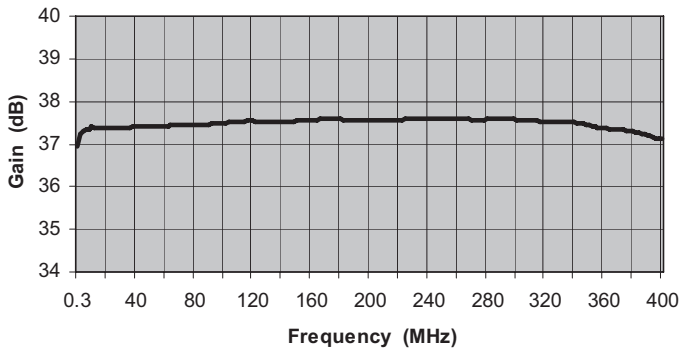


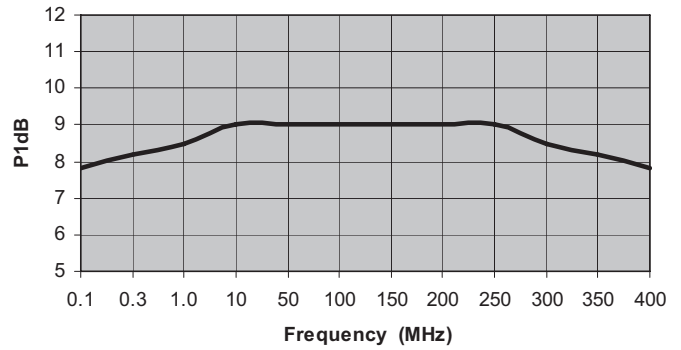
# MITEQ AU-1442-400 AMPLIFIER

FREQUENCY (MHz)	MODEL NUMBER	GAIN (dB) (Min.)	VAR. (±dB) (Max.)	VSWR (Max.)	IMPED. IN/OUT (Ohms)	NOISE FIGURE (dB, Typ.)	P1 dB (dBm) (Typ.)	VOLTS	NOM. DC POWER (mA)	OUTLINE NO.
0.01-400	AU-1442-400	35	0.5	2.0:1	50/50	1.2	8	15	45	2

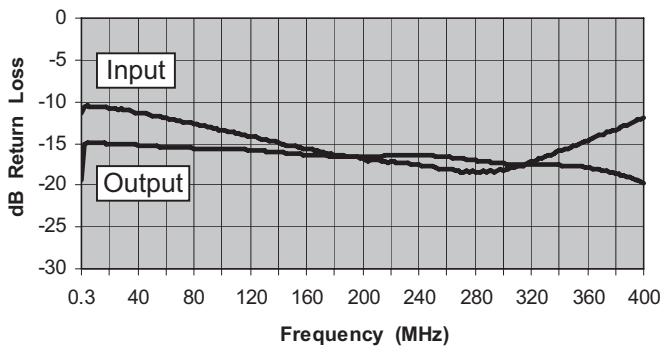
Gain (dB)



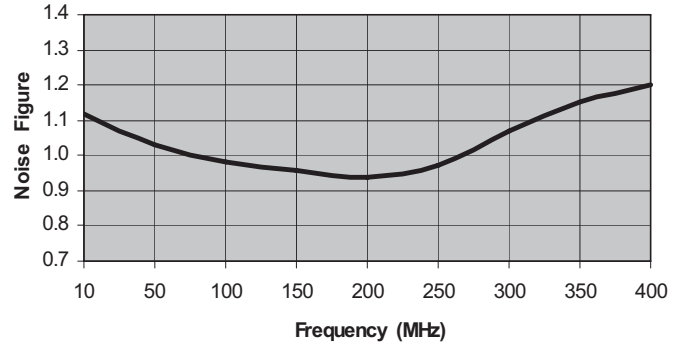
Output -1dB Gain Compression (+dBm)



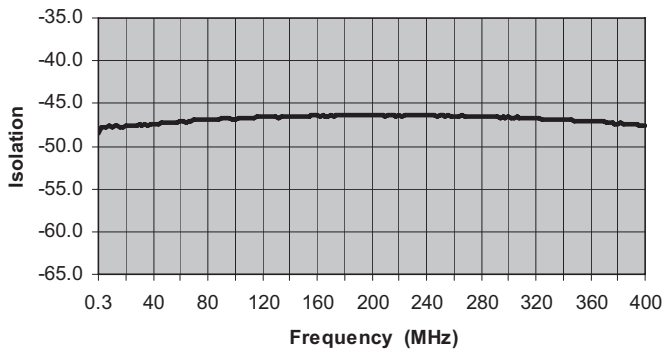
Input & Output Return Loss (dBRL)



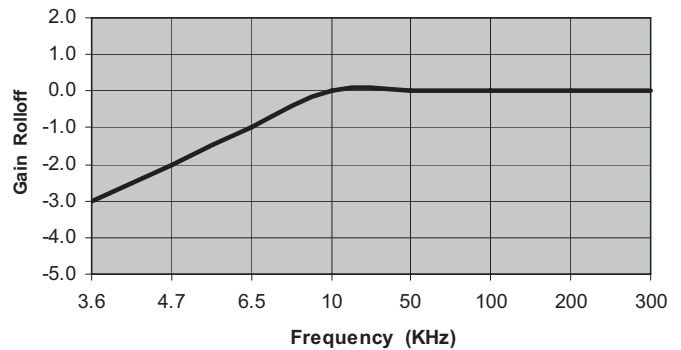
Noise Figure (dB)



Reverse Isolation (dB)



Low Frequency Gain Rolloff (dB)



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## MITEQ AU-1442-400 AMPLIFIER

Freq. (MHz)	Gain (dB)
0.3	36.9
2	37.2
4	37.3
6	37.3
8	37.4
10	37.4
12	37.4
14	37.4
16	37.4
18	37.4
20	37.4
22	37.4
24	37.4
26	37.4
28	37.4
30	37.4
32	37.4
34	37.4
36	37.4
38	37.4
40	37.4
42	37.4
44	37.4
46	37.4
48	37.4
50	37.4
52	37.4
54	37.4
56	37.4
58	37.4
60	37.4
62	37.4
64	37.4
66	37.4
68	37.4
70	37.4
72	37.4
74	37.4
76	37.4
78	37.4
80	37.5
82	37.5
84	37.5
86	37.5
88	37.5
90	37.5
92	37.5
94	37.5
96	37.5
98	37.5
100	37.5
102	37.5
104	37.5
106	37.5
108	37.5
110	37.5
112	37.5

Freq. (MHz)	Gain (dB)
114	37.5
116	37.5
118	37.5
120	37.5
122	37.5
124	37.5
126	37.5
128	37.5
130	37.5
132	37.5
134	37.5
136	37.5
138	37.5
140	37.5
142	37.5
144	37.5
146	37.5
148	37.5
150	37.5
152	37.5
154	37.5
156	37.6
158	37.6
160	37.6
162	37.6
164	37.6
166	37.6
168	37.6
170	37.6
172	37.6
174	37.6
176	37.6
178	37.6
180	37.6
182	37.6
184	37.6
186	37.6
188	37.6
190	37.6
192	37.6
194	37.6
196	37.6
198	37.6
200	37.6
202	37.6
204	37.6
206	37.6
208	37.6
210	37.6
212	37.6
214	37.6
216	37.6
218	37.6
220	37.6
222	37.6
224	37.6
226	37.6

Freq. (MHz)	Gain (dB)
228	37.6
230	37.6
232	37.6
234	37.6
236	37.6
238	37.6
240	37.6
242	37.6
244	37.6
246	37.6
248	37.6
250	37.6
252	37.6
254	37.6
256	37.6
258	37.6
260	37.6
262	37.6
264	37.6
266	37.6
268	37.6
270	37.6
272	37.6
274	37.6
276	37.6
278	37.6
280	37.6
282	37.6
284	37.6
286	37.6
288	37.6
290	37.6
292	37.6
294	37.6
296	37.6
298	37.6
300	37.6
302	37.6
304	37.6
306	37.6
308	37.6
310	37.6
312	37.5
314	37.5
316	37.5
318	37.5
320	37.5
322	37.5
324	37.5
326	37.5
328	37.5
330	37.5
332	37.5
334	37.5
336	37.5
338	37.5
340	37.5

Freq. (MHz)	Gain (dB)
342	37.5
344	37.5
346	37.5
348	37.5
350	37.4
352	37.4
354	37.4
356	37.4
358	37.4
360	37.4
362	37.4
364	37.4
366	37.3
368	37.3
370	37.3
372	37.3
374	37.3
376	37.3
378	37.3
380	37.3
382	37.3
384	37.3
386	37.2
388	37.2
390	37.2
392	37.2
394	37.2
396	37.1
398	37.1
400	37.1



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# MITEQ AU-1442-400 AMPLIFIER

Freq. (MHz)	Input VSWR (dBRL)	Output VSWR (dBRL)
0.3	-11	-19
2	-11	-15
4	-11	-15
6	-11	-15
8	-11	-15
10	-11	-15
12	-11	-15
14	-11	-15
16	-11	-15
18	-11	-15
20	-11	-15
22	-11	-15
24	-11	-15
26	-11	-15
28	-11	-15
30	-11	-15
32	-11	-15
34	-11	-15
36	-11	-15
38	-11	-15
40	-11	-15
42	-11	-15
44	-11	-15
46	-11	-15
48	-12	-15
50	-12	-15
52	-12	-15
54	-12	-15
56	-12	-15
58	-12	-15
60	-12	-15
62	-12	-15
64	-12	-15
66	-12	-15
68	-12	-15
70	-12	-15
72	-12	-15
74	-12	-15
76	-13	-16
78	-13	-16
80	-13	-16
82	-13	-16
84	-13	-16
86	-13	-16
88	-13	-16
90	-13	-16
92	-13	-16
94	-13	-16
96	-13	-16
98	-13	-16
100	-13	-16
102	-13	-16
104	-14	-16
106	-14	-16
108	-14	-16
110	-14	-16

Freq. (MHz)	Input VSWR (dBRL)	Output VSWR (dBRL)
112	-14	-16
114	-14	-16
116	-14	-16
118	-14	-16
120	-14	-16
122	-14	-16
124	-14	-16
126	-14	-16
128	-14	-16
130	-14	-16
132	-15	-16
134	-15	-16
136	-15	-16
138	-15	-16
140	-15	-16
142	-15	-16
144	-15	-16
146	-15	-16
148	-15	-16
150	-15	-16
152	-15	-16
154	-15	-16
156	-16	-16
158	-16	-16
160	-16	-16
162	-16	-16
164	-16	-16
166	-16	-16
168	-16	-16
170	-16	-16
172	-16	-16
174	-16	-16
176	-16	-16
178	-16	-16
180	-16	-17
182	-16	-17
184	-16	-17
186	-16	-17
188	-17	-17
190	-17	-17
192	-17	-17
194	-17	-17
196	-17	-17
198	-17	-17
200	-17	-17
202	-17	-17
204	-17	-17
206	-17	-17
208	-17	-17
210	-17	-17
212	-17	-17
214	-17	-17
216	-17	-16
218	-17	-16
220	-17	-16
222	-17	-16

Freq. (MHz)	Input VSWR (dBRL)	Output VSWR (dBRL)
224	-17	-16
226	-17	-16
228	-17	-16
230	-17	-16
232	-17	-16
234	-17	-16
236	-18	-16
238	-18	-16
240	-17	-16
242	-18	-16
244	-18	-16
246	-18	-16
248	-18	-16
250	-18	-16
252	-18	-17
254	-18	-17
256	-18	-17
258	-18	-17
260	-18	-17
262	-18	-17
264	-18	-17
266	-18	-17
268	-18	-17
270	-18	-17
272	-18	-17
274	-18	-17
276	-18	-17
278	-18	-17
280	-18	-17
282	-18	-17
284	-18	-17
286	-18	-17
288	-18	-17
290	-18	-17
292	-18	-17
294	-18	-17
296	-18	-17
298	-18	-17
300	-18	-17
302	-18	-17
304	-18	-17
306	-18	-17
308	-18	-17
310	-18	-18
312	-18	-18
314	-18	-18
316	-17	-18
318	-17	-18
320	-17	-18
322	-17	-18
324	-17	-18
326	-17	-18
328	-17	-18
330	-17	-18
332	-16	-18
334	-16	-18

Freq. (MHz)	Input VSWR (dBRL)	Output VSWR (dBRL)
336	-16	-18
338	-16	-18
340	-16	-18
342	-16	-18
344	-16	-18
346	-16	-18
348	-15	-18
350	-15	-18
352	-15	-18
354	-15	-18
356	-15	-18
358	-15	-18
360	-15	-18
362	-14	-18
364	-14	-18
366	-14	-18
368	-14	-18
370	-14	-18
372	-14	-18
374	-14	-18
376	-14	-18
378	-13	-18
380	-13	-19
382	-13	-19
384	-13	-19
386	-13	-19
388	-13	-19
390	-13	-19
392	-12	-19
394	-12	-19
396	-12	-19
398	-12	-20
400	-12	-20



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# MITEQ AU-1442-400 AMPLIFIER

Freq. (MHz)	Reverse Isol. (dB)
0.3	-48.4
2	-47.8
4	-47.8
6	-47.7
8	-47.7
10	-47.8
12	-47.6
14	-47.5
16	-47.7
18	-47.7
20	-47.7
22	-47.6
24	-47.6
26	-47.6
28	-47.6
30	-47.5
32	-47.6
34	-47.4
36	-47.6
38	-47.4
40	-47.5
42	-47.4
44	-47.5
46	-47.3
48	-47.3
50	-47.2
52	-47.2
54	-47.2
56	-47.3
58	-47.2
60	-47.1
62	-47.1
64	-47.2
66	-47.1
68	-47.1
70	-47.0
72	-47.0
74	-46.9
76	-47.0
78	-46.9
80	-46.9
82	-46.9
84	-46.9
86	-46.9
88	-46.8
90	-46.8
92	-46.7
94	-46.8
96	-46.8
98	-46.8
100	-46.8
102	-46.7

Freq. (MHz)	Reverse Isol. (dB)
104	-46.7
106	-46.8
108	-46.7
110	-46.7
112	-46.6
114	-46.7
116	-46.6
118	-46.6
120	-46.6
122	-46.5
124	-46.5
126	-46.6
128	-46.6
130	-46.6
132	-46.6
134	-46.6
136	-46.5
138	-46.5
140	-46.5
142	-46.5
144	-46.5
146	-46.5
148	-46.5
150	-46.5
152	-46.5
154	-46.5
156	-46.4
158	-46.3
160	-46.4
162	-46.5
164	-46.4
166	-46.5
168	-46.5
170	-46.4
172	-46.5
174	-46.4
176	-46.4
178	-46.4
180	-46.4
182	-46.4
184	-46.4
186	-46.3
188	-46.3
190	-46.3
192	-46.3
194	-46.4
196	-46.4
198	-46.3
200	-46.4
202	-46.4
204	-46.4
206	-46.4

Freq. (MHz)	Reverse Isol. (dB)
208	-46.4
210	-46.5
212	-46.4
214	-46.4
216	-46.4
218	-46.5
220	-46.4
222	-46.5
224	-46.4
226	-46.4
228	-46.3
230	-46.4
232	-46.4
234	-46.4
236	-46.3
238	-46.4
240	-46.4
242	-46.4
244	-46.4
246	-46.3
248	-46.5
250	-46.4
252	-46.4
254	-46.5
256	-46.4
258	-46.5
260	-46.5
262	-46.5
264	-46.5
266	-46.4
268	-46.6
270	-46.5
272	-46.5
274	-46.5
276	-46.5
278	-46.5
280	-46.5
282	-46.5
284	-46.5
286	-46.5
288	-46.6
290	-46.5
292	-46.5
294	-46.6
296	-46.6
298	-46.7
300	-46.6
302	-46.7
304	-46.6
306	-46.6
308	-46.6
310	-46.7

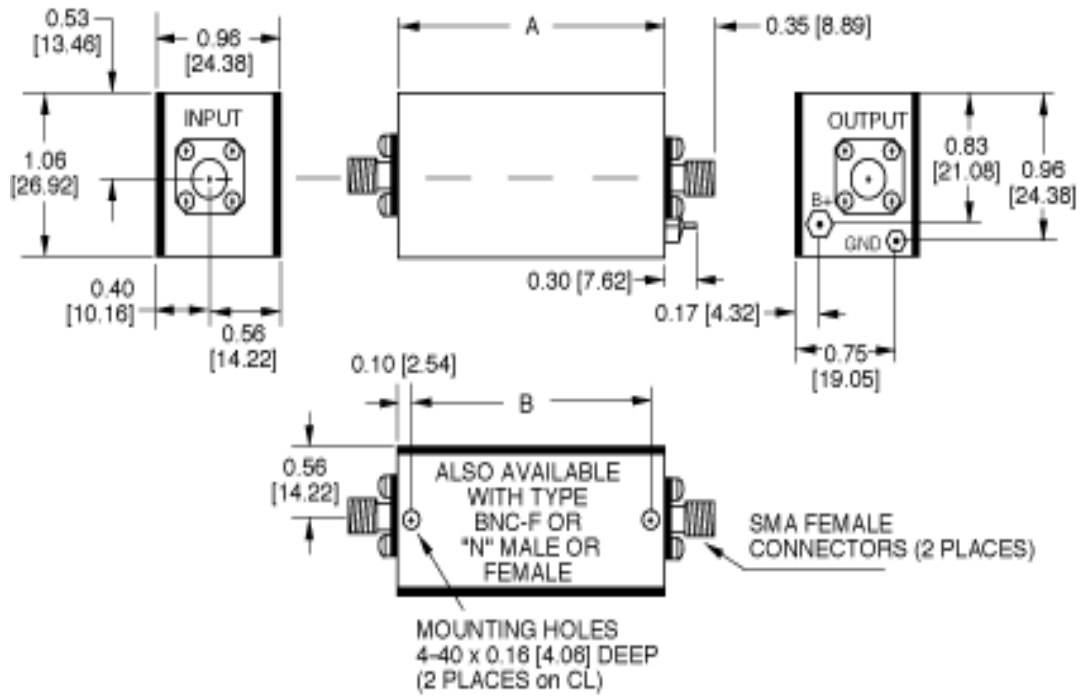
Freq. (MHz)	Reverse Isol. (dB)
312	-46.7
314	-46.7
316	-46.7
318	-46.7
320	-46.7
322	-46.7
324	-46.9
326	-46.8
328	-46.9
330	-46.8
332	-46.8
334	-46.9
336	-46.8
338	-46.8
340	-46.8
342	-46.9
344	-46.9
346	-47.0
348	-47.1
350	-47.0
352	-47.0
354	-47.0
356	-47.1
358	-47.0
360	-47.1
362	-47.1
364	-47.1
366	-47.2
368	-47.1
370	-47.1
372	-47.2
374	-47.2
376	-47.2
378	-47.4
380	-47.4
382	-47.2
384	-47.4
386	-47.4
388	-47.4
390	-47.4
392	-47.5
394	-47.5
396	-47.5
398	-47.6
400	-47.5



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# MITEQ AU-1442-400 AMPLIFIER

OUTLINE	DIM A	DIM B	OUNCES
2	1.92 [48.77]	1.72 [43.69]	2.2



NOTE: DIMENSIONS ARE IN INCHES [MILLIMETERS].

## 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

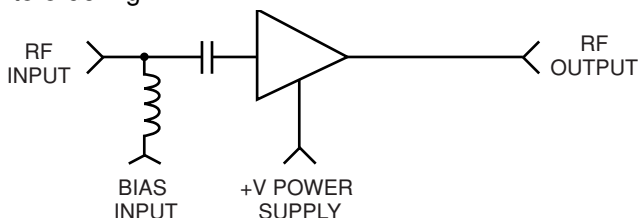
#### Add Suffix “-1306/E” or “-1306/D”

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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