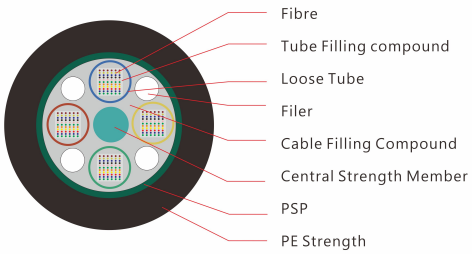
# MapleArashi

Fiber Optic Cable Manufacturer

### Steel Tape Armored Ribbon Cable - GYDTS


### Inner Structure - GYDTS




## GYDTS Outdoor Stranded Loose Tube Ribbon Fiber Optic Cable — Steel Tape Armored

Stranded Loose Tube | Ribbon Fiber Structure | Steel Tape Armor / PSP | PE Outer Sheath

GYDTS is an outdoor stranded loose tube ribbon fiber optic cable with corrugated steel tape / PSP armor and a PE outer sheath, subject to project requirements and cable design confirmation. Optical fiber ribbons are placed inside water-blocking filled loose tubes stranded around a central strength member. The steel tape / PSP armor provides enhanced mechanical, crush, and rodent protection, while the ribbon fiber structure enables high fiber density and efficient mass fusion splicing in outdoor duct, backbone, and distribution network installations. Final cable parameters are subject to project requirements and confirmed cable design.

| | |
|---|---|
| Product | GYDTS |
| Model | GYDTS |
| Category | Outdoor Fiber Cables - Ribbon Fiber Cables |
| Structure | Stranded Loose Tube Ribbon Fiber Cable with Corrugated Steel Tape Armor / PSP, PE Outer Sheath |

*This specification is for reference only. Final cable design parameters are subject to project requirements and manufacturing feasibility.*

## 1. Product Information

| Field | Specification |
|---|---|
| Product | GYDTS |
| Model | GYDTS |
| Category | Outdoor Fiber Cables - Ribbon Fiber Cables |
| Structure | Stranded loose tube ribbon fiber cable with corrugated steel tape / PSP armor, PE outer sheath |
| Fiber Type | Single-mode G.652D or G.657A1; subject to project requirements |
| Number of Fibers | Subject to final cable design and project requirements |
| Sheath Material | PE outer sheath, subject to project requirements |
| Armor Type | Corrugated steel tape / PSP |
| Moisture Barrier | Water-blocking tape and filling compound |

## 2. Company Profile

Maplearashi Technology, with 20 years of expertise in fiber optic communication, manufactures GYDTS stranded loose tube ribbon fiber optic cables with steel tape / PSP armor in our facility located in the Guangdong-Hong Kong-Macao Greater Bay Area. The ribbon fiber structure enables high fiber density and efficient mass fusion splicing, while the steel tape armor provides enhanced mechanical protection for outdoor duct, backbone, and distribution network installations. Compliance documents available upon request.

## 3. Product Overview

GYDTS is an outdoor stranded loose tube ribbon fiber optic cable with corrugated steel tape / PSP armor and a PE outer sheath, subject to project requirements and cable design confirmation. Optical fiber ribbons are placed inside water-blocking filled PBT loose tubes stranded around a central strength member. The corrugated steel tape / PSP armor provides enhanced mechanical, crush, and rodent protection, while the PE outer sheath and water-blocking structure support outdoor moisture resistance. The ribbon fiber structure enables high fiber density and supports mass fusion splicing for efficient installation in high-count backbone and distribution networks.

## 4. Key Features

- Ribbon fiber structure for high-density fiber deployment in backbone and metro networks
- Optical fiber ribbons placed inside filled loose tubes for mechanical and environmental protection
- Corrugated steel tape / PSP armor for enhanced mechanical, crush, and rodent protection
- PE outer sheath for outdoor durability and UV resistance
- Stranded loose tube design with full water-blocking protection
- Mass fusion splicing support for faster backbone deployment compared to individual fiber splicing

# 5. Technical Specifications

## 5.1. Cable Structure

| Layer | Component | Material / Function |
|---|---|---|
| 1 | Optical Fiber | Optical fiber ribbons (ribbon fiber), subject to project requirements |
| 2 | Loose Tubes (PBT | Filled PBT loose tubes containing optical fiber ribbons, stranded around CSM |
| 3 | Tube Filling | Water-blocking filling compound |
| 4 | Cable Core Filling | Water-blocking material in cable core interstices |
| 5 | Central Strength M | Subject to final cable design |
| 6 | Wrapping | Water-blocking tape / binder |
| 7 | Armor | Corrugated steel tape / PSP |
| 8 | Outer Sheath | PE (polyethylene), UV-resistant |

*Material and design details can be adjusted according to fiber count, ribbon count, tube layout, and project needs.*

# 6. Applications

- Outdoor duct installations for telecom backbone and trunk routes
- Metropolitan area network (MAN) duct infrastructure
- Campus backbone and outdoor distribution links
- High fiber-count outdoor network projects requiring ribbon fiber efficiency
- Projects requiring stronger mechanical protection than non-armored cables
- Direct burial applications where cable design and project conditions are confirmed

# 7. Design Notes

- Ribbon fiber structure may require specialized mass fusion splicing equipment and technician training
- Steel tape armor adds weight and stiffness — pulling tension and bend radius differ from non-armored variants
- Mechanical parameters subject to final cable design
- Not designed for all-dielectric or self-supporting aerial installation requirements
- Direct burial application requires project-specific cable design confirmation
- GYDTS is the ribbon fiber variant. GYTS is a separate non-ribbon stranded loose tube steel tape armored model.

## 8. Fiber Options

| Fiber Type | Description |
|---|---|
| G.652D | Standard single-mode fiber — ITU-T G.652.D standard |
| G.657A1 | Bend-insensitive fiber — ITU-T G.657.A1 standard |
| Custom | Other fiber types available per project requirements |

## 9. Installation Guidance

- Installation temperature and pulling tension subject to project-specific cable design
- Minimum bend radius during installation: refer to project-specific datasheet
- Steel tape armor increases stiffness — conduit size must accommodate larger cable diameter
- Ribbon fiber handling requires appropriate mass fusion splicing tooling and technician training
- Not designed for self-supporting aerial installation (consider ADSS or Figure-8 cable options)

## 10. Model Comparison & Reference

GYDTS vs GYTS

| Parameter | GYDTS | GYTS |
|---|---|---|
| Fiber Structure | Ribbon fiber / optical fiber ribbons | Individual fibers (non-ribbon) |
| Tube Type | Stranded loose tube (ribbon-filled) | Stranded loose tube (individual fibers) |
| Armor | Corrugated steel tape / PSP | Corrugated steel tape / PSP |
| Sheath | PE outer sheath | PE outer sheath |
| Application | High fiber-count duct / backbone / metro | Standard fiber-count duct / outdoor |

GYDTS and GYTS are separate product models. GYDTS uses ribbon fiber structure; GYTS generally uses individual fibers.

GYDTS vs GYXTW

| Parameter | GYDTS | GYXTW |
|---|---|---|
| Tube Design | Stranded loose tube (ribbon fiber) | Central loose tube (individual fibers) |
| Armor | Steel tape / PSP | Corrugated steel tape |
| Application | Duct / backbone / metro (high fiber count) | Duct / aerial / outdoor (standard count) |
| Fiber Density | Higher (ribbon in multi-tube stranded) | Lower (single central tube) |

GYDTS vs ADSS

| Parameter | GYDTS | ADSS |
|---|---|---|
| Fiber Structure | Ribbon fiber in stranded loose tubes | Individual fibers / loose tube |
| Material | Metallic (steel tape armor) | All-dielectric |
| Installation | Duct / outdoor distribution | Self-supporting aerial |
| Armor | Steel tape / PSP | None (dielectric strength members) |

## 11. Customization Options

- Fiber type and count per project requirements
- Ribbon count and fiber-per-ribbon configuration
- Central strength member material per project specification
- Sheath marking, meter marking, and cable color
- Alternative sheath materials subject to project requirements
- Drum length and packaging per project or shipping requirements

**Maplearashi**

MapleArashi | maplearashi.com

Email: sales@maplearashi.com | WhatsApp: +86 189 9307 0653

Shenzhen Maplearashi Technology Co., Ltd. | Guangdong-Hong Kong-Macao Greater Bay Area, China