JIS

JAPANESE
INDUSTRIAL
STANDARD

Translated and Published by
Japanese Standards Association

JIS C 5870 : 2009

(OITDA/JSA)

General specifications of interference filters

ICS 31.160 ; 31.260 ; 33.180.20
Reference number : **JIS C** 5870 : 2009 (E)

Date of Establishment: 1990-01-01

Data of Revision: 2009-03-20

Date of Public Notice in Official Gazette: 2009-03-23

Investigated by: Japanese Industrial Standards Committee

Standards Board

Technical Committee on Electronics Technology

JIS C 5870 : 2009, First English edition published in 2010-03

Translated and published by: Japanese Standards Association
4-1-24, Akasaka, Minato-ku, Tokyo, 107-8440 JAPAN

In the event of any doubts arising as to the contents,
the original JIS is to be the final authority.

Printed in Japan

KA/HN

Contents

Foreword

This translation has been made based on the original Japanese Industrial Standard 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 Optoelectronic Industry and Technology Development Association (OITDA)/ Japanese Standards Association (JSA) with the draft being attached, based on the provision of Article 12 Clause 1 of the Industrial Standardization Law applicable to the case of revision by the provision of Article **14.**

Consequently JIS C **5870**：1992 is replaced with this Standard.

Attention is drawn to the possibility that some parts of this Standard may conflict with a patent right, application for a patent after opening to the public, utility model right or application for registration of utility model after opening to the public which have technical properties. The relevant Minister and the Japanese Industrial Standards Committee are not responsible for identifying the patent right, application for a patent after opening to the public, utility model right or application for registration of utility model after opening to the public which have the said technical properties.

General specifications of interference filters

1 Scope

This Japanese Industrial Standard specifies general requirements of the interference filters intended for wavelength separation which receive and transmit spatial light beam and are used mainly for optical transmission.

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 5860 *General rules of passive devices for light beam transmission*

JIS C 5871 *Test methods of interference filter*

JIS C 5900 *General rules of passive devices for fiber optic transmission*

JIS Z 8120 *Glossary of optical terms*

3 Terms and definitions

For the purposes of this Standard, and the terms and definitions given in clause 3 of JIS C 5860, clause 3 of JIS C 5900 and JIS Z 8120, and the following apply.

3.1 interference filter

a filter which selectively transmits or reflects light of a specific band by utilizing the interference of light by a thin film

3.2 operating temperature range

circumference temperature range within which an optical component can be used under an appropriate condition

3.3 operating wavelength range

light wavelength range to satisfy the desired characteristic

3.4 optical loss

the ratio of the emergent optical power to the incident optical power of an interference filter, under specific using conditions, expressed in decibels

It is calculated from the following formula.