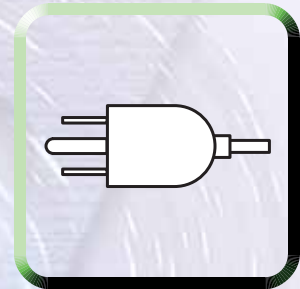
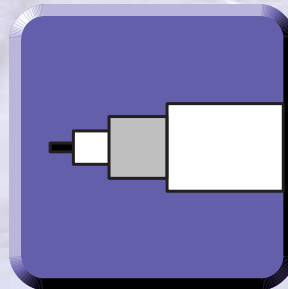
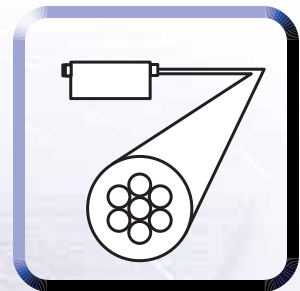


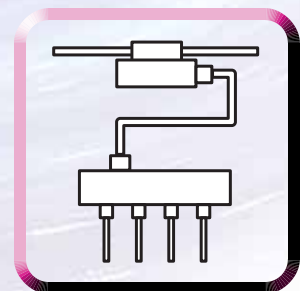
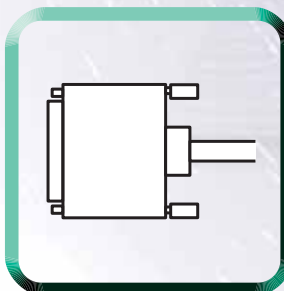
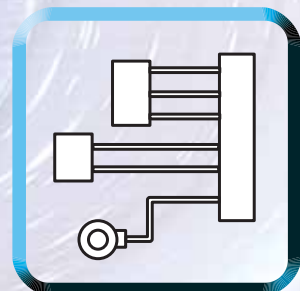


High-Frequency-Transmission Coaxial Cable/Assembly

Fine Coaxial Cable/Assembly



**The
connection
specialist**



HIRAKAWA HEWTECH CORP.

Keyword

High speed	Propagation delay time: 4.0 ns/m or less	P.6,7,8,10,11,12,15,16
High precision	Characteristic impedance: Precision of $\pm 2\%$	P.7,8
Low attenuation	Lower transmission loss	P.6,7,14
Fine	Conductor size: AWG38 to AWG42	P.18,20,22,23,24
Super-fine	Conductor size: AWG44 to AWG50	P.19,20
Multichannel	Cable having two or more channels	P.14,15,16,22,24
Environment	Supporting environmental regulations such as the RoHS directive	P.ALL
Heat resistance	Use environment: 105°C or higher	P.6,8,18,19,20
Low skew	Difference in propagation delay times between pairs: 15 ps/m or less	P.10,12,14,16
Flexibility	Excellent pliability and flexibility	P.22
High density	Excellent space performance	P.8,12,16,20,24,26
Service	Customized services from assembly coordination to characteristic evaluation	P.8,12,16,20,24,26
Electrical length	Harness supporting both physical length (m) and electrical length (ps)	P.8,12,16,20,24,27

Notes

- The structures, characteristic values and other information in this catalog may not be applicable to all use environments and methods. Please use the appropriate cables after careful consideration.
- The products listed in this catalog are only a sample of our extensive product line. We offer a large variety of cables and assemblies to best suit your

Contents

Part 1

**High-Frequency-Transmission Coaxial Cable/
Assembly (Single-Ended)**

PAGE **5**

Part 2

**High-Frequency-Transmission Coaxial Cable/
Assembly (Differential)**

PAGE **9**

Part 3

**High-Frequency-Transmission Coaxial Cable/
Assembly (Multi flat)**

PAGE **13**

Part 4

Fine and Super Fine Coaxial Cable/Assembly

PAGE **17**

Part 5

Fine Coaxial Multi Cable/Assembly

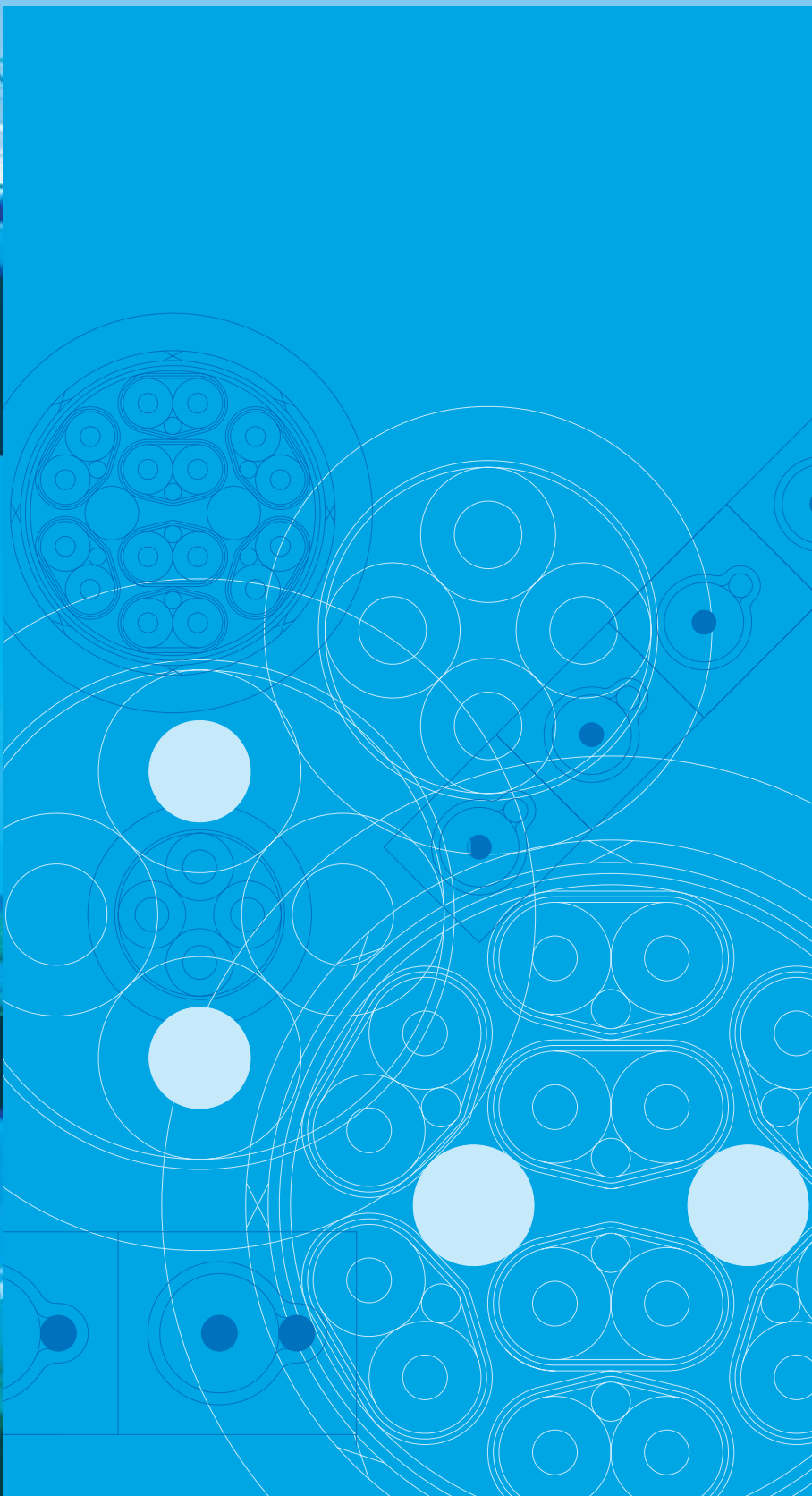
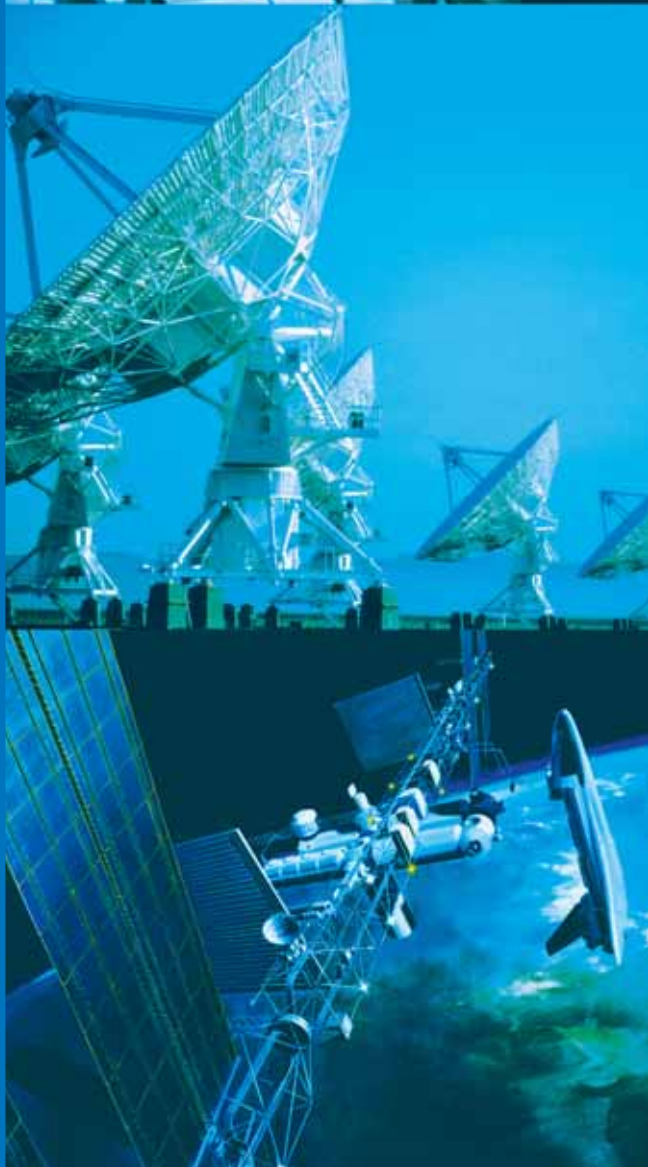
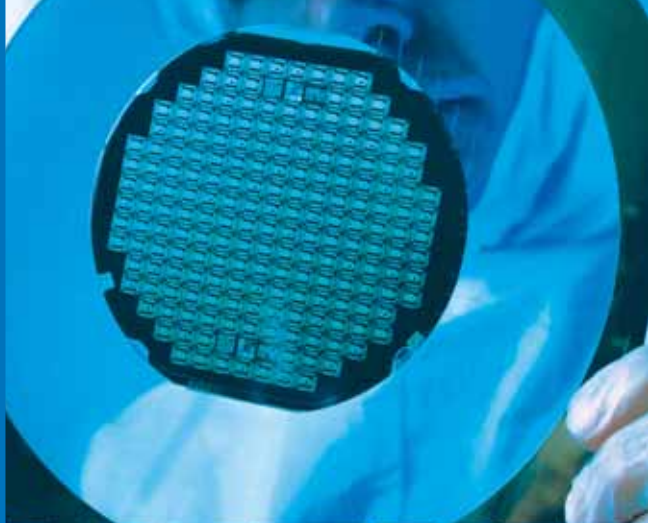
PAGE **21**

Part 6

Anather Proposal

PAGE **25**

High-Frequency- Transmission Coaxial Cable/ Assembly (Single-Ended)



High-Frequency-Transmission Coaxial Cable (Single-Ended)

High speed

Low attenuation

Environment

Heat resistance

Applications

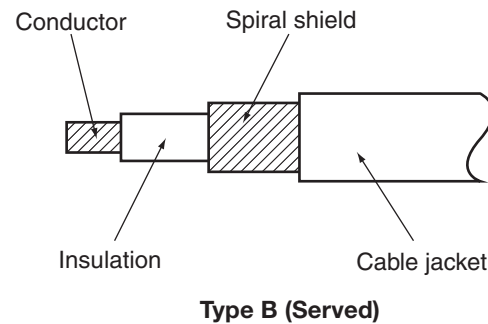
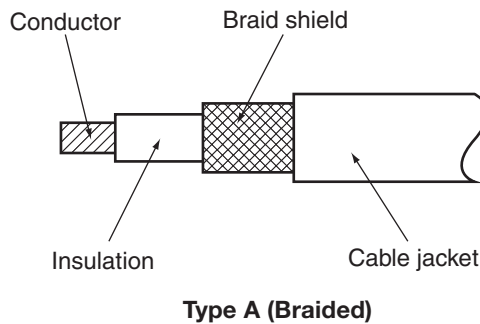
Internal wiring of communication instruments and electronic devices

Connection of test head and interface of IC test system

Features

- This cable features highly stable characteristic impedance and propagation delay time.
- Outstanding rated temperature of -55°C to +200°C is realized through the use of an expanded PTFE insulator.
- This cable has excellent attenuation characteristic. The braid shield type has the attenuation characteristic of -3 dB/m at 6 GHz.

Structure and Performance



Structure Type	Conductor			Insulation	Shield	Cable jacket	
	Size AWG	Construction	Material	Material	Material	Material	Outside diameter mm
Type A	28	7/36	AGA	E-PTFE +PFA	AGA	FEP	1.36
	26	7/34					1.74
	25	7/33					1.93
Type B	28	7/36					1.22

Structure Type	Impedance TDR Ω	Propagation delay time TDR ns/m	Capacitance 1kHz pF/m	Attenuation (standard) dB/m					
				0.1GHz	0.4GHz	1.0GHz	2.0GHz	3.0GHz	6.0GHz
Type A	51±1.2	(standard)3.90	(standard)80	0.37	0.77	1.26	1.82	2.28	2.99
				0.32	0.61	1.00	1.47	1.84	2.50
				0.30	0.54	0.91	1.34	1.67	2.28
Type B	50±3.0	(standard)3.80	(standard)78	0.39	0.80	1.30	—	—	—

AGA: silver-plated annealed copper wire, E-PTFE: Expanded PTFE

High-Frequency-Transmission Coaxial Cable (Single-Ended)

High speed

High density

Low attenuation

Environment

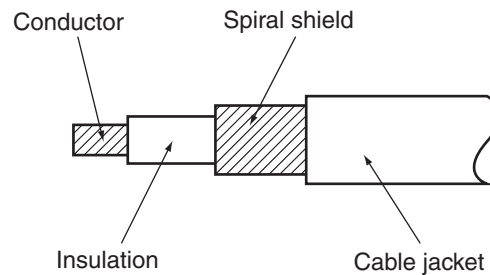
Applications

Internal wiring of mainframes, communication instruments, and electronic devices
Connection of test head and interface of IC test system

Features

- Stable propagation delay time in the length direction achieved through our unique highly-cellular polyethylene extrusion technique
- This cable features highly stable characteristic impedance.
- This cable is more cost-effective than the expanded PTFE while boasting a rated temperature range of -10°C to 80°C for the cross-linked cellular polyethylene insulation.

Structure and Performance



Type C (Served)

Structure Type	Conductor			Insulation	Shield	Cable jacket	
	Size AWG	Construction	Material	Material	Material	Material	Outside diameter mm
Type C	29	7/37	AGA	CCE	AGA	Lead-free PVC	1.40
	30	7/38					1.28

Structure Type	Impedance TDR Ω	Propagation delay time TDR ns/m	Capacitance 1kHz pF/m	Attenuation (standard) dB/m		
				0.1GHz	0.4GHz	1.0GHz
Type C	50 \pm 1	(standard)3.90	(standard)79	0.47	0.96	1.39
	50 \pm 3	(standard)3.80	(standard)79	0.55	1.10	1.77

AGA: silver-plated annealed copper wire, CCE: cross-linked cellular polyethylene

High-Frequency-Transmission Coaxial Assembly (Single-Ended)

High speed

High precision

Environment

Heat resistance

High density

Service

Electrical length

We assemble the cables you select according to your specifications and offer many variations in addition to the types listed in this catalog. Feel free to contact us for details.

Hirakawa Board-in Cable Series

These cables are processed for board mounting using our unique connecting technology and molding method. They offer high bandwidth transmission, high density mounting, more rational wire connection, and reliable connectivity, all for a reasonable price. These cables are available both as a solder type and as an environmentally friendly press-fit type. Special coaxial connectors other than these board-in connectors are also available.

Features

1. Flexible Specifications

You can freely select cables regardless of plug type. Select each characteristic transmission level such as impedance and electrical length as well as the cable length and color according to your environment. We can design customized plug shapes and pin lengths based on customer requests.

2. Excellent Transmission Characteristics

Our own processing facility and processing method used for connection substantially contribute to the realization of stable impedance and propagation delay as well as reduced crosstalk and voltage loss.

3. Excellent Mechanical Properties

Exceptionally reliable connectivity is realized as the cable and plug terminal are connected using our own electric welding connection technology. Also, integral molding of plug pins reduces the stress placed on cable by connection work.

4. Two Advantages æ Environmentally Friendly and Less Work Intensive

Press-fit type products, which do not require solder, can be inserted using a simple tool. This type of product also significantly reduces the amount of work required.



Plug pins of solder S type



Plug pins of press-fit S type



Plug pins of solder L type



Plug pins of press-fit L type



High Precision type



Coaxial Connector type

Product Specifications

Polarity display Different shape or displayed on the mold surface core side

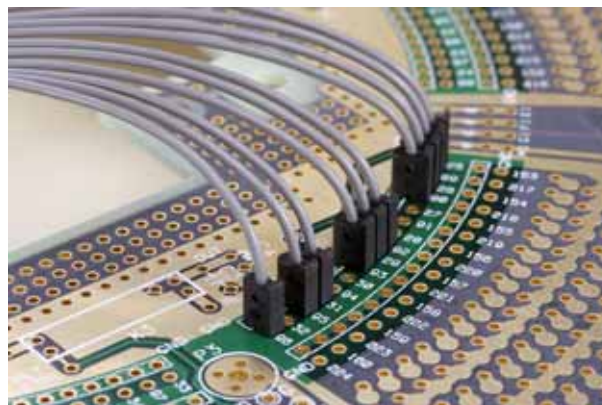
Withstand voltage AC500V/1 s. (between pins)

Insulation resistance DC500V/500M or more (between pins)

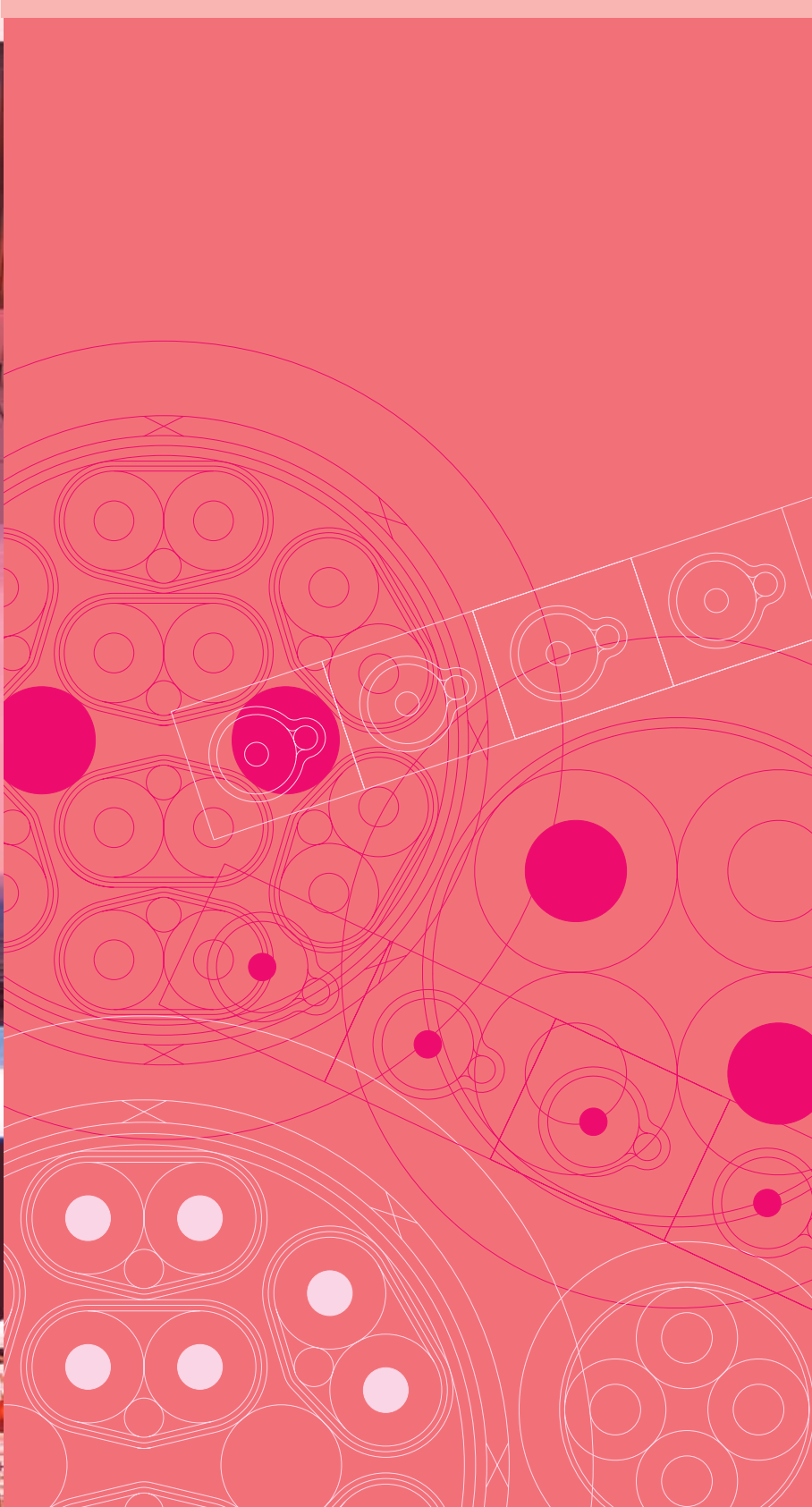
Press-Fit Type Board Requirement Specifications

Item	Item
Appropriate board thickness	t = 2.0 mm or more
Appropriate through-hole diameter	Ø0.8±0.05mm(Finishing diameter)
Appropriate diameter of the hole below the through-hole	Ø0.9±0.05mm
Through-hole plating	Copper plating (t = 35 μm or more)
Board material	Glass epoxy resin
Connector insertion force	78.4 N/pin or less (board hole diameter: Ø0.80 to Ø0.85) 117.6 N/pin or less (board hole diameter: Ø0.75 to Ø0.80)
Connector retention	29.4 N/pin or more

Usage example



High-Frequency- Transmission Coaxial Cable/ Assembly (Differential)



High-Frequency-Transmission Coaxial Cable (Differential)

High speed

Environment

Low skew

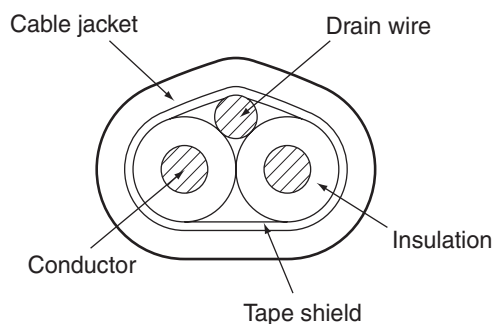
Applications

Internal and external wiring of mainframes, IC testers, communication instruments, and electronic devices

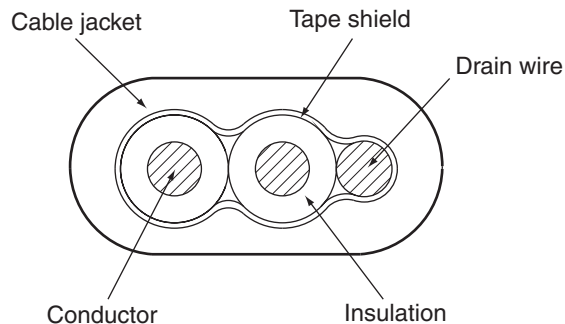
Features

- Stable propagation delay time in the length direction achieved through our unique highly-cellular polyethylene extrusion technique
- The skew in pairs can be 10 ps/m or less. (Actual skew depends on the structure, contact us for details.)
- Products conforming to UL standards are also available.
- Also available with an environmentally friendly halogen-free cable jacket.

Structure and Performance



Center drain



Side drain

Structure Type	Conductor			Insulation	Drain wire		Shield	Cable jacket	
	Size AWG	Construction	Material	Material	Material	Composition lines/mm	Material	Material	Outside diameter mm
Center drain	28	7/36	AGA	CCE	AGA	7/0.127	Polyaluminum tape	Lead-free PVC	1.60×2.38
Side drain	30	7/38				7/0.102			1.12×2.12
	28	7/36				7/0.127			1.32×2.59

Structure Type	Impedance TDR Ω	Propagation delay time TDR ns/m	Skew in pairs TDR ps/m
Center drain	100±10	(standard)3.95	10 or less40 or less
Side drain	100±10	(standard)3.80	40 or less
	100±10	(standard)3.80	40 or less

AGA: silver-plated annealed copper wire, CCE: cross-linked cellular polyethylene

High-Frequency-Transmission Coaxial Cable (Differential)

High speed

Environment

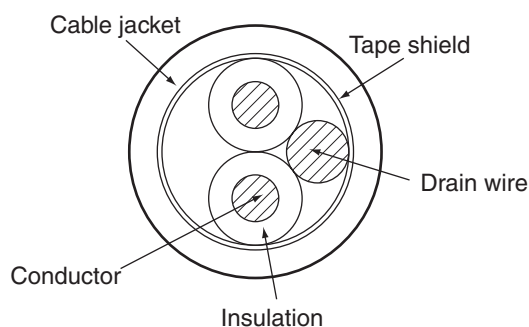
Applications

Internal and external wiring of mainframes, IC testers, communication instruments, and electronic devices

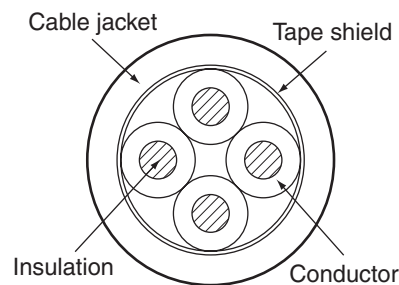
Features

- Stable propagation delay time in the length direction achieved through our unique highly-cellular polyethylene extrusion technique
- The skew in pairs can be 40 ps/m or less. (Actual skew depends on the structure, contact us for details.)
- Products conforming to UL standards are also available.
- The halogen-free cable jacket is also available as an environment

Structure and Performance



Twin-coaxial type [A]



Quad type [B]

Structure Type	Conductor			Insulation	Drain wire		Shield	Cable jacket	
	Size AWG	Construction	Material	Material	Material	Construction	Material	Material	Outside diameter mm
[A]	30	7/38	TA	CCE	TA	7/38	Polyaluminum tape	Lead-free PVC	2.2
[B]	30	7/38			—	—			2.4
	29	7/37			—	—			2.7

Structure Type	Impedance TDR Ω	Propagation delay time TDR ns/m	Skew in pairs TDR ps/m
[A]	120 \pm 12	(standard)3.90	40 or less
[B]	120 \pm 12	(standard)3.95	40 or less
	120 \pm 12	(standard)3.90	40 or less

TA: tin-plated annealed copper wire, CCE: cross-linked cellular polyethylene

High Frequency Transmission Coaxial Assembly (Differential)

High density

High speed

Environment

Low skew

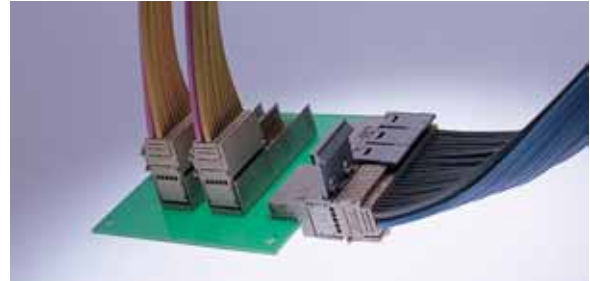
Service

Electrical length

We assemble the cables you select according to your specifications and offer many variations in addition to the types listed in this catalog. Feel free to contact us for details.

Hirakawa 2 mm HM Cable Application System

The Hirakawa 2 mm HM cable application system is a system that can directly interface the backplane connectors of 2 mm pt. hard metric connectors conforming to IEC917 and IEC1076-4-101 using a cable.



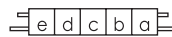
Features

1. This is a highly reliable product that conforms to international standards.
2. This system being a wafer type system, up to 25 units can be stacked.
3. The plug shroud and snap latch with polarity slot prevents reverse insertion and drop-off of parts, ensuring stable connection.
4. This system offers a high degree of design freedom as a cable interface and boasts excellent cost performance.
5. This system can be connected to both single-ended cables and differential cables for LVDS application.

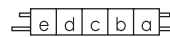
Connector types

The following connectors are available for cable application: [Non-shield type] with excellent cost performance, [Shield type] with excellent transmission characteristics such as impedance and crosstalk, and [Shield type with side contact] that supports 7P (5 + 2) connection to strengthen the ground.

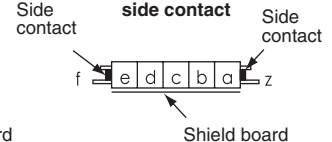
Non-shield type



Shield type



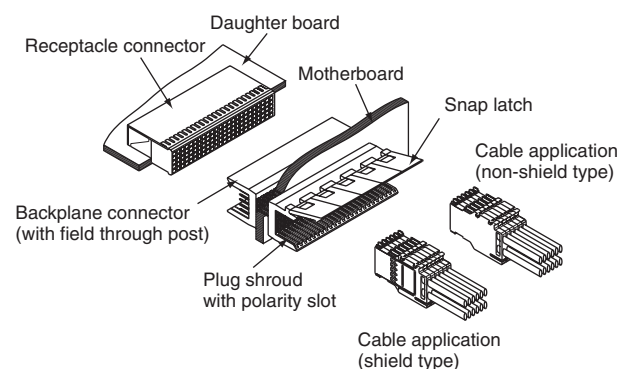
Shield type with side contact

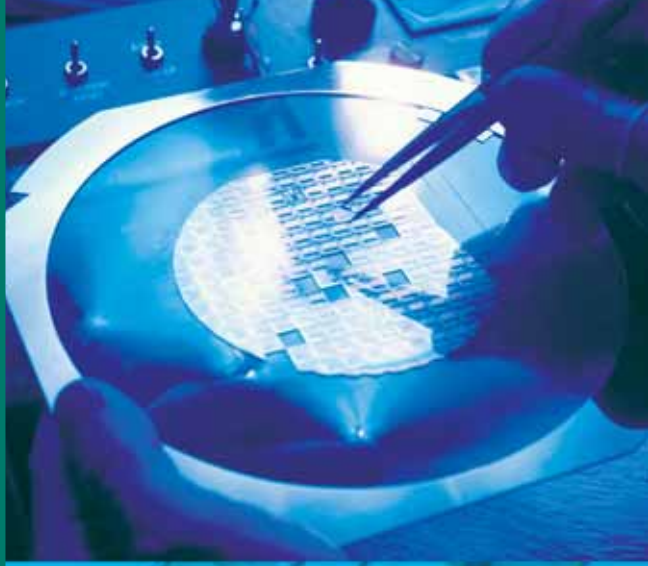


Product specifications

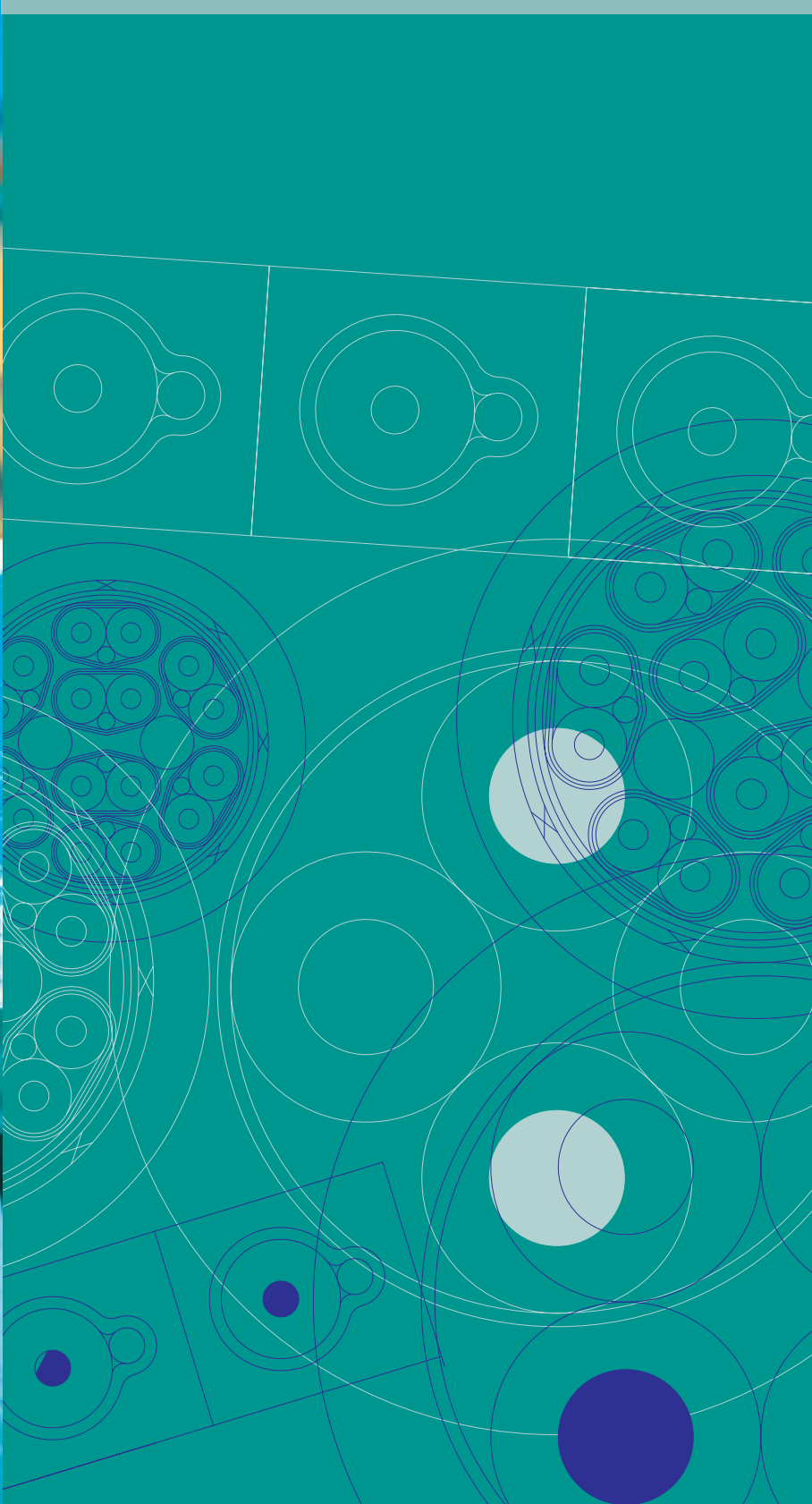
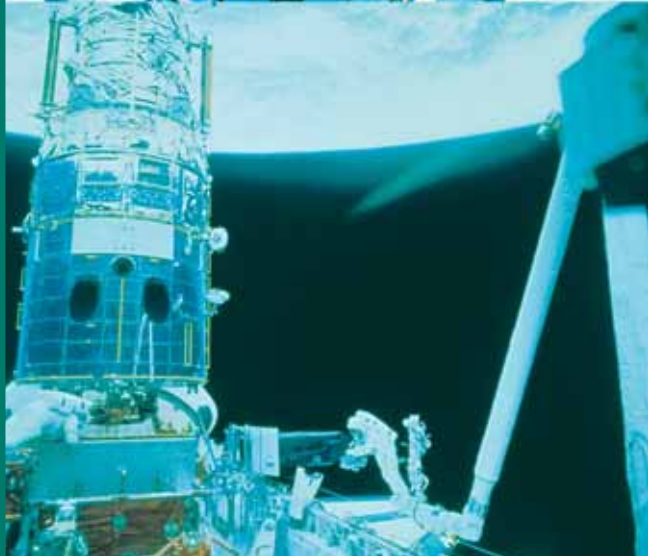
- | | |
|--------------------------|---|
| 1. Rated current | DC1.0 A/Contact
DC1.0 ADC/Contact |
| 2. Rated voltage | AC250V(between contacts) |
| 3. Insulation resistance | DC250 VDC /100M Ω or more (between contacts) |
| 4. Insertion force | 0.75N/Contact max. |
| 5. Removal force | 0.15N/Contact min. |
| 6. Use environment | -55°C to 125°C, 90% max. |

Basic system configuration example





High-Frequency- Transmission Coaxial Cable/ Assembly (Multi Flat)



High-Frequency-Transmission Coaxial Cable (Multi/Flat)

Low attenuation

Multichannel

Environment

Low skew

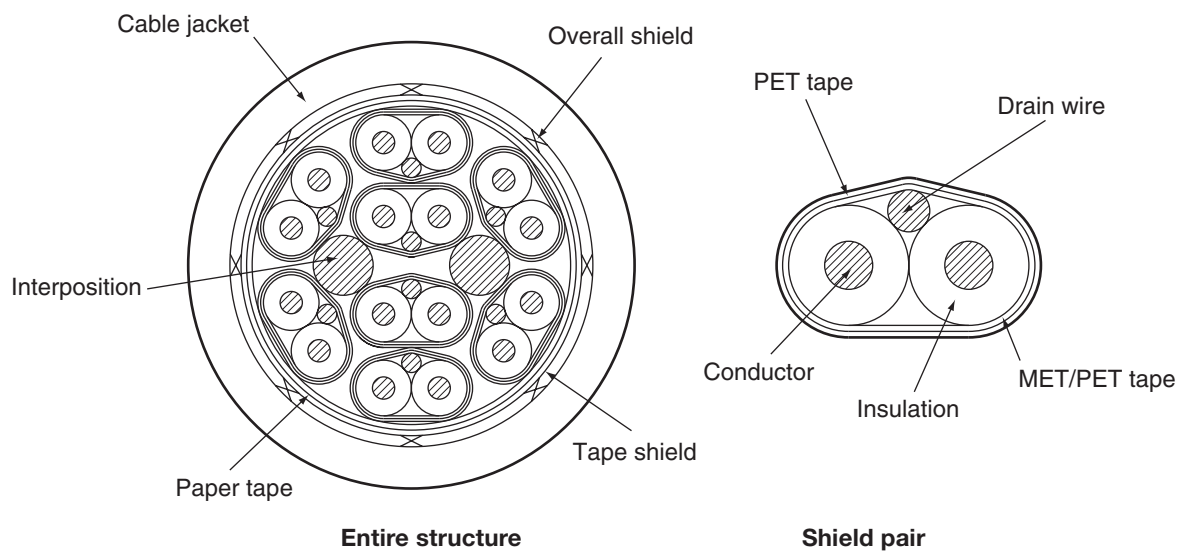
Applications

Cable that conforms to the InfiniBand™ standards, which are standards for high-speed data transfer between servers and storages

Features

- Stable propagation delay time in the length direction and low skew achieved through our unique highly-cellular polyethylene extrusion technique
- The attenuation characteristic in the high bandwidth has been improved by using a newly developed highly cellular polyethylene with low loss as the insulator material and employing the MET/PET tape for each shield.
- Vertical tray test CL2 (UL)/FT4 (CSA) certification has been obtained for this cable.
- 12X types (#24 to #28 AWG) are also available.

Structure and Performance



Structure Type	Conductor			Insulation	Shield pair		Shield	Overall shield	
	Size AWG	Construction	Material	Material	Material	Material	Material	Material	Outside diameter mm
4X(#24)	24	1/24	AGA	CCE	MET/PET	PET	TA	Lead-free PVC	9.78
4X(#26)	26	1/26							8.13
4X(#28)	28	1/28							7.62

Structure Type	Capacitance 1kHz pF/m	Impedance D-TDR Ω	Propagation delay time TDT ns/m	Skew in pairs TDT ps/m	Skew in pairs TDT ps/m	Attenuation 1.25GHz dB/m	Adjacent crosstalk 1.25GHz dB/m
4X(#24)	(standard)42	100±5	(standard)4.25	13.3 or less	53.3 or less	(standard)0.88	-55 or less
4X(#26)						(standard)1.00	
4X(#28)						(standard)1.25	

AGA: silver-plated annealed copper wire, TA: tin-plated annealed copper wire,

CCE: cross-linked cellular polyethylene, MET/PET: metal attached polyester tape, PET: polyethylene terephthalate tape

High-Frequency-Transmission Coaxial Cable (Multi/Flat)

High speed

Multichannel

Environment

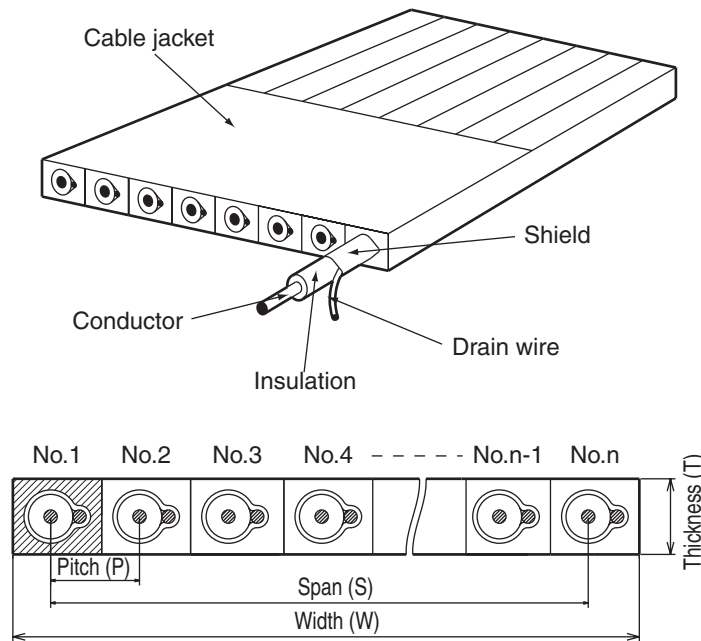
Applications

Internal and external wiring of mainframes, IC testers, communication instruments, and electronic devices

Features

- Stable propagation delay time in the length direction achieved through our unique highly-cellular polyethylene extrusion technique
- This cable is manufactured by placing coaxial cables with a small diameter in parallel and flattening their terminals.
- The flexibility of this cable facilitates mounting and wiring.
- Products conforming to UL standards are also available.

Structure and Performance



Structure Type	Conductor			Insulation	Drain wire		Shield	Cable jacket
	Size AWG	Construction	Material	Material	Material	Construction	Material	Material
50Ω #34	34	1/0.18	AGA	CCE	AGA	1/0.18	Polyaluminum tape	Lead-free PVC
50Ω #32	32	1/0.203				1/0.203		
50Ω #30	30	1/0.254				1/0.254		
50Ω #32	32	1/0.203		FEP		1/0.203		

Structure Type	Dimension of welded part				mpedance TDR Ω	Propagation delay time TDR ns/m
	Pitch (P)	Span (S)	Thickness (T)	Width (W)		
	mm	mm	mm	mm		
50Ω #34	1.00	(Core count - 1) × pitch (P)	0.76	Pitch (P) × core count	50±5	(standard)3.78
50Ω #32	1.27		0.95			(standard)3.80
50Ω #30			1.05			(standard)3.70
50Ω #32			1.10			(standard)4.70

AGA: silver-plated annealed copper wire, CCE: cross-linked cellular polyethylene

High Frequency Transmission Coaxial Assembly (Multi/Flat)

High speed

Multichannel

Environment

Low skew

High density

Service

Electrical length

We assemble the cables you select according to your specifications and offer many variations in addition to the types listed in this catalog. Feel free to contact us for details.

Hirakawa Cable Assembly

As a manufacturer specialized in cable assembly, we produce cable assemblies according to your requirements and specifications and deliver 100% guaranteed products.

The connectors and cables we supply can be used immediately without the customer having to perform separate order management, acceptance inspection, etc.

Features

1. Support of a Variety of Connectors

We not only support standard connectors from domestic and overseas connector manufacturers but also design and manufacture custom connectors according to your specifications.

2. Skew Control

We can manufacture cable assemblies with the same electrical length. We also perform skew measurement and guarantee the results using finished products.

3. Unique Processing Technology

We can guarantee highly reliable connectivity because we are making full use of our unique facility development and processing method as well as general cable processing facilities. We also offer a lower initial cost and more user friendly assembly using the integral molding processing technology we have accumulated over many years.

4. Environment Measures

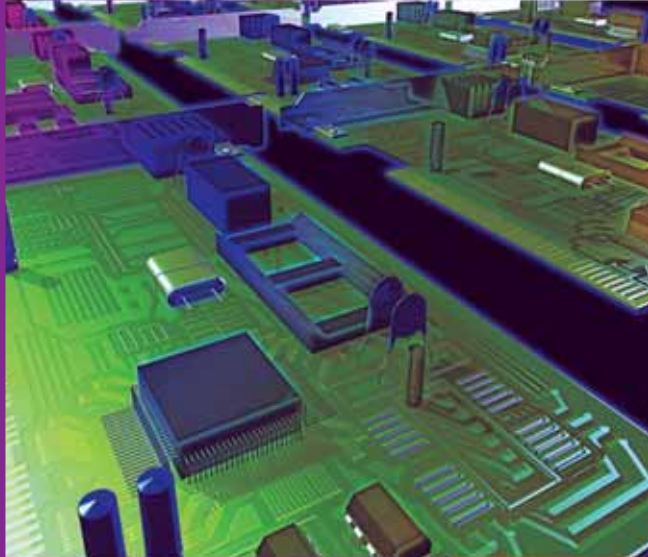
We have a variety of environmentally friendly products including lead-free specifications and have been certified as an environmentally friendly parts supplier by a large number of customers.

●Assembly example●





Extra-Fine and Super-Fine Coaxial Cable/Assembly (#38 to #50)



Fine Coaxial Cable (#38 to #42)

Fine

Environment

Heat
resistance

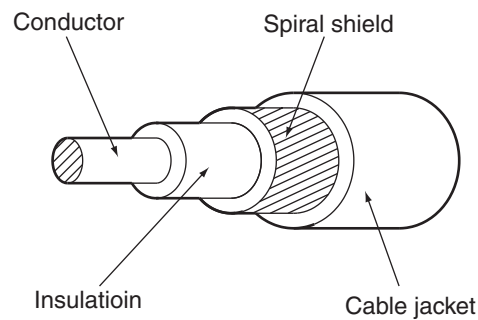
Applications

Internal wiring of CCD cameras, mobile products such as cellular phones and electronic devices

Features

- This is a light cable with a small diameter that can be easily handled.
- High tensile strength, high electric conductivity, and excellent mechanical property are realized by using line conductor made of special alloy.
- This cable has outstanding chemical, flame, heat, and cold resistance characteristics achieved through the use of fluorocarbon resin for the insulation and cable jacket.

Structure and Performance



Structure Type	Conductor			Insulation	Shield	Cable jacket	
	Size AWG	Constraction	Material	Material	Material	Material	Outside diameter mm
38110F	38	7/46	T-CA	PFA	TA	PET	0.40
40090F	40	7/48	T-CA				0.39
40110F	40	7/48	T-CA				0.33
42110F	42	7/50	AG-C		T-CA	PFA	0.32

Structure Type	Capacitance 1kHz pF/m	Maximum conductor resistanc 20°C Ω/m	Impedance TDR(1ns) Ω	Attenuation 10MHz dB/m
38110F	(standard)110	3.3	(standard)50	(standard)0.49
40090F	(standard)90	5.0	(standard)60	(standard)0.48
40110F	(standard)110	5.0	(standard)50	(standard)0.62
42110F	(standard)110	7.5	(standard)50	(standard)0.77

T-CA: tin-plated alloy wire, AG-C: silver-plated alloy wire, TA: tin-plated annealed copper wire, PET: polyethylene terephthalate tape

Super-Fine Coaxial Cable (#44 to #50)

Super-fine

Environment

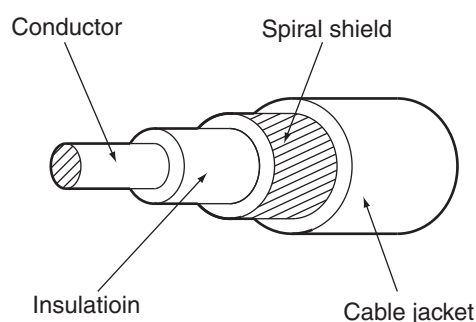
Heat
resistance

Applications

Internal wiring of electronic devices such as a variety of mobile products and medical apparatus

Features

- This is a light cable with a small diameter that can be easily handled.
- High tensile strength, high electric conductivity, and excellent mechanical property are realized by using line conductor made of special alloy.
- This cable has outstanding chemical, flame, heat, and cold resistance characteristics achieved through the use of fluorocarbon resin for the insulation and cable jacket.



Structure Type	Conductor			Insulation	Shield	Cable jacket	
	Size AWG	Construction	Material	Material	Material	Material	Outside diameter mm
44110F	44	7/52	AG-C	PFA	AG-C	PFA	0.25
46110F	46	7/54					0.21
48110F	48	7/56					0.18
50110F	50	3/54					0.16

Structure Type	Capacitance 1kHz pF/m	Maximum conductor resistance 20°C Ω/m	Impedance TDR(1ns) Ω	Attenuation 10MHz dB/m
44110F	(standard)110	8.7	(standard)50	(standard)0.89
46110F	(standard)110	17.5	(standard)50	(standard)1.28
48110F	(standard)110	33.0	(standard)50	(standard)1.75
50110F	(standard)110	41.6	(standard)50	(standard)1.93

AG-C: silver-plated alloy wire

Fine and Super-Fine Coaxial Assembly (#38 to #50)



We assemble the cables you select according to your specifications and offer many variations in addition to the types listed in this catalog. Feel free to contact us for details.

Hirakawa Fine/Super-Fine Coaxial Cable Assembly (#38 to #50)

To satisfy demands arising from the rapid diffusion and increasing density and functional sophistication of digital devices, we have realized assemblies using fine (super-fine) coaxial cables by our unique method. We connect cables to off-the-shelf connectors and custom designed connection boards (printed circuit boards, etc.) and deliver the resulting products after subjecting each one to a quality assurance test. We always strive to respond to customer demands by designing connection boards and making suggestions to enhance the reliability of connected part in addition to procuring parts such as connectors.

Features

1. Excellent Transmission Characteristics

The processed part of terminals is assembled so that the coaxial structure remains unchanged as much as possible to reduce impedance inconsistencies. This assembly also saves space as a narrow connection pitch is used. Assembly is performed at our own processing facility to ensure stable assembly.

2. Freer Design

You can select domestic and overseas connectors. We can also manufacture custom designed connection boards suited to your needs. Furthermore, we will satisfy your demands making use of our integral molding technology, which uses an environmentally friendly resin, to enhance the reliability of the connecting parts of terminals.

3. Initial Cost Lower than FPC

Even if specifications such as cable length or core count are changed, no expensive cost runups are incurred as in the case of FPC, allowing you to quickly and flexibly deal with changes.

4. Outstanding Product Guarantee System

We also offer product guarantees based on impedance measurement in addition to electrical inspections of all products.

● Assembly example ●



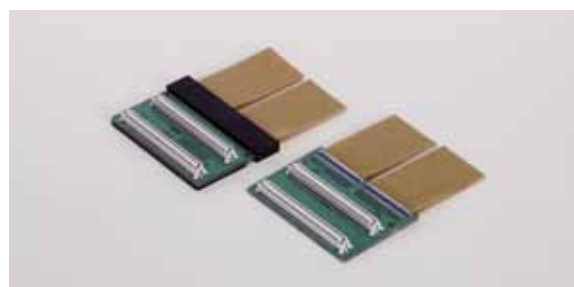
Flexible product



Partly laminated product



Product with strengthened shield



Fully laminated part, molded



Fine Coaxial Multi Cable/ Assembly



Fine Coaxial Multi Cable

Fine

Multichannel

Environment

Flexibility

Applications

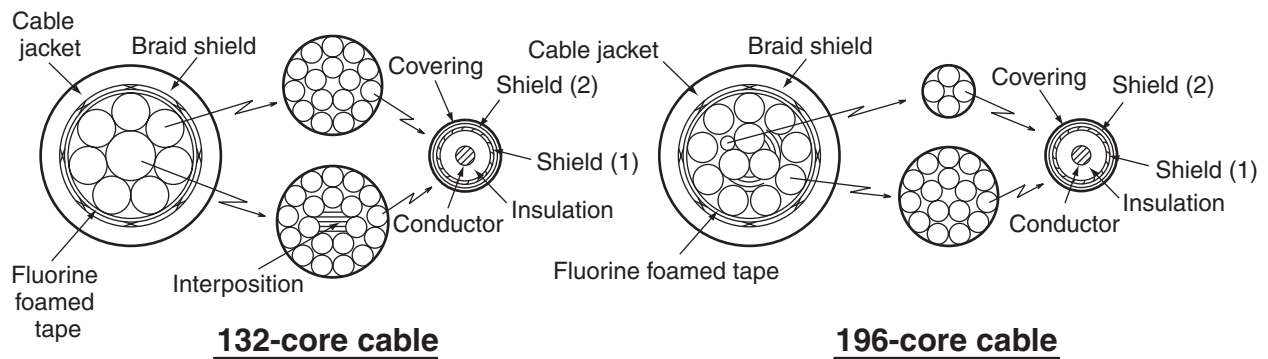
Internal and external wiring of ultrasonic diagnostic equipment and electronic devices

Features

- This cable has excellent pliability and flexibility



Structure and Performance



Core count	Capacitance 1kHz pF/m	Conductor			Coaxial			Braided shield	Cable jacket	Maximum conductor resistance 20°C Ω/km
		Size AWG	Construction	Material	Insulation material	Outside diameter of insulator mm	Outside diameter of coaxial mm			
132	110	40	7/48	T-CA	PFA	0.23	0.34	TA	7.00	5,000
	90					0.29	0.39		7.70	5,000
	65				CCE	0.29	0.39		7.70	5,000
	50					0.38	0.46		8.70	5,000
	110	42	7/50	AG-C	PFA	0.20	0.30		6.40	7,500
	50				CCE	0.30	0.39		7.70	7,300
196	110	40	7/48	T-CA	PFA	0.23	0.34		8.10	5,000
	90					0.29	0.39		8.90	5,000
	65				CCE	0.29	0.39		8.90	5,000
	50					0.38	0.46		10.20	5,000
	110	42	7/50	AG-C	PFA	0.20	0.30		7.40	7,300
	50				CCE	0.30	0.39		8.90	7,300

T-CA: tin-plated alloy wire, AG-C: silver-plated alloy wire, TA: tin-plated annealed copper wire

Fine Coaxial Multi Cable

Fine

Environment

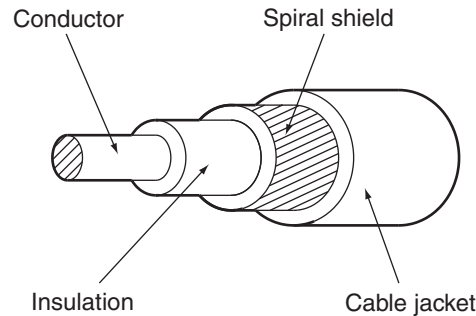
Applications

Internal wiring of electronic devices such as ultrasonic diagnostic equipment

Features

- This is a light cable with small diameter that can save wiring space.
- High mechanical strength and flexibility are realized by using the alloy line conductor.
- PET tape wrapped around the insulation ensures heat resistance and mechanical strength (CCE product), while low capacity and high flexibility are realized with our own cross-linked cellular polyethylene insulation.

Structure and Performance



Structure Type	Conductor			Insulation		Shield	Cable jacket	
	Size AWG	Construction	Material	Material	Outside diameter mm	Material	Material	Outside diameter mm
38065H	38	7/46	T-CA	CCE+PET	0.36	TA	PET	0.45
40110F	40	7/48		PFA	0.23			0.39
40090F					0.29			0.33
40065H				CCE+PET	0.29			0.39
40050H					0.38			0.46
42110F	42	7/50	AG-C	PFA	0.20			0.30
42050H				CCE+PET	0.30			0.39

Structure Type	Capacitance 1kHz pF/m	Maximum conductor resistance 20°C Ω/m	Impedance 10MHz Ω	Attenuation 10MHz dB/m
38065H	(standard)65	3,300	v65	(standard)0.32
40110F	(standard)110	5,000	(standard)50	(standard)0.62
40090F	(standard)90	5,000	(standard)60	(standard)0.48
40065H	(standard)65	5,000	(standard)65	(standard)0.39
40050H	(standard)50	5,000	(standard)80	(standard)0.30
42110F	(standard)110	7,300	(standard)50	(standard)0.77
42050H	(standard)50	7,300	(standard)80	(standard)0.37

T-CA: tin-plated alloy wire, AG-C: silver-plated alloy wire, TA: tin-plated annealed copper wire, CCE: cross-linked cellular polyethylene, PET: polyethylene terephthalate tape

Fine Coaxial Multi Assembly



We assemble the cables you select according to your specifications and offer many variations in addition to the types listed in this catalog. Feel free to contact us for details.

Hirakawa High Density Mounting ZIF Connector

This connector enables high density assembly of extra-fine coaxial lines, satisfying increasingly diverse demands for multichannel signal transmission.

This ZIF (Zero Insertion Force) connector offers better electric characteristics, such as crosstalk, than those of conventional ZIF connectors.



Features

1. Flexible Specifications

This high-density multipolar connector (up to 272 pins) makes it possible to freely allocate pins (arbitrary GND and Sig pins) on the boards that make up the connector.

2. Excellent Transmission Characteristics

Metallic shell and grounding pin used in the connector case enable effective noise prevention. Also, crosstalk is minimized by keeping the joint between the connector and receptacle as short as possible. In this assembly, the coaxial structure is maintained as much as possible in the junction with the cable, ensuring high transmission quality.

3. Support for Peripheral Parts

In addition to connectors, we provide support in the form of design, procurement and assembly of mechanism elements including covers, cases (cast or cut) and bushings (molded), helping protect junctions and improve mechanical strength such as flexibility and pulling strength.

Product specifications

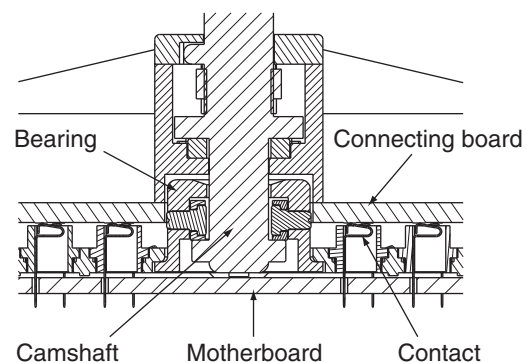
1. Rated current :0.5A
2. Rated voltage :AC250V
3. Insulation resistance :DC250V/1,000MΩ(MIN.)
4. Contact resistance :30mΩ(MAX.)
5. Joint reliability :10,000 times guaranteed
6. Joint torque :2Nm
7. Contact retention :4.9N/1min.

Product specifications



Probe for diagnostic ultrasound system (Fukuda Denshi)

Product configuration





Another Proposal



Hot-Melt Low Pressure Molding

Environment

High density

We assemble the cables you select according to your specifications and offer many variations in addition to the types listed in this catalog. Feel free to contact us for details.

Hirakawa Hot-Melt Low Pressure Molding System

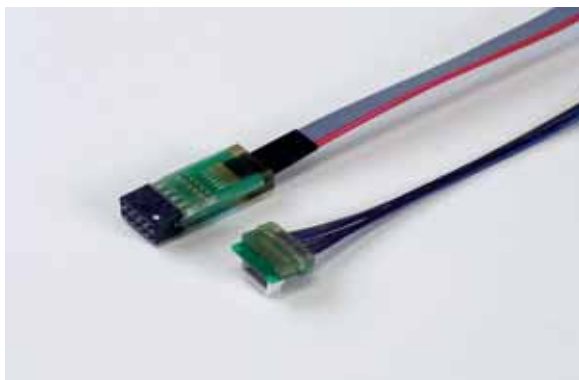
The hot-melt low pressure molding system is an innovative environmentally friendly technology that employs a thermoplastic resin.

Please contact us if you have any queries, whether or not related to cable assembly.

Features

- The resin viscosity is lower than that of the conventional plastic used for molding, enabling molding at extremely low pressure. This allows insert molding of delicate electronic components, for example.
- Low-pressure molding reduces the initial cost because inexpensive aluminum molds can be used for molding.
- This resin is highly adhesive and therefore offers excellent waterproof properties.
- This is an environmentally friendly molding resin that does not include lead and halide.

●Molding examples●



This resin can also be used to seal mounting boards and electronic components.

Assembly Coordination

Environment

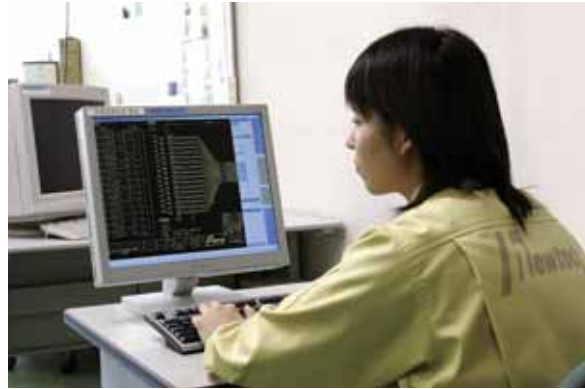
Service

Electrical length

We also help our customers in fields other than cable and assembly manufacturing.

1. We design cables and harnesses so that our customers can concentrate on their core technologies.

- We coordinate cables and related parts such as connector boards to best suit your functional environment.
- Just specify the pin addresses, and we will design cables and harnesses accordingly. We will even create the specifications.



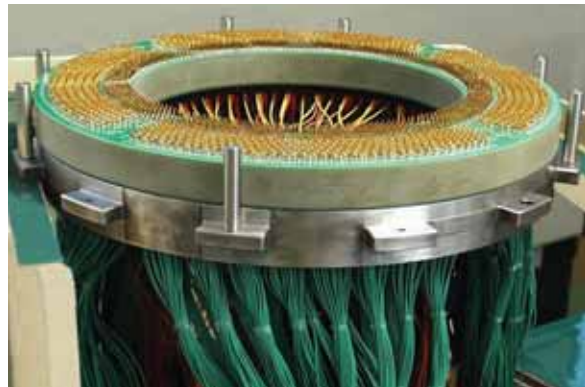
2. We control transmission characteristics using cables and harnesses.

- You can specify impedance control (center value and tolerance).
- You can also specify the propagation delay time.
- Skew control is possible in the PS unit.



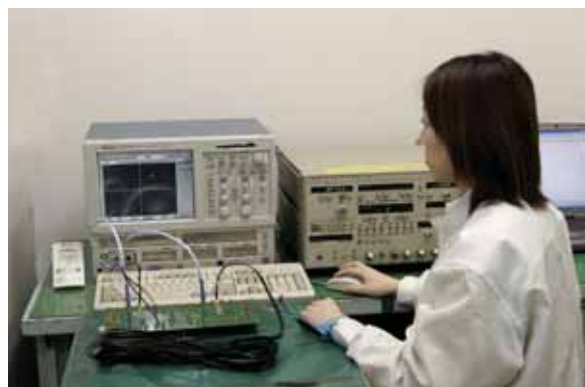
3. We deliver complete sets that include all the necessary cables and harnesses.

- You can unify material orders and due date management.
- You can shorten the lead time of part procurement and considerably reduce your inventory.
- We can deliver an assembly set for each of your machines and systems.



4. We offer consistent quality assurance covering materials, parts and assembly processes.

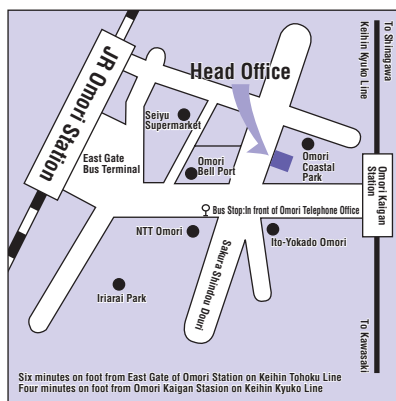
- We perform withstand voltage and insulation inspection of all products as well as guarantee the resistances of all lines.
- We can satisfy a variety of demands concerning transmission characteristics such as skew, impedance and crosstalk.
- Our integrated manufacturing simplifies the assignment of responsibility for quality.



HIRAKAWA HEWTECH CORP.

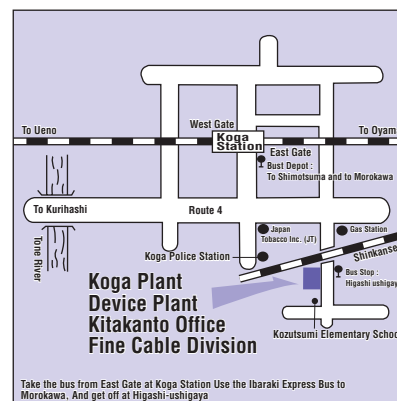
Guide Maps

Head Office/Sales Department



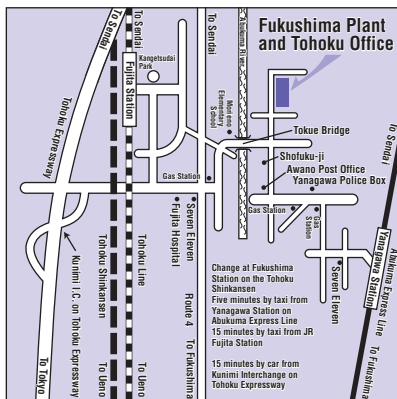
JK Omori Bldg., 3-28-10 Minami-Oi,
Shinagawa-Ku, Tokyo, 140-8551, JAPAN
Phone: +813 (5493) 1721,
Fax: +813 (5493) 1702

Kitakanto Office/ Fine Cable Division



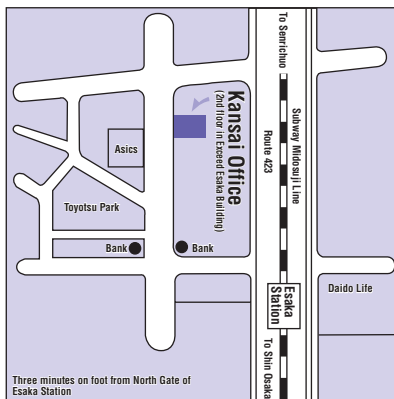
1144 Higashi-ushigaya, Koga-Shi, Ibaraki-
Ken, 306-0232, JAPAN
Phone: +81280 (98) 1711,
Fax: +81280 (98) 2487

Tohoku Office



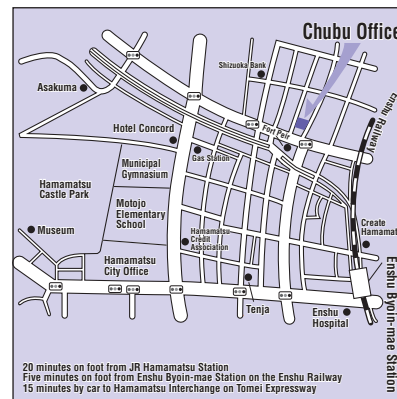
1-2 Yanagawa-Kogyodanchi, Yanagawa-
Machi, Date-Shi, Fukushima-Ken, 960-0719,
JAPAN
Phone: +8124 (577) 7751,
Fax: +8124 (577) 7753

Kansai Office



1-46 Toyotsu-Cho, Suita-Shi, Osaka-Fu,
564-0051, JAPAN
Phone: +816 (6821) 6200,
Fax: +816 (6821) 6300

Chubu Office



92 Motohama-Cho, Hamamatsu-Shi,
Shizuoka-Ken, 430-0942, JAPAN
Phone: +8153 (479) 1811,
Fax: +8153 (479) 1815

Contact us

*The names of the companies and products described in this document are the trademarks or registered trademarks of each company.
*Specifications may be changed for improvement without prior notice.

HIRAKAWA HEWTECH CORP.

Head Office/Sales Department

JK Omori Bldg., 3-28-10 Minami-Oi, Shinagawa-ku, Tokyo, 140-8551, JAPAN
Phone: +813 (5493) 1721, Fax: +813 (5493) 1702

Technical Support/Fine Cables Division

1144 Higashi-ushigaya, Koga-Shi, Ibaraki-Ken, 306-0232, JAPAN
Phone: +81280 (98) 5460, Fax: +81280 (98) 4674

Visit our URL for the latest details.
URL <http://www.hewtech.co.jp/>
E-mail: eigyo@hewtech.co.jp



As of March 2006 0603XXN

This catalog uses recycled paper and environment friendly soybean oil ink.