

# EVAFLEX® 5-HD

풀 쉴드, 고속 전송 대응, Auto-Lock, 수평 결합 타입, 0.5 mm pitch, 쉴드 FFC/FPC 커넥터

## Product Specifications:

Board Pitch (mm)		0.5
Wiping Length (mm)		1
Size (mm)	Height	2.00 +/- 0.20
	Width	Formula: 5.2 + (0.5*?p)
	Depth	8.43 +/- 0.30
Pin counts	Range	10 - 40
	Available	24

## Applicable FPC/FFC:

FPC/FFC Type	Shielded FFC & FPC
FPC/FFC Contact Point	Top
FPC/FFC Thickness (mm)	0.3 +/- 0.03 Contact 0.5 +/- 0.03 Ground

## Applicable Standards (Reference Only):

USB4 (20 Gbps/lane) USB 3.1 Gen 2 (10 Gbps) USB 3.1 Gen 1 (5 Gbps) V-By-One HS 1.4 (4 Gbps)

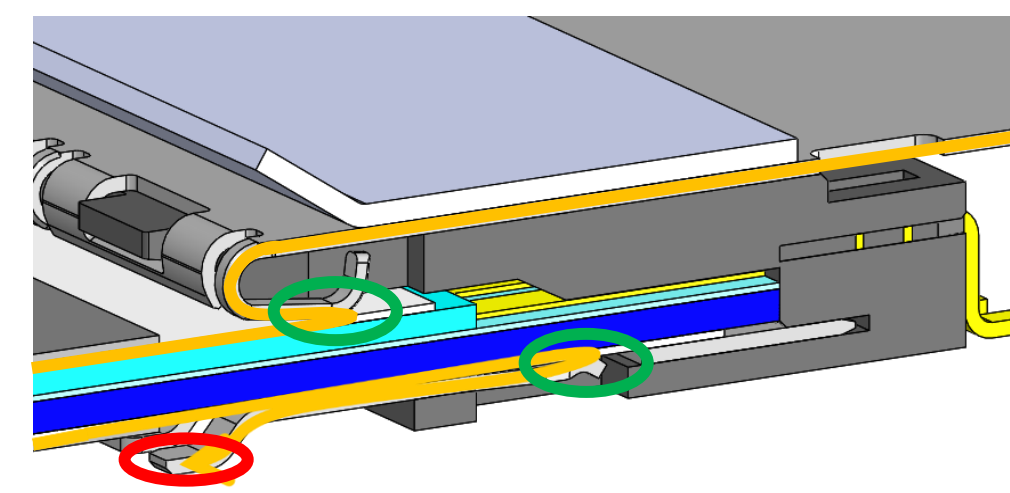
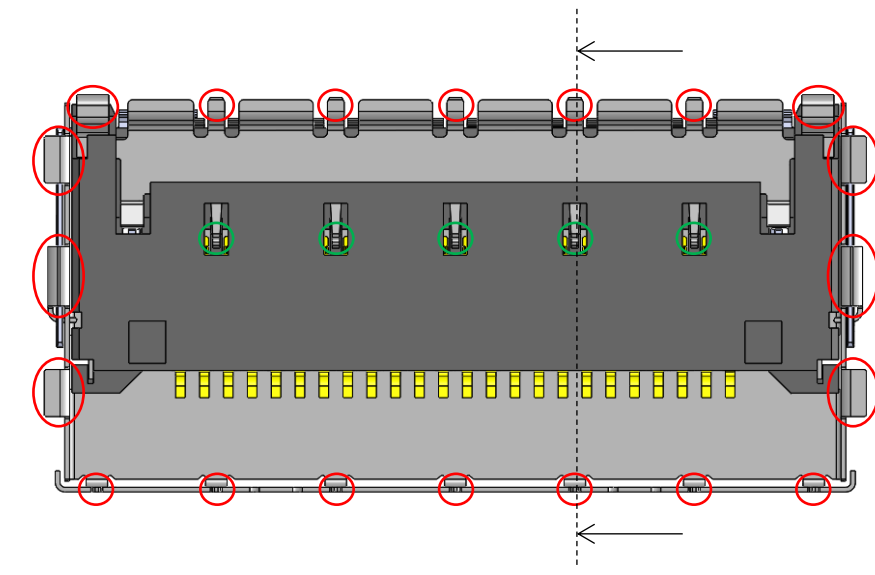
\*기재가 되어있지 않은 핀 수의 대응 여부에 대해서는 문의해 부탁드립니다.



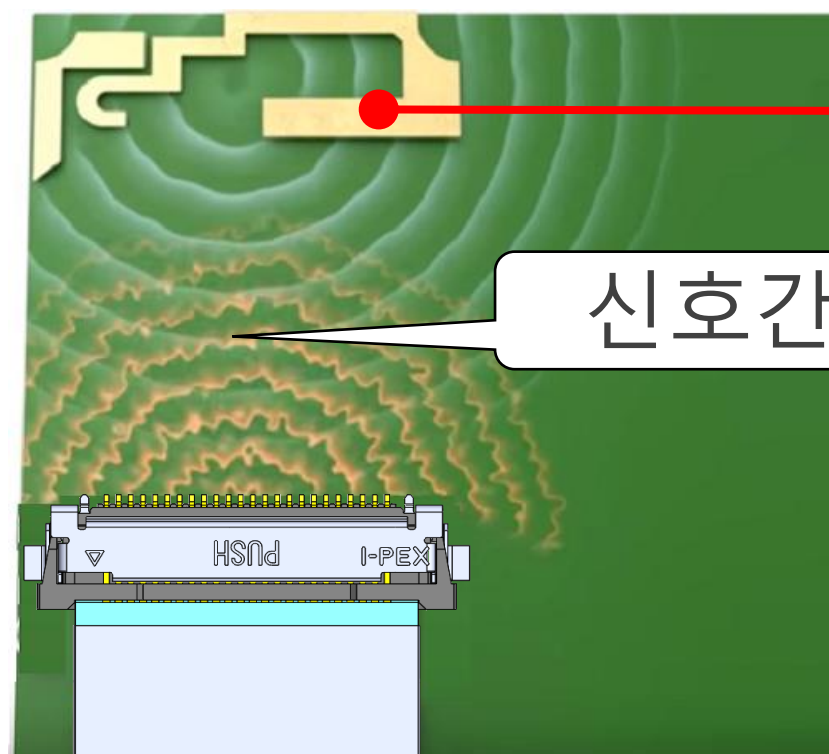
## 멀티 그라운드 접점에 의한 ZenShield® 풀 쉴드로 EMI 대책

EVAFLEX 5-HD 24P  
"밀면이미지"

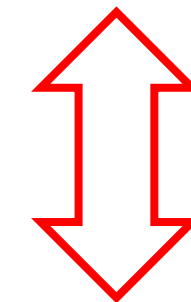
○ 납땜 접점부  
○ Mechanical 접점부



○ FFC 그라운드Tape에서 PCB  
○ SHELL에서 PCB

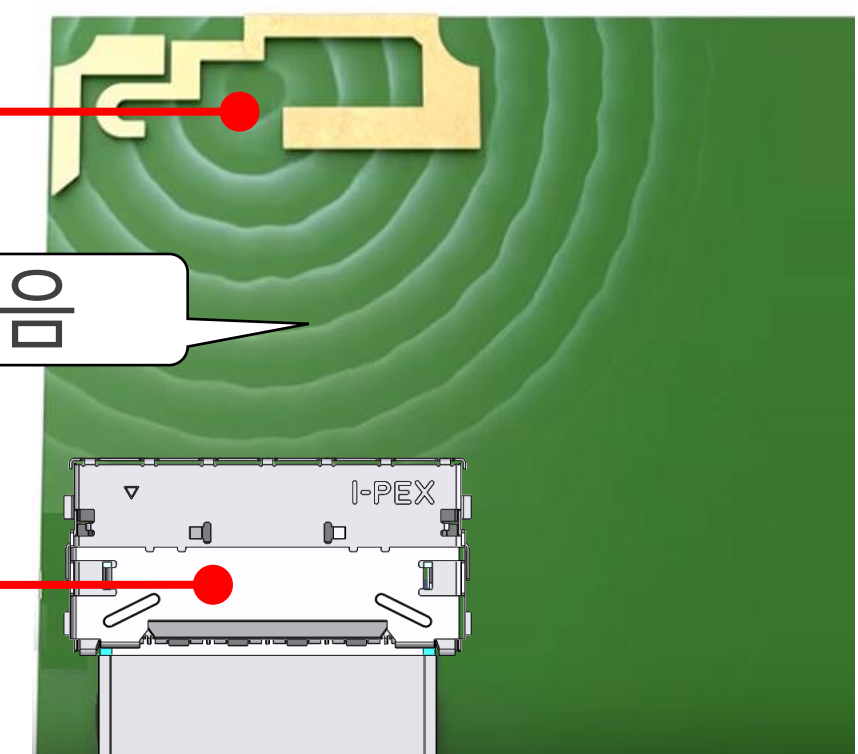


i-Fi® Antenna 5GHz

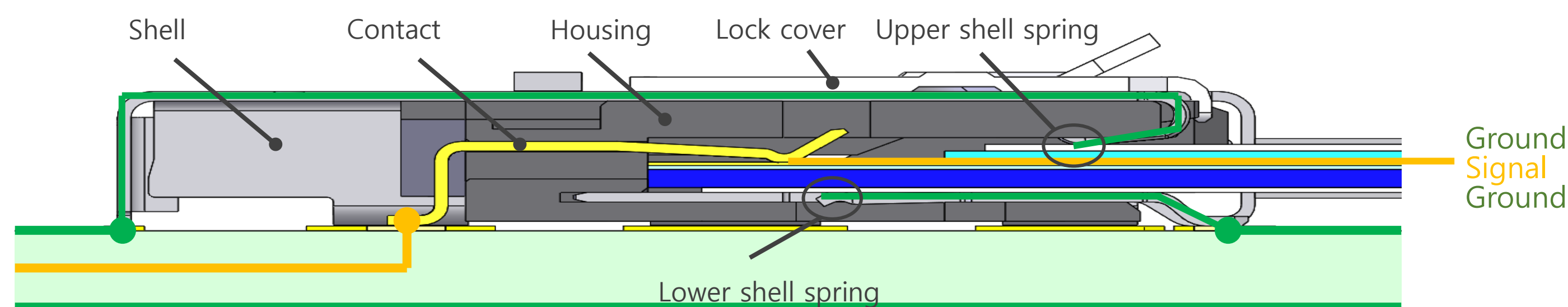


신호간섭 없음

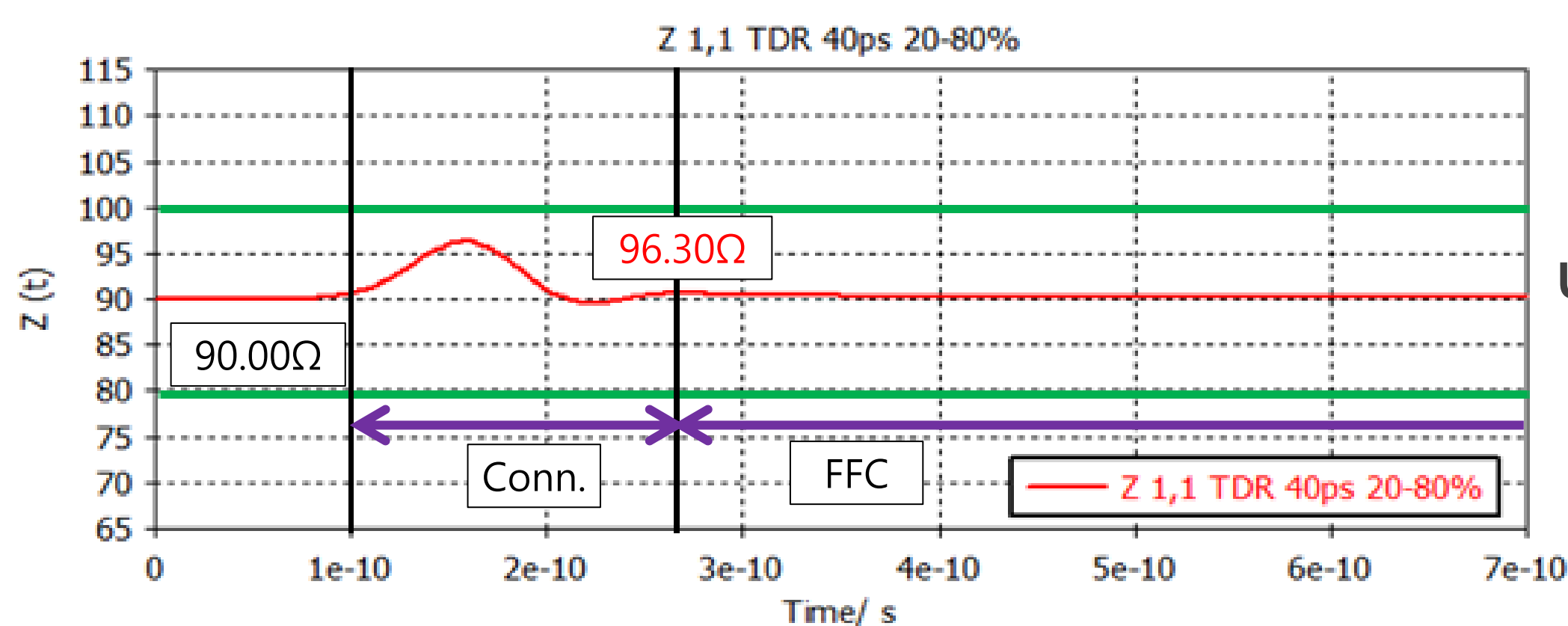
USB 3.1 connection  
(10 Gbps ⇒ 5GHz equivalent)



## 고속 전송 설계 ( 10+ Gbps USB® 3.1 Gen 2 )



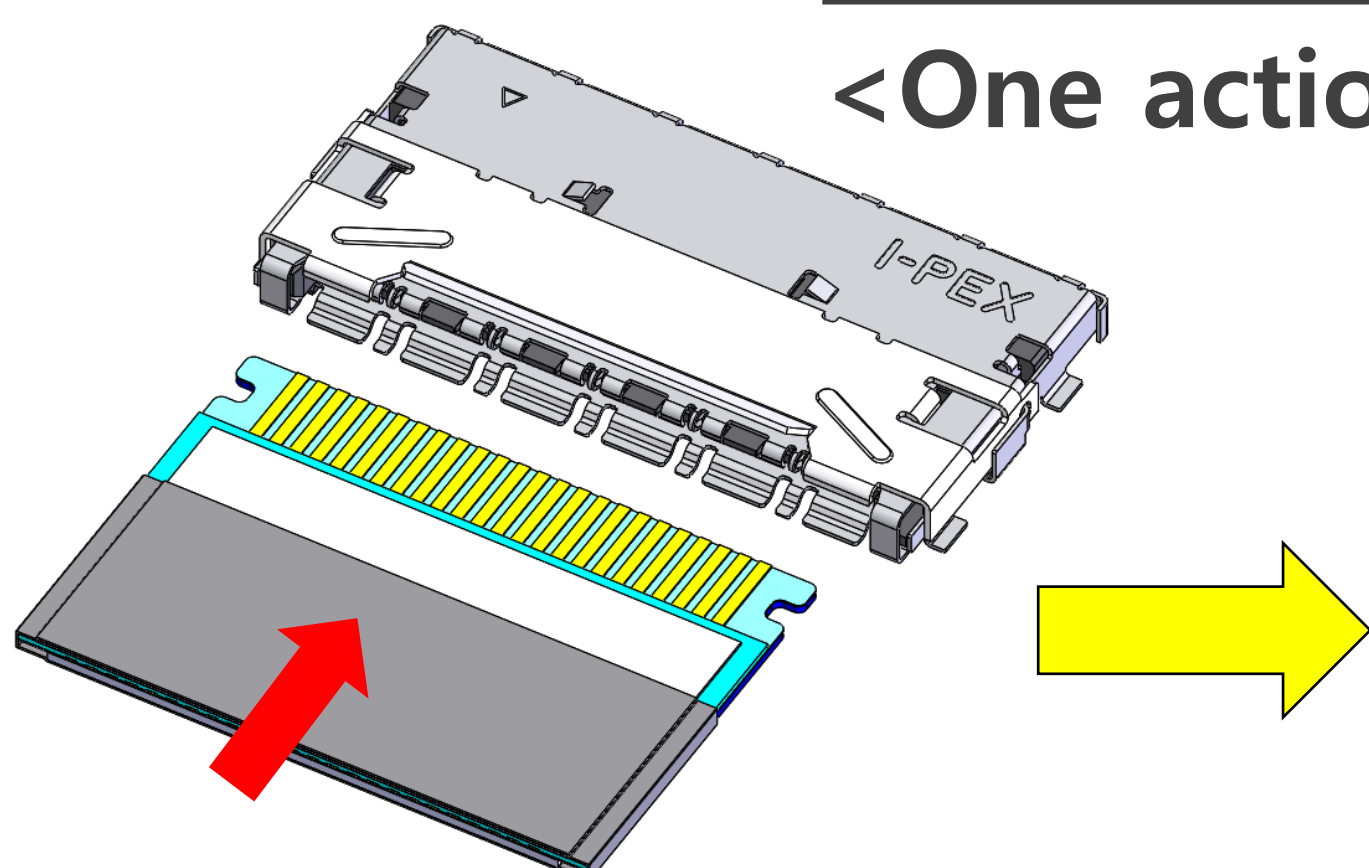
Characteristic impedance  
(Differential)  
Tr = 40ps (20-80%)



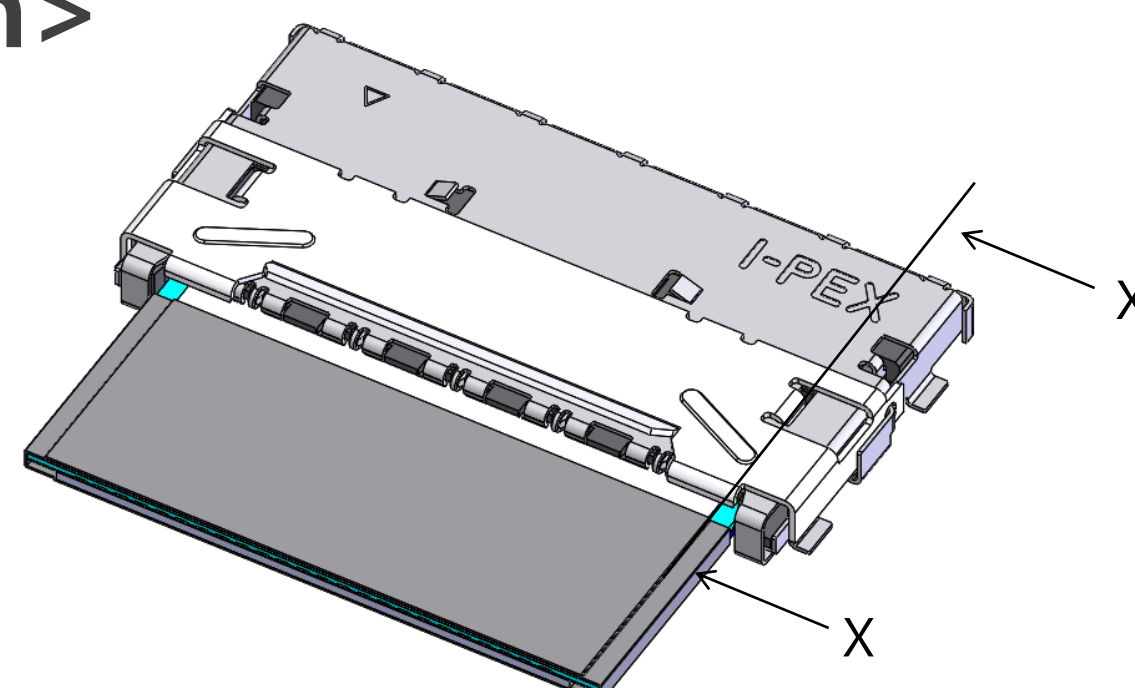
Spec. : 100Ω  
USB 3.1 (Gen2) Spec. / 90 Ohm ± 10Ω  
Spec. : 80Ω

## 체결 작업이 용이한 Auto Lock 디자인. 수작업 또는 로봇에 의한 조립 작업에 최적

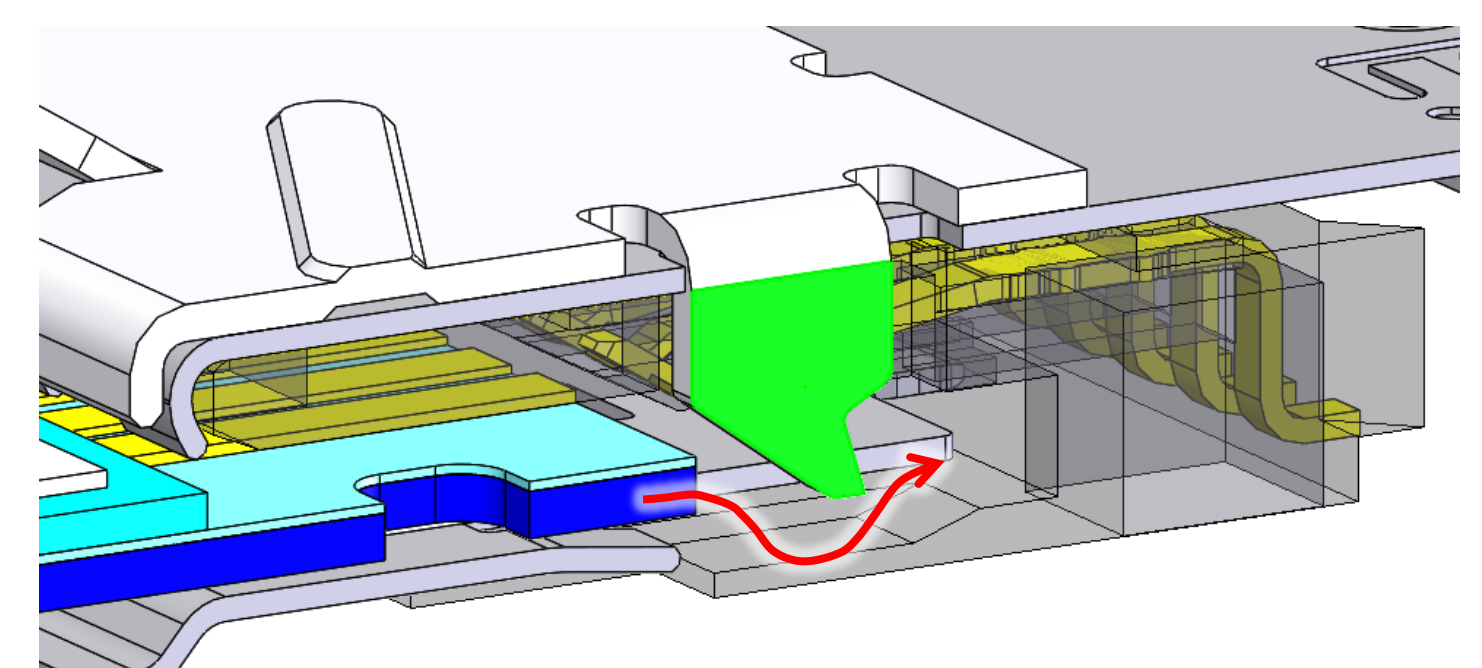
체결 프로세스  
<One action>



<Position 1> FFC 삽입



<Position2> FFC 체결 (One action Auto Lock)



SECT.X-X Lock구조

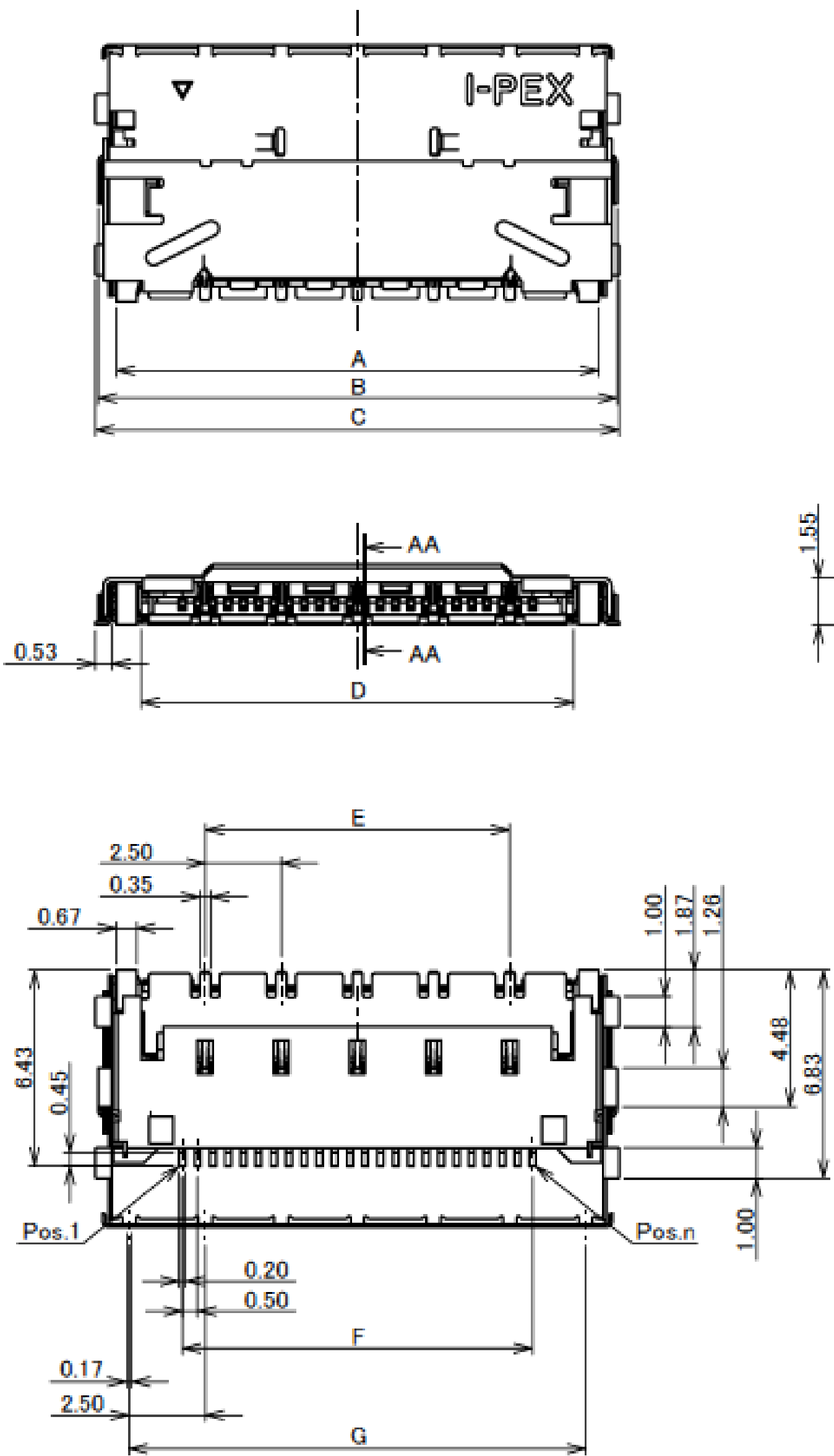
커넥터의 Lock부위에 FFC절개부가 체결됨



# Component Parts Details

## Connector Assembly

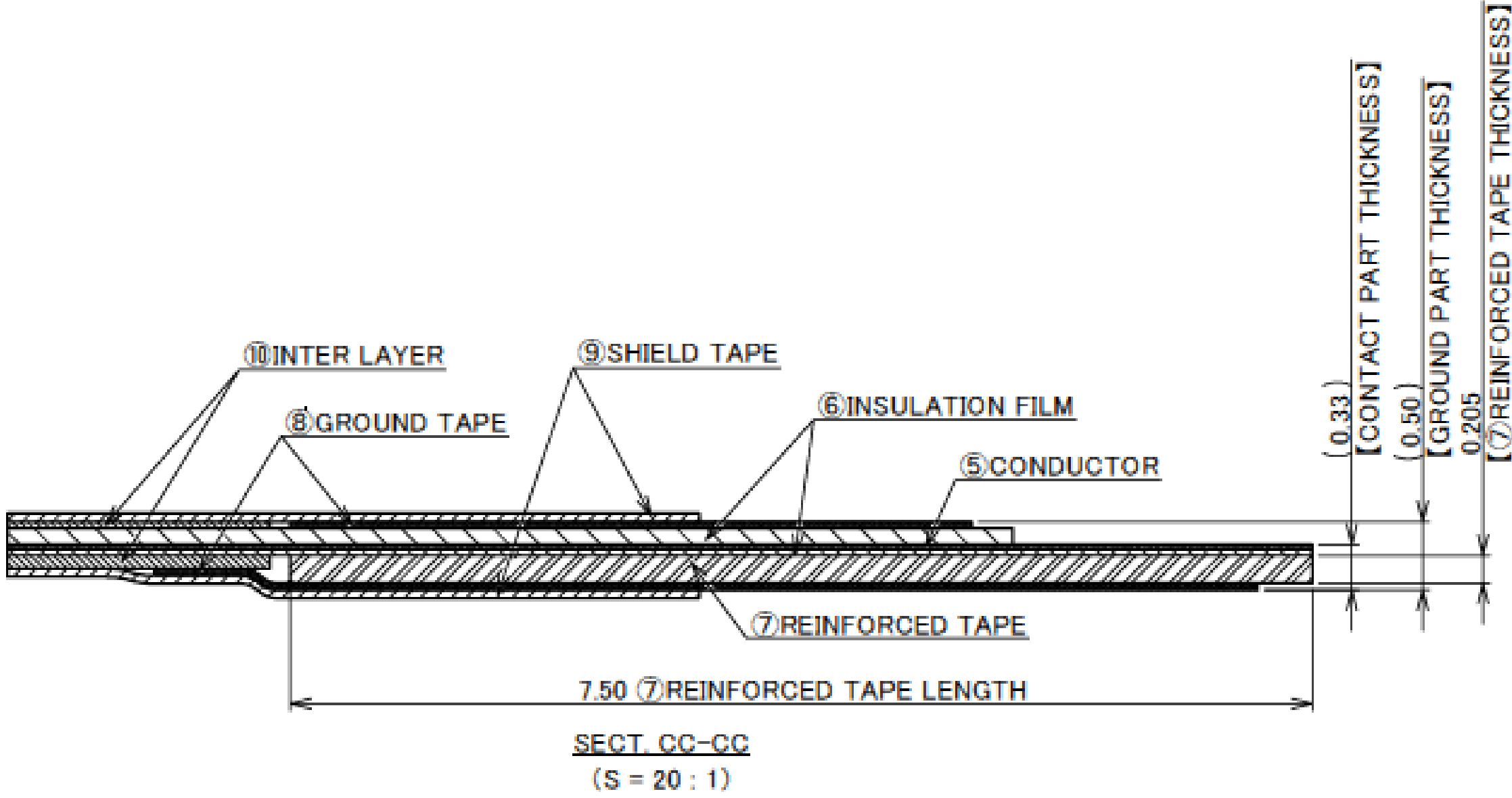
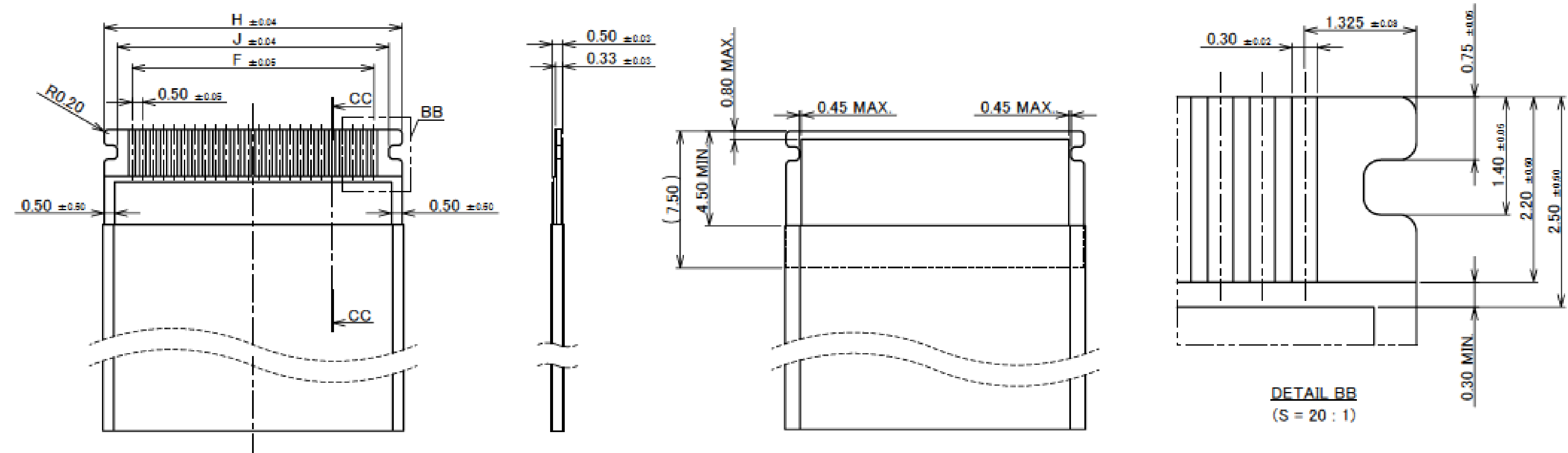
Recommended P/N		20952-0**E-02						
PART NO.	Pos.	A	B	C	D	E	F	G
20952-024E-02	24	15.84	17.04	17.20	14.20	10.00	11.50	15.00



4	COVER	SUS	
3	SHELL	CORSON ALLOY	ALL OVER Ni 1.00 $\mu$ m MIN. SOLDERING AREA: Au 0.02 $\mu$ m MIN.
2	CONTACT	CORSON ALLOY	CONTACT AREA: Au 0.03 $\mu$ m MIN. OVER Ni 1.00 $\mu$ m MIN. SOLDERING AREA: Au 0.03 $\mu$ m MIN. OVER Ni 1.00 $\mu$ m MIN.
1	HOUSING	LCP	UL94V-0, BLACK
NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS

Connector Assembly

PART NO.	Pos.	F	H	J
20952-024E-02	24	11.50	14.15	12.90



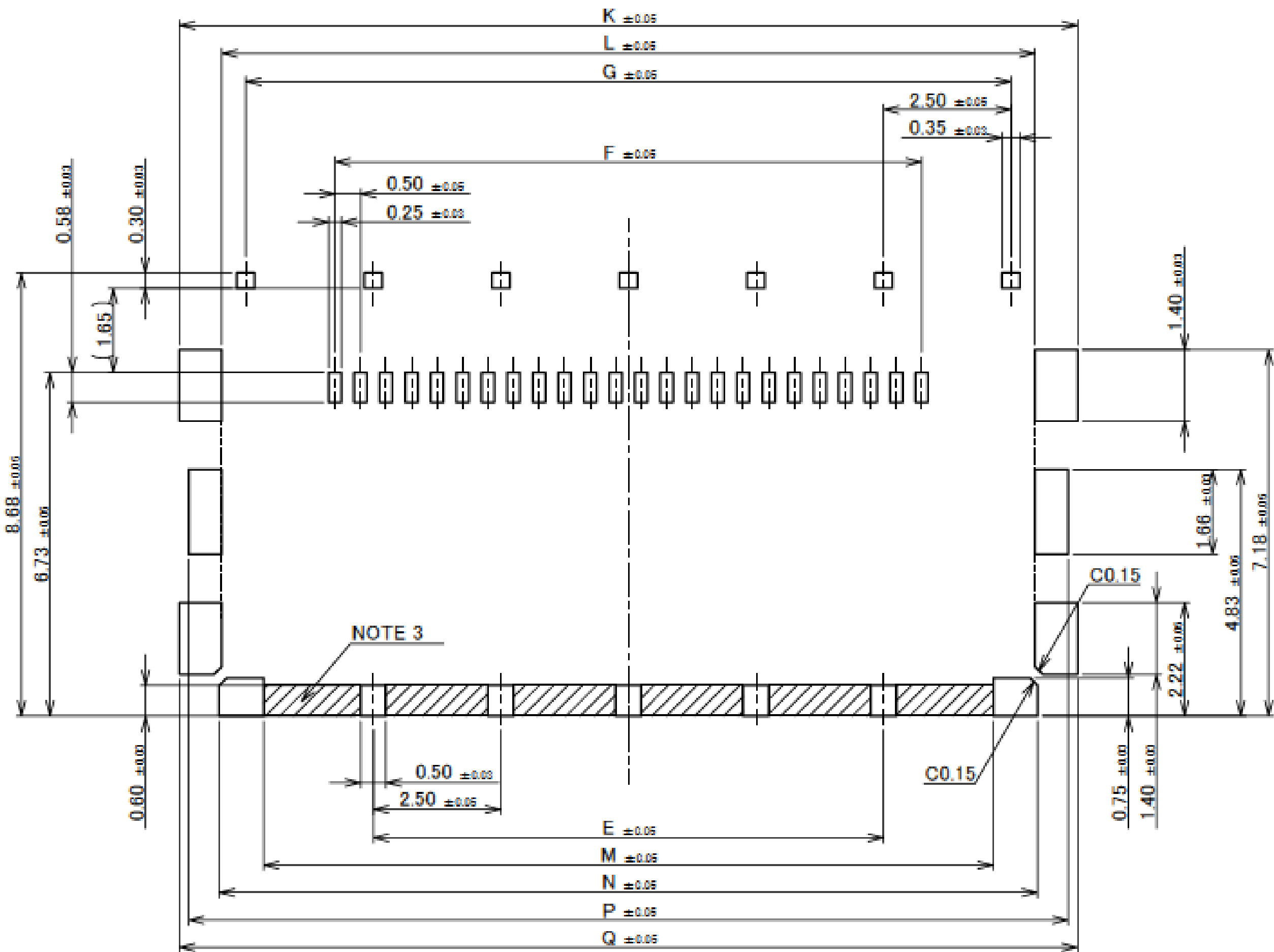
- NOTES.
1. DIFFERENTIAL IMPEDANCE : 90 ± 10 Ω
  2. SELECT A MATERIAL WITH A SOFTENING TEMPERATURE OF 85°C OR HIGHER FOR THE PATTERN ADHESIVE PART OF FFC.

NO.	DISCRIPTION	MATERIAL	FINISH , REMARKS
10	INTER LAYER	ARBITRARY	
9	SHIELD TAPE	METALLIC FILM	
8	GROUND TAPE	METALLIC FILM	POLISH or HALF POLISH Sn PLATING
7	REINFORCED TAPE	ARBITRARY	
6	INSULATION FILM	ARBITRARY	
5	CONDUCTOR	COPPER ALLOY	CONTACT AREA : Au 0.05 μ m MIN. OVER Ni 0.5 μ m MIN.

Rev.5

Plug Housing Assembly

PART NO.	Pos.	E	F	G	K	L	M	N	P	Q
20952-024E-02	24	10.00	11.50	15.00	17.60	15.94	14.30	16.04	17.24	17.60

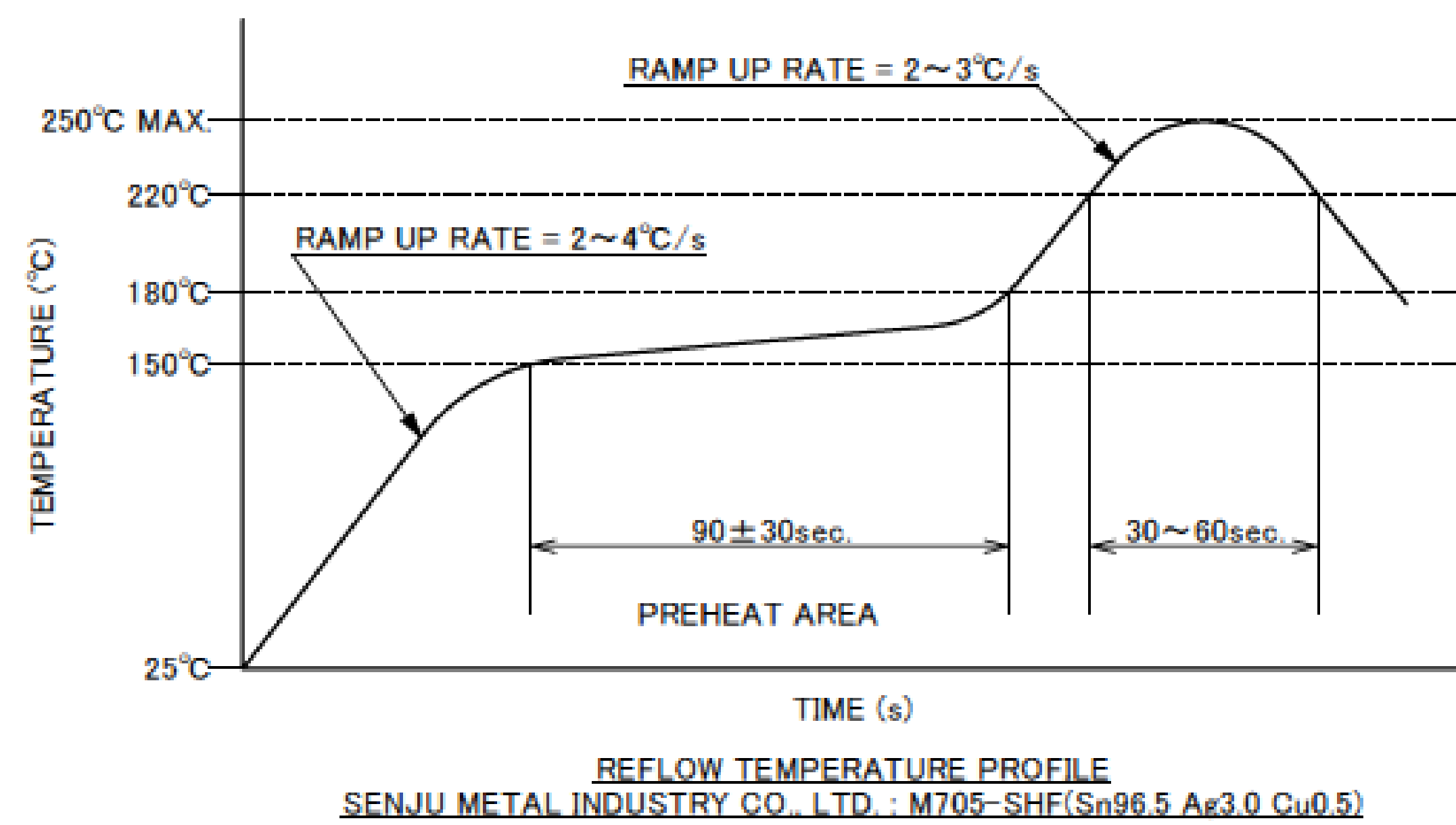
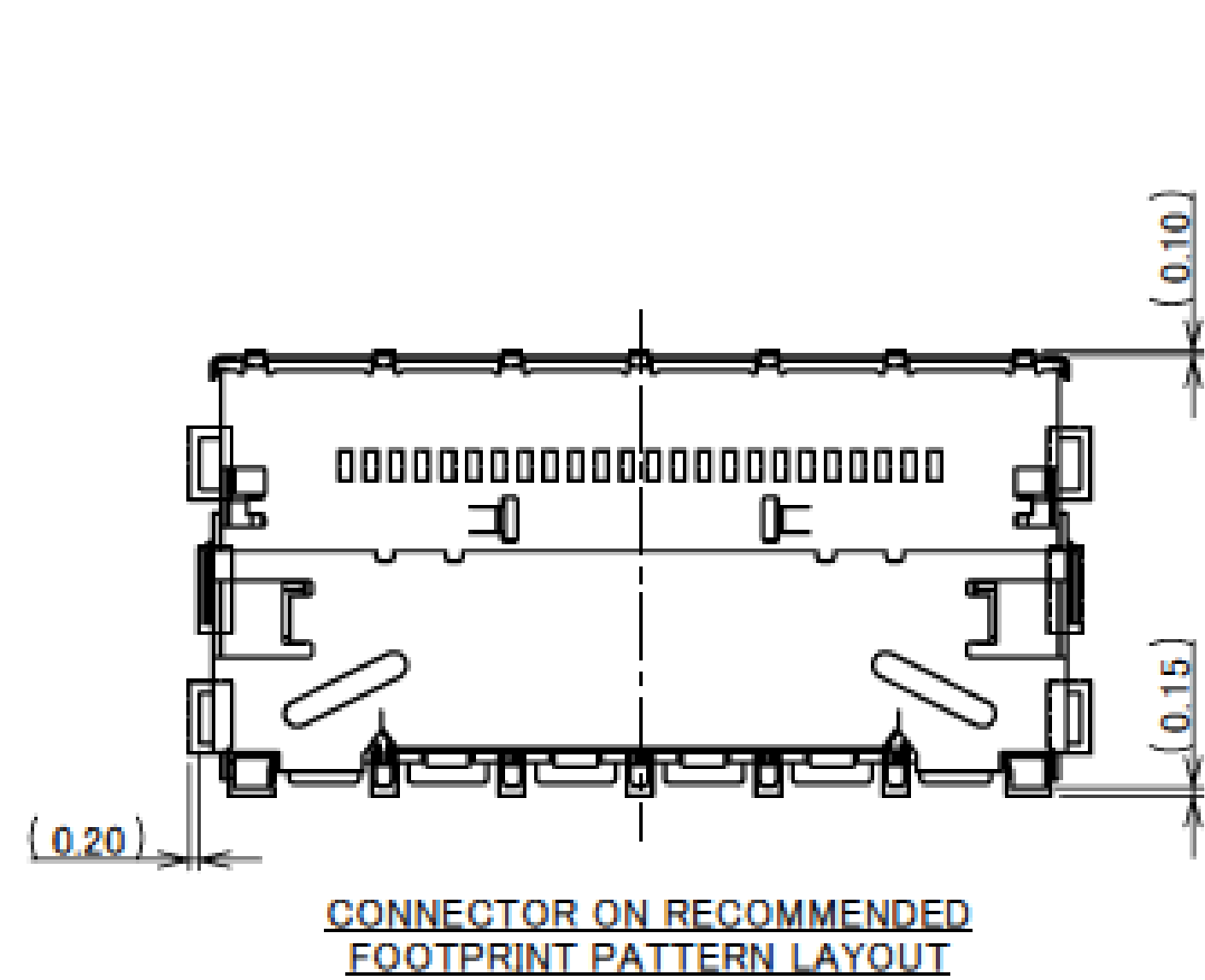


RECOMMENDED PCB & METALMASK LAYOUT  
THICKNESS t=0.12

- NOTES.
3. SOLDER RESIST MUST BE APPLIED TO THIS AREA.

Rev.5

Connector Assembly



Rev.5

Plug Housing Assembly

ITEMS	SPECIFICATION
RATING VOLTAGE	50V AC/DC (PER CONTACT PIN)
RATING AMPERAGE (FOR SIGNAL CONTACT)	0.30A AC/DC (PER CONTACT PIN)
OPERATING TEMPERATURE	233~358K (-40°C~+85°C)
OPERATING HUMIDITY	85% RH. MAX. (NON-CONDENSING)
CONTACT RESISTANCE (FOR SIGNAL CONTACT)	INITIAL : 60mohm MAX. / AFTER TEST : ≦140mohm MAX.
INSULATION RESISTANCE	INITIAL : 500Mohm MIN. / AFTER TEST : 500Mohm MIN.
DIELECTRIC WITHSTANDING VOLTAGE	AC 250V 1min
DURABILITY	30 CYCLES
MATING FORCE (INITIAL / AFTER TEST)	24P : 22.00 N MAX.
UNMATING FORCE (INITIAL / AFTER TEST)	24P : 2.30 N MIN.
FFC/FPC RETENTION FORCE (INITIAL / AFTER TEST)	24P : 8.50 N MIN.
COPLANARITY	0.10 MAX.
PRODUCT SPECIFICATION	PRS-2645
TEST REPORT	TR-20006
PACKING STANDARD	PST-19012
INSTRUCTION MANUAL	HIM-19004
APPEARANCE CRITERIA No.	QLS-A***

Rev.5



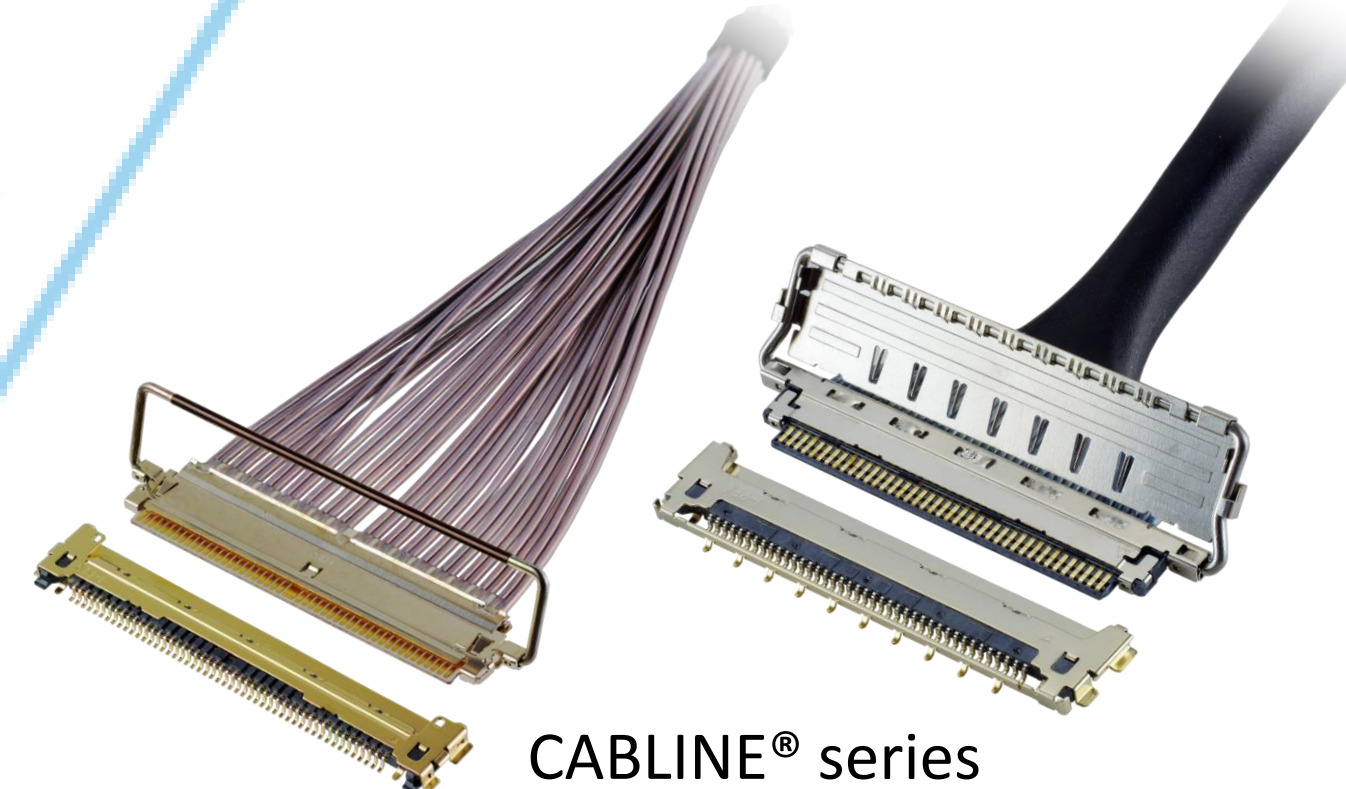
# Custom Connectors Available

 RF  
Connectors

MHF® series



Micro-coaxial/Twinax  
Connectors

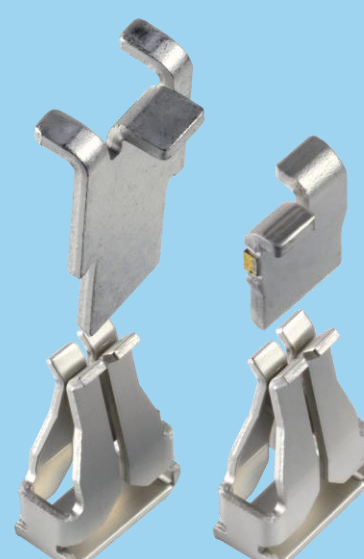


CABLIME® series



Wire-to-Board  
Connectors/  
Terminals

AP series



ISH® series



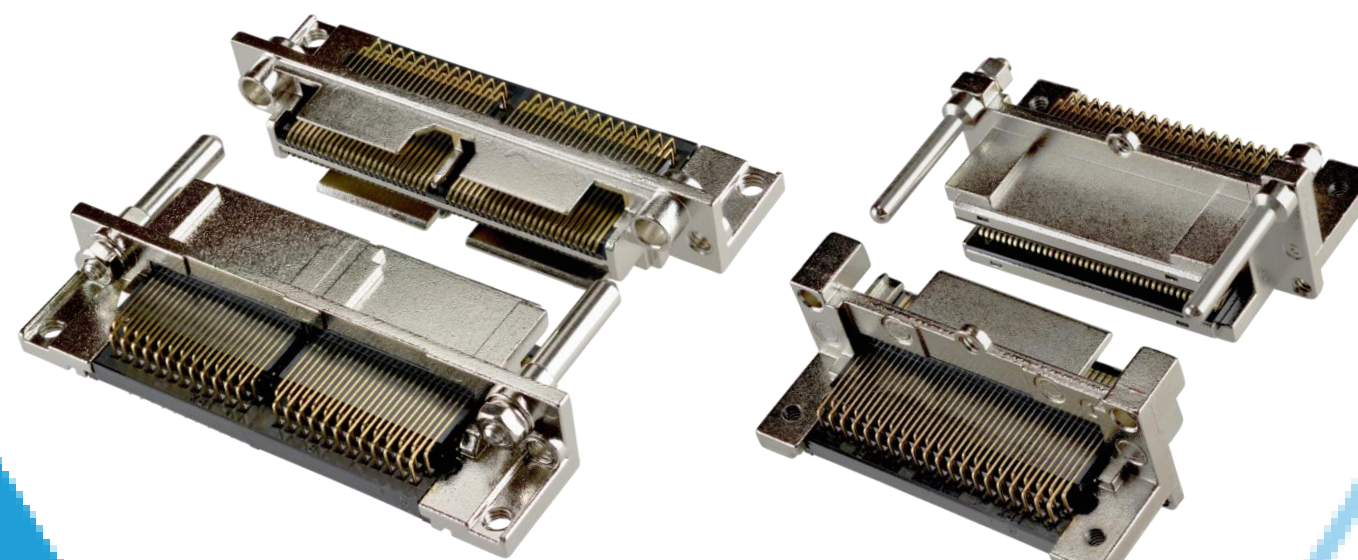
NOVASTACK® series



Board-to-Board  
Connectors



I/O  
Connectors



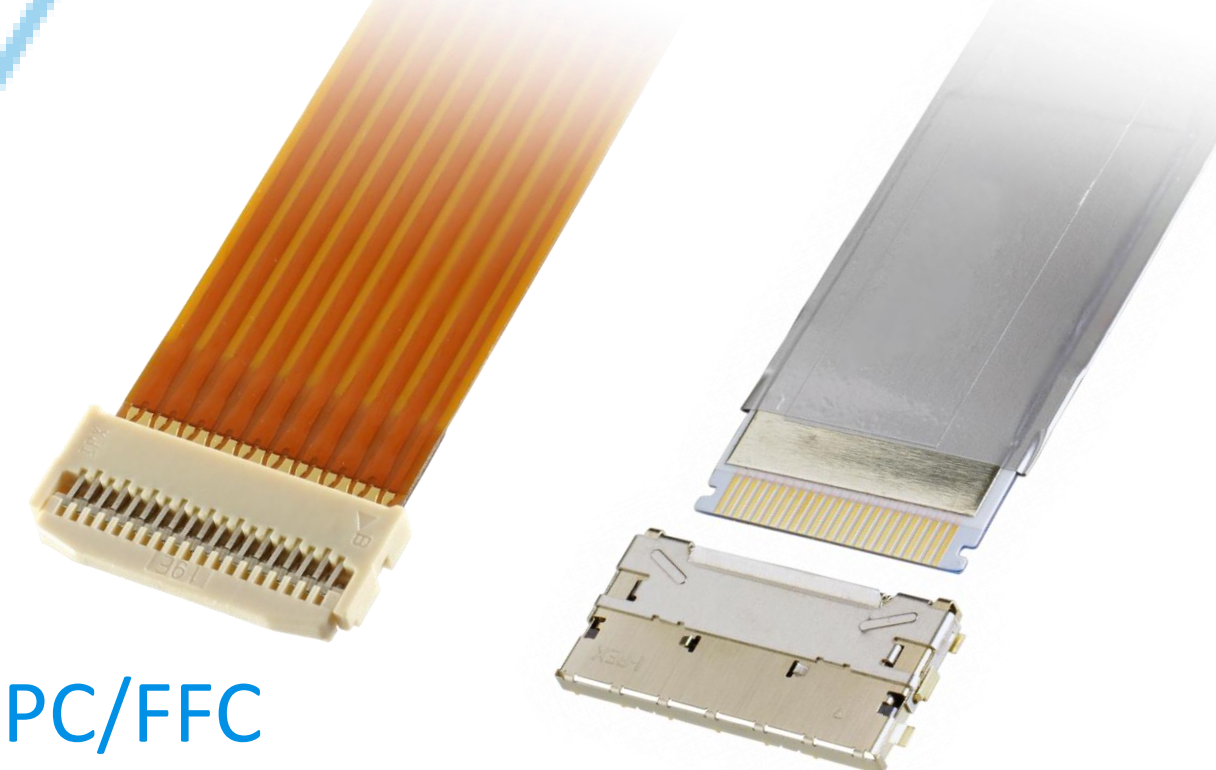
MINIDOCK™ series



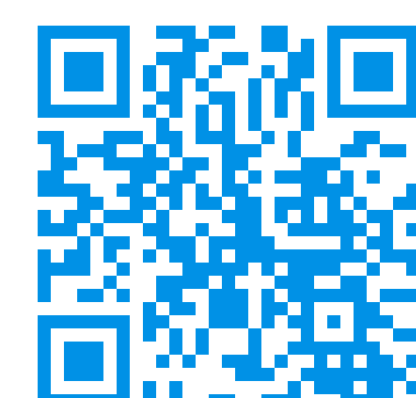
FPC/FFC  
Connectors

MINIFLEX® series

EVAFLEX® series



Inquiry



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