick lock Push-Pull connection system in One Step - Patent Pending
- Direct Plug into SFP module
- Compensation of the transceiver position tolerances in X, Y and Z axis

### Robust and safe

- LC connectors always protected
- Waterproof and dustproof
- Important tensile strength

### Flexible and modular

- Kit assembled in the field without tools over existing optical patch cords
- Compatible with a large range of standard LC connectors and standard SFP transceivers

### High density

- Stackable



## APPLICATIONS

- All outdoor telecommunication applications
- Antenna uplinks and downlinks in new installations supporting innovative technologies: 3G, 4G, WIMAX, CDMA, LTE

# Products characteristics

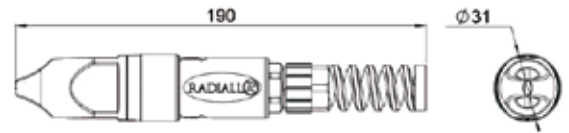
## OSIS™ PLUG KIT

Part Number: OSIS 115 000

(Plug connector only: no patch cord)



Overall Dimensions (mm)

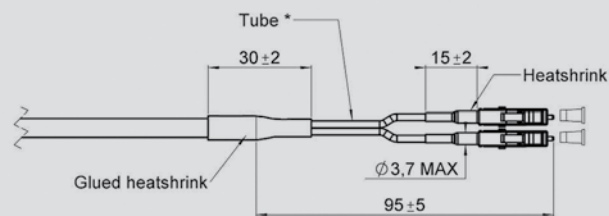
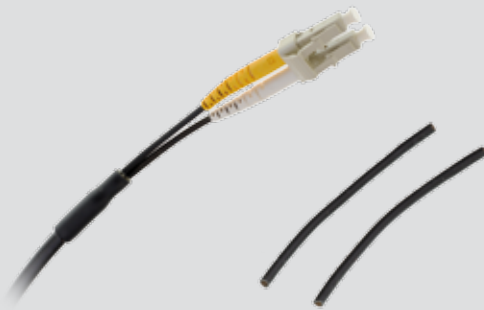


Packaging: unitary in plastic bag with assembly note.

The OSIS™ Plug Kit is adapted to all types of optical cable assemblies with simplex or duplex standard LC connectors and 5 to 7 mm diameter MultiMode or SingleMode field cable - other diameters on request.

To guarantee proper operation when the OSIS™ Plug Kit is assembled over existing optical patch cords, the following fan-out definition is recommended:

### FIBER STRIPPING AND TUBING RECOMMENDATIONS:



\*Tube must be flexible enough to guarantee an even bending radius of the fiber.  
RADIALL recommends the use of OSIS 990 000 retubing kit.

## MAIN CHARACTERISTICS

OSIS by Radiall™ connector is IEC 61300 qualified (fiber optic interconnection devices)

### Mechanical

Endurance	100 mating cycles minimum
Retention force	200N
Vibrations / Shocks	IEC 61300-2-1 / IEC 61300-2-9

### Environmental

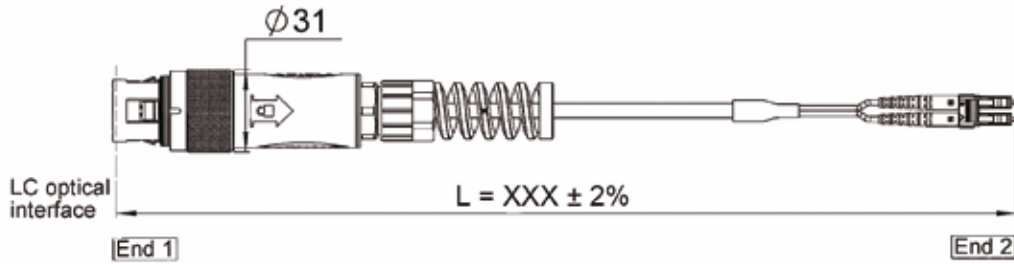
Ingress protection	IP65 or IP67 optionally
Temperature range	-40°C to +85°C
Salt Mist	IEC 61300-2-26



**RADIALL**   
The next connexion



## OSIS™ PRE-MOUNTED OPTICAL CABLE ASSEMBLIES



Any configuration of pre-mounted optical cable assembly with OSIS™ is available on demand:

- Field cables with diameters of 5 to 7 mm on standard – other cable sizes on request
- Standard LC connectors (OSIS side)
- Any possibility of optical connectors on the opposite side (LC, SC, FC, ST, ...)
- Simplex or duplex connectors
- MultiMode (50/125 or 62.5/125 on request) or SingleMode (9/125) field cable
- Polishing/finishing: PC or APC

### OPTICAL CHARACTERISTICS

According to IEC 61300-3-4 and IEC 61300-3-6

#### MultiMode field cable

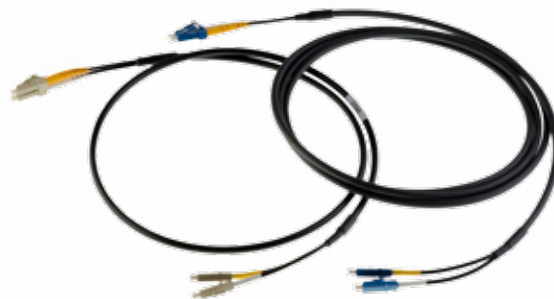
Insertion Loss (mated with reference plug) @850 nm	$\leq 1.2 \text{ dB} + 2.5 \text{ dB/Km}$
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#### SingleMode field cable

Insertion Loss (mated with reference plug) (@1310 & 1550 nm)	$\leq 1.2 \text{ dB}$
Return Loss (@1310 & 1550 nm)	$RL > 45 \text{ dB}$

### LC PATCH CORDS

Radiall can also provide any configuration of LC optical patch cords for use with the OSIS™ Plug Kit.



## OSIS™ RECEPTACLES



The standard OSIS™ receptacle is waterproof to IP67.

The receptacle is delivered with the protection cap mounted on the body.

It includes a center pin which has to be inserted into the transceiver cage to center the receptacle in X and Y axis before to fix it on the panel with screws.

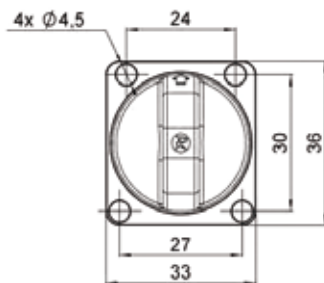


Figure 1

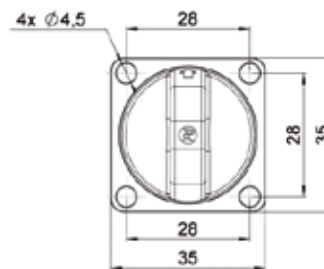


Figure 2

PART NUMBER	FIGURE	DESCRIPTION
OSIS 107 000	1	Receptacle with Trapezoidal fixture holes (foot print 24 / 27 x 30 mm)
OSIS 107 001	1	Receptacle with Trapezoidal fixture holes (foot print 24 / 27 x 30 mm) with cord
OSIS 107 002	2	Receptacle with Square fixture holes (foot print 28 x 28 mm)



**AEROSPACE**



**AUTOMOTIVE**



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**TELECOM**

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## ALSO REPRESENTED IN

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Brazil	Korea	Spain
Czech Republic	Latvia	Switzerland
Denmark	Lithuania	Taiwan
Estonia	Malaysia	Thailand
Greece	Norway	Vietnam
	Philippines	South Africa

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

