openreach

ISIS practice
For BT people

AEI/AEC/B301

Issue 5, 05-Aug-2022
Use until 05-Aug-2024

Published by AEI Documentation Team

Privacy- None

New ADSS and UG Cable Installation Guidance

Cables being introduced into the Openreach network temporarily as alternative to 36f ULW

About this document ...

Author

The author of this document may be contacted at:

Anthony Stewart
Overhead policy and standards engineer
Openreach (BOI)
Post Point Telecom Centre
Little Park Street
Coventry
WSTMID
CV1 2JY

Telephone: +447435663229
Fax:
Email: anthony.2.stewart@openreach.co.uk

Content approval

This is the Issue 5 of this document.
The information contained in this document was approved on 05-Aug-2022 by Glen Barford, Overhead Network Policy and Standards Specialist

Version History

Version No.	Date	Author	Comments
Issue 5	05-Aug-2022	Anthony Stewart	Reinstated with new author and approver
Issue 4	18-Feb-2021	Michael Rose	Author/Approver update
Issue 3	05-Mar-2018	. Chief Engineer	Updates to Birla, CDC and HFCL guides and to briefing deck at section 14.
Issue 2	13-Dec-2017	. Chief Engineer	Correction to PDF links
Issue 2	05-Dec-2017	. Chief Engineer	Updates Overhead cables table on Page 6.Updates to Birla, CDC and HFCL downloadable Installation guides at 5.1, 6.1 & 7.1. Also, the addition of a briefing deck for these cables at section 14.
Issue 1	10-Oct-2017	. Chief Engineer	No content change
Issue 1	03-Oct-2017	. Chief Engineer	(DC) Chief Engineer Documentation Team

Table of Content

1 *Executive Summary:*

This AEC details a range of cables that are being introduced into the Openreach network temporarily as an alternative to 36f ULW for overhead installations and COF 600 for underground installations.

Since these cables differ in sheath diameter to ULW and COF 600, and have different breaking load characteristics to ULW, alternative components and cable handling practices are required when installing them. The table and guidance provided in this document provide details on which components are required for each cable type. Please be aware that the cables suitable for overhead installation break at a much higher breaking load than ULW and the appropriate overhead rules detailed in the installation guides must be observed.

2 *Status:*

- Working Practice
- Quality Standard

3 *Scope:*

- ALL Fibre engineers and managers of fibre engineers
- BCD
- Network Assessors
- Planners
- Network Investment
- Contract

“The target audience is for all people working on or planning the Openreach Fibre network, Openreach, contractors and Northern Ireland”.

4 *Alternative Cables Overview*

The tables below provides an overview of the cables that have temporarily been introduced and details of which components are required for installing them.

Overhead Cables							
Cable Description	**Cable Item Code**	**TM Series Port Kit**			**OH Clamp**	**Locking Ballard**	**Suitable for installation Beneath Power Lines**
		Small & Medium Oval	**Large & X Large Oval**	**Circular**			
BT Cables (CDC) ADSS 36F OH CABLE BTC/CDC 2KM	092458	TM Series Small & Medium Oval Port Kit for COF 600 cable. Item Code 092231 or COF 209 port kit item code 088361	TM Extra Large & Large Node Oval Port kit for COF 209 cable. Item Code 090260	TM Circular Port Kit for two COF205 or two 12 fibre drop cable and 36f ULW cables. Item Code 082323 or COF 200 item code 082322	Telenco ACADSS10 Item Code 092656	Not Required	Yes Up to and Inc 33kV
BT Cables (HFCL) ADSS 36F OH CABLE BTC/HFCL 2KM	092459	TM Small & Medium Node Oval Port kit for COF 209 cable. Item Code 088361	No port kit available, loop through only possible in small and medium nodes.	TM Circular Port Kit for a single COF200 COF201 or COF209 cable. Item Code 082322	Telenco ACADSS10 Item Code 092656	Not Required	Yes Up to and Inc 33kV
BT Cables (Birla) ADSS 36F OH CABLE BTC/BIR 2KM	**092460**	**TM Small & Medium Node Oval Port Kit for COF 205 4, 12 fibre drop cable and 36f ULW cable. Item Code 088360**	**TM Extra Large & Large Node Oval Port kit for COF 205 cable item code 082258**	**TM Circular Port Kit for 12 fibre drop cable and 36f ULW cable. Item Code 088362.**	**Clamp 7mm - For 36 Fibre ULW Item Code 085656 and intermediate clamp item code 084076**	**Not Required**	**Yes Up to and Inc 33kV**
OFS ADSS NBA 48F OH CABLE 2KM.	**092514**	**TM Series Small & Medium Oval Port Kit for 11.1mm to 13mm cables. Item Code 092580.**	**TM Extra Large & Large Node Oval Port kit for COF 200, 201, 11.5-17.5mm cable Item Code 085856**	**TM Circular Port Kit for a single COF200 COF201 or COF209 cable. Item Code 082322**	**TBA**	**Not Required**	**Yes Up to and Inc 11kV**
OFS ADSS GLA 48F OH CABLE OFS 2KM	**092513**	**TM Series Small & Medium Oval Port Kit for 11.1mm to 13mm cables. Item Code 092580.**	**TM Extra Large & Large Node Oval Port kit for COF 200, 201, 11.5-17.5mm cable Item Code 085856**	**TM Circular Port Kit for a single COF200 COF201 or COF209 cable. Item Code 082322**	**TBA**	**Not Required**	**Yes Up to and Inc 11kV**

Underground Cables				
Cable Description	**Item Code**	**TM Series Port Kit**		
		Small & Medium Oval	**Large & X Large Oval**	**Circular**
24f & 48f OFS Vodaphone	NA	TM Series Small & Medium Oval Port Kit for COF 600 cable. **Item Code 092231**	TM Extra Large & Large Node Oval Port kit for COF 205 cable. **Item Code 082258**	TM Circular Port Kit for two COF205 or two 12 fibre drop cable and 36f ULW cables. **Item Code 082323**
96f OFS Vodaphone	NA	TM Small & Medium Node Oval Port kit for COF 209 cable. **Item Code 088361**	No port kit available, loop through only possible in small and medium nodes.	TM Circular Port Kit for a single COF200 COF201 or COF209 cable. **Item Code 082322**

5 *BT Cables (CDC) ADSS 36F OH CABLE BTC/CDC Installation Guide*

5.1 Introduction

This section provides information and installation guidance for the CDC 36 Fibre ADSS Cable. Please see embedded PDF.

CDC 36f install guide03.pdf

6 *BT Cables (HFCL) ADSS 36F OH CABLE BTC/HFCL Installation Guide*

6.1 Introduction

This section provides information and installation guidance for the HFCL 36 Fibre ADSS Cable. Please see embedded PDF.

HFCL 36f install guide_SJ03.pdf

7 *BT Cables (Birla) ADSS 36F OH CABLE BTC/BIR installation Guide*

7.1 Introduction

This section provides information and installation guidance for the Birla 36 Fibre ADSS Cable. Please see embedded PDF.

Birla 36f install guide (008).pdf

8 *OFS ADSS NBA 48F OH CABLE Installation Guide*

Awaiting samples to complete guidance

9 *OFS ADSS GLA 48F OH CABLE OFS 2KM*

Awaiting samples to complete guidance.

10 *OFS Vodaphone 24f UG Cable Preparation Guide*

This section details the cable make up of the OFS Vodaphone 24f UG cable and provides guidance on cable preparation. Please see embedded PDF.

For guidance on the installation of this cable into the underground network please refer to section 13 of this document.

OFS Vodafone 24f-edit lables_2.pdf

11 *OFS Vodaphone 48f Cable Preparation Guide*

This section details the cable make up of the OFS Vodaphone 48f UG cable and provides guidance on cable preparation. Please see embedded PDF.

For guidance on the installation of this cable into the underground network please refer to section 13 of this document.

OFS Vodafone 48f-SJ edit w lables_2

12 *OFS Vodaphone 96f UG Cable preparation guide*

This section details the cable make up of the OFS Vodaphone 96f UG cable and provides guidance on cable preparation. Please see embedded PDF.

For guidance on the installation of this cable into the underground network please refer to section 13 of this document.

OFS Vodafone 96f-edit w lables_2.p

13 *Installation of OFS UG Vodaphone Cables*

These practices should be applied in conjunction with the safety requirements referenced in the Cabling in Duct Manual EPT/UGP/E031

The maximum pulling tension for the 24f & 48f cables is 500N and 1250N for the 96f cable. Installation should be carried out by hand pulling only, as this prevents the fibres from being damaged by being over strained; exceeding this load may cause irreversible damage to the fibres resulting in a reduced service lifetime for the cable.

Use the FDC UG Cabling Stocking Grip (item code 046077) for securing the cable to the Drawrope or rod. To ensure the cable can attain the maximum pulling loading, it is essential the cable end is first layered with Tape Adhesive (item code 072129). It is recommended the tape adhesive is taken 75mm past the end of the cable grip. Failure to wrap Tape Adhesive over the cable end is likely to result in cable sheath failure.

When pulling in by hand a Connector Swivel 22mm 2A (127404) should be used with hand rods and cabling rope to minimise the twist on the cable.

If installing the cable from a mid-point; this cable can be formed into a figure of 8 to facilitate extended length installation.

Fleeting of the cable from a central joint box on longer lengths is possible using the usual figure eight format. It may be useful to hold the cable in position with sand bags at the start of the process, due to the cable being light and have tendency to blow about in windy conditions.

For further cabling guidelines see, ISIS EPT/ANS/A004 Optical Cable Underground Installation & Recovery, EPT/UGP/E031 Cabling In Duct Manual, EPT/UGP/E043 Cabling in Duct Manual and EPT/UGP/E044 Cabling in Duct Manual.

14 *Training:*

No training required for the installation of these cables, standard practices should be adopted in combination with the guidance provided in this document.

Briefing material:

A Slide Deck, providing information and guidance on deployment of the Birla, CD and HFCL Overhead Cables is available to download here.

ADSS Briefing pack - Feb18.pptx

15 *Quality Standards:*

Quality standards associated with OH and UG cables apply.

16 *Accreditation:*

Standard accreditation modules associated with OH and UG cables apply.

17 *Quality Checks and Independent Audit:*

Standard quality checks associated with OH and UG cables apply.

18 *Planning Policy:*

Consulted with John Tullin head of Planning & Policy, No updates to planning and policy required.

19 *Contract Impact:*

Mandatory

20 *Reference Documentation:*

20.1 Communications:

- A Loop article (Fibre Fix) will be published advising this AEC has been issued.

END OF DOCUMENT