

HF513

YFBS

S E R I E S

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# 40Gbps High speed transmission Connector & FPC (YFLEX®)



HF513 series (40Gbps High speed transmission Connector)  
YFBS series (40Gbps High speed transmission FPC YFLEX®)

- High speed transmission such as PCI Express 5.0, Thunderbolt 3 is possible
- 56G PAM4 transmission is possible with the combination of HF513 and YFBS
- Total guarantee of HF513 and YFBS is possible

## Application

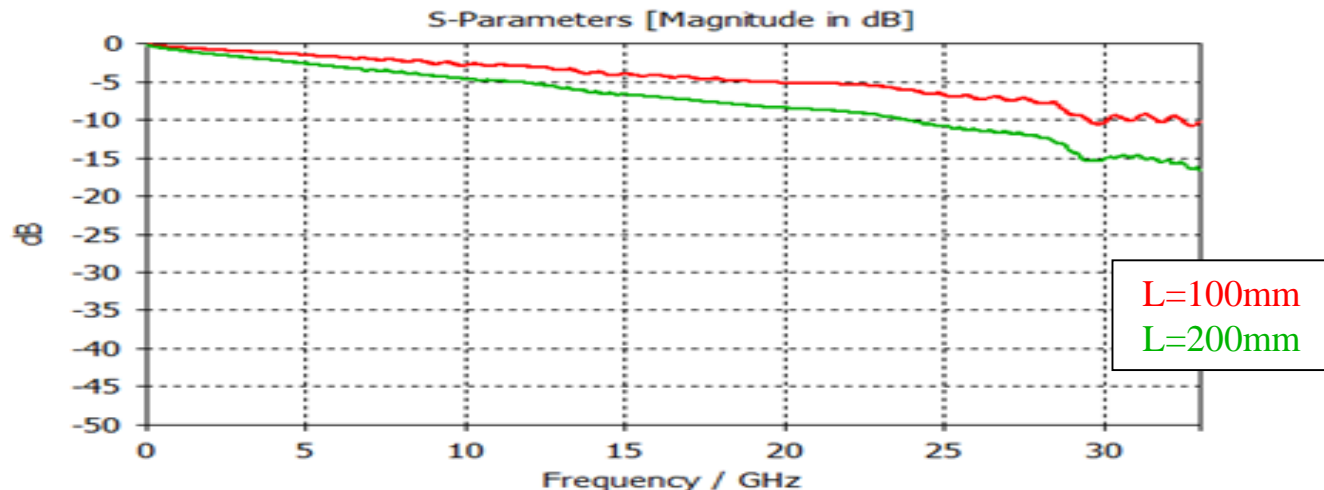
5G base station, IoT, AI, 8K4K, Telecom Datacom, Network equipment

## Usage

- High speed transmission cable such as 40Gbps/ch
- Chip to Chip / Chip to Module Jumper cable

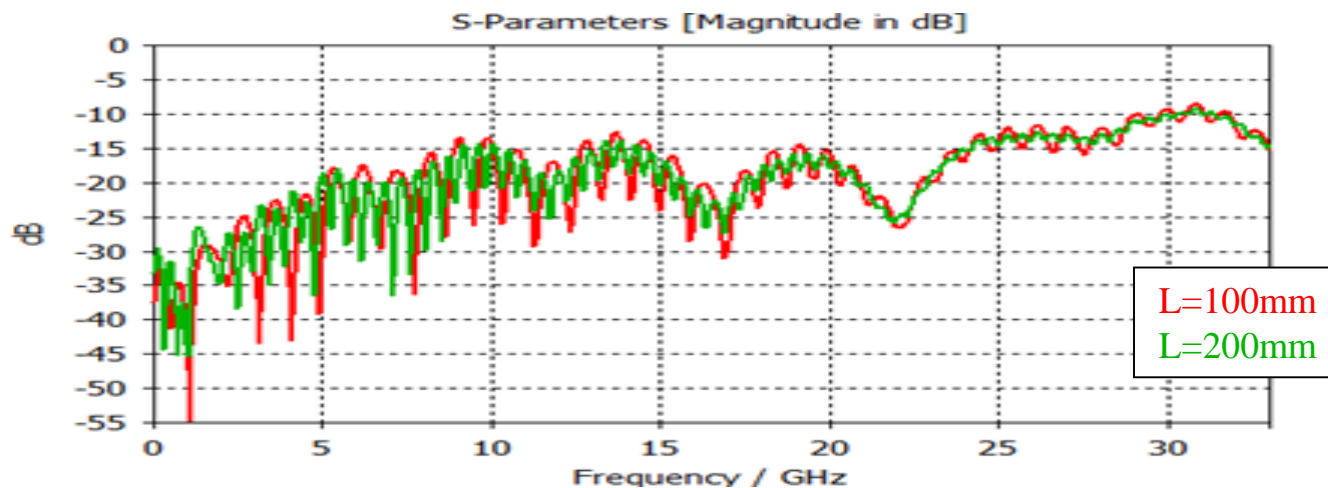
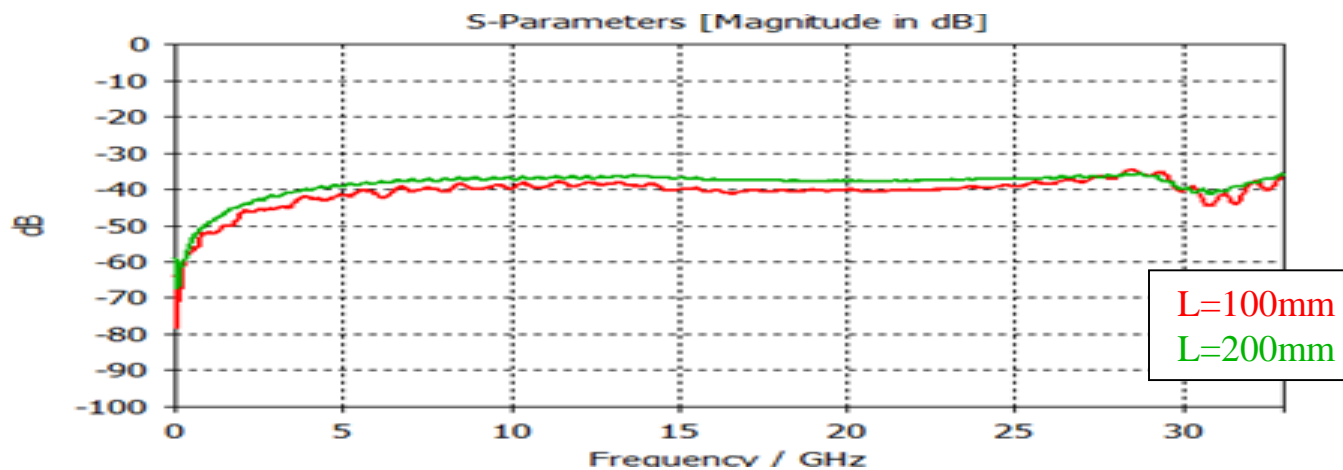
## Characteristic

### HF513&YFBS Insertion loss



Please note that the contents may be changed without prior notice.

## Characteristic

HF513&YFBS Return lossHF513&YFBS Far-End Crosstalk



HF513

## HF513 series

HF513-\*\*-\*\*-VE

GND : with=11, without=01

pins

## Feature

- High speed transmission(40Gbps/ch)
- Compatible with 125 °C
- 0.5mm pitch With cable lock
- Direct insertion type
- Resistant to foreign matter
- Automatic insertion is possible
- 56G PAM4 transmission is possible with YFLEX®

## Specification

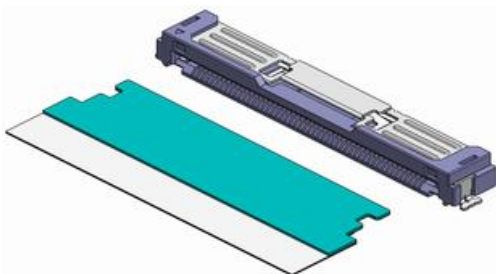
Current Rating	0.5A
Voltage Rating	AC/DC 50V
Operating Temp. Range	-40°C~+125°C
Matching Cycles	20 times
FPC/FFC Holding Power	min. 9.8N

pins	30	40	50
available	○	○	○

## Application

5G base station, IoT, AI,  
8K4K, Telecom Datacom,  
Network equipment

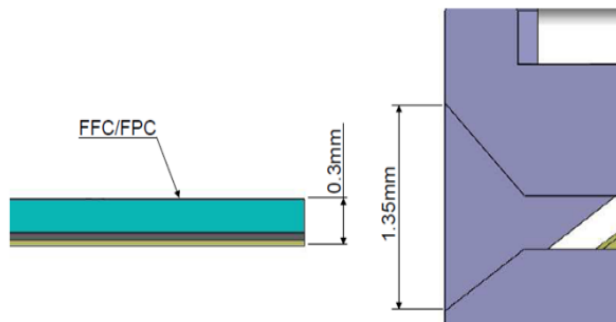
## Structure

How to remove FFC

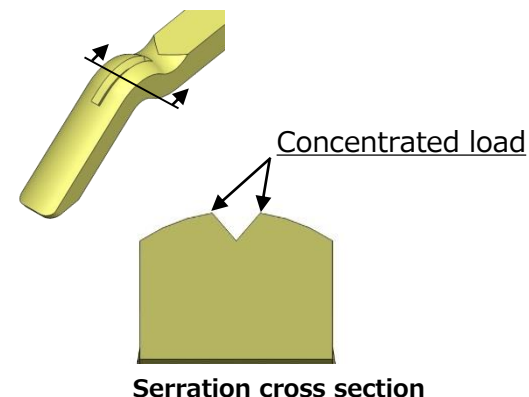
- ① Press the sheet metal in the center of the connector to unlock
- ② Pull out the FFC / FPC horizontally while unlocked

Guiding design to insert correctly

FPC / FFC insertion workability  
FPC / FPC has a thickness of 0.3 mm and  
guidance function(1.35 mm).

Serration structure

The structure does not allow foreign  
matter to enter





## YFBS series

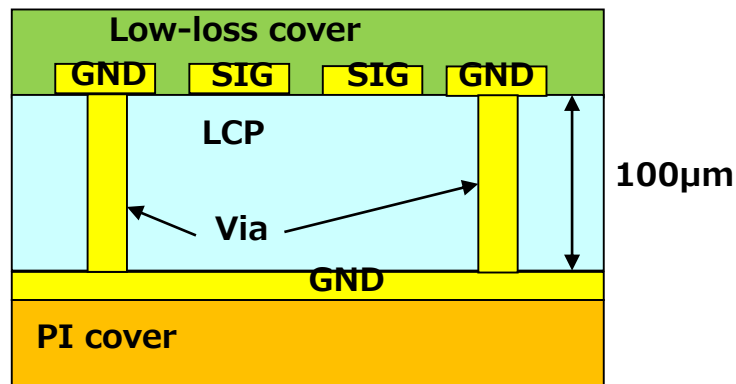
### Feature

- High speed transmission FPC cable
- Compatible with 125 °C
- Liquid crystal polymer (LCP) with excellent low loss and high frequency characteristics is used for the base film.
- Length : Max.460mm
- Bending is possible by customer request
- Custom wiring design is possible according to individual required performance such as pin assignment, low loss, and emphasis on low crosstalk.
- 56G PAM4 transmission is possible with our product "HF513"

### Application

5G base station, IoT, AI,  
8K4K, Telecom Datacom,  
Network equipment

### Structure diagram



### Specification

Test item	Test method	Reliability criteria
Insulation resistance	DC±5V 1minute JIS-C5016	500mΩ min.
Voltage resistance	AC±5V 0.5minute JIS-C5016	No spark, flashover and so on
Peel strength	JIS-C5016	4.9N/cm min.