

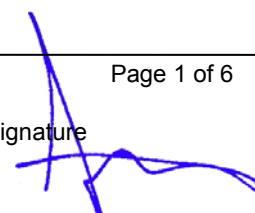
TECHNICAL DATASHEET FOR

FTTx Optical Fiber Cable

ITU-T G.657.A 2F

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SAMSUNG ELECTRONICS HAINAN FIBEROPTICS



1. Fibers

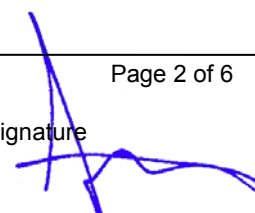
1.1 Fibers supplied against this specification must meet the requirements of ITU-T recommendation G.657.A fibers.

1.1.1 Optical specifications

| Parameters | | Unit | Specifications |
|--|----------------------------|--------------------------|----------------|
| Attenuation | 1310 nm | dB/km | ≤ 0.40 |
| | 1383 nm | | ≤ 0.40 |
| | 1550 nm | | ≤ 0.30 |
| Point Discontinuities | 1310 & 1550 nm | dB | ≤ 0.1 |
| Mode Field Diameter | 1310 nm | μm | 8.6 ± 0.4 |
| Cable cut-off wavelength (λ_{cc}) | | nm | ≤ 1260 |
| Chromatic Dispersion | 1285 ~ 1330 nm | ps/(nm.km) | ≤ 3.5 |
| | 1550 nm | | ≤ 18 |
| | Zero dispersion wavelength | nm | 1300 ~ 1324 |
| | Zero dispersion slope | ps/(nm ² .km) | ≤ 0.092 |

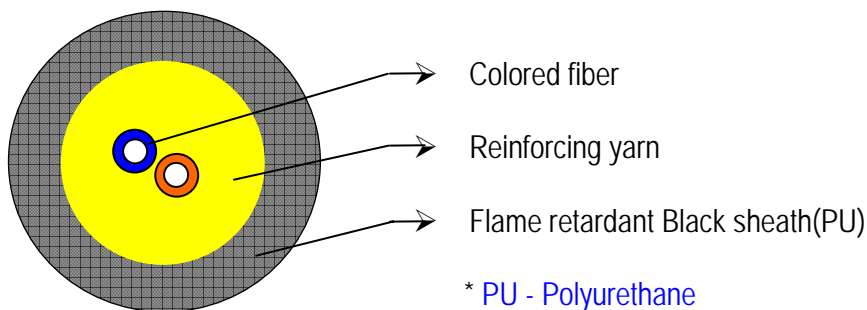
1.1.2 Dimensional Specifications

| Parameters | Unit | Specifications |
|-------------------------------|---------------|----------------|
| Cladding Diameter | μm | 125 ± 0.7 |
| Cladding Non-circularity | % | ≤ 1.0 |
| Core-clad Concentricity Error | μm | ≤ 0.5 |
| Coating Diameter [Uncolored] | μm | 245 ± 10 |



2. Cable construction

2.1. Cable drawing



2.2. Weights and dimensions

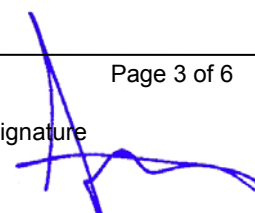
| Fiber Count | Outer Diameter (Nominal) | Fiber color | Weight (Nominal) | Max. pulling strength |
|-------------|-------------------------------|--------------|---------------------|-----------------------|
| | mm | | kg/km | N |
| 2 | 3.0 | Blue, Orange | 7.5 | 500 |

- The nominal outer diameter may vary by $\pm 10\%$
- The cable delivery length: 1km/Box

2.3 Sheath marking

200X SAMSUNG DROP CABLE SM 2F = XXXX M =

- 200X : manufacturing year (Example: 2008)
- SAMSUNG : Manufacturer name
- XXXX : The figure of meter
- The marking is printed every 1 meter



3. Cable Properties

3.1 Mechanical & Environmental properties

3.1.1 Cable bending radius : 8 x cable diameter

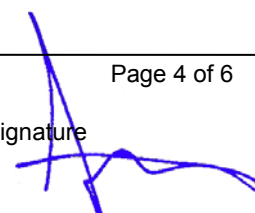
3.1.2 Operating temperature range : -30°C to + 60°C

Storage/Transport temperature range : -40°C to + 70°C

Installation temperature range : -30°C to + 60°C

3.2 Mechanical & Environment Requirements

| No | Item | Test Method | Specification |
|----|--|---|---|
| 1 | Tensile strength IEC 60794-1-2-E1 | - Max. pulling load: 500N - Length: 100 m - Time: 5 minutes | - Loss change @1550nm ≤ 0.10 dB after test |
| 2 | Crush test IEC 60794-1-2-E3 | - Load: 500 N for 5 mins - Metal Flat: 100 ± 5mm | - Loss change @1550nm ≤ 0.10 dB after test |
| 3 | Temperature Cycling IEC 60794-1-2-F1 | - Temperature step: +20°C → -30°C → +60°C → -30°C → +60°C → +20°C - Number of cycle: 1 - Time per each step: 12 hrs | - Loss change @1550nm ≤ 0.30 dB/km |

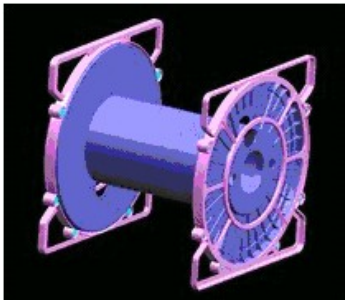


4. Packing

4.1 Packing

- The Plastic Bobbin is individually packed in a Box.
- Pallet is applied for the shipment.

4.2 Packing Picture (Ex.)



(Bobbin)



(Box: 320mm * 345mm * 365mm)



Pallet package (36 box)

Revision History

| DATE | AUTHOR | REVISION | PAGE | COMMENTS |
|---------------|--------|----------|------|--|
| Feb 11, 2008 | YP Kim | - | - | Initial Release |
| June 5, 2008 | YP Kim | 01 | 4 | Add cable bending radius,temperature range |
| June 17, 2008 | YP Kim | 02 | 3,4 | 1.change sheath marking 2.change cable bending radius (15 x cable diameter -> 8 x cable diameter) 3.add operating temperature range |

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