

Micro-coaxial / Twinax connectors - 横嵌合タイプ / 0.5 and 0.25 mm pitch

(関連シリーズFPCコネクタ)

ZenShield® Full EMI Shield

LK Mechanical Lock

105°C Operating temperature

製品情報をクリックすると、各製品紹介ページがご覧いただけます

Product name		CABLINE® -VS II	CABLINE® -VS	CABLINE® -CX II without cover	CABLINE® -CX II with cover
Feature		 ZenShield® LK 105°C	 LK	 LK	 LK
		高速伝送対応 (32 GTs / lane) Operation Temp. 105°C	16:9 パネルのVESA規格標準 高速伝送対応 (32 Gbps / lane)	嵌合高さ 0.78mm max.	EMIシールドカバー付き
Plug Assembly P/N		20846	20453	20978	20977
Receptacle P/N		20849	20455	20976	20976
Wire Pitch (mm)		0.5	0.5	0.25	0.25
Board Pitch (mm)		0.5	0.5	0.25	0.25
Pin Count	Range	Up to 60	Up to 60	Up to 40	Up to 40
	Available	20, 30, 40	20, 30, 40, 50	40	40
Please inquire for pin counts not listed or outside of the pin count range.					
Mated Size (mm) (*)	Height	1.2 max.	1.1 max.	0.78 max.	1.0 max.
	Width Formula	6.85 + (0.5*?p)	7.55 + (0.5*?p)	6.45 + (0.25*?p)	6.45 + (0.25*?p)
	Depth	6.7	5.8	5.21	5.6
Wiping Length (mm)		0.54	0.61	0.62	0.62
Reference applicable cable size (AWG#) (**)	Micro-coaxial for signal	#36, #38, #40, #42, #44	#36, #38, #40, #42, #44	#44, #46	#44, #46
	Twinax	#40	#40	-	-
	Discrete	#32, #34, #36	#32, #34, #36	#39	#39
Contact Point		Top	Top	Top & Bottom	Top & Bottom
Operating temperature		-40°C to 105°C	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C
Performance [Unit: /Lane] (Reference Only)		PCIe Gen5 (32 GT/s /Lane) USB4 Gen4 (40 Gbps/ Lane PAM3) DP UHBR20 (20 Gbps/ Lane)	32 Gbps / lane USB4 Gen4 (40 Gbps/ Lane PAM3) DP UHBR20 (20 Gbps/ Lane)	USB3.2 Gen1 (5 Gbps/ Lane) VBO HS 1.4 (4 Gbps/ Lane) HDMI 1.3 (3.4 Gbps/ Lane)	USB3.2 Gen1 (5 Gbps/ Lane) VBO HS 1.4 (4 Gbps/ Lane) HDMI 1.3 (3.4 Gbps/ Lane)
Automotive Standards		LV214 (***)	LV214 (****)		

Note (*): Height, Width formula and Depth dimensions are including Lock Cover / Bar. (**): Cable outer diameters need to be smaller than connector pitch. (***) : 40P tested. PG17 Dynamic loading evaluation passed. (****) : 50P tested. PG17 Dynamic loading evaluation passed.

Micro-coaxial / Twinax connectors - 縦嵌合タイプ/0.4 mm ピッチ

(関連シリーズFPCコネクタ)

製品情報をクリックすると、各製品紹介ページがご覧いただけます

ZenShield® Full EMI Shield

LK Mechanical Lock

105°C Operating temperature

Product name		CABLIN®-CA II	CABLIN®-CA II PLUS	CABLIN®-CA IIP PLUS	CABLIN®-CA	CABLIN®-CAP	CABLIN®-CAL
Feature		 ZenShield® LK 105°C	 ZenShield® LK 105°C	 ZenShield® LK	 LK	 LK	 LK
		高速伝送対応 (32 Gbps/ lane) 105°C高温対応	高速伝送対応 (32 Gbps/ lane) 105°C高温対応	高速伝送対応 (64Gbps PAM4/lane)	高速伝送対応 (32 Gbps/lane)	高速伝送対応 (64 Gbps PAM4/lane)	嵌合高さ 0.8 mm max. 高速伝送対応(32 Gbps/lane)
Plug Assembly P/N		20679	20788	82065	20633	81863	20728
Receptacle P/N		20682	20790	20790	20525	20525	20729
Wire Pitch (mm)		0.4	0.4	0.4 Signal contacts 1.2 differential pair	0.4	0.4	0.4
Board Pitch (mm)		0.4	0.4	0.4	0.4	0.4	0.4
Pin Count	Range	Up to 60	Up to 60	Up to 60	Up to 60	Up to 60	Up to 60
	Available	20, 30, 40, 50	60	60 (19 differential pair Max.)	10, 12, 20, 30, 40, 50, 60	50 (16 differential pair Max.)	30, 40
Please inquire for pin counts not listed or outside of the pin count range.							
Mated Size (mm) (*)	Height	1.1 max.	1.2 max.	1.3 max.	1.1 max.	1.35 max.	0.8 max.
	Width Formula	6.95 + (0.4*?p)	6.95 + (0.4*?p)	6.95 + (0.4*?p)	6.95 + (0.4*?p)	5.75 + (0.4 x ? p)	10 – 20p : 6.85 + (0.4*?p) 22p – 40p : 8.05 + (0.4*?p)
	Depth	6.20	6.70	8.20	5.73	6.86	5.50
Wiping Length (mm)		0.54	0.54	0.55	0.54	0.525	0.40
Reference applicable cable size (AWG#) (**)	Micro-coaxial for signal	#38, #40, #42, #44	#38, #40, #42, #44	#36, #38	#38, #40, #42, #44	#38	#38, #40, #42, #44
	Twinax	#40, #42	#40, #42	#34	#40, #42	-	-
	Discrete	#34, #36	#34, #36	-	#34, #36	-	#34, #36
Contact Point		Top	Top	Top	Top	Top	Top
Operating temperature		-40°C to 105°C	-40°C to 105°C	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C
Performance [Unit: /Lane] (Reference Only)		32 Gbps/ Lane USB4 Gen4 (40 Gbps/ Lane PAM3) DP UHBR20 (20 Gbps/ Lane)	32 Gbps/ Lane USB4 Gen4 (40 Gbps/ Lane PAM3) DP UHBR20 (20 Gbps/ Lane)	64 Gbps PAM4 56 Gbps PAM4 32 Gbps NRZ	32 Gbps/ Lane USB4 Gen4 (40 Gbps/ Lane PAM3) DP UHBR20 (20 Gbps/ Lane)	64 Gbps PAM4 56 Gbps PAM4 32 Gbps NRZ	32 Gbps/ Lane USB4 Gen4 (40 Gbps/ Lane PAM3) DP UHBR20 (20 Gbps/ Lane)
Automotive Standards		LV214 (***)			LV214 (****)		

Note (*): Height, Width formula and Depth dimensions are including Lock Cover / Bar. (**): Cable outer diameters need to be smaller than connector pitch. (****): 50P tested. PG17 Dynamic loading evaluation passed. (*****): 60P tested. PG17 Dynamic loading evaluation passed.

Micro-coaxial / Twinax connectors - 縦嵌合タイプ

製品情報をクリックすると、各製品紹介ページがご覧いただけます

Product name		FPL™ II	CABLINER®-UM	CABLINER®-SS	CABLINER®-UY	CABLINER®-UA II	CABLINER®-UX II
Feature			 ZenShield® LK 105°C				
		高嵌合保持力 高速伝送対応(12 Gbps/ Lane)	高速伝送対応 (40 Gbps/ Lane PAM3)	高嵌合保持力 速伝送対応(16 Gbps/ Lane)	小型低背コネクタ 高速伝送対応(32 Gbps/ Lane)	スリムデザイン 小実装面積	スリムデザイン 小実装面積
Plug Assembly P/N		20437	20877	20380	20857	20496	20531
Receptacle P/N		20439	20879	20374	20854	20498	20533
Wire Pitch (mm)		0.5	0.4	0.4	0.35	0.3	0.25
Board Pitch (mm)		0.5	0.4	0.4	0.35	0.6	0.5
Pin Count	Range	Up to 50	Up to 60	Up to 50	Up to 25	Up to 50	Up to 50
	Available	30, 40, 50	30, 40, 50, 60	10, 14, 20, 30, 32, 35, 40, 50	5, 10	26, 32, 40, 50	30, 34, 40, 50
Please inquire for pin counts not listed or outside of the pin count range.							
Mated Size (mm) (*)	Height	2.4 max.	2.35 max.	1.85 max.	0.82 max.	1.37 max.	1.1 max.
	Width Formula	$5.8 + (0.5 * ?p)$	$5.0 + (0.4 * ?p)$	$5.8 + (0.4 * ?p)$	$2.15 + (0.35 * ?p)$	$5.0 + (0.3 * ?p)$	$4.1 + (0.25 * ?p)$
	Depth	6.10	5.00	3.00	3.10	2.90	2.40
Wiping Length (mm)		0.51	0.70	0.30	0.10	0.20	0.20
Reference cable size (AWG#) (**)	Micro-coaxial for signal	#36, #38, #40	#38, #40, #42, #44	#40, #42	#42	#42, #44, #46	#44, #46
	Twinax	#40	#40, #42	-	-	-	-
	Discrete	#32, #34, #36	#34, #36	#34, #36	#36	#39	#39
Operating temperature		-40°C to 85°C	-40°C to 105°C	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C
Performance [Unit: /Lane] (Reference Only)		HDMI 2.1 (12 Gbps/ Lane) USB3.2 Gen2 (10 Gbps/ Lane) DP UHBR3 (8.1 Gbps/ Lane)	USB4 Gen4 (40 Gbps/ Lane PAM3) DP UHBR20 (20 Gbps/ Lane) V-by-One® US (16 Gbps/Lane)	V-by-One® US (16 Gbps/Lane) HDMI 2.1 (12 Gbps/Lane) USB3.2 Gen2 (10 Gbps/ Lane)	32 Gbps/ Lane USB4 Gen4 (40 Gbps/ Lane PAM3) DP UHBR20 (20 Gbps/ Lane)	USB3.2 Gen1 (5 Gbps/ Lane) VBO HS 1.4 (4 Gbps/ Lane) HDMI 1.3 (3.4 Gbps/ Lane)	USB3.2 Gen1 (5 Gbps/ Lane) VBO HS 1.4 (4 Gbps/ Lane) HDMI 1.3 (3.4 Gbps/ Lane)

Note :(*) : CABLINER-UM : Height, Width formula and Depth dimensions are including Lock Cover. (**): Cable outer diameters need to be smaller than connector pitch. (***) : 45Ω and 50Ω cable AWG sizes for signals are listed as reference. Other impedance cables can be applied.

Micro-coaxial / Twinax connectors

(関連シリーズFPCコネクタ)

- 横嵌合タイプ 0.5 & 0.4 mm タイプ FPC connection

製品情報をクリックすると、各製品紹介ページがご覧いただけます

Product name		CABLIN®-VS IIF	CABLIN®-VSF	CABLIN®-CA IIF	CABLIN®-CA IIF PLUS	CABLIN®-CAF
Feature		 ZenShield® LK	 LK	 ZenShield® LK	 LK	 ZenShield® LK
		高速伝送対応 (32 Gbps) VS II receptacleに嵌合	高速伝送対応 (32 Gbps) VS receptacleに嵌合	高速伝送対応 (32 Gbps) CA II receptacleに嵌合	高速伝送対応 (32 Gbps) CA II PLUS receptacleに嵌合	高速伝送対応 (32 Gbps) CA receptacleに嵌合
Plug Assembly P/N		20862	20645	20856	20901	20858
Receptacle P/N		20849	20455	20682	20790	20525
Wire Pitch (mm)		0.5	0.5	0.4	0.4	0.4
Board Pitch (mm)		0.5	0.5	0.4	0.4	0.4
Pin Count	Range	Up to 60	Up to 60	Up to 60	Up to 60	Up to 60
	Available	30, 40	30, 40	30, 40, 50	60	40, 60
Please inquire for pin counts not listed or outside of the pin count range.						
Mated Size (mm) (*)	Height	1.2 max.	1.1 max	1.1 max.	1.2 max.	1.1 max.
	Width Formula	6.85 + (0.5*?p)	6.15 + (0.5*?p)	6.95 + (0.4*?p)	6.95 + (0.4*?p)	5.75 + (0.4 x ? p)
	Depth	7.27	5.97	6.74	7.24	6.055
Wiping Length (mm)		0.48	0.62	0.48	0.48	0.48
FPC Type		Shielded FPC	Shielded/Non-shielded FPC	Shielded FPC	Shielded FPC	Shielded/Non-shielded FPC
FPC Thickness (mm)	Contact Area	0.25 +0.02 / -0.03	0.28 +0.02 / -0.03	0.25 +0.02 / -0.03	0.25 +0.02 / -0.03	0.26 +0.02 / -0.02
	Grand Area	0.37 +0.04 / -0.06	0.34 +0.05 / -0.05	0.37 +0.04 / -0.06	0.37 +0.04 / -0.06	0.40 +0.05 / -0.05
Contact Point		Top	Top	Top	Top	Top
Operating temperature		-40°C to 85°C	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C	-40°C to 85°C
Performance [Unit: /Lane] (Reference Only)		32 Gbps/ Lane USB4 Gen4 (40 Gbps/ Lane PAM3) DP UHBR20 (20 Gbps/ Lane)	32 Gbps/ Lane USB4 Gen4 (40 Gbps/ Lane PAM3) DP UHBR20 (20 Gbps/ Lane)	32 Gbps/ Lane USB4 Gen4 (40 Gbps/ Lane PAM3) DP UHBR20 (20 Gbps/ Lane)	32 Gbps/ Lane USB4 Gen4 (40 Gbps/ Lane PAM3) DP UHBR20 (20 Gbps/ Lane)	32 Gbps/ Lane USB4 Gen4 (40 Gbps/ Lane PAM3) DP UHBR20 (20 Gbps/ Lane)

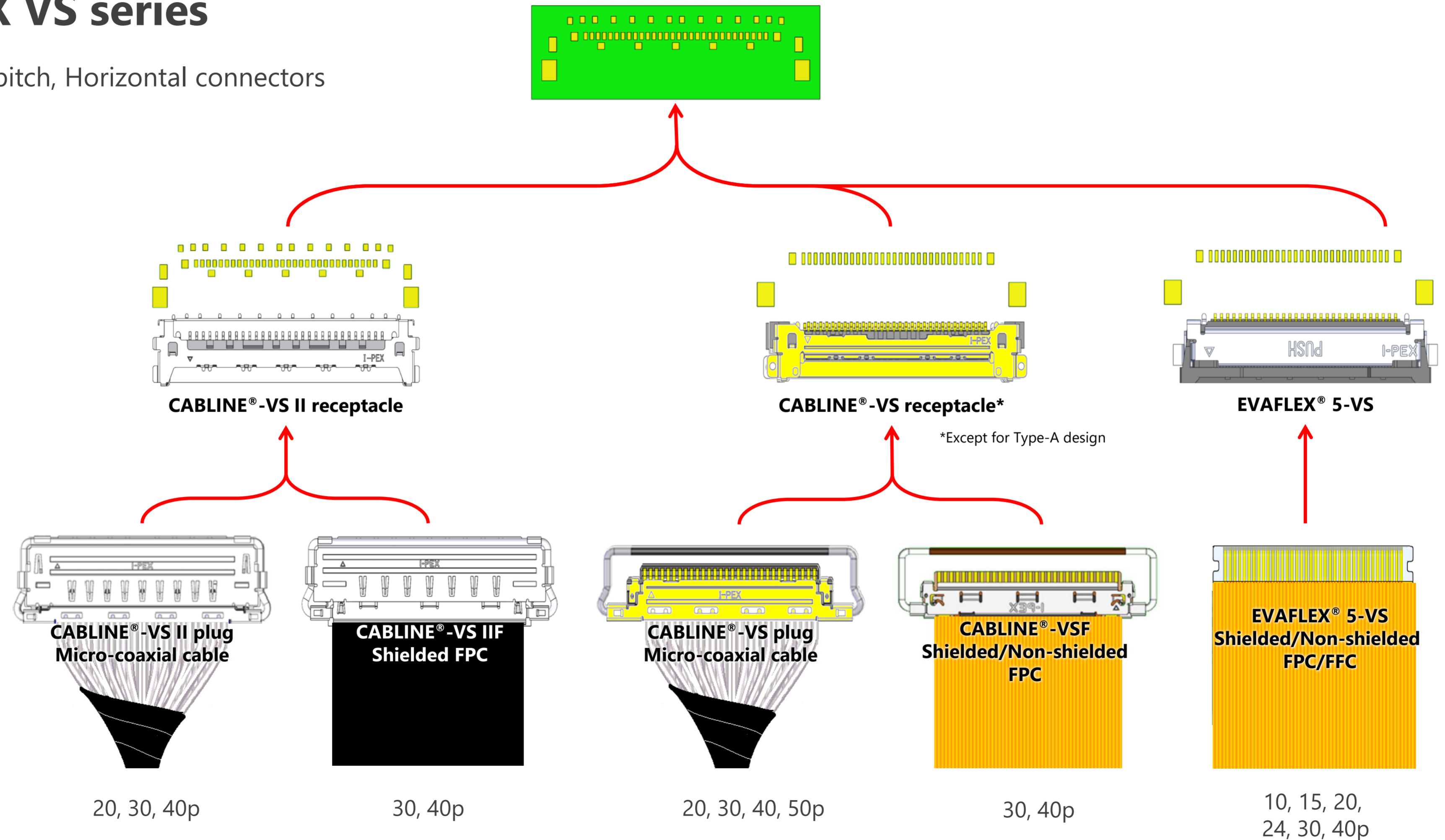
Note (*): Height, Width formula and Depth dimensions are including Lock Cover / Bar.

I-PEX VS series connector map (0.5 mm pitch, Horizontal)

CABLINE-VS, VS II receptacles and EVAFLEX 5-VS can be mounted to the same PCB layout.

I-PEX VS series

0.5 mm pitch, Horizontal connectors



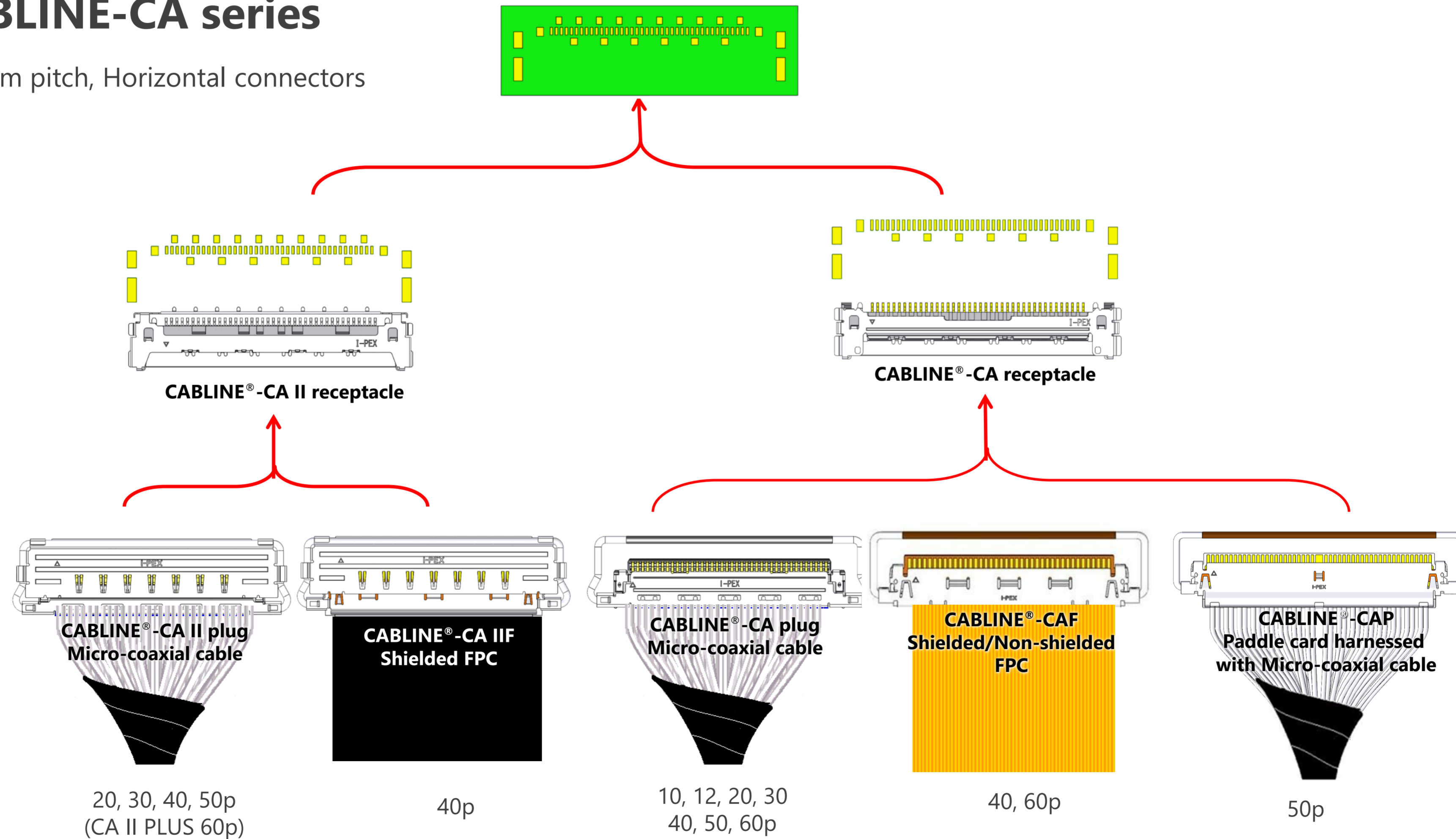
*Please inquire for pin counts not listed above.

CABLINE- CA series connector map (0.4 mm pitch, Horizontal)

CABLINE-CA and CA II receptacles can be mounted to the same PCB layout.

CABLINE-CA series

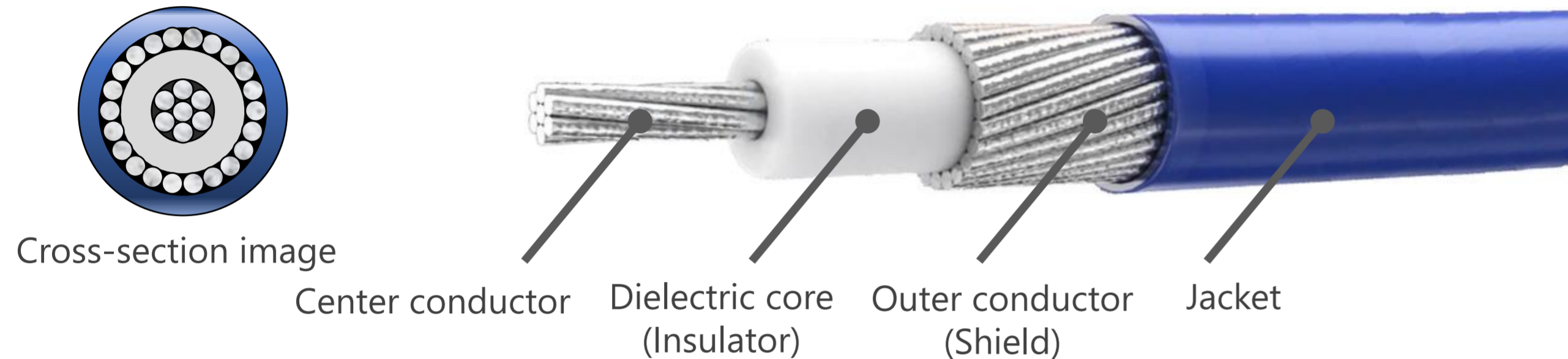
0.4 mm pitch, Horizontal connectors



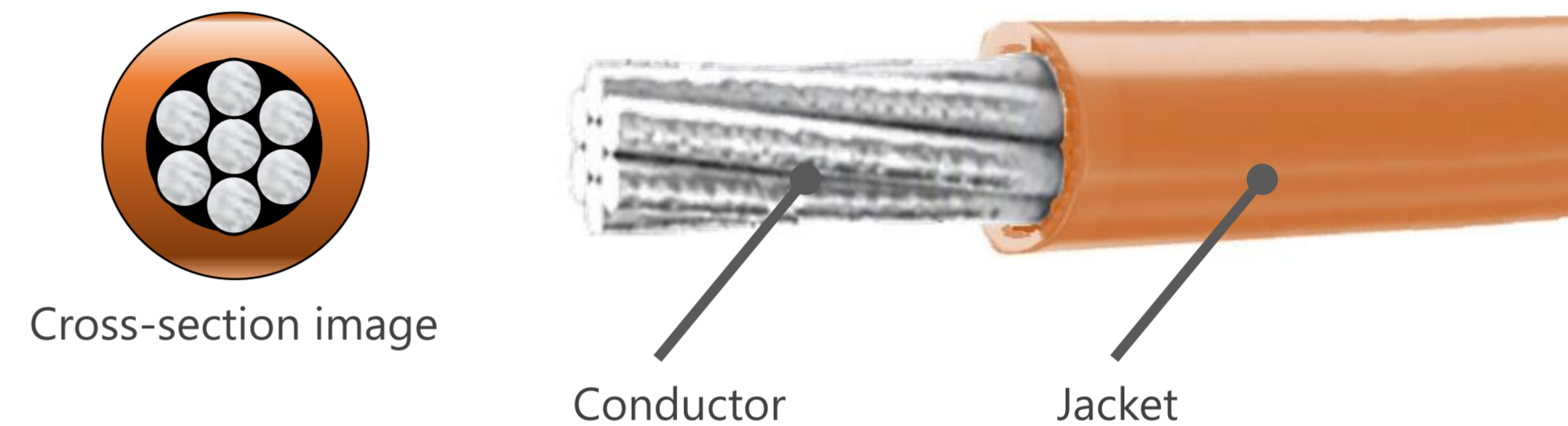
*Please inquire for pin counts not listed above.

Cable structure

Micro-Coaxial Cable

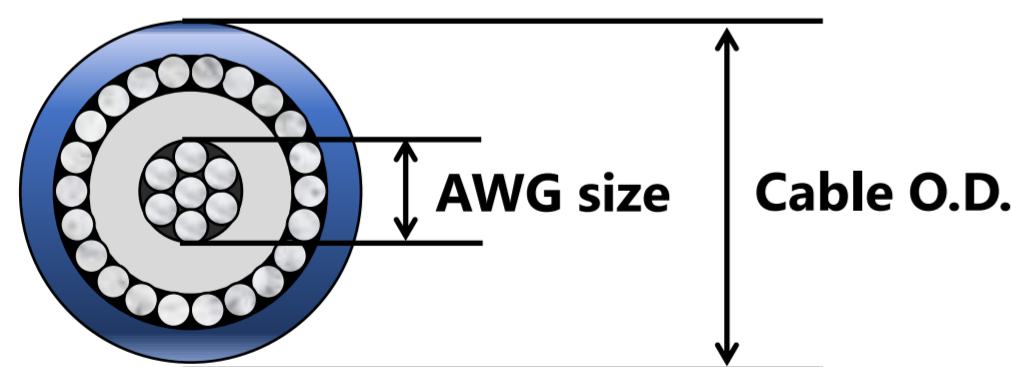


Discrete Wire



Cable size (Reference)

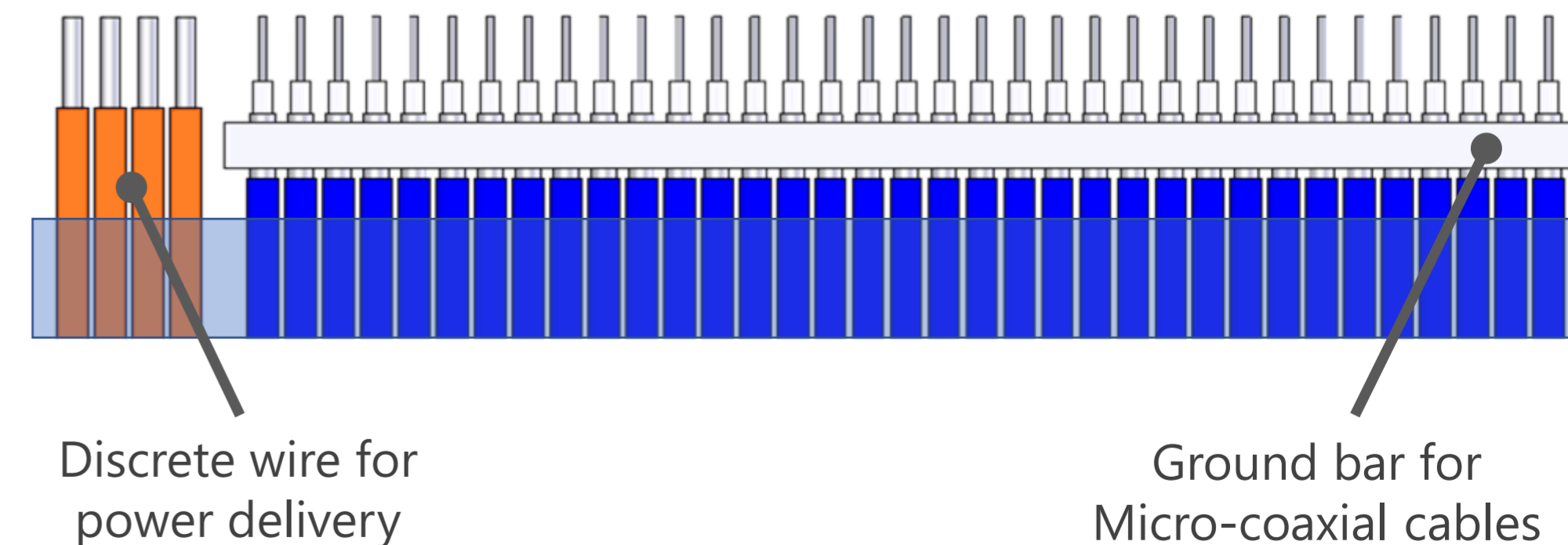
Center conductor : 7-wire stranded type



AWG size	Center Conductor Diameter (mm)	Cable Outer Diameter (O.D.) (mm)	
		Characteristic impedance 45Ω	Characteristic impedance 50Ω
#30	0.30	1.04	1.16
#32	0.24	0.82	0.90
#34	0.19	0.67	0.73
#36	0.15	0.49	0.55
#38	0.12	0.39	0.46
#40	0.09	0.33	0.37
#42	0.075	0.29	0.33
#44	0.060	0.24	0.26
#46	0.048	0.22	0.24

* Cable size varies depending on the types of cable.

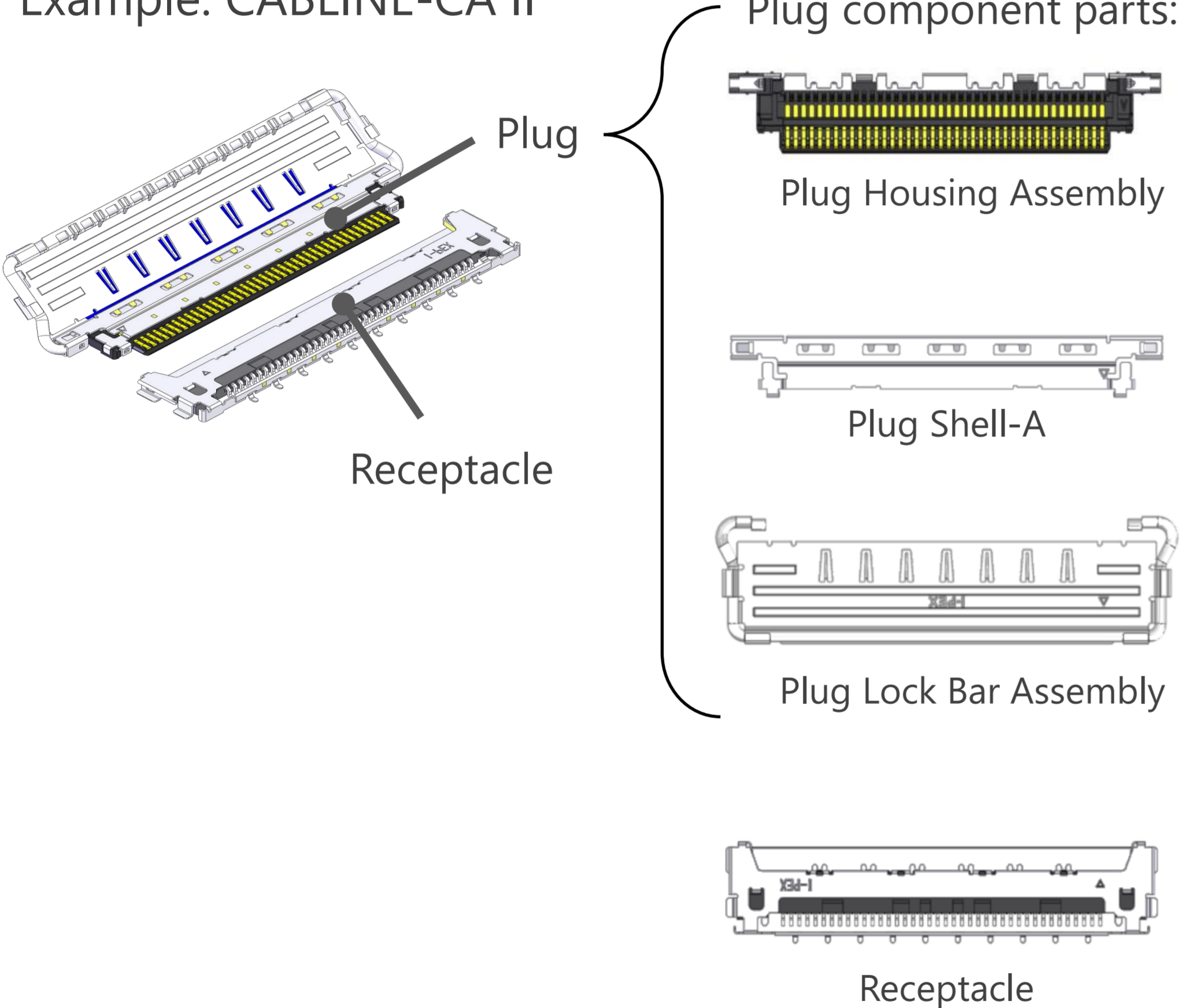
Cable sub-assembly image



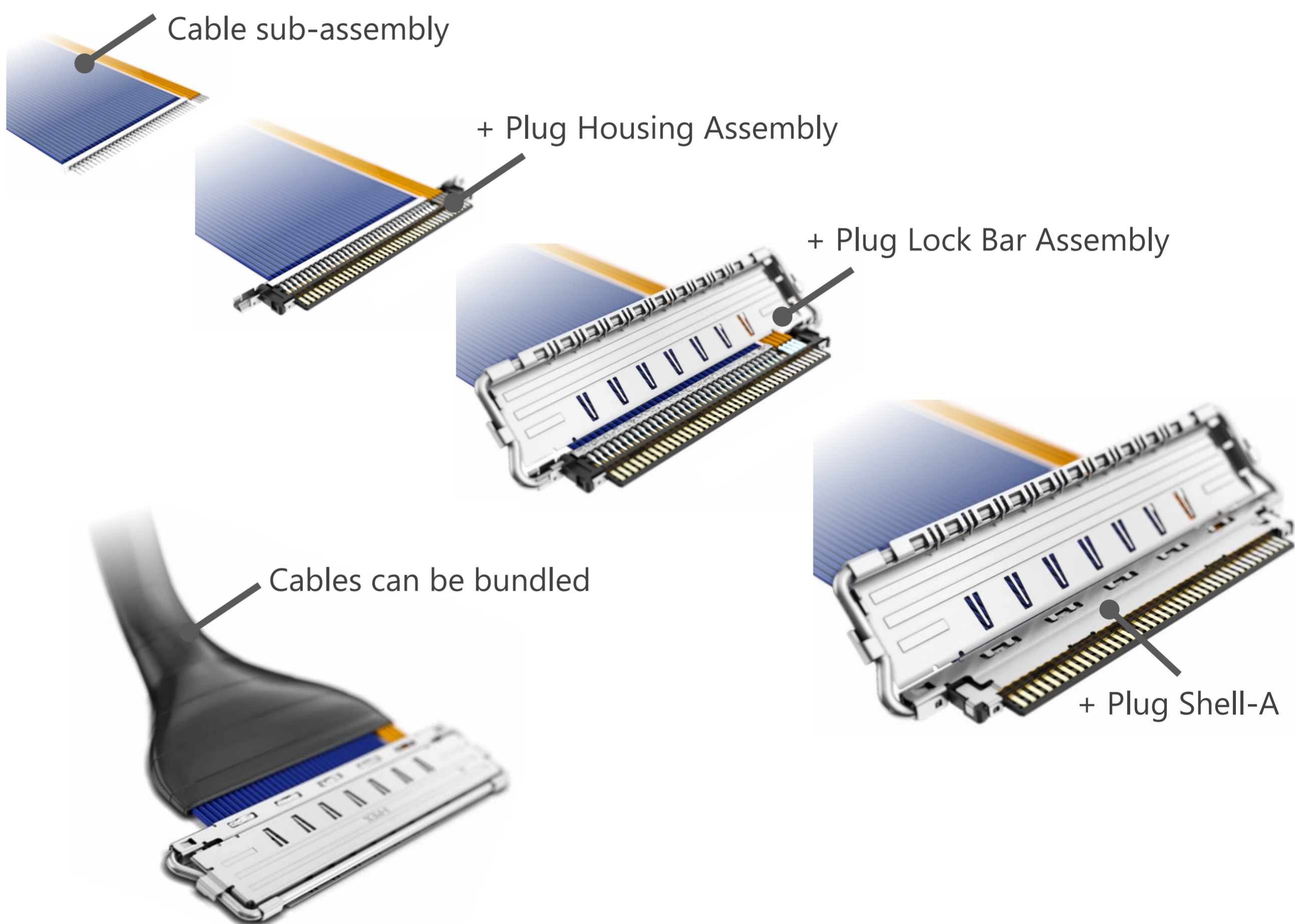
Micro-Coaxial Connector structure

Connector parts

Example: CABLINE-CA II

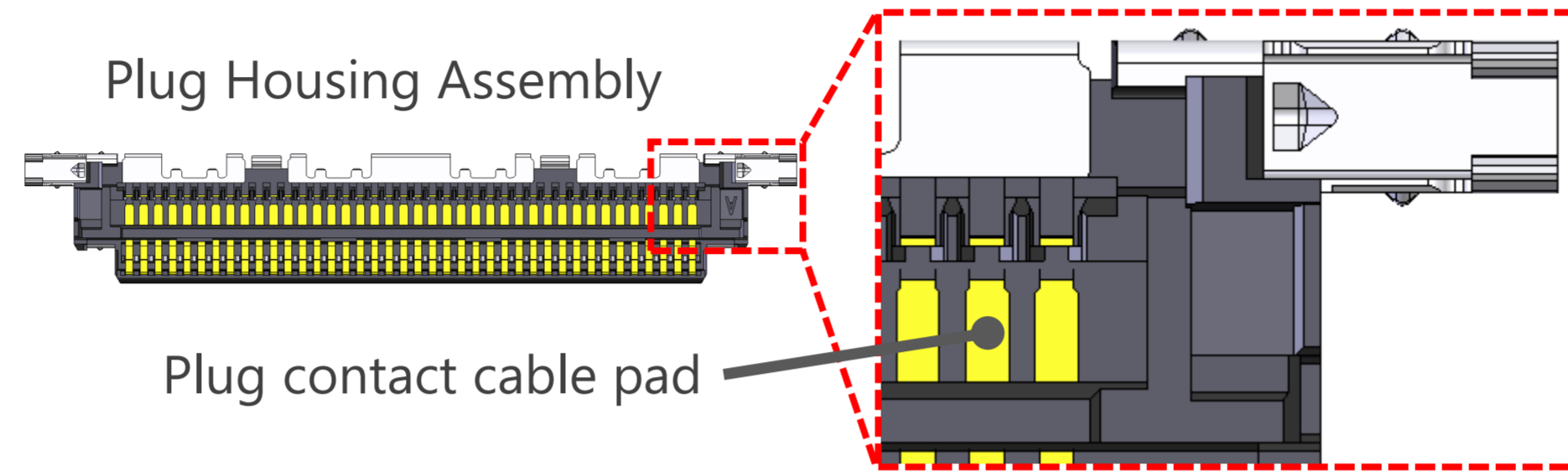
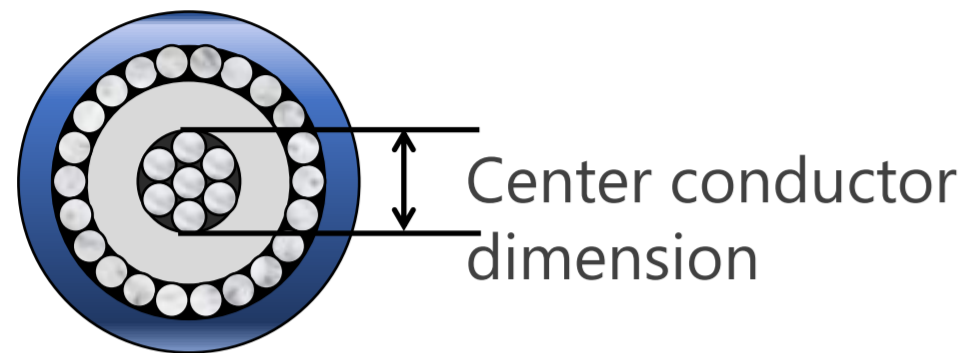


Plug harness assembly process image



Center conductor and plug contact cable pad size image

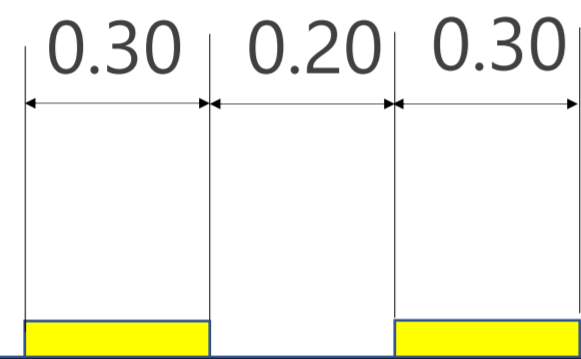
Micro-Coaxial Cable cross-section image



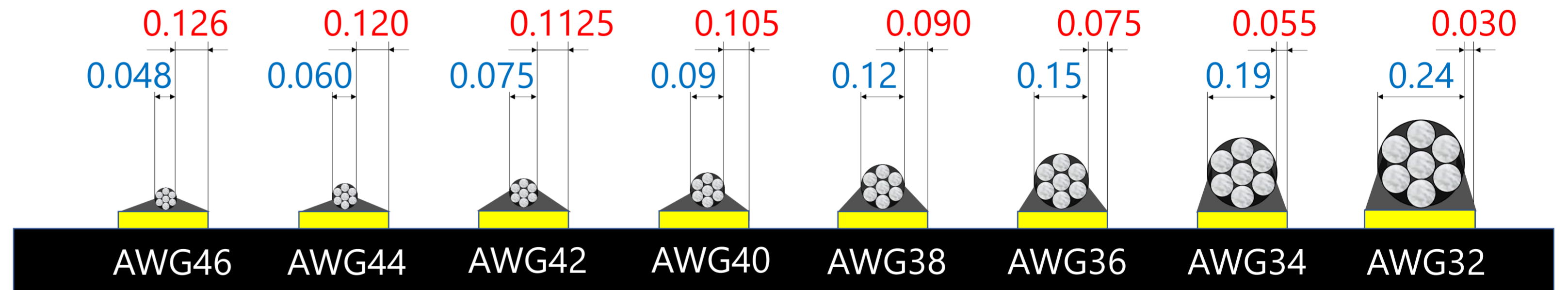
Red color number: Gap of conductor and pad (mm)
 Blue color number: Center conductor dimension (mm)

(Reference)

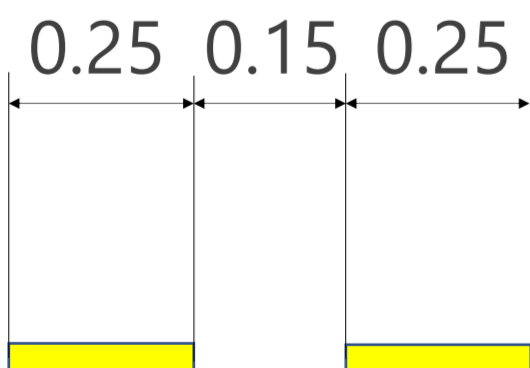
0.5 mm pitch series



Plug contact cable pad layout image

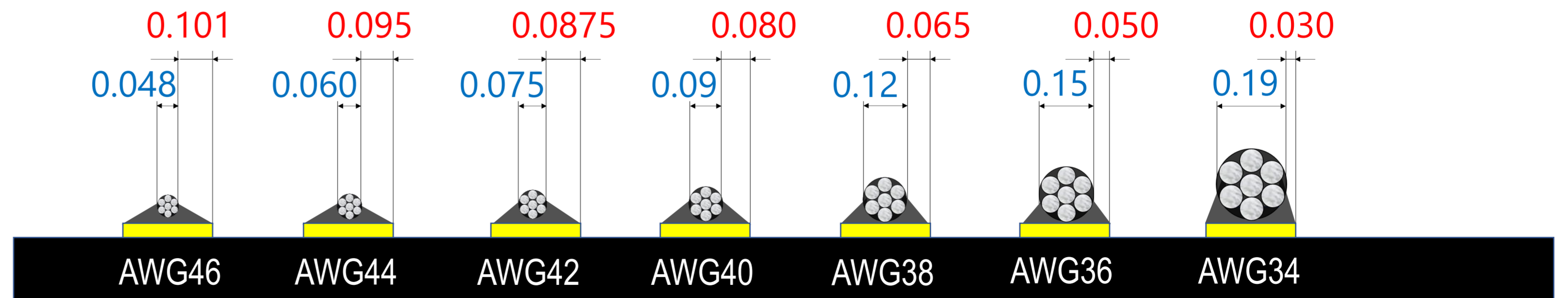


0.4 mm pitch series



Plug contact cable pad layout image

(AWG 34 type)



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