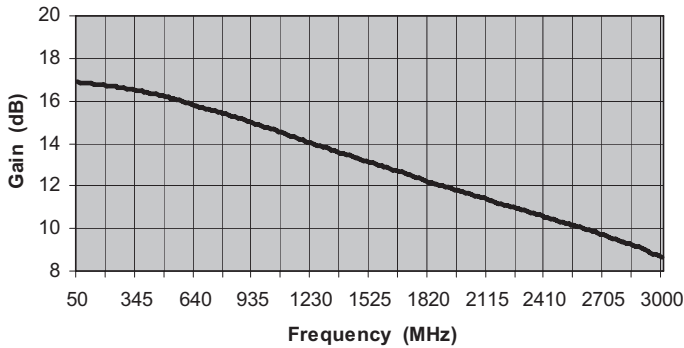


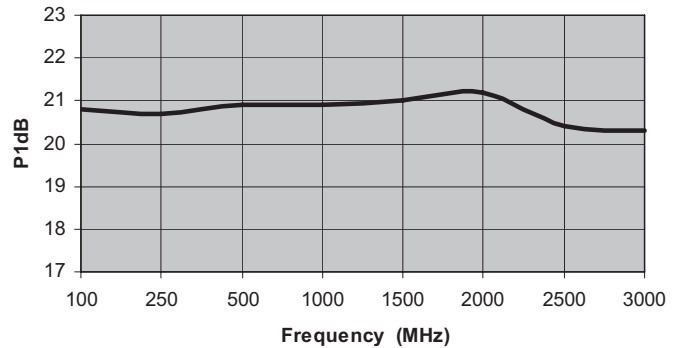
MITEQ AM-1636 AMPLIFIER

FREQUENCY (MHz)	MODEL NUMBER	GAIN (dB) (Min.)	VAR. (\pm dB) (Max.)	VSWR (Max.)	IMPED. IN/OUT (Ohms)	NOISE FIGURE (dB, Typ.)	P1 dB (dBm) (Typ.)	VOLTS	NOM. DC POWER (mA)	OUTLINE NO.
200-3000	AM-1636	8		2.0:1	50/50	1.7	20	15	90	1

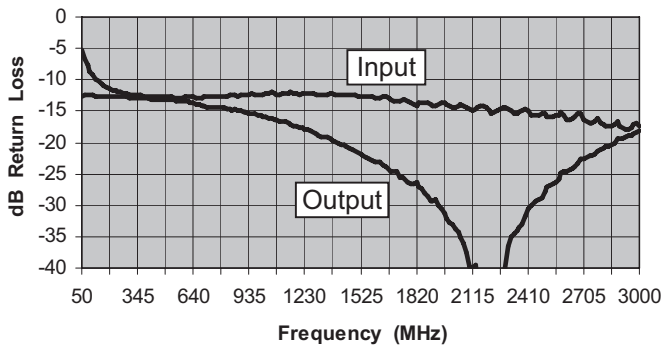
Gain (dB)



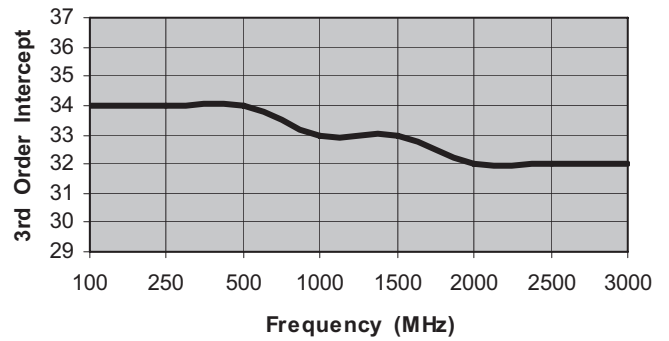
Output -1dB Gain Compression (+dBm)



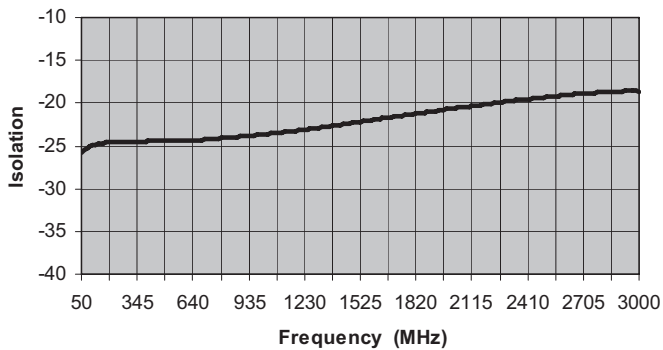
Input & Output Return Loss (dBRL)



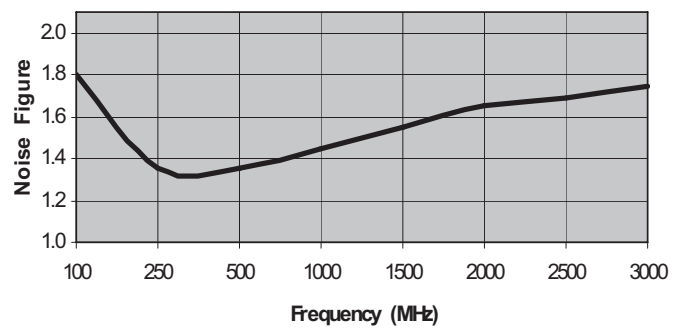
Output Third Order Intercept Point (+dBm)



Reverse Isolation (dB)



Noise Figure (dB)



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Freq (MHz)	Gain (dB)
50	16.9
65	16.9
80	16.9
94	16.8
109	16.8
124	16.8
139	16.8
153	16.8
168	16.8
183	16.7
198	16.7
212	16.7
227	16.7
242	16.7
257	16.7
271	16.6
286	16.6
301	16.6
316	16.6
330	16.5
345	16.5
360	16.5
375	16.4
389	16.4
404	16.4
419	16.4
434	16.3
448	16.3
463	16.3
478	16.2
493	16.2
507	16.2
522	16.1
537	16.1
552	16.1
566	16.0
581	16.0
596	15.9
611	15.9
625	15.8
640	15.8
655	15.7
670	15.7
684	15.7
699	15.6
714	15.6
729	15.6
743	15.5
758	15.5
773	15.4
788	15.4
802	15.4
817	15.3
832	15.3
847	15.2
861	15.2

Freq (MHz)	Gain (dB)
876	15.2
891	15.1
906	15.1
920	15.0
935	15.0
950	14.9
965	14.9
979	14.8
994	14.8
1009	14.7
1024	14.7
1038	14.6
1053	14.6
1068	14.6
1083	14.5
1097	14.5
1112	14.4
1127	14.4
1142	14.3
1156	14.3
1171	14.2
1186	14.2
1201	14.1
1215	14.1
1230	14.0
1245	14.0
1260	13.9
1274	13.9
1289	13.8
1304	13.8
1319	13.7
1333	13.7
1348	13.7
1363	13.6
1378	13.6
1392	13.5
1407	13.5
1422	13.4
1437	13.4
1451	13.3
1466	13.3
1481	13.2
1496	13.2
1510	13.2
1525	13.1
1540	13.1
1555	13.0
1569	13.0
1584	12.9
1599	12.9
1614	12.9
1628	12.8
1643	12.8
1658	12.7
1673	12.7
1687	12.6

Freq (MHz)	Gain (dB)
1702	12.6
1717	12.5
1732	12.5
1746	12.5
1761	12.4
1776	12.4
1791	12.3
1805	12.2
1820	12.2
1835	12.1
1850	12.1
1864	12.1
1879	12.0
1894	12.0
1909	12.0
1923	11.9
1938	11.9
1953	11.8
1968	11.8
1982	11.8
1997	11.7
2012	11.7
2027	11.6
2041	11.6
2056	11.5
2071	11.5
2086	11.5
2100	11.4
2115	11.4
2130	11.3
2145	11.3
2159	11.2
2174	11.2
2189	11.2
2204	11.1
2218	11.1
2233	11.0
2248	11.0
2263	11.0
2277	10.9
2292	10.9
2307	10.8
2322	10.8
2336	10.8
2351	10.7
2366	10.7
2381	10.6
2395	10.6
2410	10.5
2425	10.5
2440	10.5
2454	10.4
2469	10.4
2484	10.3
2499	10.3
2513	10.2

Freq (MHz)	Gain (dB)
2528	10.2
2543	10.2
2558	10.1
2572	10.1
2587	10.1
2602	10.0
2617	10.0
2631	9.9
2646	9.9
2661	9.8
2676	9.8
2690	9.7
2705	9.7
2720	9.7
2735	9.6
2749	9.5
2764	9.5
2779	9.4
2794	9.4
2808	9.4
2823	9.3
2838	9.3
2853	9.2
2867	9.2
2882	9.1
2897	9.1
2912	9.0
2926	9.0
2941	8.9
2956	8.8
2971	8.8
2985	8.7
3000	8.6



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Freq (MHz)	Input VSWR (dBRL)	Output VSWR (dBRL)
50	-5	-13
65	-7	-13
80	-8	-13
94	-9	-13
109	-9	-13
124	-10	-13
139	-10	-13
153	-11	-13
168	-11	-13
183	-11	-13
198	-11	-13
212	-12	-13
227	-12	-13
242	-12	-13
257	-12	-13
271	-12	-13
286	-12	-13
301	-12	-13
316	-12	-13
330	-12	-13
345	-12	-13
360	-13	-13
375	-13	-13
389	-13	-13
404	-13	-13
419	-13	-13
434	-13	-13
448	-13	-13
463	-13	-13
478	-13	-13
493	-13	-13
507	-13	-13
522	-13	-13
537	-13	-13
552	-13	-13
566	-13	-13
581	-13	-13
596	-13	-13
611	-13	-14
625	-13	-14
640	-13	-14
655	-13	-14
670	-13	-14
684	-13	-14
699	-13	-14
714	-13	-14
729	-13	-14
743	-13	-14
758	-13	-14
773	-13	-14
788	-13	-14
802	-13	-15
817	-13	-15
832	-13	-15
847	-12	-15
861	-12	-15
876	-13	-15
891	-13	-15
906	-12	-15
920	-12	-15
935	-12	-15

Freq (MHz)	Input VSWR (dBRL)	Output VSWR (dBRL)
950	-12	-15
965	-12	-16
979	-12	-16
994	-12	-16
1009	-12	-16
1024	-12	-16
1038	-12	-16
1053	-12	-16
1068	-12	-16
1083	-12	-16
1097	-12	-17
1112	-12	-17
1127	-12	-17
1142	-12	-17
1156	-12	-17
1171	-12	-17
1186	-12	-17
1201	-12	-18
1215	-12	-18
1230	-12	-18
1245	-12	-18
1260	-12	-18
1274	-12	-18
1289	-12	-19
1304	-12	-19
1319	-12	-19
1333	-12	-19
1348	-12	-19
1363	-12	-19
1378	-12	-20
1392	-12	-20
1407	-12	-20
1422	-12	-20
1437	-12	-20
1451	-12	-21
1466	-12	-21
1481	-12	-21
1496	-12	-21
1510	-13	-22
1525	-13	-22
1540	-13	-22
1555	-13	-22
1569	-13	-23
1584	-13	-23
1599	-13	-23
1614	-13	-23
1628	-13	-23
1643	-13	-24
1658	-13	-24
1673	-13	-24
1687	-13	-25
1702	-13	-25
1717	-13	-25
1732	-13	-25
1746	-13	-26
1761	-13	-26
1776	-13	-26
1791	-14	-27
1805	-14	-26
1820	-14	-26
1835	-14	-27

Freq (MHz)	Input VSWR (dBRL)	Output VSWR (dBRL)
1850	-14	-27
1864	-14	-28
1879	-14	-29
1894	-14	-29
1909	-14	-29
1923	-14	-29
1938	-14	-30
1953	-14	-31
1968	-14	-31
1982	-14	-32
1997	-14	-33
2012	-14	-33
2027	-14	-34
2041	-14	-34
2056	-14	-35
2071	-14	-36
2086	-14	-38
2100	-15	-40
2115	-15	-40
2130	-15	-39
2145	-14	-41
2159	-14	-43
2174	-14	-43
2189	-14	-45
2204	-15	-46
2218	-15	-45
2233	-15	-44
2248	-15	-44
2263	-15	-44
2277	-14	-43
2292	-14	-40
2307	-15	-37
2322	-15	-35
2336	-15	-35
2351	-15	-34
2366	-15	-34
2381	-15	-33
2395	-15	-32
2410	-15	-31
2425	-16	-30
2440	-16	-30
2454	-16	-29
2469	-16	-29
2484	-15	-29
2499	-15	-28
2513	-16	-27
2528	-16	-27
2543	-16	-27
2558	-16	-26
2572	-16	-26
2587	-15	-25
2602	-16	-24
2617	-16	-25
2631	-16	-24
2646	-16	-24
2661	-16	-24
2676	-15	-23
2690	-15	-23
2705	-16	-23
2720	-17	-22
2735	-17	-22

Freq (MHz)	Input VSWR (dBRL)	Output VSWR (dBRL)
2749	-17	-22
2764	-17	-22
2779	-16	-21
2794	-17	-21
2808	-17	-21
2823	-17	-21
2838	-17	-21
2853	-17	-20
2867	-17	-20
2882	-17	-19
2897	-17	-19
2912	-18	-19
2926	-18	-19
2941	-18	-19
2956	-18	-19
2971	-17	-19
2985	-17	-18
3000	-17	-18



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Freq. (MHz)	Reverse Isolation (dB)
50	-26
65	-25
80	-25
94	-25
109	-25
124	-25
139	-25
153	-25
168	-25
183	-25
198	-25
212	-25
227	-25
242	-25
257	-25
271	-25
286	-25
301	-25
316	-25
330	-24
345	-24
360	-24
375	-24
389	-24
404	-24
419	-24
434	-24
448	-24
463	-24
478	-24
493	-24
507	-24
522	-24
537	-24
552	-24
566	-24
581	-24
596	-24
611	-24
625	-24
640	-24
655	-24
670	-24
684	-24
699	-24
714	-24
729	-24
743	-24
758	-24
773	-24
788	-24
802	-24
817	-24
832	-24
847	-24
861	-24
876	-24
891	-24
906	-24
920	-24
935	-24

Freq. (MHz)	Reverse Isolation (dB)
950	-24
965	-24
979	-24
994	-24
1009	-24
1024	-24
1038	-24
1053	-24
1068	-24
1083	-23
1097	-23
1112	-23
1127	-23
1142	-23
1156	-23
1171	-23
1186	-23
1201	-23
1215	-23
1230	-23
1245	-23
1260	-23
1274	-23
1289	-23
1304	-23
1319	-23
1333	-23
1348	-23
1363	-23
1378	-23
1392	-23
1407	-23
1422	-23
1437	-22
1451	-22
1466	-22
1481	-22
1496	-22
1510	-22
1525	-22
1540	-22
1555	-22
1569	-22
1584	-22
1599	-22
1614	-22
1628	-22
1643	-22
1658	-22
1673	-22
1687	-22
1702	-22
1717	-22
1732	-22
1746	-21
1761	-21
1776	-21
1791	-21
1805	-21
1820	-21
1835	-21

Freq. (MHz)	Reverse Isolation (dB)
1850	-21
1864	-21
1879	-21
1894	-21
1909	-21
1923	-21
1938	-21
1953	-21
1968	-21
1982	-21
1997	-21
2012	-21
2027	-21
2041	-21
2056	-21
2071	-20
2086	-20
2100	-20
2115	-20
2130	-20
2145	-20
2159	-20
2174	-20
2189	-20
2204	-20
2218	-20
2233	-20
2248	-20
2263	-20
2277	-20
2292	-20
2307	-20
2322	-20
2336	-20
2351	-20
2366	-20
2381	-20
2395	-20
2410	-20
2425	-20
2440	-19
2454	-19
2469	-19
2484	-19
2499	-19
2513	-19
2528	-19
2543	-19
2558	-19
2572	-19
2587	-19
2602	-19
2617	-19
2631	-19
2646	-19
2661	-19
2676	-19
2690	-19
2705	-19
2720	-19
2735	-19

Freq. (MHz)	Reverse Isolation (dB)
2749	-19
2764	-19
2779	-19
2794	-19
2808	-19
2823	-19
2838	-19
2853	-19
2867	-19
2882	-19
2897	-19
2912	-19
2926	-19
2941	-19
2956	-19
2971	-19
2985	-19
3000	-19



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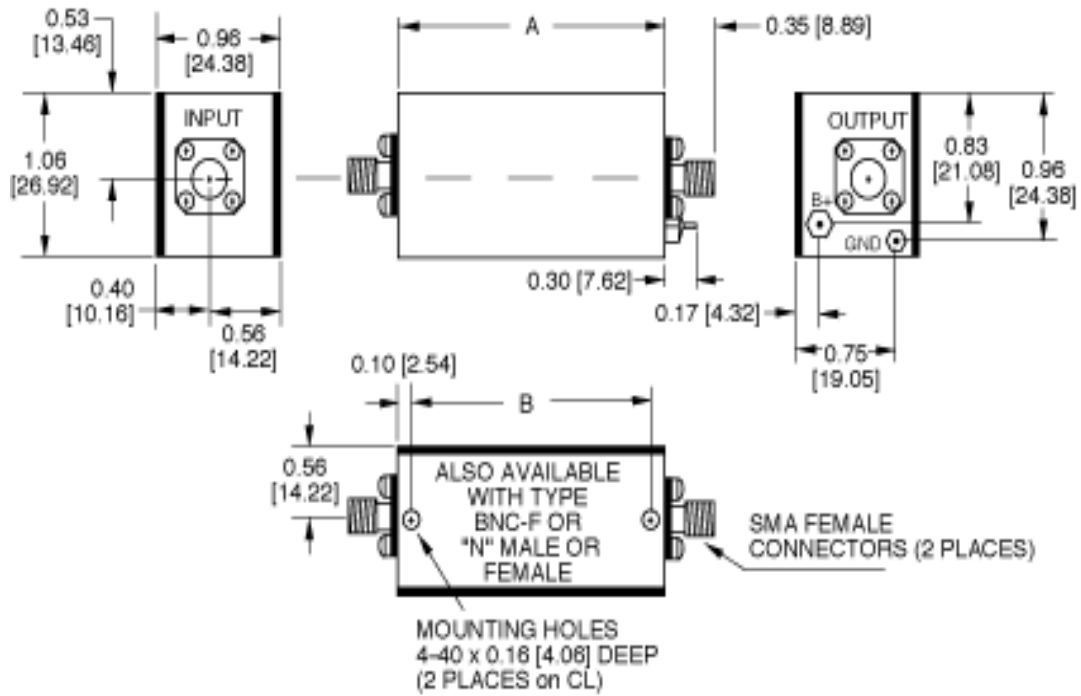
Frequency (MHz)	Noise Figure (dB)	P1dB (dBm)	3 rd Order Intercept (dBm)
100	1.8	+20.8	+34
250	1.35	+20.8	+34
500	1.34	+21.0	+34
1000	1.45	+20.9	+33
1500	1.55	+21.0	+32
2000	1.63	+20.5	+32
2500	1.69	+20.5	+32
3000	1.75	+20.6	+32



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MITEQ AM-1636 AMPLIFIER

OUTLINE	DIM A	DIM B	OUNCES
1	1.11 [28.19]	0.91 [23.11]	1.5



NOTE: DIMENSIONS ARE IN INCHES [MILLIMETERS].



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OPTIONS FOR BIPOLAR AMPLIFIERS

INPUT BIAS TEE

Add Suffix “-F”

Used to inject bias signal to photo diode or other type of device. Check for availability on your model before ordering. Available on most units operating above 1 MHz. Please contact MITEQ with your custom requirements.

BIAS THROUGH THE OUTPUT CONNECTOR

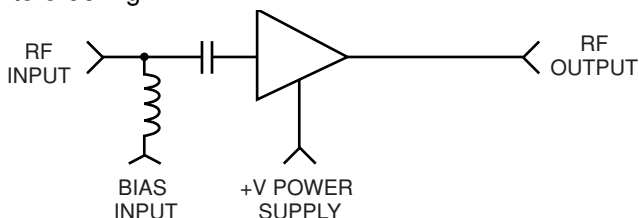
Add Suffix “-1306/E” or “-1306/D”

Used to supply operating power when the amplifier is remotely located while eliminating the need to run a separate DC line. Specify whether existing power pin should be “Enabled” or “Disabled.” To order, add -1306/E or -1306/D after model number. Example: AU-2A-0150-1306/E will have existing +15 V pin enabled so that it can be used as a test point. Use caution with this option since any voltage applied here will also be present on the RF output center pin. Available on most units operating above 1 MHz.

BIAS THROUGH THE OUTPUT CONNECTOR WITH DC FEEDTHROUGH TO RF INPUT

Add Suffix “-1334/E” or “-1334/D”

Used to supply operating power when the amplifier is remotely located and eliminates the need to run a separate DC line. This DC voltage is then internally fed to the RF input to power a remote LNA or other low power equipment. Maximum current of external load will vary with model type. Available on most units operating above 1 MHz. Please contact factory prior to ordering.



Specify whether existing power pin should be “Enabled” or “Disabled”. To order, add “-1334/E” or “-1334/D”

after model number. Example: AU-2A-0150-1334/E will have existing +15 V pin enabled so that it can be used as a test point. Use caution with this option since any voltage applied here will also be present on both the RF output and input center pins.

TYPE N OR BNC CONNECTORS

Add Suffix “-N” or “-BNC”

Type N-female and type BNC-female are available for all outlines 1 through 5, 12, 13 and 15 amplifiers. Add connector type after model number. Examples: AU-2A-0150-N; AU-2A-0150-BNC. Type N-male and mixed connector types are also available on request. Please call MITEQ with your specific requirements.

INPUT INTERNAL LIMITER

Add Suffix “-1103”

Available on models up to 500 MHz. Will protect the input stage from CW signals as high as +30 dBm. To order, add “-1103” after model number. Example: AU-2A-0150-1103. Options are available for protection against short duration pulses up to 50 W.

AC POWER SUPPLY (100 to 240 VAC, 47 - 440 Hz). Add Suffix “-1179”

Available as an add-on to most models using outlines 1 through 5 and 15. Includes 6-foot line cord with standard US line plug, internal fuse, on/off switch and LED indicator light. Amplifier is permanently mounted to power supply. To order, add “-1179” after model number. Example: AU-2A-0150-1179. Refer to outline 12 for dimensions.

AC POWER SUPPLY (Wall plug-in unit) Part Number “205531-19”

A low cost alternate to option “-1179”, the wall plug-in unit is a small switching power supply capable of delivering 1 amp at 15 volts.

AC POWER SUPPLY WITH SMC CONNECTORS (Wall plug-in unit) Part Number “-1179SC”

Same as above except has mating SMC connectors on amplifier DC input and power supply DC output. Available for outlines 1 through 10, 13 and 15.

ADDITIONAL OPTIONS AVAILABLE

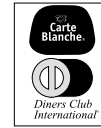
OPTION	SUFFIX
Gain Window	-GW
Phase Match	-PM
Amplitude Match	-AM
Gain Control	-GC



GENERAL INFORMATION

PRICING AND TERMS

A quotation on any item in the catalog is available by contacting the factory. All quotations, unless otherwise noted, are valid for 60 days from the date of issue, F.O.B. (FCA) Hauppauge, NY 11788. Pricing does not include customer or government source inspection unless otherwise noted. On international orders, an irrevocable letter of credit may be required. MITEQ accepts these credit cards:



QUANTITY DISCOUNTS

A quantity discount is generally available on most catalog items. Due to the wide variety of devices in the catalog, it is not possible to provide a standard discount schedule. When quantities are involved, please contact the factory and the appropriate information will be provided.

SOURCE INSPECTION

Government / customer source inspection is available on any item upon receipt of the complete written confirmation of purchase order items, including the prime government contract number. Source inspection with respect to some products increases the unit price and extends delivery because of duplicate standard final inspection and testing. It is recommended wherever possible that a Certificate of Compliance be substituted for source inspection to minimize price and delivery delays.

SHIPPING INFORMATION

Unless instructed otherwise by the customer, we will ship UPS in the U.S. F.O.B. (FCA) Hauppauge. Air freight will be used as the primary international means of shipment. Please indicate at time of purchase what method of shipment you require.

RETURNED MATERIAL

When returning material for repair or replacement, please ensure that there is complete information included with the shipment, giving a detailed description of the reason for its return, the date and purchase order on which it was obtained, and the exact address to which the material is to be reshipped. All returns must arrive freight, postage, duties and handling prepaid.

REPAIR COSTS

Warranty repairs will be made at no cost to the customer. Units out of warranty, or those which have been mishandled, will require approval by the customer for the charges involved before the repairs can be accomplished. We will provide an estimate for the cost of the repair, which can be applied to the repair, if approval is granted. For those items that are deemed beyond repair, or where the customer may decide not to repair the unit, an evaluation fee and handling charge will be applicable.

APPLICATION ENGINEERING

We maintain a large support staff of engineers who are experts in specific areas of microwave technology. Each has an engineering background that combines both a formal engineering education with training and experience in product design. As further technical support, we make available the services of our engineering and scientific staff, who may be consulted on more advanced circuit designs or application problems.

DRAWINGS AND SPECIFICATIONS

The material presented in this catalog was current at the time of publication. MITEQ Inc.'s continuing product improvement program makes it necessary to reserve the right to change our mechanical and electrical specifications without notice. If either of these parameters is critical, please contact the factory to verify that the information is current.

ADDITIONAL INFORMATION

WARRANTY

ISO 9001:2000 Certified



MITEQ FEDERAL SUPPLY CODE

Our Federal Supply Code is: 33592



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