

**Series:** FS5/FT5 Series

**Description:** High Speed Floating Contact, Board-to-Board, 7mm Stack Height, 0.5mm Pitch,

The Speed Rating is based on the -3 dB insertion loss point of the connector system. The -3 dB point can be used to estimate usable system bandwidth in a typical, two-level signaling environment. To calculate the Speed Rating, the measured -3 dB point is rounded-up to the nearest half-GHz level. The up rounding corrects for a portion of the test board's trace loss, since a short length of trace loss included in the loss data in this report. The resulting loss value is then doubled to determine the approximate maximum data rate in Gigabits per second (Gbps).

For example, a connector with a -3 dB point of 7.8 GHz would have a Speed Rating of 8 GHz/ 16 Gbps. A connector with a -3 dB point of 7.2 GHz would have a Speed Rating of 7.5 GHz/ 15 Gbps.

## Frequency Domain Data Summary

Table 1 - Single-Ended Connector System Performance			
Case	Test Parameter	Configuration	
1	Insertion Loss	GSG	3dB @ 5.1 GHz
	Return Loss	GSG	> 10dB to 3.4 GHz
	Near-End Crosstalk	GAQG	< -20dB to .44 GHz
		GAGQG	< -20dB to 8.8 GHz
		Xrow, GAG to GQG	< -20dB to 10.2 GHz
	Far-End Crosstalk	GAQG	< -20dB to 10.0 GHz
		GAGQG	< -20dB to 9.4 GHz
		Xrow, GAG to GQG	< -20dB to 20.0 GHz
2	Insertion Loss	GSG	3dB @ 5.1 GHz
	Return Loss	GSG	> 10dB @ 3.4 GHz
	Near-End Crosstalk	GAQG	< -20dB to .44 GHz
		GAGQG	< -20dB to 8.8 GHz
		Xrow, GAG to GQG	< -20dB to 10.2 GHz
	Far-End Crosstalk	GAQG	< -20dB to 10.0 GHz
		GAGQG	< -20dB to 9.5 GHz
		Xrow, GAG to GQG	< -20dB to 20.0 GHz

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<b>Table 2 - Differential Connector System Performance</b>			
<b>Case</b>	<b>Test Parameter</b>	<b>Configuration</b>	
1	<b>Insertion Loss</b>	GSSG	3dB @ 5.1 GHz
	<b>Return Loss</b>	GSSG	> 10dB to 2.1 GHz
	<b>Near-End Crosstalk</b>	GAAQQG	< -20dB to 20.0 GHz
		GAAGQQG	< -20dB to 20.0 GHz
		Xrow, GAAG to	< -20dB to 20.0 GHz
	<b>Far-End Crosstalk</b>	GAAQQG	< -20dB to 20.0 GHz
		GAAGQQG	< -20dB to 20.0 GHz
		Xrow, GAAG to	< -20dB to 20.0 GHz
	2	<b>Insertion Loss</b>	GSSG
<b>Return Loss</b>		GSSG	> 10dB to 2.1 GHz
<b>Near-End Crosstalk</b>		GAAQQG	< -20dB to 20.0 GHz
		GAAGQQG	< -20dB to 20.0 GHz
		Xrow, GAAG to	< -20dB to 20.0 GHz
<b>Far-End Crosstalk</b>		GAAQQG	< -20dB to 20.0 GHz
		GAAGQQG	< -20dB to 20.0 GHz
		Xrow, GAAG to	< -20dB to 20.0 GHz

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### Bandwidth Chart – Single-Ended & Differential Insertion Loss

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