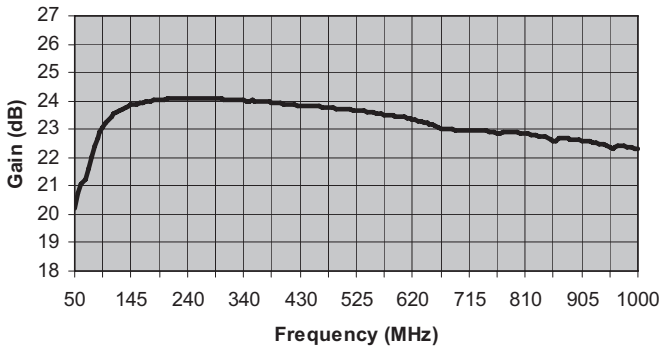


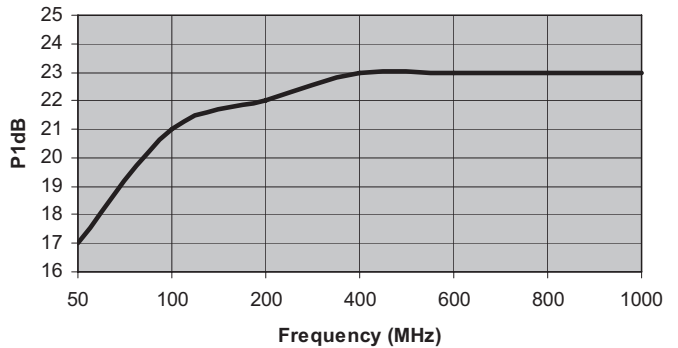
# MITEQ AU-1642 AMPLIFIER

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.)	NOM. DC POWER (mA)	OUTLINE NO.
-----------------	--------------	------------------	-------------------------	-------------	----------------------	-------------------------	--------------------	--------------------	-------------

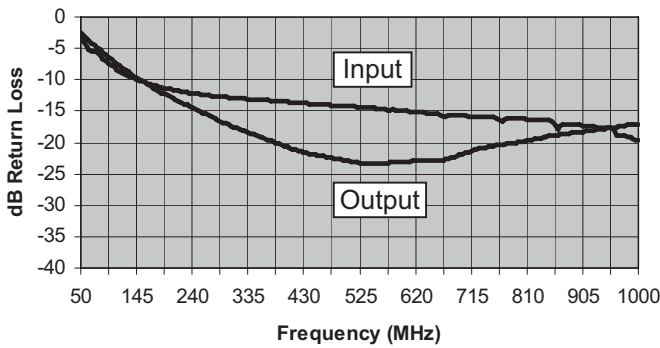
Gain (dB)



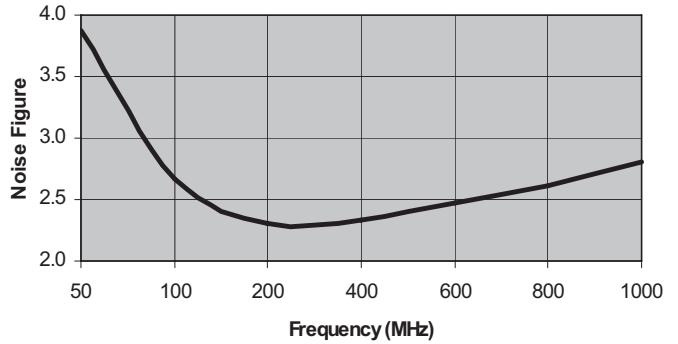
Output -1dB Gain Compression (+dBm)



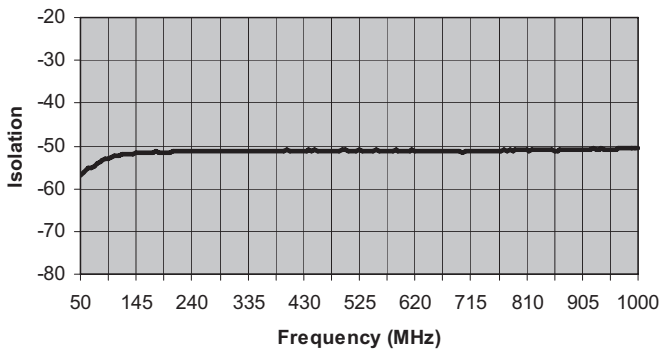
Input & Output Return Loss (dBRL)



Noise Figure (dB)



Reverse Isolation (dB)



ISO 9001:2000 Certified • General Information • Warranty



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# MITEQ AU-1642 AMPLIFIER

Freq. (MHz)	Gain (dB)
50	20.2
55	20.7
60	21.0
64	21.1
69	21.2
74	21.6
79	22.1
83	22.4
88	22.7
93	22.9
98	23.1
102	23.2
107	23.4
112	23.4
117	23.5
121	23.6
126	23.7
131	23.7
136	23.8
140	23.8
145	23.8
150	23.9
155	23.9
159	23.9
164	23.9
169	24.0
174	24.0
178	24.0
183	24.0
188	24.0
193	24.0
197	24.0
202	24.1
207	24.1
212	24.1
216	24.1
221	24.1
226	24.1
231	24.1
235	24.1
240	24.1
245	24.1
250	24.1
254	24.1
259	24.1
264	24.1
269	24.1
273	24.1
278	24.1
283	24.1
288	24.1
292	24.1
297	24.1
302	24.1
307	24.1
311	24.1
316	24.0

Freq. (MHz)	Gain (dB)
321	24.0
326	24.0
330	24.0
340	24.0
340	24.0
345	24.0
349	24.0
354	24.0
359	24.0
364	24.0
368	24.0
373	24.0
378	24.0
383	23.9
387	23.9
392	23.9
397	23.9
402	23.9
406	23.9
411	23.9
416	23.9
421	23.9
425	23.8
430	23.8
435	23.8
440	23.8
444	23.8
449	23.8
454	23.8
459	23.8
463	23.8
468	23.8
473	23.8
478	23.8
482	23.8
487	23.8
492	23.7
497	23.7
501	23.7
506	23.7
511	23.7
516	23.7
520	23.7
525	23.7
530	23.7
535	23.6
539	23.6
544	23.6
549	23.6
554	23.6
558	23.6
563	23.6
568	23.5
573	23.5
577	23.5
582	23.5
587	23.5

Freq. (MHz)	Gain (dB)
592	23.5
596	23.5
601	23.4
606	23.4
611	23.4
615	23.4
620	23.4
625	23.3
630	23.3
634	23.3
639	23.3
644	23.2
649	23.2
653	23.2
658	23.1
663	23.1
668	23.0
672	23.0
677	23.0
682	23.0
687	23.0
691	23.0
696	23.0
701	23.0
706	22.9
710	22.9
715	22.9
720	22.9
725	22.9
729	22.9
734	22.9
739	22.9
744	22.9
748	22.9
753	22.9
758	22.9
763	22.9
767	22.8
772	22.9
777	22.9
782	22.9
786	22.9
791	22.9
796	22.9
801	22.9
805	22.8
810	22.8
815	22.8
820	22.8
824	22.8
829	22.8
834	22.8
839	22.7
843	22.7
848	22.7
853	22.6
858	22.6

Freq. (MHz)	Gain (dB)
862	22.6
867	22.7
872	22.7
877	22.7
881	22.7
886	22.6
891	22.6
896	22.6
900	22.6
905	22.6
910	22.6
915	22.6
919	22.6
924	22.5
929	22.5
934	22.5
938	22.5
943	22.5
948	22.4
953	22.3
957	22.3
962	22.4
967	22.4
972	22.4
976	22.4
981	22.4
986	22.4
991	22.4
995	22.3
1000	22.3



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# MITEQ AU-1642 AMPLIFIER

Freq. (MHz)	Input VSWR (dBRL)	Output VSWR (dBRL)
50	-3	-3
55	-4	-3
60	-5	-3
64	-5	-4
69	-5	-4
74	-6	-5
79	-6	-5
83	-6	-5
88	-7	-6
93	-7	-6
98	-7	-6
102	-8	-7
107	-8	-7
112	-8	-7
117	-9	-8
121	-9	-8
126	-9	-8
131	-9	-9
136	-10	-9
140	-10	-9
145	-10	-10
150	-10	-10
155	-10	-10
159	-10	-10
164	-11	-11
169	-11	-11
174	-11	-11
178	-11	-12
183	-11	-12
188	-11	-12
193	-11	-12
197	-11	-13
202	-12	-13
207	-12	-13
212	-12	-13
216	-12	-13
221	-12	-14
226	-12	-14
231	-12	-14
235	-12	-14
240	-12	-14
245	-12	-15
250	-12	-15
254	-12	-15
259	-12	-15
264	-12	-16
269	-13	-16
273	-13	-16
278	-13	-16
283	-13	-16
288	-13	-17
292	-13	-17
297	-13	-17
302	-13	-17
307	-13	-17
311	-13	-18

Freq. (MHz)	Input VSWR (dBRL)	Output VSWR (dBRL)
316	-13	-18
321	-13	-18
326	-13	-18
330	-13	-18
335	-13	-18
340	-13	-19
345	-13	-19
349	-13	-19
354	-13	-19
359	-13	-19
364	-13	-19
368	-13	-20
373	-13	-20
378	-13	-20
383	-13	-20
387	-13	-20
392	-13	-20
397	-14	-21
402	-14	-21
406	-14	-21
411	-14	-21
416	-14	-21
421	-14	-21
425	-14	-21
430	-14	-22
435	-14	-22
440	-14	-22
444	-14	-22
449	-14	-22
454	-14	-22
459	-14	-22
463	-14	-22
468	-14	-22
473	-14	-22
478	-14	-22
482	-14	-22
487	-14	-23
492	-14	-23
497	-14	-23
501	-14	-23
506	-14	-23
511	-14	-23
516	-14	-23
520	-14	-23
525	-14	-23
530	-14	-23
535	-14	-23
539	-14	-23
544	-14	-23
549	-15	-23
554	-15	-23
558	-15	-23
563	-15	-23
568	-15	-23
573	-15	-23
577	-15	-23
582	-15	-23

Freq. (MHz)	Input VSWR (dBRL)	Output VSWR (dBRL)
587	-15	-23
592	-15	-23
596	-15	-23
601	-15	-23
606	-15	-23
611	-15	-23
615	-15	-23
620	-15	-23
625	-15	-23
630	-15	-23
634	-15	-23
639	-15	-23
644	-15	-23
649	-15	-23
653	-15	-23
658	-16	-23
663	-16	-23
668	-16	-23
672	-16	-23
677	-16	-23
682	-16	-22
687	-16	-22
691	-16	-22
696	-16	-22
701	-16	-22
706	-16	-22
710	-16	-21
715	-16	-21
720	-16	-21
725	-16	-21
729	-16	-21
734	-16	-21
739	-16	-21
744	-16	-21
748	-16	-21
753	-16	-21
758	-16	-20
763	-16	-20
767	-17	-20
772	-16	-20
777	-16	-20
782	-16	-20
786	-16	-20
791	-16	-20
796	-16	-20
801	-16	-20
805	-16	-20
810	-16	-20
815	-16	-20
820	-16	-20
824	-16	-19
829	-16	-19
834	-16	-19
839	-16	-19
843	-16	-19
848	-17	-19
853	-17	-19

Freq. (MHz)	Input VSWR (dBRL)	Output VSWR (dBRL)
858	-17	-19
862	-18	-19
867	-17	-19
872	-17	-19
877	-17	-19
881	-17	-19
886	-17	-18
891	-17	-18
896	-17	-18
900	-17	-18
905	-17	-18
910	-17	-18
915	-17	-18
919	-17	-18
924	-18	-18
929	-18	-18
934	-18	-18
938	-18	-18
943	-18	-18
948	-18	-18
953	-18	-18
957	-18	-18
962	-19	-18
967	-19	-17
972	-19	-17
976	-19	-17
981	-19	-17
986	-19	-17
991	-19	-17
995	-20	-17
1000	-20	-17



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# MITEQ AU-1642 AMPLIFIER

Freq. (MHz)	Reverse Isolation (dB)
50	-57
55	-56
60	-56
64	-55
69	-55
74	-55
79	-54
83	-54
88	-53
93	-53
98	-53
102	-53
107	-52
112	-52
117	-52
121	-52
126	-52
131	-52
136	-52
140	-52
145	-52
150	-52
155	-52
159	-52
164	-52
169	-52
174	-52
178	-51
183	-52
188	-52
193	-52
197	-52
202	-51
207	-51
212	-51
216	-51
221	-51
226	-51
231	-51
235	-51
240	-51
245	-51
250	-51
254	-51
259	-51
264	-51
269	-51
273	-51
278	-51
283	-51
288	-51
292	-51
297	-51
302	-51
307	-51
311	-51

Freq. (MHz)	Reverse Isolation (dB)
316	-51
321	-51
326	-51
330	-51
335	-51
340	-51
345	-51
349	-51
354	-51
359	-51
364	-51
368	-51
373	-51
378	-51
383	-51
387	-51
392	-51
397	-51
402	-51
406	-51
411	-51
416	-51
421	-51
425	-51
430	-51
435	-51
440	-51
444	-51
449	-51
454	-51
459	-51
463	-51
468	-51
473	-51
478	-51
482	-51
487	-51
492	-51
497	-51
501	-51
506	-51
511	-51
516	-51
520	-51
525	-51
530	-51
535	-51
539	-51
544	-51
549	-51
554	-51
558	-51
563	-51
568	-51
573	-51
577	-51

Freq. (MHz)	Reverse Isolation (dB)
582	-51
587	-51
592	-51
596	-51
601	-51
606	-51
611	-51
615	-51
620	-51
625	-51
630	-51
634	-51
639	-51
644	-51
649	-51
653	-51
658	-51
663	-51
668	-51
672	-51
677	-51
682	-51
687	-51
691	-51
696	-51
701	-51
706	-51
710	-51
715	-51
720	-51
725	-51
729	-51
734	-51
739	-51
744	-51
748	-51
753	-51
758	-51
763	-51
767	-51
772	-51
777	-51
782	-51
786	-51
791	-51
796	-51
801	-51
805	-51
810	-51
815	-51
820	-51
824	-51
829	-51
834	-51
839	-51
843	-51

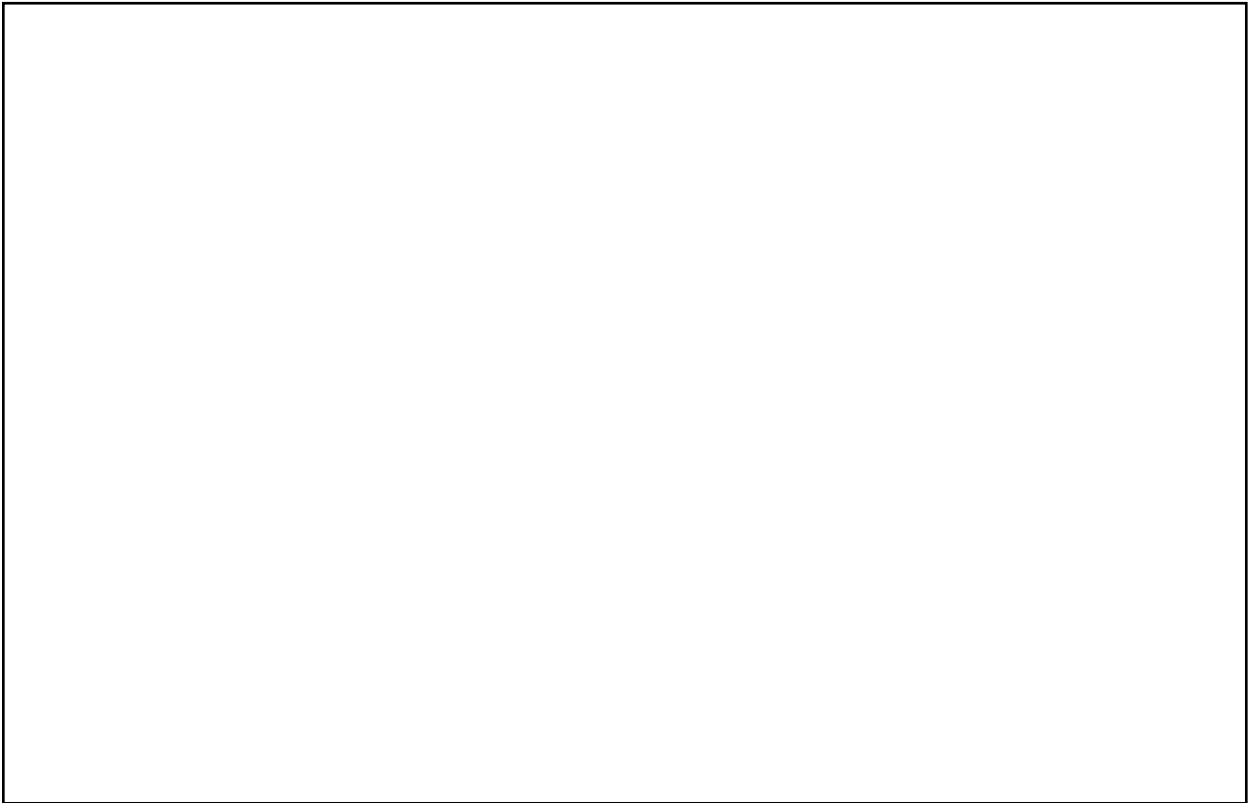
Freq. (MHz)	Reverse Isolation (dB)
848	-51
853	-51
858	-51
862	-51
867	-51
872	-51
877	-51
881	-51
886	-51
891	-51
896	-51
900	-51
905	-51
910	-51
915	-51
919	-51
924	-51
929	-51
934	-51
938	-51
943	-51
948	-51
953	-51
957	-51
962	-51
967	-51
972	-51
976	-51
981	-51
986	-51
991	-51
995	-51
1000	-51



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# MITEQ AU-1642 AMPLIFIER

OUTLINE	DIM A	DIM B	OUNCES
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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

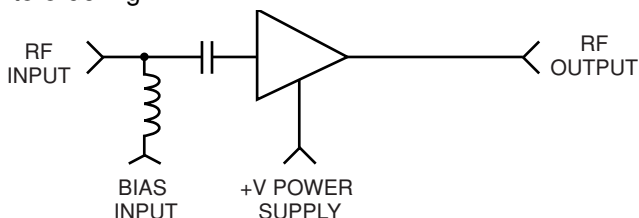
#### Add Suffix "-1306/E" or "-1306/D"

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

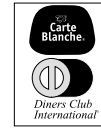
OPTION	SUFFIX
Gain Window	-GW
Phase Match	-PM
Amplitude Match	-AM
Gain Control	-GC



## 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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