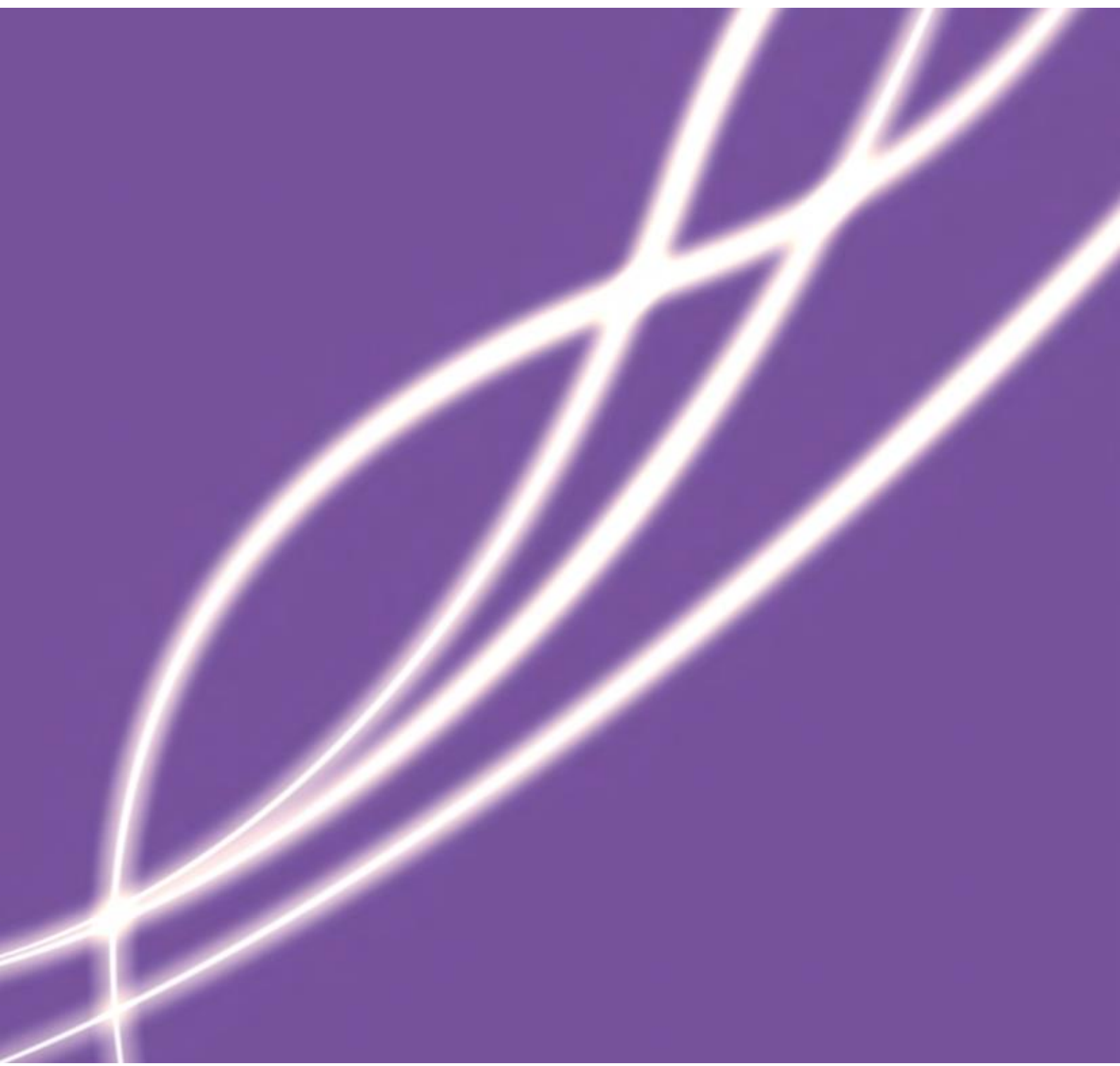


# **BDUK Phase 3 Segments**

## Technical Specification



**Contents**

- 1    Optical Fibre Specification ..... 3**
- 2    Optical Safety ..... 3**
- 3    Customer Interfaces ..... 3**
- 3.1 Patch Panel for External applications ..... 4**
- 3.2 Patch Panel for Restricted Spaces E.g. Lampposts ..... 4**
- 4    Document History ..... 5**

## 1 Optical Fibre Specification

The BDUK phase 3 segment service shall use G.652.A single mode optical fibre.

An optical loss figure will be provided by Openreach, the loss will be specified at both 1310nm and 1550nm.

Chromatic Dispersion Compensation is not provided.

Polarization mode dispersion (PMD) is not measured nor controlled.

The latency for G.652.A single mode fibre is typically 5µs /km but will not be measured or controlled as part of the service.

The refractive index of the optical fibre used for the BDUK phase 3 segments service is typically 1.47 but will not be specified as part of the BDUK phase 3 segments service.

## 2 Optical Safety

All equipment connected to a BDUK phase 3 segments service will incorporate sufficient safety features to ensure that lasers cannot operate at optical powers greater than Class 1M (as defined in IEC 60825-1) even under fault conditions and are safe for live working.

We will expect CPs to confirm their adherence to this requirement as part of the establishment process to consume the product.

Under no circumstances should laser power levels above those defined in the terms and conditions be applied to any part of the Openreach network. Higher optical powers present a significant risk to Openreach people working on the network. Any laser power levels identified as being above the agreed safe limit will be immediately isolated from the Openreach network on safety grounds. This may cause an interruption of service whilst an investigation takes place, and may ultimately result in Openreach terminating the service.

## 3 Customer Interfaces

The customer interface for the BDUK phase 3 segments service will be a number of captive female optical connectors dependent upon BDUK phase 3 segments service type.

It shall be the customer's responsibility to provide a connection from the Openreach optical patch panel into optical transmission equipment owned by the customer for any and each instance of the BDUK phase 3 segments service.

The optical connector(s) provided by the customer using the BDUK phase 3 segments service must be of the correct type and quality in order for the BDUK phase 3 segments service to operate correctly.

The optical connector(s) provided by the customer using the BDUK phase 3 segments service must be optically clean in order for the BDUK phase 3 segments service to operate correctly.

The optical connectors will be of type single SC-APC.

### 3.1 Patch Panel for External applications

Openreach will supply the 4 way Corning Connectorised Block Terminal (CBT).

These are supplied with pre-connected network tails which is suitable to be installed directly into Duct.

Connector interface: Optitap hardened SC/APC female connectors.

Optitap SC/APC patch cable are required to interface to CP equipment and need to be provided by the CP or its agents.



### 3.2 Patch Panel for Restricted Spaces E.g. Lampposts

Openreach will supply the Corning Connectorised twin flying connector.

These are supplied with pre-connected network tails which is suitable to be installed directly into Duct.

Openreach Connector interface: Optitap hardened SC/APC female connectors.

The CP or its agents will need to provide the appropriate Optitap male SC/APC patch cable to interface with Openreach equipment.



**To note:** any request for sub-sea cable connectivity will be assessed separately on a case by case basis.

#### 4 Document History

Status	Date	Details of Change
Final 1.0	March 2018	Final Publication

**\*DOCUMENT END\***