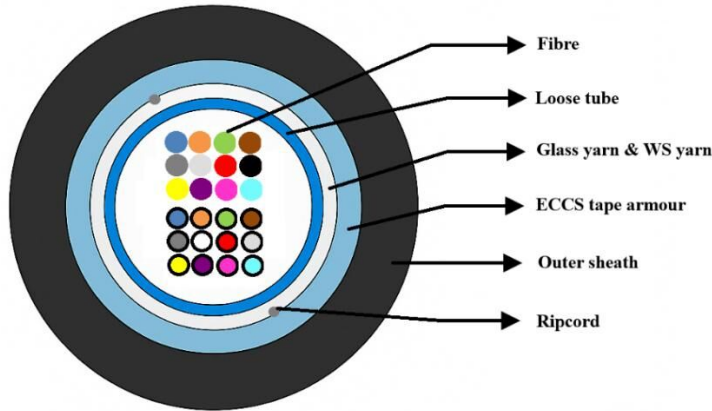


Guaranteed Technical Particulars	OPTICAL FIBRE CABLE
SINGLE MODE, UNI-TUBE, ECCS TAPE, HDPE	VALID FROM: 04-06-2026

1. Cable Drawing (Not to Scale. For Representation only)



2. Physical & Dimensions Characteristics

● Standards	: ANSI/TIA-568.3-E, ITU G.652D, IEC 60793, IEC 60794, & ANSI/ICEA S 87 640.
● Cable type	: OS2-loose tube suitable for use in indoor & outdoor application
● Fibre type	: Single mode (G.652D)
● Primary coating material of fibre	: UV-cured acrylate
● No. of loose tubes	: 1 no.
● Loose tube color	: Natural
● Loose tube material	: PBT loose tube filled with thixotropic jelly
● Moisture barrier	: Water swellable yarn
● Peripheral strength member	: Glass yarn
● Armouring	: Corrugated ECCS tape
● Minimum thickness of armour tape	: 0.14 mm
● Outer sheath material	: HDPE
● Additional outer sheath properties	: UV stabilized (UV-S), UV resistant (UV), anti-rodent (AR), & anti-termite (AT) - select the article number as required.
● Nominal outer sheath thickness	: 1.80 mm
● No. of ripcords / material	: 2 nos. placed under armor / polyester
● Standard packing length	: 2 km
● Standard packing material	: Non-returnable wooden drum
● Printing on cable	: LAPP® <No. of fibers>F SM UT ARM HDPE <UV AR AT as applicable>OFC <Month & year of mfg.> <Batch no.> <Sequential length marking>

3. Cable Transmission & Mechanical Characteristics:

● Attenuation at 1310nm wavelength (cabled)	: ≤ 0.36 dB/km
● Attenuation at 1550nm wavelength (cabled)	: ≤ 0.25 dB/km
● Minimum bending radius	: Loaded condition (during installation): 20 x cable diameter Residual (installed, no tension, long term): 10 x cable diameter
● Maximum tensile load during installation	: 2670 N (600 lbf)
● Installation temperature rating	: -30°C to +60°C

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- Operation temperature rating : -40°C to +70°C
- Storage temperature rating : -40°C to +70°C
- Tensile Performance (IEC 60794-1-21-E1) : 3000 N max tensile load; fibre strain $\leq 0.6\%$; attenuation change ≤ 0.05 dB
- Crush Strength (IEC 60794-1-21-E3) : 3000 N / 100 mm; attenuation change ≤ 0.05 dB
- Impact (IEC 60794-1-21-E4) : Height 0.5 meters, Weight = 2.5 Kg, 3 Impacts at different locations; no cracks, no fibre damage; attenuation ≤ 0.05 dB
- Torsion (IEC 60794-1-21-E7) : $\pm 180^\circ$, 10 cycles under tension; no cracking; attenuation ≤ 0.05 dB
- Temperature cycling (IEC 60794-1-22-F1) : -40°C to +70°C, 2–3 cycles, attenuation change ≤ 0.05 dB
- Drip compound flow (IEC 60794-1-21-E14) : No gel drip at 70–80°C for 24 hours.
- Water Penetration (IEC 60794-1-22-F5B/F5C) : Water head 1 m, 24 Hr; migration ≤ 3 cm; attenuation change ≤ 0.05 dB

4. Fibre Colour Identification:

S. No.	2F Cable	4F Cable	6F Cable	8F Cable	12F Cable	16F Cable	24F Cable
1	Blue	Blue	Blue	Blue	Blue	Blue	Blue
2	Orange	Orange	Orange	Orange	Orange	Orange	Orange
3		Green	Green	Green	Green	Green	Green
4		Brown	Brown	Brown	Brown	Brown	Brown
5			Slate	Slate	Slate	Slate	Slate
6			White	White	White	White	White
7				Red	Red	Red	Red
8				Black	Black	Black	Black
9					Yellow	Yellow	Yellow
10					Violet	Violet	Violet
11					Rose	Rose	Rose
12					Aqua	Aqua	Aqua
13						Blue *	Blue *
14						Orange *	Orange *
15						Green *	Green *
16						Brown *	Brown *
17							Slate *
18							White *
19							Red *
20							Natural *
21							Yellow *
22							Violet *
23							Rose *
24							Aqua *

* Fibers exceeding the initial 12-color sequence feature ring markings at 50 mm intervals

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Article No.	Article description	No. of fibres (nos.)	Loose tube diameter (mm)	Cable diameter (mm)	Cable weight (kg/km)
UV stabilized black (RAL 9005) colour outer sheath					
82383303181H	LAPP® 2F SM UT ARM HDPE UV-S OFC BK	2	2.5 ± 0.12	9.0 ± 0.5	80 ± 10
82383303182H	LAPP® 4F SM UT ARM HDPE UV-S OFC BK	4	2.5 ± 0.12	9.0 ± 0.5	80 ± 10
82383303183H	LAPP® 6F SM UT ARM HDPE UV-S OFC BK	6	2.5 ± 0.12	9.0 ± 0.5	80 ± 10
82383303184H	LAPP® 8F SM UT ARM HDPE UV-S OFC BK	8	2.5 ± 0.12	9.0 ± 0.5	80 ± 10
82383303185H	LAPP® 12F SM UT ARM HDPE UV-S OFC BK	12	2.5 ± 0.12	9.0 ± 0.5	80 ± 10
82383303186H	LAPP® 16F SM UT ARM HDPE UV-S OFC BK	16	3.0 ± 0.15	9.5 ± 0.5	85 ± 10
82383303187H	LAPP® 24F SM UT ARM HDPE UV-S OFC BK	24	3.0 ± 0.15	9.5 ± 0.5	85 ± 10
82383303188H	LAPP® 2F SM UT ARM HDPE UV-S AR AT OFC BK	2	2.5 ± 0.12	9.0 ± 0.5	80 ± 10
82383303189H	LAPP® 4F SM UT ARM HDPE UV-S AR AT OFC BK	4	2.5 ± 0.12	9.0 ± 0.5	80 ± 10
82383303190H	LAPP® 6F SM UT ARM HDPE UV-S AR AT OFC BK	6	2.5 ± 0.12	9.0 ± 0.5	80 ± 10
82383303191H	LAPP® 8F SM UT ARM HDPE UV-S AR AT OFC BK	8	2.5 ± 0.12	9.0 ± 0.5	80 ± 10
82383303192H	LAPP® 12F SM UT ARM HDPE UV-S AR AT OFC BK	12	2.5 ± 0.12	9.0 ± 0.5	80 ± 10
82383303193H	LAPP® 16F SM UT ARM HDPE UV-S AR AT OFC BK	16	3.0 ± 0.15	9.5 ± 0.5	85 ± 10
82383303194H	LAPP® 24F SM UT ARM HDPE UV-S AR AT OFC BK	24	3.0 ± 0.15	9.5 ± 0.5	85 ± 10
UV resistant black (RAL 9005) colour outer sheath					
82383303195H	LAPP® 2F SM UT ARM HDPE UV OFC BK	2	2.5 ± 0.12	9.0 ± 0.5	80 ± 10
82383303196H	LAPP® 4F SM UT ARM HDPE UV OFC BK	4	2.5 ± 0.12	9.0 ± 0.5	80 ± 10
82383303197H	LAPP® 6F SM UT ARM HDPE UV OFC BK	6	2.5 ± 0.12	9.0 ± 0.5	80 ± 10
82383303198H	LAPP® 8F SM UT ARM HDPE UV OFC BK	8	2.5 ± 0.12	9.0 ± 0.5	80 ± 10
82383303199H	LAPP® 12F SM UT ARM HDPE UV OFC BK	12	2.5 ± 0.12	9.0 ± 0.5	80 ± 10
82383303200H	LAPP® 16F SM UT ARM HDPE UV OFC BK	16	3.0 ± 0.15	9.5 ± 0.5	85 ± 10
82383303201H	LAPP® 24F SM UT ARM HDPE UV OFC BK	24	3.0 ± 0.15	9.5 ± 0.5	85 ± 10
82383303202H	LAPP® 2F SM UT ARM HDPE UV AR AT OFC BK	2	2.5 ± 0.12	9.0 ± 0.5	80 ± 10
82383303203H	LAPP® 4F SM UT ARM HDPE UV AR AT OFC BK	4	2.5 ± 0.12	9.0 ± 0.5	80 ± 10
82383303204H	LAPP® 6F SM UT ARM HDPE UV AR AT OFC BK	6	2.5 ± 0.12	9.0 ± 0.5	80 ± 10
82383303205H	LAPP® 8F SM UT ARM HDPE UV AR AT OFC BK	8	2.5 ± 0.12	9.0 ± 0.5	80 ± 10
82383303206H	LAPP® 12F SM UT ARM HDPE UV AR AT OFC BK	12	2.5 ± 0.12	9.0 ± 0.5	80 ± 10
82383303207H	LAPP® 16F SM UT ARM HDPE UV AR AT OFC BK	16	3.0 ± 0.15	9.5 ± 0.5	85 ± 10
82383303208H	LAPP® 24F SM UT ARM HDPE UV AR AT OFC BK	24	3.0 ± 0.15	9.5 ± 0.5	85 ± 10
Grey (RAL 7001) colour outer sheath					
82383303209H	LAPP® 2F SM UT ARM HDPE OFC GY	2	2.5 ± 0.12	9.0 ± 0.5	80 ± 10
82383303210H	LAPP® 4F SM UT ARM HDPE OFC GY	4	2.5 ± 0.12	9.0 ± 0.5	80 ± 10
82383303211H	LAPP® 6F SM UT ARM HDPE OFC GY	6	2.5 ± 0.12	9.0 ± 0.5	80 ± 10
82383303212H	LAPP® 8F SM UT ARM HDPE OFC GY	8	2.5 ± 0.12	9.0 ± 0.5	80 ± 10
82383303213H	LAPP® 12F SM UT ARM HDPE OFC GY	12	2.5 ± 0.12	9.0 ± 0.5	80 ± 10

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Article No.	Article description	No. of fibres (nos.)	Loose tube diameter (mm)	Cable diameter (mm)	Cable weight (kg/km)
82383303214H	LAPP® 16F SM UT ARM HDPE OFC GY	16	3.0 ± 0.15	9.5 ± 0.5	85 ± 10
82383303215H	LAPP® 24F SM UT ARM HDPE OFC GY	24	3.0 ± 0.15	9.5 ± 0.5	85 ± 10
82383303216H	LAPP® 2F SM UT ARM HDPE UV OFC GY	2	2.5 ± 0.12	9.0 ± 0.5	80 ± 10
82383303217H	LAPP® 4F SM UT ARM HDPE UV OFC GY	4	2.5 ± 0.12	9.0 ± 0.5	80 ± 10
82383303218H	LAPP® 6F SM UT ARM HDPE UV OFC GY	6	2.5 ± 0.12	9.0 ± 0.5	80 ± 10
82383303219H	LAPP® 8F SM UT ARM HDPE UV OFC GY	8	2.5 ± 0.12	9.0 ± 0.5	80 ± 10
82383303220H	LAPP® 12F SM UT ARM HDPE UV OFC GY	12	2.5 ± 0.12	9.0 ± 0.5	80 ± 10
82383303221H	LAPP® 16F SM UT ARM HDPE UV OFC GY	16	3.0 ± 0.15	9.5 ± 0.5	85 ± 10
82383303222H	LAPP® 24F SM UT ARM HDPE UV OFC GY	24	3.0 ± 0.15	9.5 ± 0.5	85 ± 10
82383303223H	LAPP® 2F SM UT ARM HDPE UV AR AT OFC GY	2	2.5 ± 0.12	9.0 ± 0.5	80 ± 10
82383303224H	LAPP® 4F SM UT ARM HDPE UV AR AT OFC GY	4	2.5 ± 0.12	9.0 ± 0.5	80 ± 10
82383303225H	LAPP® 6F SM UT ARM HDPE UV AR AT OFC GY	6	2.5 ± 0.12	9.0 ± 0.5	80 ± 10
82383303226H	LAPP® 8F SM UT ARM HDPE UV AR AT OFC GY	8	2.5 ± 0.12	9.0 ± 0.5	80 ± 10
82383303227H	LAPP® 12F SM UT ARM HDPE UV AR AT OFC GY	12	2.5 ± 0.12	9.0 ± 0.5	80 ± 10
82383303228H	LAPP® 16F SM UT ARM HDPE UV AR AT OFC GY	16	3.0 ± 0.15	9.5 ± 0.5	85 ± 10
82383303229H	LAPP® 24F SM UT ARM HDPE UV AR AT OFC GY	24	3.0 ± 0.15	9.5 ± 0.5	85 ± 10
Yellow (RAL 1021) colour outer sheath					
82383303230H	LAPP® 2F SM UT ARM HDPE OFC YE	2	2.5 ± 0.12	9.0 ± 0.5	80 ± 10
82383303231H	LAPP® 4F SM UT ARM HDPE OFC YE	4	2.5 ± 0.12	9.0 ± 0.5	80 ± 10
82383303232H	LAPP® 6F SM UT ARM HDPE OFC YE	6	2.5 ± 0.12	9.0 ± 0.5	80 ± 10
82383303233H	LAPP® 8F SM UT ARM HDPE OFC YE	8	2.5 ± 0.12	9.0 ± 0.5	80 ± 10
82383303234H	LAPP® 12F SM UT ARM HDPE OFC YE	12	2.5 ± 0.12	9.0 ± 0.5	80 ± 10
82383303235H	LAPP® 16F SM UT ARM HDPE OFC YE	16	3.0 ± 0.15	9.5 ± 0.5	85 ± 10
82383303236H	LAPP® 24F SM UT ARM HDPE OFC YE	24	3.0 ± 0.15	9.5 ± 0.5	85 ± 10
82383303237H	LAPP® 2F SM UT ARM HDPE UV OFC YE	2	2.5 ± 0.12	9.0 ± 0.5	80 ± 10
82383303238H	LAPP® 4F SM UT ARM HDPE UV OFC YE	4	2.5 ± 0.12	9.0 ± 0.5	80 ± 10
82383303239H	LAPP® 6F SM UT ARM HDPE UV OFC YE	6	2.5 ± 0.12	9.0 ± 0.5	80 ± 10
82383303240H	LAPP® 8F SM UT ARM HDPE UV OFC YE	8	2.5 ± 0.12	9.0 ± 0.5	80 ± 10
82383303241H	LAPP® 12F SM UT ARM HDPE UV OFC YE	12	2.5 ± 0.12	9.0 ± 0.5	80 ± 10
82383303242H	LAPP® 16F SM UT ARM HDPE UV OFC YE	16	3.0 ± 0.15	9.5 ± 0.5	85 ± 10
82383303243H	LAPP® 24F SM UT ARM HDPE UV OFC YE	24	3.0 ± 0.15	9.5 ± 0.5	85 ± 10
82383303244H	LAPP® 2F SM UT ARM HDPE UV AR AT OFC YE	2	2.5 ± 0.12	9.0 ± 0.5	80 ± 10
82383303245H	LAPP® 4F SM UT ARM HDPE UV AR AT OFC YE	4	2.5 ± 0.12	9.0 ± 0.5	80 ± 10
82383303246H	LAPP® 6F SM UT ARM HDPE UV AR AT OFC YE	6	2.5 ± 0.12	9.0 ± 0.5	80 ± 10
82383303247H	LAPP® 8F SM UT ARM HDPE UV AR AT OFC YE	8	2.5 ± 0.12	9.0 ± 0.5	80 ± 10
82383303248H	LAPP® 12F SM UT ARM HDPE UV AR AT OFC YE	12	2.5 ± 0.12	9.0 ± 0.5	80 ± 10

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82383303249H	LAPP® 16F SM UT ARM HDPE UV AR AT OFC YE	16	3.0 ± 0.15	9.5 ± 0.5	85 ± 10
82383303250H	LAPP® 24F SM UT ARM HDPE UV AR AT OFC YE	24	3.0 ± 0.15	9.5 ± 0.5	85 ± 10

Prepared by: Design Engineer

Approved by: Head Engineering

Note:

This GTP supersedes all previous revisions released to date.

This GTP is a design document and is not valid for inspection without an accompanying Quality Assurance Plan (QAP). A QAP is required in the event of a customer inspection.

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