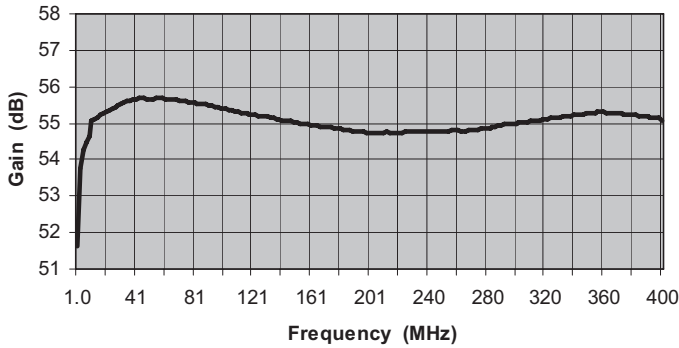


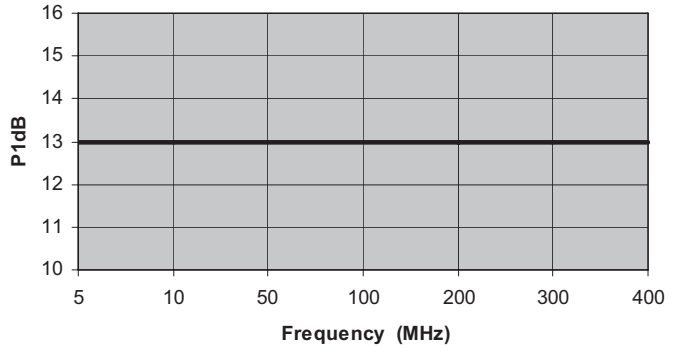
# MITEQ AU-1448 - AU-1480 AMPLIFIER

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.
5-200	AU-1480	50	0.5	2.0:1	50/50	1.2	11	15	75	3
5-400	AU-1448	50	0.5	2.0:1	50/50	1.2	11	15	70	3

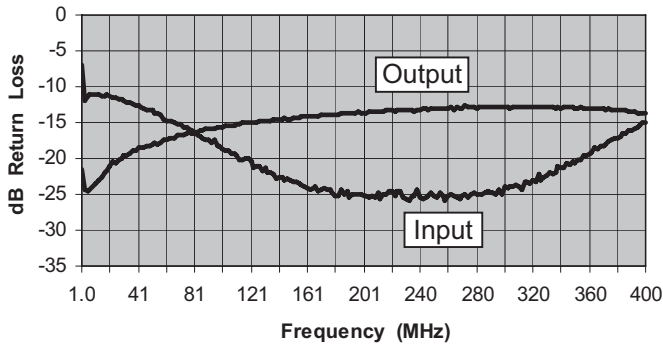
Gain (dB)



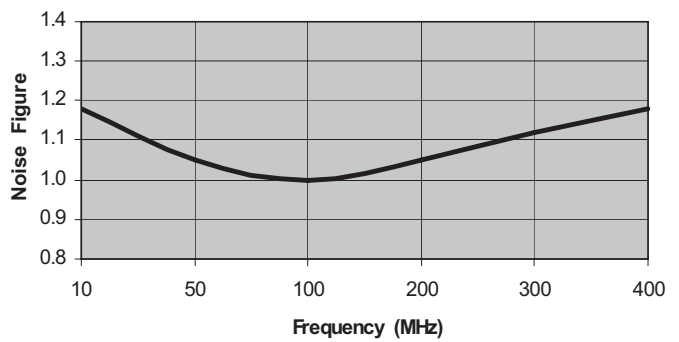
Output -1dB Gain Compression (+dBm)



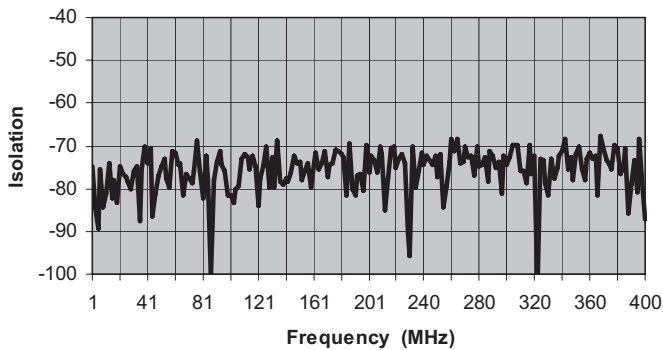
Input & Output Return Loss (dBRL)



Noise Figure (dB)



Reverse Isolation (dB)



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# MITEQ AU-1448 - AU-1480 AMPLIFIER

Freq. (MHz)	Gain (dB)
1.0	51.6
3	53.8
5	54.3
7	54.5
9	54.6
11	55.1
13	55.1
15	55.2
17	55.2
19	55.3
21	55.3
23	55.4
25	55.4
27	55.4
29	55.5
31	55.5
33	55.6
35	55.6
37	55.6
39	55.6
41	55.7
43	55.7
45	55.7
47	55.7
49	55.7
51	55.7
53	55.7
55	55.7
57	55.7
59	55.7
61	55.7
63	55.7
65	55.7
67	55.7
69	55.6
71	55.6
73	55.6
75	55.6
77	55.6
79	55.6
81	55.6
83	55.5
85	55.5
87	55.5
89	55.5
91	55.5
93	55.5
95	55.5
97	55.4
99	55.4
101	55.4
103	55.4
105	55.4
107	55.4
109	55.3
111	55.3
113	55.3
115	55.3
117	55.3
119	55.2
121	55.2
123	55.2
125	55.2
127	55.2

Freq. (MHz)	Gain (dB)
129	55.2
131	55.2
133	55.2
135	55.2
137	55.1
139	55.1
141	55.1
143	55.1
145	55.1
147	55.1
149	55.0
151	55.0
153	55.0
155	55.0
157	55.0
159	55.0
161	54.9
163	54.9
165	54.9
167	54.9
169	54.9
171	54.9
173	54.9
175	54.9
177	54.9
179	54.8
181	54.8
183	54.8
185	54.8
187	54.8
189	54.8
191	54.8
193	54.8
195	54.8
197	54.8
199	54.7
201	54.7
202	54.7
204	54.7
206	54.7
208	54.7
210	54.7
212	54.8
214	54.7
216	54.7
218	54.7
220	54.7
222	54.8
224	54.8
226	54.8
228	54.8
230	54.8
232	54.8
234	54.8
236	54.8
238	54.8
240	54.8
242	54.8
244	54.8
246	54.8
248	54.8
250	54.8
252	54.8
254	54.8

Freq. (MHz)	Gain (dB)
256	54.8
258	54.8
260	54.8
262	54.8
264	54.8
266	54.8
268	54.8
270	54.8
272	54.8
274	54.8
276	54.8
278	54.9
280	54.9
282	54.9
284	54.9
286	54.9
288	54.9
290	55.0
292	55.0
294	55.0
296	55.0
298	55.0
300	55.0
302	55.0
304	55.0
306	55.0
308	55.0
310	55.1
312	55.1
314	55.1
316	55.1
318	55.1
320	55.1
322	55.1
324	55.1
326	55.1
328	55.2
330	55.2
332	55.2
334	55.2
336	55.2
338	55.2
340	55.2
342	55.2
344	55.2
346	55.2
348	55.3
350	55.3
352	55.3
354	55.3
356	55.3
358	55.3
360	55.3
362	55.3
364	55.3
366	55.3
368	55.3
370	55.3
372	55.3
374	55.2
376	55.2
378	55.2
380	55.2
382	55.2

Freq. (MHz)	Gain (dB)
384	55.2
386	55.2
388	55.2
390	55.2
392	55.2
394	55.2
396	55.1
398	55.1
400	55.1



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# MITEQ AU-1448 - AU-1480 AMPLIFIER

Freq. (MHz)	Input VSWR (dBRL)	Output VSWR (dBRL)
1.0	-7	-22
3	-12	-24
5	-11	-25
7	-11	-24
9	-11	-24
11	-11	-23
13	-11	-23
15	-11	-23
17	-11	-22
19	-11	-22
21	-11	-21
23	-12	-20
25	-12	-21
27	-12	-20
29	-12	-20
31	-12	-20
33	-12	-19
35	-12	-19
37	-12	-19
39	-13	-19
41	-13	-18
43	-13	-18
45	-13	-19
47	-13	-18
49	-13	-18
51	-13	-18
53	-14	-18
55	-14	-18
57	-14	-18
59	-15	-17
61	-15	-17
63	-15	-17
65	-15	-17
67	-15	-17
69	-15	-17
71	-15	-17
73	-16	-17
75	-16	-16
77	-16	-16
79	-16	-16
81	-16	-16
83	-17	-16
85	-17	-16
87	-17	-16
89	-17	-16
91	-17	-16
93	-18	-16
95	-17	-16
97	-18	-16
99	-18	-16
101	-19	-16
103	-19	-16
105	-19	-15
107	-19	-15
109	-19	-15
111	-20	-15
113	-20	-15
115	-20	-15
117	-20	-15
119	-20	-15
121	-20	-15
123	-21	-15
125	-21	-15

Freq. (MHz)	Input VSWR (dBRL)	Output VSWR (dBRL)
127	-21	-15
129	-22	-15
131	-21	-15
133	-22	-15
135	-22	-15
137	-22	-15
139	-23	-15
141	-23	-15
143	-23	-15
145	-23	-14
147	-23	-15
149	-23	-15
151	-23	-14
153	-23	-14
155	-23	-14
157	-24	-14
159	-24	-14
161	-24	-14
163	-24	-14
165	-24	-14
167	-24	-14
169	-25	-14
171	-24	-14
173	-24	-14
175	-24	-14
177	-24	-14
179	-25	-14
181	-25	-14
183	-25	-14
185	-24	-14
187	-25	-14
189	-25	-14
191	-25	-14
193	-25	-14
195	-25	-14
197	-25	-14
199	-25	-14
201	-25	-14
202	-25	-14
204	-25	-14
206	-25	-13
208	-25	-13
210	-25	-13
212	-26	-14
214	-25	-13
216	-25	-13
218	-25	-13
220	-25	-13
222	-25	-13
224	-25	-13
226	-25	-13
228	-25	-13
230	-26	-13
232	-26	-13
234	-25	-13
236	-25	-13
238	-24	-13
240	-26	-13
242	-26	-13
244	-25	-13
246	-25	-13
248	-25	-13
250	-25	-13

Freq. (MHz)	Input VSWR (dBRL)	Output VSWR (dBRL)
252	-25	-13
254	-25	-13
256	-25	-13
258	-26	-13
260	-25	-13
262	-25	-13
264	-25	-13
266	-25	-13
268	-26	-13
270	-25	-13
272	-25	-13
274	-25	-13
276	-25	-13
278	-25	-13
280	-25	-13
282	-25	-13
284	-25	-13
286	-25	-13
288	-25	-13
290	-25	-13
292	-25	-13
294	-25	-13
296	-24	-13
298	-25	-13
300	-24	-13
302	-24	-13
304	-24	-13
306	-24	-13
308	-24	-13
310	-24	-13
312	-24	-13
314	-23	-13
316	-23	-13
318	-23	-13
320	-23	-13
322	-23	-13
324	-22	-13
326	-23	-13
328	-23	-13
330	-22	-13
332	-22	-13
334	-22	-13
336	-22	-13
338	-21	-13
340	-21	-13
342	-21	-13
344	-21	-13
346	-21	-13
348	-20	-13
350	-21	-13
352	-20	-13
354	-20	-13
356	-19	-13
358	-19	-13
360	-19	-13
362	-19	-13
364	-19	-13
366	-19	-13
368	-18	-13
370	-18	-13
372	-18	-13
374	-18	-13
376	-17	-13

Freq. (MHz)	Input VSWR (dBRL)	Output VSWR (dBRL)
378	-17	-13
380	-17	-13
382	-17	-13
384	-17	-13
386	-16	-13
388	-16	-13
390	-16	-13
392	-16	-13
394	-16	-14
396	-16	-14
398	-15	-14
400	-15	-14



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# MITEQ AU-1448 - AU-1480 AMPLIFIER

Freq. (MHz)	Reverse Isolation (dB)
1.0	-75
3	-85
5	-89
7	-75
9	-85
11	-81
13	-74
15	-82
17	-78
19	-83
21	-75
23	-76
25	-77
27	-78
29	-80
31	-76
33	-75
35	-88
37	-76
39	-70
41	-74
43	-70
45	-86
47	-81
49	-77
51	-75
53	-73
55	-78
57	-80
59	-71
61	-71
63	-74
65	-74
67	-81
69	-77
71	-78
73	-79
75	-76
77	-69
79	-76
81	-82
83	-72
85	-78
87	-100
89	-78
91	-74
93	-71
95	-74
97	-76
99	-81
101	-81
103	-83
105	-80
107	-79
109	-73
111	-72
113	-73
115	-75
117	-72
119	-75
121	-84
123	-78
125	-75

Freq. (MHz)	Reverse Isolation (dB)
127	-70
129	-80
131	-73
133	-80
135	-69
137	-78
139	-79
141	-78
143	-78
145	-76
147	-72
149	-74
151	-74
153	-78
155	-76
157	-74
159	-80
161	-74
163	-72
165	-75
167	-74
169	-71
171	-77
173	-75
175	-74
177	-71
179	-71
181	-72
183	-73
185	-81
187	-69
189	-80
191	-81
193	-77
195	-77
197	-81
199	-70
201	-76
202	-72
204	-73
206	-76
208	-70
210	-72
212	-85
214	-78
216	-71
218	-70
220	-75
222	-73
224	-72
226	-74
228	-91
230	-96
232	-70
234	-80
236	-76
238	-72
240	-75
242	-72
244	-73
246	-74
248	-72
250	-77

Freq. (MHz)	Reverse Isolation (dB)
252	-72
254	-85
256	-79
258	-74
260	-68
262	-71
264	-68
266	-74
268	-74
270	-70
272	-73
274	-72
276	-77
278	-70
280	-75
282	-75
284	-73
286	-78
288	-71
290	-72
292	-75
294	-74
296	-81
298	-72
300	-74
302	-73
304	-70
306	-70
308	-70
310	-76
312	-76
314	-79
316	-70
318	-77
320	-72
322	-103
324	-73
326	-73
328	-79
330	-82
332	-73
334	-78
336	-75
338	-72
340	-71
342	-69
344	-76
346	-73
348	-78
350	-72
352	-70
354	-75
356	-78
358	-73
360	-71
362	-73
364	-72
366	-82
368	-68
370	-71
372	-73
374	-74
376	-76

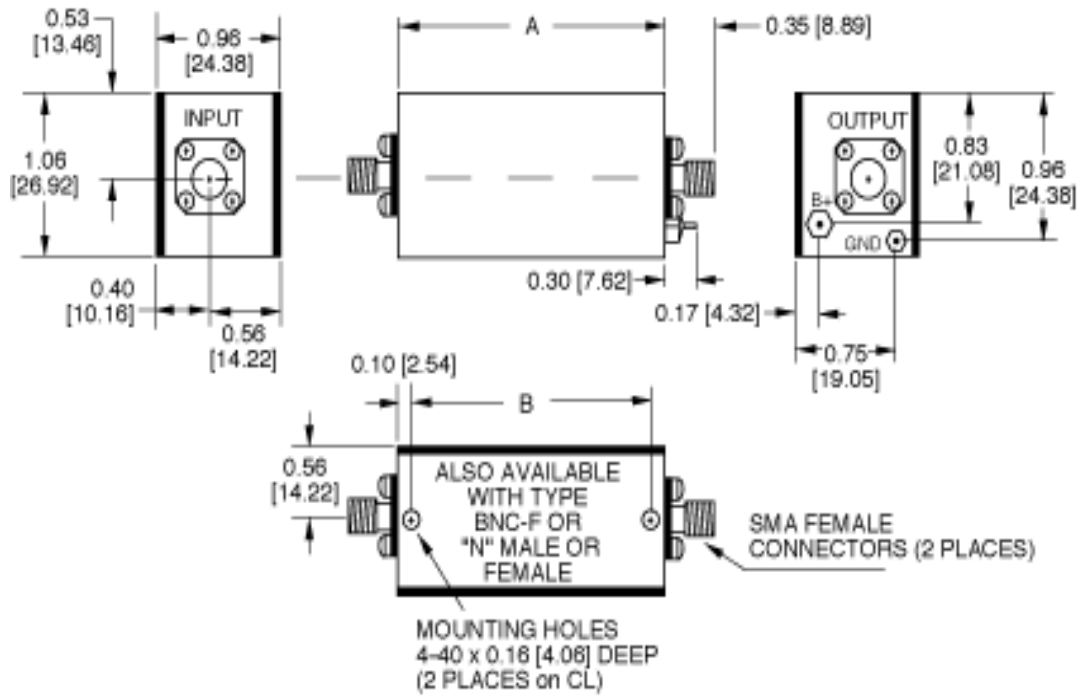
Freq. (MHz)	Reverse Isolation (dB)
378	-70
380	-71
382	-77
384	-75
386	-70
388	-86
390	-79
392	-73
394	-81
396	-68
398	-78
400	-87



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# MITEQ AU-1448 - AU-1480 AMPLIFIER

OUTLINE	DIM A	DIM B	OUNCES
3	2.74 [69.60]	2.54 [64.52]	2.9



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

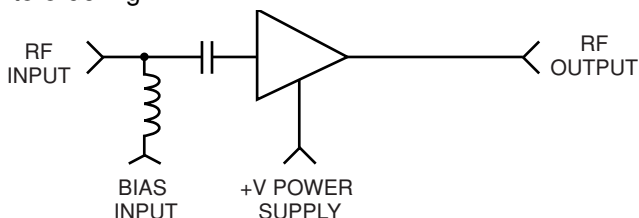
#### Add Suffix "-1306/E" or "-1306/D"

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

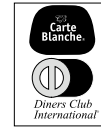


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## GENERAL INFORMATION

### 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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