

# RF Transformer

# MTX2-4143+

## Typical Performance Data

Temperature = +25°C

FREQUENCY (GHz)	AVERAGE INSERTION LOSS <sup>(1)</sup> (dB)	INPUT RETURN LOSS (dB)	AMPLITUDE UNBALANCE (dB)	PHASE UNBALANCE <sup>(2)</sup> (deg.)	CMRR (dB)
4.0	1.13	13.03	0.37	1.01	27.31
4.5	1.17	12.45	0.23	1.32	31.38
5.0	1.17	12.20	0.10	1.22	39.14
5.5	1.12	12.50	0.00	0.88	65.90
6.0	1.02	13.32	0.04	0.36	46.33
6.5	0.92	14.31	0.07	0.07	42.09
7.0	0.88	14.50	0.05	0.53	44.96
7.5	0.92	13.61	0.03	0.77	49.94
8.0	1.04	12.41	0.02	0.79	52.19
8.5	1.19	11.64	0.04	0.99	46.37
8.8	1.27	11.49	0.06	0.99	42.61
9.0	1.32	11.50	0.05	1.19	44.16
9.2	1.35	11.62	0.07	1.46	42.28
9.4	1.38	11.86	0.05	1.56	45.64
9.6	1.38	12.16	0.04	1.78	46.81
9.8	1.39	12.52	0.01	1.84	57.38
10.0	1.36	12.98	0.01	2.02	62.06
10.2	1.35	13.45	0.04	2.03	46.58
10.4	1.32	13.83	0.07	2.18	42.07
10.6	1.29	14.20	0.09	2.08	39.47
10.8	1.26	14.39	0.14	2.09	36.17
11.0	1.25	14.41	0.14	1.96	35.69
11.5	1.28	13.80	0.18	1.49	33.57
12.0	1.42	12.64	0.17	0.98	34.15
12.5	1.63	11.53	0.07	0.97	41.31
13.0	1.88	10.61	0.04	1.83	47.21
13.5	2.09	9.99	0.09	2.70	39.50
14.0	2.26	9.66	0.26	3.74	30.45

<sup>(1)</sup> Above 3 dB theoretical loss

<sup>(2)</sup> Relative to 180°

# RF Transformer

# MTX2-4143+

## Typical Performance Data

Temperature = -45°C

FREQUENCY (GHz)	AVERAGE INSERTION LOSS <sup>(1)</sup> (dB)	INPUT RETURN LOSS (dB)	AMPLITUDE UNBALANCE (dB)	PHASE UNBALANCE <sup>(2)</sup> (deg.)	CMRR (dB)
4.0	0.93	12.90	0.36	1.02	27.60
4.5	0.96	12.46	0.23	1.27	31.40
5.0	0.96	12.25	0.09	1.11	39.80
5.5	0.91	12.57	0.00	0.61	80.60
6.0	0.81	13.42	0.04	0.02	46.82
6.5	0.70	14.46	0.05	0.49	44.33
7.0	0.65	14.62	0.03	0.94	49.86
7.5	0.68	13.72	0.01	1.19	55.77
8.0	0.79	12.52	0.01	1.22	61.58
8.5	0.92	11.69	0.03	1.49	48.46
8.8	1.00	11.45	0.04	1.65	46.88
9.0	1.06	11.42	0.05	1.80	44.25
9.2	1.09	11.47	0.04	2.03	45.99
9.4	1.12	11.63	0.03	2.18	48.93
9.6	1.12	11.85	0.03	2.35	50.01
9.8	1.12	12.11	0.00	2.52	70.14
10.0	1.10	12.43	0.02	2.71	51.27
10.2	1.08	12.81	0.06	2.80	42.92
10.4	1.06	13.11	0.08	3.02	40.39
10.6	1.03	13.40	0.13	2.85	36.70
10.8	1.00	13.57	0.16	2.92	34.70
11.0	0.98	13.58	0.18	2.74	33.66
11.5	1.00	13.15	0.21	2.25	32.22
12.0	1.12	12.22	0.21	1.90	32.24
12.5	1.31	11.25	0.15	1.54	35.49
13.0	1.53	10.43	0.08	2.40	40.39
13.5	1.74	9.70	0.10	3.21	38.96
14.0	1.93	9.16	0.22	4.55	32.02

<sup>(1)</sup> Above 3 dB theoretical loss

<sup>(2)</sup> Relative to 180°

# RF Transformer

# MTX2-4143+

## Typical Performance Data

Temperature = +85°C

FREQUENCY (GHz)	AVERAGE INSERTION LOSS <sup>(1)</sup> (dB)	INPUT RETURN LOSS (dB)	AMPLITUDE UNBALANCE (dB)	PHASE UNBALANCE <sup>(2)</sup> (deg.)	CMRR (dB)
4.0	1.28	13.17	0.38	0.81	27.10
4.5	1.32	12.46	0.23	1.18	31.41
5.0	1.33	12.10	0.09	1.08	40.02
5.5	1.28	12.36	0.01	0.72	61.84
6.0	1.18	13.20	0.05	0.22	44.25
6.5	1.08	14.29	0.08	0.19	41.00
7.0	1.04	14.49	0.05	0.59	44.08
7.5	1.10	13.51	0.04	0.78	47.55
8.0	1.22	12.35	0.04	0.76	47.47
8.5	1.38	11.69	0.07	0.96	42.14
8.8	1.45	11.58	0.09	0.96	39.27
9.0	1.51	11.64	0.08	1.18	40.38
9.2	1.54	11.76	0.10	1.45	38.90
9.4	1.57	12.04	0.08	1.56	41.11
9.6	1.57	12.35	0.07	1.78	41.63
9.8	1.58	12.73	0.04	1.84	45.86
10.0	1.56	13.22	0.03	2.04	49.85
10.2	1.54	13.74	0.01	2.05	63.96
10.4	1.52	14.15	0.03	2.22	48.35
10.6	1.49	14.58	0.05	2.13	43.99
10.8	1.47	14.83	0.10	2.17	38.95
11.0	1.45	14.86	0.10	2.06	38.40
11.5	1.49	14.28	0.15	1.63	35.14
12.0	1.63	13.06	0.15	1.08	35.12
12.5	1.85	11.87	0.06	1.02	43.16
13.0	2.11	10.92	0.02	1.83	52.80
13.5	2.33	10.33	0.06	2.71	43.64
14.0	2.50	10.10	0.23	3.86	31.72

<sup>(1)</sup> Above 3 dB theoretical loss

<sup>(2)</sup> Relative to 180°

# RF Transformer

# MTX2-4143+

## Typical Performance Data

Temperature = +105°C

FREQUENCY (GHz)	AVERAGE INSERTION LOSS <sup>(1)</sup> (dB)	INPUT RETURN LOSS (dB)	AMPLITUDE UNBALANCE (dB)	PHASE UNBALANCE <sup>(2)</sup> (deg.)	CMRR (dB)
4.0	1.33	13.22	0.39	0.75	26.93
4.5	1.37	12.46	0.24	1.15	31.28
5.0	1.39	12.07	0.09	1.06	39.99
5.5	1.34	12.32	0.01	0.72	60.36
6.0	1.24	13.16	0.06	0.22	43.93
6.5	1.14	14.27	0.08	0.17	41.04
7.0	1.10	14.45	0.06	0.55	43.40
7.5	1.15	13.47	0.04	0.67	46.83
8.0	1.28	12.34	0.04	0.61	47.41
8.5	1.43	11.70	0.08	0.91	41.16
8.8	1.51	11.55	0.10	1.05	38.72
9.0	1.57	11.70	0.10	1.13	39.15
9.2	1.60	11.79	0.10	1.39	38.93
9.4	1.63	12.10	0.08	1.49	41.14
9.6	1.63	12.43	0.08	1.67	41.02
9.8	1.64	12.80	0.05	1.74	44.60
10.0	1.62	13.33	0.03	1.96	48.42
10.2	1.60	13.84	0.00	1.97	76.84
10.4	1.58	14.31	0.02	2.17	52.01
10.6	1.55	14.75	0.04	2.05	46.15
10.8	1.53	15.05	0.09	2.10	40.03
11.0	1.52	15.08	0.09	2.00	39.59
11.5	1.55	14.49	0.14	1.59	35.98
12.0	1.70	13.22	0.14	1.03	35.62
12.5	1.93	11.97	0.06	0.95	43.76
13.0	2.18	11.01	0.02	1.77	53.90
13.5	2.40	10.46	0.05	2.61	44.69
14.0	2.57	10.27	0.22	3.77	31.84

<sup>(1)</sup> Above 3 dB theoretical loss

<sup>(2)</sup> Relative to 180°