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Fiber ribbons

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Foreword

This Japanese Industrial Standard has been revised by the Minister of Economy, Trade and Industry through deliberations at the Japanese Industrial Standards Committee as the result of proposal for revision of Japanese Industrial Standard submitted by Optoelectronics Industry and Technology Development Association (OITDA)/Japanese Standards Association (JSA) with a draft being attached, based on the provision of Article 12, paragraph (1) of the Industrial Standardization Act applied mutatis mutandis pursuant to the provision of Article 16 of the said Act. This edition replaces the previous edition (**JIS C 6838:2019**), which has been technically revised.

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Fiber ribbons

Introduction

This Japanese Industrial Standard has been prepared based on **IEC 60794-1-31** : 2018, Edition 1, with some modifications of the technical contents for reflecting the local needs and situations in Japan.

The vertical lines on both sides and dotted underlines indicate changes from the corresponding International Standard. A list of modifications with the explanations is given in Annex JA.

1 Scope

This Standard specifies requirements for fiber ribbons (hereafter referred to as fiber ribbons) which are so manufactured that plural silica glass single-mode optical fibers and silica glass multimode optical fibers are placed side by side along a straight line.

NOTE The International Standards corresponding to this Standard and the symbol of degree of correspondence are as follows.

IEC 60794-1-31 : 2018 *Optical fibre cables — Part 1-31 : Generic specification — Optical cable elements — Optical fibre ribbon (MOD)*

In addition, symbols which denote the degree of correspondence in the contents between the relevant International Standards and **JIS** are IDT (identical), MOD (modified), and NEQ (not equivalent) according to **ISO/IEC Guide 21-1**.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this Standard. The most recent editions of the standards (including amendments) indicated below shall be applied.

JIS C 6820 *General rules of optical fibers*

JIS C 6832 *Silica glass multimode optical fibers*

NOTE Corresponding International Standard : IEC 60793-2-10 *Optical fibres — Part 2-10 : Product specifications — Sectional specification for category A1 multimode fibres*

JIS C 6835 *Silica glass single-mode optical fibers*

NOTE Corresponding International Standard : IEC 60793-2-50 *Optical fibres — Part 2-50 : Product specifications — Sectional specification for class B single-mode fibres*

JIS C 6870-1-23 *Optical fiber cables — Part 1-23 : Basic optical fiber cable test procedures — Cable element test methods*

NOTE Corresponding International Standard : IEC 60794-1-23 *Optical fibre ca-*

bles — Part 1-23 : Generic specification — Basic optical cable test procedures — Cable element test methods

3 Terms and definitions

For the purpose of this Standard, the terms and definitions given in **JIS C 6820** apply.

4 Type designation and classification

4.1 Structure of type designation

The type designation shall be structured by arranging the symbols as given below based on Clause 4 of **JIS C 6820**.

Symbol denoting material of secondary coating	Number of component optical fibers	Symbol denoting material of optical fiber	Symbol denoting refractive index profile or classification of optical fiber	Symbol denoting size of optical fiber	Symbol denoting other necessary items
Example U	4	— S	SMA	— 9.3/125	— J1

- The material of secondary coating (sheath) shall be denoted by U indicating cured resin or Z indicating other materials.
- The number of component optical fibers means the number of said fibers which constitutes the fiber ribbon.
- The symbol denoting material of optical fiber shall be S, which stands for silica glass system.
- The symbols which denote refractive index profile or classification of optical fiber shall be as given in Table 1, based on 4.2.2 of **JIS C 6820**.

Table 1 Refractive index profile or classification of optical fiber

Symbol	Refractive index profile or classification of optical fiber
SI	Multimode step index type
QI	Multimode quasi step index type
GI	Multimode graded index type
SMA	Single-mode 1 310 nm dispersion unshifted type
SMA·T	Single-mode 1 550 nm cut-off shifted type
SMA·U	Single-mode 1 310 nm dispersion unshifted, low OH type
SMB	Single-mode 1 550 nm dispersion shifted type
SMC	Single-mode dispersion flattened type
SMD	Single-mode non-zero dispersion shifted type
SME	Wideband non-zero dispersion shifted type
SMF·A	Bending loss insensitive type
SMF·B	Bending loss insensitive type