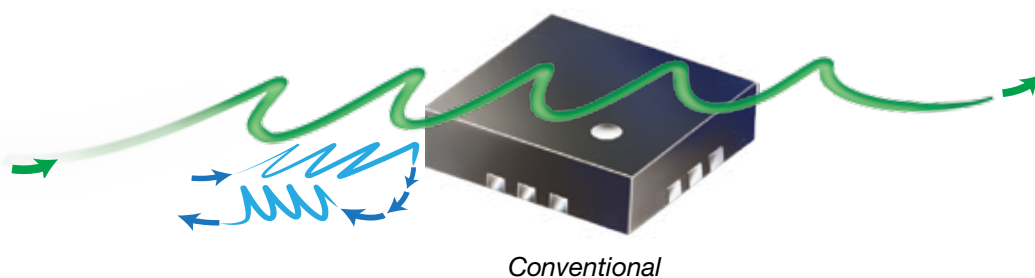


NOW! Revolutionary
REFLECTIONLESS
FILTERS

DC to 21 GHz!



Stops Signal Reflections Dead in Their Tracks!

- Perfect for pairing with mixers, multipliers, signal sources and more!
- Prevents unwanted reflections in the stop band
- Cascadable to enhance rejection
- Amplitude and phase stable
- Ultra small - 3x3mm QFN

Protected by US Patent No. 8,392,495



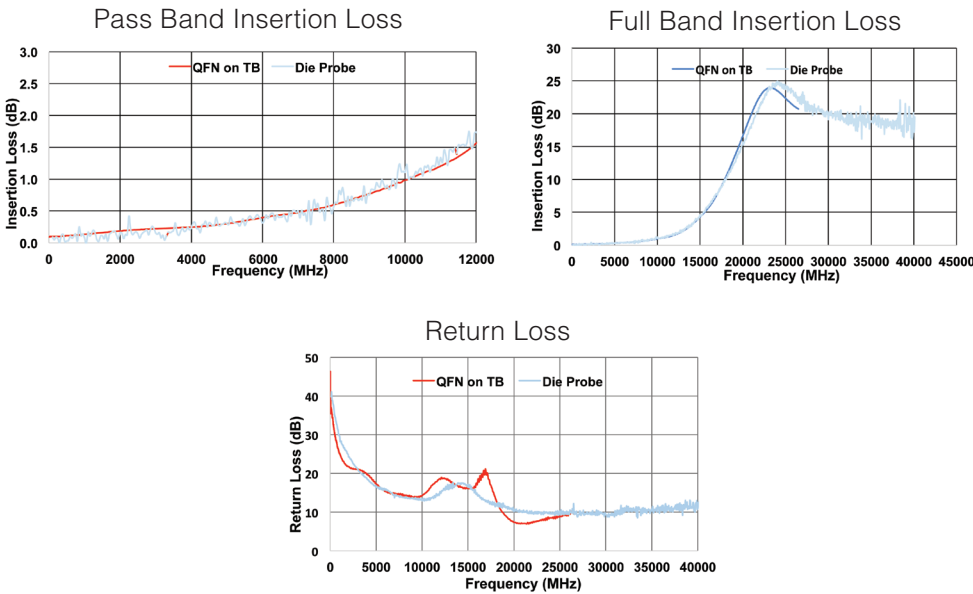
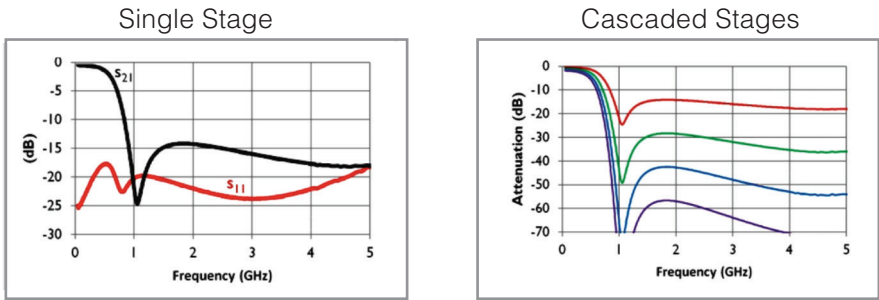


Reflectionless Filters Specifications

Type	MCL Model Number	ED Number	Pass-band (GHz)		Stop-band (GHz)	Min. Return Loss (dB)	
			<i>I.L. < 1dB</i>	<i>I.L. < 3dB</i>	<i>I.L. > 14dB</i>	<i>pass-band</i>	<i>stop-band</i>
low-pass	XLF-151+	ED15042902	0-0.15	0-0.30	0.46-3.41	20	13
	XLF-221+	ED15042903	0-0.22	0-0.38	0.57-4.03	20	13
	XLF-421+	ED15042904	0-0.42	0-0.62	0.90-5.95	18	12
	XLF-551+	ED15042905	0-0.55	0-0.79	1.14-6.45	20	15
	XLF-861+	ED15042906	0-0.86	0-1.20	1.70-8.75	17	15
	XLF-122+	ED15042907	0-1.15	0-1.56	2.19-11.2	16	14
	XLF-192+	ED15042908	0-1.89	0-2.50	3.48-13.0	20	18
	XLF-252+	ED15042909	0-2.52	0-3.31	4.55-19.2	16	14
	XLF-332+	ED15042910	0-3.25	0-4.20	5.90-19.9	17	16
	XLF-732+	ED15042911	0-7.25	0-10.2	14.3-38.3	12	10
	XLF-982+	ED15042912	0-9.75	0-13.8	>19.55	13	8
low-pass (3rd-order)	XLF-63+	ED15042913	0-6.0	0-8.2	9.6-17.8	11	7
	XLF-73+	ED15042914	0-7.0	0-10.0	11.7-21.3	10	7
	XLF-762+	ED15042915	0-7.6	0-11.3	13.1-23.2	10	7
	XLF-962+	ED15042916	0-9.6	0-12.8	14.8-25.8	11	6
	XLF-14+	ED15042917	0-10.2	0-13.6	15.8-27.4	11	6
	XLF-123+	ED15042918	0-12.2	0-15.7	18.1-30.8	11	7
	XLF-133+	ED15042919	0-13.1	0-16.9	19.5-32.7	11	7
	XLF-173+	ED15042920	0-17.1	0-21.1	23.9-39.0	16	7
high-pass	XHF-23+	ED15042921	2.01-10.1	1.65-15.9	0-1.21	9	19
	XHF-252+	ED15042922	2.46-10.4	2.03-17.5	0-1.52	9	17
	XHF-392+	ED15042923	3.94-11.5	3.28-19.5	0-2.49	9	16
band-pass	XBF-282+	ED15042924	--	2.3-3.15	0-1.85, 3.8-10.8	20	11

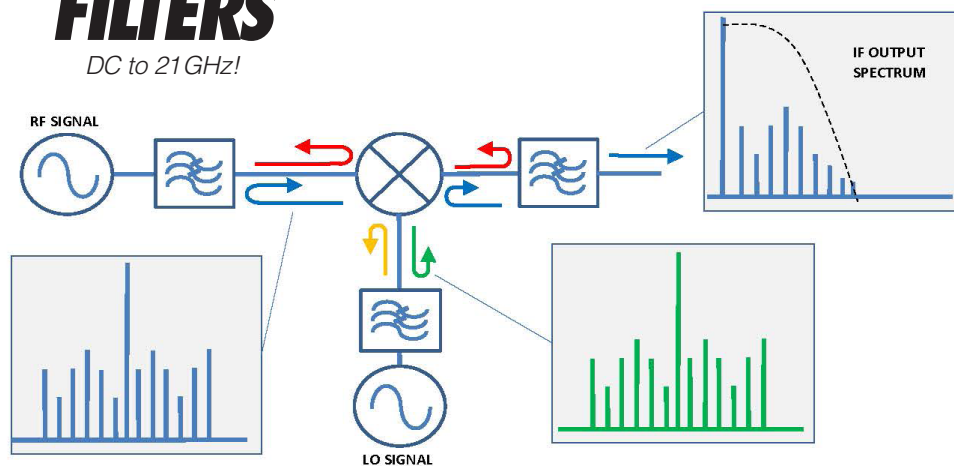
Characterization

Typical Performance for a Single Pole Low Pass Filter

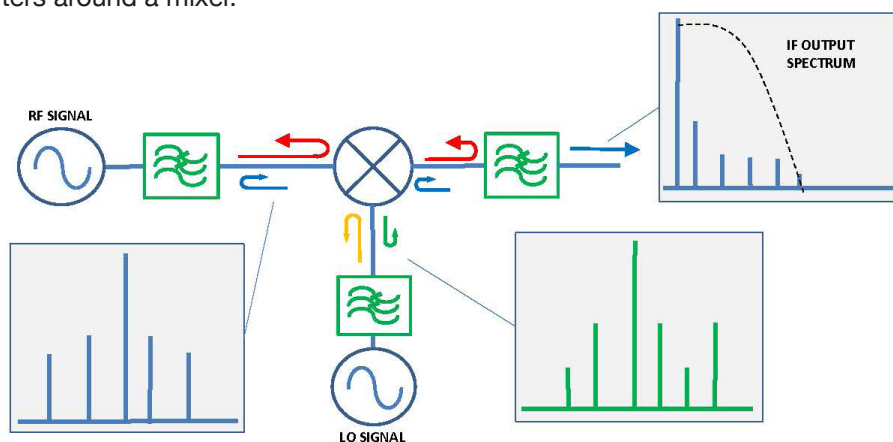


NOW! *Revolutionary* REFLECTIONLESS FILTERS

DC to 21 GHz!



Typical intermodulation expansion due to reflections from multiple filters around a mixer.



Minimizing the effect of intermodulation expansion by using reflectionless filters on mixer ports.

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