



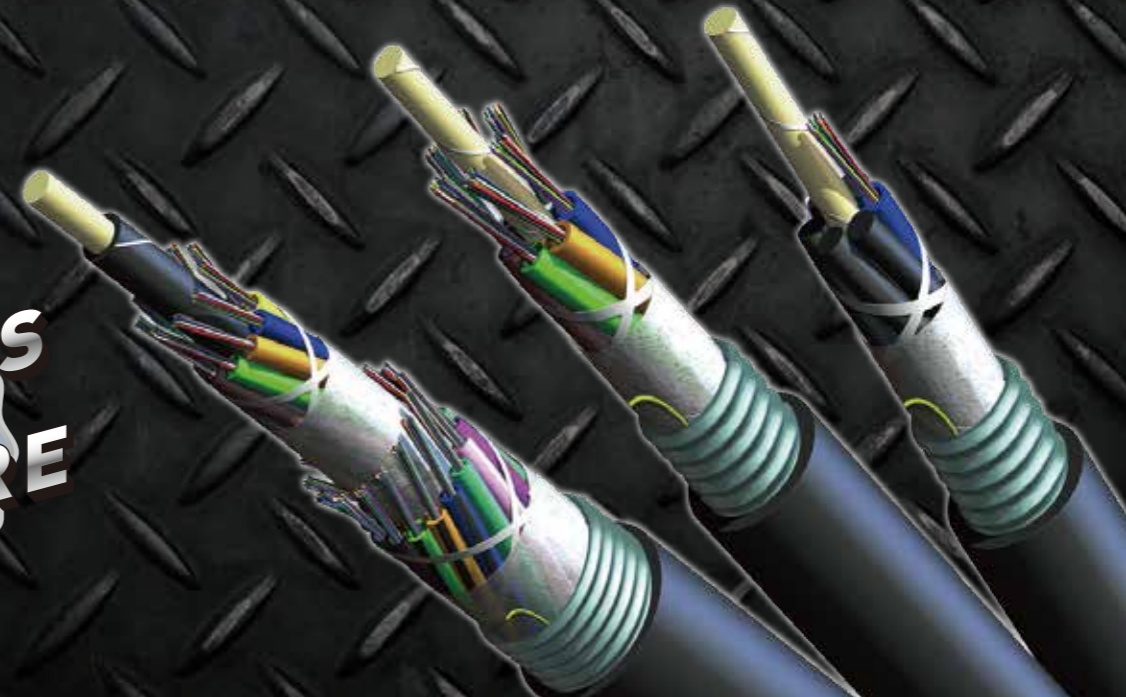
深圳市嘉万光通信有限公司
KOC Communication Co., Ltd.

2019
CATALOG

ARMORED CABLE

FIBER OPTIC COMPONENTS GLOBAL SUPPLIER

ENDURES
GREAT
PRESSURE



KOC Communication Co., Ltd.

Add. : 4-6F, Block 3, Unibuilt Technology Industrial Park,
Huarong Road, Dalang, Longhua District, 518109 Shenzhen, China
Tel : + 86 0755-3367 3808 / 3367 3797
Fax : + 86 0755-3367 3791 / 3367 3792
E-mail : sales@koc.com.cn
Website : www.koc.com.cn / www.kamaxoptics.com

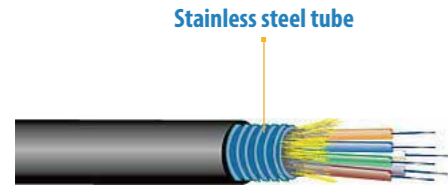


www.koc.com.cn



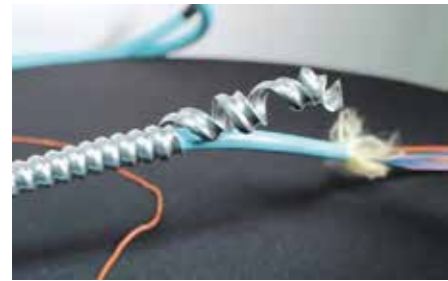
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What is armored cable?



Armored cable is a kind of fiber optic cable which is covered with a layer of armor.

Armored cable has a spiral stainless steel protective tube for the optical fiber core. The tube protects the fiber much firmly than ordinary cables. So it can be applicable in harsh environments. Thus construction costs is reduced and the maintenance becomes simple and easy.



What was solved?

Provide save channels for fibers

Armored protection can resist external extrusion and impact. So they are more safe and reliable!

Provide a free space for fibers

Provide fiber with a free space inside cables so that they are more effective against stretch and bending. Problem solved: reduce influences caused cable itself during process.

Reduce interference from external fibers

Save more than 50% cabling space than non-armored cable with the same number of fiber cores, and the weight can be reduced by at least 20%!

Why the armored?

Within the Fiber Optic product line, Armored Fiber Optics is an option for businesses that require installation within rigid environments.

Armored Fiber Optic Cable can be utilized for: telecommunication, high bandwidth data, video signaling, long-distance CCTV, communication between fire alarm panels, and much more.



Armored Fiber Features:

- Super-fine armor protection, Cabling space saving
- Super compression resistance
- Super tensile performance
- Bending protection

Is it high cost?

No! With the same number of fiber cores, armored cable is smaller and lighter.

No! Operation and maintenance are easier and effectively prevent fiber damage.

No! Cabling work need not to be so carefully and it saves cabling space greatly.



Solutions

Outdoor connections



Center room cabling



FTTA base station



Application sites

Oil and gas industries



Aviation and shipping Industries



Content

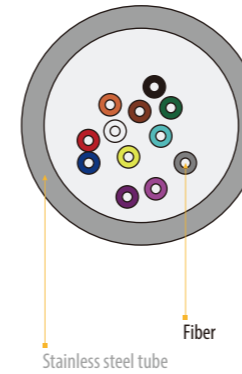
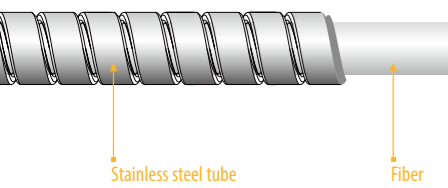
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Flexible steel tube armored optical fiber cables

Features

- Bare fiber, tight-sleeve fiber application protection
- Ensure optical transmission performance and service life of optical fiber in service
- It can be reprocessed into armored fiber
- Enhance fiber property of resisting the shock and lateral pressure
- Rat bite protection

Fiber Count	Cable Type	Stainless steel tube diameter	Tight-buffer diameter(mm)	Weight (Kg/KM)	Bend radius dynamic	static	Crush (N/100mm)
1	0.6KJ	Φ0.6±0.03	Φ0.25	1.2	20	10	8000
1	0.6KJ	Φ0.9±0.05	Φ0.5	2.2	50	30	4500

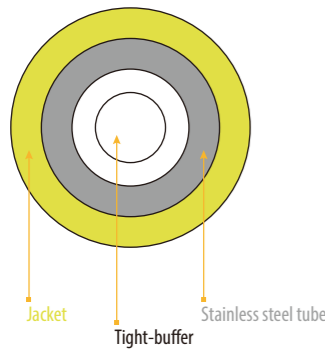


0.9 Flexible steel tube armored optical fiber cables

Features

- Good mechanical and environmental characteristics
- Soft, Flexible, Stable, easy to splice, rat bite protection, Apply to connections of long distance, outdoor, building cabling, combination cabling of fiber optic and electronic
- Flame retardant characteristics meet the requirements of relevant standards
- Improve existing function based on customers' various requirements

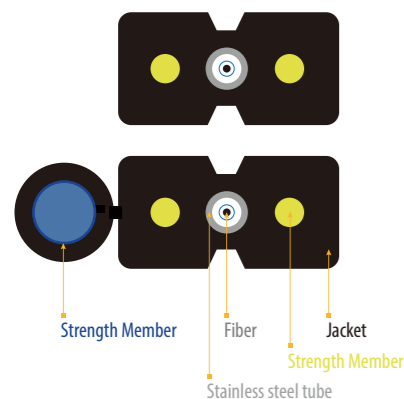
Cable Type	Cable diameter (mm)	Cable weight (Kg/KM)	Bend radius dynamic	static	Crush (N/100mm)
0.9GJSJU	Φ0.9±0.1	3.5	20	10	8000



Flexible steel tube armored butterfly lead cable

Cable Type	Tensile N		Crush (N/100mm)	
	Short Term	Long Term	Short Term	Long Term
GJXFKH	300	200	6000	3000
GJYCKH	660	300	6000	3000

Fiber Count	Cable Diameter	Steel diameter(mm)	Thickness(mm)	Fiber diameter
1	3.2*2.1±0.2	0.9±0.05	0.4	245±10μm
1	(5.2±0.2)*(2.1±0.1)	0.9±0.05	0.4	245±10μm



Flexible steel tube armored fiber bundle unit

Features

- Bare fiber, tight-sleeve fiber application protection
- Ensure optical transmission performance and service life of optical fiber in service
- It can be reprocessed into armored fiber
- Enhance fiber property of resisting the shock and lateral pressure
- Rat bite protection

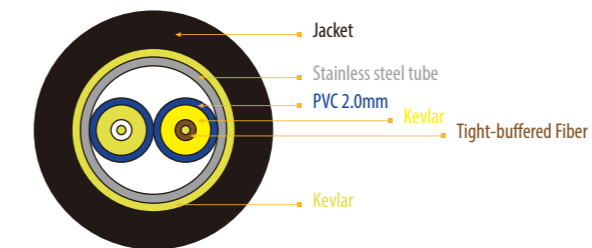
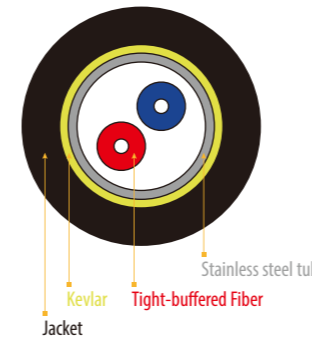
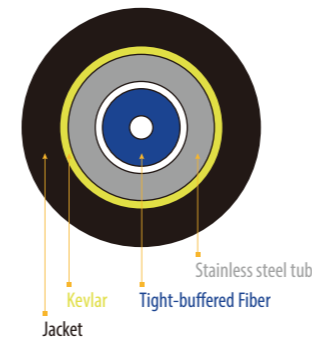
Fiber Count	Cable Type	Stainless steel tube diameter	Tight-buffer diameter(mm)	Weight (Kg/KM)	Bend radius dynamic	static	Crush (N/100mm)
2	1.0KJ	Φ1.0±0.05	Φ0.25	2.4	50	30	4500
4	1.4KJ	Φ1.4±0.05	Φ0.25	3.2	60	30	3500
6	1.6KJ	Φ1.6±0.05	Φ0.25	5.6	70	35	3500
8	1.8KJ	Φ1.8±0.1	Φ0.25	6.1	70	35	3500
12	2.0KJ	Φ2.0±0.1	Φ0.25	8.9	70	35	3500

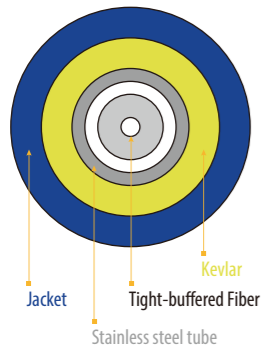
Flexible steel tube armored pull cable

Features

- SUS Spiral tube structure make the good mechanical performance
- Outer jacket complies with UL, ROHS
- High pressure resistance, anti mouse bite, UV protection, etc

Cable Type	Cable diameter (mm)	Steel diameter (mm)	Cable weight (Kg/KM)	Tensile N		Bend radius		Crush (N/100mm)
				short term	long term	dynamic	static	
3.3GYFJKH	Φ3.3±0.2	Φ1.4±0.1	11.0	450	200	15	30	3500
4.8GYFJKH	Φ4.8±0.2	Φ2.8±0.1	31.0	1000	600	60	30	4000
7.0GYFJKH	Φ7.0±0.2	Φ5.0±0.2	60.0	600	300	70	35	3000



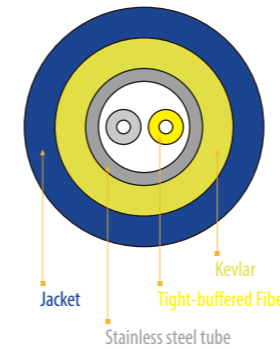


Simplex Flexible steel tube armored optical fiber cables

Features

- Good mechanical and environmental characteristics
- Soft, Flexible, Stable, easy to splice, rat bite protection, Apply to connections of long distance, outdoor, building cabling, combination cabling of fiber optic and electronic
- Flame retardant characteristics meet the requirements of relevant standards
- Improve existing function based on customers' various requirements

Cable Type	Cable diameter (mm)	Cable weight (Kg/KM)	Tensile N		Bend radius		Crush (N/100mm)
			short term	long term	dynamic	static	
2.0GJFKV	Φ2.0±0.1	6.5	150	80	50	30	4500
3.0GJFKV	Φ3.0±0.1	11.0	450	200	60	30	3500

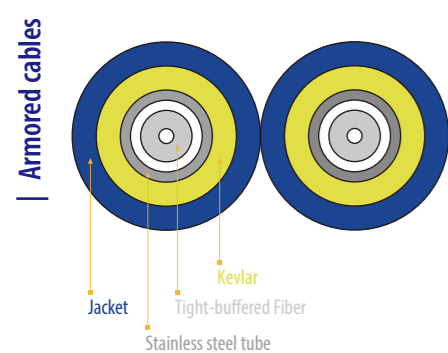


Single Tube Duplex armored optical fiber cables

Features

- Good mechanical and environmental characteristics
- Soft, Flexible, Stable, easy to splice, rat bite protection, Apply to connections of long distance, outdoor, building cabling, combination cabling of fiber optic and electronic
- Flame retardant characteristics meet the requirements of relevant standards
- Improve existing function based on customers' various requirements

Cable Type	Cable diameter (mm)	Cable weight (Kg/KM)	Tensile N		Bend radius		Crush (N/100mm)
			short term	long term	dynamic	static	
3.0GJFKV	Φ3.0±0.2	12.5	600	300	70	35	3000
4.8GJFKV	Φ4.8±0.2	27.0	800	400	100	50	3000

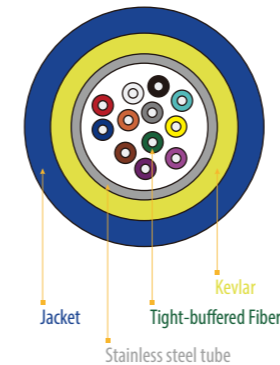


Duplex Flat Flexible steel tube armored optical fiber cables

Features

- Good mechanical and environmental characteristics
- Soft, Flexible, Stable, easy to splice, rat bite protection, Apply to connections of long distance, outdoor, building cabling, combination cabling of fiber optic and electronic
- Flame retardant characteristics meet the requirements of relevant standards
- Improve existing function based on customers' various requirements

Cable Type	Cable diameter (mm)	Cable weight (Kg/KM)	Tensile N		Bend radius		Crush (N/100mm)
			short term	long term	dynamic	static	
2.0GJFKBV	Φ2.0±0.1	13.0	200	100	50	30	4500
3.0GJFKBV	Φ3.0±0.1	22.0	600	300	60	30	3500

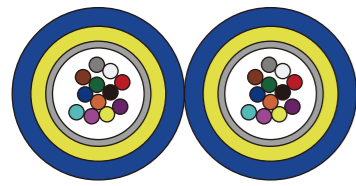


Single Tube Multi-core armored optical fiber cables

Features

- Good mechanical and environmental characteristics
- Soft, Flexible, Stable, easy to splice, rat bite protection, Apply to connections of long distance, outdoor, building cabling, combination cabling of fiber optic and electronic
- Flame retardant characteristics meet the requirements of relevant standards
- Improve existing function based on customers' various requirements

Cable Type	Cable diameter (mm)	Cable weight (Kg/KM)	Tensile N		Bend radius		Crush (N/100mm)
			short term	long term	dynamic	static	
3.0GJFKV-6S	Φ3.0±0.2	12.5	400	200	60	30	3500
3.0GJFKV-8S	Φ3.0±0.2	12.7	800	400	70	35	3000
3.0GJFKV-12S	Φ3.0±0.2	13.0	1000	500	90	45	3000
4.5GJFKV-4S	Φ4.5±0.2	27.5	800	400	70	35	3000
4.8GJFKV-6S	Φ4.8±0.2	32.5	1000	500	100	50	3000
4.8GJFKV-8S	Φ4.8±0.2	36.0	1000	500	100	50	3000
5.0GJFKV-10S	Φ5.0±0.25	42.0	1000	500	120	60	3000
6.0GJFKV-12S	Φ6.0±0.20	61.0	1500	750	170	85	3000

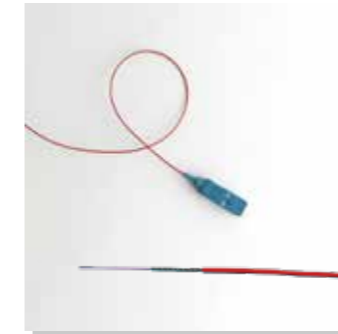


Zipcord Multi-core armored optical fiber cables

Features

- Good mechanical and environmental characteristics
- Soft, Flexible, Stable, easy to splice, rat bite protection, Apply to connections of long distance, outdoor, building cabling, combination cabling of fiber optic and electronic
- Flame retardant characteristics meet the requirements of relevant standards
- Improve existing function based on customers' various requirements

Cable Type	Cable diameter (mm)	Cable weight (Kg/KM)	Tensile N		Bend radius		Crush (N/100mm)
			short term	long term	dynamic	static	
GJSJV-24S	4.2*8.4	33.4	1200	600	90	45	3500



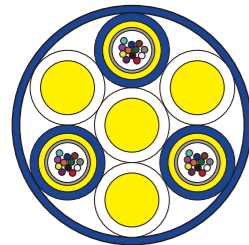
0.9mm Ultra-mini and Flexible Armored Pigtail

Features

0.9mm super-tiny outer diameter cable can resist the side pressures and impacts 100 times more than normal soft 0.9mm cable. It is applicable for occasions requested high security for data and enhances the security for cabling and maintenance.

	Insertion Loss	Return Loss	Durability	Operating Temperature
Single mode	≤ 0.30dB	≥ 50dB(PC), ≥ 60dB(APC)	< 0.20dB typical change, 1000matings	-40 to +85 °C
Multimode	≤ 0.30dB	≥ 30dB(PC)	< 0.20dB typical change, 1000matings	-40 to +85 °C

Armored cables



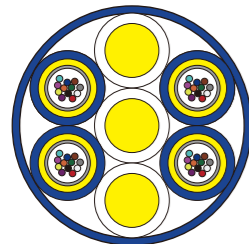
36 Cores

Multi-core armored optical fiber cables

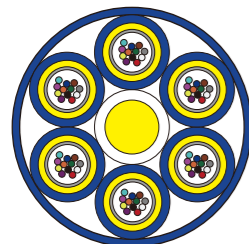
Features

- Good mechanical and environmental characteristics
- Soft, Flexible, Stable, easy to splice, rat bite protection, Apply to connections of long distance, outdoor, building cabling, combination cabling of fiber optic and electronic
- Flame retardant characteristics meet the requirements of relevant standards
- Improve existing function based on customers' various requirements

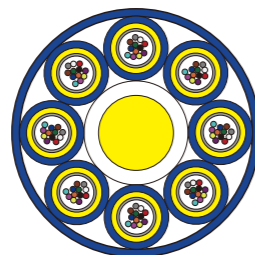
Cable Type	Cable diameter (mm)	Cable weight (Kg/KM)	Tensile N		Bend radius		Crush (N/100mm)
			short term	long term	dynamic	static	
10.5GJSJV-36S	Φ10.5±0.2	99.5	1500	800	200	105	3000
10.5GJSJV-48S	Φ10.5±0.2	103.8	1500	800	200	105	3000
10.5GJSJV-72S	Φ10.5±0.2	112.5	1500	800	200	105	3000
13.5GJSJV-96S	Φ13.5±0.3	169.0	1800	900	270	135	3000
14.5GJSJV-144S	Φ14.5±0.3	204.0	1500	800	290	145	3000



48 Cores



72 Cores



96 Cores



144 Cores



1.6mm Mini and Flexible Armored Patch Cord

Features

1.6mm outer diameter can resist much more powerful side pressures and impacts than normal 2.0mm or 3.0mm indoor soft cable. It is smaller than 2.0 or 3.0mm cable so that it occupies less cabling space and it is easy to be strapped in the center room.

	Insertion Loss	Return Loss	Durability	Operating Temperature
Single mode	≤ 0.30dB	≥ 50dB(PC), ≥ 60dB(APC)	< 0.20dB typical change, 1000matings	-40 to +85 °C
Multimode	≤ 0.30dB	≥ 30dB(PC)	< 0.20dB typical change, 1000matings	-40 to +85 °C



2.0/3.0mm Simplex Armored Patch Cord

Features

2.0/3.0mm armored cable guarantees the reliability of permanent cabling. Signals inside the cable transmits safely under harsh situations of car running, stepping, pulling etc.

	Insertion Loss	Return Loss	Durability	Operating Temperature
Single mode	≤ 0.30dB	≥ 50dB(PC), ≥ 60dB(APC)	< 0.20dB typical change, 1000matings	-40 to +85 °C
Multimode	≤ 0.30dB	≥ 30dB(PC)	< 0.20dB typical change, 1000matings	-40 to +85 °C

Armored patchcords



Multi-cores Fanout Armored Patch Cord

Features

Multi-core branch patchcord is applicable for center room cabling. It can be bridged, strapped in bundles, so that it saves more space and neatly looking at the same time. With protection of armor, it is able to avoid damage from rudely operations and we do not need to worry about the future maintenance will bring to other cables due to the squeezing and pulling. Thus the cabling safety would b secured.

	Insertion Loss	Return Loss	Durability	Operating Temperature
Single mode	≤ 0.30dB	≥ 50dB(PC), ≥ 60dB(APC)	< 0.20dB typical change, 1000matings	-40 to +85 C
Multimode	≤ 0.30dB	≥ 30dB(PC)	< 0.20dB typical change, 1000matings	-40 to +85 C



Waterproof Connector Armored Patch Cord

Features

IP water-prove armored patchcords series are applicable for fiber connections outdoors or for field environment. Water-prove level reaches IP67 degrees. They are also applied to civil CATV system, oil & gas industries and shipping industry.

	Insertion Loss	Return Loss	Durability	Operating Temperature
Single mode	≤ 0.30dB	≥ 50dB(PC), ≥ 60dB(APC)	< 0.20dB typical change, 1000matings	-40 to +85 C
Multimode	≤ 0.30dB	≥ 30dB(PC)	< 0.20dB typical change, 1000matings	-40 to +85 C



Armored MPO Patch Cord

Features

12/24-core MPO multi-core patchcord is applied for circumstance of high density and high mechanical resistance protections. It is the first choice for safe cabling in high density data center.

	Insertion Loss	Return Loss	Durability	Operating Temperature
Single mode	≤ 0.75dB	≥ 50dB(PC), ≥ 60dB(APC)	< 0.20dB typical change, 1000matings	-40 to +85 C
Multimode	≤ 0.50dB	≥ 30dB(PC)	< 0.20dB typical change, 1000matings	-40 to +85 C



FTTA Antenna Connecting Armored Patch Cord

Features

FTTA Antenna connecting armored patchcord provides effective protection for signal transmission from base station.

	Insertion Loss	Return Loss	Durability	Operating Temperature
Single mode	≤ 0.30dB	≥ 50dB(PC), ≥ 60dB(APC)	< 0.20dB typical change, 1000matings	-40 to +85 C
Multimode	≤ 0.30dB	≥ 30dB(PC)	< 0.20dB typical change, 1000matings	-40 to +85 C



Reliability testing



Crush Resistance

Standard 2.0/3.0mm indoor cable:
500N@100mm



0.9/1.6mm armored cable:
70KG@5mm (13720N@100mm)



Bending Resistance

Can not break the fiber by hand power

Notes

A series of horizontal dashed lines provided for taking notes.

Ordering Option

Cable Type

Indoor armored fiber cable | Outdoor armored fiber cable

Strengthen member

Kevlar Strengthen member | Metal braid mesh

Stainless Steel Tube

Spiral Steel tuber armored | Parallel spiral steel tube

Jacket

PVC | LSZH | PE | TPU

Fiber Count

Simplex | Duplex | Four cores | ...

Fiber Type

G652D | G657A1 | G657A2 | G657B3 | 50/125 | 62.5/125 | OM3-150 or OM3-300

The color of outer jacket

Blue | Black | Grey | Aqua

Other requirements

Customized

Notes

KOC Branches

KOC Brasil (Sales & Production)

Address: Rua Brasilia 158 – Ouro Fino, Sao José Dos Pinhais, PR, Brasil

Email: sales@koc.com.cn

KOC Greece (Sales Office)

*Address: 12 MESSINIAS Str METAMORPHOSIS POSTAL CODE 14451 ATHENS
GREECE*

Email: sales@koc.com.cn

KOC INDIA (Sales Office)

Address: 60 DUPLEX-1, SWARNIM VIHAR SECTOR-82 NOIDA, INDIA-201304

Email: sales@koc.com.cn Website: www.kocindia.in

KOC Latinoamerica (Sales & Production)

Address: Ballivian 2271, Buenos Aires, Argentina

Email: sales@koc.com.cn

KOC Europe Communication SLU

Address: Calle Iregua 17 Ribarroja del Turia, Valencia Spain 46190

Email: sales@koc.com.cn

Website: www.kamaxeeurope.com

KOC Germany (Sales Office)

Address: Am Mühlentor 24 53844 Troisdorf Germany

Email: sales@koc.com.cn

KOC Korea (Sales Office)

Address: 2F, BI Center, Nambu Univ. , Kwangsangu, Kwangju City , South Korea

Email: sales@koc.com.cn

KOC USA (Sales Office)

Address: 22180 Fuchsia Ct. Woodland Hills, CA 91367 USA

Email: sales@koc.com.cn

