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A large decorative graphic on the right side of the page consists of several concentric, semi-circular arcs. The background within these arcs is a dark blue color with a subtle pattern of glowing light points and faint circuit-like lines. A bright blue circle is positioned on the right side, partially overlapping the arcs.

ODN

***Metro optical network ODN solution
and typical product manual***
Optical fiber brings you smarter life

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Hengtong Optic-Electric Co., Ltd

Hengtong Optic-Electric Cable Industry Park
Address: 88# Hengtong Av., Qidu town, Wujiang City,
JiangsuHengtong Optical Communication S & T Park
Address: 100# Hengtong Road, Economic Development Zone,
Wujiang City, jiangsu

Tel: 400-8866-298 400-8866-398
Email: hengtongFTTx@hengtonggroup.com.cn

www.htgd.com.cn

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Optical fiber brings you smarter life

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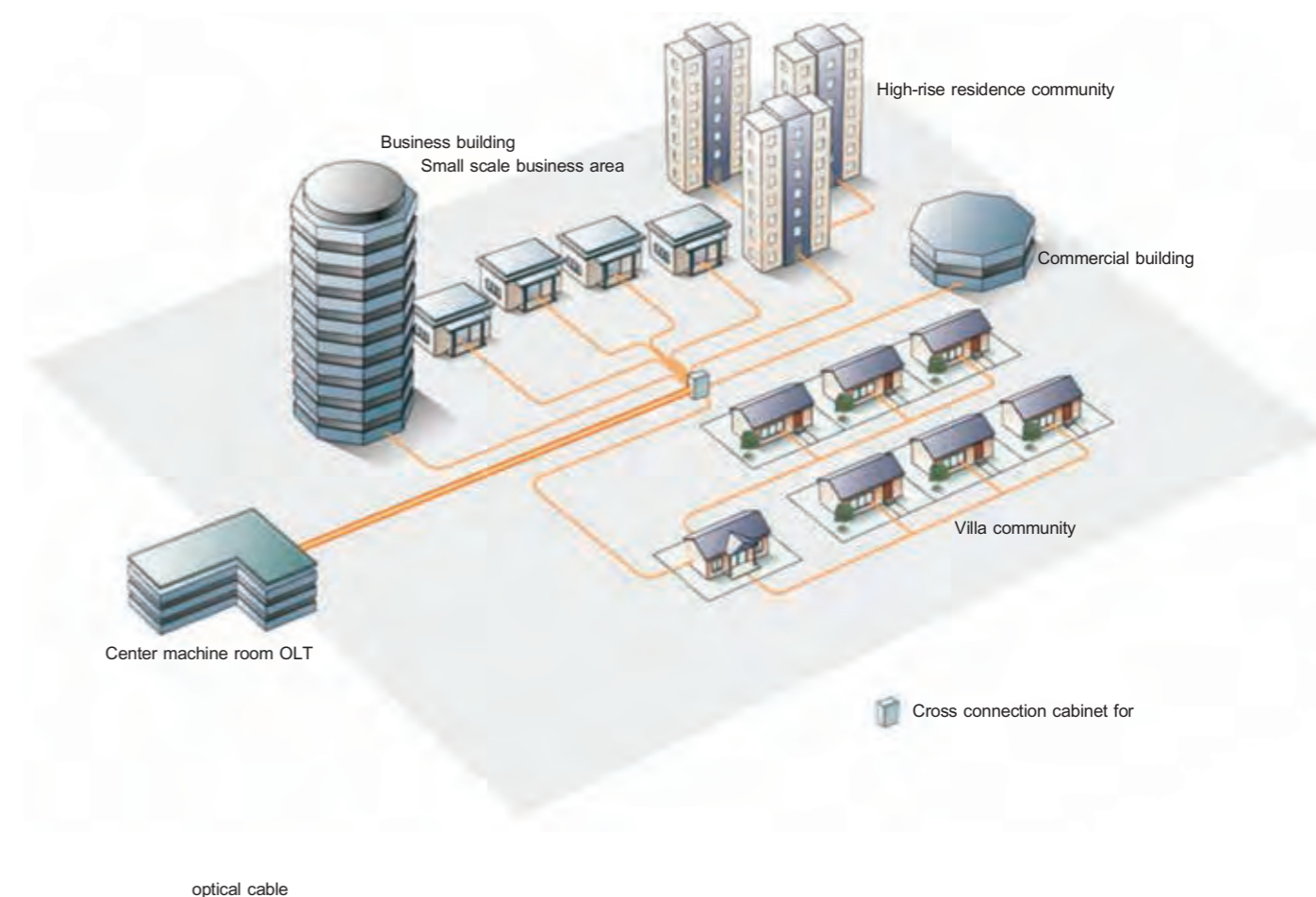
Hengtong Metro optical network ODN solution and product R & D

Along with the promotion of worldwide optical network cities, domestic FTTx scale construction has been started thoroughly, and the core of optical fiber network construction has been developed from the last one kilometer to the last fifty meters. Therefore, operators pay more and more attention to household pipeline construction. ODN network, that is, optical distribution network, is not only an important revolution for optical fiber system integration, but also an important measure for completion of the last 50 meters of all-optical network.

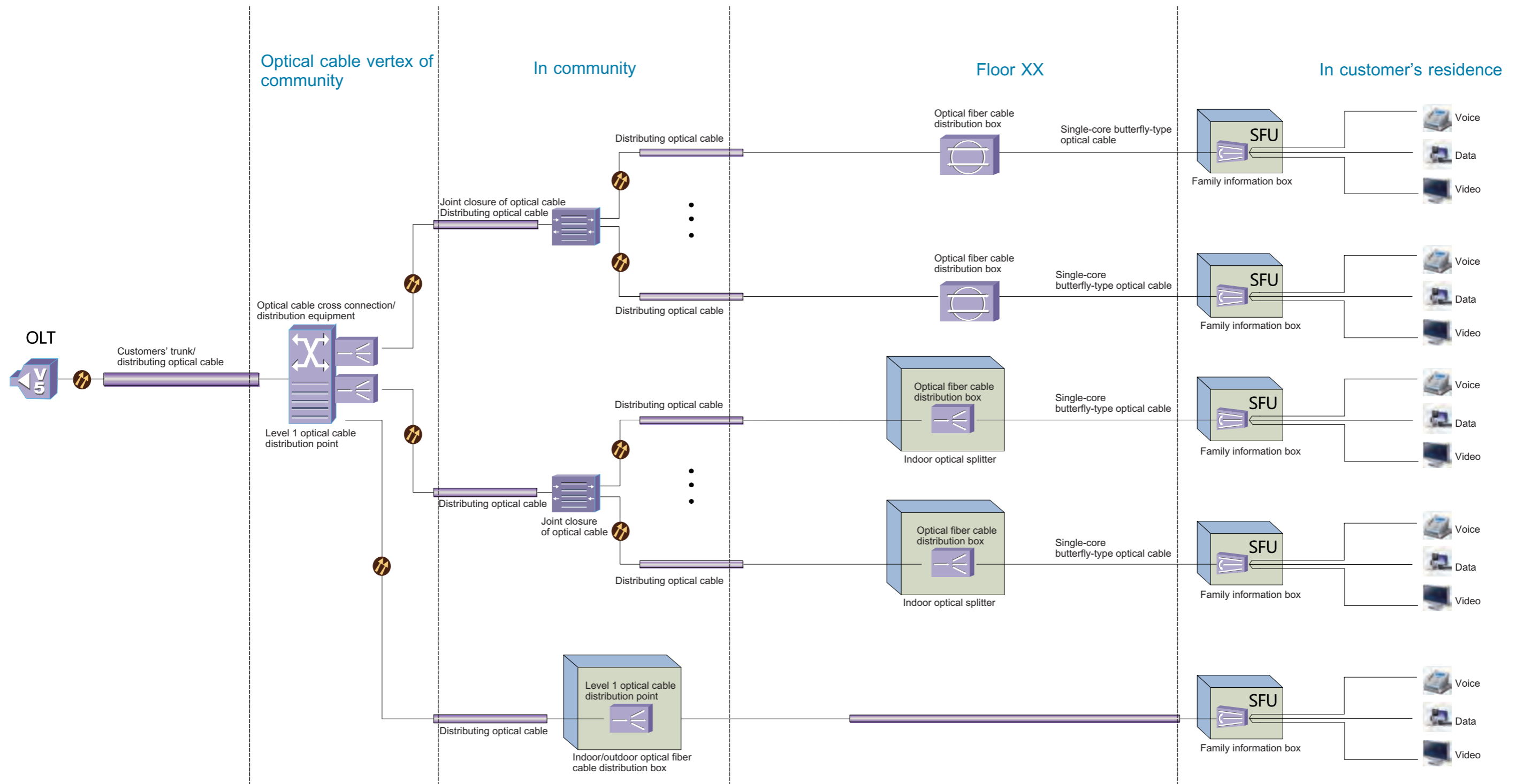
Rely on strong R&D platform and scientific team in communication field, Hengtong develops ODN integral solution and supply all-around FTTx optical fiber distribution network (ODN) product. In current, Hengtong has developed 10 sorts of connecting equipments and apparatus, for example, optical fiber distribution frame, outdoor cross connection cabinet for optical cable, PLC optical splitter, optical cable terminal case, optical fiber cable distribution box, general broadband data distribution box, horizontal optical cable joint closure, optical fiber field assembly connector, optical fiber mechanical splicing etc.



Model view for ODN application in FTTH system



Topological structure diagram of FTTX network



Metro optical network ODN solution

Multi-storey residence solution



High-rise residence solution



Customers' indoor product



Optical cable information panel



Quick optical cable connector



Mechanical splicing



Multi-media box

Product in building



Optical cable splitter in passageway



Indoor optical fiber cable distribution box

Machine room of community



Indoor cross connection cabinet for optical cable



PLC Optical splitter



Indoor jumperless cross connection cabinet for optical cable

Local end machine room

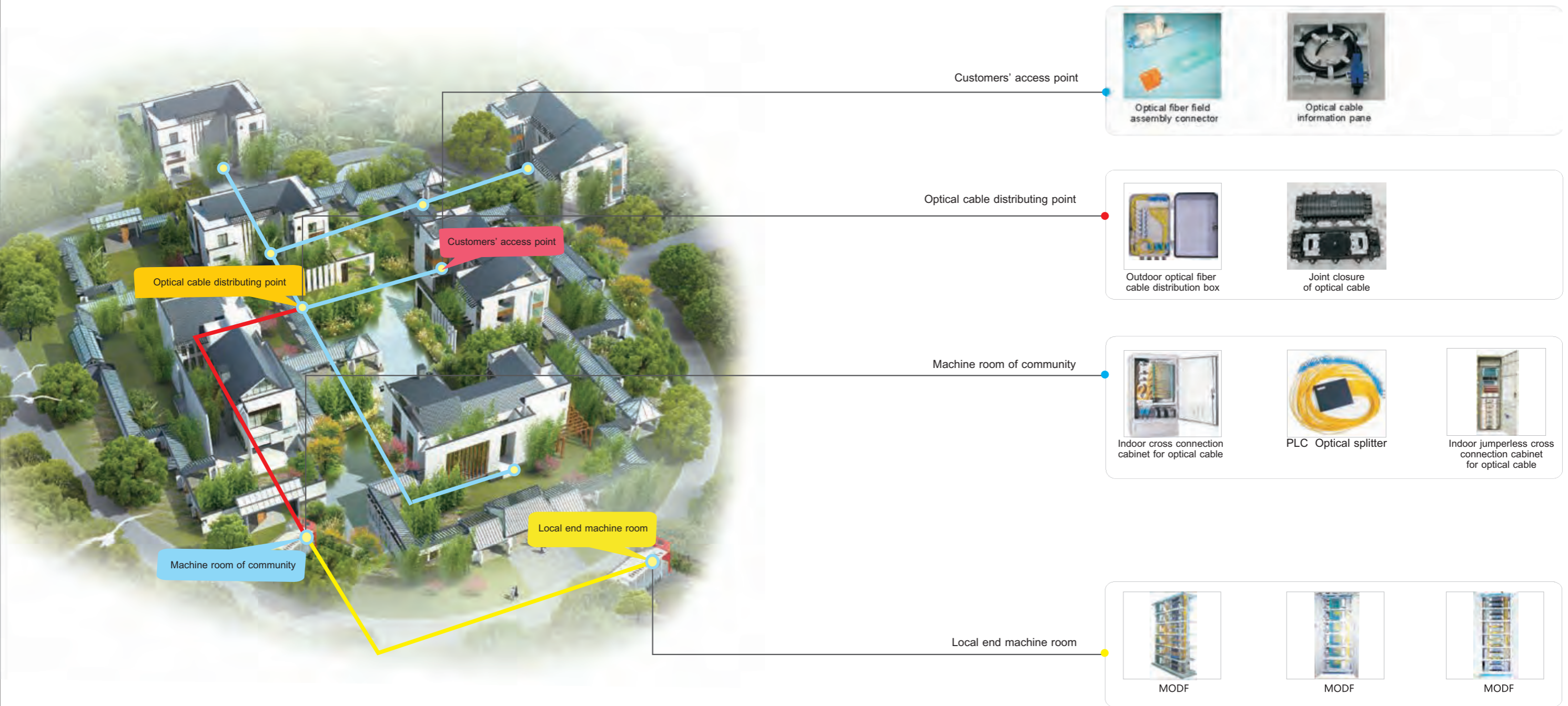


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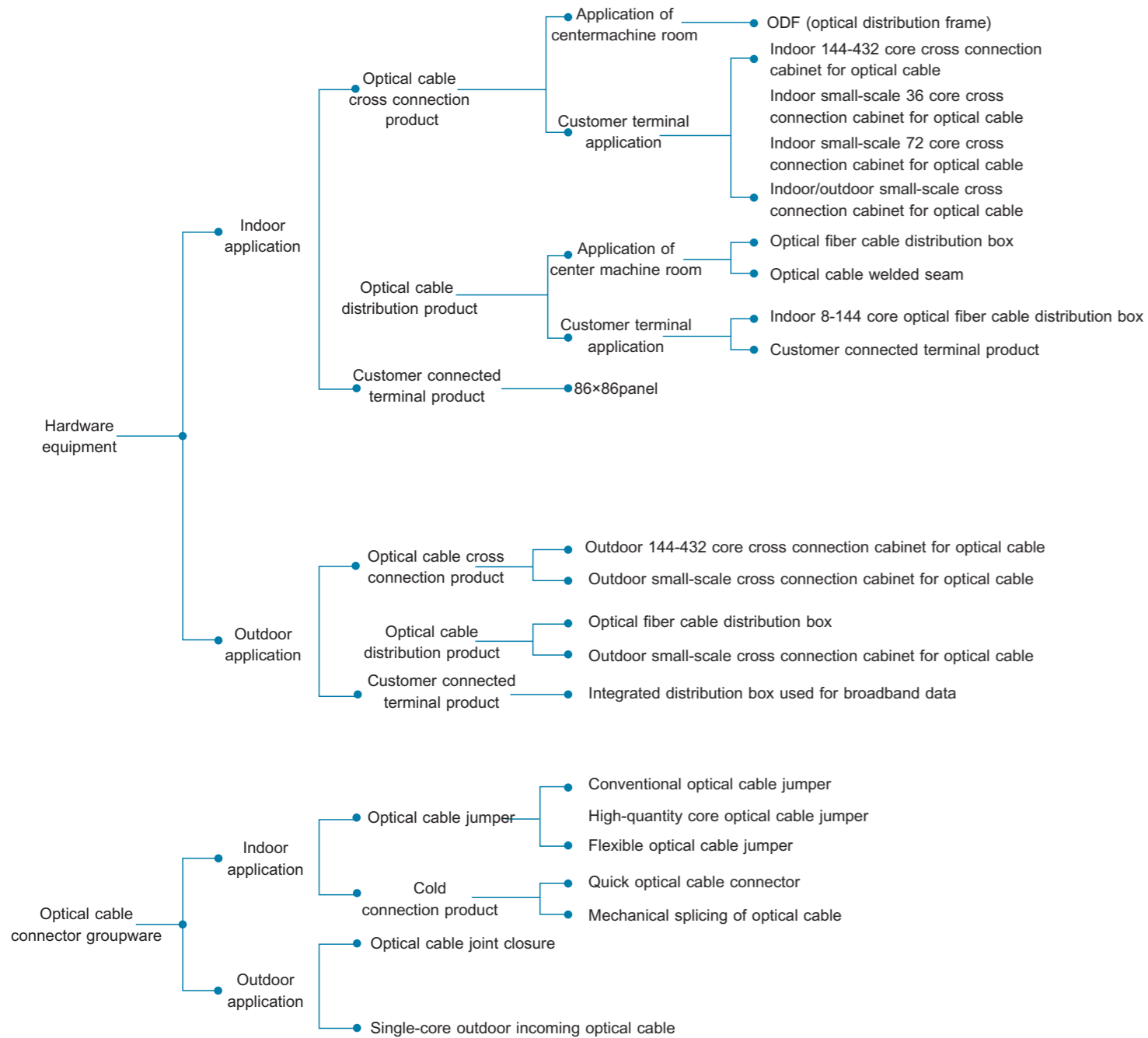


Integrated distribution frame

Villa residence solution



Selection manual of FTTX product



Conventional matching ODN product introduction

- Outdoor cabinet for FTTN based on EPON/15
- Passageway cabinet for FTTB based on EPON/25
- Optical cable cross connection/distribution product/30
- General MODF optical distribution frame product/35
- Passageway terminal optical cable splitter product/40
- Passageway optical fiber cable distribution box/43
- New-type SMC outdoor optical fiber cable distribution box/47
- Family information box product/51
- FTTx network apparatus/57
- HT plane wave-guide optical splitter/62
- GJS-HT optical cable joint closure /65

Outdoor cabinet for FTTN based on EPON

TELECOM Corporation access net strategic transformation core is optical fiber strategy, to change the original construction mode mainly by copper access, extending optical fiber to user terminal as much as possible. In urban area, optical fiber is connected to buildings for newly-built community and in rural areas, it adopts wired way for construction area, where optical fiber is connected to administrative village, and at the right time to promote fiber construction to home. In the light of strategy of "fiber replaces copper"; outdoor communication machine cabinet, with the advantages of 'low cost, convenient location selection and easy construction', has become an important supplementary means for solution of machine room construction investment and location selection pressure.

Cabinet product sorts and composition

FTTN outdoor cabinet is composed of MDU equipment (active equipment introduced via DSL or LAN) with PON (passive optical network), optical fiber cable distribution box, optical splitter, power supply distribution equipment, as well as configured with MDF distribution module, security protection unit, secondary power supply system, monitoring equipment according to actual requirement.

Cabinet product sort

- Outdoor model for application of open air position
- Cabinets are divided into these seven sorts of cabinets of 200 loop line, 400 loop line, 600 loop line, 1200 loop line, 1800 loop line, 2400 loop line, 3200 loop line according to distributing capacity.
- Support broadband introduction and synchronous language broadband introduction
- Temperature control method adopts enforced air exhaust radiation

Composition of cabinet product

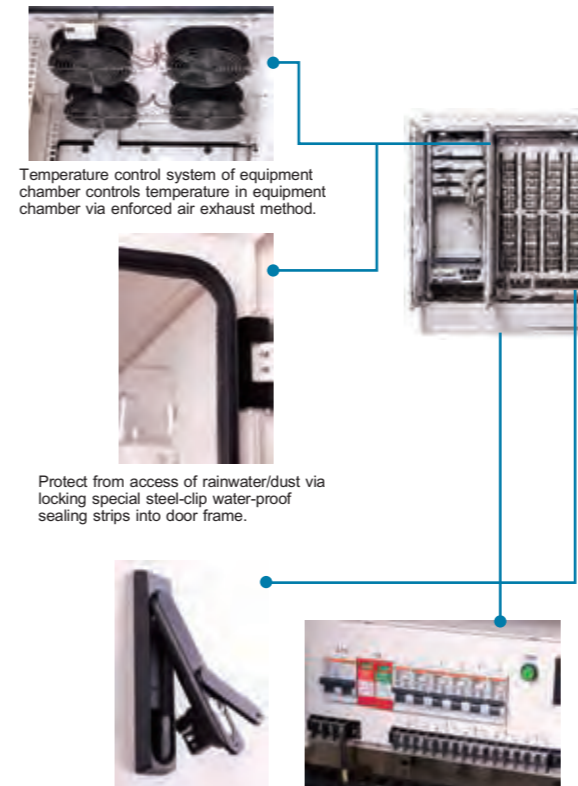
- Cabinet body (cabinet of 200 loop line, 400 loop line, and 600 loop line include main cabinet body only, cabinet with loop line capacity of 1200 above include main cabinet, equipment chamber, distribution module chamber, and moistureproof chamber etc.)
- Main equipment (PON+DSL or PON+DSL+POTS, small-scale cabinet is configured with PON+LAN or PON+LAN+POTS equipment)
- AC 220V lightningproof power distribution module and power socket
- Electric cable cross connection/distribution module
- Protector wiring module
- Optical fiber cable distribution box (200, 400 and 600 loop line adopt 6-core sc; 1200, 1800, 2400 and 3200 loop line adopt 12-core sc)
- Cable groove (configured according to requirement)
- Optical splitter (configuration 1:4 or 1:8 optical splitter)
- Intelligent ventilation system
- Night maintenance emergency lamp
- Accumulator or UPS secondary power module (configured according to requirement)
- Security protection unit alarm, intelligent lock

Main equipment capacity configuration

It is possible to configure capacity for broadband introduced equipment that installed in outdoor cabinet according to 50-60% covered customer quantity of associated copper cable in initial stage, but it must adjust according to actual condition because broadband business development in various zone is imbalance and some zones are covered with LAN. According to actual requirement, capacity configuration of equipment may adopt 24 line, 32 line, 48 line, 64 line, 96 line, 128 line, and 384 line etc.
Specification dimension of main equipment: height: not exceed 2u, depth: not exceed 250mm, adopts standard 19 inch width.



HT-001



Temperature control system of equipment chamber controls temperature in equipment chamber via enforced air exhaust method.

Protect from access of rainwater/dust via locking special steel-clip water-proof sealing strips into door frame.

Adopt three-point interlocking structure that be provided with excellent burglarproof performance.

Integral AC 220V lightningproof power distribution module.

FTTN-07D/2400L Integral communication cabinet (outdoor)

Product summary

Install on floor closing to power cable cross connection box and replace original 1800 loop line power cable cross connection box.
Compose of cabinet body, equipment chamber, distributing module chamber, and moistureproof chamber etc. Cabinet may be opened to front and back direction.

Configuration table

SN	Name	Specification	Unit	Quantity	Remark
1	Cabinet	H*W*D	Set	1	Ma-coated Al-Zn plate
2	Base	H*W*D	Set	1	Galvanized angle steel
3	Illuminating lamp of temperature control and blower fan module	AC	Suit	4	Low-speed blower fan, start in angle of 35° and stop in angle of 30°
4	Back bracket of moistureproof module	110 loop line	Piece	32	Word-printed bar
5	Optical cable distribution module	12 core SC	Piece	1	Equip 12 adapters and one piece of 1.5m fascicular pigtail
6	AC 220V power distribution module	Include six vacant 6A/1P, one 20A/2P, one 20KA~40KA lightning arrester, seven sockets	Suit	1	
7	Grounding copper bar		Set	1	
8	Moistureproof template	10 loop line	Piece	1	Configured according to customer's requirement
9	Grounding bar of moistureproof template	Equip one grounding bar for each module	Piece	1	Configured according to customer's requirement
10	Moistureproof template	10 loop line	Piece	320	Configured according to customer's requirement
11	Security protection unit		Piece	1	Configured according to customer's requirement
12	Line clip and equipment assembly	1m	Piece	800	Configured according to customer's requirement
13	Earth wire for cabinet body and lightningproof grounding connection (95m ²)	Include DC power adapter module	Loop line Piece	1600 1	Configured according to customer's requirement Optional
14	General alarm		Suit	1	Optional
15	One-way plug		Piece	1	Optional
16	Accessories	Include tools, swagingSuit clamp, test cord, alarm connecting line etc.	Suit	1	Optional

Distributing requirement

Equipment installed in cabinet belongs to outdoor PON+DSL or PON+DSL+POTS MDU equipment. In principle, supplied DSL broadband introducing capacity shall support customer voice introduction, and not be less than 384 lines. It is possible to install main equipment (s) according to actual requirement, but installing quantity of six below is recommended. Equipment includes 3200 pairs of loop lines, hereinto, trunk cable capacity is 1000 loop lines, distributing cable capacity is 1400 loop lines, terminal connecting module is 400x2=800 pairs of loop lines. Distribution module in distribution chamber supports double-direction installation.

FTTN-07D/2400L Integral communication cabinet (outdoor)



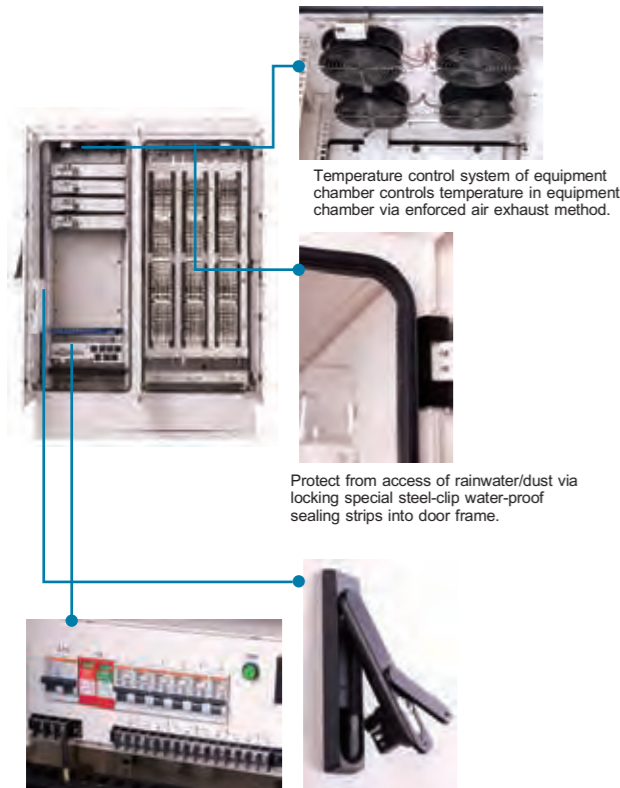
HT-002

Product summary

Install on floor closing to power cable cross connection box and replace original 1800 loop line power cable cross connection box.
Compose of cabinet body, equipment chamber, distribution module chamber, moistureproof chamber etc. Cabinet may be opened to front and back direction.

Configuration table

SN	Name	Specification	Unit	Quantity	Remark
1	Cabinet	H*W*D 1650x1300x660	Set	1	2.0 Ma-coated Al-Zn plate
2	Base	H*W*D 250x1300x660	Set	1	Galvanized angle steel
3	Illuminating lamp of temperature control and blower fan module	AC	Suit	4	Low-speed blower fan, start in angle of 35° and stop in angle of 30°
4	Back bracket of moistureproof module	110 loop line	Piece	24	Word-printed bar
5	Optical cable distribution module	12 core SC	Piece	1	Equip 12 adapters and one piece of 1.5m fascicular pigtail
6	AC 220V power distribution module	Include six vacant 6A/1P, one 20A/2P, one 20KA~40KA lightning arrester, seven sockets	Suit	1	
7	Grounding copper bar		Set	1	
8	Moistureproof template	10 loop line	Piece	1	Configured according to customer's requirement
9	Grounding bar of moistureproof template	Equip one grounding bar for each module	Piece	1	Configured according to customer's requirement
10	Moistureproof template	10 loop line	Piece	240	Configured according to customer's requirement
11	Security protection unit	FA808IV	Piece	1	Configured according to customer's requirement
12	Line clip and equipment assembly	1m	Piece	600	Configured according to customer's requirement
13	Earth wire for cabinet body and lightningproof grounding connection (95m ²)	Include DC power adapter module	Loop line Piece	1200 1	Configured according to customer's requirement Optional
14	General alarm		Suit	1	Optional
15	One-way plug		Piece	1	Optional
16	Accessories	Include tools, swaging clamp, test cord, alarm connecting line etc.	Suit	1	Optional



Temperature control system of equipment chamber controls temperature in equipment chamber via enforced air exhaust method.

Protect from access of rainwater/dust via locking special steel-clip water-proof sealing strips into door frame.

Integral AC 220V lightningproof power distribution module.

Adopt three-point interlocking structure that be provided with excellent burglarproof performance. steel-clip water-proof sealing strips into door frame.

FTTN-06D/1800L Integral communication cabinet (outdoor)



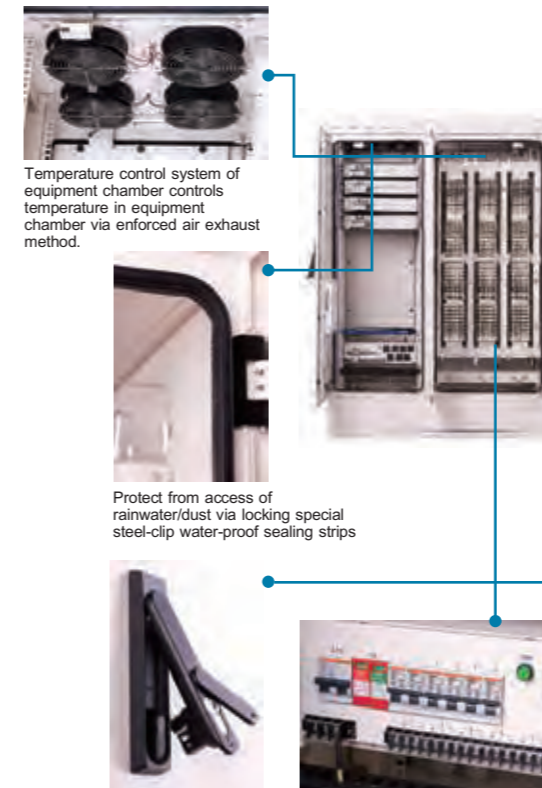
HT-003

Product summary

Install via H-bracket or install on position closing to distributing cable branch point, cut customer's distributing cable and introduce it into cabinet.
Compose of cabinet body, equipment chamber, distributing module chamber, moistureproof chamber etc. Cabinet may be opened to front and back direction.

Configuration table

SN	Name	Specification	Unit	Quantity	Remark
1	Cabinet	H*W*D 1650x1300x660	Set	1	2.0 Ma-coated Al-Zn plate
2	Base	H*W*D 250x1300x660	Set	1	Galvanized angle steel
3	Illuminating lamp of temperature control and blower fan module	AC	Suit	4	Low-speed blower fan, start in angle of 35° and stop in angle of 30°
4	Back bracket of moistureproof module	110 loop line	Piece	24	Word-printed bar
5	Optical cable distribution module	12 core SC	Piece	1	Equip 12 adapters and one piece of 1.5m fascicular pigtail
6	AC 220V power distribution module	Include six vacant 6A/1P, one 20A/2P, one 20KA~40KA lightning arrester, seven sockets	Suit	1	
7	Grounding copper bar		Set	1	
8	Moistureproof template	10 loop line	Piece	1	Configured according to customer's requirement
9	Grounding bar of moistureproof template	Equip one grounding bar for each module	Piece	1	Configured according to customer's requirement
10	Moistureproof template	10 loop line	Piece	180	Configured according to customer's requirement
11	Security protection unit	FA808IV	Piece	1	Configured according to customer's requirement
12	Line clip and equipment assembly	1m	Piece	500	Configured according to customer's requirement
13	Earth wire for cabinet body and lightningproof grounding connection (95m ²)	Include DC power adapter module	Loop line Piece	800 1	Configured according to customer's requirement Optional
14	General alarm		Suit	1	Optional
15	One-way plug		Piece	1	Optional
16	Accessories	Include tools, swaging clamp, test cord, alarm connecting line etc.	Suit	1	Optional



Temperature control system of equipment chamber controls temperature in equipment chamber via enforced air exhaust method.

Protect from access of rainwater/dust via locking special steel-clip water-proof sealing strips

Adopt three-point interlocking structure that be provided with excellent burglarproof performance.

Integral AC 220V lightningproof power distribution module.

Distributing requirement

Equipment installed in cabinet belongs to outdoor PON+DSL or PON+DSL+POTS MDU equipment. In principle, supplied DSL broadband introducing capacity shall support customer voice introduction, and not be less than 384 lines. It is possible to install main equipment (s) according to actual requirement, but installing quantity of six below is recommended. Equipment includes 2400 pairs of loop lines, hereinto, trunk cable capacity is 800 loop lines, distributing cable capacity is 1000 loop lines, terminal connecting module is 300x2=600 pairs of loop lines. Distributing module in distributing chamber

Distributing requirement

Equipment installed in cabinet belongs to outdoor PON+DSL or PON+DSL+POTS MDU equipment. In principle, supplied DSL broadband introducing capacity shall support customer voice introduction, and not be less than 192 lines. It is possible to install main equipment (s) according to actual requirement, but installing quantity of six below is recommended. Include about 1800 loop lines, hereinto, power cable distributing module is 900 loop line, voice module is 576 loop line, broadband equipment terminal connecting module is 150x2=300 pairs of loop lines.

FTTN-05D/1200L Integral communication cabinet(outdoor)



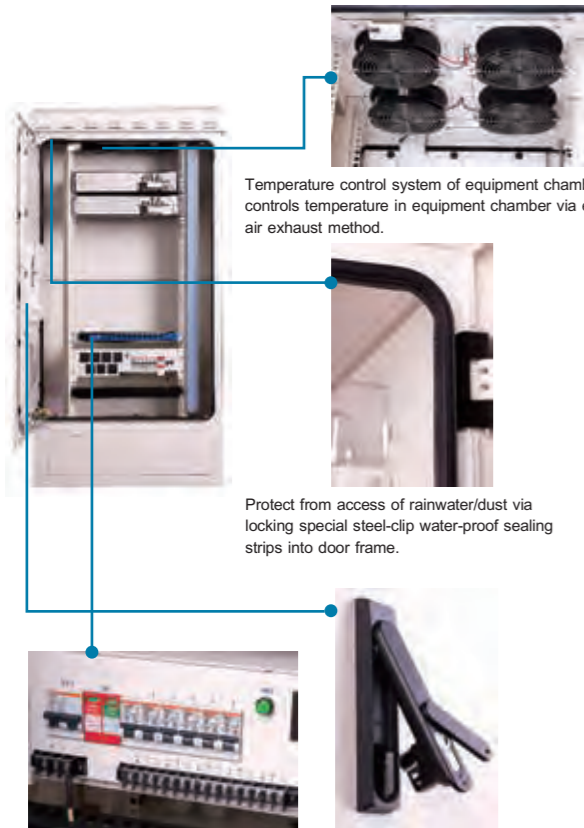
HT-004

Product summary

Install via H-bracket or install on position closing to distributing cable branch point, cut customer's distributing cable and introduce it into cabinet. Compose of cabinet body, equipment chamber, distributing module chamber, moistureproof chamber etc. Cabinet may be opened to front and back direction.

Configuration table

SN	Name	Specification	Unit	Quantity	Remark
1	Cabinet	H*W*D 1650x1300x660	Set	1	2.0 Ma-coated Al-Zn plate
2	Base	H*W*D 250x1300x660	Set	1	Galvanized angle steel
3	Illuminating lamp of temperature control and blower fan module	AC	Suit	4	Low-speed blower fan, start in angle of 35° and stop in angle of 30°
4	Back bracket of moistureproof module	110 loop line	Piece	24	Word-printed bar
5	Optical cable distribution module	12 core SC	Piece	1	Equip 12 adapters and one piece of 1.5m fascicular pigtail
6	AC 220V power distribution module	Include six vacant 6A/1P, one 20A/2P, one 20KA~40KA lightning arrester, seven sockets	Suit	1	
7	Grounding copper bar		Set	1	
8	Moistureproof template	10 loop line	Piece	1	Configured according to customer's requirement
9	Grounding bar of moistureproof template	Equip one grounding bar for each module	Piece	1	Configured according to customer's requirement
10	Moistureproof template	10 loop line	Piece	240	Configured according to customer's requirement
11	Security protection unit	FA808IV	Piece	1	Configured according to customer's requirement
12	Line clip and equipment assembly	1m	Piece	600	Configured according to customer's requirement
13	Earth wire for cabinet body and lightningproof grounding connection (95m ²)	Include DC power adapter module	Loop line Piece	1200 1	Configured according to customer's requirement Optional
14	General alarm		Suit	1	Optional
15	One-way plug		Piece	1	Optional
16	Accessories	Include tools, swaging clamp, test cord, alarm connecting line etc.	Suit	1	Optional



Temperature control system of equipment chamber controls temperature in equipment chamber via enforced air exhaust method.

Protect from access of rainwater/dust via locking special steel-clip water-proof sealing strips into door frame.

Integral AC 220V lightningproof power distribution module.

Adopt three-point interlocking structure that be provided with excellent burglarproof performance.

FTTN-04D/600L Integral communication cabinet(outdoor)



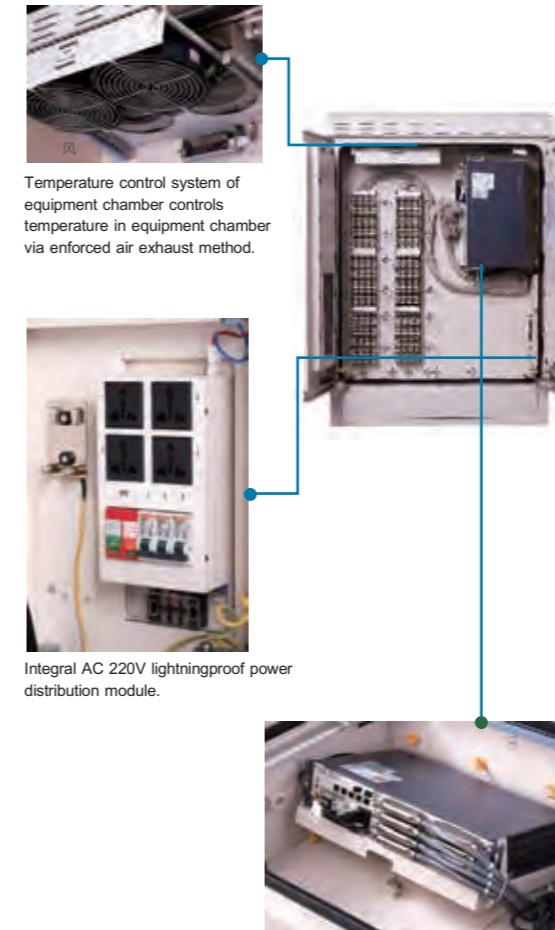
HT-005

Product summary

Wall-mount, wall-rely or floor-install onto external wall of building closing to cable distribution box or install onto electric pole aerially; equip one chamber only and adopt enforced air exhaust method. For convenience of maintenance, main equipment of cabinet is installed onto reversible hinge.

Configuration table

SN	Name	Specification	Unit	Quantity	Remark
1	Cabinet	H*W*D 1650x1300x660	Set	1	2.0 Ma-coated Al-Zn plate
2	Base	H*W*D 250x1300x660	Set	1	Galvanized angle steel
3	Illuminating lamp of temperature control and blower fan module	AC	Suit	4	Low-speed blower fan, start in angle of 35° and stop in angle of 30°
4	Back bracket of moistureproof module	110 loop line	Piece	24	Word-printed bar
5	Optical cable distribution module	12 core SC	Piece	1	Equip 12 adapters and one piece of 1.5m fascicular pigtail
6	AC 220V power distribution module	Include six vacant 6A/1P, one 20A/2P, one 20KA~40KA lightning arrester, seven sockets	Suit	1	
7	Grounding copper bar		Set	1	
8	Moistureproof template	10 loop line	Piece	1	Configured according to customer's requirement
9	Grounding bar of moistureproof template	Equip one grounding bar for each module	Piece	1	Configured according to customer's requirement
10	Moistureproof template	10 loop line	Piece	240	Configured according to customer's requirement
11	Security protection unit	FA808IV	Piece	1	Configured according to customer's requirement
12	Line clip and equipment assembly	1m	Piece	600	Configured according to customer's requirement
13	Earth wire for cabinet body and lightningproof grounding connection (95m ²)	Include DC power adapter module	Loop line Piece	1200 1	Configured according to customer's requirement Optional
14	General alarm		Suit	1	Optional
15	One-way plug		Piece	1	Optional
16	Accessories	Include tools, swaging clamp, test cord, alarm connecting line etc.	Suit	1	Optional



Temperature control system of equipment chamber controls temperature in equipment chamber via enforced air exhaust method.

Integral AC 220V lightningproof power distribution module.

For convenience of maintenance, equipment is fixed on rotatable bearing plate.

Distributing requirement

Equipment installed in 1200 loop line cabinet belongs to outdoor PON+DSL or PON+DSL+POTS MDU equipment. In principle, supplied DSL broadband introducing capacity shall support customer voice introduction, and not be less than 96 lines. It is possible to install main equipment (s) according to actual requirement, but installing quantity of four below is recommended. Include about 1200 loop lines, hereinto, power cable distributing module is 600 loop line, voice module is 384 loop line, broadband equipment terminal connecting module is 96x2=192 pairs of loop lines.

Distributing requirement

Install up to two set of outdoor PON+DSL+POTS MDU equipment or PON+LAN+POTS MDU equipment in 600 loop line cabinet. Main equipment is installed on reversible hinge. It is possible to configure broadband and voice introduction capacity neatly according to actual requirement. Equipment includes 600 pairs of loop lines, hereinto, cable distributing module is 300 loop lines, voice module is 192 loop lines, broadband equipment terminal connecting module is 48x2=96 pairs of loop lines.

FTTN-03D/400L Integral communication cabinet (outdoor)



HT-006

Product summary

Wall-mount, wall-rely or floor-install onto external wall of building closing to cable distribution box or install onto electric pole aerially; equip one chamber only and adopt enforced air exhaust method.
For convenience of maintenance, main equipment of cabinet is installed onto reversible hinge.

Configuration table

SN	Name	Specification	Unit	Quantity	Remark
1	Cabinet	H*W*D 1650x1300x660	Set	1	2.0 Ma-coated Al-Zn plate
2	Base	H*W*D 250x1300x660	Set	1	Galvanized angle steel
3	Illuminating lamp of temperature control and blower fan module	AC	Suit	2	Low-speed blower fan, start in angle of 35° and stop in angle of 30°
4	Back bracket of moistureproof module	110 loop line	Piece	4	Word-printed bar
5	Optical cable distribution module	12 core SC	Piece	1	Equip 12 adapters and one piece of 1.5m fascicular pigtail
6	AC 220V power distribution module	Include six vacant 6A/1P, one 20A/2P, one 20KA~40KA lightning arrester, seven sockets	Suit	1	
7	Grounding copper bar		Set	1	
8	Moistureproof template	10 loop line	Piece	1	Configured according to customer's requirement
9	Grounding bar of moistureproof template	Equip one grounding bar for each module	Piece	1	Configured according to customer's requirement
10	Moistureproof template	10 loop line	Piece	40	Configured according to customer's requirement
11	Security protection unit	FA808IV	Piece	1	Configured according to customer's requirement
12	Line clip and equipment assembly	1m	Piece	200	Configured according to customer's requirement
13	Earth wire for cabinet body and lightningproof grounding connection (95m ²)	Include DC power adapter module	Loop line Piece	400 1	Configured according to customer's requirement Optional
14	General alarm		Suit	1	Optional
15	One-way plug		Piece	1	Optional
16	Accessories	Include tools, swaging clamp, test cord, alarm connecting line etc.	Suit	1	Optional

Distributing requirement

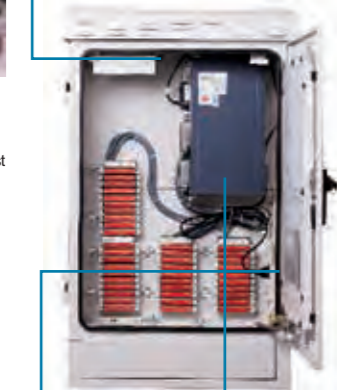
Install up to two set of outdoor PON+DSL+POTS MDU equipment or PON+LAN+POTS MDU equipment in 400 loop line cabinet. Main equipment is installed on reversible hinge. It is possible to configure broadband and voice introduction capacity neatly according to actual requirement.
Equipment includes 400 pairs of loop lines, hereinto, cable distributing module is 200 loop lines, voice module is 96 loop lines, broadband equipment terminal connecting module is 48x2=96 pairs of loop lines.



Temperature control system of equipment chamber controls temperature in equipment chamber via enforced air exhaust



Integral AC 220V lightningproof power distribution module.



For convenience of maintenance, equipment is fixed on rotatable bearing plate.

FTTN-02D/200L Integral communication cabinet (outdoor)



HT-007

Product summary

Floor-install, wall-mount onto external wall of building closing to cable distribution box or install onto electric pole aerially; equip one chamber only and adopt enforced air exhaust method.
For convenience of maintenance, main equipment of cabinet is installed onto reversible hinge.
It is necessary to configure cable groove while installing LAN equipment.

Configuration table

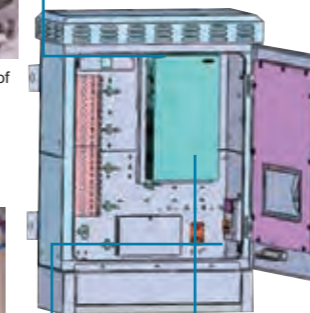
SN	Name	Specification	Unit	Quantity	Remark
1	Cabinet	H*W*D 1650x1300x660	Set	1	2.0 Ma-coated Al-Zn plate
2	Base	H*W*D 250x1300x660	Set	1	Galvanized angle steel
3	Illuminating lamp of temperature control and blower fan module	AC	Suit	2	Low-speed blower fan, start in angle of 35° and stop in angle of 30°
4	Back bracket of moistureproof module	110 loop line	Piece	2	Word-printed bar
5	Optical cable distribution module	12 core SC	Piece	1	Equip 12 adapters and one piece of 1.5m fascicular pigtail
6	AC 220V power distribution module	Include six vacant 6A/1P, one 20A/2P, one 20KA~40KA lightning arrester, seven sockets	Suit	1	
7	Grounding copper bar		Set	1	
8	Moistureproof template	10 loop line	Piece	1	Configured according to customer's requirement
9	Grounding bar of moistureproof template	Equip one grounding bar for each module	Piece	1	Configured according to customer's requirement
10	Moistureproof template	10 loop line	Piece	20	Configured according to customer's requirement
11	Security protection unit	FA808IV	Piece	1	Configured according to customer's requirement
12	Line clip and equipment assembly	1m	Piece	100	Configured according to customer's requirement
13	Earth wire for cabinet body and lightningproof grounding connection (95m ²)	Include DC power adapter module	Loop line Piece	200 1	Configured according to customer's requirement Optional
14	General alarm		Suit	1	Optional
15	One-way plug		Piece	1	Optional
16	Accessories	Include tools, swaging clamp, test cord, alarm connecting line etc.	Suit	1	Optional



Temperature control system of equipment chamber controls temperature in equipment chamber via enforced air exhaust method.



Integral AC 220V lightningproof power



For convenience of maintenance, equipment is fixed on rotatable bearing plate.

Distributing requirement

Install one set of outdoor PON+DSL+POTS MDU equipment or PON+LAN+POTS MDU equipment in 200 loop line cabinet. Main equipment is installed on reversible hinge. Introduce 48 or below DSL+96 POTS if introduced in DSL method, or introduce 24 or below LAN+24 POTS if introduced in LAN method. Configuration of connecting module shall be corresponding to equipment capacity.
Include up to 50 loop lines for cable distributing module while installing LAN equipment; include up to 200 loop lines for cable distributing module while installing DSL equipment, hereinto, cable distributing module is 50 loop lines, voice module is 50 loop lines, broadband equipment terminal connecting module is 50x2=100 loop lines.

FTTN-400L Integral communication cabinet (indoor)



HT-008

Product summary

Wall-mounted, wall-relied or floor-installed
 Compose of cabinet body, equipment, distributing module chamber, and moistureproof chamber.
 Cabinet may be opened from single direction via two subdoors.
 For convenience of maintenance, main equipment of cabinet is installed onto reversible hinge.

Configuration table

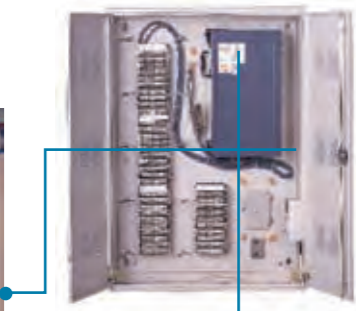
SN	Name	Specification	Unit	Quantity	Remark
1	Cabinet	H*W*D 980x680x200	Set	1	2.0 Ma-coated Al-Zn plate
2	Back bracket of moistureproof template	110 loop line	Piece	4	Galvanized angle steel
3	Optical cable distribution module	6 core SC	Piece	1	Low-speed blower fan, start in angle of 35° and stop in angle of 30°
4	AC 220V power distribution module	Include six vacant 6A/1P, one 20A/2P, one 20KA~40KA lightning arrester, two sockets	Suit	1	Word-printed bar Equip 12 adapters and one piece of 1.5m fascicular pigtail
5	Grounding copper bar		Set	1	
6	Moistureproof template	10 loop line	Piece	1	
	Grounding bar of moistureproof template	Equip one grounding bar for each module	Piece	1	Configured according to customer's requirement
	Moistureproof template	10 loop line	Piece	1	Configured according to customer's requirement
7	Security protection unit	FA808IV	Piece	40	Configured according to customer's requirement
			Piece	1	Configured according to customer's requirement
8	Line clip and equipment assembly		Loop line	200	Configured according to customer's requirement
Option	Earth wire for cabinet body and lightningproof grounding connection (95m ²)	1m	Piece	400	Configured according to customer's requirement
				1	Optional
	General alarm		Suit	1	Optional
	One-way plug	Include tools, swaging clamp, test cord, alarm connecting line etc.	Piece	1	Optional
	Accessories		Suit	1	Optional

Distributing requirement

Install up to two set of outdoor PON+DSL+POTS MDU equipment or PON+LAN+POTS MDU equipment in 400 loop line cabinet. Main equipment is installed on reversible hinge. It is possible to configure broadband and voice introduction capacity neatly according to actual requirement.
 Equipment includes 400 pairs of loop lines, hereinto, cable distributing module is 200 loop lines, voice module is 96 loop lines, broadband equipment terminal connecting module is 48x2=96 pairs of loop lines.



Integral AC 220V lightningproof power distribution module.



For convenience of maintenance, equipment is fixed on rotatable bearing plate.

FTTN-600L Integral communication cabinet (indoor)



HT-009

Product summary

Wall-mounted, wall-relied or floor-installed
 Compose of cabinet body, equipment, distributing module chamber, and moistureproof chamber.
 Cabinet may be opened from single direction via two subdoors.
 For convenience of maintenance, main equipment of cabinet is installed onto reversible hinge.

Configuration table

SN	Name	Specification	Unit	Quantity	Remark
1	Cabinet	H*W*D 980x680x200	Set	1	2.0 Ma-coated Al-Zn plate
2	Back bracket of moistureproof template	110 loop line	Piece	6	Galvanized angle steel
3	Optical cable distribution module	6 core SC	Piece	1	Low-speed blower fan, start in angle of 35° and stop in angle of 30°
4	AC 220V power distribution module	Include six vacant 6A/1P, one 20A/2P, one 20KA~40KA lightning arrester, two sockets	Suit	1	Word-printed bar Equip 12 adapters and one piece of 1.5m fascicular pigtail
5	Grounding copper bar		Set	1	
6	Moistureproof template	10 loop line	Piece	1	
	Grounding bar of moistureproof template	Equip one grounding bar for each module	Piece	1	Configured according to customer's requirement
	Moistureproof template	10 loop line	Piece	1	Configured according to customer's requirement
7	Security protection unit	FA808IV	Piece	60	Configured according to customer's requirement
			Piece	1	Configured according to customer's requirement
8	Line clip and equipment assembly		Loop line	300	Configured according to customer's requirement
Option	Earth wire for cabinet body and lightningproof grounding connection (95m ²)	1m	Piece	400	Configured according to customer's requirement
				1	Optional
	General alarm		Suit	1	Optional
	One-way plug	Include tools, swaging clamp, test cord, alarm connecting line etc.	Piece	1	Optional
	Accessories		Suit	1	Optional

Distributing requirement

Install up to two set of outdoor PON+DSL+POTS MDU equipment or PON+LAN+POTS MDU equipment in 600 loop line cabinet. Main equipment is installed on reversible hinge. It is possible to configure broadband and voice introduction capacity neatly according to actual requirement.
 Equipment includes 600 pairs of loop lines, hereinto, cable distributing module is 300 loop lines, voice module is 192 loop lines, broadband equipment terminal connecting module is 48x2=96 pairs of loop lines.



Integral AC 220V lightningproof power distribution module.



For convenience of maintenance, equipment is fixed on rotatable bearing plate.

Passageway cabinet for FTTB based on EPON

TELECOM Corporation access net strategic transformation core is optical fiber strategy, to change the original construction mode mainly by copper access, extending optical fiber to user terminal as much as possible. In urban area, optical fiber is connected to buildings for newly-built community and in rural areas, it adopts wired way for construction area, where optical fiber is connected to administrative village, and at the right time to promote fiber construction to home.

Improve FTTx establishment mode based on EPON while improving stratagem of "fiber replaces copper". FTTx based on EPON includes FTTB and FTTN, hereinto, FTTB requires establishing small-scale broadband introduction node in buildings to reduce length of copper cable and reduce investment on copper cable. The suitable small-scale cabinet is provided with feature of small cubage and lower environment requirement.

Feature of machine case product

Applicable position includes unit passageway and light current well

Adopts wall-mounted or wall-inserted installing method

Support broadband introduction or voice broadband introduction

Temperature control method adopts natural ventilation

Composition of machine case product

Case body

Main equipment (PON+LAN+POTS or PON+DSL+POTS)

Optical fiber reel

AC 220V lightningproof power distribution module and power socket

Tool-free moistureproof power cable cross connection and distributing module

Power cable groove (LAN equipment)

Security protector connecting module (configure according to actual requirement)

Main equipment configuration

MDU equipment installed in FTTB passageway cabinet belongs to outdoor PON+DSL or PON+LAN equipment. Main equipment may provide synchronous broadband introduction and voice introduction. Main equipment adopts standard 19 inch equipment, of which height is smaller than 2U and depth is smaller than 250mm.

Introduce 24 or below LAN+24 POTS if introduced in LAN method or introduce 48 or below DSL+96 POTS if introduced in DSL method, Configuration of connecting module shall be corresponding to equipment capacity.

It is possible to configure MDU equipment capacity and connecting module capacity according to actual requirement if necessary.

MDF module configuration

Connecting module adopts tool-free moistureproof clip-type module, the maximal capacity shall not exceed 200 loop lines.

It is necessary to install security protection unit for clip-type module corresponding to external port of MDU equipment while jumping MDU equipment with outdoor ductless cable on it if introduce an outdoor ductless cable into case body.

It is recommended to divide module zone used on equipment side, cable side and customer side by using zone mark bar in principle of simple, agile and practical, via setting mark bar via inserting it into back bracket of module directly, and increasing mark bar quantity for back bracket according to zone division quantity.

FTTx Passageway broadband introducing box (24 lines)

Product summary

Main feature of the product is to design wiring of massive Cat.5 line required by broadband reliably so that multifarious wiring becomes ordered, beautiful and clear, and the construction, installation and maintenance become simple. Maximal capacity is up to 48 lines.

AC power module adopts integral skinny design, which is installed on side face and equipped with 20KA lightning arrester, and two 1P6A air switch to control supply socket and backup socket safely (avoid failure caused in short circuit).

Scheme I 24 LAN+24 POTS equipments layout in hanging-type machine case

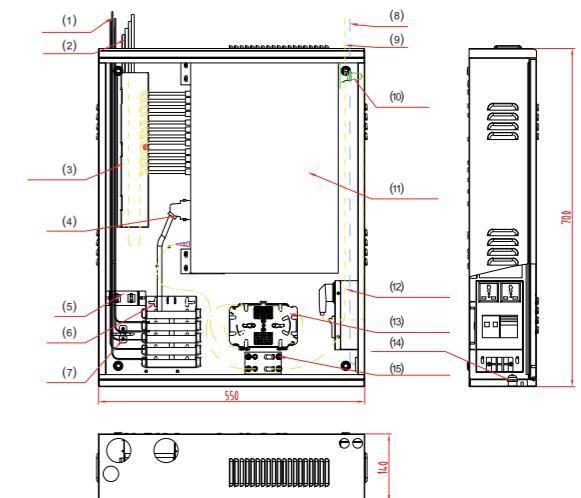
Maximal capacity: broadband: 24, voice: 24

Introducing method: from up side/from lower side

Appearance dimension: 550mm*700mm*140mm (W*H*D)



HT-010



- | | |
|-------------------------------|------------------------------|
| (1) 24 pieces of phone lines | (9) 2-core optical cable |
| (2) 24 pieces of Cat.5 cables | (10) Equipment power line |
| (3) Special metal groove | (11) 24 line Equipment |
| (4) Equipment cable | 24 Broadband LAN+24 language |
| (5) Metal wire loop seat | (12) Integral AC module |
| (6) 50 loop line tool-free 3M | (13) Splicing box |
| (7) module metal wire loop | (14) Grounding device |
| (8) Power line | (15) Optical cable fixation |

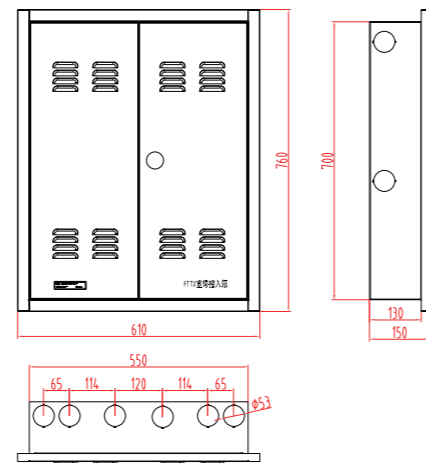
Standard configuration

SN	Component name	Main technology parameter and specification	Quantity
1	Case body	550Lx140Wx700H	1 suit
2	Integral AC module	20KA lightning arrester 2 1P6A air switch 2 three-jack connecting terminal	1 suit
3	Splicing box	12 core	1 piece
4	Metal wire bracket	320x64x70	1 suit
5	Back bracket of 3M module	50 loop line	1 piece
6	Left/right equipment fixing bracket	90x90x79	2 pieces
7	Grounding copper bar	150x20	1 piece
8	Optical cable fixation	75x46x5	1 piece

Passageway FTTx broadband introducing box (48 line DSL)

Scheme II 24 LAN+24 POTS equipments layout in hanging-type machine case

Maximal capacity: broadband: 24, voice: 24
Introducing method: from up side/from lower side
Bottom dimension: 550mm*700mm*130mm (W*H*D)
Appearance dimension: 610mm*760mm*140mm (W*H*D)



Standard configuration

SN	Component name	Main technology parameter and specification	Quantity
1	Case body	610Lx140Wx760H	1 suit
2	Integral AC module	20KA lightning arrester 2 1P6A air switch 2 three-jack connecting terminal	1 suit
3	Splicing box	12 core	1 piece
4	Metal wire bracket	320x64x70	1 suit
5	Back bracket of 3M module	50 loop line	1 piece
6	Left/right equipment fixing bracket	90x90x79	2 pieces
7	Grounding copper bar	150x20	1 piece
8	Optical cable fixation	75x46x5	1 piece

Product summary

Main equipment in machine case is installed onto rotatable hinge in cabinet in upright method. Hinge shall pull out from business card board on main equipment if rotating angle exceeds 20. Please mind rotating requirement of main equipment during wiring construction.

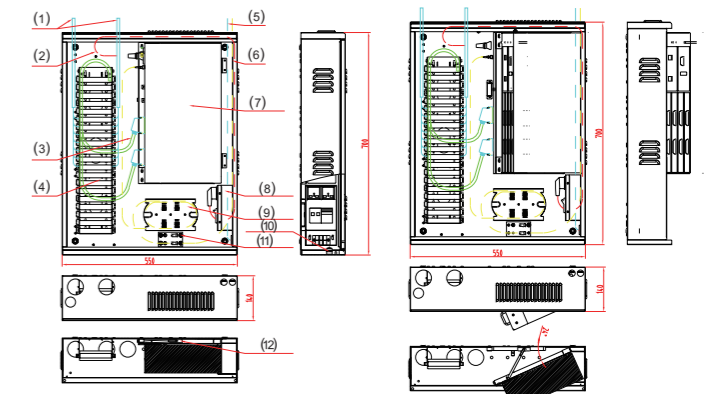
AC module adopts side-mounted method;
Distribution frame/cable groove are installed on left side of cabinet, please configure them neatly according to introducing method.
Position of optical fiber reel must be accessible for maintenance.

Scheme I DSL200 loop line equipments layout in hanging-type machine case

Maximal capacity: module 200 loop line
Introducing method: from up side/from lower side
Appearance dimension: 550mm*700mm*140mm (W*H*D)



HT-011



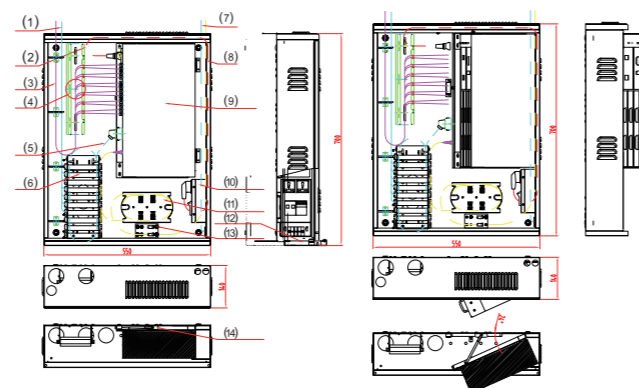
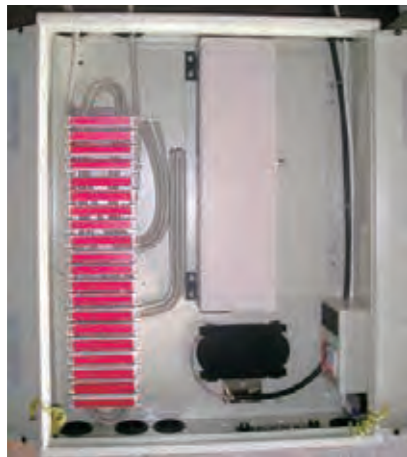
- (1) External power cable
- (2) Equipment power line
- (3) Equipment power cable
- (4) 200 loop line tool-free 3M module
- (5) Power line
- (6) 2-core optical fiber
- (7) 2U 9806H Equipment
- (8) Integral AC module
- (9) Splicing box
- (10) Grounding device
- (11) Optical cable fixation
- (12) Stay mechanism

Standard configuration

SN	Component name	Main technology parameter and specification	Quantity
1	Case body	550Lx140Wx700H	1 suit
2	Integral AC module	20KA lightning arrester 2 1P6A air switch 2 three-jack connecting terminal	1 suit
3	Splicing box	12 core	1 piece
4	Metal wire bracket	320x64x70	1 suit
5	Back bracket of 3M module	50 loop line	1 piece
6	Left/right equipment fixing bracket	90x90x79	2 pieces
7	Grounding copper bar	150x20	1 piece
8	Optical cable fixation	75x46x5	1 piece

Scheme II 48LAN+100POTS equipments layout in hanging-type machine case

Maximal capacity: broadband: 48, module 100 loop line
Introducing method: from up side/from lower side
Appearance dimension: 550mm*700mm*140mm (W*H*D)



- | | |
|---------------------------------------|-----------------------------|
| (1) External power cable | (8) 2-core optical fiber |
| (2) Equipment power line | (9) 2U 9806H Equipment |
| (3) Cat.5 line | (10) Integral AC module |
| (4) Metal groove | (11) Splicing box |
| (5) Equipment power cable | (12) Grounding device |
| (6) 100 loop line tool-free 3M module | (13) Optical cable fixation |
| (7) Power line | (4) Stay mechanism |

Standard configuration

SN	Component name	Main technology parameter and specification	Quantity
1	Case body	610Lx140Wx760H	1 suit
2	Integral AC module	20KA lightning arrester 2 1P6A air switch 2 three-jack connecting terminal	1 suit
3	Splicing box	12 core	1 piece
4	Metal wire bracket	320x64x70	1 suit
5	Back bracket of 3M module	50 loop line	1 piece
6	Left/right equipment fixing bracket	90x90x79	2 pieces
7	Grounding copper bar	150x20	1 piece
8	Optical cable fixation	75x46x5	1 piece

Optical cable cross connection/distribution product

For adapting "fiber replaces copper" stratagem of China Telecom, as well as meeting network establishment and development of FTTX that based on EPON, comprising optical network establishment of optical fiber point to point and point to points, washing out traditional indoor/outdoor cross connection cabinet for optical cable, it is recommended to popularize application of jumperless distributing equipment product. Jumperless distributing equipments mainly include indoor floor-mounted jumperless optical cable distributing equipment and outdoor floor-mounted jumperless optical cable distributing equipment.

Jumperless optical cable distributing equipment is applicable to Level 1 or Level 2 cross connection position in customer's optical cable network, or used as cross connection cabinet for optical cable and distribution box, Design unit shall confirm purpose of it according to optical cable network structure and actual application.

Model GXF5-66 144/252 outdoor SMC floor-mounted jumperless cross connection cabinet for optical cable



HT-012

Main technology parameter and feature

Appearance dimension of case body: H 1450mm; W 750mm; D320mm.
Case body materials adopts SMC fiber-reinforced nonsaturated polyester, and sprayed with protecting coat on surface. Color: ADL 7035 wave line gray.
Optical fiber adapter: Specification LC
External diameter and specification of pigtail: external diameter: 2mm; specification LC/UPC
Equipment adopt module structure that convenient for expansion and installation.
Apply to reliable outdoor installing condition, and aerial, floor-mounted, or wall-relied installing method are allowable.

Configuration requirement for Level 1 optical cross connection point

SN	Name	Unit	Configuration requirement	Quantity
1	Case body	Piece	1	
2	Optical cable installing disk	Piece	1	
3	Trunk distributing and welding unit	Circle	Four disks for each unit Weld 24 core for each disk Equipped with LC adapter (without pigtail)	1
4	Equipped with optical cable welded unit	Piece	12 cores for each unit (without pigtail)	21
5	Equipped with optical cable reel unit	Piece	12 cores for each unit (without pigtail)	21
6	Record card	Suit		2
Optical	Optical cable splitter	Circle	18 core for each circle Equipped with LC double-core adapter (without pigtail)	5

Configuration requirement for Level 2 optical cross connection point

SN	Name	Unit	Configuration requirement	Quantity
1	Case body	Piece	1	
2	Optical cable installing disk	Piece	1	
3	Trunk distributing and welding unit	Circle	Four disks for each unit Weld 24 core for each disk Equipped with LC adapter (without pigtail)	1
4	Equipped with optical cable welded unit	Piece	12 cores for each unit (without pigtail)	21
5	Equipped with optical cable reel unit	Piece	12 cores for each unit (without pigtail)	21
6	Record card	Suit		2
Optical	Optical cable splitter	Circle	18 core for each circle Equipped with LC double-core adapter (without pigtail)	5



Model GXF5-66 144/288 indoor floor-mounted jumperless cross connection cabinet for optical cable



HT-013

Main technology parameter and feature

Appearance dimension of case body: H 2000mm; W 600 mm; D 300 mm
Case body materials adopts plastic-coated 1.5 mm cold rolled plate, color: ADL 7035 wave line gray.
Optical fiber adapter: Specification SC
External diameter and specification of pigtail: external diameter: 2mm; specification SC/UPC
Equipment adopt module structure that convenient for expansion and installation.

Configuration requirement for Level 1 optical cross connection point

SN	Name	Unit	Configuration requirement	Quantity
1	Case body	Piece	1	
2	Optical cable installing disk	Piece	1	
3	Trunk distributing and welding unit	Circle	4 disks for each unit, and 12 core for each disk. Equipped with SC adapter (without pigtail)	2
4	Optical fiber jointing frame	Piece	12 for each line and total 4 lines are equipped. Equipped with SC adapter (without pigtail)	1
5	Fiber welding unit	Circle	Divided into left and right unit. 2*12 cores for each unit.	12
6	Record card	Suit		2
Optical	Direct welding unit of trunk optical cable	Circle	7 disks for each circle and 24 cores for each disk.	1
Optical	Optical cable splitter	Circle	34 cores for each circle Equipped with SC double-core adapter (without pigtail)	3

Configuration requirement for Level 2 optical cross connection point

SN	Name	Unit	Configuration requirement	Quantity
1	Case body	Piece	1	
2	Optical cable installing disk	Piece	1	
3	Trunk distributing and welding unit	Circle	4 disks for each unit, and 12 core for each disk. Equipped with SC adapter (without pigtail)	2
4	Optical fiber jointing frame	Piece	12 for each line and total 4 lines are equipped. Equipped with SC adapter (without pigtail)	1
5	Fiber welding unit	Circle	Divided into left and right unit. 2*12 cores for each unit.	12
6	Record card	Suit		2
Optical	Direct welding unit of trunk optical cable	Circle	7 disks for each circle and 24 cores for each disk.	1
Optical	Optical cable splitter	Circle	34 cores for each circle Equipped with SC double-core adapter (without pigtail)	3



Model GXF5-66 288-core outdoor SMC floor-mounted cross connection cabinet for optical cable



HT-014

Product summary

Cross connection cabinet for optical cable is an equipment used for realizing outdoor optical fiber distribution on position of distributing optical cable node and jointing position between outdoor optical cable and trunk cable of local network, as well as realizing direct connection, disk storage, welding, and dispatching function of optical fiber. It adopt these two installing methods of outdoor floor-mounted and aerial-installed.

Product feature

Via adopting welding-integration drawer module, cross connection cabinet is provided with large capacity and high density.

Case body adopts HI corrosionproof, age proof SMC polyester, which may resist intense climate change and adapt inclement operating condition.

Case body is provided with excellent sealing performance; protection level achieves GB/T4208IP65.

Provided with excellent installing performance and damage proof function.

Case body is provided with safe, reliable optical cable fixation and grounding protection device.

Case body materials of the series cross connection cabinet for optical cable include SMC and stainless steel, and capacity is 0-576 core (s).

Model	Capacity (core)	Appearance dimension (H*W*D)	Remark
Model GXF5-66 288(12-core-tray) 288-core		1450x750x320	SMC case body
Model GXF5-66 576 (12-core tray) 576-core		1450x750x660	SMC case body



Model GXF5-66 144-core outdoor SMC floor-mounted cross connection cabinet for optical cable



HT-015

Product summary

Cross connection cabinet for optical cable is an equipment used for realizing outdoor optical fiber distribution on position of distributing optical cable node and jointing position between outdoor optical cable and trunk cable of local network, as well as realizing direct connection, disk storage, welding, and dispatching function of optical fiber. It adopt these two installing methods of outdoor floor-mounted and aerial-installed.

Product feature

Via adopting welding-integration drawer module, cross connection cabinet is provided with large capacity and high density.

Via welding-integration drawer module, cross connection cabinet is provided with large capacity and high density.

Case body is provided with excellent sealing performance; protection level achieves GB/T4208IP65.

Provided with excellent installing performance and damage proof function.

Case body is provided with safe, reliable optical cable fixation and grounding protection device.

Case body materials of the series cross connection cabinet for optical cable include SMC and stainless steel, and capacity is 0-576 core (s).

Model	Capacity (core)	Appearance dimension (H*W*D)	Remark
Model GXF5-66 144-core	144(12-core tray)	920x480x290	SMC case body



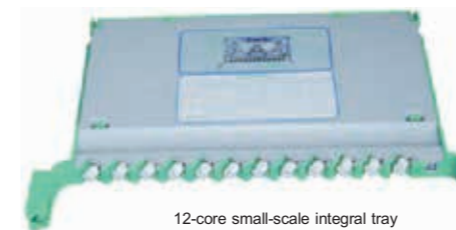
MODF Master optical fiber distribution frame product

With the rapid development of optical fiber network, fiber capacity in communication equipment room has increased significantly. The optical fiber distribution frame (MODF) in many machine rooms have met the problems of relatively small capacity of traditional MODF, and high cost for equipment capacity enlargement, and taking up too much usage area of machine rooms; trunk optical cable is in the same layer with equipment cable, not easy to distinguish, and more difficult for management; the government of jumping fiber is in chaos, for example, within the same fiber channel, there is outer cable and equipment cable, which is not easy to distinguish or to manage, also causing cable channel congestion, so optical fiber distribution frame is very difficult to be full, improving operation cost and many other problems. The new product developed by Hengtong Optic-Electric -- master optical distribution frame (MODF) aims to improve the above traditional products' defects, with trunk optical cable line side and equipment side respectively at two sides of the frame, easy for independent maintenance on line side and equipment side; line side and equipment side are connected through jumping fiber, having a cross connection function, being the effective solution for current fusion point dispersion, jumping fiber management confusion, adjustable fiber difficulty and other series of problems, convenient for machine room's later expansion, management, maintenance, enhancing jumping fiber management flexibility.

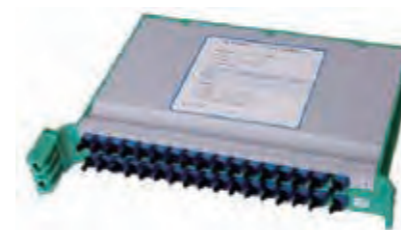
Model GPX57-D Master optical fiber distribution frame



HT-016



12-core small-scale integral tray



1*32 optical splitter terminal tray

Product description

Model GPX57-D Master optical fiber distribution frame is a middle distributing equipment used for connecting external optical cable with equipment, via which to realize fixation and grounding of optical cable, welding, terminal storage and dispatching function of optical fiber.

There is equipped with optical cable fixing plate on topside of machine bracket, via which to fix introduced optical cable and connect to grounding protection. Introduce stripped optical cable into integral welding and distributing tray of various layers along right side of cabinet and weld it with pigtail in tray.

Each team of tray in cabinet is equipped with 72 cores. Customer may configure machine frame according to requirement.

For convenience of engineering construction and maintenance management, there is reserved with abundant jumper channel and introducing channel in internal structure design of cabinet.

Product feature

Realize full-front-side operation of construction, operation and maintenance; simple wall-relied or back-to-back installing method; smaller space requirement; Introduce cable from up side/from lower side, internal cable adopt concentrated stripping and fixing method; clear laying route;

Via optimizing design, operation and maintenance of integral tray becomes more reliable.

Machine bracket is equipped with fiber storing frame, of which appearance dimension is same as installing dimension of one team (72 cores) tray, and the position is alternative, for convenience of free combination;

There is equipped with horizontal cable groove on bottom of bracket, via which customer may jump fiber simply among brackets if various brackets are adopted.

Appearance dimension (mm) H*W*D	Distributing unit (circle)	Storage unit (circle)	Tray quantity (piece)	Capacity (core)	
2000x600x300	6	3	36	432 (Standard)	FC
2000x600x300	9	3	54	648 (Maximum)	
200x600x300	7	3	42	504 (Standard)	SC
2200x600x300	10	3	60	720 (Maximum)	
2600x600x300	8	4	48	576 (Standard)	LC
2600x600x300	12	4	72	864 (Maximum)	

Note: 1.It is possible to select 72-core atom frame freely according to actual requirement;
2.It is possible to configure distributing unit and storage unit according to standard, or configure them freely according to requirement;
3.Dimension of integral welding and distributing tray: 25*290*180 (H*W*D), color: apple green.

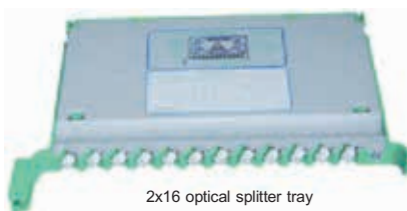
Model GPX57-E Master optical fiber distribution frame



HT-017



12-core small-scale integral tray



2x16 optical splitter tray



2x32 optical splitter tray

Product description

GPX57-E Master optical fiber distribution frame is a middle distributing equipment used for connecting external optical cable with optical communication equipment, via which to realize fixation and grounding of optical cable, welding, terminal storage and dispatching function of optical fiber.

External optical cables are stripped, fixed, collected concentrically. Product adopts single-side operation completely. The product is equipped with 12-core integral tray and compatible with various optical splitter disks. There is set with optical fiber jumper storage zone on left side of machine frame and set with external cable branching zone on the right side, via which customer may realize direct or cross connection of optical fiber jumper.

It is applicable for various scenes, for example, center machine room or optical fiber access point.

Product feature

Realize full-front-side operation of construction, operation and maintenance; simple wall-relied or back-to-back installing method;

Introduce cable from up side, internal cable adopt concentrated stripping and fixing method; clear laying route;

Constitute six trays into one team (72 cores);

Via optimizing design, operation and maintenance of integral tray becomes more reliable;

Higher storage space for jumper, simple for jumper route management;

Simple for application of various frames configuration. It is possible to install up to three layers of cable groove on bottom of machine frame and contain 3000 pieces of jumpers (3mm) among frames.

Appearance dimension (mm) H*W*D	Distributing unit (circle)	Tray quantity (piece)	Capacity (core)
2000x840x300	9	54	648
2200x840x300	10	60	720
2600x840x300	12	72	864

GPX57-F Double sided master optical fiber distribution frame

Product description

New generation master optical fiber distribution frame uses integral tray as vertical line, uses 96-core machine frame as horizontal line and connect crosswise between them in principle of distributing cable between horizontal line and vertical line on front/back side of MDF. It is possible to realize fixation and grounding of optical cable, welding, terminal storage and dispatch of optical fiber.

Product feature

Front side of machine frame is vertical line, assembled with centralized cable device and used for introducing cable from up/lower side. Cable enters into minisize 12-core integral tray (output fiber from right side) and weld.

Back side of machine frame, adopts 96-core machine frame, equipped with new-type rotatable mechanism. Fiber jumper fans out for short distance, and fiber is laid rationally and beautifully. There are set with various layers of horizontal cable groove on back side, which applies to multi-frame application and distribution of high-capacity collected optical fiber.

Machine frame adopt opening structure, namely, set fiber jumper zone on side face of machine frame, and adopt solid-type jumper method. Compared with traditional full front-operation ODF, it provides bigger space and more regular fiber jumping, as well as improves fiber jumping safety because it may not drive jumper while opening/closing door of machine frame.

Minisize tray on front side of machine frame corresponds to terminal disk of back side, and adopts 96-core group. It is possible configure machine frame and increase aesthetic according to requirement of customer.



Fixation of MODF equipment cable (fixing element)



Two frames



On side of external trunk cable

HT-018



On side of external side of trunk and right channel



Introduction management on side of equipment

Appearance dimension (mm) H*W*D	Distributing unit (circle)	Tray quantity (piece)	Maximal capacity (core)	Distributing unit	Maximal capacity	Total capacity	Adapter
2000x720x600	9	54	648	7	672	1320	FC or SC
2200x720x600	10	60	720	8	768	1488	
2600x720x600	12	72	864	9	864	1728	

Note:

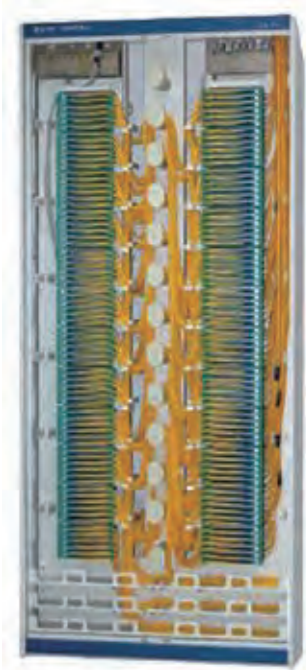
1.It is possible to configure optical cable fixation and welding box (maximal capacity is 252 cores) according to requirement.

2.Stripping length of equipment cable shall be controlled in range of 750mm-1050mm.

GPX57-G Master single-side optical fiber distribution frame

Product description

Master optical fiber distribution frame is a middle distributing equipment used for connecting external optical cable with optical communication equipment, via which to realize fixation and grounding of optical cable, welding, terminal storage and dispatching function of optical fiber. the equipment adopts patent micro tray and contains two lines of modules on left and right side. Modules on left side connect with external optical cable, and modules on right side connect with communication device jumper, to realize cross connection among external cables and equipment cables.



HT-019

Product feature

Realize full-front-side operation of construction, operation and maintenance; simple wall-relied or back-to-back installing method; smaller space requirement;

Via adopting small-scale welding and distributing tray, increase capacity of machine frame under same cubage condition. Applies to FC, SC, LC adapters;

Introduce cable from up side/from lower side;

There is equipped with horizontal cable groove on bottom of frame, via which customer may jump fiber simply among frames if various brackets are adopted.

Appearance dimension (mm) H*W*D	Welding disk quantity	Terminal disk quantity	Sub-frame	Horizontal cable groove	Optical cable board	Total capacity
2000x960x300	54	54	18	Layer 2	Layer 2	1296
2200x960x300	60	60	20	Layer 2	Layer 2	1440
2600x960x300	72	72	24	Layer 3	Layer 3	1728

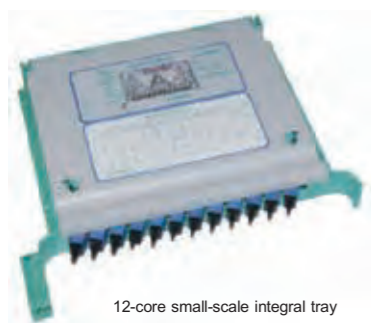
Note:

1.Appearance dimension of welding disk and terminal disk is 25*200*180 (H*W*D), color: ice gray

2.It is possible to configure left optical fiber welding tray for internal wiring.

3.72-core machine frame belongs to optional component

4.Door plate and side plate belong to optional component



12-core small-scale integral tray

Passageway terminal optical cable splitter product

Adopt double-layer module design and provided with 2-4 expansion slots. It is possible to realize expansion of port via increasing quantity of optical splitter. Optical splitter of different capacity are universal and compatible. In addition, it also be configured with welding disk and pigtail storing adapter for connection and fixation of up connected optical cable. The product is mainly applicable for passageway branching point under FTTH introduction method, and divided into these four types of direct-installed two slots, direct-installed four slots, embedded two slots, and embedded four slots.

GPX57-09-16A Passageway terminal optical cable splitter

Product description

Product description, two expansion slots are provided.

Main technology parameter and feature

Type of movable adapter: SC

Type of optical cable: normal outdoor optical cable, butterfly-type optical cable

Introducing method: from up side/from lower side

Introducing cable quantity: normal outdoor optical cable: 2

Butterfly-type optical cable: 16

Joining capacity of normal outdoor optical cable: 12 core

Adapter quantity used for pigtail storage: 4 (each box may outputs up to 4-core fiber)

Adapter color: Up port: green

Down port: blue

Used for pigtail storage : gray (without core)

SN	Model	Installing method	Appearance dimension H*W*D	Case body dimension H*W*D	Groove quantity (piece)	Installed optical splitter quantity			
						1:4	1:8	1:16	1:32
1	16A	Wall-mounted	350x340x100	350x340x100	2	2	2	2	1



GPX57-09-16C Passageway terminal optical cable splitter

Product description

Installed in Model-C [500(H)*380(W)*150(D)] or above wall-inserted power cable distribution box, and two expansion slots are provided.

Main technology parameter and feature

Type of movable adapter: SC

Type of optical cable: normal outdoor optical cable, butterfly-type optical cable

Introducing method: from up side/from lower side

Introducing cable quantity: normal outdoor optical cable: 2

Butterfly-type optical cable: 16

Joining capacity of normal outdoor optical cable: 12 cores

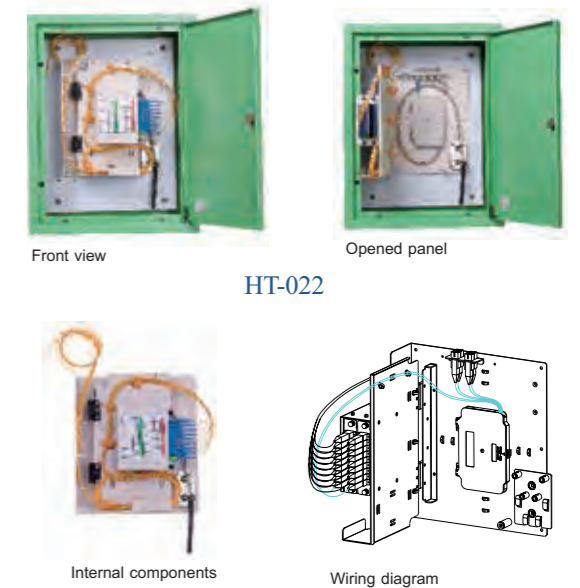
Adapter quantity used for pigtail storage: 4 (each box may outputs up to 4-core fiber)

Adapter color: Up port: green

Down port: blue

Used for pigtail storage: gray (without core)

SN	Model	Installing method	Appearance dimension H*W*D	Case body dimension H*W*D	Groove quantity (piece)	Installed optical splitter quantity			
						1:4	1:8	1:16	1:32
1	16C	Wall-inserted	300x360x90		2	2	2	1	



GPX57-09-32B Passageway terminal optical cable splitter

Product description

Install in direct hanging method, four expansion slots are provided.

Main technology parameter and feature

Type of movable adapter: SC

Type of optical cable: normal outdoor optical cable, butterfly-type optical cable

Introducing method: from up side/from lower side

Introducing cable quantity: normal outdoor optical cable: 2

Butterfly-type optical cable: 32

Joining capacity of normal outdoor optical cable: 12 cores

Adapter quantity used for pigtail storage: 6 (each box may outputs up to 6-core fiber)

Adapter color: up port: green

Down port: blue

Used for pigtail storage: gray (without core)

SN	Model	Installing method	Appearance dimension H*W*D	Case body dimension H*W*D	Groove quantity (piece)	Installed optical splitter quantity			
						1:4	1:8	1:16	1:32
1	32B	Wall-mounted	460x340x100	460x340x100	4	4	4	2	1



GPX57-09-32D Passageway terminal optical cable splitter

Product description

Installed in Model-D [600(H)*450(W)*150(D)] or above wall-inserted power cable distribution box, and four expansion slots are provided.

Main technology parameter and feature

Type of movable adapter: SC

Type of optical cable: normal outdoor optical cable, butterfly-type optical cable

Introducing method: from up side/from lower side

Introducing cable quantity: normal outdoor optical cable: 2

Butterfly-type optical cable: 32

Joining capacity of normal outdoor optical cable: 12 cores

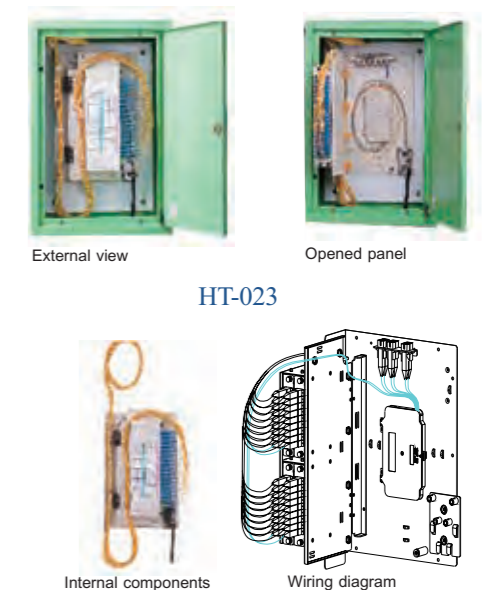
Adapter quantity used for pigtail storage: 6 (each box may outputs up to 6-core fiber)

Adapter color: Up port: green

Down port: blue

Used for pigtail storage: gray (without core)

SN	Model	Installing method	Appearance dimension H*W*D	Case body dimension H*W*D	Groove quantity (piece)	Installed optical splitter quantity			
						1:4	1:8	1:16	1:32
1	16C	Wall-inserted	300x360x90		4	4	4	2	1



Optical splitter sort



1:4 optical splitter (occupy one slot)



1:8 optical splitter (occupy one slot)



1:16 optical splitter (occupy two slots)



1:32 optical splitter (occupy four slots)

Optical splitter specification

Specification and model	1:4 (One slot)	1:8 (One slot)	1:16 (Two slot)	1:32 (Four slot)
Bit-type optical splitterRouter (FBT)	XB-09-FB41	XB-09-FB81		
Core-type optical splitter (PLC)	XB-09-PL41	XB-09-FL81	XB-09-FL161	XB-09-FL321

Passageway optical fiber cable distribution box

ONU Used for connecting optical cable with customer terminal equipment of optical node in network.. After introduced optical cable into distribution box, it is possible to realize terminal of optical cable and distribution of optical fiber in welding or cold jointing method. It is possible to connect optical cable of distributing layer or connect optical cable of distributing layer with optical splitter by using pigtail so that to connect signal passing optical splitter to ONU directly via adapter and rubber-insulated optical cable.

GXF6-09-6/12G1-core jumperless optical fiber cable distribution box

Main technology parameter and feature

Adapter model: SC
 Installing quantity: 6-12 pieces of optical fibers
 Type: normal single core
 Incoming quantity: 1-2
 Incoming direction: top-down or down-top
 Pigtail length: 1.0m
 Optical cable junction capacity: 6-12 core
 Optical splitter quantity: 1:4 or 1:8
 Appearance dimension: 223*303*90 (mm)
 Installing type: indoor wall-mounted



HT-024

GXF6-09-48/72G1-core jumperless optical fiber cable distribution box

Main technology parameter and feature

Adapter model: SC
 Installing quantity: 48-72 pieces of optical fibers
 Type: normal single core
 Incoming quantity: 1-2
 Incoming direction: top-down or down-top
 Pigtail length: 1.5m
 Optical cable junction capacity: 12 cores
 Optical splitter quantity: 1:32
 Appearance dimension: 400*570*120 (mm)
 Installing type: indoor wall-mounted

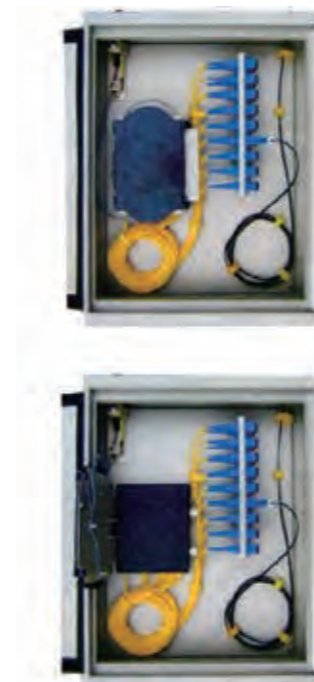


HT-026

GXF6-09-12/24G1-core jumperless optical fiber cable distribution box

Main technology parameter and feature

Adapter model: SC
 Installing quantity: 12-24 pieces of optical fibers
 Type: normal single core
 Incoming quantity: 1-2
 Incoming direction: top-down or down-top
 Pigtail length: 1.5m
 Optical cable junction capacity: 12
 Optical splitter quantity: 1:8 or 1:16 cores
 Appearance dimension: 340*460*90 (mm)
 Installing type: indoor wall-mounted



HT-025

GXF6-09-48/72G2-core jumperless optical fiber cable distribution box

Main technology parameter and feature

Adapter model: SC
 Installing quantity: 48-72 pieces of optical fibers
 Type: normal single core
 Incoming quantity: 1-2
 Incoming direction: top-down or down-top
 Pigtail length: 1.5m
 Optical cable junction capacity: 12 cores
 Optical splitter quantity: 1:32
 Appearance dimension: 400*420*120 (mm)
 Installing type: indoor wall-mounted



HT-027

New-type SMC outdoor optical fiber cable distribution box

Optical fiber cable distribution box application scenarios are more diverse and flexible, but the existing cable distribution box is only suitable for indoor installation, unable to meet the installation requirements on outdoor wall or electric poles. Whereas, TELECOM Corporation's "global eye" service and FTTX building in suburb county and villa, all of which will have the requirement for installation of outdoor Optical fiber cable distribution box.

Product development for new type outdoor cable distribution box is based on designing a reasonable structure, flexible and safe, which can fully meet the need for future development of outdoor fiber optic cable distribution box. The R & D of this project is focused on equipment structure, size and specifications, providing a new type fiber optic cable distribution box for installation on outdoor hanging wall, electric poles and other outdoor open spaces.

New type outdoor cable distribution box equipment will utilize reasonable resources to satisfy construction need for outdoor installation of fiber cable distribution box with minimum engineering and lowest cost.

The material selection of exterior shape should fully consider outdoor harsh environment, waterproof, moisture-proof, no metal device, no recycling value, and in various technical indicators such as environmental temperature, atmospheric pressure, echo index, insulation resistance, anti electric indicator, plug durability, and waterproof performance it shall be in accordance with cable network security requirements.

In terms of specifications and materials, it should take into account adaptability and versatility in different scenes, light and convenient for installation, which can provide convenience for construction and maintenance.

GXF6-09A-6-core optical cable terminal case

Main technology parameter and feature

Output fiber core quantity: 6 core
12 welding disk: 1
Optical adapter: SC 6 pieces/LC double-core 3 pieces
SC pigtail: External diameter $\varnothing 2.0\text{mm}$
Length 1500 mm
Incoming/outgoing cable quantity: 2
Incoming/outgoing rubber-insulated cable quantity: ≤ 6
Appearance dimension: 170mm*250mm*65mm



HT-028

GXF6-09A-12/24-core jumperless optical fiber cable distribution box

Main technology parameter and feature

Up core quantity: 12 cores
Down core quantity: 24 cores (configured according to actual requirement)
12-core welding disk: 3
Optical adapter: 6 LC double-core
LC pigtail: External diameter $\varnothing 2.0\text{mm}$
Length 1500 mm
Incoming/outgoing cable quantity: 4
Incoming/outgoing rubber-insulated cable quantity: ≤ 12
Appearance dimension: 220mm*320mm*100mm

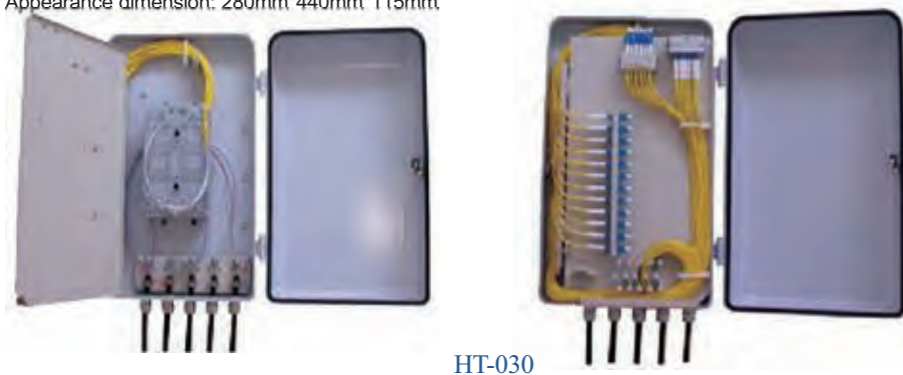


HT-029

GXF6-09A-24/36-core jumperless optical fiber cable distribution box

Main technology parameter and feature

Up core quantity: 12 cores
 Down core quantity: 36 cores (configured according to actual requirement)
 12-core welding disk: 5
 Optical adapter: 12 LC double-core
 LC pigtail: external diameter $\varnothing 2.0\text{mm}$
 Up pigtail length: 1600mm
 Down pigtail length: 2200mm
 Incoming/outgoing cable quantity: 5
 Incoming/outgoing rubber-insulated cable quantity: ≤ 24
 Appearance dimension: 280mm*440mm*115mm



HT-030

GXF6-09A-12-core optical fiber cable distribution box

Main technology parameter and feature

Up core quantity: 4 cores
 Optical adapter: one 1:8
 Thickness $\leq 12\text{mm}$
 $\varnothing 2.0\text{pigtail}$ length: 1000mm
 12-core welding disk: 1
 Optical adapter: 12 SC
 SC pigtail: external diameter $\varnothing 2.0\text{mm}$
 Length: 1500mm
 Incoming/outgoing rubber-insulated cable quantity: ≤ 8
 Incoming/outgoing cable quantity: 2
 Appearance dimension: 220mm*320mm*100mm



HT-031

GXF6-09A-20-core optical fiber cable distribution box

Main technology parameter and feature

Up core quantity: 4 cores
 Optical adapter: two 1:8 or one 1:16
 $\varnothing 2.0\text{pigtail}$ length: 1000mm
 12-core welding disk: 1
 Optical adapter: 20 SC
 SC pigtail: External diameter $\varnothing 2.0\text{mm}$
 Length: 1500mm
 Incoming/outgoing rubber-insulated cable quantity ≤ 16
 Incoming/outgoing cable quantity: 2



HT-032

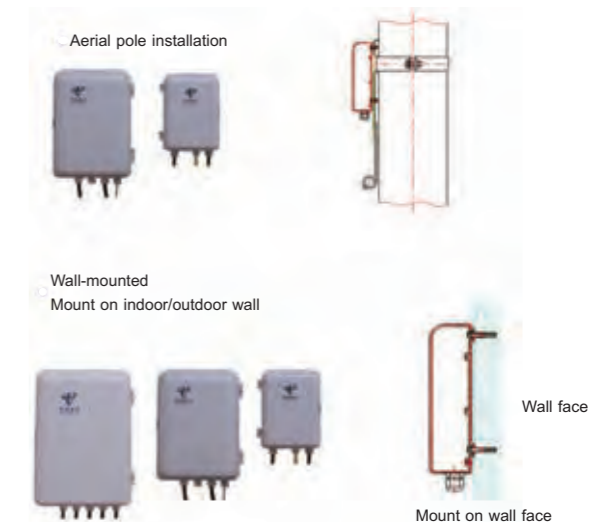
GXF6-09A-36-core optical fiber cable distribution box

Main technology parameter and feature

Core quantity: 4 cores
 Optical splitter: one 1:32
 $\varnothing 2.0\text{pigtail}$ length: 1000mm
 12-core welding disk: 1
 Optical adapter: SC 36
 SC pigtail: External diameter $\varnothing 2.0\text{mm}$
 Length 1600 mm
 Incoming/outgoing rubber-insulated cable quantity ≤ 32
 Incoming/outgoing cable quantity: 2
 Appearance dimension: 280mm*440mm*115mm



HT-033



Family information box product

FTTH family information box contains family communication terminal, optical fiber terminal device, equipment expansion zone (information panel, expansion module and equipment), installing zone for power socket and other accessories, and ONU terminal equipment with PON (passive optical network) (two voice interfaces, four Ethernet interface, active equipment with one PON).

Family wiring method 1

Install indoor large-size family information box for auxiliary project

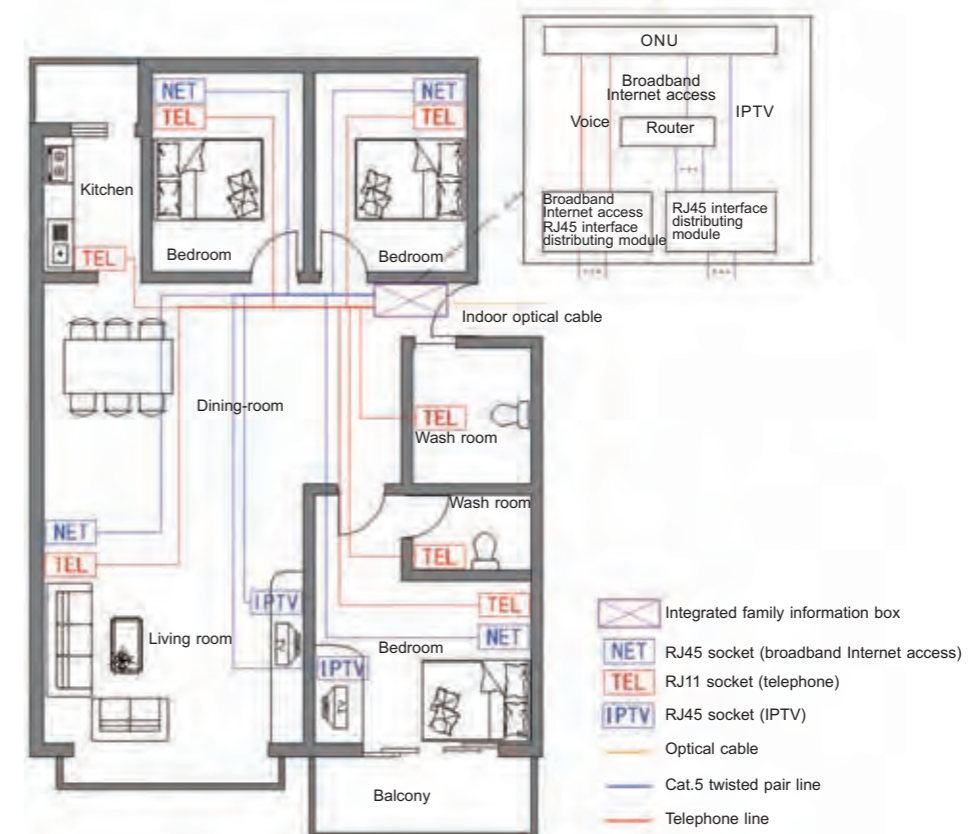
Lay indoor information point cables (telephone line, Cat.5 twisted pair line, CATV coaxial cable, intelligent alarm line and various indoor optical/power cable) in star connecting type and collect them at the family information box

Reserve installing space for ONU equipment and one family gateway device) in box

Introduce 220V electric supply in box and provide 2-3 three-jack power sockets.

Reserve installing position for RJ11 and RJ4 quick connecting module, CATV distributor, voice and data exchanger, broadband router etc. in box

Family information box shall be provided with defined radiating function.



Family wiring method 2

Install indoor small-size family information box that may install ONU equipment and introduce 220V electric supply for auxiliary project

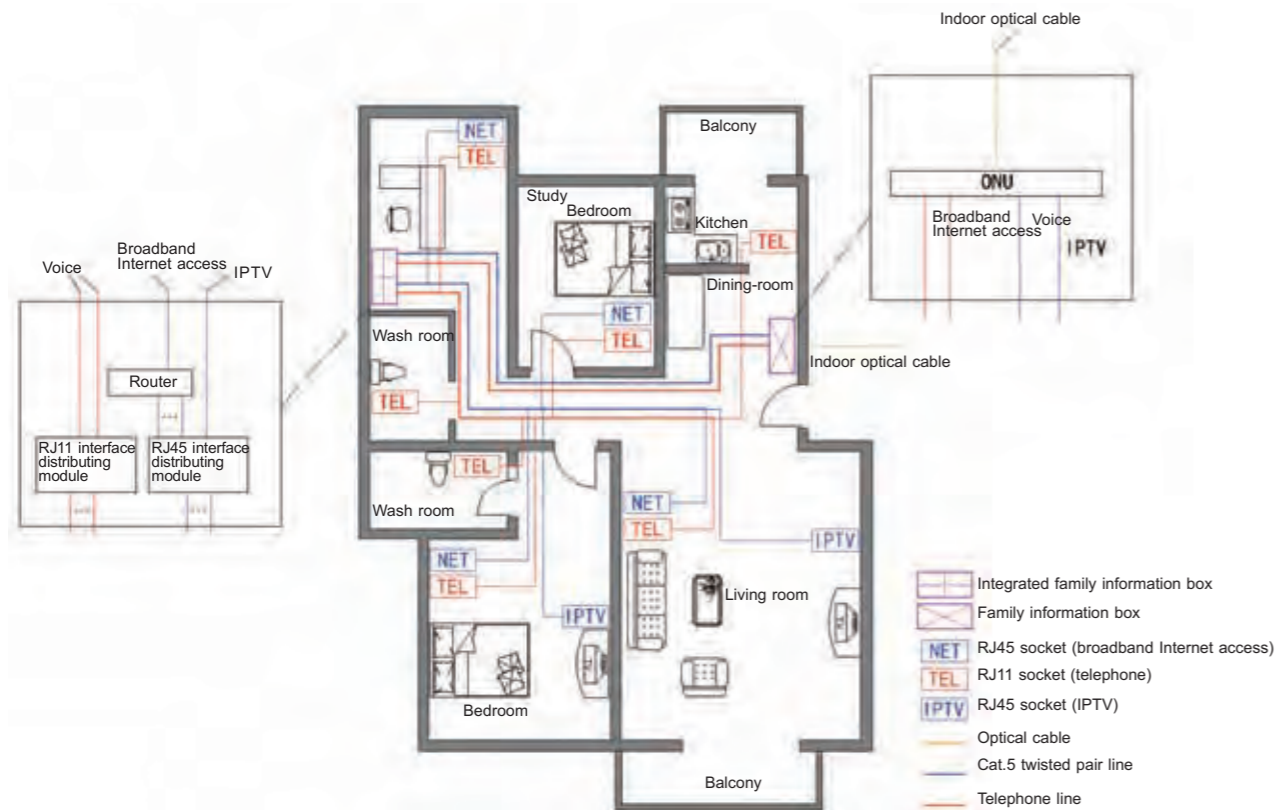
Customer may install large-size family information control box in study, closet or storeroom.

Lay one piece of four-core telephone line box, two pieces of Cat.5 twisted pair lines at least between family information box and family information control box.

Lay indoor optical/power cable, indoor CATV coaxial cable, intelligent alarm line in star connecting type and collect them at the family information box

Reserve installing position for RJ11 and RJ4 quick connecting module, CATV distributor, voice and data exchanger, broadband router etc. in box

Family information box shall be provided with defined radiating function.



Family wiring method 3

Install indoor small-size family information box that may provide space for collecting cables

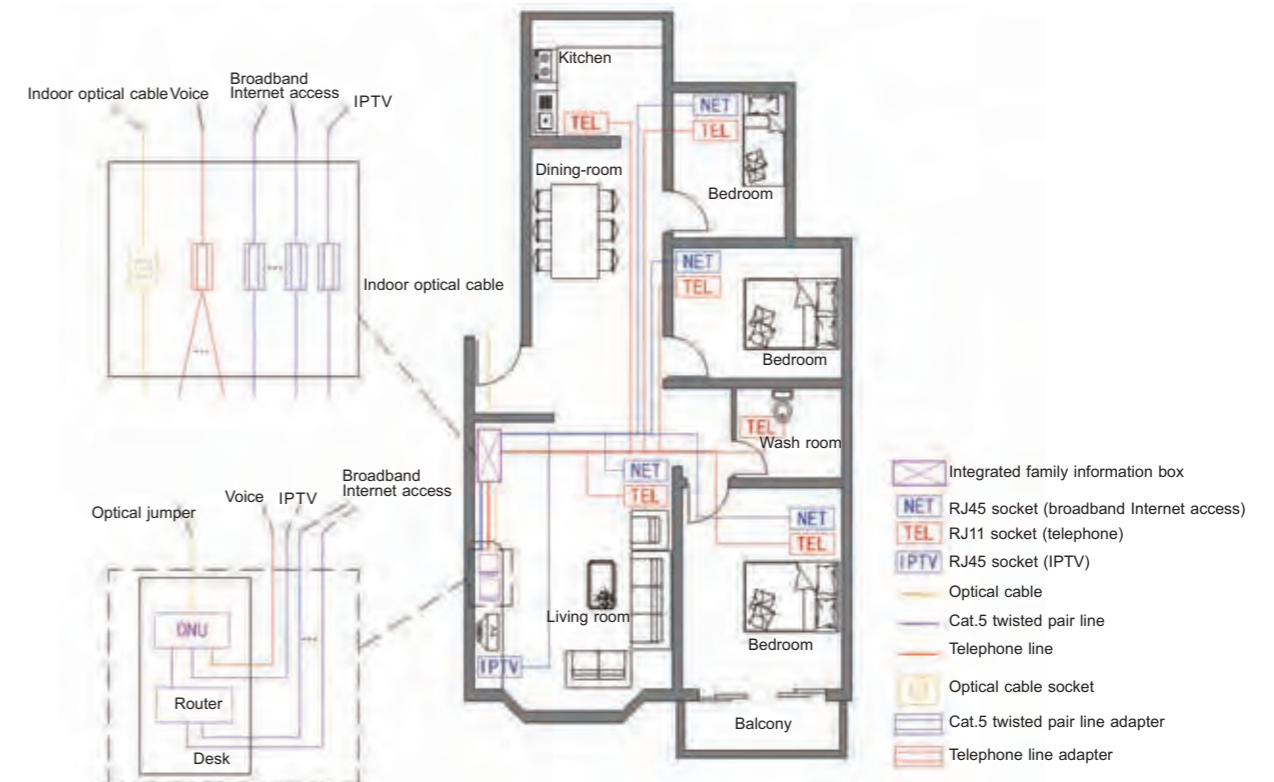
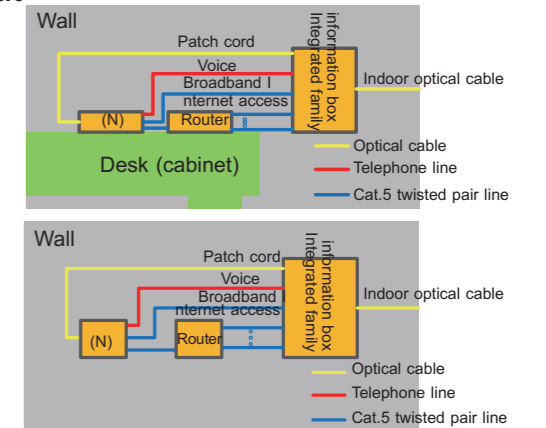
Lay indoor information point cables (telephone line, Cat.5 twisted pair line, CATV coaxial cable, intelligent alarm line and various indoor optical/power cable) in star connecting type and collect them at the family information box

It is possible to install optical cable terminal socket in or besides family information box

Hang ONU equipment besides family information box, or put it onto casework besides family information box and put family gateway or broadband router on the casework if possible.

Lay patch cord, telephone line box Cat.5 twisted pair line directly between various equipments and family information box.

Provide power socket near by family information box.



FTTH-01-A Family information box (basic model)

Main technology parameter and feature

Cubage: bottom dimension: H250mmx W300mmx D100mm;
Appearance dimension: H280mmx W330mmx D115mm;
Support equipment installation of mainstream OUN manufacturer (for example: Hua Wei, ZTE, Alcatel, Ericsson etc.)
Optical fiber terminal zone: zone meets optical fiber junction (cold joint or welding joint)
Special 220V power socket (All-in-one socket);
Machine case adopts single-direction single-opening door and inserting installation
Weight: about 3Kg, satisfy single personnel installation and maintenance;
Surface adopts beautiful static spraying semi-gloss RAL9001 thin orange-peel coat;
Set solid hole on machine case door for ventilation and internal air convection;
Fully considers maximal capacity configuration zone, supports installation of various information modules and OUN equipments (for details, please refer to structure diagram)
Scope of application: two bedrooms one living room, two bedrooms two living rooms, three bedrooms one living room, three bedrooms two living rooms.



External view
HT-034



Front view



Opening panel

FTTH-01-B Family information box (luxury model)

Main technology parameter and feature

Cubage: bottom dimension:H300mmxW450mmxD120mm;
Appearance dimension: H330mmxW480mmxD135mm;
Support equipment installation of mainstream OUN manufacturer (for example: Hua Wei, ZTE, Alcatel, Ericsson etc.)
Optical fiber terminal zone: zone meets optical fiber junction (cold joint or welding joint)
Special 220V power socket (All-in-one socket);
Machine case adopts single-direction single-opening door and inserting installation
Weight: about 5Kg, satisfy single personnel installation and maintenance;
Surface adopts beautiful static spraying semi-gloss RAL9001 thin orange-peel coat.
Set solid hole on machine case door for ventilation and internal air convection.
Fully considers maximal capacity configuration zone, supports installation of various information modules and OUN equipments (for details, please refer to structure diagram)
Scope of application: three bedrooms two living rooms, four bedrooms two living rooms, skip-floor house, villa, small-scale office.



External view
HT-035



Front view



Opening panel

FTTx Network apparatus

Optical fiber terminal socket (panel)
FA-SC Local optical fiber connector
Movable optical fiber connector

FTTH indoor basic network



Optical fiber terminal socket (panel)

Namely:

(Introduce rubber-insulated optical cable in room)

Connect rear terminal onto the optical fiber socket that fabricated on site

Put the optical fiber socket onto wall face or panel in light current box.

Connect to ONU by using HI optical fiber jumper

So that to

(Optical cable is applicable for distribution)

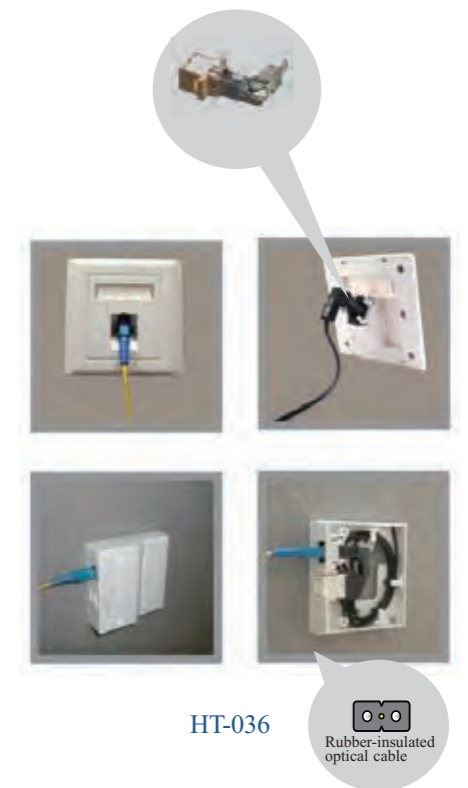
Protect end face of optical fiber

Clear circuit interface

Protect basic distribution

Agile reserved optical cable length

Optical cable jumper is applicable for application of unprofessional residence customer



HT-036

Rubber-insulated
optical cable

FA-SC Local optical fiber connector

Purpose

End optical fiber directly in mechanical method

Install without welding machine and abrading device

Rapid and simple operation, save installing period

Improve installing efficiency of customer

Reduce cubage of connecting protection box or eliminate connecting protection box

Compatible with standard SC optical fiber connector/adapter completely.

Feature and technical indicators

Feature:

Dispensed with special tools

Judge if connection is successful on site.

Support restarting application.

Applicable optical cable:

3.0mm rounded single-core optical cable

0.9mm sleeve optical fiber

Butterfly-type optical cable

Indicators of local optical fiber connector:

Operating temperature: -40°C-70°C

Insertion loss: 0.5dB

Reflection loss: -45 dB (under room temperature condition)

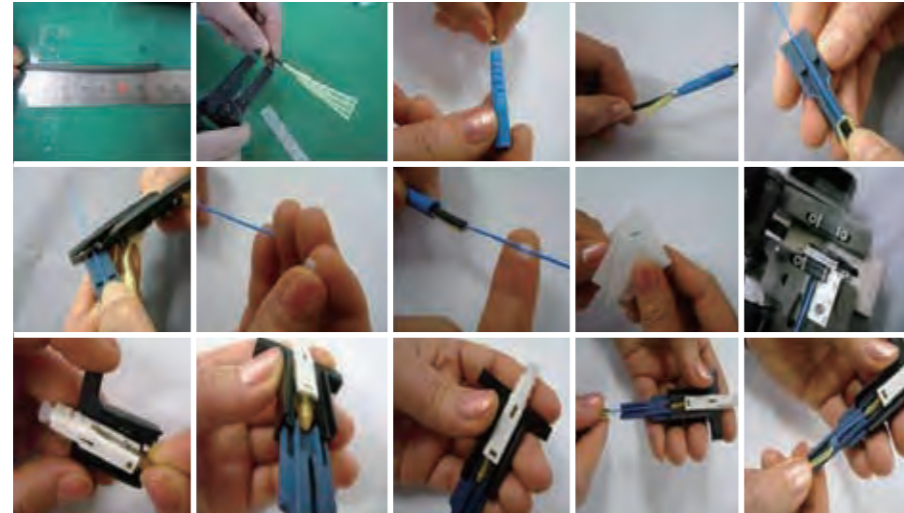
Tensile strength: 20N

40N (typical value)

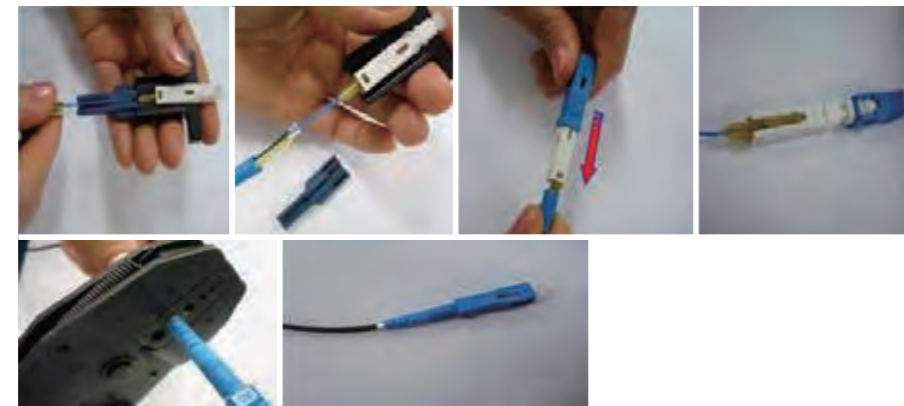


HT-037

Movable optical fiber connector



FA Fast connecting method 1



FA Fast connecting method II



FA Fast connecting tools



Welding tube

HT-038



Optical adapter



Main feature

Product of the Company is provided with features of small insertion loss, high return loss, stable connecting performance, and excellent compatibility.

Technical indicators:

Item	Single loss	Multi-mode
Insertion loss	Not exceed 0.2dB	Not exceed 0.2dB
Return loss	PC>45 dB, UPC>50dB, APC>60 dB	
Compatibility	Not exceed 0.2dB	Not exceed 0.2dB
Service life	More than 1000 times	

Order guide

Optical connector sort	FC, SC, ST, MTRJ, LC and E2000 etc. Note: some optical adapters and optical attenuators have normal terminal jack
Matching optical cable sort	Single mode (multi-mode) Ø0.9, Ø2.0 (single-core, double-core) 3Ø single-core, 6-core, 12-core fascicular optical cable, 2-24-core indoor flexible optical cable, 12-core ribbon optical cable.
All optical fiber sort of optical cable	Sort A1 multi-mode optical fiber (core diameter, Ø50µm, Ø625µm) single mode, G652D optical fiber, G657A optical fiber

Order process

Confirm type, single length of optical jumper (pigtail) and requirement on fiber of matched optical cable;
Confirm amount on order.



Multi-core ribbon optical cable



Multi-core fascicular optical cable



2FC/UPC-MTRJ



SC/UPC



FC/APC



FC/ST



FC/UPC



ST/UPC-FC/UPC



FC/APC-ST/APC



FC/UPC-SC/UPC



E2000



LC/PC

HT plane wave-guide optical splitter

Same as coaxial-cable transmission system, optical network system must couple, branch, distribute optical signal via optical splitter. Optical splitter is also named as optical splitter, it is one of important passive apparatus in optical fiber link. It is an optical coupler with one or several input terminal and several output terminals. It is usual to denote an optical splitter with M output terminals and N input terminal as MXN. In general, optical splitters used in optical network system are 1x2, 1x4, 1x8 and other 1xN optical splitters. Same as coaxial-cable transmission system, optical network system must couple, branch, distribute optical signal via optical splitter. Optical splitter is also named as optical splitter, it is one of important passive apparatus in optical fiber link. It is an optical coupler with one or several input terminal and several output terminals. It is usual to denote an optical splitter with M output terminals and N input terminal as MXN. In general, optical splitters used in optical network system are 1x2, 1x4, 1x8 and other 1xN optical splitters.

Composition of PLC optical splitter

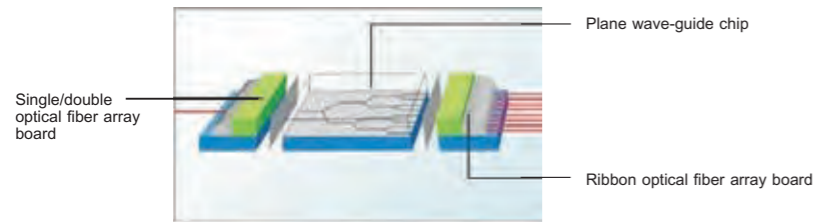


Fig.1 1x32 Splitter Device



Fig.2 16x16 Coupler Array

The main raw material of PLC optical splitter -- chip

PLC splitter chip adopts semiconductor technology (photolithography, etching, developing and other technologies) for production. Optical waveguide array is located on the upper surface of chip, with shunt functions integrated on the chip, it is to fulfill shunting on one chip, and then, two ends of the chip respectively coupling multiple-channel optical fiber array of input terminal and output terminal on both ends of chip and packaging waveguide optical path, as shown in Figure 1, 2 for visible waveguide lines.

The main raw material of PLC optical splitter – FiberArray

Fiber Array is made by adopting V type groove, using special bonding technology to achieve precise optical fiber positioning and high reliability, to meet different needs. Thermal expansion coefficient matching package equipment ensures optical fiber array plate no stress, high reliability and no light stalk shift in high temperature. End angle can be ground precisely by requirements, in accordance with Telcordia GR-1209-CORE and GR-1221-CORE standards.



Optical fiber array



Aging circulation equipment of PLC optical splitter test



Optical splitter test



Production facility of PLC optical splitter



Adjusting facility of PLC optical splitter

HT-039

Composition of PLC optical splitter



HT-PLC naked splitter (Type A)

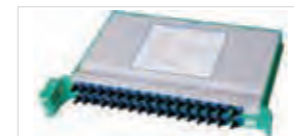
Suitable for installation in small space, for example, it can be very easily put into conventional joint box, each kind of accommodating disk and etc., convenient for welding, disk remain, no need for specialized design on reserved room.



HT-PLC modular splitter (Type B)

With loose requirement on placement position, environmental and others, with small size case style design, which can be easily placed in the case body (such as cable transfer box, wiring in corridor, distribution box) or in joint closure with some space reserved.

HT-040



HT-PLC Tray-type optical splitter (Type C)

It denotes optical splitter groupware that be sealed via distributing-disk-like tray and installed on ODF frame or cross connection cabinet for optical cable directly.

Structure dimension: W X H X D=290x180x50mm. Occupies two traditional trays height Adapter type: SC, FC;

Applicable optical splitter range: 1x32; 2x32; one 1x16; two 1x16;



HT-PLC Frame-type optical splitter (Type D)

It adopts 1U frame, or customize according to actual requirement. It may be installed in ODF canonically and syncetize with appearance of box/cabinet body via canonical fiber distribution.

Installing dimension: W x H x D=465x44.5x25mm; meet front/rear fiber output, configured bend angle is adjustable in front and back direction.

Adapter type: SC; FC;

Applicable optical splitter range: 1x8; 1x16; 1x32; 2x8; 2x16; 2x32;

Color requirement: black, gray, milk white.

Composition of PLC optical splitter

Main performance index

Parameter	Index							
	1x4	1x8	1x16	1x32	2x4	2x8	2x16	2x32
Insertion loss (dB)	≤7.3	≤10.8	≤14	≤17	≤7.6	≤11.2	≤14.5	≤18.2
Sealing dimension (mm)	≤0.6	≤0.8	≤1.0	≤1.5	≤1.2	≤1.5	≤2.0	≤2.5
Polarization loss (dB)	4x4x40		4x7x50		4x4x40		4x7x50	
Return loss (dB)	≥50							
Directivity (dB)	≥55							
Operating temperature (°C)	-40~85							
Storage temperature (°C)	-40~85							
Service band (nm)	1260-1650							
Optical fiber type	G652 D/657 A or specified by customer							
Connector type	Specified by customer							

HT-PLC Orderguide

Sealing method	Input port	Output port	Input interface	Output interface	Pigtail type	Optical fiber type	Length
A	1	04	1 SC/UPC	1 SC/UPC	0.25-Φ250μm	B1-G652D	1-1.0m
B	2	08	2 SC/APC	2 SC/APC	0.9-Φ900μm	C1-G657A	2-2.0m
C		16	3 FC/UPC	3 FC/UPC	2.0-Φ2.0mm	D Required by customer	10-10.0m
D		32 64	4 FC/APC 5 Required by customer	4 FC/APC 5 Required by customer	3.0-Φ3.0mm		

For example: order number HT-PLCS-B-1-16-1-2-0.25-B1-2 denotes order goods is Hengtong Module-type optical splitter, and branching ratio is 1:16; Input terminal is SC/UPC interface; output terminal is SC/APC interface, pigtail type is 250nm G652D optical fiber, and the length is 2m

GJS-HT Optical cable joint closure

GJS-HT type optical cable joint closure series product belongs to open-type mechanical pressure sealed joint box, which is for outdoor cable on both sides of optical cable joint closure to make wire harness, welding and fiber storage, suitable for two kinds of connection ways of optical cable straight through or branch distribution, applicable to varied situations like overhead pipe, pipe shaft, direct buried, and so on, which has a function of restoration of optical cable sheath integrity and optical cable reinforcing component mechanical continuity; providing electrical connectivity, grounding or disconnecting function of metal components in optical cables; prevent cable connect from being affected by environment; it can be placed fiber joints and store excess fiber length (EFL) and other functions.

Function Characteristics

Case body is made of engineering plastics injection molding, with good performance of resistance to alkali and salt corrosion, aging resistance, and with smooth surface appearance, stable mechanical structure, with strong performance of resistance to field environment, which can withstand drastic climate changes and harsh working environment, with protection level of IP66.

Suitable for ribbon cable and common optical cable, welding disk inside case body can be turned over like a book page, keeping enough fiber coiled curvature radius and space, to ensure that at any position fiber curvature radius is more than 37.5mm, so it is available for each cable and each fiber to be constructed separately.

Small size, large capacity and convenient maintenance

Inside case body, there is a sealing ring, with good sealing performance and waterproof performance, and case body can be repeatedly opened without air leakage, which does not require special tools, simple and convenient for operation. Case body is equipped with an air valve, which can measure the tightness inside case body. (Users need to install a testing ground pole) Provide reliable grounding protection device of cable fixing and optical cable reinforcing core.

Horizontal optical cable joint closure



HT-041

Operating condition:

Operating temperature: -40°C~-60°C
Relative humidity:95%(+40°C)
Atmospheric pressure: 70kpa~106kap

Technical requirement

Sealing performance: after sealed box body, charged it to (100±5)pa and dipped it in cold clean water container stably, it shall not spill out air bubble in 15 minutes
Insulation resistance: insulation resistance between metal components and grounding $\geq 2 \times 10^4 \text{M}\Omega$
Withstand voltage: no arcing generates between metal component and grounding under action of 15kv (dc)1min
Curvature radius of optical fiber: $\geq 40\text{mm}$, no additive loss is generated in optical fiber welding disk.
Tension: bear $\geq 1000\text{N}$ axial tensile force
Service life: 25 years above
Other performance shall conform to requirement of YD/T814-2004

Model and name	Specification dimension LxWxH (mm)	Maximal capacity (core)		Optical cable entrance	Input/output port of optical cable (mm)	Remark
		Fascicular single-core	Ribbon (12 cores/ribbon)			
GJS-HT-01	420x145x145	72	320	2in 2 out	≤ 20	Horizontal
GJS-HT-02	460x260x145	96	480	3 in 3 out	≤ 20	Horizontal
GJS-HT-04	660x220x178	144	480	3 in 3 out	≤ 20	Horizontal
GJS-HT-07	450x200x125	72	320	2 in 2 out	≤ 20	Horizontal

Cap-type optical cable joint closure



HT-042

Operating condition:

Operating temperature: -40°C~-60°C
Relative humidity: $\leq 95\%$ (-40°C)
Atmospheric pressure: 70kpa~106kap

Technical requirement

Sealing performance: after sealed box body, charged it to (100±5)pa and dipped it in cold clean water container stably, it shall not spill out air bubble in 15 minutes
Insulation resistance: insulation resistance between metal components and grounding $\geq 2 \times 10^4 \text{M}\Omega$
Withstand voltage: no arcing generates between metal component and grounding under action of 15kv (dc)1min
Curvature radius of optical fiber: $\geq 40\text{mm}$, no additive loss is generated in optical fiber welding disk.
Tension: bear $\geq 1000\text{N}$ axial tensile force
Service life: 25 years above
Other performance shall conform to requirement of YD/T814-2004

Model and name	Specification dimension LxWxH (mm)	Maximal capacity (core)		Optical cable entrance	Input/output port of optical cable (mm)	Remark
		Fascicular single-core	Ribbon (12 cores/ribbon)			
GJS-HT-03	480(H)x160 (diameter)	72	320	2in 2 out	≤ 20	Sleeve type
GJS-HT-05	650 (H)x235 (diameter)	192	560	3 in 3 out	2 in 2 outs ≤ 20 1 in 1 out ≤ 20	Sleeve type
GJS-HT-06	500 (H)x171 (diameter)	96	480	3 in 3 out	≤ 20	Sleeve type

Introduction on recommended ODN product

GJS08 Horizontal multiplex optical cable joint closure /67

Jumperless cross connection cabinet for optical cable/70

Low-abrusion butterfly-type introducing optical cable/70

Special construction accessories of self-support butterfly-type introducing optical cable/71

GJS08 Horizontal multiplex optical cable joint closure

Scope of application:

GJS08 type composite optical cable joint closure according to users is the composite optical cable requirements for continuous improvement and perfection, for the good of the voice, image and data transmission provides quality assurance. Can fully meet the composite optical cable trunk line and optical cable network needs, can also satisfy the composite cable overhead, underground, at the entrance to the building wall and pipe inner wall construction requirements. The junction box can be used to composite optical cable through connection and large capacity difference connection, and to protect the composite optical cable joint action.

Scientific selection of raw materials and formulations:

GJS08 type composite optical cable joint closure is made of import engineering plastic with high strength -- flame retardant polycarbonate (PC), through scientific and reasonable formula and injection molding. The product can effectively prevent material aging caused by heat, cold, light, oxygen and microbes in nature, and has excellent mechanical strength, strong optical cable joint closure enclosure and main body structure component that are able to bear strong temperature changes in the worst nature environment, and at the same time play a role in fire-retardant, waterproof, shock, impact, cable pull, distortion and other protections, adapt to usage in varied natural environment in any country.

Innovative waterproof elastomer sealing parts:

GJS08 type optical cable joint closure adopts adhesive sealing stripe and sealing tape for sealing, also using high quality elastic rubber sealing material, by one-step forming mould, to make products with no seams on connection, so sealing performance can be guaranteed, and it can also reach multiple repeated open and repeated use, solving construction problems. Our company's joint closure is quick and convenient in assembly, which can bear the most intense temperature changes in nature for a long term and ensure good sealing performance.

Reliable optical properties and electrical performance:

Our company's optical cable joint closure has spacious structure, with superposition type of welding disk, flexible configuration, simple installation, optical fiber bending radius fully reaching international standards, inside optical cable joint box, designing some certain space for remaining optical fiber coil, and optical fiber in joint cylinder has no attenuation change. Inside fiber joint cylinder produced by our company, fixing base uses high quality cold rolling plate, which voltage intensity and insulation resistance fully in accordance with international standards.

Jumperless cross connection cabinet for optical cable

Multi-system optical cable branch:

GIS08 optical cable joint closure and the matched high-capacity, multi-branch waterproof distensible integral sealing element may configure up to four optical cable appendix manhole and satisfy multiple entry requirement of optical cable distribution.

Main performance and index:

Ambient temperature: -40°C~55°C

Atmospheric pressure: 70KPa-106KPa

sealing performance under normal temperature: air pressure does not depress under condition of internal pressure 70KPa/72 hours

Temperature cycle: Air pressure shall not depress for 5KPa above after test under condition of room temperature 20°C/high and low temperature (-40°C~+60°C)/4 hours /12 hours circulation above/internal pressure 60KPa±5KPa for 10 times. After dipped in cold, clean water container stably, it shall not spill out air bubble in 15 seconds

High-temperature sealing performance: air pressure does not depress under condition of internal pressure 70KPa/60°C/168 hours

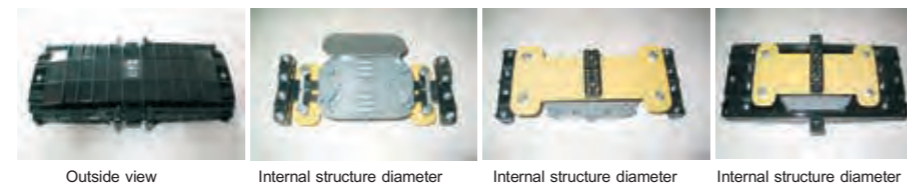
Additive loss: no additive loss is generated in optical fiber welding disk

Insulation resistance: after connected optical cable seal, insulation resistance between metal components and it between metal component and grounding >10MΩ

Service life: aging life of joint closure and materials are 20 years above.

Model	Specification (mm) LxWxH	Configuration of optical cable entrance	Welding disk model	Maximal capacity (core)
GJS08	370x170x95	2 in 2 out	12/24-core welding disk	48

Installing and connecting process:



Schematic diagram of outdoor jumperless cross connection cabinet for optical cable (integral structure diagram)

HT-043.



Schematic diagram of indoor jumperless cross connection cabinet for optical cable (integral structure diagram)

Outdoor jumperless cross connection cabinet for optical cable:

Outdoor jumperless cross connection cabinet for optical cable consists of trunk distributing and welding unit, optical splitter, direct optical cable welding unit, trunk optical fiber tube, optical cable installing plate, distribution and storage box, thimble, distributing pigtail, distributing optical fiber tube, distributing and welding box etc.

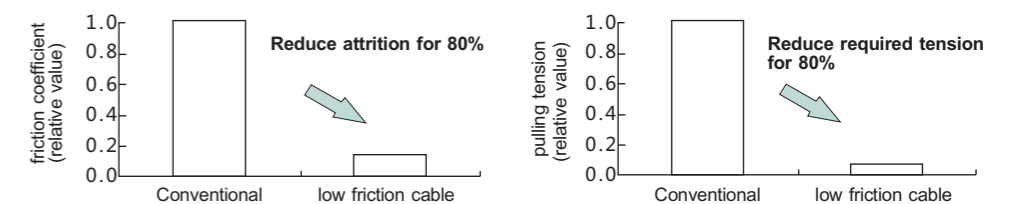
Indoor jumperless cross connection cabinet for optical cable:

Indoor jumperless cross connection cabinet for optical cable consists of optical cable installing plate, trunk distributing and welding frame, optical fiber jointing frame, direct optical fiber welding frame, optical splitter frame, optical fiber liner, optical fiber welding frame etc.

Configuration table of jumperless cross connection cabinet for optical cable product

SN	Model of machine case	Trunk is equipped with optical cable welded frame(unit)	Optical splitter	Optical fiber jointing frame	Optical fiber welding unit	Optical cable installing plate	Direct optical cable welding unit
1	Model 5	12*8=96cores	48cores	Three sets of optical splitters	48*12=576 cores Optional 288 core	24pieces of optical cables	
2	Model 6	24*6=144 cores Optional 48 cores		Five sets of optical splitters	21*12=252 cores	17 pieces of optical cables	24*7=168 cores Optional

Low-attribution butterfly-type introducing optical cable



Features:

Very low attrition
Compared with common optical cable, drill longer distance in pipe
Bear larger traction
Metal and nonmetal enforced-core optical cable are optional

Advantage on application:

Reduce installing time and cost
Minimize and low-attribution optical cable, easy for installation in pipe.
Reduce installing time and cost significantly

Special construction accessories of self-support butterfly-type introducing optical cable



Anchorelement of single-layer steel wire (HT-1601-1)

Purpose: Connect steel wire in self-support rubber-insulated optical cable with anchor point



Anchorelement of double-layer steel wire (HT-1601-2)

Purpose: Connect steel wire in two or below same-way self-support rubber-insulated optical cables with anchor point



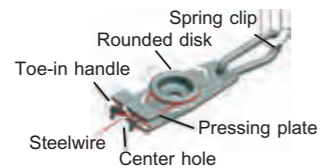
Anchorelement of 4-layer steel wire (HT-1601-4)

Purpose: Connect steel wire in two or below self-support rubber-insulated optical cables that installed inversely with anchor point.



Auxiliaries description

Separate optical cable and steel wire, cut steel wire and twist it in 8-type. The method shall restrain looseness caused in internal stress of steel wire, and avoid rupture arisen because plastic distortion curvature generated by overbend is higher than yield limit of steel wire. Please select multi-layer anchor connector according to assembling condition.



Operating essentials

Drill steel wire through center hole of tail part, twist along rounded disk in 8-type and frap it in opposite direction emphatically, and then twist at toe-in handle in 8-type and flex end knot, twist and seize redundant core, and fix it with nylon clip (HT-1622).

Experience and reference:
Simple constructing method.
Applies to long-distance (10m or above) span or wall-laid application. It is recommended to separate steel wire by using special tools.



Special construction accessories of self-support butterfly-type introducing optical cable

HT-045



Hoisting element of suspension wire (HT-1603)

Purpose:

Set anchor point on existent suspension wire

Remark: anchor fixture is used commonly

Operating essentials

Insert hoisting line into fixing bolt between clamping plates and fasten fixing bolt by using T-type sleeve spanner (HT-1613). It is possible to install U-hook from



Wall hoisting element (HT-1605)

Purpose:

Set anchor point on external wall of building

Remark: anchor fixture is used commonly. It is recommended to use 2KG hammer

Operating essentials

Put L-face of tack hole onto fixing surface, knock steel nail with hammer until flat with stretching plane of tack hole. It is possible to operate it by using sprigging tools (HT-1616).



Example of application



Technical service

Technical support

The Company shall bring customers with convenience and satisfaction via providing high-quality product and excellent technical support. We shall stick to contract, guarantee quality and deliver product in time. According to customers' requirement, the Company set technical service agency at various provinces and cities to provide construction maintenance and technical support for out customer. On establishment ODN optical network solution, we promise:

- 1.We are experienced on establishment and maintenance of ODN of operators' machine rooms and communities' machine room, and currently, we need to increase core quantity and reserve protecting router only.
- 2.ODN design of community is high light and difficulty, which shall keep to following principles:
- 3.Recommend adopting centralized optical branch via 1:16 or 1:32 optical splitter, or adopting Level 2 distribution-type optical branch via 1:4 and 1:8 optical splitter for partial zone.
- 4.For reducing wiring cost, please try to dispose optical splitter at center of customers as if several customers share one optical splitter.
- 5.In range of 2km, it is recommend to share one piece of optical cable for each 120-400 customers (one or several near buildings), and configure 8 or below distribution box on one optical cable.
- 6.Fully utilize current pipe, pipe hole resource and keep away from dangerous zone.
- 7.Reserve 1-8% allowance for trunk optical cable.
- 8.Predigest design and provide ODN design template in types.

After-sale service

I.Service tenet: seek perfect product, provide flawless service

II.Service commitment: respond rapidly in one hour after received service inform from customer. In principle, reach to site of local province in three hours, reach to site of external province in six hours and reach to site of remote location in nine hours (the Company has set after-sale service network in various provinces and cities of China)

III.High-quality product is made from strict control on various production links. The Company implement materials purchase, inspection of incoming merchandise, production process control, finished product test, product delivery and after-sale service strictly according to ISO9001 International Quality System.

IV.The Company set special department to provide professional after-sale service for customer.

- 1)Contract Management Department: mainly preside over collation and evaluation of sales contract, execution progress coordination and customer feedback of sales contract and purchase order.
- 2)Technical Service Department: Mainly preside over technical support of Company's product, promotion of tender invitation, tender submit and service, and technical reply etc.Technical Service Department: Mainly preside over technical support of Company's product, promotion of tender invitation, tender submit and service, and technical reply etc.
- 3)Transportation of merchandises: transport merchandises to appointed site safely, duly according to contract items.

4)Engineering Department: preside over reconnaissance, construction, installation, supervision service relating to optical cable; provide first-aid repair and technical support for customer according to actual requirement.

V.The Company shall provide 24h cost-free doortoservice, and provide customer with various spare parts in time.

VI.Training: Hengtong attaches great importance to training of customer all the while. The Company has established customer training system and drafted strict training system. Hengtong shall provide excellent training condition and draft different course schedule according to requirement of customer. Before installing equipment, Hengtong shall appoint engineer whom is experienced on theoretical knowledge and practice of communication to provide customer with cost-free technical training so that customer may realize feature, application and maintenance knowledge of Hengtong product, and ensure long-period stable operation of equipment.

VII.Service and quality guarantee

1)In guarantee period, the Company shall freely maintain quality problem caused in materials objection, improper manufacturing process of manufacturer, appoint technical personnel treating on site and bear economic loss caused by it.

2)After guarantee period, the Company shall respond optical cable quality failure caused by the Party in one hour, and appoint technical personnel treating on site immediately; for optical cable quality failure caused in improper application of Buyer, the Company shall appoint experienced technical personnel assisting to recover failure so that to resume optical cable in shortest period.

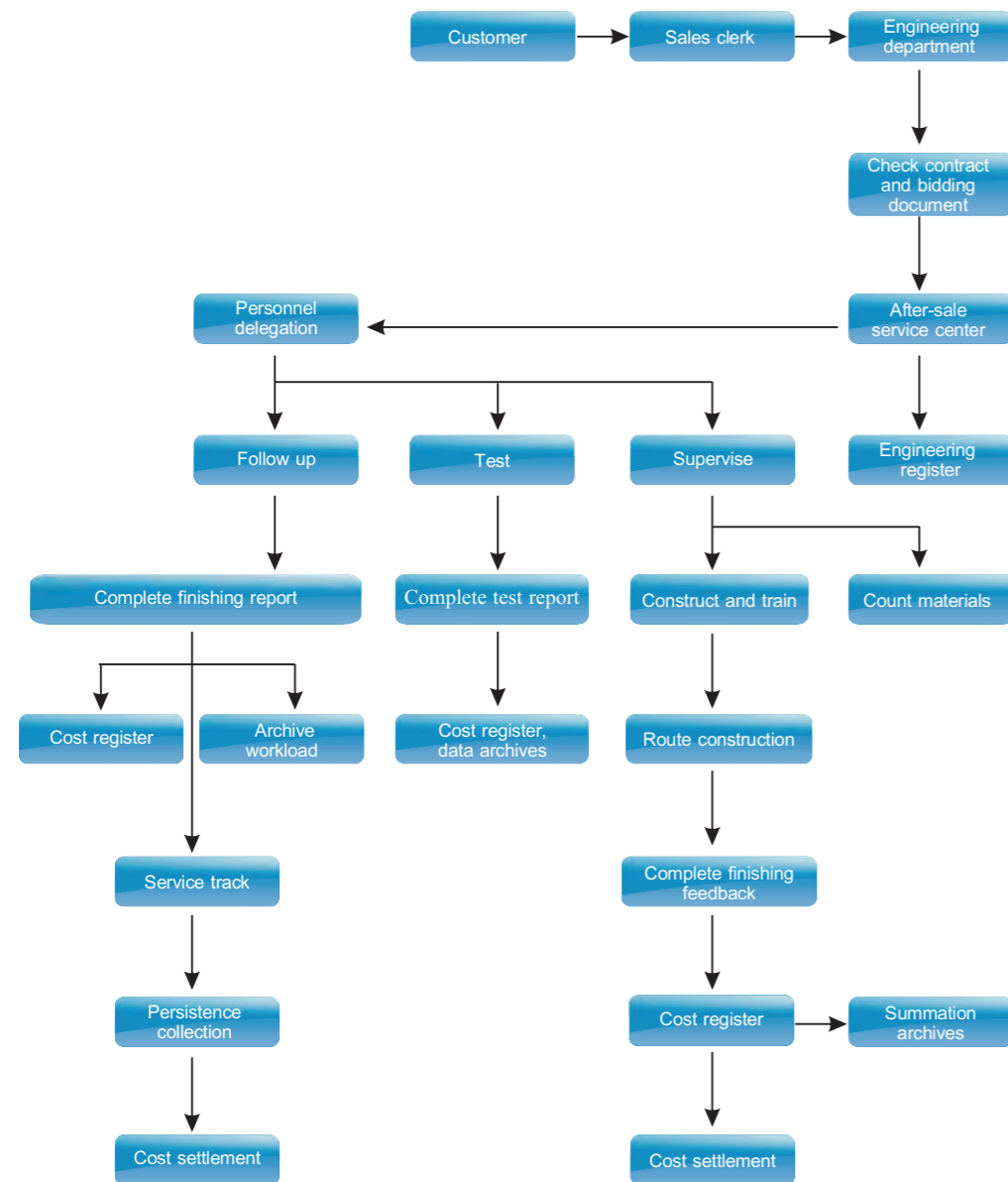
VIII.Response time:

1)Emergency supply response: for emergency supply requirement of customer, the Company promise to arrange production in the first time, transport required merchandises to site with special vehicle in the same day, or transport to appointed site directly with special vehicle if reserve is existent.

2)Service telephone response: Hengtong Optic-Electric sets free service hotline to respond customers' requirement momentarily: free service hotline: 8008282953; fax: 8008282958; 24h hotline: 0512-63800302-8025,8096; MP of engineering department principal: 13301555883

3)Technical Support Department of Hengtong Customer Service Center shall start remote maintenance program on a crash basis to recover business of customer via remote maintenance terminal and ensure customer's benefit farthest. In addition, the Company shall also appoint personnel reaching to site in fastest traffic method.

After-sale service flow



Appendix: Domestic service supporting system

SN	Name	Service zone	Address	Contact	Telephone
1	Company's base	Globe	88#Hengtong Av., Qidu Town, Wujiang City, Jiangsu	Shen Xinhua	0512-63801492
2	Beijing HQ	Beijing	1803# Digital Building Block B, 2 South Zhongguancun Street, Beijing	Shen Chunlin	010-51626988
3	Shanghai HQ	Shanghai	F12 Block A, FE International Plaza, 319# Xianxia Road, Changning District, Shanghai	Zhou Qinghong	021-32084666
4	Beijing repair parts stock	North China	43# S&T Road, Miyun Industry Development Zone, Beijing	Ma Wen	010-69076116
5	Shanghai repair parts stock	East China	555# West Jiangchang Road, Zhabei District, Shanghai	Huang Suying	021-66527780
6	Shenyang repair parts stock	Northeast	6# Kehuan Road, New Hunnan District, Shenyang, Liaoning	Xie Songnian	024-23812828
7	Chengdu repair parts stock	Southwest, Northwest	399# Beijing Road, E&T Development Zone, Chengdu, Sichuan	Shen Jianchun	028-84847284
8	Guangdong repair parts stock	South China	R124 Productive Forces Building, Songshan Lake S&T Industry Park, Dongguan	Han Xuesong	13616259696
9	Zhejiang Agency	Zhejiang	R502 Unit 4 Building 11, Lvzhou Park, 152# Chaohui Road, Hangzhou	Lu Xiaokang	0571-85392807
10	Anhui Agency	Anhui	R1005 Unit 2, Building 4 XiaZhang Residence, Dongzhi Road, Hefei	Wang yongguang	0551-5622957
11	Mongolia Agency	Mongolia	R302 Unit 2, Saihan District Agricultural Machinery Station, Qianjin Street, Saihan District, Hohhot, Mongolia	Lu Jinhu	0471-3396565
12	Jiangsu Agency	Jiangsu	R2401, Block 7, Zhongfu Building, 65#, Fujian Road, Nanjing	Xu Gengqiang	025-83464575
13	Xinjiang Agency	Xinjiang	R1302 Unit 2, Building 27 Longting Park, No. 118, Liyushan Road New Town, Urumchi, Xinjiang	Shi peiqiang	0991-4529183
14	Gansu Agency	Ningxia, Gansu, Qinghai	17F-C, Block A, Dushilijing, 185#, Linxia Road, Chengguan District, Lanzhou	Song Chungun	0931-8486821
15	Jiangxi Agency	Jiangxi	R1002, Unit 4, Building 6, Yuhe Pearl, 999# Jinggang Mountain Road, Nancang	Wang Jun	0791-7527090
16	Henan Agency	Henan	R701, Unit 1 Apollo, Jinxiu Zhenghong International Garden, Nongye Road, Zhengzhou	Gu Wenchao	0371-65720119
17	Hubei Agency	Hubei	R1003 Unit 2, Xiangtian Mansion, 261# Xianggang Road, Wuhan	Shi Shaoliang	027-65610072
18	Hunan Agency	Hunan	R405, Unit 2, Building 4, Yipiantianyun, Chigang Residence, Yuhua District, Changsha (106# Amiling Road)	Gan Ke	0731-85495567
19	Shan Xi Agency	Shan Xi	RB-1807, Shiji Yiyuan, 195#, Keji Road, High-New development zone	Zhang Guoliang	029-88339411
20	Hebei Agency	Hebei	R302, 201 Unit 3, Building 10, Yuandongyuan, 15#, Qingyuan Street, Changan District, Shijiazhuang	Xu Xiaoqing	0311-89619013
21	Shan'xi Agency	Shan'xi	R1004, Block D, Building 15, Yingzejiayuan, 133#, West Shuangta Street, Taiyuan	Zhang Peng	0351-4605240
22	Fujian Agency	Fujian	R 1703 Block D, Time City, SE Park, 166# North Liuyi Road, Fuzhou	Ma Senlin	0591-83314244
23	Guangxi Agency	Guangxi	R202, Unit 1, Building 5, Chahuayuan Residence, 8#, Dongbao Road, Nanning, Guangxi	Wu Jianfeng	0771-5894590

SN	Name	Service zone	Address	Contact	Telephone
24	Guangdong Agency	Guangdong, Hainan	R3005, Block 1, Tiancheng Mansion, 92#, West Longkou Road, Tianhe District, Guangzhou	Sun Qiang	020-87578159
25	Shenzhen Agency	Shenzhen	A904 Building 2, Zone A, Liuxian Residence, Liuxian Street, Xili Town, Nanshan District, Shenzhen	Wang Qi	0755-86164977
26	Tianjin Agency	Tianjin	R201, Unit 12, Jiangyang, West Baoji Road, Heping District, Tianjin	Cai Jianming	022-27810619
27	Heilongjiang Agency	Heilongjiang	R807 Longxiang Block G, Longdian Park, Dacheng Street, Nangang District, Harbin	Liu Qiang	13351688871
28	Jilin Agency	Jilin	R401, Unit 1, Blok 4, Yuanse Life, Fanrong Road, Changchun	Pan Zibin	13840343968
29	Shandong Agency	Shandong	R2003, Unit 2, Building 4, Damingcuiting, 1# Hubei Road, Jinan	Qin Xiaobo	15998142277
30	Guizhou Agency	Guizhou	R 704 Block A Quanlin International Plaza, 196 South Fushui Road, Guiyang	Si Zhengzhong	0851-5809852
31	Yunnan Agency	Yunnan	R 301, Unit 2, Block 815 Jinshouyuan, West zone, Jinxing community, Kunming	Xu Junjie	0871-5640310
32	Sichuan Agency	Sichuan Xizang	R 1603, Unit 1 Building 4, 2# Huaxing Road, Chengd	Zhang Jianguo	028-86962447
33	Chongqing Agency	Chongqing	R14-1 Building F2, Jinguoyuan, Third Street, Hi-Tech Industry Zone, Chongqing	Li Jun	023-68691819
34	Rescue and Emergency Domestic Headquarters		Qidu town, Wujiang City, Jiangsu	Yin Jicheng	0512-63801801
35	International Business Department	Offshore	F12 Block A, FE International Plaza, 319# Xianxia Road, Changning District, Shanghai	Qian Xiaoqin	021-32084666
36	Commercial headquarters	Globe	88# Hengtong Av., Qidu town, Wujiang City, Jiangsu	Zhang Weiqiang	0512-63800569
37	After-sale and engineering service department	Domestic	88# Hengtong Av., Qidu town, Wujiang City, Jiangsu	Sheng Xiaohua	0512-63801120

Offshore service mechanism

India
Contact: Wang Lianghua
Add: A/1202, 12th Fir, Progressive Clebrity Plat No
71, Sector No 15, Nr D Y Patil College, CBD Belapur
Navi Mumbai 400614
E-mail: wanglh@hengtonggroup.com

Philippines
Contact: Du Wanyao
Add: U25C, Tower B, Kingswood Makati
Tower, Bgy Lapaz, 1203 Vito Cruz Exrtension,
MakatiCity, Metro Manila, Philippines
E-mail: duwy@hengtonggruop.com

Russia
Contact: Gao Xuan
Add: Kravqenko house 11, room 39, Moscow,
Russia
E-mail: gaoxuan@hengtonggruop.com

Egypt
Contact: Qin Hua
Add: No 61, El Hadara, New Maadi, Great Cairo,
Egypt (Egyptian Office)
E-mail: qinh@hengtonggroup.com

South Africa
Contact: Lu Youyou
Add: 279 Quom Drive, Northriding,
Johannesburg, South Africa.
E-mail: luyy@hengtonggroup.com

Kazakstan
Contact: Feng Weiwei
Add: 050022, Masanchi str, 98 "v", apartment
108, Almaty, Kzazkhstan.
E-mail: fengww@hengtonggroup.com

Brazil
Contact: Zhou Tong
Add: Rua Sorocaba, 305 botafogo Rio de Janeiro-RJ
606
E-mail: zhout@hengtonggroup.com

Uzbekistan
Contact: Ling Min
Add: Bogishamol Str, 276 Tashkent,
Uzbekistan 100058
E-mail: lingmin@hengtonggruop.com

Burma
Contact: Tao Fujun
E-mail: taofj@hengtonggroup.com

Note: the company set 37 service mechanisms in China and set 15 service mechanism over sea