

Solid State SPI RF SP8T Switch

SPI-SP8T-6G

Typical Performance Data

TEST CONDITIONS: @Temperature = +25°C, Power in=0 dBm

FREQUENCY (MHz)	INSERTION LOSS							
	(dB)							
	COM-J1	COM-J2	COM-J3	COM-J4	COM-J5	COM-J6	COM-J7	COM-J8
1	2.04	2.04	1.98	2.06	2.12	2.10	2.08	2.06
20	2.06	2.05	2.00	2.08	2.14	2.12	2.09	2.08
40	2.07	2.07	2.02	2.10	2.15	2.13	2.11	2.09
70	2.10	2.09	2.04	2.12	2.17	2.15	2.13	2.12
100	2.12	2.11	2.06	2.14	2.20	2.17	2.15	2.14
200	2.19	2.17	2.12	2.21	2.27	2.24	2.21	2.21
300	2.26	2.24	2.19	2.29	2.35	2.31	2.28	2.29
400	2.35	2.32	2.26	2.38	2.43	2.39	2.36	2.38
500	2.45	2.40	2.34	2.48	2.53	2.48	2.44	2.47
600	2.54	2.49	2.43	2.57	2.61	2.56	2.52	2.57
700	2.62	2.57	2.51	2.66	2.70	2.64	2.60	2.66
800	2.69	2.64	2.58	2.73	2.76	2.71	2.67	2.72
900	2.75	2.70	2.64	2.78	2.82	2.77	2.73	2.78
1000	2.79	2.75	2.69	2.83	2.86	2.81	2.78	2.82
1100	2.83	2.80	2.73	2.87	2.91	2.85	2.82	2.86
1200	2.86	2.83	2.77	2.90	2.94	2.89	2.85	2.89
1300	2.90	2.87	2.80	2.93	2.98	2.92	2.89	2.93
1400	2.94	2.90	2.84	2.97	3.02	2.95	2.92	2.98
1500	2.99	2.94	2.88	3.02	3.07	2.98	2.96	3.02
1600	3.04	2.98	2.92	3.06	3.11	3.02	3.00	3.06
1700	3.09	3.03	2.97	3.12	3.16	3.07	3.05	3.10
1800	3.15	3.09	3.03	3.17	3.21	3.13	3.10	3.14
1900	3.20	3.15	3.09	3.22	3.26	3.19	3.15	3.19
2000	3.24	3.21	3.16	3.27	3.31	3.27	3.22	3.26
2100	3.30	3.28	3.22	3.32	3.37	3.34	3.28	3.33
2200	3.36	3.34	3.29	3.37	3.42	3.42	3.34	3.40
2300	3.41	3.39	3.34	3.42	3.48	3.48	3.40	3.48
2400	3.46	3.44	3.39	3.46	3.52	3.53	3.45	3.54
2600	3.53	3.52	3.46	3.52	3.60	3.60	3.53	3.63
2800	3.59	3.60	3.53	3.57	3.66	3.66	3.60	3.68
2900	3.63	3.64	3.56	3.61	3.70	3.68	3.65	3.71
3000	3.68	3.68	3.60	3.67	3.75	3.72	3.69	3.77
3100	3.75	3.73	3.64	3.76	3.83	3.75	3.74	3.85
3200	3.86	3.77	3.69	3.87	3.94	3.80	3.80	3.95
3300	3.97	3.82	3.74	4.00	4.06	3.85	3.86	4.06
3400	4.09	3.87	3.80	4.11	4.17	3.93	3.92	4.17
3500	4.17	3.93	3.85	4.19	4.24	4.00	3.98	4.23
3600	4.21	3.98	3.91	4.22	4.28	4.07	4.03	4.25
3700	4.22	4.03	3.95	4.22	4.28	4.11	4.07	4.24
3800	4.21	4.07	3.98	4.20	4.26	4.14	4.10	4.22
3900	4.20	4.08	4.00	4.20	4.26	4.15	4.10	4.22
4000	4.21	4.08	4.00	4.21	4.28	4.14	4.10	4.25
4100	4.25	4.08	4.01	4.25	4.34	4.14	4.10	4.29
4200	4.31	4.09	4.03	4.30	4.42	4.15	4.12	4.34
4300	4.35	4.12	4.06	4.33	4.48	4.17	4.15	4.37
4400	4.37	4.16	4.10	4.35	4.52	4.20	4.19	4.39
4600	4.38	4.21	4.16	4.37	4.54	4.25	4.24	4.40
4800	4.40	4.24	4.20	4.41	4.56	4.27	4.27	4.45
5000	4.47	4.33	4.28	4.47	4.63	4.38	4.38	4.56
5200	4.58	4.54	4.44	4.56	4.72	4.63	4.60	4.77
5400	4.73	4.79	4.63	4.76	4.88	4.90	4.85	4.97
5600	4.93	4.96	4.80	4.99	5.13	5.06	5.01	5.15
5800	5.12	5.03	4.92	5.22	5.30	5.09	5.07	5.30
6000	5.21	5.08	5.00	5.30	5.36	5.13	5.11	5.41

Notes

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 B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuits' applicable established test performance criteria and measurement instructions.
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SPI-SP8T-6G
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Page 1 of 4

Solid State SPI RF SP8T Switch

SPI-SP8T-6G

Typical Performance Data

TEST CONDITIONS: @Temperature = +25°C, Power in=0 dBm

FREQUENCY (MHz)	Isolation (COM to terminated port)							
	(dB)							
	COM-J1	COM-J2	COM-J3	COM-J4	COM-J5	COM-J6	COM-J7	COM-J8
1	87.36	93.70	94.41	96.47	96.67	89.18	90.97	95.81
20	99.55	107.36	104.02	105.73	105.40	107.87	87.83	96.21
40	101.20	109.54	103.82	106.27	105.73	108.55	86.34	96.14
70	104.83	109.75	105.60	108.40	106.04	109.57	84.82	95.91
100	105.49	110.18	105.74	110.80	106.57	112.25	83.84	95.18
200	107.14	109.37	105.05	109.56	112.63	112.29	81.29	91.55
300	103.31	109.75	104.26	110.76	108.78	111.88	78.56	90.76
400	104.90	112.13	102.20	112.14	110.90	114.32	77.29	89.95
500	104.87	109.91	106.23	107.35	108.01	111.01	77.85	89.94
600	104.39	111.05	100.55	109.38	106.63	110.57	79.15	88.83
700	104.75	112.29	102.83	108.25	106.15	112.06	78.39	88.38
800	103.98	109.96	105.85	108.26	112.29	109.02	76.70	87.70
900	103.75	108.84	105.43	111.22	108.96	109.93	75.28	87.80
1000	102.49	109.14	104.68	110.30	109.84	109.95	75.30	87.46
1100	102.56	107.11	101.47	108.05	108.17	109.17	75.98	87.15
1200	103.29	108.25	103.71	107.87	105.43	105.97	78.51	86.58
1300	102.95	106.74	104.22	112.13	107.85	110.51	79.01	86.97
1400	102.69	112.57	101.86	111.10	106.44	111.59	79.15	86.75
1500	106.04	108.81	101.47	108.45	108.03	108.80	80.91	86.52
1600	105.79	107.03	102.28	103.70	107.91	107.58	81.85	86.54
1700	102.12	110.42	100.55	109.22	110.57	105.75	81.43	86.22
1800	102.56	106.86	100.59	105.81	107.42	105.98	81.26	85.98
1900	104.15	107.92	98.44	111.93	112.45	105.89	81.26	86.04
2000	103.19	106.17	98.69	107.56	108.45	104.56	81.77	85.52
2100	102.00	105.54	97.68	106.45	105.30	108.04	81.95	85.92
2200	102.68	105.77	96.45	106.73	105.63	105.31	81.84	85.17
2300	105.51	104.46	97.47	108.12	106.43	104.21	81.26	84.95
2400	102.62	103.91	97.28	108.15	107.29	104.35	80.96	84.40
2600	101.85	103.31	93.17	108.19	105.09	104.12	80.45	84.12
2800	102.60	107.58	91.67	109.94	105.16	102.89	80.33	85.12
2900	102.98	105.26	92.25	105.90	107.80	106.46	78.94	85.22
3000	101.37	102.95	91.01	107.73	102.28	110.72	78.33	85.23
3100	101.55	106.56	90.16	111.65	101.10	107.34	78.96	85.82
3200	101.80	102.51	90.06	106.84	101.56	105.59	79.50	85.05
3300	98.40	105.97	89.61	107.56	102.97	103.23	79.36	84.93
3400	100.88	103.25	88.47	107.66	100.42	107.11	78.76	84.35
3500	102.83	101.06	88.77	103.46	98.88	105.21	78.72	84.56
3600	98.11	107.73	88.24	105.18	98.69	103.68	77.93	84.76
3700	96.53	107.90	87.75	106.61	99.05	101.48	77.10	83.80
3800	98.63	108.60	87.43	105.83	97.21	107.85	76.34	83.57
3900	97.46	107.29	86.70	108.58	96.76	103.67	75.56	83.58
4000	95.69	107.74	86.30	107.85	96.47	104.13	75.73	83.21
4100	97.26	104.17	85.87	106.48	96.46	102.68	75.30	82.93
4200	96.28	101.78	85.63	106.37	98.71	101.30	75.27	83.07
4300	96.93	102.59	85.35	107.85	94.31	101.40	75.08	83.01
4400	98.57	103.79	85.16	106.21	94.85	100.93	74.86	82.53
4600	95.76	103.89	84.42	113.93	93.46	101.20	74.19	82.19
4800	94.79	103.55	83.22	104.96	92.68	101.63	73.38	81.85
5000	92.44	102.04	82.62	108.04	91.29	100.32	72.83	81.47
5200	90.78	103.64	81.82	105.72	90.64	100.60	72.05	80.69
5400	89.21	103.40	81.44	105.57	89.35	104.48	71.71	80.74
5600	88.89	102.02	81.13	107.44	88.97	103.62	71.76	79.31
5800	87.96	101.05	80.60	106.46	88.20	101.46	71.35	78.55
6000	86.20	99.85	80.04	110.99	86.55	101.41	70.41	77.79

Notes

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Solid State SPI RF SP8T Switch

SPI-SP8T-6G

Typical Performance Data

TEST CONDITIONS: @Temperature = +25°C, Power in=0 dBm

FREQUENCY (MHz)	Isolation (port to port)						
	(dB)						
	J1-J2	J2-J3	J3-J4	J4-J5	J5-J6	J6-J7	J7-J8
1	85.05	89.27	89.16	93.83	92.68	84.82	95.65
20	96.51	101.06	103.16	101.48	103.46	100.38	91.18
40	98.73	103.47	104.36	103.34	101.22	104.08	90.63
70	101.22	105.50	106.02	103.46	104.23	107.91	88.51
100	105.12	106.67	107.13	102.99	103.60	109.78	87.54
200	100.50	104.86	101.04	106.47	104.03	104.12	84.94
300	100.08	104.79	103.96	108.03	104.41	104.26	81.57
400	104.03	103.39	99.61	103.61	100.58	106.71	82.76
500	99.91	102.26	102.05	104.17	103.28	102.90	80.73
600	99.33	103.21	98.46	104.08	105.70	104.67	78.49
700	97.36	102.92	96.20	103.64	103.04	107.31	81.06
800	100.17	101.92	95.88	101.19	103.09	104.28	79.59
900	99.77	102.65	100.22	102.89	106.51	103.28	77.90
1000	99.50	100.45	97.46	106.19	101.87	101.87	76.83
1100	100.51	103.74	97.40	103.24	107.89	104.62	76.32
1200	98.43	100.13	97.56	99.47	105.02	102.19	76.23
1300	99.18	101.86	96.69	101.00	98.31	101.52	75.54
1400	97.93	102.57	97.20	101.34	104.75	103.05	74.58
1500	98.53	100.82	98.32	102.50	102.01	98.32	76.54
1600	97.37	103.17	98.05	101.33	96.52	102.12	76.47
1700	99.80	99.30	98.12	102.61	98.41	101.14	75.86
1800	95.87	98.75	100.24	101.42	100.82	101.57	74.93
1900	101.45	100.30	104.36	101.06	101.30	99.04	75.34
2000	97.29	100.70	100.94	100.47	102.29	100.20	75.46
2100	98.16	98.50	102.89	98.72	96.44	96.56	76.18
2200	97.30	97.89	100.74	98.49	100.75	98.82	75.53
2300	98.13	101.18	96.59	100.45	101.57	98.64	74.85
2400	97.04	99.06	96.51	97.82	98.52	100.37	74.84
2600	97.10	98.80	92.87	101.91	99.01	99.46	76.46
2800	100.32	97.95	90.25	99.86	98.65	99.67	75.53
2900	92.58	97.72	88.52	99.00	98.00	96.00	74.58
3000	93.21	98.61	88.74	99.36	98.31	97.73	77.38
3100	92.45	98.38	87.41	100.33	95.09	96.24	79.04
3200	94.29	97.40	86.60	100.62	98.43	93.93	77.67
3300	92.05	96.29	86.62	98.69	95.74	96.66	77.72
3400	89.90	96.44	87.24	98.12	95.18	97.00	76.80
3500	90.12	93.15	88.22	96.74	96.98	93.90	75.99
3600	89.80	94.45	87.83	99.56	98.60	96.38	75.92
3700	86.02	92.79	88.85	98.39	97.10	92.61	77.81
3800	86.20	95.75	90.73	98.54	93.66	93.28	79.35
3900	85.35	94.56	91.74	99.95	93.45	93.92	80.33
4000	83.92	92.25	92.49	98.00	97.22	90.71	81.16
4100	84.64	90.98	91.70	98.53	94.48	95.53	80.13
4200	84.24	90.64	94.95	98.28	92.73	94.27	79.33
4300	84.05	90.60	94.53	96.71	97.80	91.29	78.71
4400	85.49	90.35	93.80	98.47	94.78	91.23	78.47
4600	84.77	91.23	92.10	98.07	94.35	92.64	77.85
4800	88.48	88.03	89.16	96.00	93.42	89.33	78.06
5000	90.97	88.87	87.91	98.79	94.72	88.66	76.80
5200	95.14	89.38	88.27	99.31	95.05	87.70	76.57
5400	95.60	87.75	87.73	97.14	91.52	86.50	76.46
5600	93.25	87.08	85.68	96.07	91.84	87.15	75.11
5800	89.50	85.54	85.93	98.25	90.10	86.05	76.80
6000	87.39	86.98	90.39	89.81	88.61	80.92	76.63

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Solid State SPI RF SP8T Switch

SPI-SP8T-6G

Typical Performance Data

TEST CONDITIONS: @Temperature = 0/+25/+50°C, Power in=0 dBm

FREQUENCY (MHz)	INSERTION LOSS			VSWR (Active Port)			VSWR (Com port)			VSWR (Terminated port)		
	(dB)			(:1)			(:1)			(:1)		
	@0°C	@+25°C	@+50°C	@0°C	@+25°C	@+50°C	@0°C	@+25°C	@+50°C	@0°C	@+25°C	@+50°C
1	2.01	2.04	2.07	1.46	1.47	1.47	1.47	1.47	1.49	1.06	1.05	1.04
20	2.03	2.06	2.09	1.45	1.46	1.47	1.47	1.47	1.48	1.05	1.04	1.01
40	2.05	2.07	2.10	1.45	1.46	1.47	1.47	1.47	1.48	1.05	1.03	1.01
70	2.07	2.10	2.12	1.45	1.46	1.47	1.47	1.48	1.48	1.04	1.03	1.01
100	2.10	2.12	2.14	1.44	1.46	1.46	1.47	1.48	1.48	1.04	1.03	1.01
200	2.17	2.19	2.20	1.42	1.42	1.43	1.44	1.45	1.46	1.04	1.03	1.01
300	2.24	2.26	2.28	1.37	1.37	1.38	1.38	1.40	1.41	1.05	1.03	1.01
400	2.32	2.35	2.36	1.31	1.31	1.32	1.32	1.32	1.33	1.05	1.04	1.02
500	2.40	2.45	2.45	1.25	1.25	1.26	1.24	1.23	1.24	1.05	1.04	1.02
600	2.49	2.54	2.53	1.20	1.20	1.20	1.14	1.14	1.15	1.05	1.04	1.02
700	2.58	2.62	2.61	1.16	1.17	1.16	1.06	1.06	1.07	1.05	1.04	1.02
800	2.67	2.69	2.68	1.12	1.14	1.13	1.03	1.03	1.03	1.05	1.04	1.02
900	2.72	2.75	2.74	1.09	1.10	1.10	1.07	1.08	1.07	1.05	1.04	1.02
1000	2.77	2.79	2.79	1.06	1.06	1.06	1.12	1.13	1.12	1.05	1.04	1.03
1100	2.82	2.83	2.82	1.02	1.02	1.01	1.17	1.16	1.17	1.06	1.04	1.03
1200	2.86	2.86	2.85	1.02	1.03	1.03	1.20	1.18	1.19	1.05	1.04	1.03
1300	2.92	2.90	2.89	1.07	1.08	1.08	1.20	1.17	1.19	1.05	1.04	1.03
1400	2.97	2.94	2.93	1.11	1.13	1.12	1.16	1.15	1.17	1.06	1.04	1.03
1500	3.01	2.99	2.98	1.15	1.17	1.17	1.11	1.12	1.13	1.05	1.04	1.03
1600	3.06	3.04	3.02	1.21	1.20	1.21	1.08	1.10	1.11	1.05	1.03	1.03
1700	3.11	3.09	3.05	1.25	1.23	1.25	1.10	1.11	1.11	1.05	1.03	1.03
1800	3.17	3.15	3.10	1.28	1.25	1.26	1.17	1.16	1.17	1.05	1.03	1.04
1900	3.21	3.20	3.17	1.30	1.28	1.29	1.28	1.25	1.26	1.05	1.02	1.04
2000	3.26	3.24	3.21	1.34	1.30	1.32	1.38	1.36	1.38	1.05	1.02	1.04
2100	3.31	3.30	3.26	1.38	1.34	1.36	1.45	1.45	1.47	1.05	1.02	1.04
2200	3.36	3.36	3.31	1.40	1.38	1.40	1.50	1.52	1.54	1.05	1.03	1.05
2300	3.41	3.41	3.35	1.42	1.41	1.42	1.53	1.56	1.57	1.06	1.03	1.05
2400	3.47	3.46	3.38	1.42	1.42	1.43	1.53	1.57	1.58	1.06	1.04	1.05
2600	3.55	3.53	3.44	1.39	1.41	1.43	1.50	1.53	1.55	1.07	1.05	1.06
2800	3.65	3.59	3.52	1.35	1.36	1.37	1.44	1.46	1.48	1.08	1.07	1.06
2900	3.71	3.63	3.57	1.31	1.34	1.35	1.40	1.41	1.41	1.08	1.08	1.07
3000	3.76	3.68	3.63	1.32	1.34	1.36	1.33	1.32	1.33	1.09	1.09	1.07
3100	3.83	3.75	3.71	1.37	1.37	1.39	1.22	1.23	1.23	1.09	1.10	1.08
3200	3.94	3.86	3.82	1.46	1.42	1.44	1.07	1.12	1.12	1.09	1.11	1.08
3300	4.07	3.97	3.94	1.53	1.48	1.50	1.03	1.04	1.03	1.10	1.12	1.09
3400	4.17	4.09	4.05	1.56	1.51	1.52	1.11	1.11	1.09	1.11	1.12	1.09
3500	4.24	4.17	4.12	1.53	1.49	1.51	1.17	1.21	1.19	1.11	1.13	1.09
3600	4.26	4.21	4.16	1.46	1.44	1.45	1.24	1.27	1.27	1.11	1.13	1.09
3700	4.26	4.22	4.17	1.37	1.35	1.36	1.30	1.31	1.29	1.12	1.14	1.10
3800	4.24	4.21	4.15	1.24	1.23	1.23	1.29	1.29	1.28	1.12	1.15	1.10
3900	4.23	4.20	4.15	1.11	1.11	1.12	1.25	1.24	1.24	1.13	1.16	1.11
4000	4.25	4.21	4.16	1.12	1.09	1.12	1.22	1.20	1.19	1.13	1.16	1.11
4100	4.31	4.25	4.20	1.24	1.18	1.22	1.22	1.20	1.20	1.14	1.17	1.11
4200	4.36	4.31	4.26	1.33	1.27	1.31	1.26	1.22	1.24	1.13	1.17	1.11
4300	4.41	4.35	4.30	1.36	1.34	1.36	1.28	1.26	1.28	1.14	1.17	1.12
4400	4.46	4.37	4.33	1.36	1.36	1.37	1.28	1.29	1.32	1.14	1.18	1.12
4600	4.52	4.38	4.34	1.25	1.29	1.27	1.27	1.30	1.30	1.14	1.18	1.12
4800	4.56	4.40	4.37	1.13	1.18	1.15	1.34	1.33	1.32	1.15	1.18	1.13
5000	4.63	4.47	4.44	1.18	1.16	1.16	1.40	1.40	1.43	1.14	1.18	1.13
5200	4.76	4.58	4.59	1.35	1.26	1.31	1.43	1.48	1.52	1.16	1.19	1.13
5400	4.85	4.73	4.75	1.48	1.40	1.47	1.39	1.47	1.44	1.17	1.18	1.14
5600	4.98	4.93	4.95	1.64	1.58	1.63	1.21	1.24	1.26	1.19	1.18	1.14
5800	5.11	5.12	5.12	1.62	1.66	1.65	1.07	1.09	1.12	1.19	1.19	1.15
6000	5.15	5.21	5.17	1.40	1.51	1.44	1.07	1.07	1.05	1.17	1.16	1.14

Notes

- A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
 B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuits' applicable established test performance criteria and measurement instructions.
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