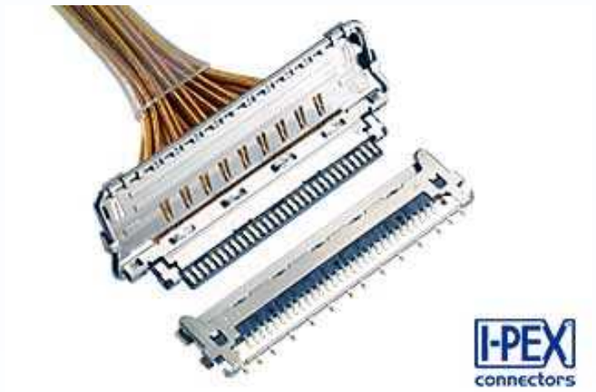
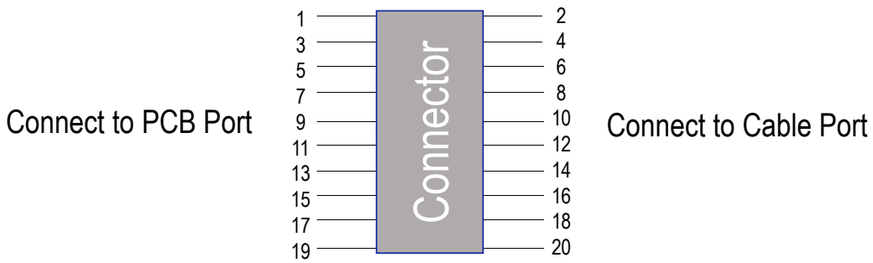
■ Provided Touchstone Model

Image	Product name	Pitch [mm]	Mating	Remarks
	CABLINE®-VS II	0.5	Horizontal	▪ High Speed Transmission ▪ EMI Reduction

Model Type	Pin assignment	Cable Length (mm)	Cable Zo (Ohm)	AWG	File name
Harness (Connector and Cable model)	All Signal	100	45	36	VSII_hns_100mm_45ohm_36.s20p
			50	38	VSII_hns_100mm_50ohm_38.s20p
		300	45	36	VSII_hns_300mm_45ohm_36.s20p
			50	38	VSII_hns_300mm_50ohm_38.s20p

■ Provided Touchstone list

- **Connector only model**



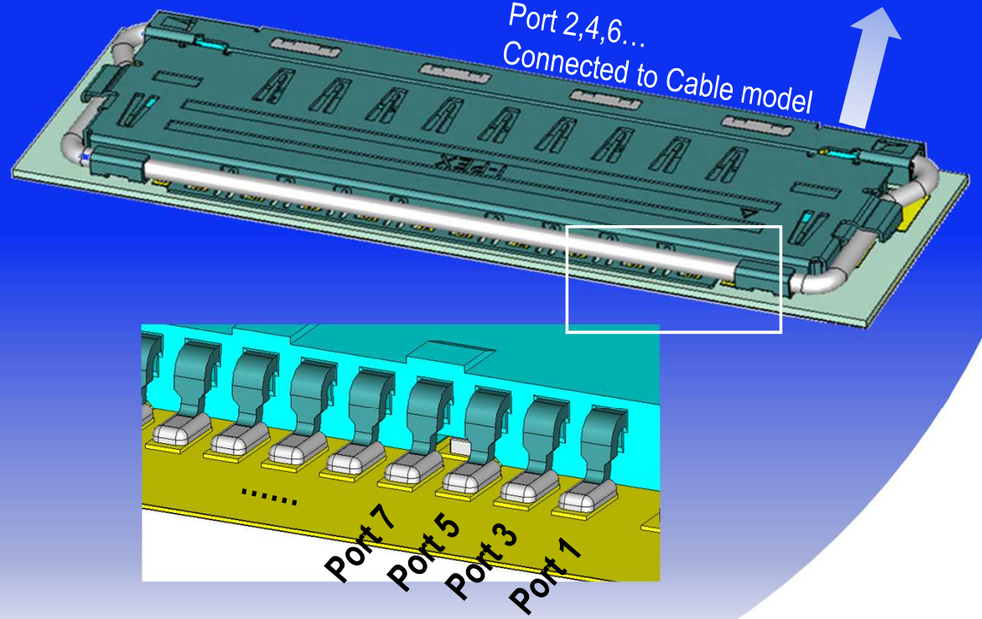
- **Cable only model**

Model Type	Pin assignment	Port Zo (Ohm)	File name
Connector only	All Signal	45	VSII_con_45ohm.s20p
		50	VSII_con_50ohm.s20p

Model Type	Pin assignment	Cable Length (mm)	Cable Zo (Ohm)	AWG	File name
Cable only	-	100	45	36	MCX_100mm_45ohm_36.s2p
			50	38	MCX_100mm_50ohm_38.s2p
		300	45	36	MCX_300mm_45ohm_36.s2p
			50	38	MCX_300mm_50ohm_38.s2p

■ Simulation Results Example

【Electromagnetic Simulation】



Simulation conditions

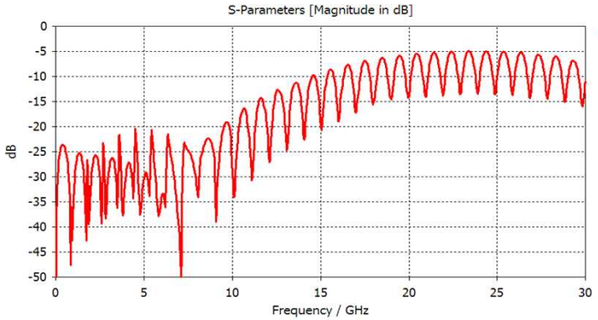
- Frequency : up to 30GHz
- Pin Assign : GSSGSSGSSG
- Differential Port Impedance : **85 Ohm**

Used Model

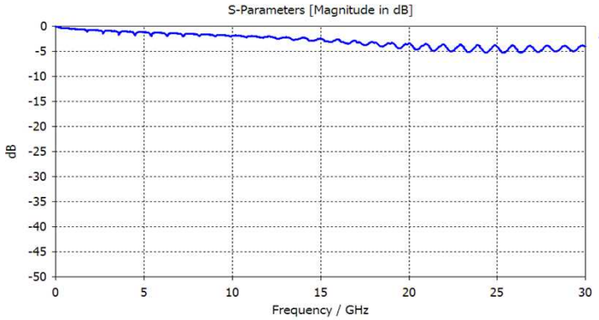
- Connector (VSII_con_45ohm.s20p)
- Cable (MCX_100mm_45ohm_36.s2p)

■ S-Parameter (Mixed Mode)

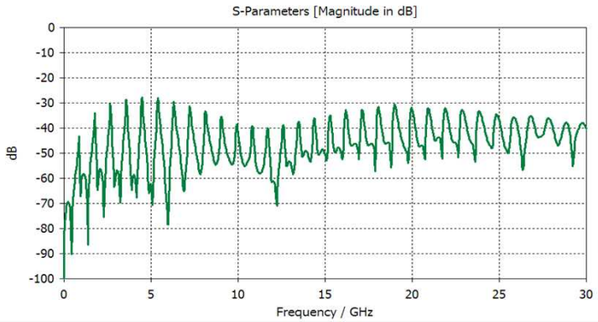
Return Loss



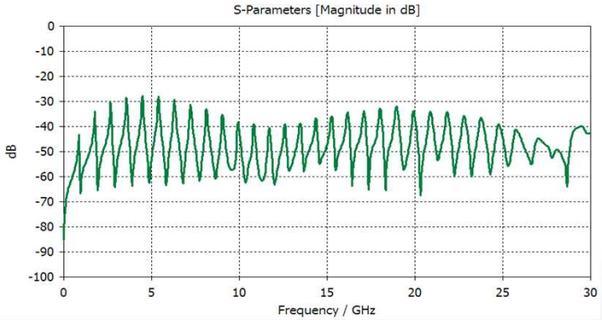
Insertion Loss



Near End Crosstalk



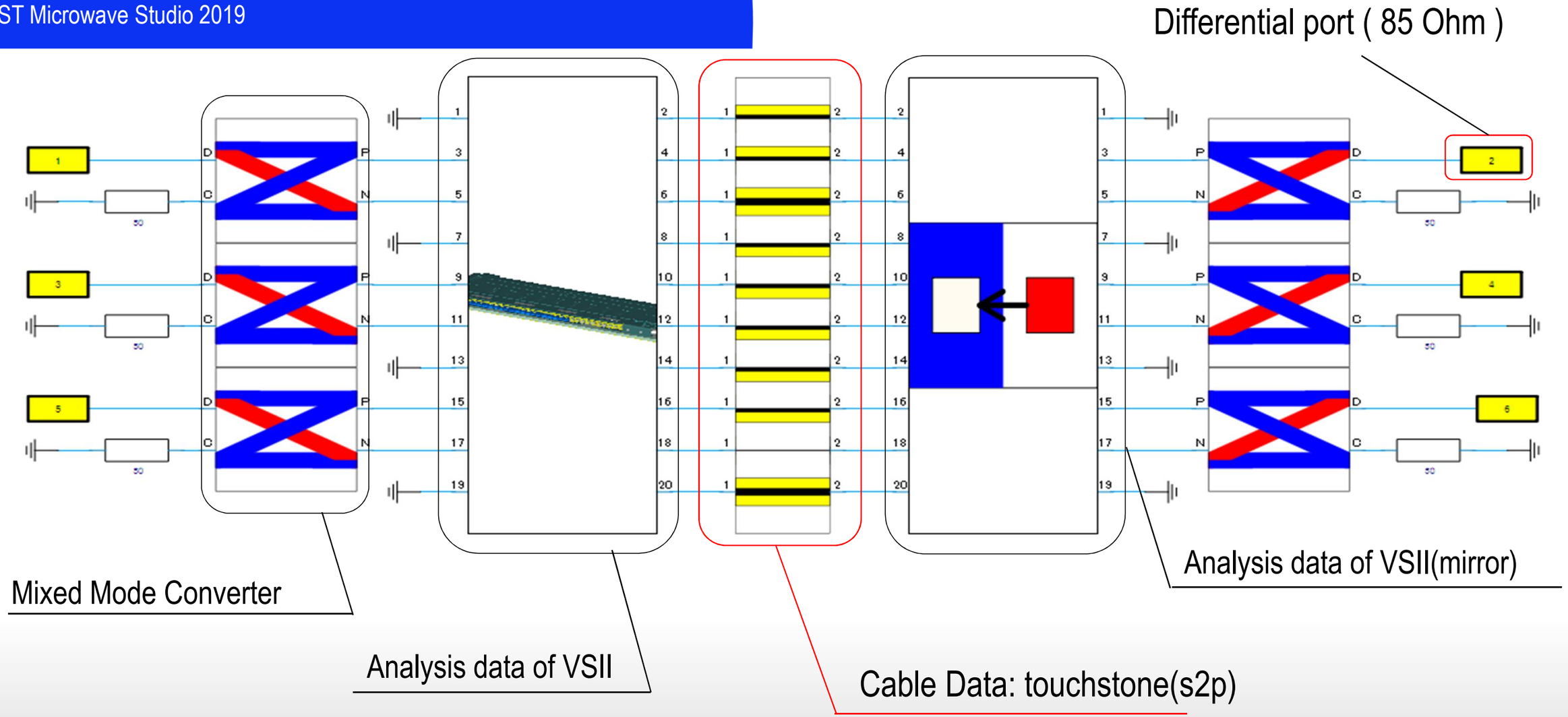
Far End Crosstalk



■ Circuit simulation Example

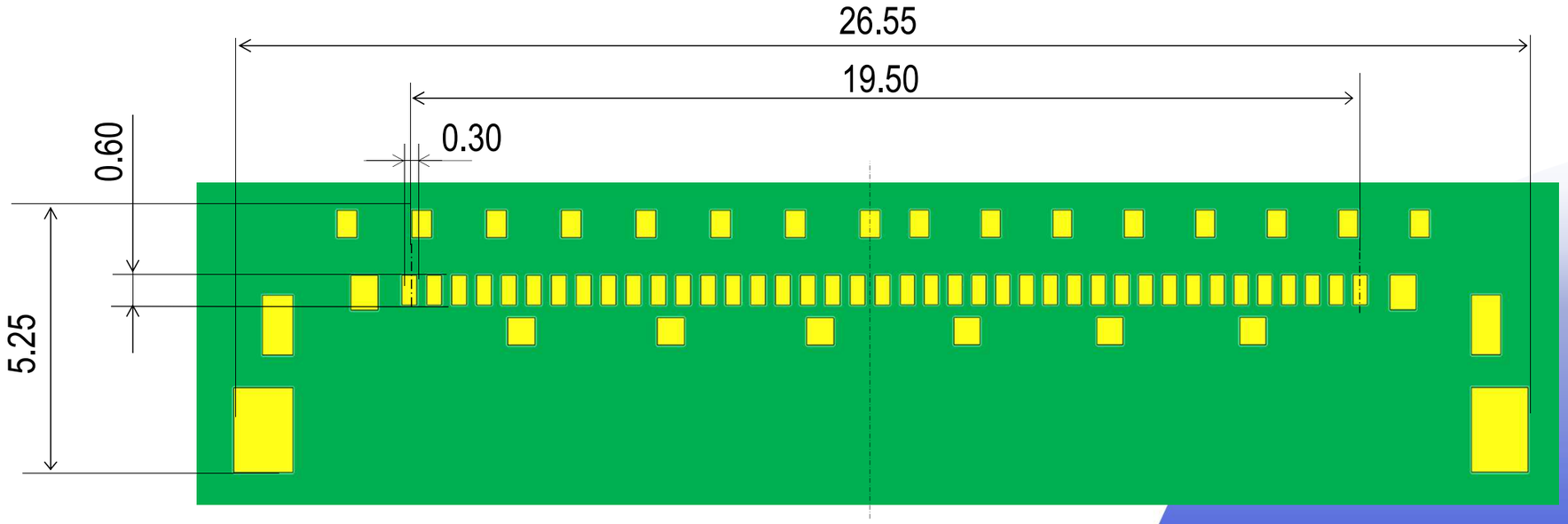
- Used software

  CST Microwave Studio 2019



■ Footprint Example

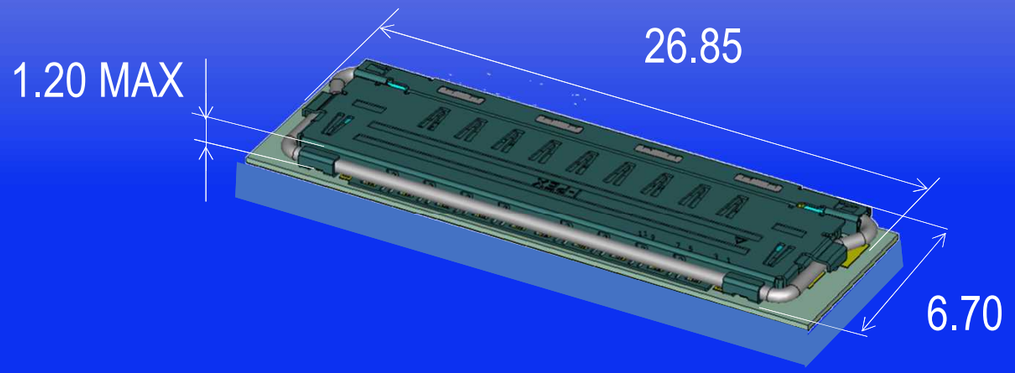
■ Footprint pattern size : 40p (mm)



For the detail and other pin counts : Please refer to I-PEX web-site.

PCB Stackup		
	Material	Thickness (mm)
TOP RESIST	Solder Mask	0.02
TOP LAYER	Copper	0.04
INSULATOR	Low Dk Material	0.2
BOTTOM LAYER	Copper	0.04
BOTTOM RESIST	Solder Mask	0.02

■ Connector size : 40p (mm)



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