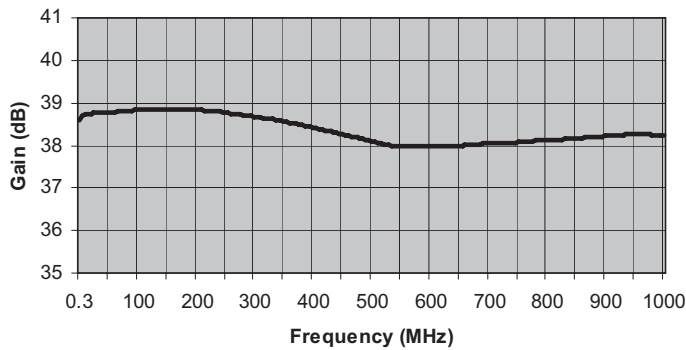


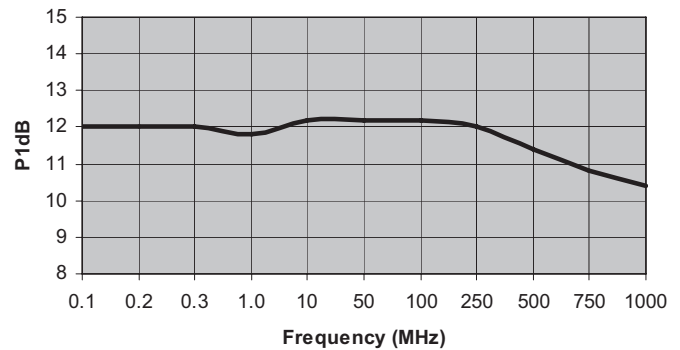
MITEQ AM-1431 SERIES AMPLIFIER

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-1431	35	0.75	2.0:1	50/50	1.6	10	15	75	3

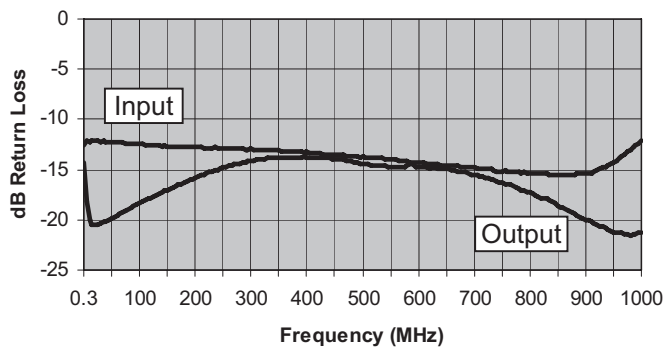
Gain (dB)



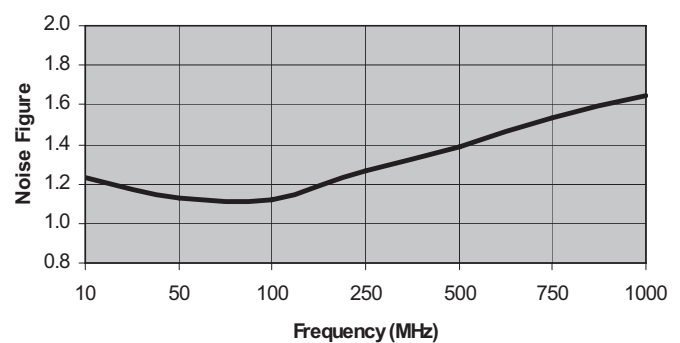
Output -1dB Gain Compression (+dBm)



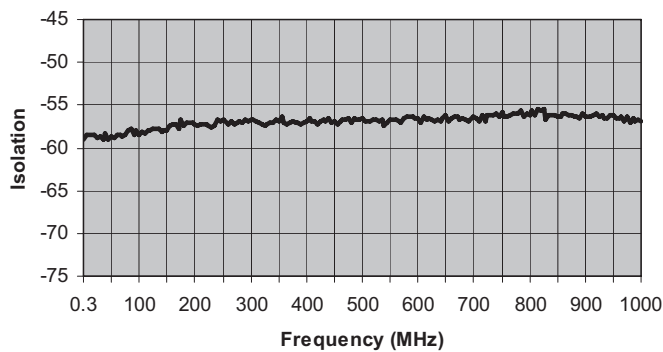
Input & Output Return Loss (dBRL)



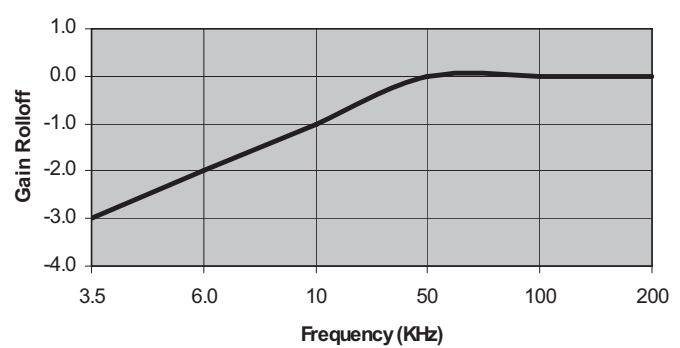
Noise Figure (dB)



Reverse Isolation (dB)



Low Frequency Gain Rolloff (dB)



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MITEQ AM-1431 SERIES AMPLIFIER

Freq. (MHz)	Gain (dB)
0.3	38.6
5	38.7
10	38.7
15	38.7
20	38.8
25	38.8
30	38.8
35	38.8
40	38.8
45	38.8
50	38.8
55	38.8
60	38.8
65	38.8
70	38.8
75	38.8
80	38.8
85	38.8
90	38.8
95	38.8
100	38.8
105	38.8
110	38.8
115	38.8
120	38.9
125	38.9
130	38.9
135	38.9
140	38.9
145	38.9
150	38.9
155	38.9
160	38.9
165	38.8
170	38.8
175	38.8
180	38.8
185	38.8
190	38.8
195	38.8
200	38.8
205	38.8
210	38.8
215	38.8
220	38.8
225	38.8
230	38.8
235	38.8
240	38.8
245	38.8
250	38.8
255	38.8
260	38.8
265	38.7
270	38.7
275	38.7
280	38.7
285	38.7
290	38.7
295	38.7
300	38.7
305	38.7
310	38.7
315	38.6

Freq. (MHz)	Gain (dB)
320	38.6
325	38.6
330	38.6
335	38.6
340	38.6
345	38.6
350	38.6
355	38.5
360	38.5
365	38.5
370	38.5
375	38.5
380	38.5
385	38.5
390	38.4
395	38.4
400	38.4
405	38.4
410	38.4
415	38.4
420	38.4
425	38.3
430	38.3
435	38.3
440	38.3
445	38.3
450	38.3
455	38.2
460	38.2
465	38.2
470	38.2
475	38.2
480	38.2
485	38.1
490	38.1
495	38.1
500	38.1
505	38.1
510	38.1
515	38.0
520	38.0
525	38.0
530	38.0
535	38.0
540	38.0
545	38.0
550	38.0
555	38.0
560	38.0
565	38.0
570	38.0
575	38.0
580	38.0
585	38.0
590	38.0
595	38.0
600	38.0
605	38.0
610	38.0
615	38.0
620	38.0
625	38.0
630	38.0
635	38.0

Freq. (MHz)	Gain (dB)
640	38.0
645	38.0
650	38.0
655	38.0
660	38.0
665	38.0
670	38.0
675	38.0
680	38.0
685	38.0
690	38.0
695	38.0
700	38.0
705	38.0
710	38.1
715	38.1
720	38.1
725	38.1
730	38.1
735	38.1
740	38.1
745	38.1
750	38.1
755	38.1
760	38.1
765	38.1
770	38.1
775	38.1
780	38.1
785	38.1
790	38.1
795	38.1
800	38.1
805	38.1
810	38.1
815	38.1
820	38.1
825	38.1
830	38.1
835	38.2
840	38.2
845	38.2
850	38.2
855	38.2
860	38.2
865	38.2
870	38.2
875	38.2
880	38.2
885	38.2
890	38.2
895	38.2
900	38.2
905	38.2
910	38.2
915	38.2
920	38.2
925	38.2
930	38.2
935	38.3
940	38.3
945	38.3
950	38.3
955	38.3

Freq. (MHz)	Gain (dB)
960	38.3
965	38.3
970	38.3
975	38.3
980	38.2
985	38.2
990	38.2
995	38.2
1000	38.2



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MITEQ AM-1431 SERIES AMPLIFIER

Freq. (MHz)	Input VSWR (dBRL)	Output VSWR (dBRL)
0.3	-13	-14
5	-12	-18
10	-12	-20
15	-12	-20
20	-12	-20
25	-12	-20
30	-12	-20
35	-12	-20
40	-12	-20
45	-12	-20
50	-12	-20
55	-12	-20
60	-12	-20
65	-12	-19
70	-12	-19
75	-12	-19
80	-12	-19
85	-12	-19
90	-12	-19
95	-12	-19
100	-12	-18
105	-12	-18
110	-13	-18
115	-13	-18
120	-13	-18
125	-13	-18
130	-13	-18
135	-13	-17
140	-13	-17
145	-13	-17
150	-13	-17
155	-13	-17
160	-13	-17
165	-13	-17
170	-13	-17
175	-13	-16
180	-13	-16
185	-13	-16
190	-13	-16
195	-13	-16
200	-13	-16
205	-13	-16
210	-13	-16
215	-13	-15
220	-13	-15
225	-13	-15
230	-13	-15
235	-13	-15
240	-13	-15
245	-13	-15
250	-13	-15
255	-13	-15
260	-13	-15
265	-13	-15
270	-13	-15
275	-13	-14
280	-13	-14
285	-13	-14
290	-13	-14
295	-13	-14
300	-13	-14
305	-13	-14
310	-13	-14

Freq. (MHz)	Input VSWR (dBRL)	Output VSWR (dBRL)
315	-13	-14
320	-13	-14
325	-13	-14
330	-13	-14
335	-13	-14
340	-13	-14
345	-13	-14
350	-13	-14
355	-13	-14
360	-13	-14
365	-13	-14
370	-13	-14
375	-13	-14
380	-13	-14
385	-13	-14
390	-13	-14
395	-13	-14
400	-13	-14
405	-13	-14
410	-13	-14
415	-13	-14
420	-13	-14
425	-13	-14
430	-13	-14
435	-13	-14
440	-13	-14
445	-13	-14
450	-14	-14
455	-14	-14
460	-14	-14
465	-14	-14
470	-14	-14
475	-14	-14
480	-14	-14
485	-14	-14
490	-14	-14
495	-14	-14
500	-14	-14
505	-14	-14
510	-14	-15
515	-14	-15
520	-14	-15
525	-14	-15
530	-14	-15
535	-14	-15
540	-14	-15
545	-14	-15
550	-14	-15
555	-14	-15
560	-14	-15
565	-14	-15
570	-14	-15
575	-14	-15
580	-14	-15
585	-14	-14
590	-14	-14
595	-14	-15
600	-14	-15
605	-14	-15
610	-14	-15
615	-14	-15
620	-14	-15
625	-14	-15

Freq. (MHz)	Input VSWR (dBRL)	Output VSWR (dBRL)
630	-14	-15
635	-14	-15
640	-15	-15
645	-15	-15
650	-15	-15
655	-15	-15
660	-15	-15
665	-15	-15
670	-15	-15
675	-15	-15
680	-15	-15
685	-15	-15
690	-15	-15
695	-15	-15
700	-15	-16
705	-15	-16
710	-15	-16
715	-15	-16
720	-15	-16
725	-15	-16
730	-15	-16
735	-15	-16
740	-15	-16
745	-15	-16
750	-15	-16
755	-15	-16
760	-15	-16
765	-15	-17
770	-15	-17
775	-15	-17
780	-15	-17
785	-15	-17
790	-15	-17
795	-15	-17
800	-15	-17
805	-15	-17
810	-15	-18
815	-15	-18
820	-15	-18
825	-15	-18
830	-15	-18
835	-15	-18
840	-16	-18
845	-16	-18
850	-16	-19
855	-15	-19
860	-15	-19
865	-15	-19
870	-16	-19
875	-15	-19
880	-15	-19
885	-15	-20
890	-15	-20
895	-15	-20
900	-15	-20
905	-15	-20
910	-15	-20
915	-15	-20
920	-15	-20
925	-15	-21
930	-15	-21
935	-15	-21
940	-15	-21

Freq. (MHz)	Input VSWR (dBRL)	Output VSWR (dBRL)
945	-14	-21
950	-14	-21
955	-14	-21
960	-14	-21
965	-14	-21
970	-13	-21
975	-13	-21
980	-13	-22
985	-13	-22
990	-13	-21
995	-12	-21
1000	-12	-21



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MITEQ AM-1431 SERIES AMPLIFIER

Freq. (MHz)	Reverse Isolation (dB)
0.3	-59
5	-59
10	-58
15	-58
20	-58
25	-59
30	-59
35	-59
40	-58
45	-59
50	-59
55	-59
60	-59
65	-58
70	-59
75	-58
80	-58
85	-58
90	-59
95	-58
100	-59
105	-58
110	-58
115	-58
120	-58
125	-58
130	-58
135	-58
140	-58
145	-58
150	-58
155	-57
160	-57
165	-57
170	-58
175	-57
180	-57
185	-57
190	-57
195	-57
200	-57
205	-57
210	-57
215	-57
220	-57
225	-57
230	-58
235	-57
240	-57
245	-57
250	-57
255	-57
260	-57
265	-57
270	-57
275	-57
280	-57
285	-57
290	-57
295	-57
300	-57
305	-57
310	-57

Freq. (MHz)	Reverse Isolation (dB)
315	-57
320	-57
325	-57
330	-57
335	-57
340	-57
345	-57
350	-57
355	-56
360	-57
365	-57
370	-57
375	-57
380	-57
385	-57
390	-57
395	-57
400	-57
405	-57
410	-57
415	-57
420	-57
425	-57
430	-57
435	-57
440	-57
445	-57
450	-57
455	-57
460	-57
465	-57
470	-57
475	-56
480	-57
485	-57
490	-57
495	-57
500	-57
505	-57
510	-57
515	-57
520	-57
525	-57
530	-57
535	-57
540	-57
545	-57
550	-57
555	-57
560	-57
565	-57
570	-57
575	-57
580	-56
585	-56
590	-56
595	-57
600	-57
605	-57
610	-56
615	-57
620	-56
625	-57

Freq. (MHz)	Reverse Isolation (dB)
630	-57
635	-57
640	-57
645	-57
650	-56
655	-57
660	-57
665	-56
670	-56
675	-57
680	-56
685	-57
690	-57
695	-57
700	-56
705	-57
710	-57
715	-56
720	-57
725	-56
730	-56
735	-56
740	-56
745	-56
750	-56
755	-56
760	-56
765	-56
770	-56
775	-56
780	-56
785	-56
790	-56
795	-56
800	-56
805	-56
810	-56
815	-56
820	-56
825	-56
830	-57
835	-56
840	-56
845	-56
850	-56
855	-56
860	-56
865	-56
870	-56
875	-56
880	-56
885	-56
890	-56
895	-56
900	-56
905	-56
910	-56
915	-56
920	-56
925	-56
930	-56
935	-56
940	-56

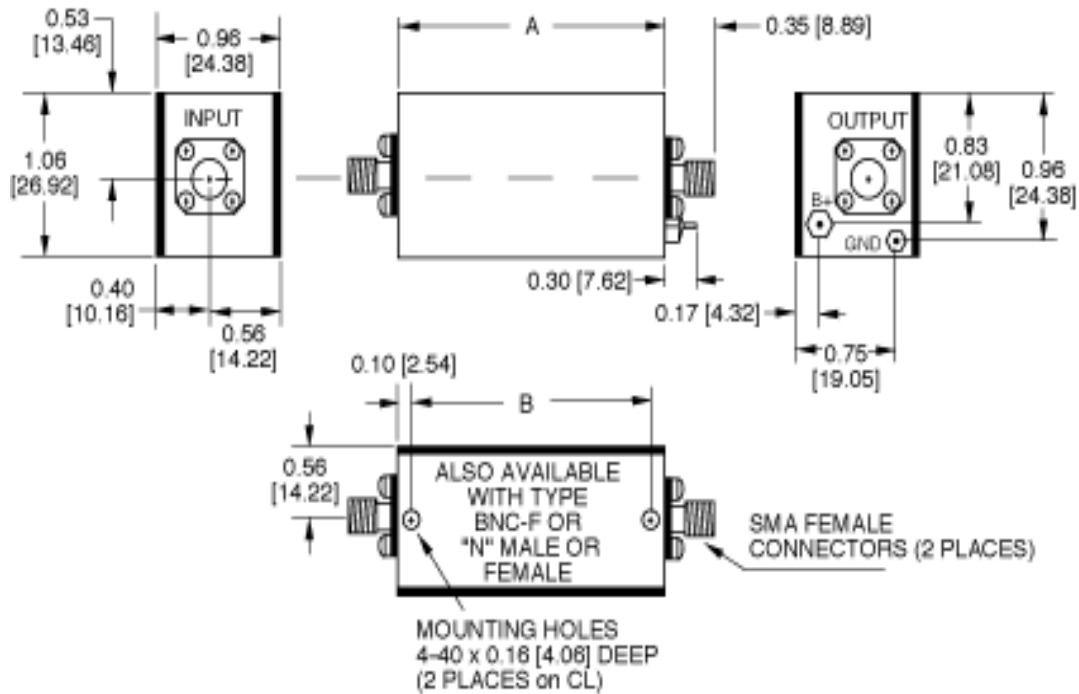
Freq. (MHz)	Reverse Isolation (dB)
945	-56
950	-56
955	-57
960	-56
965	-56
970	-57
975	-56
980	-57
985	-57
990	-57
995	-57
1000	-57



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MITEQ AM-1431 SERIES AMPLIFIER

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



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

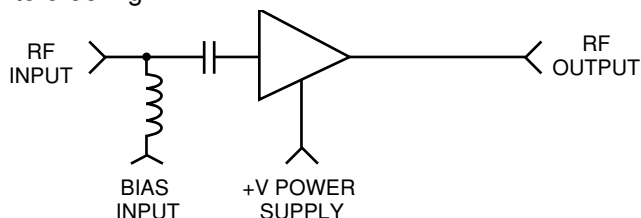
Add Suffix "-1306/E" or "-1306/D"

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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