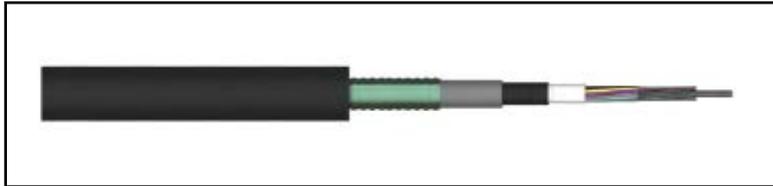


## Outdoor Multitube Optical Fiber Cable, FRP CSM Aluminum & Steel Double-armored, Double Sheaths

### Drawing



### Description

The fibers, 250um, are positioned in a loose tube made of a high modulus plastic. The tubes are filled with a water-resistant filling compound. FRP locates in the center of core as a strength member. The tubes (and fillers) are stranded around the strength member into a compact and circular core. Use aluminum tape & steel tape to be the double armors to ensure the physical performance. After the cable core is filled with filling compound to protect it from water in gross, the cable is completed with a PE sheath.

### Features & Benefits

- SM or MM optical fiber performance exceed the standard
- Excellent mechanical and temperature performance
- PSP & ALP improves the moisture penetration resistance performance
- Water-blocking compound/material filled both in and out of the loose tube
- Excellent ultraviolet prevention with PE sheath
- Double-armored and double-sheath design for harsh environment

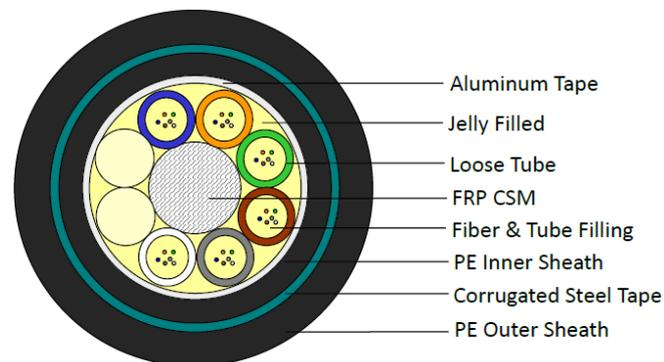
### Compliance & Standards

- ISO/IEC 11801
- ITU-T G.651/G.652
- IEC 60793-1
- IEC 60793-2
- IEC 60794-1
- IEC 60794-2

### Applications

- Duct / Aerial (Not Self-supporting)
- Direct Buried

### Technical Drawing





## Outdoor Multitube Optical Fiber Cable, FRP CSM Aluminum & Steel Double-armored, Double Sheaths

### Product Specifications

|                         |                        |                |
|-------------------------|------------------------|----------------|
| Fiber Type              | G.652D/OM1/OM2/OM3/OM4 |                |
| Fiber Core              | 2-144                  |                |
| Loose Tube              | Material               | PBT            |
|                         | Max. Fiber per Tube    | 6/8/12         |
| Central Strength Member | ≤72 core               | Steel/FRP      |
|                         | >72 core               | Steel/FRP + PE |
| 1# Armor                | Aluminum Tape (APL)    |                |
| Inner Sheath            | Material               | PE             |
|                         | Color                  | Black          |
| 2# Armor                | Steel Tape (PSP)       |                |
| Outer Sheath            | Material               | PE             |
|                         | Color                  | Black          |

### Optical Performance

| Fiber Type                                    |         | G.652D      | OM2/OM3/OM4 |
|---|---------|-------------|-------------|
| Attenuation(+20°C)                            | @ 850nm | /           | ≤3.0 dB/km  |
|   | @1300nm | /           | ≤1.0 dB/km  |
|   | @1310nm | ≤0.36 dB/km | /           |
|   | @1550nm | ≤0.22 dB/km | /           |
| Cable Cut-off Wave Length ( λ <sub>cc</sub> ) |         | ≤1260nm     | /           |



## Outdoor Multitube Optical Fiber Cable, FRP CSM Aluminum & Steel Double-armored, Double Sheaths

### Mechanical Performance

| Fiber Amount Core | Max. Core per Tube | Structure | Cable Diameter mm | Cable Weight kg/km | Tensile Strength Long/Short Term N | Crush Resistance Long/Short Term N/100mm | Bending Radius Static/Dynamic mm |
|-------------------|--------------------|-----------|-------------------|--------------------|------------------------------------|--|----------------------------------|
| 2-48              | 6                  | 1+8       | 14.0±0.2          | 180                | 1000/3000                          | 1000/3000                                | 12.5D/25D                        |
| 50-84             | 12                 | 1+7       | 14.4±0.2          | 196                | 1000/3000                          | 1000/3000                                | 12.5D/25D                        |
| 86-96             | 12                 | 1+8       | 15.1±0.2          | 209                | 1000/3000                          | 1000/3000                                | 12.5D/25D                        |
| 98-120            | 12                 | 1+10      | 16.5±0.2          | 235                | 1000/3000                          | 1000/3000                                | 12.5D/25D                        |
| 122-144           | 12                 | 1+12      | 17.9±0.2          | 303                | 1000/3000                          | 1000/3000                                | 12.5D/25D                        |

Storage/Operating Temperature: -40°C ~ + 70°C.

### Ordering Information

| Part No.      | Product Name                          | Description   |
|---------------|---------------------------------------|---|
| FCOUSFJAP1-xy | Outdoor Multitube Optical Fiber Cable | FRP CSM, Jelly Filled, AL & Steel Double-armored, Double PE Sheaths, y Fiber, x Cores |

x=Fiber Number (2=2 cores, 4=4 cores...144=144 cores)

y=Fiber Type (S2=G.652D, M1=OM1, M2=OM2, M3=OM3, M4=OM4)