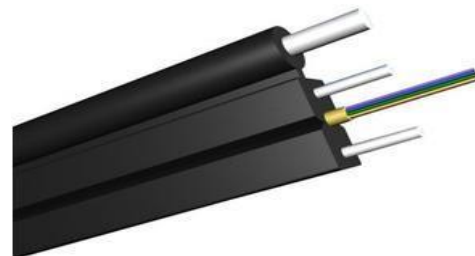
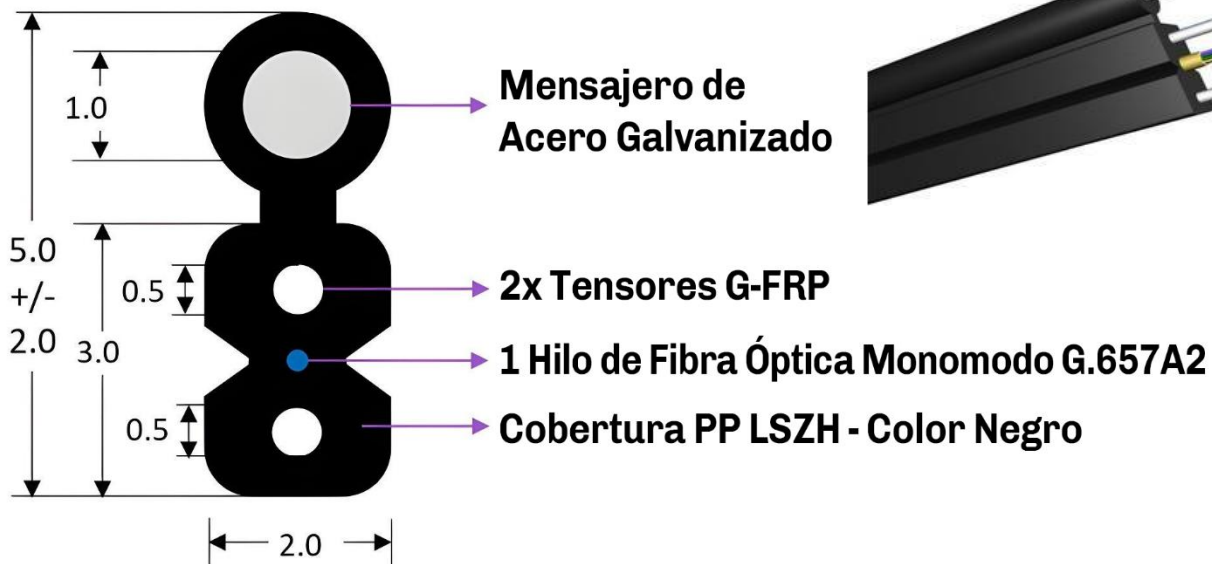


1. Construcción de Cables

1.1. Diagrama del Cable



1.2. Características Generales

Tipo de Cable:	GJYXFCH
Tipo de Hilo de Fibra Óptica:	ITU G.657A2 Fiberhome
Cantidad de Hilos:	1
Código de colores:	Azul
Alambre Mensajero:	Alambre de Acero Galvanizado 1.0mm
Tensores:	2 de 0.50mm, tipo GFRP
Material de Cobertura:	LSZH Negro
Medidas del cable (mm):	2.0mm * 5.2mm±0.2
Peso nominal (kg/km):	19
Carga de tensión máxima (N):	600
Vano Estándar (m.):	80m.
Tiempo de vida útil:	>25 años

2. Parámetros de Rendimiento de la Fibra Óptica

2.1. Fibra Monomodo

ITEMS	UNIDADES	ESPECIFICACIÓN
Tipo de Fibra Óptica		ITU G.657- A2
Atenuación	dB/Km	1310nm ≤ 0.35 1385nm ≤ 0.32 1490nm ≤ 0.25 1550nm ≤ 0.22 1625nm ≤ 0.25
Dispersión Cromática	ps/nm.km	1310nm ≤ 3.6 1550nm ≤ 18 1625nm ≤ 22
Pendiente de Cero Dispersión	ps/nm ² .km	≤ 0.092
Longitud de onda de Cero Dispersión	nm	1300 ~ 1324
Longitud de Onda de Corte (cc)	nm	≤ 1260
Atenuación vs. Flexión	dB	(10mm radio, 1giro) ≤ 0.2 @ 1625nm (10mm radio, 1giro) ≤ 0.1 @ 1550nm
Diámetro de Campo Modal	μm	9.2 ± 0.4 en 1310nm
Concentricidad de Revestimiento de Núcleo	μm	≤ 0.5
Diámetro del Revestimiento	μm	125±1
No Circularidad del Revestimiento	%	≤ 0.8
Diámetro del Recubrimiento	μm	245±5
Test de Prueba	Gpa	≥ 0.69

3. Características Mecánicas y Ambientales del Cable

NO.	PRUEBA	MÉTODO DE PRUEBA	CRITERIO DE ACEPTACIÓN
1	Carga de Tensión	#Metodo de prueba: IEC 60794-1-E1 - Carga de tensión mayor: 0.5 veces la fuerza de tracción. - Carga de tensión menor: Referencia a la cláusula 1.2 - Longitud de Cable: ≥50m	- Incremento de Atenuación @1550nm: ≤0.05dB - Sin daño en recubrimiento y sin rotura de fibra optica.
2	Resistencia de Aplastamiento	#Método de prueba: IEC 60794-1-E3 - Carga Mayor: 1000 N/100mm - Carga Menor: 2200 N/100mm Tiempo de carga: 1 minuto	- Incremento de Atenuación @1550nm: ≤0.05dB - Sin daño en recubrimiento y sin rotura de fibra optica.
3	Resistencia de Impacto	#Método de prueba: IEC 60794-1-E4 - Altura de Impacto: 1m - Peso del Impacto: 100g - Punto de Impacto: ≥3 - Frecuencia de Impacto: ≥1/point	- Incremento de Atenuación @1550nm: ≤0.05dB - Sin daño en recubrimiento y sin rotura de fibra optica.
4	Repetición de Flexión	#Método de prueba: IEC 60794-1-E6 - Diámetro del mandril: 30H - Peso del sujeto: 2 kg - Frecuencia de flexión: 300 veces - Velocidad de flexión: 2s/hora	- Incremento de Atenuación @1550nm: ≤0.05dB - Sin daño en recubrimiento y sin rotura de fibra optica.
5	Torsión	#Método de prueba: IEC 60794-1-E7 - Longitud: 1m - Peso del sujeto: 2kg - Angulo: ±180 grados - Frecuencia: ≥20/punto	- Incremento de Atenuación @1550nm: ≤0.05dB - Sin daño en recubrimiento y sin rotura de fibra optica.
6	Ciclo de Temperatura	#Método de prueba: IEC 60794-1-F1 - Etapas de temperatura: +20°C, -10°C, +60°C, +20°C - Tiempo de prueba: 8 horas/etapa - Cantidad de ciclos: 2	- Incremento de Atenuación @1550nm: ≤0.05dB - Sin daño en recubrimiento y sin rotura de fibra optica.
7	Temperatura	Operación: -40°C~+65°C Transporte/Almacenamiento: -40°C ~+60°C Instalación: -10°C ~+60°C	

4. RADIO DE CURVATURA DEL CABLE DE FIBRA ÓPTICA

Radio de curvatura estático: ≥ 10 veces el diámetro del cable

Radio de curvatura dinámico: ≥ 20 veces el diámetro del cable.

5. EMBALAJE Y MARCA

5.1. PAQUETE

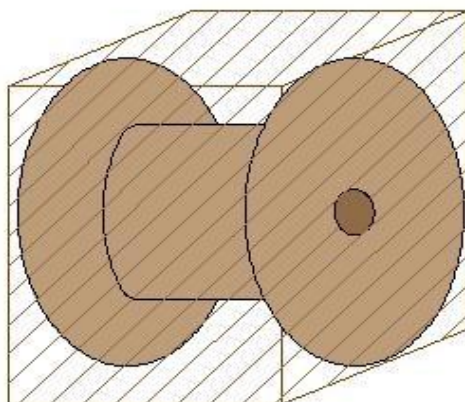
Bobina de 1 Km. En caja de cartón. Bobina de madera.

Los dos extremos están sellados y embalados dentro del tambor.

5.2. GRABADO

Marca de Cable: longitud, marca TLS FIBER.

Marca del Tambor: Categoría de cable, número de tambor, longitud, GW., sentido de giro, fecha de fabricación.





QUALITY MANAGEMENT SYSTEM CERTIFICATE

Certificate No. 00125Q30746R2M-1/3400

We hereby certify that

Hefei Lasun Communication Co., Ltd.

Business Registration Number: 91340825MA2N331N0A

Registered Address: 1#, 2# and 3# workshop of HeFei Lasun Communication Co., Ltd. Qiaowan Road and Innovation Avenue, Taohua Industrial Park, Economic Development Zone, Hefei City, Anhui Province, P.R China
Operational Address: 1#, 2# and 3# workshop of HeFei Lasun Communication Co., Ltd. Qiaowan Road and Innovation Avenue, Taohua Industrial Park, Economic Development Zone, Hefei city, Anhui Province, P.R China

by reason of its
Quality Management System
has been awarded this certificate for compliance with the standard

ISO 9001:2015

The Quality Management System Applies in the following area:

Development and Production of Communication Cables, Integrated Wiring Products, Charging Piles and Charging Guns

Valid from: January 24, 2025 Valid until: January 22, 2028

the expiry date of last certification cycle: January 22, 2025 the date of recertification audit: November 25, 2024 to November 28, 2024
a statement saying : the validity of this certificate depends on the validity of the main certificate

After a surveillance cycle, the certificate is valid only when used together with an Acceptance Notice of Surveillance Audit issued by CQC.

Please access www.cqc.com.cn for checking validity of the certificate.

This certificate and its relevant information can query in the website of Certification and Accreditation Administration of the People's Republic of China (www.cnca.gov.cn).



谢肇煦

Signed by: Xie ZhaoXu

MEMBER OF



中国质量认证中心

CHINA QUALITY CERTIFICATION CENTRE

Section 9, No. 188, Nansihuan Xilu, Beijing 100070 P. R. China

<http://www.cqc.com.cn>



ENVIRONMENTAL MANAGEMENT SYSTEM CERTIFICATE

Certificate No. 00123E34844R1M-1/3400

We hereby certify that

HeFei Lasun Communication Co.,LTD.

Business Registration Number: 913401230597402309

1#, 2# and 3# workshop of HeFei Lasun Communication Co.,Ltd. Qiaowan Road and Innovation Avenue, Taohua Industrial Park, Economic Development Zone, Hefei city, Anhui Province, P.R China

by reason of its

Environmental Management System

has been awarded this certificate for compliance with the standard

ISO 14001:2015

The Environmental Management System Applies in the following area:

Development & Production of Communication Cables, Integrated Wiring products, Charging Piles, Charging Guns and Related Management Activities

Certified since: December 10, 2020 Valid from: February 21, 2024 Valid until: December 9, 2026

a statement saying : the validity of this certificate depends on the validity of the main certificate

After a surveillance cycle, the certificate is valid only when used together with an Acceptance Notice of Surveillance Audit issued by CQC.

Please access www.cqc.com.cn for checking validity of the certificate.

This certificate and its relevant information can query in the website of Certification and Accreditation Administration of the People's Republic of China (www.cnca.gov.cn).



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管理体系
MANAGEMENT SYSTEM
CNAS C001-M

谢肇煦
Signed by: Xie ZhaoXu



CHINA QUALITY CERTIFICATION CENTRE

Section 9, No.188, Nansihuan(the South Fourth Ring Road) Xilu(West Road), Beijing 100070, China

<http://www.cqc.com.cn>

Certificate

CQC has issued an IQNET recognized certificate that the organization:

HeFei Lasun Communication Co.,LTD.

1#, 2# and 3# workshop of HeFei Lasun Communication Co.,Ltd. Qiaowan Road and Innovation Avenue, Taohua Industrial Park,
Economic Development Zone, Hefei city, Anhui Province, P.R China

has implemented and maintains an
Environmental Management System

for the following scope:

Development & Production of Communication Cables, Integrated Wiring products, Charging Piles, Charging Guns and Related
Management Activities

which fulfils the requirements of the following standard:

ISO 14001:2015

Issued on: February 21, 2024

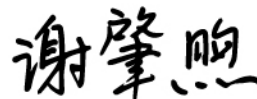
First issued on: December 10, 2020

Expires on: December 9, 2026

Registration Number: CN00123E34844R1M-1/3400



Alex Stoichitoiu
President of IQNET



Xie Zhaoxu
President of CQC



This attestation is directly linked to the IQNET Member's original certificate and shall not be used as a stand-alone document.

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Cro Cert Croatia **DQS Holding GmbH** Germany **EAGLE Certification Group** USA **FCAV** Brazil **FONDONORMA** Venezuela **ICONTEC**
Colombia **ICS** Bosnia and Herzegovina **Inspecta Sertifointi Oy** Finland **INTECO** Costa Rica **IRAM** Argentina **JQA** Japan **KFQ** Korea
LSQA Uruguay **MIRTEC** Greece **MSZT** Hungary **Nemko AS** Norway **NSAI** Ireland **NYCE-SIGE** México **PCBC** Poland **Quality Austria**
Austria **SII** Israel **SIQ** Slovenia **SIRIM QAS International** Malaysia **SQS** Switzerland **SRAC** Romania **TSE** Turkey **YUQS** Serbia

* The list of IQNET Members is valid at the time of issue of this certificate. Updated information is available under www.iqnet-certification.com



OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM CERTIFICATE

Certificate No. 00123S34020R0M/3400

We hereby certify that

HeFei Lasun Communication Co., Ltd.

Business Registration Number: 913401230597402309

1#, 2# and 3# workshop of HeFei Lasun Communication Co., Ltd. Qiaowan Road and Innovation Avenue,
Taohua Industrial Park, Economic Development Zone, Hefei city, Anhui Province, P.R.China

by reason of its

Occupational Health and Safety Management

has been awarded this certificate for compliance with the standard

ISO 45001:2018

The Occupational Health and Safety Management Applies in the following area:

Development & Production of Communication Cables, Integrated Wiring Products and Related
Management Activities; Sales and Related Management Activities of Polymer Materials, Charging Piles and
Charging Guns for New Energy Vehicles

Certified since: December 18, 2023 Valid from: December 18, 2023 Valid until: December 17, 2026

After a surveillance cycle, the certificate is valid only when used together with an Acceptance Notice of Surveillance Audit issued by CQC.

Please access www.cqc.com.cn for checking validity of the certificate.

This certificate and its relevant information can query in the website of Certification and Accreditation Administration of
the People's Republic of China (www.cnca.gov.cn).



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CNAS C001-M

谢肇煦
Signed by: Xie ZhaoXu



CHINA QUALITY CERTIFICATION CENTRE

Section 9, No.188, Nansihuan(the South Fourth Ring Road) Xilu(West Road), Beijing 100070, China

<http://www.cqc.com.cn>