

# MOST

Media Oriented Systems Transport

Multimedia and Control  
Networking Technology

**MOST Specification of Physical Layer  
Rev 1.1 Addendum A**

**04/2005**

Version 1.0-05

**MOSTCO CONFIDENTIAL**

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## Document References

All documents which this MOST document have references to are listed here with the actual revision this document is referring to.

Number	Document	Revision
1	<b>MOST Specification of Physical Layer</b>	<b>Rev 1.1</b>

## Document History

Changes MOST Specification xVx-xx to MOST Specification yVy-yy

Change Ref.	Section	Changes

# 1 Introduction

This document is a supplement to the **MOST Specification of Physical Layer, Rev 1.1**  
The Contents of this Document will be part of **MOST Specification of Physical Layer, Rev 1.2**

## 2 Content of Addendum

### 2.1 Wavelength, Spectra definition at Specification Point 2, 3

Following add-on will be implement to Table 2-2: Signal parameters of Specification Point 2, and Table 2-3: Signal parameters of Specification Point 3.

	Symbol	Condition	Min.	Typ.	Max.	Unit
Peak wavelength	$\lambda_2$	10)	630	650	685	nm
FWHM	$\Delta\lambda_2$	10)	-	-	30	nm
Center wavelength	$\lambda_{c2}$	11),12)	635	650	675	nm
Spectral Width (RMS)	$\sigma\lambda_2$	11),13)	-	-	17	nm
10) in case of Gaussian distribution 11) in case of non Gaussian distribution  12) center wavelength $\lambda_{c2}$ is given with: $\lambda_{c2} = \frac{\sum_i P_i \lambda_i}{\sum_i P_i}$  13) spectral width $\sigma\lambda_2$ is given with: $\sigma\lambda_2 = \sqrt{\frac{\sum_i P_i (\lambda_i - \lambda_{c2})^2}{\sum_i P_i}}$						

## 3 Comment

### 3.1 Reason for Addendum

Newer more efficient light emitting diodes (LEDs) can have a non Gaussian spectral distribution. The description with peak wavelength and FWHM in combination with an asymmetric spectrum allows having large optical power in ranges with much optical attenuation in the POF. On the other hand it caused useless constraints to the new technology.

## **3.2 Technical Issues**

### **3.2.1 Measurement**

To measure the real wavelength distribution a measurement device with a spectral range of 300 nm – 1000 nm and a resolution of  $\leq \pm 1$  nm is required. For statistical considerations the step has to be  $\leq 1$  nm. To calculate the center wavelength and the standard deviation see Note 12, 13.

### **3.2.2 Effect to existing Harness and FOT**

There is no effect to existing Harnesses and FOTs because the added values of spectral distribution are only a more exact description of the spectra of light emitting diodes.

## 4 Appendix A: List of Figures

## 5 Appendix B: List of Tables

## 6 Appendix C: INDEX

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