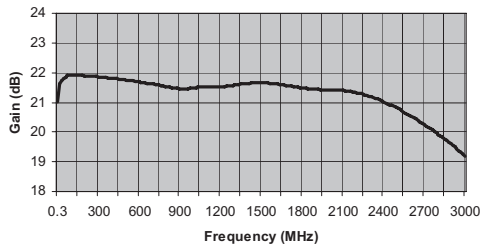


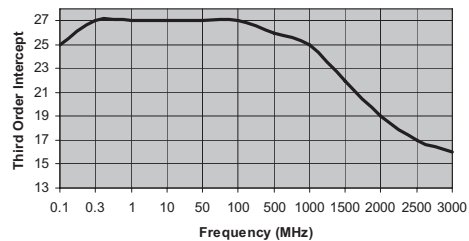
MITEQ AM-1616 SERIES AMPLIFIER

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.
0.01-1000	AM-1616-1000	20	0.5	2.0:1	50/50	3.2	14	15	60	1
0.01-2000	AM-1616-2000	20	0.75	2.0:1	50/50	3.4	14	15	60	1
0.01-2500	AM-1616-2500	20	1	2.0:1	50/50	3.5	12	15	60	1
0.01-3000	AM-1616-3000	20	2	2.0:1	50/50	3.5	11	15	60	1

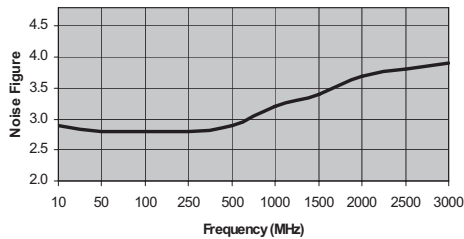
Gain (dB)



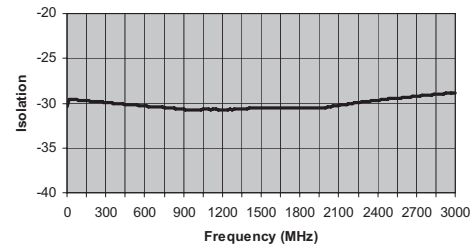
Output Third Order Intercept Point (+dBm)



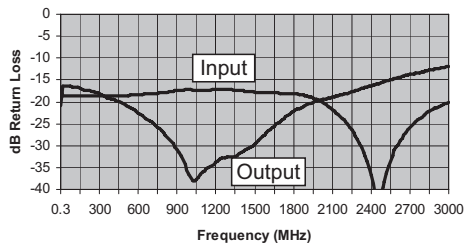
Noise Figure (dB)



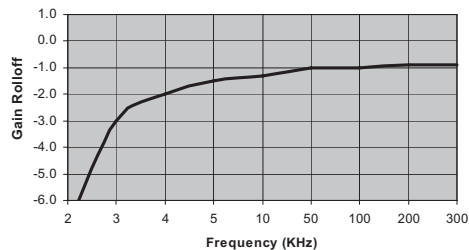
Reverse Isolation (dB)



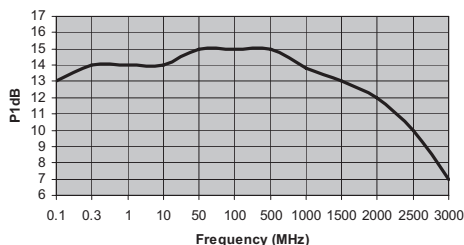
Input & Output Return Loss (dBRL)



Low Frequency Gain Rolloff (dB)



Output -1dB Gain Compression (+dBm)



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Freq. (MHz)	Gain (dB)
0.3	21.0
15	21.6
30	21.8
45	21.8
60	21.8
75	21.9
90	21.9
105	21.9
120	21.9
135	21.9
150	21.9
165	21.9
180	21.9
195	21.9
210	21.9
225	21.9
240	21.9
255	21.9
270	21.9
285	21.9
300	21.9
315	21.9
330	21.8
345	21.8
360	21.8
375	21.8
390	21.8
405	21.8
420	21.8
435	21.8
450	21.8
465	21.8
480	21.8
495	21.8
510	21.8
525	21.7
540	21.7
555	21.7
570	21.7
585	21.7
600	21.7
615	21.7
630	21.7
645	21.7
660	21.6
675	21.6
690	21.6
705	21.6
720	21.6
735	21.6
750	21.6
765	21.6
780	21.6
795	21.5
810	21.5
825	21.5
840	21.5

Freq. (MHz)	Gain (dB)
855	21.5
870	21.5
885	21.5
900	21.5
915	21.5
930	21.5
945	21.5
960	21.5
975	21.5
990	21.5
1005	21.5
1020	21.5
1035	21.5
1050	21.5
1065	21.5
1080	21.5
1095	21.5
1110	21.5
1125	21.5
1140	21.5
1155	21.5
1170	21.5
1185	21.5
1200	21.5
1215	21.5
1230	21.5
1245	21.5
1260	21.6
1275	21.6
1290	21.6
1305	21.6
1320	21.6
1335	21.6
1350	21.6
1365	21.6
1380	21.6
1395	21.6
1410	21.6
1425	21.7
1440	21.7
1455	21.7
1470	21.7
1485	21.7
1500	21.7
1515	21.7
1530	21.7
1545	21.6
1560	21.6
1575	21.6
1590	21.6
1605	21.6
1620	21.6
1635	21.6
1650	21.6
1665	21.6
1680	21.6
1695	21.6

Freq. (MHz)	Gain (dB)
1710	21.6
1725	21.5
1740	21.5
1755	21.5
1770	21.5
1785	21.5
1800	21.5
1815	21.5
1830	21.5
1845	21.5
1860	21.5
1875	21.4
1890	21.4
1905	21.4
1920	21.4
1935	21.4
1950	21.4
1965	21.4
1980	21.4
1995	21.4
2010	21.4
2025	21.4
2040	21.4
2055	21.4
2070	21.4
2085	21.4
2100	21.4
2115	21.4
2130	21.4
2145	21.4
2160	21.4
2175	21.4
2190	21.3
2205	21.3
2220	21.3
2235	21.3
2250	21.3
2265	21.2
2280	21.2
2295	21.2
2310	21.2
2325	21.2
2340	21.1
2355	21.1
2370	21.1
2385	21.1
2400	21.0
2415	21.0
2430	21.0
2445	20.9
2460	20.9
2475	20.9
2490	20.8
2505	20.8
2520	20.8
2535	20.7
2550	20.7

Freq. (MHz)	Gain (dB)
2565	20.6
2580	20.6
2595	20.6
2610	20.5
2625	20.5
2640	20.4
2655	20.4
2670	20.3
2685	20.3
2700	20.3
2715	20.2
2730	20.2
2745	20.1
2760	20.1
2775	20.0
2790	20.0
2805	19.9
2820	19.9
2835	19.8
2850	19.8
2865	19.7
2880	19.7
2895	19.6
2910	19.6
2925	19.5
2940	19.4
2955	19.4
2970	19.3
2985	19.3
3000	19.2



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Freq. (MHz)	Input Return Loss (dB)	Output Return Loss (dB)
0.3	-17	-21
15	-19	-16
30	-19	-16
45	-19	-16
60	-19	-16
75	-19	-16
90	-19	-17
105	-19	-17
120	-19	-17
135	-19	-17
150	-19	-17
165	-19	-17
180	-19	-17
195	-19	-17
210	-19	-17
225	-19	-17
240	-19	-18
255	-19	-18
270	-19	-18
285	-19	-18
300	-19	-18
315	-19	-18
330	-19	-19
345	-19	-19
360	-19	-19
375	-19	-19
390	-19	-19
405	-19	-19
420	-19	-20
435	-19	-20
450	-19	-20
465	-19	-20
480	-19	-20
495	-19	-21
510	-19	-21
525	-19	-21
540	-18	-21
555	-18	-22
570	-18	-22
585	-18	-22
600	-18	-23
615	-18	-23
630	-18	-23
645	-18	-23
660	-18	-24
675	-18	-24
690	-18	-24
705	-18	-25
720	-18	-25
735	-18	-25
750	-18	-26
765	-18	-26
780	-18	-27
795	-18	-27
810	-18	-27

Freq. (MHz)	Input Return Loss (dB)	Output Return Loss (dB)
825	-18	-28
840	-18	-28
855	-18	-29
870	-18	-30
885	-17	-30
900	-17	-31
915	-17	-32
930	-17	-32
945	-17	-33
960	-17	-34
975	-17	-35
990	-17	-37
1005	-17	-37
1020	-17	-38
1035	-17	-38
1050	-17	-38
1065	-17	-37
1080	-17	-37
1095	-17	-36
1110	-17	-36
1125	-17	-35
1140	-17	-35
1155	-17	-35
1170	-17	-34
1185	-17	-34
1200	-17	-34
1215	-17	-33
1230	-17	-33
1245	-17	-33
1260	-17	-33
1275	-17	-33
1290	-17	-33
1305	-17	-33
1320	-17	-33
1335	-17	-33
1350	-17	-32
1365	-17	-32
1380	-17	-32
1395	-17	-32
1410	-17	-31
1425	-18	-31
1440	-18	-31
1455	-18	-31
1470	-18	-30
1485	-18	-30
1500	-18	-30
1515	-18	-29
1530	-18	-29
1545	-18	-28
1560	-18	-28
1575	-18	-28
1590	-18	-27
1605	-18	-27
1620	-18	-26
1635	-18	-26
1650	-18	-26

Freq. (MHz)	Input Return Loss (dB)	Output Return Loss (dB)
1665	-18	-25
1680	-18	-25
1695	-18	-24
1710	-18	-24
1725	-18	-24
1740	-18	-23
1755	-18	-23
1770	-18	-23
1785	-18	-22
1800	-18	-22
1815	-18	-22
1830	-18	-22
1845	-18	-22
1860	-18	-21
1875	-18	-21
1890	-19	-21
1905	-19	-21
1920	-19	-20
1935	-19	-20
1950	-19	-20
1965	-19	-20
1980	-19	-20
1995	-20	-20
2010	-20	-20
2025	-20	-19
2040	-20	-19
2055	-21	-19
2070	-21	-19
2085	-21	-19
2100	-22	-19
2115	-22	-19
2130	-23	-19
2145	-23	-19
2160	-23	-18
2175	-24	-18
2190	-24	-18
2205	-25	-18
2220	-25	-18
2235	-26	-18
2250	-26	-18
2265	-27	-18
2280	-28	-17
2295	-29	-17
2310	-30	-17
2325	-30	-17
2340	-31	-17
2355	-32	-17
2370	-34	-17
2385	-35	-17
2400	-37	-16
2415	-39	-16
2430	-40	-16
2445	-42	-16
2460	-42	-16
2475	-41	-16
2490	-39	-15

Freq. (MHz)	Input Return Loss (dB)	Output Return Loss (dB)
2505	-38	-15
2520	-36	-15
2535	-35	-15
2550	-33	-15
2565	-32	-15
2580	-31	-15
2595	-30	-15
2610	-30	-15
2625	-29	-14
2640	-28	-14
2655	-28	-14
2670	-27	-14
2685	-26	-14
2700	-26	-14
2715	-25	-14
2730	-25	-14
2745	-25	-14
2760	-24	-13
2775	-24	-13
2790	-24	-13
2805	-23	-13
2820	-23	-13
2835	-22	-13
2850	-22	-13
2865	-22	-13
2880	-22	-13
2895	-21	-13
2910	-21	-12
2925	-21	-12
2940	-21	-12
2955	-21	-12
2970	-20	-12
2985	-20	-12
3000	-20	-12



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Freq. (MHz)	Reverse Isolation (dB)
0.3	-30
15	-30
30	-30
45	-30
60	-30
75	-30
90	-30
105	-30
120	-30
135	-30
150	-30
165	-30
180	-30
195	-30
210	-30
225	-30
240	-30
255	-30
270	-30
285	-30
300	-30
315	-30
330	-30
345	-30
360	-30
375	-30
390	-30
405	-30
420	-30
435	-30
450	-30
465	-30
480	-30
495	-30
510	-30
525	-30
540	-30
555	-30
570	-30
585	-30
600	-30
615	-30
630	-30
645	-30
660	-30
675	-30
690	-30
705	-30
720	-30
735	-30
750	-30
765	-30
780	-30
795	-31
810	-31
825	-31

Freq. (MHz)	Reverse Isolation (dB)
840	-31
855	-31
870	-31
885	-31
900	-31
915	-31
930	-31
945	-31
960	-31
975	-31
990	-31
1005	-31
1020	-31
1035	-31
1050	-31
1065	-31
1080	-31
1095	-31
1110	-31
1125	-31
1140	-31
1155	-31
1170	-31
1185	-31
1200	-31
1215	-31
1230	-31
1245	-31
1260	-31
1275	-31
1290	-31
1305	-31
1320	-31
1335	-31
1350	-31
1365	-31
1380	-31
1395	-31
1410	-31
1425	-31
1440	-31
1455	-31
1470	-31
1485	-31
1500	-31
1515	-31
1530	-30
1545	-31
1560	-31
1575	-31
1590	-31
1605	-30
1620	-31
1635	-30
1650	-31
1665	-31

Freq. (MHz)	Reverse Isolation (dB)
1680	-31
1695	-31
1710	-31
1725	-31
1740	-31
1755	-31
1770	-31
1785	-31
1800	-31
1815	-31
1830	-31
1845	-31
1860	-31
1875	-31
1890	-31
1905	-31
1920	-31
1935	-31
1950	-31
1965	-31
1980	-30
1995	-30
2010	-30
2025	-30
2040	-30
2055	-30
2070	-30
2085	-30
2100	-30
2115	-30
2130	-30
2145	-30
2160	-30
2175	-30
2190	-30
2205	-30
2220	-30
2235	-30
2250	-30
2265	-30
2280	-30
2295	-30
2310	-30
2325	-30
2340	-30
2355	-30
2370	-30
2385	-30
2400	-30
2415	-30
2430	-30
2445	-30
2460	-30
2475	-30
2490	-29
2505	-30

Freq. (MHz)	Reverse Isolation (dB)
2520	-29
2535	-29
2550	-29
2565	-29
2580	-29
2595	-29
2610	-29
2625	-29
2640	-29
2655	-29
2670	-29
2685	-29
2700	-29
2715	-29
2730	-29
2745	-29
2760	-29
2775	-29
2790	-29
2805	-29
2820	-29
2835	-29
2850	-29
2865	-29
2880	-29
2895	-29
2910	-29
2925	-29
2940	-29
2955	-29
2970	-29
2985	-29
3000	-29



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MITEQ AM-1616 SERIES AMPLIFIER

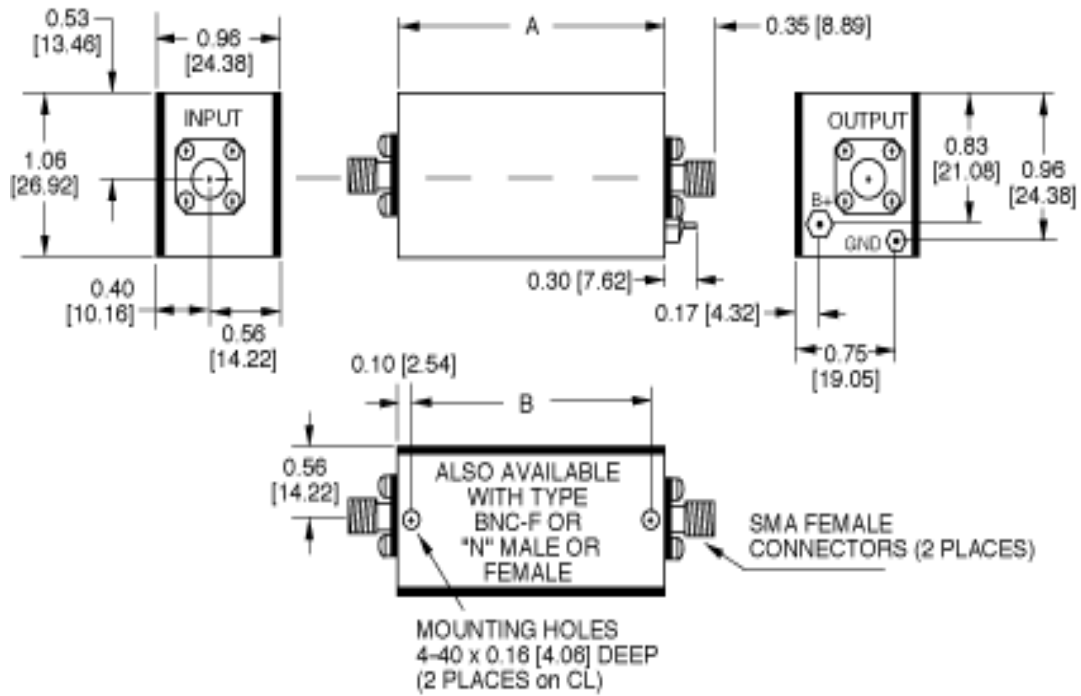
Freq. (MHz)	P1dB (+dBm)	3ip (+dBm)	Noise Figure (dB)
0.1	13	25	----
0.3	14	27	----
1	14	27	----
10	14	27	2.90
50	15	27	2.80
100	15	27	2.80
500	15	26	2.80
1000	13	25	2.90
1500	13	22	3.20
2000	12	19	3.40
2500	10	17	3.70
3000	7	16	3.80



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MITEQ AM-1616 SERIES 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

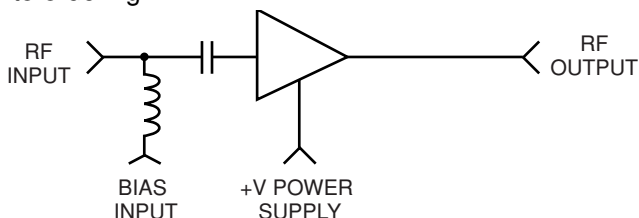
Add Suffix “-1306/E” or “-1306/D”

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

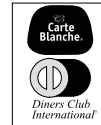
OPTION	SUFFIX
Gain Window	-GW
Phase Match	-PM
Amplitude Match	-AM
Gain Control	-GC



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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