

‘02-07-10

# SC Attenuator (Fixed, Plug Type)

OFAT-S Series

## TECHNICAL SPECIFICATIONS

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SC Attenuator(Fixed, Plug Type)

## TECHINICAL SPECIFICATIONS

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1. PROVISION

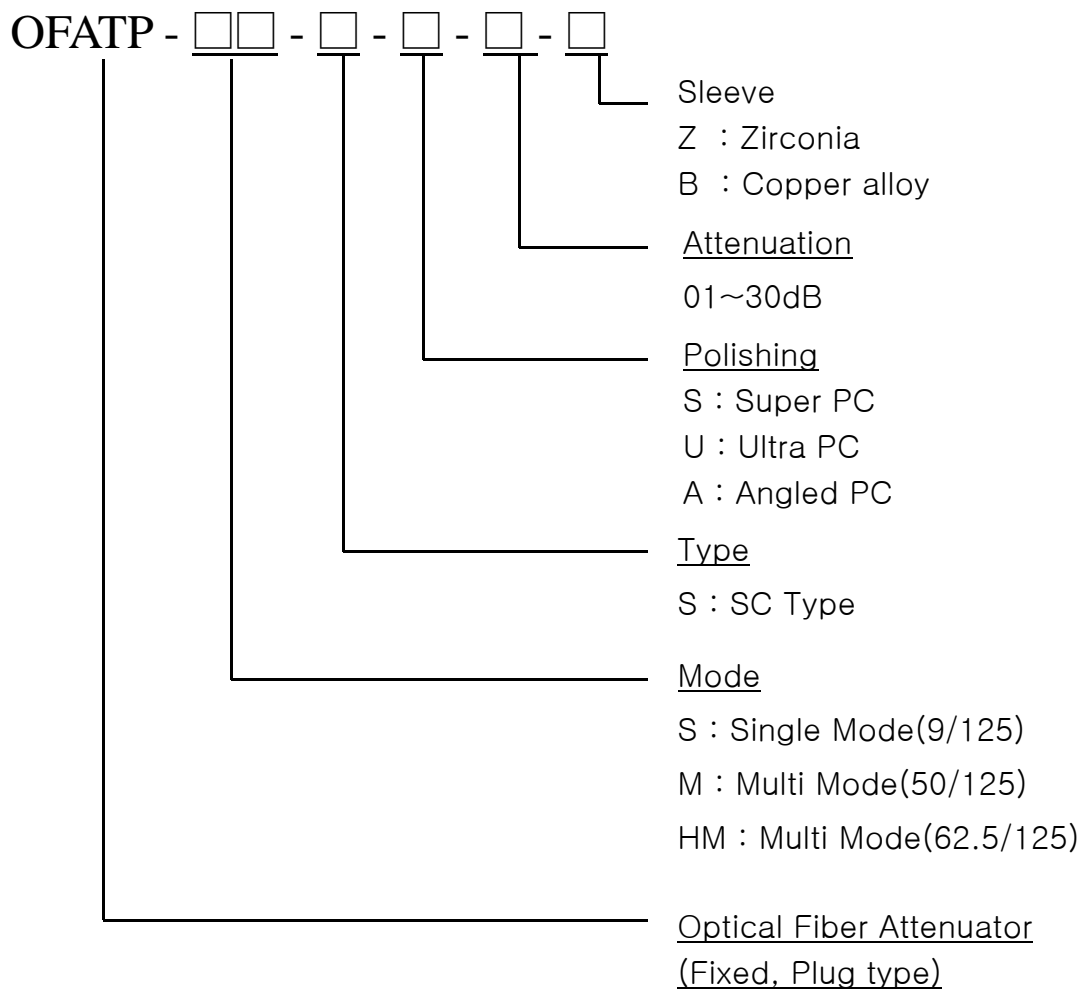
1.1 Application Limit

These specifications apply to the SC series Attenuator(Fixed, Plug Type) supplied by NWC.

2. ORDER INFORMATION

Order information of the SC Attenuator(Fixed, Plug type) in Table 1

Table 1 Information of Order



### 3. GENERAL SPECIFICATIONS

#### 3.1 Parts and Materials

Parts and the materials are shown in Table 2.

Table 2 Parts and Materials

No.	Parts Name	Q'ty	Material	Notes
1	SC Cap	1	PE	
2	Frame	1	PBT GF 20%	
3	Housing	1	Zn DC	
4	Stopper	1	SUS	
5	Holder	1	PBT	
6	Cap	1	ABS	
7	Ferrule	1	Zirconia ceramic	
8	Split sleeve	1	Zirconia ceramic /Copper alloy	

#### 3.2 Physical Dimensions

Figure 3 shows the assembled state of SC Attenuator(Fixed, Plug type)

#### 3.3 General Tolerances

Permissible deviation in dimensions without tolerance indication is in accordance with JIS B 0405 class m, as shown in Table3

Table 3 General Tolerance(JIS B 0405 class m)

Basic size step (mm)		Permissible deviation (mm)
Over	Under	
0.5	3	<b>±0.1</b>
3	6	<b>±0.1</b>
6	30	<b>±0.2</b>
30	120	<b>±0.3</b>

#### 4. OPTICAL PERFORMANCE

Specifications and measurement conditions are shown In Table 4.

Figures 1 shows the measurement system.

Table 4 Specifications and measurement conditions

Characteristics	Conditions	Values
Insertion loss	Light source : LD Wave Length : 1310nm1550nm Master cord terminated : UPC polish(APC Adaptor : APC Polish)	1~10dB:A.V±0.5dB 10~15dB:A.V±1.0dB 15~30dB:A.V±1.5dB
Return loss	Ditto	SPC : > 40dB UPC : > 55dB APC : > 65dB
Attenuation Flatness	±0.25dB for <5dB ±0.3dB for >5dB 1250~1620nm	
PDL	1550nm	< 0.2dB
Application	Metal Doped fiber (Attenuation fiber)	
Durability	500 mating	△0.2dB or less
Temperature cycling	-40℃~75℃(42cycles)	△0.2dB or less
Vibration	1~55Hz(2Hr)	△0.2dB or less
Impact	1.5m drop, 8cycles	△0.2dB or less

A.V : Attenuation Value

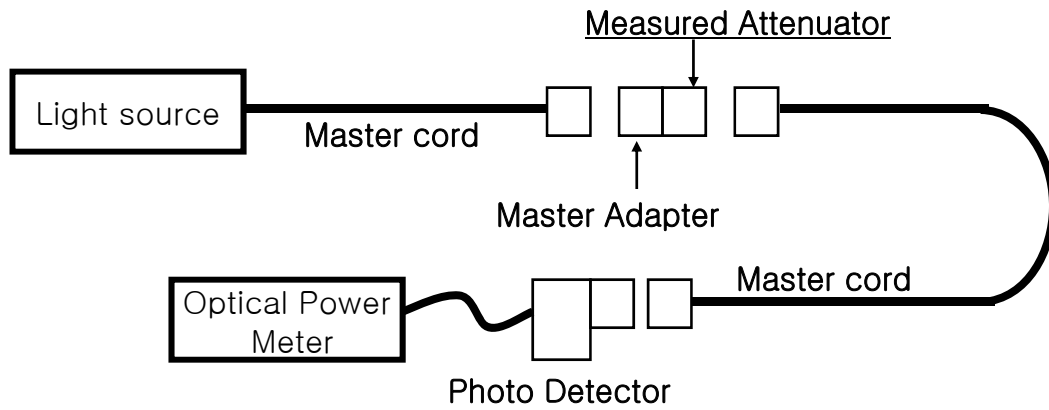


Figure 1 Insertion Loss and Measurement system

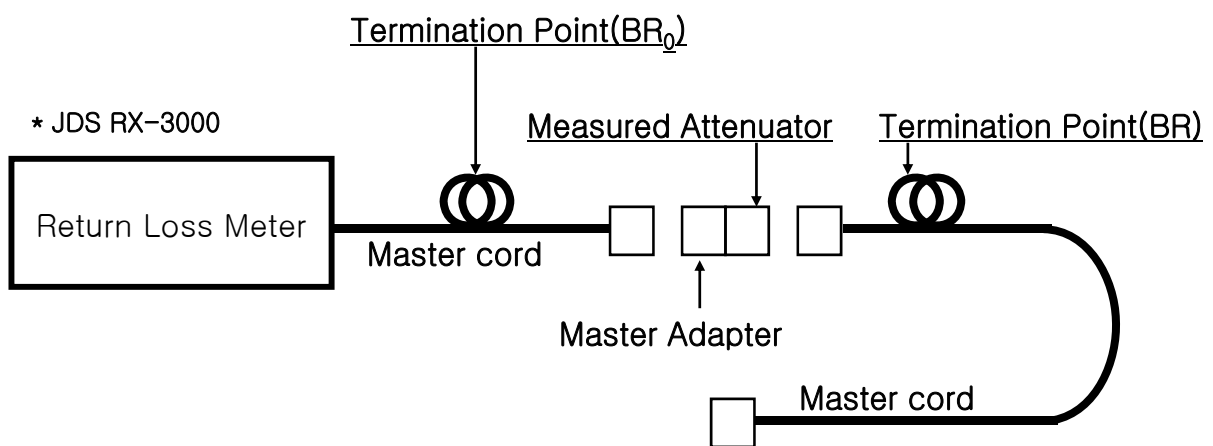


Figure 2 Return Loss and Measurement system

## 5. SHIPPING INSPECTION

Insertion loss for SC Attenuators(Fixed, Plug) are inspected before shipping and the inspection results are enclosed.

## 6. PACKING

The product is packed to prevent damage during shipment.

Following cleaning instructions are printed on the back of each bag

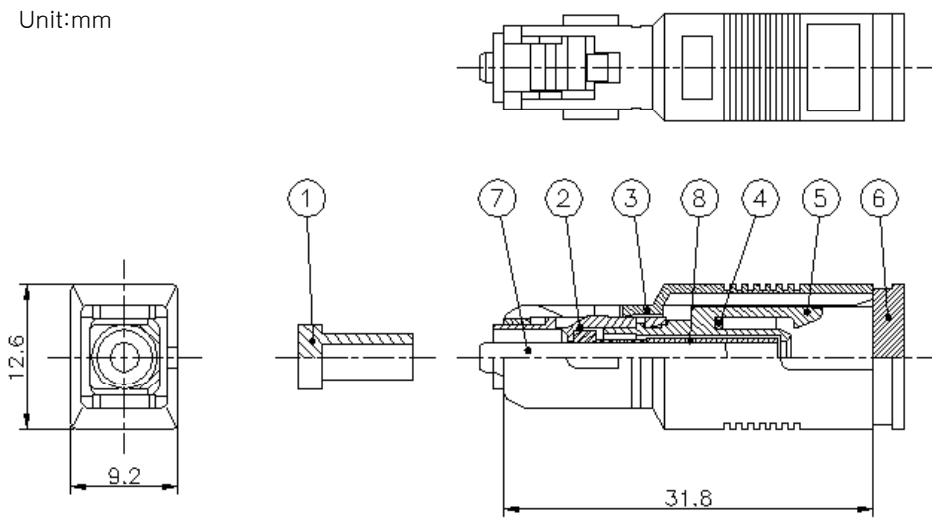


Figure 3 SC/PC Attenuator(Fixed, Plug Type)

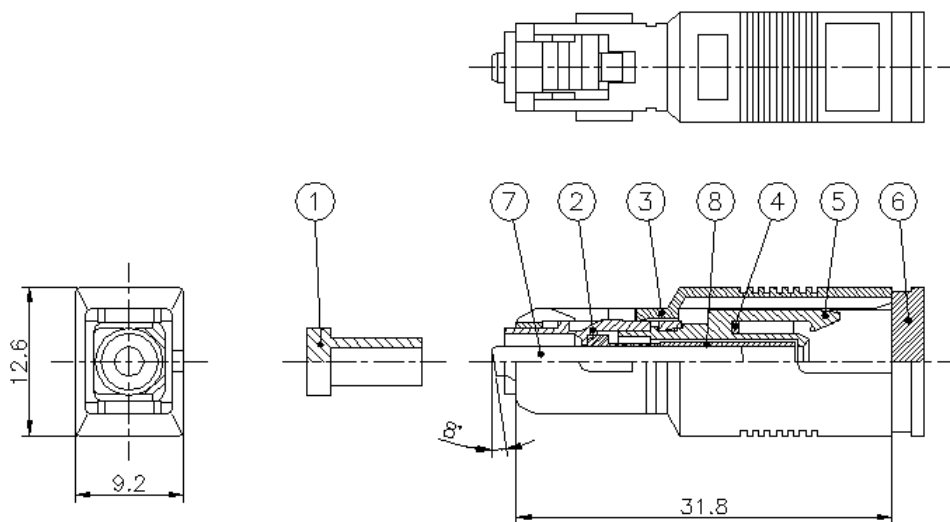


Figure 4 SC/APC Attenuator(Fixed, Plug Type)

‘02-07-10

# LC Attenuator (Fixed, Plug Type)

OFAT-T Series

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LC Attenuator(Fixed, Plug Type)

## TECHINICAL SPECIFICATIONS

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1. PROVISION

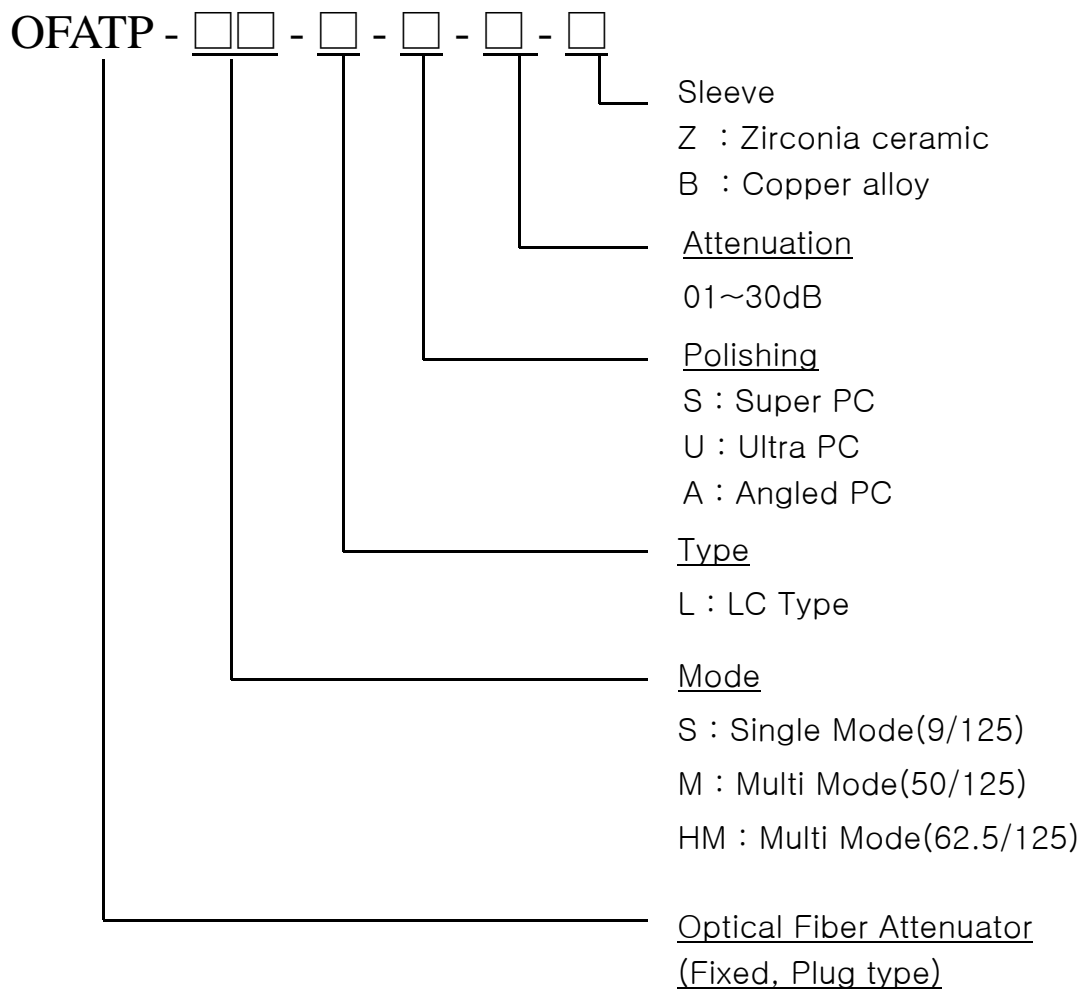
1.1 Application Limit

These specifications apply to the LC series Attenuator(Fixed, Plug Type) supplied by NWC.

2. ORDER INFORMATION

Order information of the LC Attenuator(Fixed, Plug type) in Table 1

Table 1 Information of Order



### 3. GENERAL SPECIFICATIONS

#### 3.1 Parts and Materials

Parts and the materials are shown in Table 2.

Table 2 Parts and Materials

No.	Parts Name	Q'ty	Material	Notes
1	Housing	1	PEI	
2	Stopper	1	PBT	
3	Body	1	Brass	Nickel Plating
4	Ferrule	1	Zirconia ceramic	
5	Spring	1	SUS	
6	Sleeve	1	Notes	SM : Zirconia ceramic MM : Bronze
7	Cap	1	PE	

#### 3.2 Physical Dimensions

Figure 3 shows the assembled state of LC Attenuator(Fixed, Plug type)

#### 3.3 General Tolerances

Permissible deviation in dimensions without tolerance indication is in accordance with JIS B 0405 class m, as shown in Table3

Table 3 General Tolerance(JIS B 0405 class m)

Basic size step (mm)		Permissible deviation (mm)
Over	Under	
0.5	3	<b>±0.1</b>
3	6	<b>±0.1</b>
6	30	<b>±0.2</b>
30	120	<b>±0.3</b>

#### 4. OPTICAL PERFORMANCE

Specifications and measurement conditions are shown In Table 4.

Figures 1 shows the measurement system.

Table 4 Specifications and measurement conditions

Characteristics	Conditions	Values
Insertion loss	Light source : LD Wave Length : 1310nm1550nm Master cord terminated : UPC polish(APC Adaptor : APC Polish)	1~10dB:A.V±0.5dB 10~15dB:A.V±1.0dB 15~30dB:A.V±1.5dB
Return loss	Ditto	SPC : > 40dB UPC : > 55dB APC : > 65dB
Attenuation Flatness	±0.25dB for <5dB ±0.3dB for >5dB 1250~1620nm	
PDL	1550nm	< 0.2dB
Application	Metal Doped fiber (Attenuation fiber)	
Durability	500 mating	△0.2dB or less
Temperature cycling	-40℃~75℃(42cycles)	△0.2dB or less
Vibration	1~55Hz(2Hr)	△0.2dB or less
Impact	1.5m drop, 8cycles	△0.2dB or less

A.V : Attenuation Value

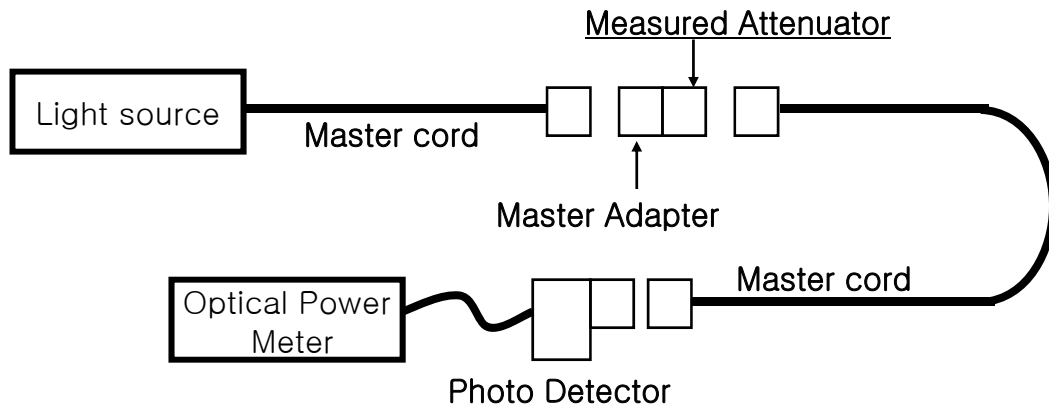


Figure 1 Insertion Loss and Measurement system

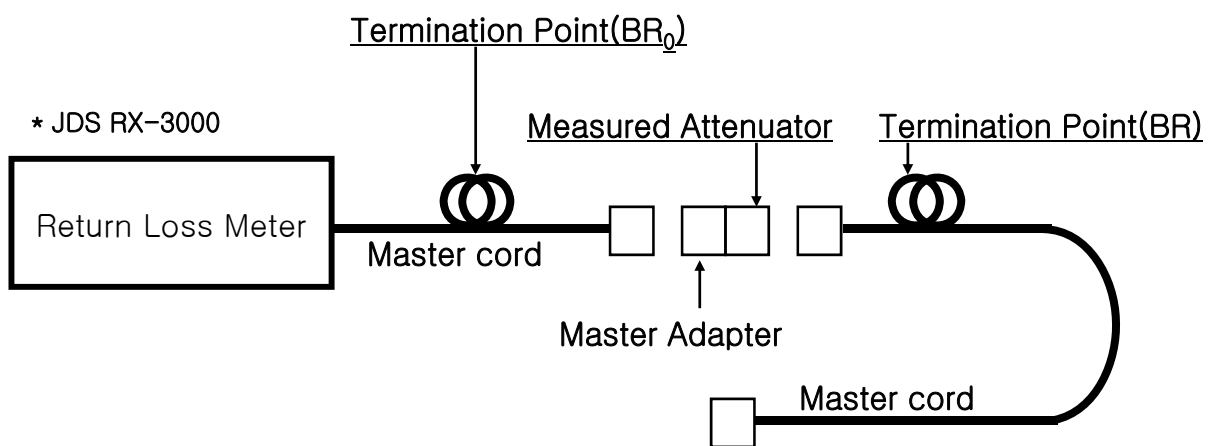


Figure 2 Return Loss and Measurement system

## 5. SHIPPING INSPECTION

Insertion loss for LC Attenuators(Fixed, Plug) are inspected before shipping and the inspection results are enclosed.

## 6. PACKING

The product is packed to prevent damage during shipment.

Following cleaning instructions are printed on the back of each bag

Unit:mm

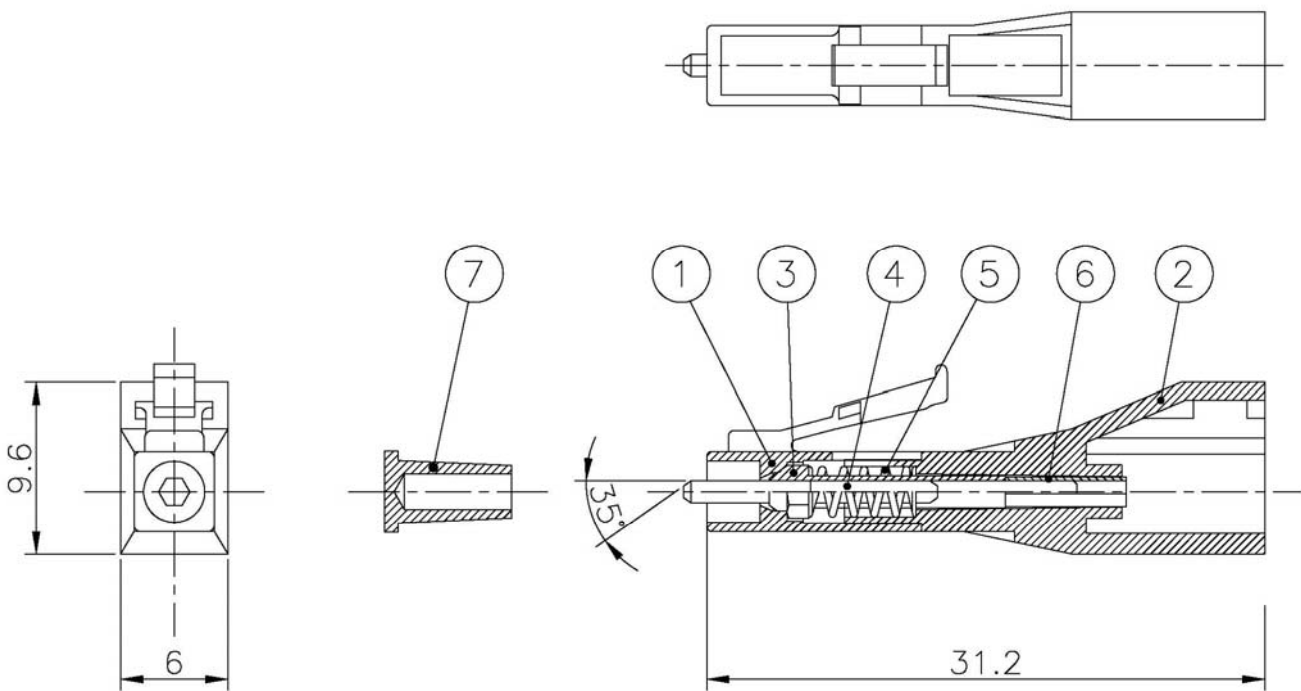


Figure 3 LC Attenuator(Fixed, Plug Type)

‘02-07-10

# FC Attenuator (Fixed, Plug Type)

OFAT-F Series

## TECHNICAL SPECIFICATIONS

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FC Attenuator(Fixed, Plug Type)

## TECHINICAL SPECIFICATIONS

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1. PROVISION

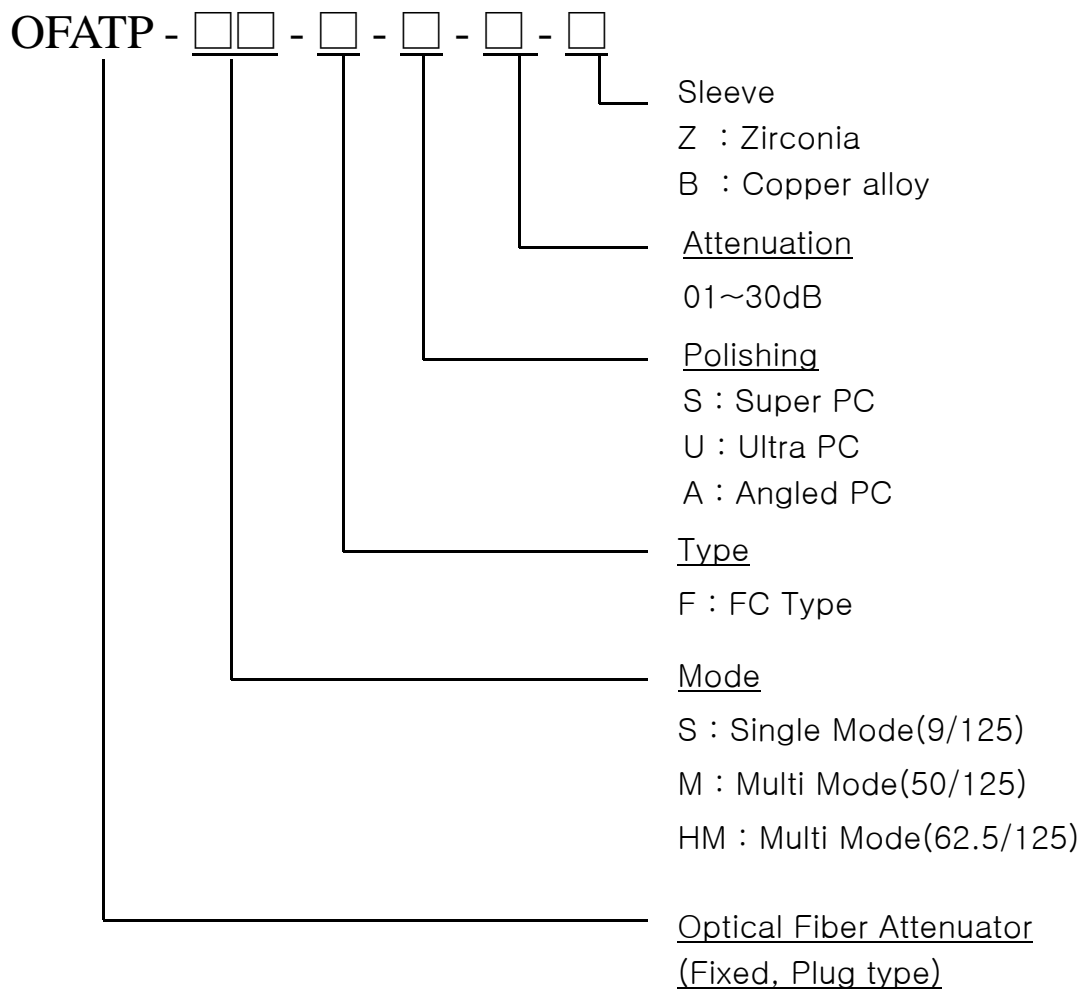
1.1 Application Limit

These specifications apply to the FC series Attenuator(Fixed, Plug Type) supplied by NWC.

2. ORDER INFORMATION

Order information of the FC Attenuator(Fixed, Plug type) in Table 1

Table 1 Information of Order



### 3. GENERAL SPECIFICATIONS

#### 3.1 Parts and materials

Parts and the Materials are shown in Table 2.

Table 2 Parts and Materials

No.	Parts Name	Q'ty	Material	Notes
1	FC Cap	1	PE	
2	Frame	1	Zn DC	
3	Body	1	Brass	Nickel Plating
4	Holder	1	Brass	Nickel Plating
5	Cap	1	PP	
6	Ferrule	1	Zirconia ceramic	
7	Split sleeve	1	Zirconia ceramic /copper alloy	

#### 3.2 Physical Dimensions

Figure 3 shows the assembled state of FC Attenuator(Fixed, Plug type).

#### 3.3 General Tolerances

Permissible deviation in dimensions without tolerance indication is in accordance with JIS B 0405 class m, as shown in Table3

Table 3 General Tolerance(JIS B 0405 class m)

Basic size step (mm)		Permissible deviation (mm)
Over	Under	
0.5	3	<b>±0.1</b>
3	6	<b>±0.1</b>
6	30	<b>±0.2</b>
30	120	<b>±0.3</b>

#### 4. OPTICAL PERFORMANCE

Specifications and measurement conditions are shown In Table 4.

Figures 1 shows the measurement system.

Table 4 Specifications and measurement conditions

Characteristics	Conditions	Values
Insertion loss	Light source : LD Wave Length : 1310nm1550nm Master cord terminated : UPC polish(APC Adaptor : APC Polish)	1~10dB:A.V±0.5dB 10~15dB:A.V±1.0dB 15~30dB:A.V±1.5dB
Return loss	Ditto	SPC : > 40dB UPC : > 55dB APC : > 65dB
Attenuation Flatness	±0.25dB for <5dB ±0.3dB for >5dB 1250~1620nm	
PDL	1550nm	< 0.2dB
Application	Metal Doped fiber (Attenuation fiber)	
Durability	500 mating	△0.2dB or less
Temperature cycling	-40℃~75℃(42cycles)	△0.2dB or less
Vibration	1~55Hz(2Hr)	△0.2dB or less
Impact	1.5m drop, 8cycles	△0.2dB or less

A.V : Attenuation Value

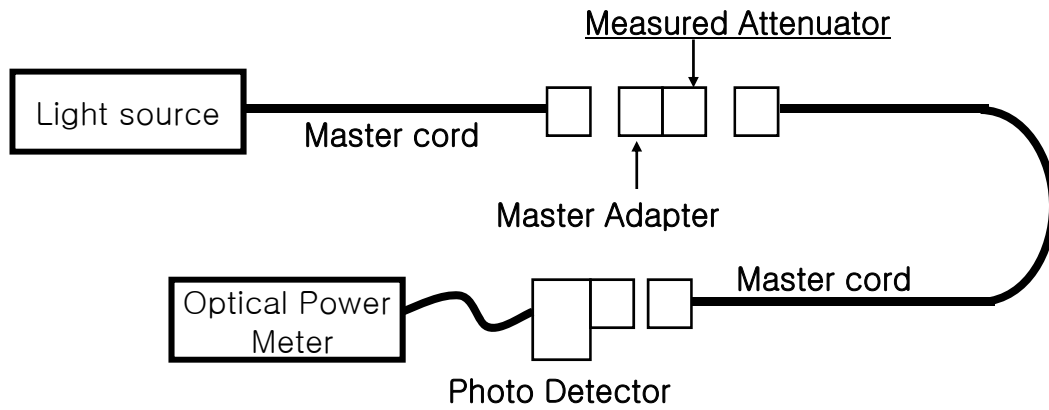


Figure 1 Insertion Loss and Measurement system

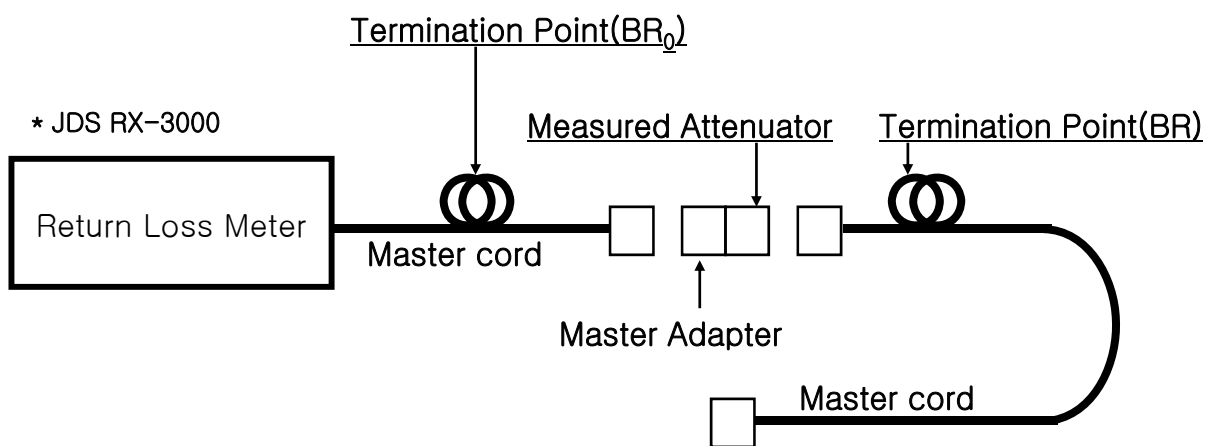


Figure 2 Return Loss and Measurement system

## 5. SHIPPING INSPECTION

Insertion loss for FC Attenuators(Fixed, Plug) are inspected before shipping and the inspection results are enclosed.

## 6. PACKING

The product is packed to prevent damage during shipment.

Following cleaning instructions are printed on the back of each bag

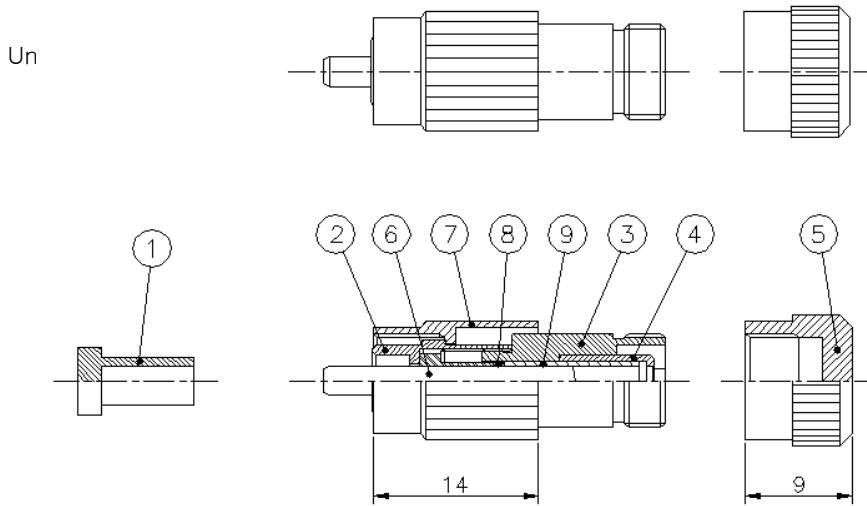


Figure 3 FC/PC Attenuator(Fixed, Plug Type)

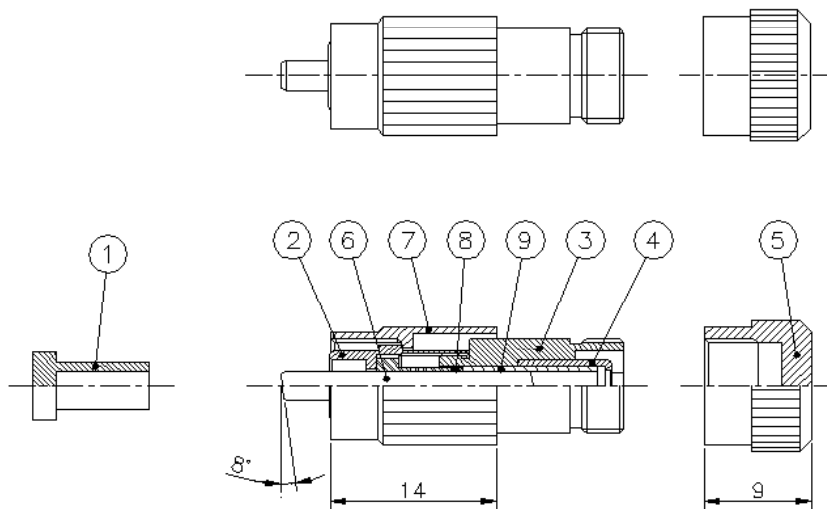


Figure 3 FC/APC Attenuator(Fixed, Plug Type)

‘02-07-10

# MU Attenuator

## (Fixed, Plug Type)

OFAT-S Series

### TECHNICAL SPECIFICATIONS

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Anyangdong, Mananku, Anyang City  
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MU Attenuator(Fixed, Plug Type)

## TECHINICAL SPECIFICATIONS

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1. PROVISION

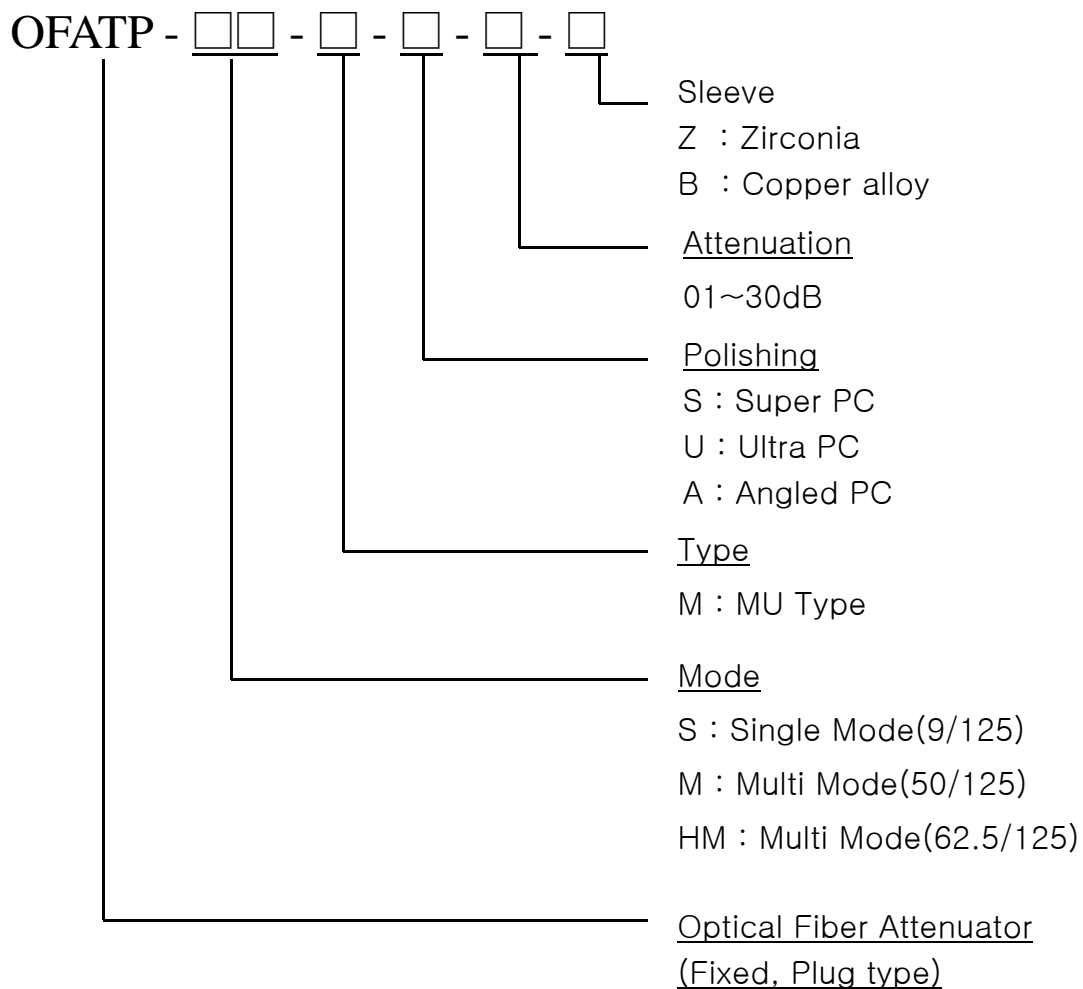
1.1 Application Limit

These specifications apply to the MU series Attenuator(Fixed, Plug Type) supplied by NWC.

2. ORDER INFORMATION

Order information of the MU Attenuator(Fixed, Plug type) in Table 1

Table 1 Information of Order



### 3. GENERAL SPECIFICATIONS

#### 3.1 Parts and Materials

Parts and the materials are shown in Table 2.

Table 2 Parts and Materials

No.	Parts Name	Q'ty	Material	Notes
1	MU Cap (A)	1	PE	
2	Frame	1	PBT	
3	Housing	1	PBT	
4	Holder	1	PBT	
6	Cap (B)	1	PE	
7	Ferrule	1	Zirconia ceramic	
8	Split sleeve	1	Zirconia ceramic /Copper alloy	

#### 3.2 Physical Dimensions

Figure 3 shows the assembled state of MU Attenuator(Fixed, Plug type)

#### 3.3 General Tolerances

Permissible deviation in dimensions without tolerance indication is in accordance with JIS B 0405 class m, as shown in Table3

Table 3 General Tolerance(JIS B 0405 class m)

Basic size step (mm)		Permissible deviation (mm)
Over	Under	
0.5	3	<b>±0.1</b>
3	6	<b>±0.1</b>
6	30	<b>±0.2</b>
30	120	<b>±0.3</b>

#### 4. OPTICAL PERFORMANCE

Specifications and measurement conditions are shown In Table 4.

Figures 1 shows the measurement system.

Table 4 Specifications and measurement conditions

Characteristics	Conditions	Values
Insertion loss	Light source : LD Wave Length : 1310nm1550nm Master cord terminated : UPC polish(APC Adaptor : APC Polish)	1~10dB:A.V±0.5dB 10~15dB:A.V±1.0dB 15~30dB:A.V±1.5dB
Return loss	Ditto	SPC : > 40dB UPC : > 55dB APC : > 65dB
Attenuation Flatness	±0.25dB for <5dB ±0.3dB for >5dB 1250~1620nm	
PDL	1550nm	< 0.2dB
Application	Metal Doped fiber (Attenuation fiber)	
Durability	500 mating	△0.2dB or less
Temperature cycling	-40℃~75℃(42cycles)	△0.2dB or less
Vibration	1~55Hz(2Hr)	△0.2dB or less
Impact	1.5m drop, 8cycles	△0.2dB or less

A.V : Attenuation Value

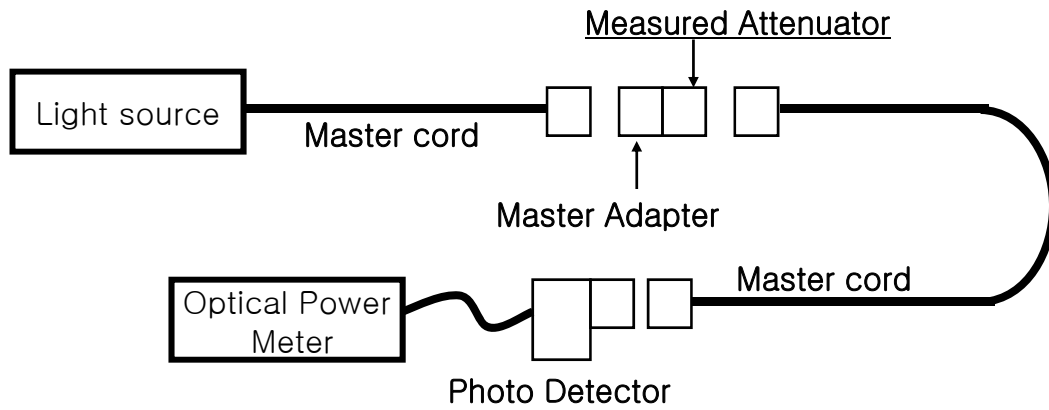


Figure 1 Insertion Loss and Measurement system

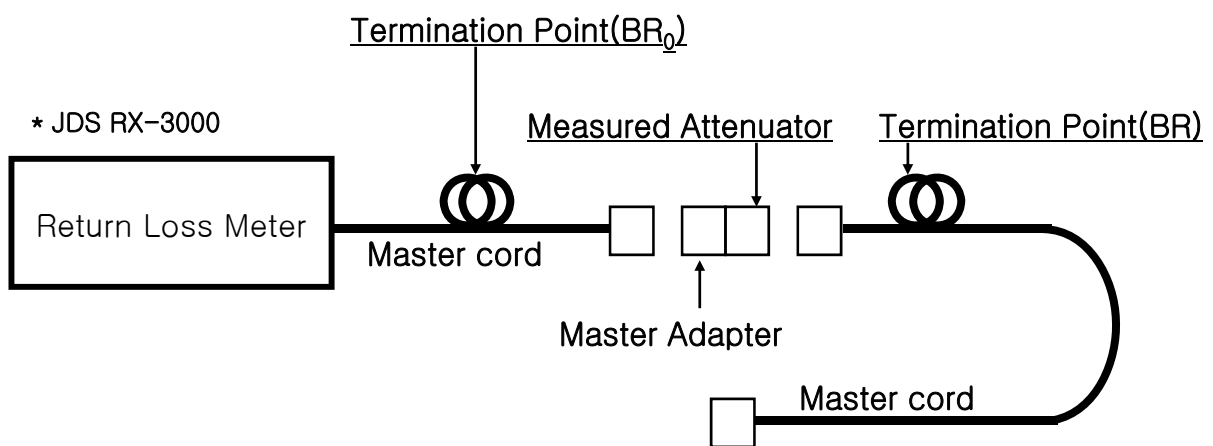


Figure 2 Return Loss and Measurement system

## 5. SHIPPING INSPECTION

Insertion loss for MU Attenuators(Fixed, Plug) are inspected before shipping and the inspection results are enclosed.

## 6. PACKING

The product is packed to prevent damage during shipment.

Following cleaning instructions are printed on the back of each bag

Unit:mm

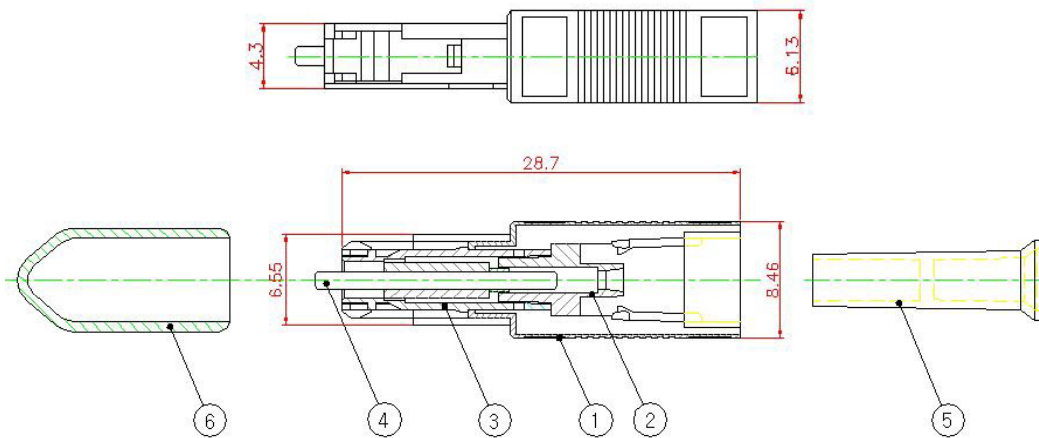


Figure 3 MU/PC Attenuator(Fixed, Plug Type)