

## **ISO/IEC 11801-1**

Edition 1.0 2017-11

### **INFORMATION TECHNOLOGY – GENERIC CABLING FOR CUSTOMER PREMISES**

#### **Part 1: General requirements**

## **CORRIGENDUM 1**

### **Foreword**

Replace, in list item d), “Category BCT-B, 8.1, and 8.2;” with “Categories BCT-B, 8.1 and 8.2;”.

Replace list item f) with the following new list item:

f) addition of cabled optical fibre Categories OS1a and OM5;

Replace, in list item g), “silica optical fibre cabling;” with “optical fibre classes;”

Replace list item h) with the following new list item:

h) cabled optical fibre Categories OM1, OM2 and OS1 have been moved to an informative annex.

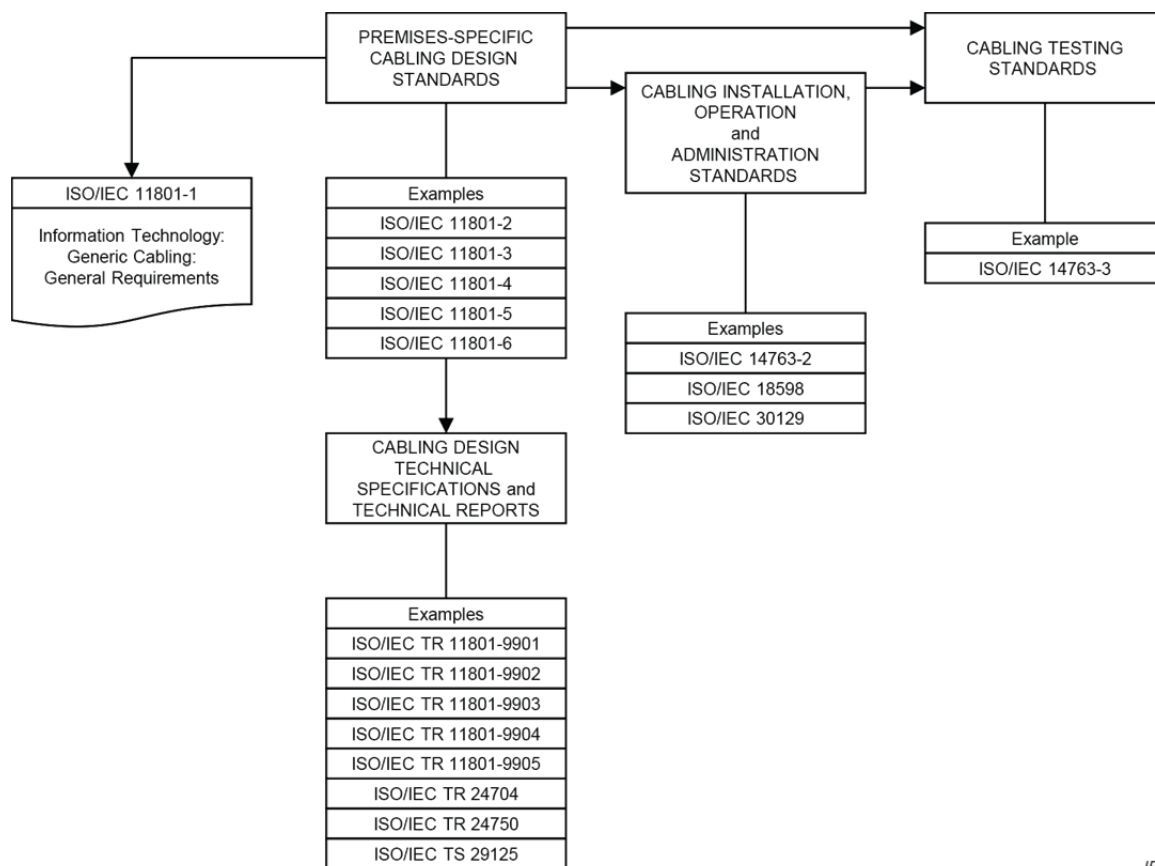
### **Introduction**

Replace the first paragraph with the following new paragraph:

This document contains general requirements in support of the other premises-specific referenced cabling design documents developed by ISO/IEC JTC 1/SC 25 including ISO/IEC 11801-2, ISO/IEC 11801-3, ISO/IEC 11801-4, ISO/IEC 11801-5, ISO/IEC 11801-6, related Technical Specifications and Technical Reports (including the ISO/IEC TR 11801-99xx series, ISO/IEC TR 24704, ISO/IEC TR 24750 and ISO/IEC TS 29125).

**Figure 1 – Relationships between the generic cabling documents produced by ISO/IEC JTC 1/SC 25**

Replace the figure graphic with the following new figure graphic:



### 3.1 Terms and definitions

In 3.1.26, delete “end-to-end” from the definition.

Delete the entire entry 3.1.32.

### 3.2 Abbreviations

Insert the following abbreviation:

☐ connection

Replace:

FEXT far-end crosstalk attenuation (loss)

with:

FEXT far-end crosstalk (loss)

Replace:

NEXT near-end crosstalk attenuation (loss)

with:

NEXT near-end crosstalk (loss)

### 3.3.1 Variables

Delete the following line:

□ connection

### 3.3.2 Indices

Delete the following line:

TO index to denominate a characteristic, measured from the TO

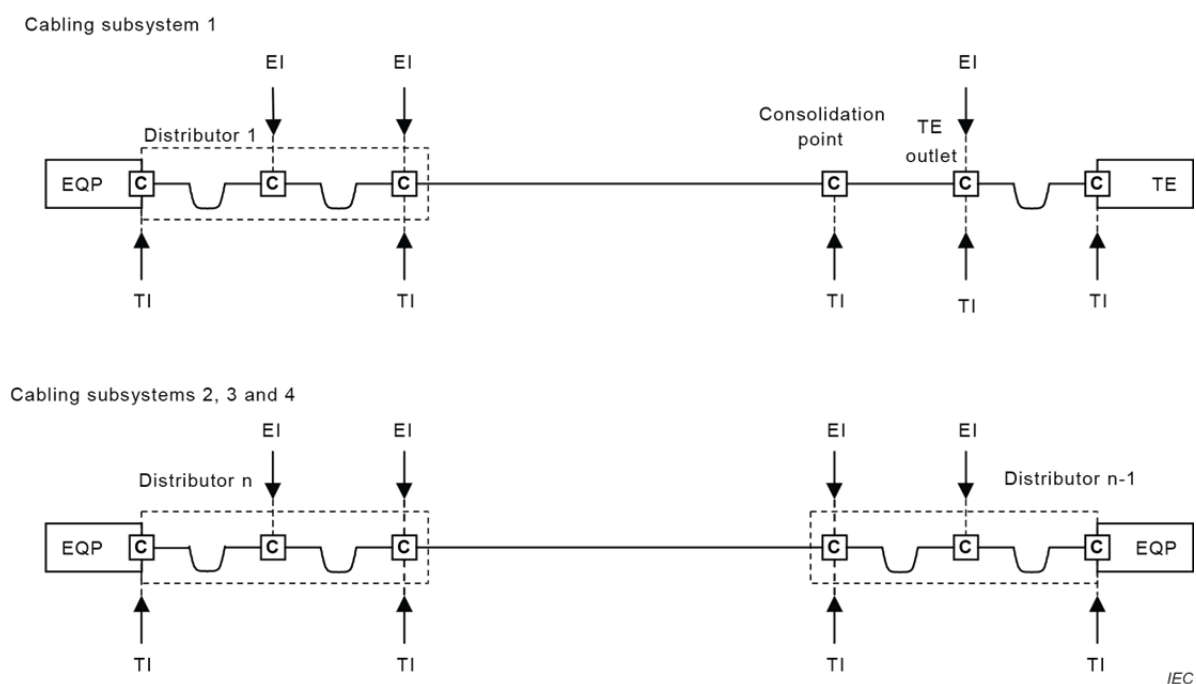
## 5.1 Functional elements

After the sentence “Groups of these functional elements are connected together to form cabling subsystems.”, insert the following new note:

NOTE The numbering of the cabling subsystems does not imply a hierarchy.

### Figure 5 – Equipment and test interfaces

Replace the figure graphic with the following new figure graphic:



**Table 2 – Details of environmental classification**

In row 20, insert “g/m<sup>3</sup>” after each numerical value in columns 2, 3 and 4, as follows:

|                                  |                    |                        |                        |
|----------------------------------|--------------------|------------------------|------------------------|
| Sodium chloride (salt/sea water) | 0 g/m <sup>3</sup> | < 0,3 g/m <sup>3</sup> | < 0,3 g/m <sup>3</sup> |
|----------------------------------|--------------------|------------------------|------------------------|

In row 21, insert “mg/m<sup>3</sup>” after each numerical value in columns 2, 3 and 4, as follows:

|                                                                   |                     |                           |                         |
|-------------------------------------------------------------------|---------------------|---------------------------|-------------------------|
| Oil (dry-air concentration)<br>(for oil types see <sup>b)</sup> ) | 0 mg/m <sup>3</sup> | < 0,005 mg/m <sup>3</sup> | < 0,5 mg/m <sup>3</sup> |
|-------------------------------------------------------------------|---------------------|---------------------------|-------------------------|

In row 22, insert “mg/m<sup>3</sup>” after each numerical value in columns 3 and 4, as follows:

|                        |      |                                                                |                                                            |
|------------------------|------|----------------------------------------------------------------|------------------------------------------------------------|
| Sodium stearate (soap) | None | > 5 × 10 <sup>4</sup> mg/m <sup>3</sup> aqueous<br>non-gelling | > 5 × 10 <sup>4</sup> mg/m <sup>3</sup> aqueous<br>gelling |
|------------------------|------|----------------------------------------------------------------|------------------------------------------------------------|

In rows 26 to 35, insert “mg/m<sup>3</sup>” after each numerical value in columns 2, 3 and 4, as follows:

|                                |                                                          |                                                         |                                                       |
|--------------------------------|----------------------------------------------------------|---------------------------------------------------------|-------------------------------------------------------|
| Hydrogen sulphide              | < 0,003 mg/m <sup>3</sup> /<br>< 0,01 mg/m <sup>3</sup>  | < 0,05 mg/m <sup>3</sup> /<br>< 0,5 mg/m <sup>3</sup>   | < 10 mg/m <sup>3</sup> / < 50 mg/m <sup>3</sup>       |
| Sulphur dioxide                | < 0,01 mg/m <sup>3</sup> /<br>< 0,03 mg/m <sup>3</sup>   | < 0,1 mg/m <sup>3</sup> / < 0,3 mg/m <sup>3</sup>       | < 5 mg/m <sup>3</sup> / < 15 mg/m <sup>3</sup>        |
| Sulphur trioxide (ffs)         | < 0,01 mg/m <sup>3</sup> /<br>< 0,03 mg/m <sup>3</sup>   | < 0,1 mg/m <sup>3</sup> / < 0,3 mg/m <sup>3</sup>       | < 5 mg/m <sup>3</sup> / < 15 mg/m <sup>3</sup>        |
| Chlorine wet (> 50 % humidity) | < 0,000 5 mg/m <sup>3</sup> / < 0,001 mg/m <sup>3</sup>  | < 0,005 mg/m <sup>3</sup> /<br>< 0,03 mg/m <sup>3</sup> | < 0,05 mg/m <sup>3</sup> /<br>< 0,3 mg/m <sup>3</sup> |
| Chlorine dry (< 50 % humidity) | < 0,002 mg/m <sup>3</sup> /<br>< 0,01 mg/m <sup>3</sup>  | < 0,02 mg/m <sup>3</sup> /<br>< 0,1 mg/m <sup>3</sup>   | < 0,2 mg/m <sup>3</sup> / < 1,0 mg/m <sup>3</sup>     |
| Hydrogen chloride              | – / < 0,06 mg/m <sup>3</sup>                             | < 0,06 mg/m <sup>3</sup> /<br>< 0,3 mg/m <sup>3</sup>   | < 0,6 mg/m <sup>3</sup> / 3,0 mg/m <sup>3</sup>       |
| Hydrogen fluoride              | < 0,001 mg/m <sup>3</sup> /<br>< 0,005 mg/m <sup>3</sup> | < 0,01 mg/m <sup>3</sup> /<br>< 0,05 mg/m <sup>3</sup>  | < 0,1 mg/m <sup>3</sup> / < 1,0 mg/m <sup>3</sup>     |
| Ammonia                        | < 1 mg/m <sup>3</sup> / < 5 mg/m <sup>3</sup>            | < 10 mg/m <sup>3</sup> / < 50 mg/m <sup>3</sup>         | < 50 mg/m <sup>3</sup> / < 250 mg/m <sup>3</sup>      |
| Oxides of nitrogen             | < 0,05 mg/m <sup>3</sup> /<br>< 0,1 mg/m <sup>3</sup>    | < 0,5 mg/m <sup>3</sup> / < 1 mg/m <sup>3</sup>         | < 5 mg/m <sup>3</sup> / < 10 mg/m <sup>3</sup>        |
| Ozone                          | < 0,002 g/m <sup>3</sup> /<br>< 0,005 g/m <sup>3</sup>   | < 0,025 g/m <sup>3</sup> / < 0,05 g/m <sup>3</sup>      | < 0,1 g/m <sup>3</sup> / < 1 g/m <sup>3</sup>         |

### 6.3.1 General

In the first sentence after list item 2), replace “two sub-Classes, L and M.” with “two sub-Classes, L and M (see Table 5).”

#### 6.3.3.2 Insertion loss/attenuation

In the last paragraph before Table 5, delete “, at maximum implementation,”.

#### 6.3.3.6 Direct current loop resistance

Replace the first paragraph with the following new paragraph:

The DC loop resistance requirements are applicable to all cabling Classes.

**6.3.3.7 Direct current resistance unbalance**

Replace the first paragraph with the following new paragraph:

The DC resistance unbalance requirements are applicable to all cabling Classes.

**6.3.3.10 Propagation delay**

Replace the first paragraph with the following new paragraph:

The propagation delay requirements are applicable to all cabling Classes.

**6.3.3.11 Delay skew**

Replace the first paragraph with the following new paragraph:

The delay skew requirements are applicable to all cabling Classes.

**6.3.3.12.2 Unbalance attenuation, near-end**

In the second paragraph, first sentence, replace the two instances of the word “systems” with “channels”.

**Table 21 – TCL for channel for unscreened systems**

In the title of Table 21, replace the word “systems” with “channels”.

At the end of footnote b, add the following new text:

“ $f_u$  is the upper frequency of the Class.”

**Table 25 – ELTCTL for channel for unscreened systems**

In the title of Table 25, replace the word “systems” with “channels”.

**Table 29 – Coupling attenuation for a channel for screened systems**

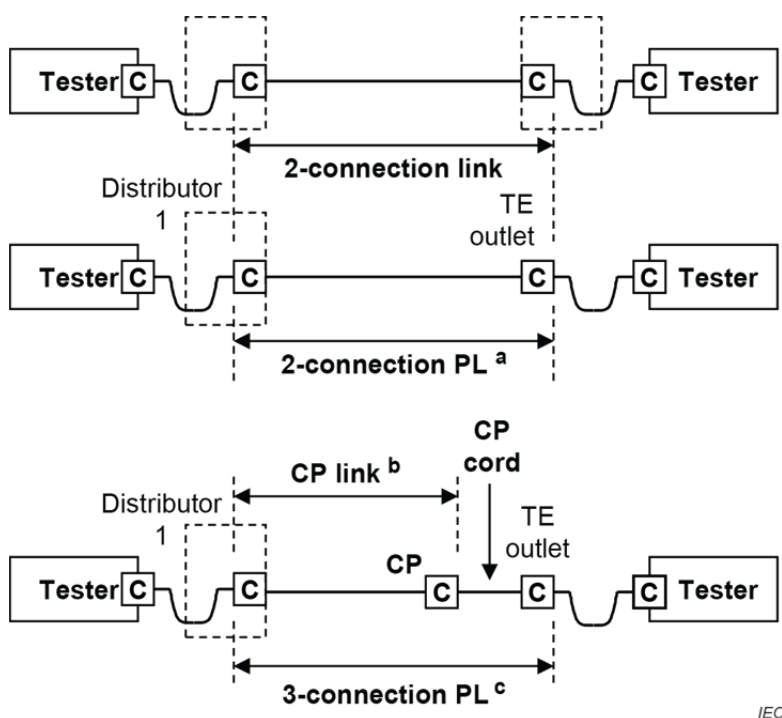
In the title of Table 29, replace the word “systems” with “channels”.

**6.3.3.13.2 Power sum alien NEXT**

In the second paragraph, delete “, at maximum implementation,”.

**Figure 7 – Link designations**

Replace the figure graphic with the following new figure graphic:



### 7.2.1 General

In the last paragraph, delete the following sentence:

Link requirements for unbalance attenuation and coupling attenuation are ffs.

### Table 84 – Backbone link length equations

Replace list item 1) with the following new list item:

- 1) 0,2 % per °C for screened balanced cables up to 60 °C,

### Figure 12 – Four position jack pin and pair grouping assignments for IEC 61076-2-101 connecting hardware (front view of connector)

Replace the Figure 12 title with the following new title:

### Figure 12 – Four position connector pin and pair assignments for IEC 61076-2-101 connecting hardware (front view of male connector)

### Figure 13 – Eight position jack pin and pair grouping assignments for IEC 61076-2-109 connecting hardware (front view of connector)

Replace the Figure 13 title with the following new title:

### Figure 13 – Eight position connector pin and pair grouping assignments for IEC 61076-2-109 connecting hardware (front view of male connector)

### Table 140 – Informative values of return loss for balanced cords at key frequencies

In the first column, delete “ffs” at frequency value 2 000.

**Table E.1 – Applications using balanced cabling**

In rows 25 and 26, replace, in the second column, “IEEE 802.3bz:2016” with “ISO/IEC/IEEE 8802-3:2017/AMD7”, as follows:

|                     |                                                        |      |                                                       |
|---------------------|--------------------------------------------------------|------|-------------------------------------------------------|
| Ethernet 2.5GBASE-T | ISO/IEC/IEEE 8802-3:2017/AMD7, Clause 126 <sup>a</sup> | 2016 | 2.5 Gigabit Ethernet over Twisted Pairs, IEEE 802.3bz |
| Ethernet 5GBASE-T   | ISO/IEC/IEEE 8802-3:2017/AMD7, Clause 126 <sup>a</sup> | 2016 | 5 Gigabit Ethernet over Twisted Pairs, IEEE 802.3bz   |

In row 35, replace “20xx” with “2017”, as follows:

|                                              |
|----------------------------------------------|
| <b>Class I 2017 (defined up to 2000 MHz)</b> |
|----------------------------------------------|

In rows 36 and 37, replace, in the second column, “IEEE 802.3bq:2016” with “ISO/IEC/IEEE 8802-3:2017/AMD3”, as follows:

|                    |                                           |      |                                                      |
|--------------------|-------------------------------------------|------|------------------------------------------------------|
| Ethernet 25GBASE-T | ISO/IEC/IEEE 8802-3:2017/AMD3, Clause 113 | 2016 | 25 Gigabit Ethernet over Twisted Pairs, IEEE 802.3bq |
| Ethernet 40GBASE-T | ISO/IEC/IEEE 8802-3:2017/AMD3, Clause 113 | 2016 | 40 Gigabit Ethernet over Twisted Pairs, IEEE 802.3bq |

In row 38, replace “20xx” with “2017”, as follows:

|                                               |
|-----------------------------------------------|
| <b>Class II 2017 (defined up to 2000 MHz)</b> |
|-----------------------------------------------|

In rows 39 and 40, replace, in the second column, “IEEE 802.3bq:2016” with “ISO/IEC/IEEE 8802-3:2017/AMD3”, as follows:

|                    |                                           |      |                                                      |
|--------------------|-------------------------------------------|------|------------------------------------------------------|
| Ethernet 25GBASE-T | ISO/IEC/IEEE 8802-3:2017/AMD3, Clause 113 | 2016 | 25 Gigabit Ethernet over Twisted Pairs, IEEE 802.3bq |
| Ethernet 40GBASE-T | ISO/IEC/IEEE 8802-3:2017/AMD3, Clause 113 | 2016 | 40 Gigabit Ethernet over Twisted Pairs, IEEE 802.3bq |

In the text box, in the first paragraph, replace two instances of “10GBase-T” with “10GBASE-T”.

In the text box, in the second paragraph, replace two instances of “2.5GBase-T” with “2.5GBASE-T”.

In the text box, in the fourth paragraph, first sentence, replace “are” with “is”.

In the text box, in the fourth paragraph, second sentence, delete two instances of “(ffs)”.