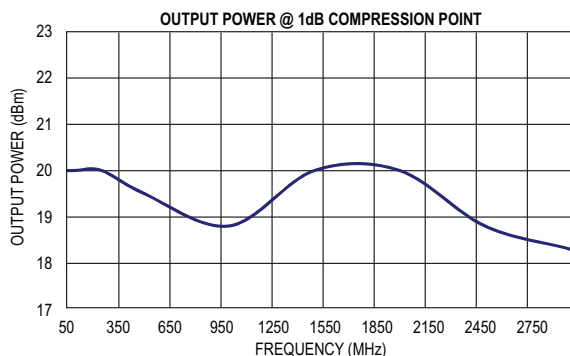
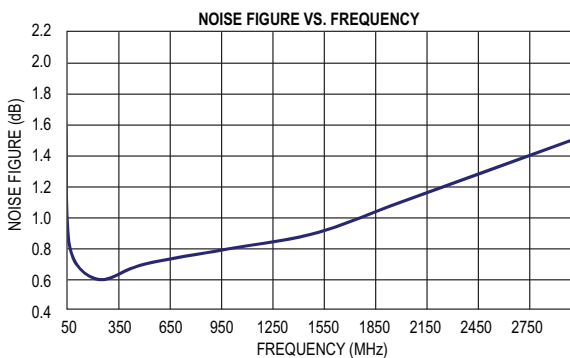
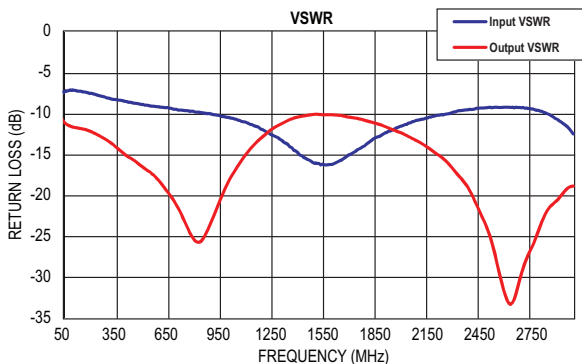
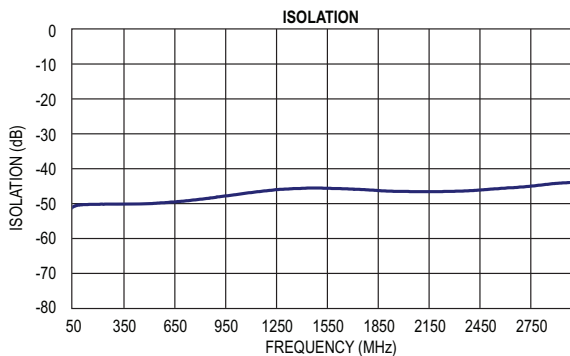


Wideband Amplifier AM-1695



Features

- Three-Year Warranty
- Low noise figure
- Internally regulated to +5V
- Reverse voltage protected
- Gain rolloff 0.006 dB / MHz Typical

Specifications

Frequency range	50 - 3000 MHz
Gain	Gain rolloff -0.006 dB / MHz
@ 50 MHz	41 dB typical
@ 1500 MHz	30 dB typical
@ 3 GHz	24 dB minimum
Noise figure	
Low band	1.0 dB maximum
Mid band	1.0 dB maximum
Hi band	1.5 dB maximum
P1dB	
Low band	+20 dBm minimum
Mid band	+19 dBm minimum
Hi band	+17 dBm minimum
VSWR ref 50Ω (In/Out)	2.3 / 2.0:1 maximum
DC power	+15V @ 135 mA
Warranty	Three years
Size	Outline #2S
Connectors	SMA female
Delivery	3-4 weeks

Frequency (MHz)	Gain (dB)	Isol. (dB)	Input VSWR (dBRL)	Output VSWR (dBRL)	S21 Delay Ns
10.0	44.2	-57.6	-7.2	-8.4	1.6
12.1	43.4	-56.2	-7.8	-8.7	1.4
14.2	42.9	-55.3	-8.1	-9.0	0.9
16.3	42.5	-54.6	-8.2	-9.3	0.5
18.4	42.3	-54.1	-8.2	-9.5	0.5
20.5	42.1	-53.7	-8.1	-9.7	0.5
22.6	41.9	-53.3	-8.0	-9.9	0.5
24.7	41.7	-52.8	-7.9	-10.0	0.4
26.8	41.5	-52.5	-7.9	-10.2	0.3
28.9	41.3	-52.2	-7.8	-10.3	0.3
31.1	41.2	-51.9	-7.7	-10.4	0.4
33.2	41.2	-51.7	-7.6	-10.5	0.4
35.3	41.1	-51.6	-7.6	-10.6	0.5
37.4	41.0	-51.4	-7.5	-10.7	0.6
39.5	41.0	-51.3	-7.5	-10.8	0.6
41.6	41.0	-51.2	-7.4	-10.9	0.7
43.7	40.9	-51.1	-7.4	-10.9	0.7
45.8	40.9	-51.1	-7.3	-11.0	0.8
47.9	40.9	-51.0	-7.3	-11.0	0.8
50.0	40.9	-50.9	-7.3	-11.1	0.8
52.0	40.9	-50.9	-7.3	-11.1	0.9
54.5	40.8	-50.8	-7.2	-11.2	0.9
57.1	40.8	-50.8	-7.2	-11.2	0.9
59.6	40.8	-50.7	-7.2	-11.2	0.9
62.1	40.8	-50.7	-7.2	-11.3	1.0
64.6	40.8	-50.7	-7.2	-11.3	1.0
67.2	40.8	-50.6	-7.2	-11.3	1.0
69.7	40.7	-50.6	-7.2	-11.4	1.0
72.2	40.7	-50.6	-7.2	-11.4	1.0
74.7	40.7	-50.5	-7.1	-11.4	1.1
77.3	40.7	-50.5	-7.1	-11.5	1.0
79.8	40.7	-50.5	-7.1	-11.5	1.1
82.3	40.7	-50.5	-7.1	-11.5	1.1
84.8	40.7	-50.5	-7.1	-11.5	1.1
87.4	40.6	-50.5	-7.1	-11.5	1.1
89.9	40.6	-50.4	-7.1	-11.6	1.1
92.4	40.6	-50.4	-7.1	-11.6	1.1
94.9	40.6	-50.4	-7.1	-11.6	1.1
97.5	40.6	-50.4	-7.1	-11.6	1.1
100.0	40.5	-50.4	-7.1	-11.6	1.1
102.0	40.5	-50.4	-7.1	-11.6	1.1
109.8	40.5	-50.4	-7.1	-11.7	1.1
117.6	40.5	-50.4	-7.2	-11.7	1.1
125.4	40.4	-50.4	-7.2	-11.7	1.1
133.2	40.4	-50.4	-7.2	-11.8	1.1
140.9	40.3	-50.3	-7.2	-11.8	1.1
148.7	40.3	-50.3	-7.3	-11.8	1.1
156.5	40.2	-50.3	-7.3	-11.9	1.1
164.3	40.2	-50.3	-7.3	-11.9	1.1
172.1	40.1	-50.3	-7.3	-11.9	1.1
179.9	40.0	-50.3	-7.4	-12.0	1.1
187.7	40.0	-50.3	-7.5	-12.0	1.1
195.5	39.9	-50.3	-7.5	-12.1	1.1
203.3	39.8	-50.3	-7.5	-12.2	1.1
211.1	39.8	-50.3	-7.5	-12.3	1.1
218.8	39.7	-50.2	-7.6	-12.3	1.1
226.6	39.6	-50.3	-7.6	-12.4	1.1
234.4	39.5	-50.2	-7.7	-12.5	1.1
242.2	39.4	-50.3	-7.7	-12.6	1.1
250.0	39.3	-50.2	-7.8	-12.7	1.1
255.0	39.2	-50.2	-7.8	-12.7	1.1
267.9	39.1	-50.2	-7.9	-12.9	1.1
280.8	39.0	-50.2	-7.9	-13.0	1.1
293.7	38.8	-50.2	-8.1	-13.2	1.1

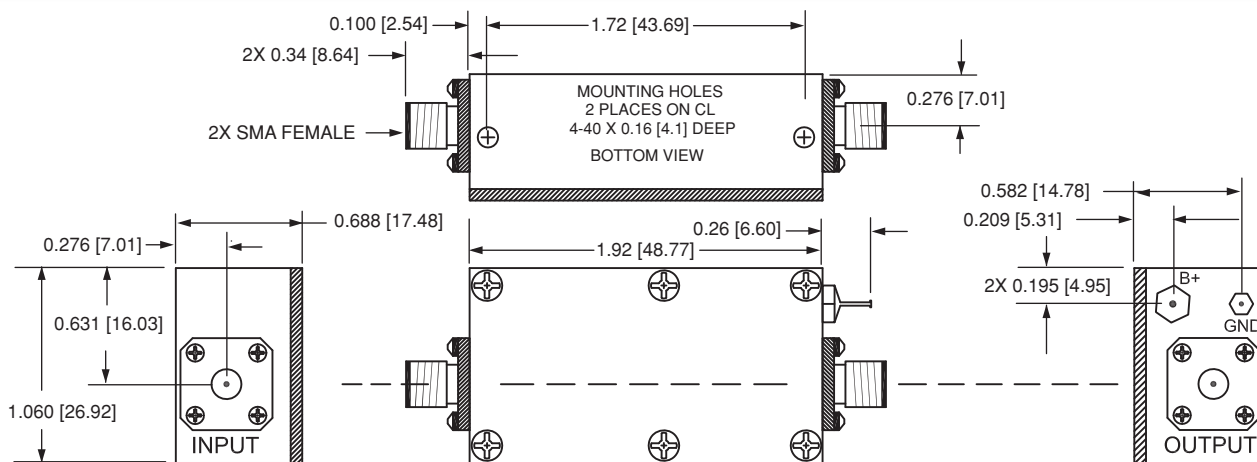
Frequency (MHz)	Gain (dB)	Isol. (dB)	Input VSWR (dBRL)	Output VSWR (dBRL)	S21 Delay Ns
306.6	38.7	-50.2	-8.1	-13.4	1.0
319.5	38.6	-50.2	-8.2	-13.6	1.0
332.4	38.4	-50.2	-8.2	-13.8	1.0
345.3	38.2	-50.2	-8.3	-14.0	1.0
358.2	38.1	-50.2	-8.3	-14.3	1.0
371.1	37.9	-50.2	-8.3	-14.5	1.0
383.9	37.8	-50.2	-8.4	-14.7	1.0
396.8	37.6	-50.2	-8.5	-14.9	1.0
409.7	37.4	-50.2	-8.5	-15.1	1.0
422.6	37.3	-50.2	-8.6	-15.3	1.0
435.5	37.1	-50.2	-8.6	-15.5	1.0
448.4	37.0	-50.1	-8.7	-15.6	0.9
461.3	36.9	-50.1	-8.7	-15.8	0.9
474.2	36.7	-50.1	-8.8	-16.1	0.9
487.1	36.6	-50.1	-8.8	-16.3	0.9
500.0	36.5	-50.1	-8.9	-16.5	0.9
505.0	36.4	-50.0	-8.9	-16.5	0.9
515.1	36.3	-50.1	-8.9	-16.7	0.9
525.2	36.1	-50.0	-8.9	-16.8	0.9
535.3	36.0	-50.0	-9.0	-17.0	0.9
545.4	35.9	-49.9	-9.1	-17.1	0.9
555.5	35.8	-49.9	-9.1	-17.3	0.9
565.6	35.8	-49.9	-9.1	-17.5	0.9
575.7	35.7	-49.8	-9.1	-17.7	0.9
585.8	35.6	-49.8	-9.1	-17.9	0.9
595.9	35.5	-49.8	-9.1	-18.2	0.9
606.0	35.4	-49.8	-9.2	-18.4	0.9
616.1	35.3	-49.7	-9.2	-18.7	0.9
626.2	35.2	-49.7	-9.2	-19.0	0.9
636.3	35.1	-49.6	-9.3	-19.2	0.9
646.4	35.0	-49.6	-9.2	-19.5	0.9
656.5	35.0	-49.5	-9.3	-19.8	0.9
666.6	34.9	-49.5	-9.3	-20.1	0.9
676.7	34.8	-49.5	-9.4	-20.4	0.9
686.8	34.7	-49.4	-9.4	-20.7	0.9
696.9	34.6	-49.4	-9.5	-21.1	0.9
707.0	34.6	-49.3	-9.6	-21.5	0.9
717.1	34.5	-49.3	-9.5	-21.9	0.9
727.2	34.4	-49.2	-9.6	-22.3	0.9
737.3	34.3	-49.2	-9.6	-22.8	0.9
747.4	34.3	-49.1	-9.6	-23.2	0.9
757.6	34.2	-49.0	-9.6	-23.7	0.9
767.7	34.1	-49.0	-9.6	-24.2	0.9
777.8	34.1	-48.9	-9.7	-24.6	0.9
787.9	34.0	-48.9	-9.7	-25.0	0.9
798.0	33.9	-48.8	-9.7	-25.3	0.9
808.1	33.8	-48.8	-9.8	-25.6	0.9
818.2	33.8	-48.7	-9.8	-25.7	0.9
828.3	33.7	-48.7	-9.8	-25.7	0.9
838.4	33.7	-48.6	-9.9	-25.7	0.9
848.5	33.6	-48.6	-9.9	-25.4	0.9
858.6	33.6	-48.5	-9.9	-25.1	0.9
868.7	33.5	-48.4	-9.9	-24.8	0.9
878.8	33.4	-48.3	-10.0	-24.3	0.9
888.9	33.4	-48.3	-9.9	-23.9	0.9
899.0	33.3	-48.2	-10.0	-23.4	0.9
909.1	33.3	-48.1	-10.1	-22.8	0.9
919.2	33.2	-48.0	-10.1	-22.3	0.9
929.3	33.2	-48.0	-10.1	-21.8	0.9
939.4	33.1	-47.9	-10.2	-21.2	0.9
949.5	33.1	-47.9	-10.2	-20.7	0.9
959.6	33.0	-47.8	-10.3	-20.2	0.9
969.7	33.0	-47.8	-10.3	-19.7	0.9
979.8	32.9	-47.7	-10.4	-19.2	0.9

Frequency (MHz)	Gain (dB)	Isol. (dB)	Input VSWR (dBRL)	Output VSWR (dBRL)	S21 Delay Ns	Frequency (MHz)	Gain (dB)	Isol. (dB)	Input VSWR (dBRL)	Output VSWR (dBRL)	S21 Delay Ns
989.9	32.9	-47.6	-10.4	-18.8	0.9	1636.3	28.9	-45.8	-15.9	-10.2	0.9
1000.0	32.8	-47.6	-10.4	-18.3	0.9	1646.4	28.9	-45.8	-15.7	-10.2	0.8
1005.0	32.8	-47.5	-10.5	-18.1	0.9	1656.5	28.8	-45.8	-15.7	-10.2	0.9
1015.1	32.7	-47.5	-10.5	-17.7	0.9	1666.6	28.7	-45.9	-15.5	-10.3	0.9
1025.2	32.7	-47.4	-10.6	-17.4	0.9	1676.7	28.6	-45.9	-15.3	-10.3	0.8
1035.3	32.6	-47.3	-10.6	-17.0	0.9	1686.8	28.5	-45.9	-15.2	-10.4	0.8
1045.4	32.6	-47.2	-10.6	-16.7	0.9	1696.9	28.4	-45.9	-15.0	-10.4	0.8
1055.5	32.6	-47.2	-10.8	-16.4	0.9	1707.0	28.3	-46.0	-15.0	-10.4	0.8
1065.6	32.5	-47.1	-10.8	-16.0	0.9	1717.1	28.2	-46.0	-14.8	-10.5	0.8
1075.7	32.5	-47.0	-10.9	-15.7	0.9	1727.2	28.2	-46.0	-14.7	-10.5	0.8
1085.8	32.4	-47.0	-11.0	-15.4	0.9	1737.3	28.1	-46.0	-14.6	-10.5	0.8
1095.9	32.4	-46.9	-11.0	-15.1	0.9	1747.4	28.0	-46.0	-14.4	-10.6	0.8
1106.0	32.3	-46.9	-11.1	-14.8	0.9	1757.6	27.9	-46.1	-14.3	-10.6	0.8
1116.1	32.3	-46.8	-11.2	-14.6	0.9	1767.7	27.8	-46.1	-14.2	-10.7	0.8
1126.2	32.2	-46.7	-11.3	-14.3	0.9	1777.8	27.7	-46.1	-14.1	-10.7	0.8
1136.3	32.2	-46.7	-11.3	-14.1	0.9	1787.9	27.6	-46.1	-13.9	-10.8	0.8
1146.4	32.2	-46.6	-11.4	-13.8	0.9	1798.0	27.5	-46.2	-13.8	-10.8	0.8
1156.5	32.1	-46.6	-11.5	-13.6	0.9	1808.1	27.5	-46.2	-13.6	-10.9	0.8
1166.6	32.1	-46.5	-11.6	-13.4	0.9	1818.2	27.4	-46.2	-13.4	-11.0	0.8
1176.7	32.0	-46.5	-11.7	-13.2	0.9	1828.3	27.3	-46.3	-13.3	-11.0	0.8
1186.8	32.0	-46.4	-11.9	-13.0	0.9	1838.4	27.2	-46.3	-13.1	-11.1	0.8
1196.9	31.9	-46.4	-11.9	-12.8	0.9	1848.5	27.1	-46.3	-13.0	-11.1	0.8
1207.0	31.9	-46.3	-12.0	-12.7	0.9	1858.6	27.0	-46.4	-12.9	-11.2	0.8
1217.1	31.8	-46.3	-12.2	-12.5	0.9	1868.7	27.0	-46.4	-12.8	-11.2	0.8
1227.2	31.8	-46.2	-12.3	-12.3	0.9	1878.8	26.9	-46.4	-12.7	-11.3	0.8
1237.3	31.7	-46.1	-12.4	-12.1	0.9	1888.9	26.8	-46.4	-12.6	-11.4	0.8
1247.4	31.7	-46.1	-12.6	-12.0	0.9	1899.0	26.7	-46.5	-12.5	-11.5	0.8
1257.6	31.6	-46.0	-12.6	-11.8	0.9	1909.1	26.6	-46.5	-12.3	-11.6	0.8
1267.7	31.6	-46.0	-12.7	-11.7	0.9	1919.2	26.6	-46.5	-12.3	-11.7	0.8
1277.8	31.5	-46.0	-12.8	-11.5	0.9	1929.3	26.5	-46.5	-12.1	-11.8	0.8
1287.9	31.5	-45.9	-12.9	-11.4	0.9	1939.4	26.4	-46.6	-12.1	-11.8	0.8
1298.0	31.4	-45.9	-13.1	-11.3	0.9	1949.5	26.3	-46.6	-12.0	-11.9	0.8
1308.1	31.4	-45.9	-13.2	-11.2	0.9	1959.6	26.3	-46.6	-11.9	-12.0	0.8
1318.2	31.3	-45.9	-13.4	-11.1	0.9	1969.7	26.2	-46.6	-11.8	-12.1	0.8
1328.3	31.2	-45.8	-13.6	-11.0	0.9	1979.8	26.1	-46.6	-11.7	-12.2	0.8
1338.4	31.2	-45.8	-13.7	-10.9	0.9	1989.9	26.1	-46.6	-11.6	-12.3	0.8
1348.5	31.1	-45.8	-13.8	-10.8	0.9	2000.0	26.0	-46.6	-11.5	-12.3	0.8
1358.6	31.1	-45.8	-14.1	-10.7	0.9	2005.0	26.0	-46.6	-11.5	-12.4	0.8
1368.7	31.0	-45.8	-14.2	-10.6	0.9	2015.1	25.9	-46.6	-11.4	-12.5	0.8
1378.8	30.9	-45.7	-14.5	-10.5	0.9	2025.2	25.8	-46.6	-11.3	-12.6	0.8
1388.9	30.9	-45.7	-14.5	-10.5	0.9	2035.3	25.8	-46.6	-11.3	-12.7	0.8
1399.0	30.8	-45.7	-14.7	-10.4	0.9	2045.4	25.7	-46.6	-11.1	-12.8	0.8
1409.1	30.7	-45.7	-14.9	-10.4	0.9	2055.5	25.7	-46.6	-11.1	-12.9	0.8
1419.2	30.7	-45.7	-15.1	-10.3	0.9	2065.6	25.6	-46.6	-11.0	-13.0	0.7
1429.3	30.6	-45.6	-15.2	-10.3	0.9	2075.7	25.6	-46.6	-10.9	-13.1	0.8
1439.4	30.5	-45.6	-15.4	-10.3	0.9	2085.8	25.5	-46.6	-10.9	-13.2	0.8
1449.5	30.5	-45.6	-15.4	-10.2	0.9	2095.9	25.5	-46.6	-10.8	-13.4	0.7
1459.6	30.4	-45.6	-15.6	-10.2	0.9	2106.0	25.4	-46.7	-10.7	-13.5	0.7
1469.7	30.3	-45.6	-15.7	-10.1	0.9	2116.1	25.4	-46.6	-10.7	-13.6	0.8
1479.8	30.2	-45.6	-15.8	-10.1	0.9	2126.2	25.3	-46.6	-10.7	-13.7	0.8
1489.9	30.2	-45.6	-16.0	-10.1	0.9	2136.3	25.3	-46.7	-10.6	-13.8	0.7
1500.0	30.1	-45.6	-16.1	-10.1	0.9	2146.4	25.2	-46.7	-10.5	-14.0	0.7
1505.0	30.0	-45.6	-16.0	-10.1	0.9	2156.5	25.2	-46.7	-10.5	-14.1	0.8
1515.1	29.9	-45.6	-16.1	-10.1	0.9	2166.6	25.1	-46.6	-10.4	-14.3	0.7
1525.2	29.9	-45.7	-16.1	-10.1	0.9	2176.7	25.1	-46.6	-10.4	-14.4	0.7
1535.3	29.8	-45.7	-16.3	-10.1	0.9	2186.8	25.0	-46.6	-10.3	-14.6	0.8
1545.4	29.7	-45.7	-16.1	-10.1	0.9	2196.9	25.0	-46.6	-10.3	-14.7	0.8
1555.5	29.6	-45.7	-16.3	-10.1	0.9	2207.0	25.0	-46.6	-10.2	-14.9	0.7
1565.6	29.5	-45.7	-16.3	-10.1	0.9	2217.1	24.9	-46.6	-10.2	-15.0	0.8
1575.7	29.5	-45.7	-16.2	-10.1	0.9	2227.2	24.9	-46.6	-10.1	-15.2	0.8
1585.8	29.4	-45.7	-16.2	-10.1	0.9	2237.3	24.9	-46.6	-10.1	-15.4	0.8
1595.9	29.3	-45.7	-16.2	-10.1	0.9	2247.4	24.9	-46.6	-10.1	-15.5	0.8
1606.0	29.2	-45.8	-16.2	-10.1	0.9	2257.6	24.8	-46.6	-10.0	-15.7	0.8
1616.1	29.1	-45.8	-16.1	-10.1	0.9	2267.7	24.8	-46.6	-10.0	-15.9	0.8
1626.2	29.0	-45.8	-16.0	-10.1	0.9	2277.8	24.8	-46.6	-10.0	-16.1	0.8

Wideband Amplifier AM-1695

Frequency (MHz)	Gain (dB)	Isol. (dB)	Input VSWR (dBRL)	Output VSWR (dBRL)	S21 Delay Ns	Frequency (MHz)	Gain (dB)	Isol. (dB)	Input VSWR (dBRL)	Output VSWR (dBRL)	S21 Delay Ns
2287.9	24.7	-46.6	-9.9	-16.4	0.8	2646.4	24.5	-45.5	-9.2	-33.1	0.8
2298.0	24.7	-46.5	-9.9	-16.6	0.8	2656.5	24.6	-45.5	-9.3	-32.7	0.8
2308.1	24.7	-46.5	-9.8	-16.9	0.7	2666.6	24.6	-45.4	-9.2	-32.1	0.8
2318.2	24.7	-46.5	-9.8	-17.2	0.8	2676.7	24.6	-45.4	-9.2	-31.3	0.8
2328.3	24.7	-46.5	-9.7	-17.4	0.7	2686.8	24.6	-45.3	-9.2	-30.4	0.8
2338.4	24.6	-46.5	-9.6	-17.7	0.8	2696.9	24.6	-45.3	-9.3	-29.7	0.8
2348.5	24.6	-46.5	-9.6	-17.9	0.8	2707.0	24.6	-45.3	-9.2	-29.0	0.8
2358.6	24.6	-46.5	-9.6	-18.2	0.8	2717.1	24.6	-45.2	-9.3	-28.4	0.8
2368.7	24.6	-46.4	-9.5	-18.4	0.8	2727.2	24.6	-45.2	-9.3	-27.8	0.8
2378.8	24.6	-46.4	-9.5	-18.7	0.8	2737.3	24.6	-45.2	-9.3	-27.3	0.8
2388.9	24.6	-46.4	-9.5	-19.0	0.8	2747.4	24.6	-45.1	-9.3	-26.8	0.8
2399.0	24.6	-46.3	-9.5	-19.4	0.8	2757.6	24.7	-45.0	-9.4	-26.4	0.8
2409.1	24.6	-46.3	-9.5	-19.8	0.8	2767.7	24.7	-45.0	-9.4	-25.9	0.8
2419.2	24.5	-46.3	-9.5	-20.2	0.8	2777.8	24.7	-44.9	-9.5	-25.4	0.8
2429.3	24.5	-46.3	-9.4	-20.7	0.8	2787.9	24.7	-44.9	-9.6	-24.9	0.8
2439.4	24.5	-46.2	-9.3	-21.1	0.8	2798.0	24.8	-44.8	-9.6	-24.3	0.8
2449.5	24.5	-46.2	-9.3	-21.6	0.8	2808.1	24.8	-44.8	-9.7	-23.7	0.9
2459.6	24.5	-46.2	-9.3	-22.1	0.8	2818.2	24.8	-44.7	-9.7	-23.2	0.9
2469.7	24.5	-46.1	-9.3	-22.6	0.8	2828.3	24.8	-44.6	-9.8	-22.7	0.9
2479.8	24.5	-46.1	-9.3	-23.0	0.8	2838.4	24.9	-44.6	-9.9	-22.2	0.9
2489.9	24.5	-46.0	-9.3	-23.5	0.8	2848.5	24.9	-44.5	-10.0	-21.8	0.9
2500.0	24.5	-46.0	-9.2	-24.0	0.8	2858.6	24.9	-44.5	-10.1	-21.5	0.9
2505.0	24.5	-46.0	-9.2	-24.3	0.8	2868.7	24.9	-44.4	-10.2	-21.3	0.9
2515.1	24.5	-45.9	-9.2	-24.9	0.8	2878.8	25.0	-44.4	-10.3	-21.1	0.9
2525.2	24.5	-45.9	-9.3	-25.6	0.8	2888.9	25.0	-44.3	-10.5	-20.9	0.9
2535.3	24.5	-45.8	-9.2	-26.4	0.8	2899.0	25.0	-44.3	-10.6	-20.7	0.9
2545.4	24.5	-45.8	-9.2	-27.2	0.8	2909.1	25.0	-44.3	-10.7	-20.5	0.9
2555.5	24.5	-45.8	-9.2	-28.2	0.8	2919.2	25.0	-44.2	-10.9	-20.3	0.9
2565.6	24.5	-45.8	-9.2	-29.1	0.8	2929.3	25.0	-44.2	-11.0	-20.0	0.9
2575.7	24.5	-45.7	-9.2	-30.0	0.8	2939.4	25.0	-44.2	-11.2	-19.7	0.9
2585.8	24.5	-45.7	-9.2	-30.8	0.8	2949.5	25.1	-44.1	-11.3	-19.5	0.9
2595.9	24.5	-45.7	-9.2	-31.6	0.8	2959.6	25.1	-44.1	-11.5	-19.3	0.9
2606.0	24.5	-45.6	-9.2	-32.3	0.8	2969.7	25.1	-44.1	-11.7	-19.1	0.9
2616.1	24.5	-45.6	-9.2	-32.9	0.8	2979.8	25.1	-44.1	-11.9	-18.9	0.9
2626.2	24.5	-45.5	-9.2	-33.2	0.8	2989.9	25.1	-44.0	-12.2	-18.9	0.9
2636.3	24.5	-45.5	-9.2	-33.3	0.8	3000.0	25.0	-44.0	-12.5	-18.8	0.9

Outline Drawing



NOTE: OPTIONALLY AVAILABLE WITH BNC-FEMALE, N-FEMALE AND N-MALE CONNECTORS.



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MT4100

BROADBAND CW TWT LAB AMPLIFIER
FOR RADAR, EMC AND EW TESTING

2.5 – 7.5 GHz 550W typ.

2.0 – 8.0 GHz 400W typ.

6.0 – 18.0 GHz 325W typ.

7.5 – 18.0 GHz 325W typ.

18.0 – 26.5 GHz 75W typ.

26.5 – 40.0 GHz 35W typ.



FEATURES:

Extensive Diagnostic Capabilities

Advanced Thermal Design

Compact Size

Ducted Cooling

Quiet Operation

The MT4100 broadband amplifier is leveraged around the field-proven MT4000 TWT architecture. With its modular design, compact and efficient packaging, the MT4100 will exhibit unsurpassed reliability.

New users will find the MT4100, with its intuitive front panel control, easy to utilize. For those environments where automation is required, the MT4100 offers a complete set of serial command in RS485 or RS232 for quick and easy hook-up to an automation system. MCL also offers a full line of controllers that will aid in remote operation.

AVAILABLE AMPLIFIER OPTIONS:

RF Input Attenuator

Other Options Are Available Upon Request

ISO 9001



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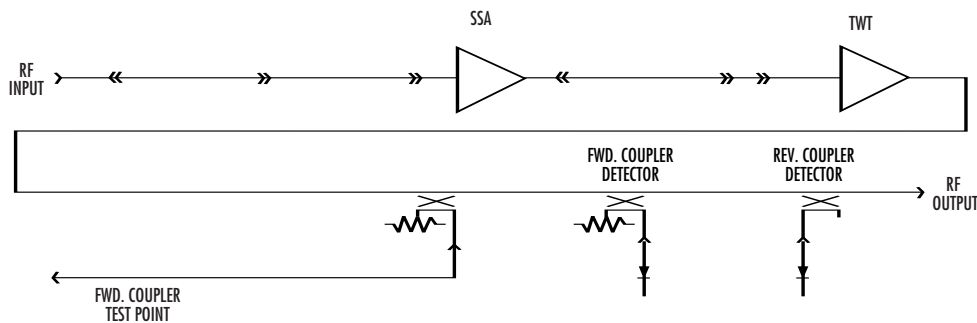
MT4100

BROADBAND CW TWT LAB AMPLIFIER

ELECTRICAL SPECIFICATIONS	MT4100					
	535-2.5/7.5	450-2/8	300-6/18	250-7.5/18	50-18/26.5	40-26.5/40
Mechanical Configuration	Figure 1	Figure 1	Figure 2	Figure 2	Figure 2	Figure 2
Frequency Range (F ₀) Standard	2.5 - 7.5 GHz	2.0 - 8.0 GHz	6.0 - 18.0 GHz	7.5 - 18.0 GHz	18.0 - 26.5 GHz	26.5 - 40.0 GHz
Output Power (min.): HPA Rated Output (min.):	500 W (57.0 dBm)	2.0 - 2.5 GHz 125 W (51.0 dBm) 2.5 - 8.0 GHz 370 W (53.2 dBm)	250 W (53.7 dBm)	250 W (53.7 dBm)	45 W (46.5 dBm)	35 W (45.4 dBm)
HPA Typical Output:	550 - 825 W (57.4 - 59.2 dBm)	2.0 - 2.5 GHz 175 - 500 W (52.4-57.0 dBm) 2.5-8.0 GHz 475 - 725 W (56.8-58.6 dBm)	325 - 350 W (55.1-55.4 dBm)	320-350 W (55.1-55.4 dBm)	75-95 W (48.7-49.8 dBm)	35-65 W (45.4-48.1 dBm)
Gain:						
Large Signal (min.):		60 dB			45 dB	50 dB
Small Signal Gain (SSG) (min.):		63 dB			50 dB	60 dB
Attenuation Range with optional SSA:			20 dB			
Maximum SSG Variation Over:						
Full Band:	15 dB max. (7 dB max. with equalizer)		12 dB max. (5 dB max. with equalizer)			20 dB max.
Gain Stability:			±0.25 dB/24 hr. max (constant drive, line voltage and temp.)			
Stability, Any Freq. 0 to +40°C:			6.0 dB typ.			
Stability, Any Freq. ±10° Max.:			1.2 dB typ.			
Input VSWR:			2.0:1 max. with respect to 50 ohms			
Output VSWR:			2.5:1 typ.			
Load VSWR:			2.0:1 max. without damage, continuous			
Residual AM Noise, Max.:						
To 10 kHz			40 dBc max.			
10 - 500 kHz			-20 (1.0 + Log f kHz) dBc			
Above 500 kHz			57 dBc max.			
Harmonic Output, Max.:			-4 dBc			
Noise & Spurious, Max.:						
Transmit Band (Fo)			-70 dBm/Hz			
Prime Power:						
Voltage:	180 - 264 VAC, single phase		100 - 264 VAC, single phase			
Power Consumption:	2.7 KVA max.		1.9 KVA max.	900 VA max.	800 VA max.	
Power Factor:			0.95 min.			
In-Rush:			28A max.			
Input Transients:			EN61000-4-4, 4-5, 4-11 (Surge, Fast Transients, Line Dropout)			

Note: Performance information is subject to change without notification. Contact MCL for the latest specifications (TN4100-1).

RF BLOCK DIAGRAM



CONTROL AND STATUS CAPABILITIES

TYPE	FUNCTION		
Controls	Filament ON/OFF Transmit/Standby *RF ON/OFF Reset *Attenuation	Units Select *Hold Power ON/OFF Auto Switching (1:1) Manual Switching (1:1)	Fault Counter ON/OFF Antenna Position (1:1) Load Position (1:1) Local/Remote/Computer
Adjustable Parameters	*Auto Power Tube Temperature Alarm RF Low Alarm Comm Address Date	RF Reflected Power Alarm RF High Alarm Comm Band Rate Time	RF Reflected Power Fault Filament Under Current Fault Comm Protocol
Displays	RF Forward Power Helix Voltage Filament Delay	Helix Current Tube Temperature	RF Reflected Power Filament Current PS Temperature
Faults (Notification, RF & HV Shutdown)	Tube Temperature Switch Tube Temperature Analog Helix Run Current HV Under Voltage User Interlock	WG Pressure Helix Surge Current HV Over Voltage	PS Temperature Chassis Interlock Filament Under Current
Alarms (Notification Only)	RF High RF Reflected Blower Failed Exciter	RF Low Tube Temperature AC Low Line	PS Temperature RF Switch Failed
Additional Status	Delay Summary Alarm Computer Tx Remote Rx Maintenance Log	Transmit Selected Summary Fault Computer Rx Event Log	Sampler Port Cal Table RF Low Switching ON/OFF Remote Tx Fault Log

* Optional

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature:

-10°C to +40°C

Non-Operating Temperature:

-40°C to +70°C

Relative Humidity:

95%, non-condensing

Operating Altitude:

10,000 ft. above sea level (3,048 m)
with standard adiabatic derating

Non-Operating Altitude:

50,000 ft. above sea level (15,240 m)

Vibration:

Method 514.4 of
MIL-STD-810E Procedure I, Figures 514.4-1,
514.4-2, 514.4-3

Shock:

10 g, 11ms

MECHANICAL SPECIFICATIONS

RF Connectors:

Input: Type SMA female
Output: 2.0–8.0 GHz SC (Male)
6.0 – 18.0 WRD-650
7.5 – 18.0 WRD-750

Installed Weight:

Figure 2: 65 lbs.
Figure 1: 90 lbs.

Cooling:

Closed Loop Circuit

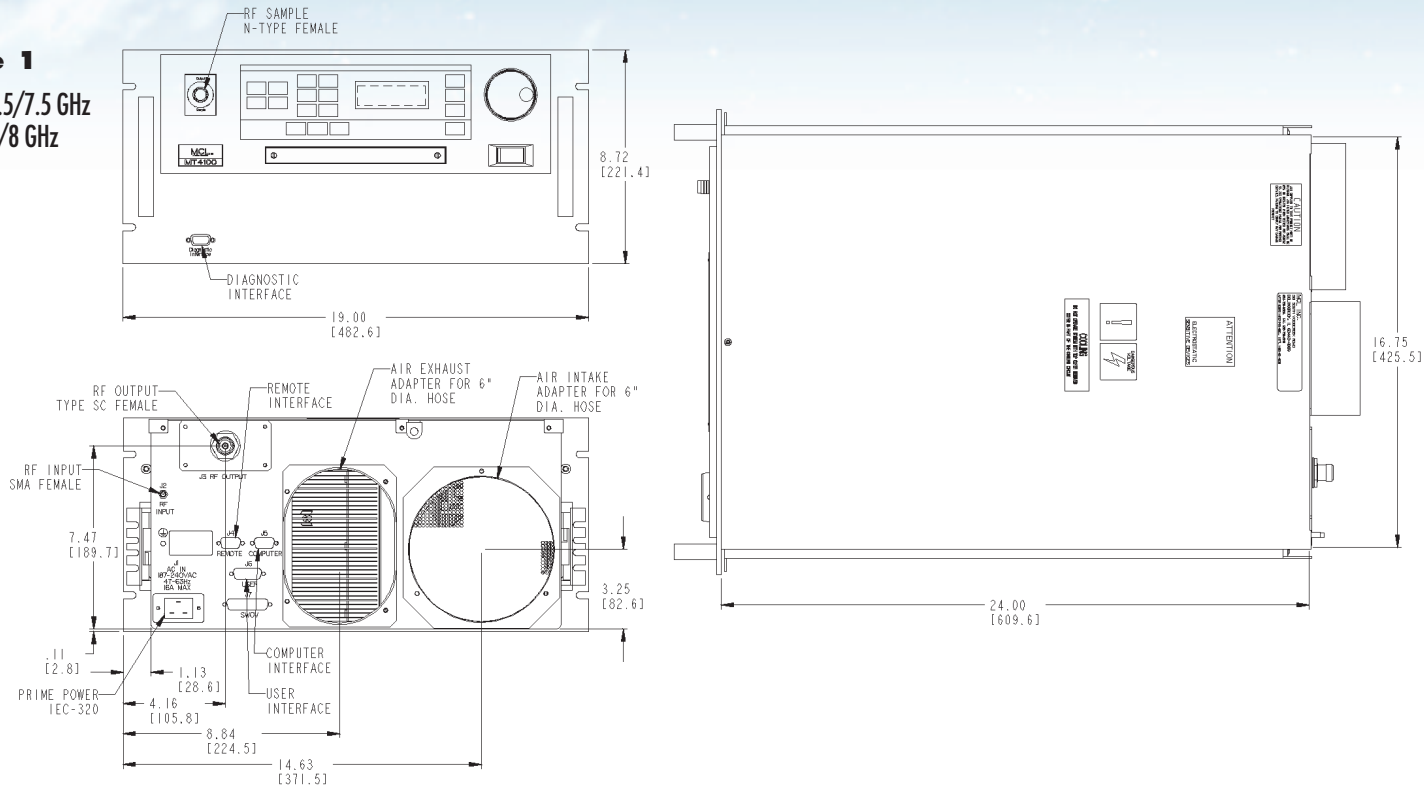


MT4100

OUTLINE DRAWINGS

Figure 1

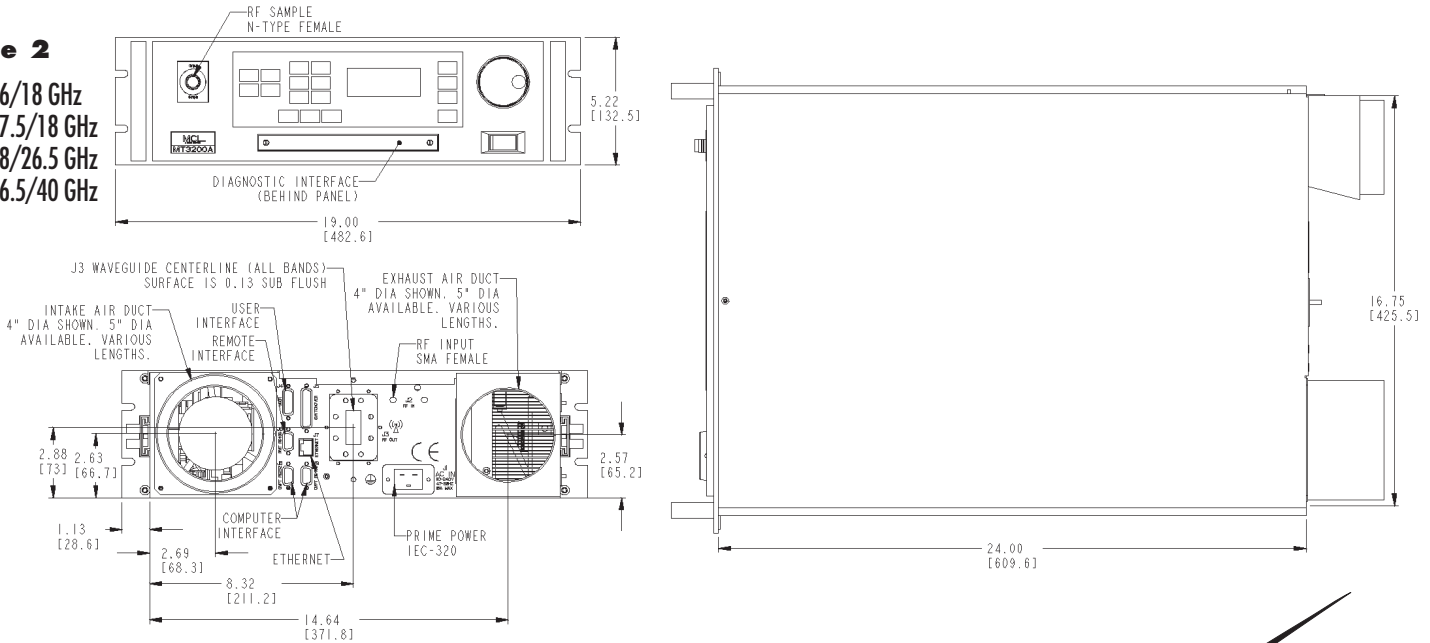
535W – 2.5/7.5 GHz
450W – 2/8 GHz



Note: Mechanical dimensions are frequency band dependent.

Figure 2

300W – 6/18 GHz
250W – 7.5/18 GHz
50W – 18/26.5 GHz
40W – 26.5/40 GHz



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NEW PRODUCT RELEASE

26-40 GHz Low-Noise/Medium Power Amplifier

MITEQ's new Model JS4-26004000-27-10P is a state-of-the-art low-noise medium power amplifier with only 2.7 dB maximum noise figure and +10 dBm P1dB. This model has a gain of 28 dB minimum in a small hermetically sealed package with field replaceable K-connectors. MIL-883 screening is also available. Different options such as gain, noise figure and power output are also available.

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