


■ Provided Touchstone Model



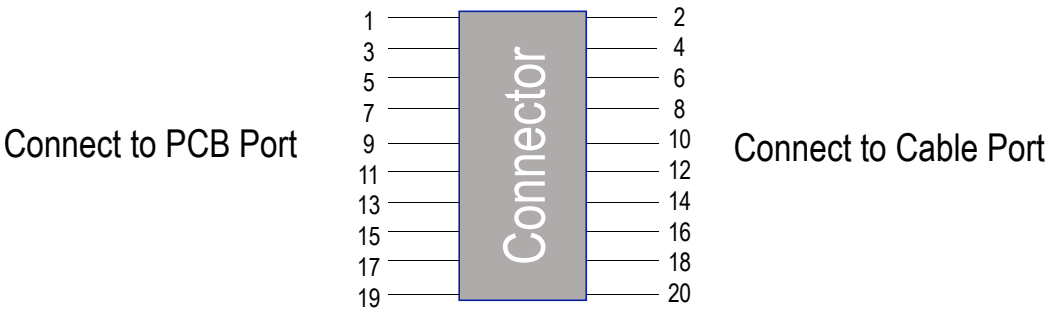
Image	Product name	Pitch [mm]	Mating	Remarks
	CABLINE®-CA II	0.4	Horizontal	<ul style="list-style-type: none"> ▪ High Speed Transmission ▪ EMI Reduction

Model Type	Pin assignment	Cable Length (mm)	Cable Zo (Ohm)	AWG	File name
Harness (Connector and Cable model)	All Signal	100	45	38	CAII_hns_100mm_45ohm_38.s20p
			50	40	CAII_hns_100mm_50ohm_40.s20p
		300	45	38	CAII_hns_300mm_45ohm_38.s20p
			50	40	CAII_hns_300mm_50ohm_40.s20p

■ Provided Touchstone list



• Connector only model



• Cable only model

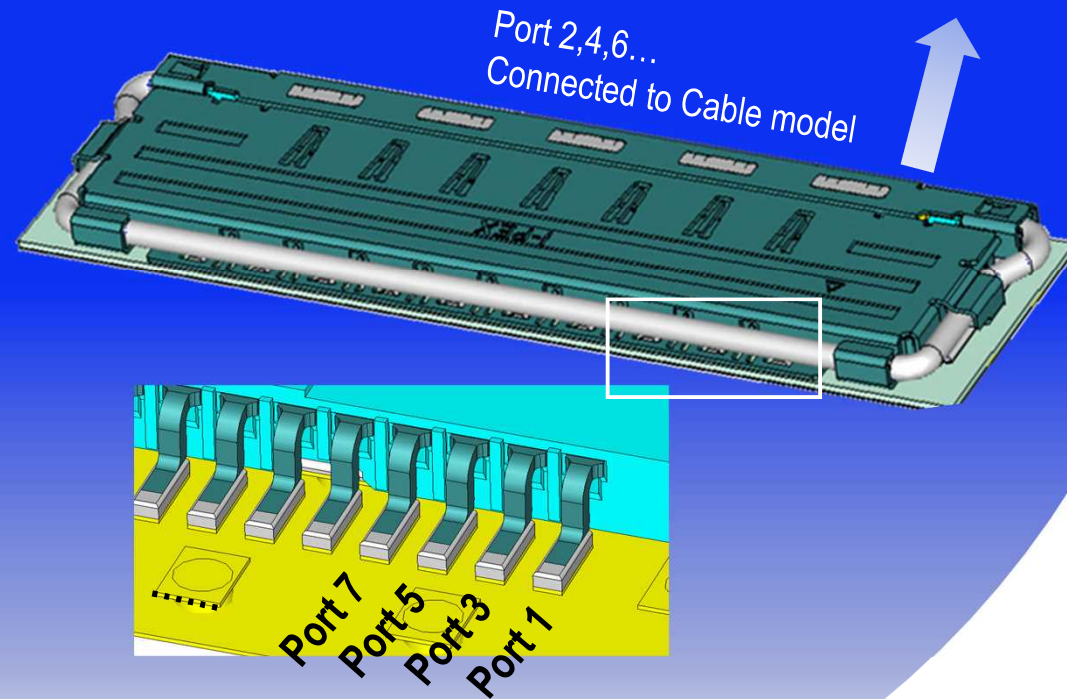


Model Type	Pin assignment	Port Zo (Ohm)		File name	
Connector only	All Signal	45		CAII_con_45ohm.s20p	
		50		CAII_con_50ohm.s20p	

Model Type	Pin assignment	Cable Length (mm)	Cable Zo (Ohm)	AWG	File name
Cable only	-	100	45	38	MCX_100mm_45ohm_38.s2p
			50	40	MCX_100mm_50ohm_40.s2p
		300	45	38	MCX_300mm_45ohm_38.s2p
			50	40	MCX_300mm_50ohm_40.s2p

■ Simulation Results Example

【Electromagnetic Simulation】



Simulation conditions

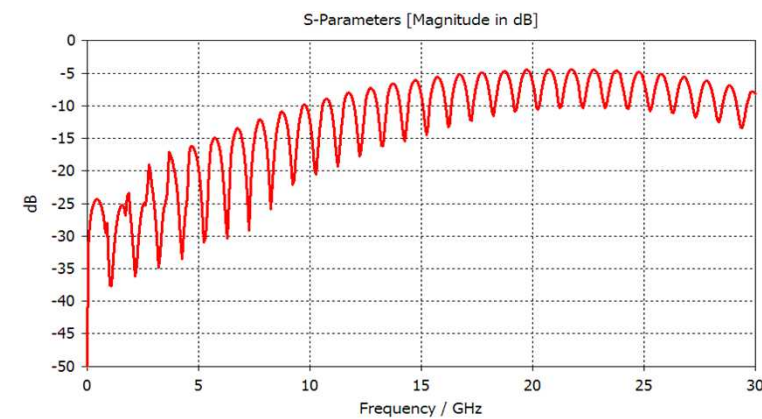
- Frequency : up to 30GHz
- Pin Assign : GSSGSSGSSG
- Differential Port Impedance : **85 Ohm**

Used Model

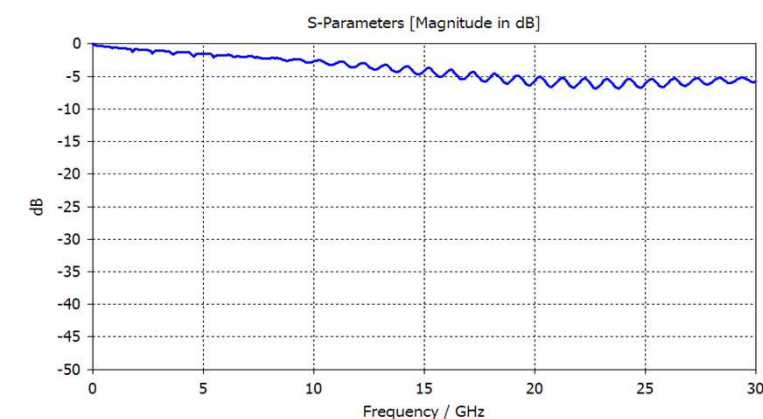
- Connector (CAI_con_45ohm.s20p)
- Cable (MCX_100mm_45ohm_38.s2p)

■ S-Parameter (Mixed Mode)

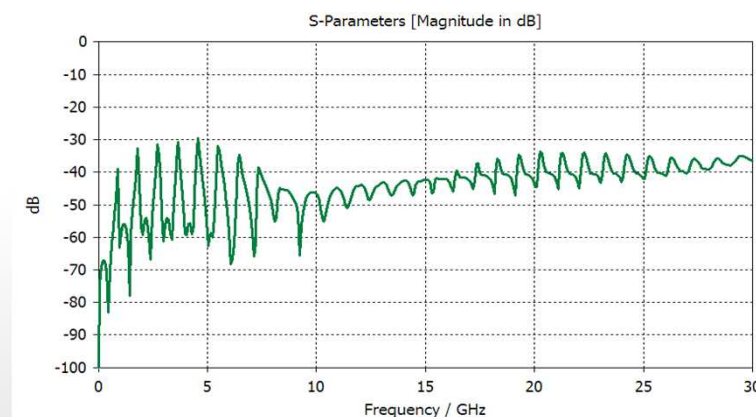
Return Loss



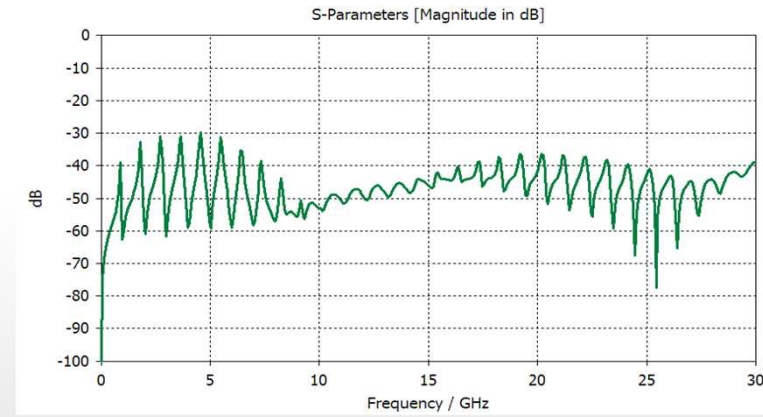
Insertion Loss



Near End Crosstalk

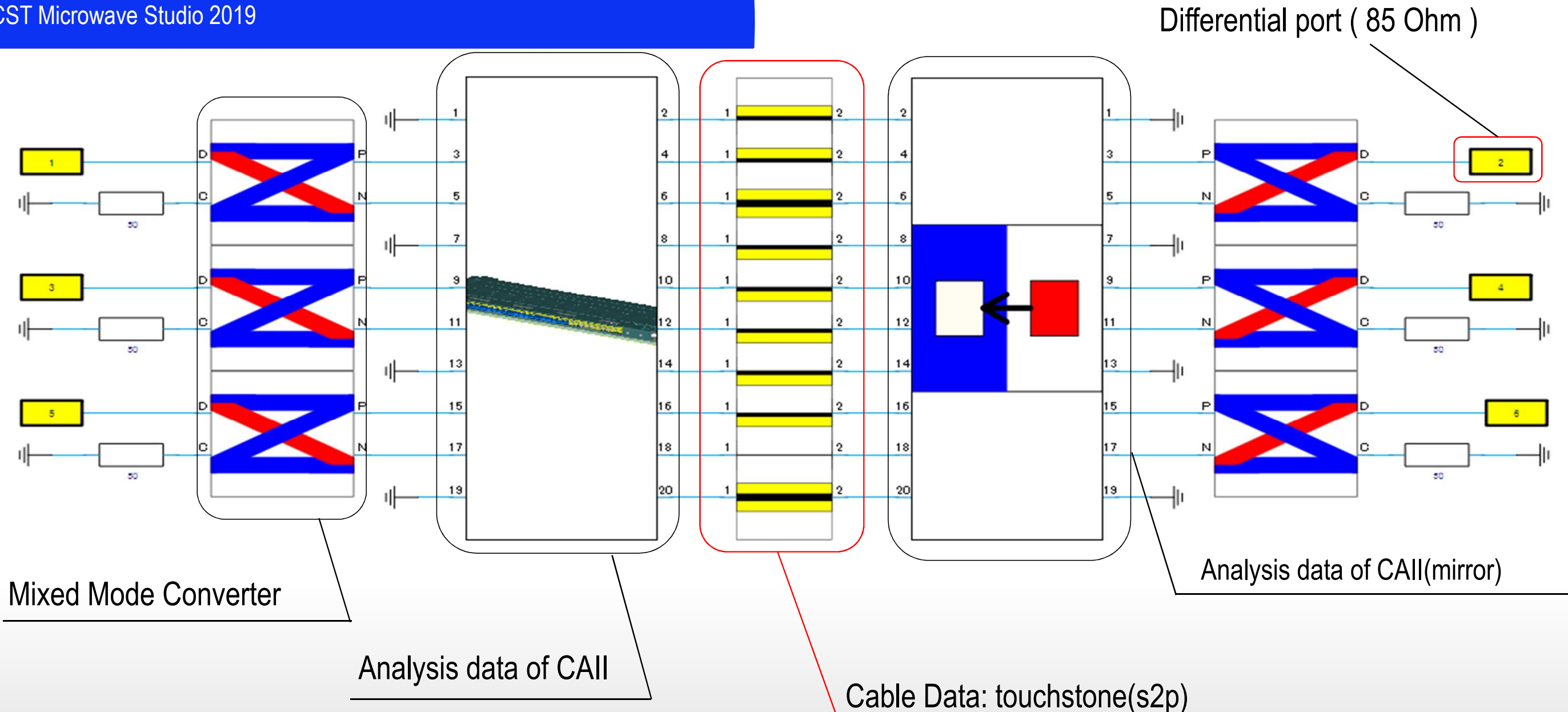


Far End Crosstalk



■ Circuit simulation Example

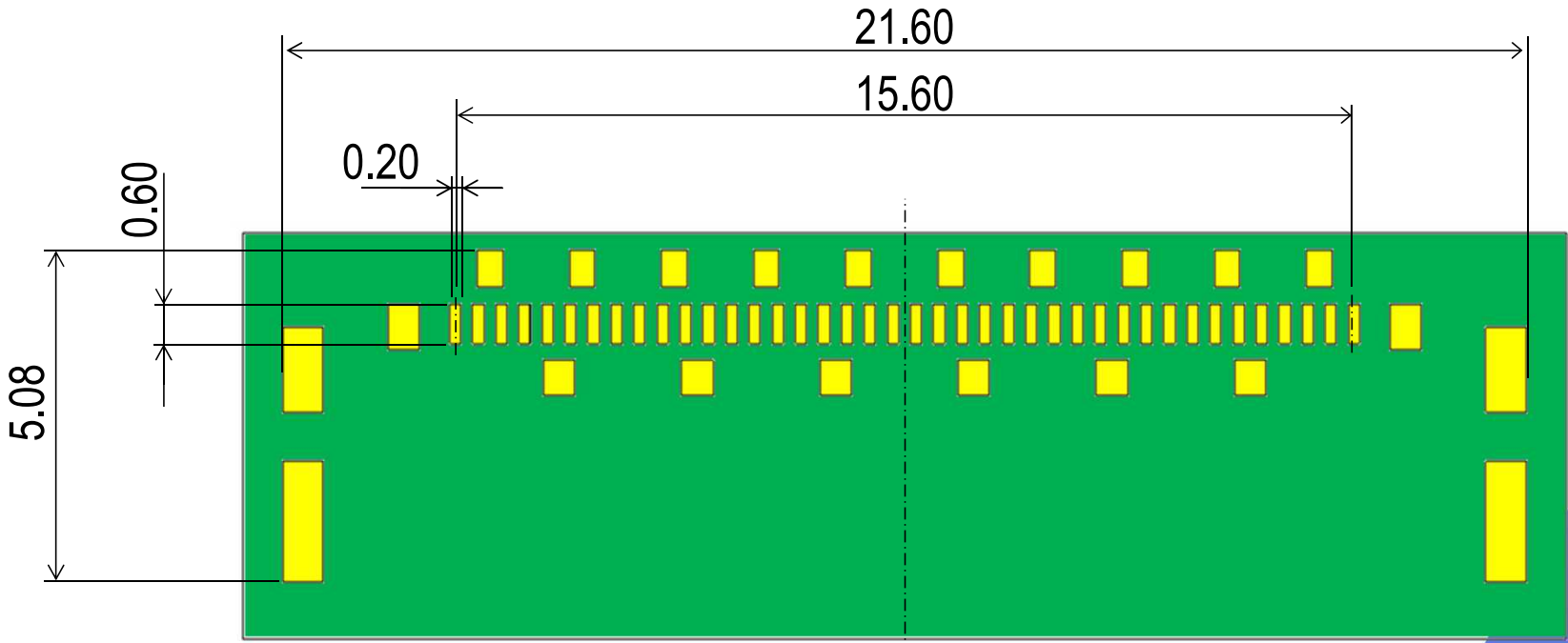
- Used software
CST Microwave Studio 2019



Footprint Example

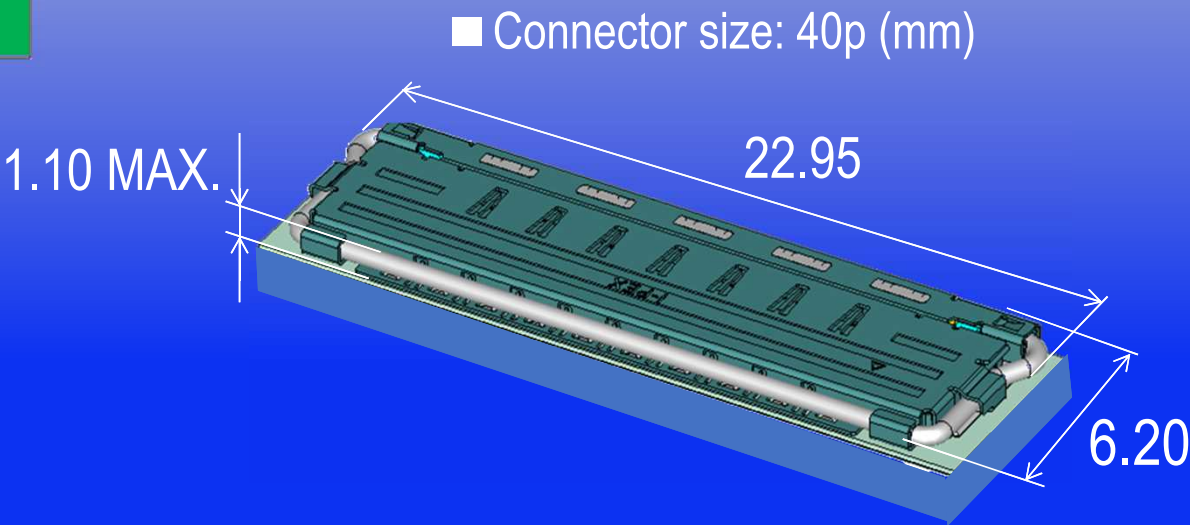


Footprint pattern outline : 40p (mm)



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



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