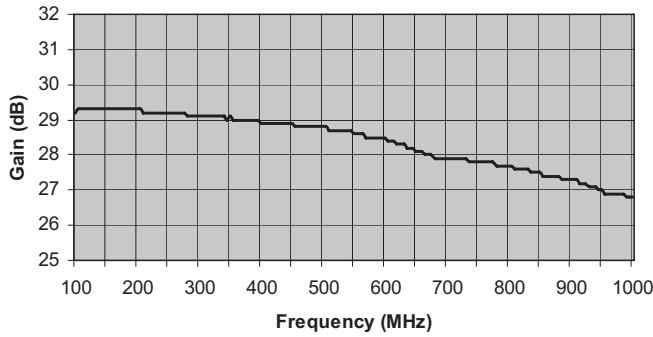


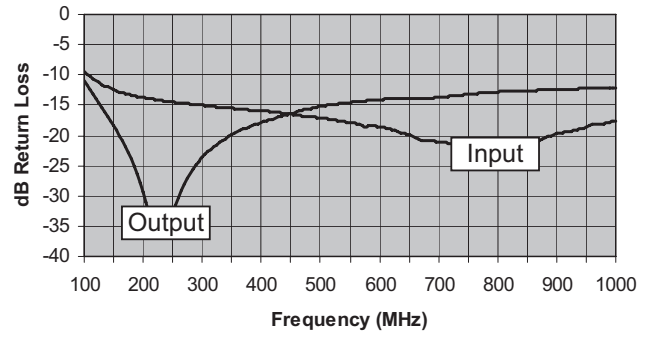
MITEQ AM-1641 SERIES AMPLIFIER

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.
100-1000	AM-1641	27	1.5	2.0:1	50/50	1.9	25	15	310	15-2

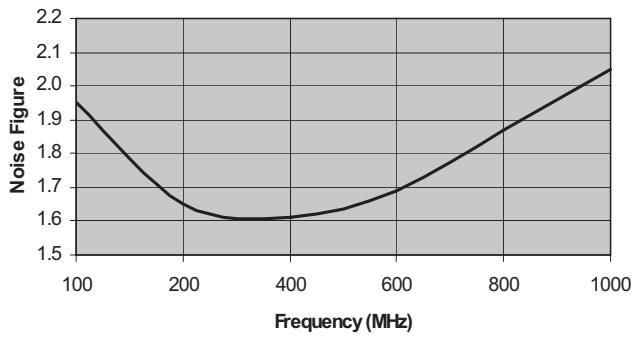
Gain (dB)



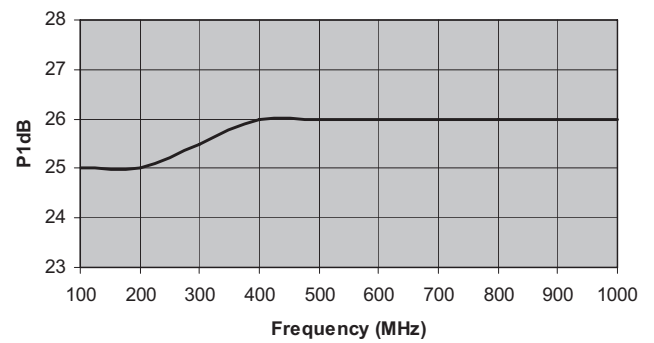
Input & Output Return Loss (dBRL)



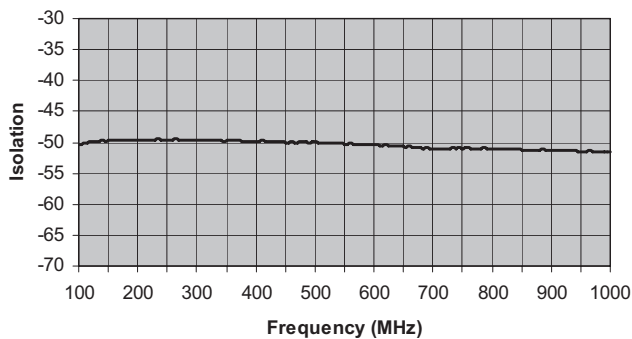
Noise Figure (dB)



Output -1dB Gain Compression (+dBm)



Reverse Isolation (dB)



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MITEQ AM-1641 SERIES AMPLIFIER

Freq (MHz)	Gain (dB)
100	29.2
105	29.3
110	29.3
115	29.3
120	29.3
125	29.3
130	29.3
135	29.3
140	29.3
145	29.3
150	29.3
155	29.3
160	29.3
165	29.3
170	29.3
175	29.3
180	29.3
185	29.3
190	29.3
195	29.3
200	29.3
205	29.3
210	29.2
215	29.2
220	29.2
225	29.2
230	29.2
235	29.2
240	29.2
245	29.2
250	29.2
255	29.2
260	29.2
265	29.2
270	29.2
275	29.2
280	29.1
285	29.1
290	29.1
295	29.1
300	29.1
305	29.1
310	29.1
315	29.1
320	29.1
325	29.1
330	29.1
335	29.1
340	29.1
345	29.0
350	29.1
355	29.0
360	29.0
365	29.0
370	29.0
375	29.0
380	29.0

Freq (MHz)	Gain (dB)
385	29.0
390	29.0
395	29.0
400	28.9
405	28.9
410	28.9
415	28.9
420	28.9
425	28.9
430	28.9
435	28.9
440	28.9
445	28.9
450	28.9
455	28.8
460	28.8
465	28.8
470	28.8
475	28.8
480	28.8
485	28.8
490	28.8
495	28.8
500	28.8
505	28.8
510	28.7
515	28.7
520	28.7
525	28.7
530	28.7
535	28.7
540	28.7
545	28.7
550	28.6
555	28.6
560	28.6
565	28.6
570	28.5
575	28.5
580	28.5
585	28.5
590	28.5
595	28.5
600	28.5
605	28.4
610	28.4
615	28.4
620	28.3
625	28.3
630	28.3
635	28.2
640	28.2
645	28.2
650	28.1
655	28.1
660	28.1
665	28.0

Freq (MHz)	Gain (dB)
670	28.0
675	28.0
680	27.9
685	27.9
690	27.9
695	27.9
700	27.9
705	27.9
710	27.9
715	27.9
720	27.9
725	27.9
730	27.9
735	27.8
740	27.8
745	27.8
750	27.8
755	27.8
760	27.8
765	27.8
770	27.8
775	27.8
780	27.7
785	27.7
790	27.7
795	27.7
800	27.7
805	27.7
810	27.6
815	27.6
820	27.6
825	27.6
830	27.6
835	27.5
840	27.5
845	27.5
850	27.5
855	27.4
860	27.4
865	27.4
870	27.4
875	27.4
880	27.4
885	27.3
890	27.3
895	27.3
900	27.3
905	27.3
910	27.3
915	27.2
920	27.2
925	27.2
930	27.1
935	27.1
940	27.1
945	27.0
950	27.0

Freq (MHz)	Gain (dB)
955	26.9
960	26.9
965	26.9
970	26.9
975	26.9
980	26.9
985	26.9
990	26.8
995	26.8
1000	26.8



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Freq (MHz)	Input VSWR (dBRL)	Output VSWR (dBRL)
100	-10	-11
105	-10	-12
110	-10	-12
115	-11	-13
120	-11	-14
125	-11	-15
130	-12	-15
135	-12	-16
140	-12	-17
145	-12	-18
150	-12	-18
155	-13	-19
160	-13	-20
165	-13	-21
170	-13	-22
175	-13	-23
180	-13	-24
185	-13	-25
190	-14	-26
195	-14	-28
200	-14	-29
205	-14	-31
210	-14	-33
215	-14	-34
220	-14	-35
225	-14	-36
230	-14	-36
235	-14	-36
240	-14	-35
245	-14	-34
250	-15	-33
255	-15	-32
260	-15	-30
265	-15	-29
270	-15	-28
275	-15	-27
280	-15	-26
285	-15	-26
290	-15	-25
295	-15	-24
300	-15	-24
305	-15	-23
310	-15	-23
315	-15	-22
320	-15	-22
325	-15	-22
330	-15	-21
335	-15	-21
340	-15	-21
345	-15	-20
350	-15	-20
355	-16	-20
360	-16	-19
365	-16	-19
370	-16	-19
375	-16	-19

Freq (MHz)	Input VSWR (dBRL)	Output VSWR (dBRL)
380	-16	-19
385	-16	-18
390	-16	-18
395	-16	-18
400	-16	-18
405	-16	-18
410	-16	-18
415	-16	-17
420	-16	-17
425	-16	-17
430	-16	-17
435	-16	-17
440	-16	-17
445	-16	-17
450	-16	-16
455	-17	-16
460	-17	-16
465	-17	-16
470	-17	-16
475	-17	-16
480	-17	-16
485	-17	-16
490	-17	-15
495	-17	-15
500	-17	-15
505	-17	-15
510	-17	-15
515	-17	-15
520	-17	-15
525	-17	-15
530	-18	-15
535	-18	-15
540	-18	-15
545	-18	-15
550	-18	-15
555	-18	-14
560	-18	-14
565	-18	-14
570	-18	-14
575	-19	-14
580	-18	-14
585	-18	-14
590	-18	-14
595	-19	-14
600	-19	-14
605	-19	-14
610	-19	-14
615	-19	-14
620	-19	-14
625	-19	-14
630	-19	-14
635	-20	-14
640	-20	-14
645	-20	-14
650	-20	-14
655	-20	-14

Freq (MHz)	Input VSWR (dBRL)	Output VSWR (dBRL)
660	-20	-14
665	-20	-14
670	-21	-14
675	-21	-14
680	-21	-14
685	-21	-14
690	-21	-14
695	-21	-14
700	-21	-14
705	-21	-14
710	-21	-14
715	-21	-14
720	-21	-14
725	-21	-13
730	-21	-13
735	-21	-13
740	-22	-13
745	-22	-13
750	-22	-13
755	-22	-13
760	-22	-13
765	-22	-13
770	-22	-13
775	-22	-13
780	-22	-13
785	-22	-13
790	-22	-13
795	-22	-13
800	-22	-13
805	-22	-13
810	-22	-13
815	-21	-13
820	-21	-13
825	-21	-13
830	-21	-13
835	-21	-13
840	-21	-13
845	-21	-13
850	-21	-13
855	-21	-13
860	-21	-13
865	-21	-13
870	-21	-13
875	-21	-13
880	-20	-13
885	-20	-12
890	-20	-12
895	-20	-12
900	-20	-12
905	-20	-12
910	-20	-12
915	-19	-12
920	-19	-12
925	-19	-12
930	-19	-12
935	-19	-12

Freq (MHz)	Input VSWR (dBRL)	Output VSWR (dBRL)
940	-19	-12
945	-19	-12
950	-19	-12
955	-18	-12
960	-18	-12
965	-18	-12
970	-18	-12
975	-18	-12
980	-18	-12
985	-18	-12
990	-18	-12
995	-18	-12
1000	-18	-12



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Freq. (MHz)	Reverse Isolation (dB)
100	-50
105	-50
110	-50
115	-50
120	-50
125	-50
130	-50
135	-50
140	-50
145	-50
150	-50
155	-50
160	-50
165	-50
170	-50
175	-50
180	-50
185	-50
190	-50
195	-50
200	-50
205	-50
210	-50
215	-50
220	-50
225	-50
230	-50
235	-49
240	-50
245	-50
250	-50
255	-50
260	-50
265	-50
270	-50
275	-50
280	-50
285	-50
290	-50
295	-50
300	-50
305	-50
310	-50
315	-50
320	-50
325	-50
330	-50
335	-50
340	-50
345	-50
350	-50
355	-50
360	-50
365	-50
370	-50
375	-50

Freq. (MHz)	Reverse Isolation (dB)
380	-50
385	-50
390	-50
395	-50
400	-50
405	-50
410	-50
415	-50
420	-50
425	-50
430	-50
435	-50
440	-50
445	-50
450	-50
455	-50
460	-50
465	-50
470	-50
475	-50
480	-50
485	-50
490	-50
495	-50
500	-50
505	-50
510	-50
515	-50
520	-50
525	-50
530	-50
535	-50
540	-50
545	-50
550	-50
555	-50
560	-50
565	-50
570	-50
575	-50
580	-50
585	-50
590	-50
595	-50
600	-50
605	-50
610	-50
615	-51
620	-50
625	-51
630	-51
635	-51
640	-51
645	-51
650	-51
655	-51

Freq. (MHz)	Reverse Isolation (dB)
660	-51
665	-51
670	-51
675	-51
680	-51
685	-51
690	-51
695	-51
700	-51
705	-51
710	-51
715	-51
720	-51
725	-51
730	-51
735	-51
740	-51
745	-51
750	-51
755	-51
760	-51
765	-51
770	-51
775	-51
780	-51
785	-51
790	-51
795	-51
800	-51
805	-51
810	-51
815	-51
820	-51
825	-51
830	-51
835	-51
840	-51
845	-51
850	-51
855	-51
860	-51
865	-51
870	-51
875	-51
880	-51
885	-51
890	-51
895	-51
900	-51
905	-51
910	-51
915	-51
920	-51
925	-51
930	-51
935	-51

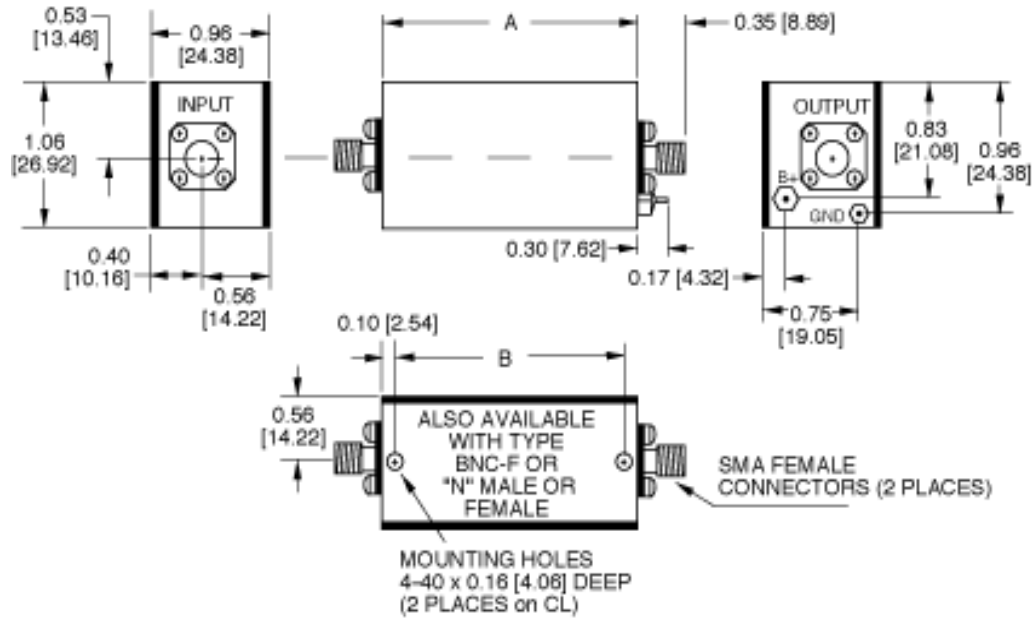
Freq. (MHz)	Reverse Isolation (dB)
940	-51
945	-51
950	-52
955	-52
960	-52
965	-51
970	-51
975	-52
980	-52
985	-52
990	-51
995	-51
1000	-52



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MITEQ AM-1641 SERIES AMPLIFIER

OUTLINE	DIM A	DIM B	OUNCES
15-2	1.92 [48.77]	1.72 [43.69]	4.1



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

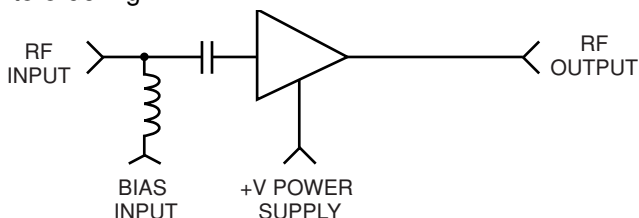
Add Suffix “-1306/E” or “-1306/D”

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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