

# Coaxial Band Stop Filter

# ZCBS4-1090-S+

## Typical Performance Data

FREQ. (MHz)	INSERTION LOSS			INPUT RETURN LOSS			OUTPUT RETURN LOSS		
	(dB)			(dB)			(dB)		
	@-40°C	@+25°C	@+85°C	@-40°C	@+25°C	@+85°C	@-40°C	@+25°C	@+85°C
1	0.00	0.00	0.01	61.33	58.80	57.57	59.50	57.41	56.43
10	0.01	0.02	0.02	57.18	51.07	48.24	56.96	50.85	48.09
20	0.02	0.02	0.03	54.23	47.68	44.23	53.82	47.13	43.83
30	0.02	0.03	0.03	51.88	45.47	41.71	52.12	44.94	41.29
40	0.03	0.03	0.04	50.07	43.89	40.04	49.96	43.32	39.59
50	0.03	0.04	0.04	48.33	42.94	39.12	47.90	42.03	38.36
60	0.04	0.05	0.05	46.32	41.94	38.44	45.65	41.06	37.62
70	0.04	0.05	0.05	44.73	41.36	38.33	43.42	40.14	37.13
80	0.05	0.06	0.06	42.84	40.67	38.33	41.48	39.46	36.95
100	0.06	0.07	0.07	39.35	39.80	39.25	37.71	38.10	36.96
200	0.09	0.11	0.12	31.47	39.83	47.67	30.24	35.62	39.96
300	0.12	0.15	0.16	39.76	40.96	43.03	37.29	37.29	38.43
400	0.14	0.18	0.19	33.74	34.91	34.51	35.96	38.86	38.38
500	0.17	0.21	0.22	27.69	28.72	30.19	29.04	30.35	32.76
600	0.20	0.25	0.27	23.13	23.40	24.28	23.44	23.66	24.53
700	0.25	0.30	0.33	19.76	19.74	19.98	19.70	19.65	19.85
800	0.30	0.36	0.39	18.59	18.60	18.31	18.51	18.52	18.22
900	0.32	0.38	0.42	22.07	22.46	21.77	22.01	22.39	21.75
1000	0.44	0.53	0.58	33.18	34.24	34.35	32.58	33.51	33.45
1040	0.89	1.05	1.13	22.81	22.42	22.89	23.62	23.24	23.80
1057	2.73	3.20	3.51	13.23	12.46	12.03	13.94	13.16	12.72
1063	9.13	10.00	10.54	3.47	3.52	3.56	3.69	3.74	3.79
1068	19.80	20.75	21.34	1.56	1.72	1.81	1.68	1.84	1.94
1070	24.96	25.94	26.55	1.29	1.45	1.54	1.39	1.55	1.64
1071	27.74	28.74	29.37	1.19	1.35	1.44	1.29	1.44	1.53
1080	56.72	57.26	57.52	0.78	0.92	0.99	0.83	0.96	1.03
1085	52.83	52.77	52.75	0.69	0.82	0.89	0.72	0.85	0.91
1088	52.55	52.63	52.76	0.66	0.79	0.85	0.69	0.81	0.87
1090	53.88	54.20	54.33	0.65	0.78	0.84	0.67	0.79	0.85
1092	56.50	57.09	57.44	0.64	0.77	0.83	0.66	0.78	0.84
1095	61.03	61.77	62.04	0.63	0.76	0.83	0.66	0.77	0.83
1098	54.20	53.35	52.91	0.64	0.77	0.84	0.66	0.78	0.84
1100	47.02	46.28	45.88	0.66	0.79	0.85	0.67	0.79	0.86
1106	31.00	30.58	30.38	0.73	0.88	0.95	0.74	0.87	0.94
1112	19.98	19.71	19.61	0.94	1.11	1.19	0.94	1.10	1.19
1119	10.36	10.23	10.18	1.80	2.05	2.19	1.78	2.02	2.16
1128	2.97	3.04	3.08	6.69	7.23	7.57	6.58	7.08	7.41
1130	2.20	2.31	2.36	8.79	9.41	9.83	8.64	9.20	9.60
1135	1.19	1.33	1.40	16.02	16.97	17.83	15.55	16.32	17.00
1140	0.84	0.97	1.04	29.42	32.59	38.02	26.01	26.73	27.37
1150	0.63	0.75	0.82	23.63	23.25	22.49	23.71	23.25	22.51
1155	0.59	0.69	0.76	22.33	22.13	21.58	22.60	22.34	21.82
1160	0.55	0.65	0.71	22.43	22.30	21.87	22.79	22.62	22.22
1165	0.51	0.61	0.67	23.30	23.23	22.86	23.79	23.67	23.35
1170	0.49	0.58	0.64	24.81	24.77	24.45	25.48	25.39	25.15
1175	0.46	0.56	0.61	26.95	26.95	26.67	27.92	27.84	27.70
1180	0.45	0.54	0.59	29.90	29.95	29.72	31.59	31.52	31.54
1185	0.43	0.52	0.57	33.93	34.04	33.75	37.76	37.58	38.01
1190	0.42	0.51	0.56	37.49	37.55	36.81	47.17	44.94	44.47
1200	0.41	0.50	0.55	31.52	31.38	30.71	31.66	31.43	30.79
1210	0.41	0.50	0.55	26.78	26.70	26.18	26.66	26.56	26.05
1220	0.41	0.50	0.55	24.16	24.12	23.66	24.06	24.03	23.56
1230	0.42	0.51	0.55	22.65	22.66	22.21	22.59	22.62	22.16
1240	0.42	0.51	0.56	21.83	21.89	21.44	21.84	21.92	21.47
1250	0.43	0.51	0.57	21.54	21.65	21.20	21.66	21.79	21.34
1260	0.43	0.52	0.57	21.77	21.92	21.46	22.03	22.24	21.77
1270	0.43	0.52	0.57	22.51	22.71	22.24	23.02	23.32	22.84
1280	0.43	0.52	0.57	23.87	24.13	23.63	24.97	25.45	24.90
1290	0.43	0.52	0.58	25.85	26.10	25.57	28.71	29.64	28.91
1300	0.44	0.53	0.59	27.53	27.38	27.04	38.40	41.50	40.11

## Typical Performance Data

FREQ.	GROUP DELAY-1			FREQ.	GROUP DELAY-2		
(MHz)	(ns)			(MHz)	(ns)		
	@-40°C	@+25°C	@+85°C		@-40°C	@+25°C	@+85°C
1	1.26	1.27	1.23	1140	9.58	9.42	9.34
2	1.20	1.21	1.18	1141	9.26	9.11	9.03
4	1.17	1.17	1.16	1142	8.94	8.79	8.73
10	1.15	1.15	1.15	1143	8.63	8.49	8.43
20	1.16	1.15	1.14	1144	8.32	8.19	8.13
40	1.15	1.15	1.14	1145	8.01	7.89	7.83
60	1.15	1.14	1.14	1146	7.70	7.60	7.54
80	1.15	1.14	1.14	1147	7.41	7.31	7.26
100	1.15	1.14	1.14	1148	7.13	7.04	6.99
120	1.15	1.14	1.14	1149	6.87	6.79	6.75
140	1.15	1.14	1.14	1150	6.63	6.55	6.51
160	1.15	1.14	1.14	1155	5.67	5.62	5.59
180	1.15	1.14	1.14	1160	5.00	4.96	4.94
200	1.15	1.14	1.14	1165	4.49	4.46	4.45
220	1.15	1.15	1.14	1170	4.11	4.09	4.07
240	1.16	1.15	1.14	1175	3.80	3.77	3.76
260	1.16	1.15	1.15	1180	3.39	3.37	3.36
280	1.16	1.15	1.15	1185	3.30	3.28	3.27
300	1.17	1.16	1.15	1190	3.20	3.19	3.18
320	1.17	1.16	1.15	1195	3.11	3.09	3.09
340	1.17	1.16	1.16	1200	3.01	3.00	2.99
360	1.18	1.17	1.16	1205	2.92	2.90	2.90
380	1.18	1.17	1.17	1210	2.83	2.81	2.81
400	1.19	1.18	1.17	1215	2.73	2.72	2.72
420	1.19	1.18	1.18	1220	2.65	2.64	2.63
440	1.20	1.19	1.18	1225	2.57	2.56	2.56
460	1.20	1.19	1.19	1230	2.51	2.50	2.50
480	1.21	1.20	1.19	1235	2.46	2.45	2.44
500	1.22	1.21	1.20	1240	2.41	2.40	2.40
520	1.22	1.21	1.21	1245	2.37	2.36	2.36
540	1.23	1.22	1.22	1250	2.34	2.33	2.33
560	1.24	1.23	1.22	1255	2.31	2.31	2.30
580	1.25	1.24	1.23	1260	2.29	2.28	2.28
600	1.26	1.25	1.24	1265	2.27	2.27	2.26
650	1.28	1.27	1.27	1270	2.26	2.26	2.25
700	1.32	1.31	1.30	1275	2.25	2.25	2.25
750	1.36	1.35	1.35	1280	2.25	2.24	2.24
800	1.43	1.42	1.42	1285	2.24	2.24	2.24
900	1.72	1.72	1.71	1290	2.25	2.24	2.24
1000	3.48	3.49	3.50	1295	2.25	2.25	2.25
1040	7.18	7.25	7.30	1300	2.26	2.25	2.26