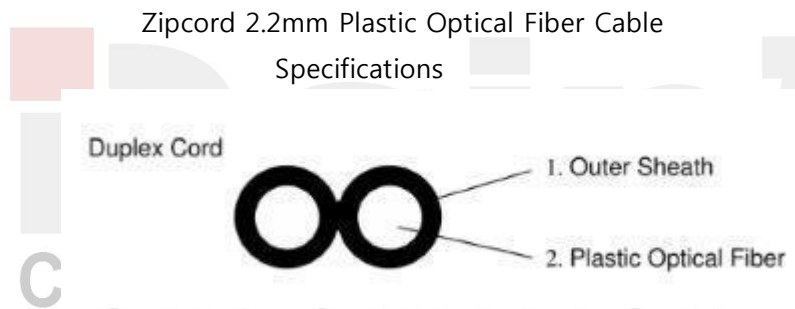


**POF 란(Plastic Optical Fiber)**

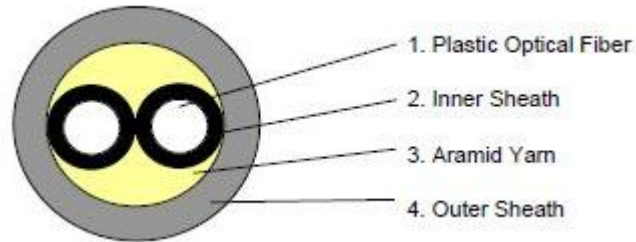
광섬유의 코어 재료로 유리 대신 플라스틱을 사용한 광케이블. 기존의 유리 섬유 광케이블(GOF:Glass Optical Fiber)에 비하여 유연성이 뛰어나고, 코어 직경이 굵어 시공이 쉬울 뿐만 아니라, 가격이 저렴하다. 특히 최근에 개발 상용화된 불소수지 코어 지름의 플라스틱 광케이블(POF)은 100m 까지 10Gbps, 500m까지 2.5Gbps의 광대역 특성을 가지고 있어 방송과 통신의 통합이 예상되는 홈 네트워크나 택내 통신망의 인프라 매체로서 기대되고 있다

Optical Fiber Cable



Fiber types	Core Cladding	Polymethyl Methacrylate(PMMA) Fluorinated Polymer
Diameter		1.0±0.06mm
Attenuation		0.2dB/m
Refractive Slope	Core	1.492
	Cladding	1.405
Numerical Aperture	N/A	0.5
Outer Diameter		2.2*4.6±0.1mm
Sheath Material		FR-PVC
Sheath Color		BLACK
Minimum Bend Radius		25mm
Standard Length		1km
Cable Weight		≤8.0kg/km
Storage, Installation, and Operating temperature		-40~+75°C

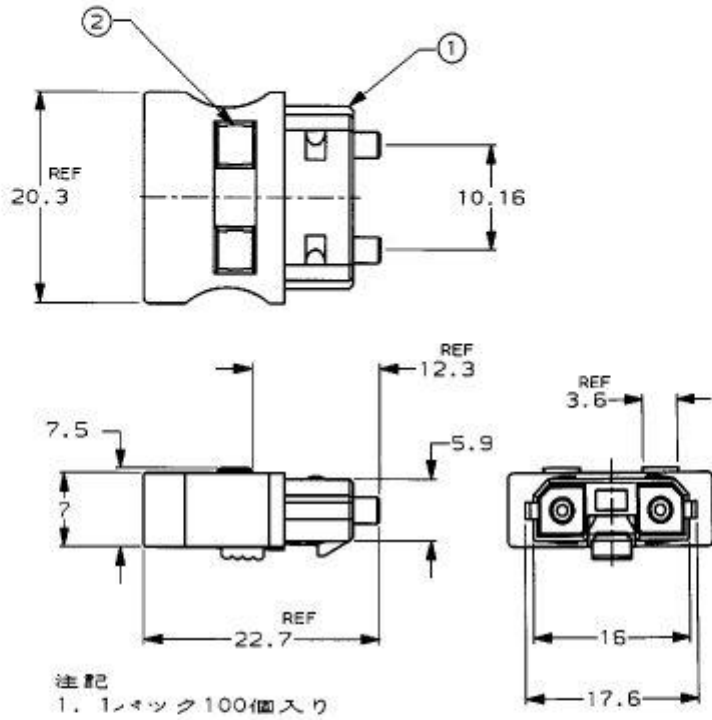
Round Duplex 6.0mm Plastic Optical Fiber Cable  
Specifications



Fiber Types	Core Cladding	Polymethyl Methacryate (PMMA) Pluorinated polymer
Diameter,MM		1.0±0.06mm
Attenuation at 650nm		0.2dB/m
Refractive slope	Core Cladding	1.492 1.405
Numencal Aperture	N/A	0.5
Duplex POF Cable Diameter		2.2*4.6±0.1mm
Inner Sheath		PE Black
Strenght member		Aramid Yam
Outer Diameter		6.0±0.1mm
Outer Sheath		PVC Gray
Minimum Bend Radius,mm		65mm
Cable Length ,Km		0.5Km
Cable weight ,Kg		≤ 43Kg.Km
Storage, Installation, Operating temperature		-20~+75°C

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ORGANIZATION SHOULD BE CONTACTED FOR THE LATEST REVISION.

LOC	DIST	REVISIONS					
		REV	DESCRIPTION	ECN	DATE	DWN	APVD
J	-	0	RELEASED	FJ00 - 1342 - 97	17-OCT 97	NS	HTJ



注記  
1. 1パック100個入り

NOTE  
1. BULK PACKAGE 100 PIECES.

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QTY REQD PER ASSY	数量	PARTS LIST	部品リスト
2		RETAINER	リテーナ
1		PLUG HSG	ハウジング
-1		NAME	名称

DIMENSIONS: 単位 規 mm	DWN N. SUDO 17-OCT 97	MATERIAL 材質	FINISH 仕上
TOLERANCES UNLESS OTHERWISE SPECIFIED: 一般寸法 10% ±0.2 30% 50 ±0.25 100% 300 ±0.3 ANGLE ±0.3°	CHK 7/25/97 APVD 7/25/97	<b>AMP</b> 株式会社 Kawasaki, Japan	
	PRODUCT SPEC 製品規格 108-5596	NAME 名称 AMP OPTIMATE PN CONNECTOR	
	APPLICATION SPEC 取付適用規格 114-5247	SIZE A4	CAGE CODE 00779
	WEIGHT 2.7g	DRAWING NO 番号 C-1123445	
CUSTOMER DRAWING		SCALE 尺数 2-1	SHEET 1 OF 1 REV 0

AMP 1489-35 REV 10/93  
Fj033611

参考 図面



**MR-J3BUS1M - MR-J3BUS3M**

케이블 길이 : 1-3m

곡률 반경 : 25mm

인장 강도 : 140N

사용 온도 : -40~+85

사용 환경: 실내 (직사광선 없음)

**MR-J3BUS5M-A - MR-J3BUS20M-A**

케이블 길이 : 5-20m

곡률 반경: 50mm

인장 강도 : 420N

작동 온도 : -40~+85


사용 환경: 실내 (직사광선 없음)

제품 길이는 요청하시는 대로 가능합니다.

# Technical Specification

for

## Fiber Optic Cable : Round Duplex ZIP (Plastic Optical Fibers)

0	2013.04.15	First Issue	<i>Y. T. Kwak</i>		<i>C. K. Lee</i>
Rev.	DATE	DESCRIPTION	Prepared by	Checked by	Approved by
Type designation : Plastic Optical fibers, PE inner jacket, PVC outer jacket					
<b>TMC CO., LTD.</b> 368-7, Gasan-ri, Ibjang-myeon, Chonan-city, ChungNam, 330-831 Korea TEL. : 82-41-589-6443, FAX. : 82-41-589-6506 ckleee@tmc-cable.com					

## 1. SCOPE

This specification covers the requirements for plastic optical fiber cables in Communication (Audio), Optical sensors or Lighting applications, etc.

## 2. CABLE TYPE

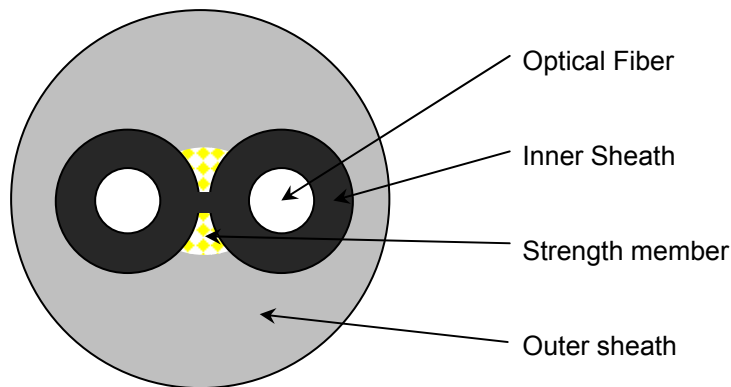
The specification covers the general construction requirements for POF cables.

The optical fiber shall be buffered with PE sheath (inner sheath). The colored outer sheath shall be extruded over the inner sheath.

**Table 1. Types of Cables**

Cable Designation	Cable Type	Fiber Type	Number of Fibers	Inner Sheath	Strength Member	Outer Sheath
Round Duplex	ZIP	POF (TORAY, PGR-FB1000)	2C	Polyethylene	Aramid yarn	Polyvinyl chloride

**<Cable Cross-sectional Drawing>**



**Table 2. Diameter, Weight, Bending Radius and Temperature Range**

Core/Cladding Diameter ( $\mu\text{m}$ )	Inner Sheath Diameter (mm)	Outer sheath Diameter (mm)	Approx. Cable Weight (kg/km)	Cable Bending Radius (mm)	Temperature Range ( $^{\circ}\text{C}$ )
980/1000	$2.2 \pm 0.1$	$6.0 \pm 0.3$	40	65	-20 ~ +75

## 4. CONSTRUCTION & IDENTIFICATION

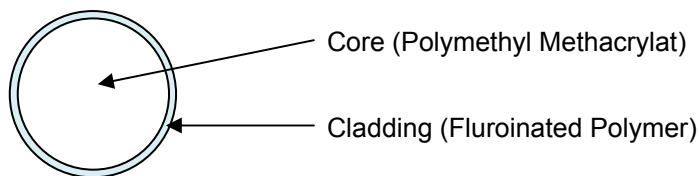
### 4.1. OPTICAL FIBER

The optical fiber shall be a polymethyl methacrylate (PMMA) fiber that carries light along its length. It shall be composed of core, cladding layer.

**Table 3. Plastic Optical Fiber**

Parameter	Detail	Performance TORAY, PGR-FB1000
Core	Material	Polymethyl Methacrylate (PMMA)
	Refractive index	1.49
Cladding	Material	Fluorinated Polymer
	Refractive index	1.41
Refractive index profile		Step index
Numerical aperture (NA)		0.50
Acceptance angle		60°
Attenuation	at 650nm	≤ 0.2 dB/m
Allowable Fiber Bending Radius		9 mm
Core diameter		980 μm
Cladding diameter		1000 μm

#### <Cable Cross-sectional Drawing>



### 4.2. INNER SHEATH

The inner sheath shall be an extruded layer of polyethylene compound or equivalent.  
The color of inner sheath shall be "Black".  
However, other color of sheath may be applicable when purchaser required.

### 4.3. STRENGTH MEMBER

Aramid yarn, as a strength member applied over the Inner sheath.

#### 4.4. OUTER SHEATH

The outer sheath shall be an extruded layer of polyvinyl chloride compound or equivalent.  
The color of outer sheath shall be "Grey".  
However, other color of sheath may be applicable when purchaser required.

#### 5. CABLE MARKING

The cable shall be marked at interval of at least 1meter with following information.  
The other information can be added in marking when purchaser required.

- 5.1 Length marking
- 5.2 Cable type
- 5.3 Fiber type & counts
- 5.4 Manufacturer name or trade mark
- 5.5 Year of manufacture

Example> POF 980/1000 2C cable  
xxxxM ROUND DUPLEX CABLE POF 980/1000 2C TMC 2013

#### 6. MARKING ON DRUM

On a flange of the drum or plywood bobbins are necessary information such as manufacturer's name, cable type, length of cable, drum no., gross weight, net weight, etc. It shall be printed.

#### 7. PACKING

Each length of the finished cable shall be wound on the wooden drum or plywood bobbin so completely as not to be damaged during transportation. The both ends of the cable shall be sealed with a suitable plastic cap to prevent the entry of moisture during shipping, handling and storage.