

RF Power Amplifiers

COMMERCIAL AMPLIFIER SERIES 2000-2001 CATALOG

**TE
SYSTEMS**

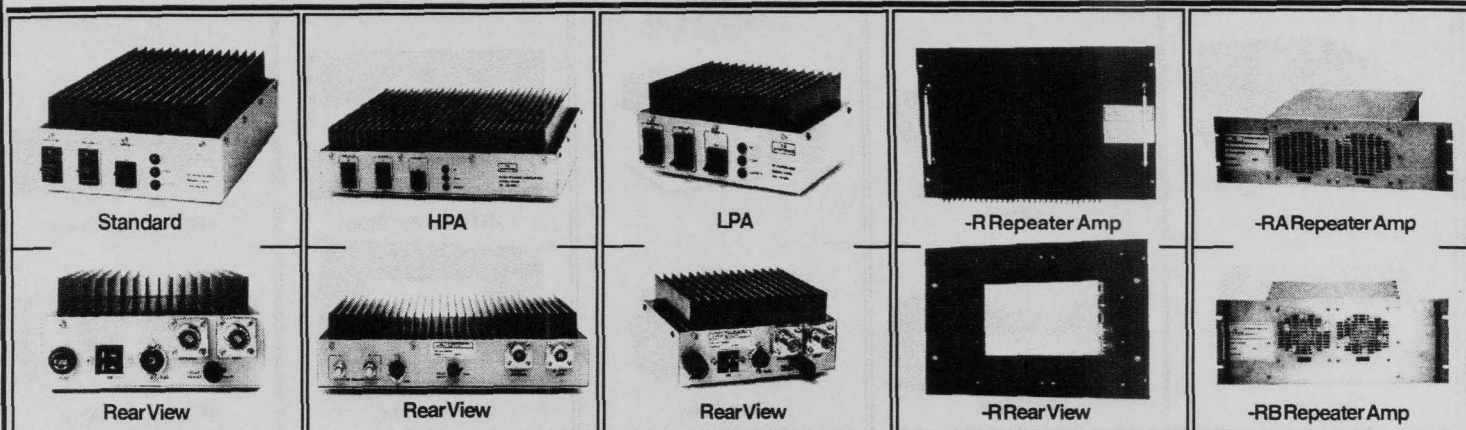
PO Box 25845, Los Angeles, CA 90025

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APRIL 2000

35-50 MHz RF AMPLIFIERS - VHF/UHF COMMERCIAL SERIES



FEATURES

(Standard, HPA and LPA)

- Linear all-mode operation with automatic T/R or P.T.T. switching and adjustable relay delay control. Linear operation allows SSB, FM, or CW operation with drive power levels usable down to 1/2 watt.
- Receive GaAs FET pre-amplifier option available - factory installed or addable by us at a later date. Preamps use GaAs FET devices rated at .5db with + 18 dbm 3rd-order intercept point. The result is superior weak signal reception with improved strong signal intermod rejection.
- Thermal shutdown protection built-in. Since extended transmission at full power produces temperature build-up in all amplifiers, a thermostatic switch is incorporated to protect the amplifier at temperatures exceeding +65°C.
- Remote control feature available to switch in/out the amplifier and to defeat LED illumination (to drop current drain for rear trunk-mounted amps).
- Excellent electrical and mechanical construction integrity using the best quality components and workmanship. User friendly controls are mounted on front panel with all RF and DC cables attached out of sight on rear panel. LED status lights on front continuously monitor the operating state of the unit. All models are manufactured in U.S.A. and carry a 1 year limited warranty.
- Designed to ICAS ratings and meets FCC part 90 regulations.

SPECIFICATIONS

Model ¹	Type	Freq ² (MHz)	P(in) (W)	P(out) (W)	DCPower (Vdc)	Preamp (A)	NF/Gain	Conn. (RF)	Size (h,w,d")
0403	LPA	35-50	1-5	10-50	13.8	6	-/-	UHF	3x6x5
0403G	LPA	35-50	1-5	10-50	13.8	6	.7/15	UHF	3x6x5
0405	Standard	35-50	1	100	13.8	16	-/-	UHF	3x6x11
0405G	Standard	35-50	1	100	13.8	16	.7/15	UHF	3x6x11
0405R	CnDty/cc	35-50	1	100	13.8	16	-/-	UHF	12x19x4
0406	Standard	35-50	10	100	13.8	14	-/-	UHF	3x6x11
0406G	Standard	35-50	10	100	13.8	14	.7/15	UHF	3x6x11
0406R	CnDty/cc	35-50	10	100	13.8	14	-/-	UHF	12x19x4
0408	Standard	35-50	1	170	13.8	28	-/-	UHF	3x6x11
0408G	Standard	35-50	1	170	13.8	28	.7/15	UHF	3x6x11
0408R	CnDty/cc	35-50	1	170	13.8	28	-/-	UHF	12x19x4
0410	Standard	35-50	10	170	13.8	25	-/-	UHF	3x6x11
0410G	Standard	35-50	10	170	13.8	25	.7/15	UHF	3x6x11
0410R	CnDty/cc	35-50	10	170	13.8	25	-/-	UHF	12x19x4
0448	HPA	35-50	.3-1	170	13.8	25	-/-	UHF	3x10x11
0448G	HPA	35-50	.3-1	170	13.8	25	.7/15	UHF	3x10x11
0448R	CnDty/cc	35-50	.3-1	170	13.8	25	-/-	UHF	12x19x4
0448RA	CnDty/fn	35-50	.3-1	170	13.8	25	-/-	UHF	5x19x15
0450	HPA	35-50	5-10	300	13.8	58	-/-	UHF	3x10x11
0450G	HPA	35-50	5-10	300	13.8	58	.7/15	UHF	3x10x11
0450RA	CnDty/fn	35-50	2-6	300	13.8	58	-/-	UHF	5x19x15
0450RAD	CnDty/fn	35-50	.25-4	300	13.8	62	-/-	UHF	7x19x15
0452	HPA	35-50	20-25	300	13.8	54	-/-	UHF	3x10x11
0452G	HPA	35-50	20-25	300	13.8	54	.7/15	UHF	3x10x11
0452RA	CnDty/fn	35-50	20-25	300	13.8	54	-/-	UHF	5x19x15
0460RB	CnDty/fn	35-50	5-10	600	13.8	116	-/-	UHF	7x19x18
0460RBD	CnDty/fn	35-50	.25-4	600	13.8	120	-/-	UHF	7x19x18
0462RB	CnDty/fn	35-50	40-50	600	13.8	108	-/-	UHF	7x19x18

1. Many model variations offered - consult factory.

2. Specify center frequency (2 MHz bandwidth).

Note: Cont-Duty Amps are transmit only, no T/R switching.

ACCESSORIES:

MMB-1

MMB-2

MMB-3

STD-CVR

Mobile-Mount Bracket for Standard amplifier

Mobile-Mount Bracket for HPA amplifier

Mobile-Mount Bracket for LPA amplifier

Commercial Cover with rubber feet for table-top mounting

FAN-LPA

FAN-STD

FAN-HPA

Cooling Fan+Bracket for LPA amplifier

Cooling Fan+Bracket for Mobile/Base amplifier

Cooling Fan+Bracket for HPA amplifier

LPA Series - Designed for low-power applications such as a power amp for hand-helds or driver amp for higher-power amp systems. They are recommended for output powers up to 60 Watts. Size/Wt is 3x6x5"(h,w,d), 5 Lbs.

Standard - The most popular configuration suitable for base or mobile operation. Duty is intermittent and has thermal switch protection. Recommended for output powers up to 200 Watts. Size/Wt is 3x6x11"(h,w,d), 6 Lbs.

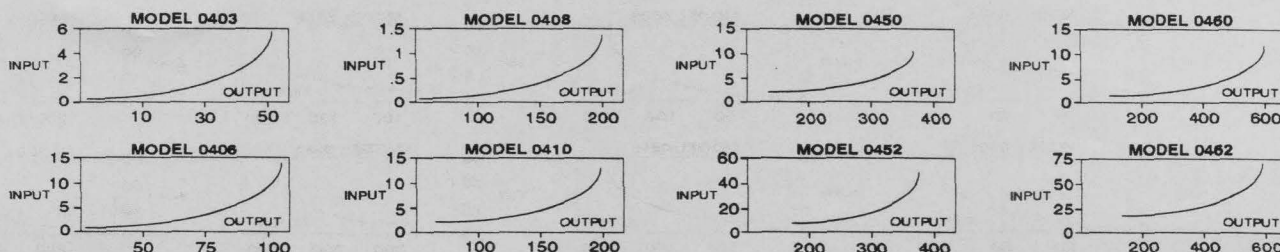
HPA Series - High-output power amplifiers and larger size. Recommended for output powers up to 400 Watts. Duty is intermittent and has thermal switch protection. Size/Wt is 3x10x11"(h,w,d), 9 Lbs.

CnDty/cc (-R) - Continuous-duty, rack-mount, medium-power amplifiers. Cooling is by convection from large vertically oriented heatsinks mounted frontside on the rack panel. Size/Wt is 12x19x4"(h,w,d), 17 Lbs.

CnDty/fn (-RA) - Continuous-duty, rack-mount, high-power amplifiers. Cooling is from forced-air (dual-redundant fans) with airflow from front-to-back. Size/Wt is 5x19x15"(h,w,d), 18 Lbs.

CnDty/fn (-RB) - Continuous-duty, rack-mount, very high-power amplifiers. Cooling is from forced-air (dual-redundant fans) with airflow from front-to-back. Size/Wt is 7x19x18"(h,w,d), 25 Lbs.

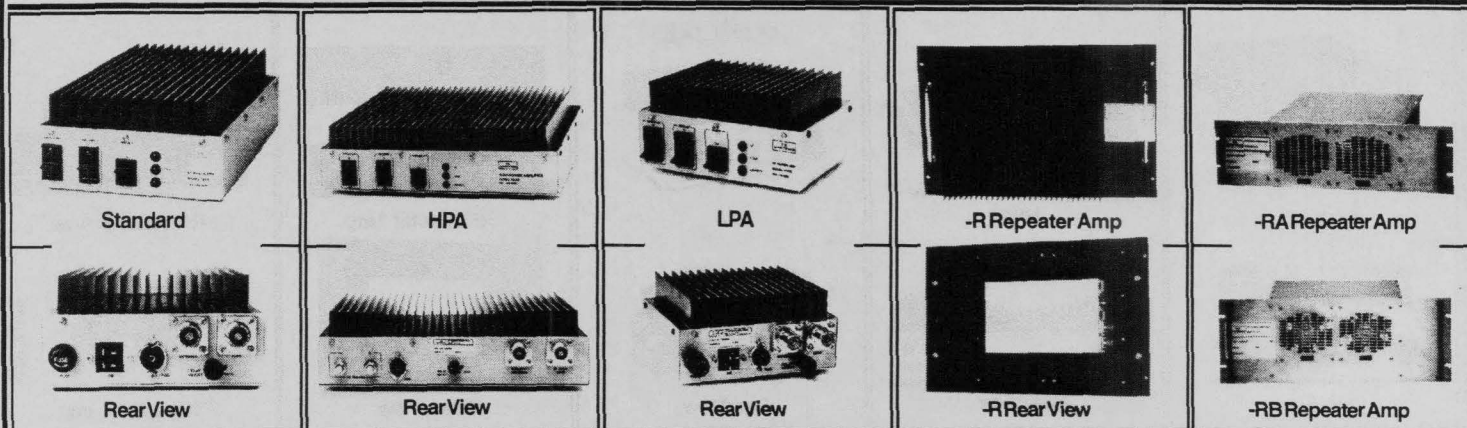
TYPICAL PERFORMANCE CURVES



ORDERING INFORMATION

- Orders may be placed factory direct or through our authorized representatives in your area.
- Specify model # and center frequency for the power amplifier.
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150-174 MHz RF AMPLIFIERS - VHF/UHF COMMERCIAL SERIES



FEATURES

(Standard, HPA and LPA)

- Linear all-mode operation with automatic T/R or P.T.T. switching and adjustable relay delay control. Linear operation allows SSB, FM, or CW operation with drive power levels usable down to 1/2 watt.
- Receive GaAs FET pre-amplifier option available - factory installed or addable by us at a later date. Preamps use GaAs FET devices rated at .5db with + 18 dbm 3rd-order intercept point. The result is superior weak signal reception with improved strong signal intermod rejection.
- Thermal shutdown protection built-in. Since extended transmission at full power produces temperature build-up in all amplifiers, a thermostatic switch is incorporated to protect the amplifier at temperatures exceeding +65°C.
- Remote control feature available to switch in/out the amplifier and to defeat LED illumination (to drop current drain for rear trunk-mounted amps).
- Excellent electrical and mechanical construction integrity using the best quality components and workmanship. User friendly controls are mounted on front panel with all RF and DC cables attached out of sight on rear panel. LED status lights on front continuously monitor the operating state of the unit. All models are manufactured in U.S.A. and carry a 1 year limited warranty.
- Designed to ICAS ratings and meets FCC part 90 regulations.

SPECIFICATIONS

(Models arranged by increasing input/output power)

Model ¹	Type	Freq ² (MHz)	P(in) (W)	P(out) (W)	DCPower (Vdc)	Preamp (A)	NF/Gain (dB)	Conn. (RF)	Size (h,w,d")
1502	Standard	150-174	1-5	10-50	13.8	6	-	UHF	3x6x11
1502G	Standard	150-174	1-5	10-50	13.8	6	7/15	UHF	3x6x11
1503	LPA	150-174	1-5	10-50	13.8	6	-	UHF	3x6x5
1503G	LPA	150-174	1-5	10-50	13.8	6	7/15	UHF	3x6x5
1505	Standard	150-174	1-4	100	13.8	15	-	UHF	3x6x11
1505G	Standard	150-174	1-4	100	13.8	15	7/15	UHF	3x6x11
1505R	CnDty/cc	150-174	1-4	150	13.8	15	-	UHF	12x19x4
1506	Standard	150-174	10-25	80-100	13.8	12	-	UHF	3x6x11
1506G	Standard	150-174	10-25	80-100	13.8	12	7/15	UHF	3x6x11
1506R	CnDty/cc	150-174	10-25	80-100	13.8	12	-	UHF	12x19x4
1509	Standard	150-174	2	150	13.8	25	-	UHF	3x6x11
1509G	Standard	150-174	2	150	13.8	25	7/15	UHF	3x6x11
1509R	CnDty/cc	150-174	2	150	13.8	25	-	UHF	12x19x4
1510	Standard	150-174	5-10	160	13.8	28	-	UHF	3x6x11
1510G	Standard	150-174	5-10	160	13.8	28	7/15	UHF	3x6x11
1510R	CnDty/cc	150-174	4-10	160	13.8	28	-	UHF	12x19x4
1510RA	CnDty/fn	150-174	4-10	160	13.8	28	-	UHF	5x19x15
1512	Standard	150-174	25-45	160	13.8	20	-	UHF	3x6x11
1512G	Standard	150-174	25-45	160	13.8	20	-	UHF	3x6x11
1512R	CnDty/cc	150-174	25-45	160	13.8	20	-	UHF	12x19x4
1546RA	CnDty/fn	150-174	0.1	100	13.8	14	-	UHF	5x19x15
1548	HPA	150-174	3-1	160	13.8	30	-	UHF	3x10x11
1548G	HPA	150-174	3-1	160	13.8	30	7/15	UHF	3x10x11
1548RA	CnDty/fn	150-174	3-1	160	13.8	30	-	UHF	5x19x15
1550	HPA	150-174	5-10	350	13.8	56	-	UHF	3x10x11
1550G	HPA	150-174	5-10	350	13.8	56	7/15	UHF	3x10x11
1550RA	CnDty/fn	150-174	2-5	350	13.8	56	-	UHF	5x19x15
1550RAD	CnDty/fn	150-174	25-4	350	13.8	58	-	UHF	5x19x15
1552	HPA	150-174	10-25	350	13.8	50	-	UHF	3x10x11
1552G	HPA	150-174	10-25	350	13.8	50	7/15	UHF	3x10x11
1552RA	CnDty/fn	150-174	10-25	350	13.8	50	-	UHF	5x19x15
1554	HPA	150-174	50-80	350	13.8	40	-	UHF	3x10x11
1554RA	CnDty/fn	150-174	50-80	350	13.8	40	-	UHF	5x19x15
1560RB	CnDty/fn	150-174	5-10	650	13.8	108	-	UHF	7x19x18
1560RBD	CnDty/fn	150-174	25-4	650	13.8	112	-	UHF	7x19x18
1562RB	CnDty/fn	150-174	25-50	650	13.8	100	-	UHF	7x19x18

- Many model variations offered - consult factory.
- Specify center frequency (10 MHz bandwidth).

Note: Cont-Duty Amps are transmit only, no T/R switching.

Accessories:

MMB-1 Mobile-Mount Bracket for Standard amplifier
MMB-2 Mobile-Mount Bracket for HPA amplifier
MMB-3 Mobile-Mount Bracket for LPA amplifier
STD-CVR Commercial Cover with rubber feet for table-top mounting

FAN-LPA Cooling Fan+Bracket for LPA amplifier
FAN-STD Cooling Fan+Bracket for Mobile/Base amplifier
FAN-HPA Cooling Fan+Bracket for HPA amplifier

LPA Series - Designed for low-power applications such as a power amp for hand-helds or driver amp for higher-power amp systems. They are recommended for output powers up to 60 Watts. Size/Wt is 3x6x5" (h,w,d), 5 Lbs.

Standard - The most popular configuration suitable for base or mobile operation. Duty is intermittent and has thermal switch protection. Recommended for output powers up to 200 Watts. Size/Wt is 3x6x11" (h,w,d), 6 Lbs.

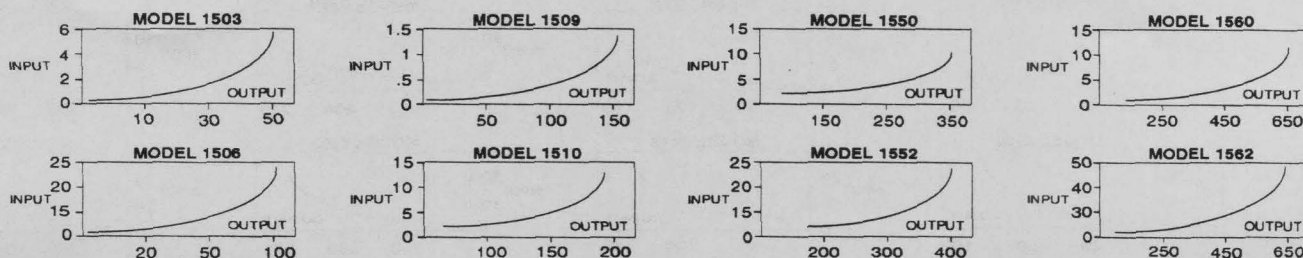
HPA Series - High-output power amplifiers and larger size. Recommended for output powers up to 400 Watts. Duty is intermittent and has thermal switch protection. Size/Wt is 3x10x11" (h,w,d), 9 Lbs.

CnDty/cc (-R) - Continuous-duty, rack-mount, medium-power amplifiers. Cooling is by convection from large vertically oriented heatsinks mounted frontside on the rack panel. Size/Wt is 12x19x4" (h,w,d), 17 Lbs.

CnDty/fn (-RA) - Continuous-duty, rack-mount, high-power amplifiers. Cooling is from forced-air (dual-redundant fans) with airflow from front-to-back. Size/Wt is 5x19x15" (h,w,d), 18 Lbs.

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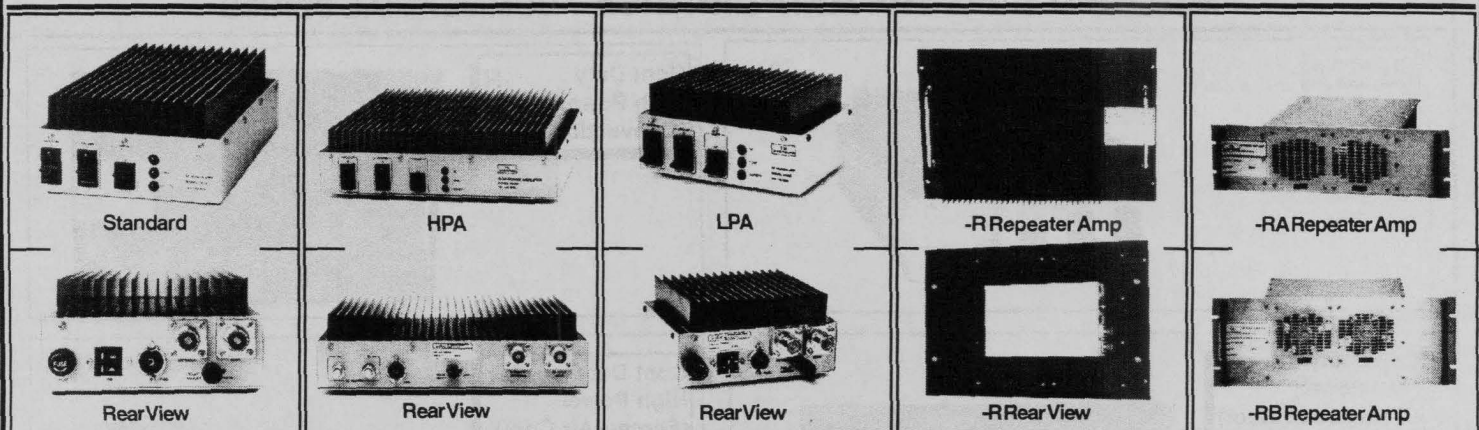
TYPICAL PERFORMANCE CURVES



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450-512 MHz RF AMPLIFIERS - VHF/UHF COMMERCIAL SERIES



FEATURES

(Standard, HPA and LPA)

- Linear all-mode operation with automatic T/R or P.T.T. switching and adjustable relay delay control. Linear operation allows SSB, FM, or CW operation with drive power levels usable down to 1/2 watt.
- Receive GaAs FET pre-amplifier option available - factory installed or addable by us at a later date. Preamps use GaAs FET devices rated at .5db with + 18 dbm 3rd-order intercept point. The result is superior weak signal reception with improved strong signal intermod rejection.
- Thermal shutdown protection built-in. Since extended transmission at full power produces temperature build-up in all amplifiers, a thermostatic switch is incorporated to protect the amplifier at temperatures exceeding +65°C.
- Remote control feature available to switch in/out the amplifier and to defeat LED illumination (to drop current drain for rear trunk-mounted amps).
- Excellent electrical and mechanical construction integrity using the best quality components and workmanship. User friendly controls are mounted on front panel with all RF and DC cables attached out of sight on rear panel. LED status lights on front continuously monitor the operating state of the unit. All models are manufactured in U.S.A. and carry a 1 year limited warranty.
- Designed to ICAS ratings and meets FCC part 90 regulations.

SPECIFICATIONS

(Models arranged by increasing input/output power)

Model ¹	Type	Freq ² (MHz)	P(in) (W)	P(out) (W)	DCPower (Vdc)	Preamp (A)	NF/Gain (dB)	Conn. (RF)	Size (h,w,d")	Model	Type	Freq ¹ (MHz)	P(in) (W)	P(out) (W)	DCPower (Vdc)	Preamp (A)	NF/Gain (dB)	Conn. (RF)	Size (h,w,d")
4505	Standard	450-512	1-5	15-50	13.8	12	-/-	UHF	3x6x11	4548RE	CnDty/cc	450-512	1-4	100	13.8	20	-/-	UHF	17x19x4
4505G	Standard	450-512	1-5	15-50	13.8	12	1.2/12	UHF	3x6x11	4548RA	CnDty/fn	450-512	1-4	100	13.8	20	-/-	UHF	5x19x15
4505R	CnDty/cc	450-512	1-5	15-50	13.8	12	-/-	UHF	12x19x4	4550	HPA	450-512	5-10	175	13.8	35	-/-	UHF	3x10x11
4510	Standard	450-512	10	100	13.8	19	-/-	UHF	3x6x11	4550G	HPA	450-512	5-10	175	13.8	35	1.2/12	UHF	3x10x11
4510G	Standard	450-512	10	100	13.8	19	1.2/12	UHF	3x6x11	4550RA	CnDty/fn	450-512	2-6	175	13.8	35	-/-	UHF	5x19x15
4510R	CnDty/cc	450-512	10	100	13.8	19	-/-	UHF	12x19x4	4550RAD	CnDty/fn	450-512	.25-.4	175	13.8	37	-/-	UHF	5x19x15
4512	Standard	450-512	15-25	100	13.8	19	-/-	UHF	3x6x11	4552	HPA	450-512	25	175	13.8	30	-/-	UHF	3x10x11
4512G	Standard	450-512	15-25	100	13.8	19	1.2/12	UHF	3x6x11	4552G	HPA	450-512	25	175	13.8	30	1.2/12	UHF	3x10x11
4512R	CnDty/cc	450-512	15-25	100	13.8	19	-/-	UHF	12x19x4	4552RA	CnDty/fn	450-512	25	175	13.8	30	-/-	UHF	5x19x15
4512RA	CnDty/fn	450-512	15-25	100	13.8	19	-/-	UHF	5x19x15	4554	HPA	450-512	60-80	175	13.8	26	-/-	UHF	3x10x11
4514	Standard	450-512	35-50	100	13.8	16	-/-	UHF	3x6x11	4554RA	CnDty/fn	450-512	60-80	175	13.8	26	-/-	UHF	5x19x15
4514R	CnDty/cc	450-512	35-50	100	13.8	16	-/-	UHF	12x19x4	4560RB	CnDty/fn	450-512	5-10	280	13.8	70	-/-	UHF	7x19x18
4546RA	CnDty/fn	450-512	0.1	100	13.8	21	-/-	UHF	5x19x15	4560RBD	CnDty/fn	450-512	.25-.4	280	13.8	74	-/-	UHF	7x19x18
4548	HPA	450-512	1-4	100	13.8	20	-/-	UHF	3x10x11	4562RB	CnDty/fn	450-512	40-50	280	13.8	60	-/-	UHF	7x19x18
4548G	HPA	450-512	1-4	100	13.8	20	1.2/12	UHF	3x10x11	4564RB	CnDty/fn	450-512	100-150	280	13.8	50	-/-	UHF	7x19x18

¹ Many model variations offered - consult factory.

² Specify center frequency (10 MHz bandwidth).

Note: Cont-Duty Amps are transmit only, no T/R switching.

Type/Description

LPA Series - Designed for low-power applications such as a power amp for hand-helds or driver amp for higher-power amp systems. They are recommended for output powers up to 60 Watts. Size/Wt is 3x6x5" (h,w,d), 5 Lbs.

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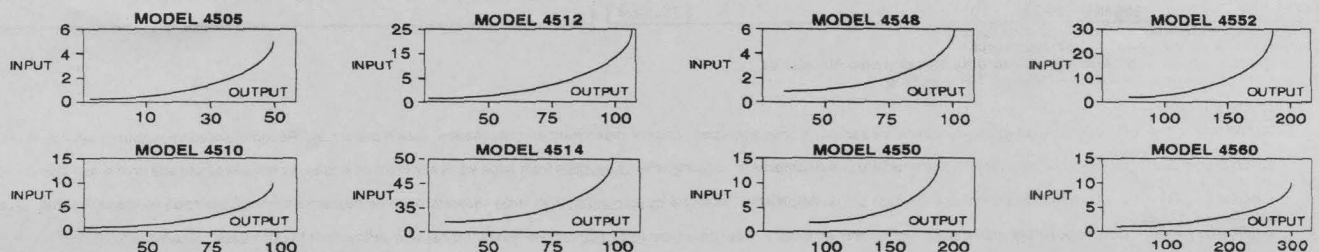
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TYPICAL PERFORMANCE CURVES



ORDERING INFORMATION

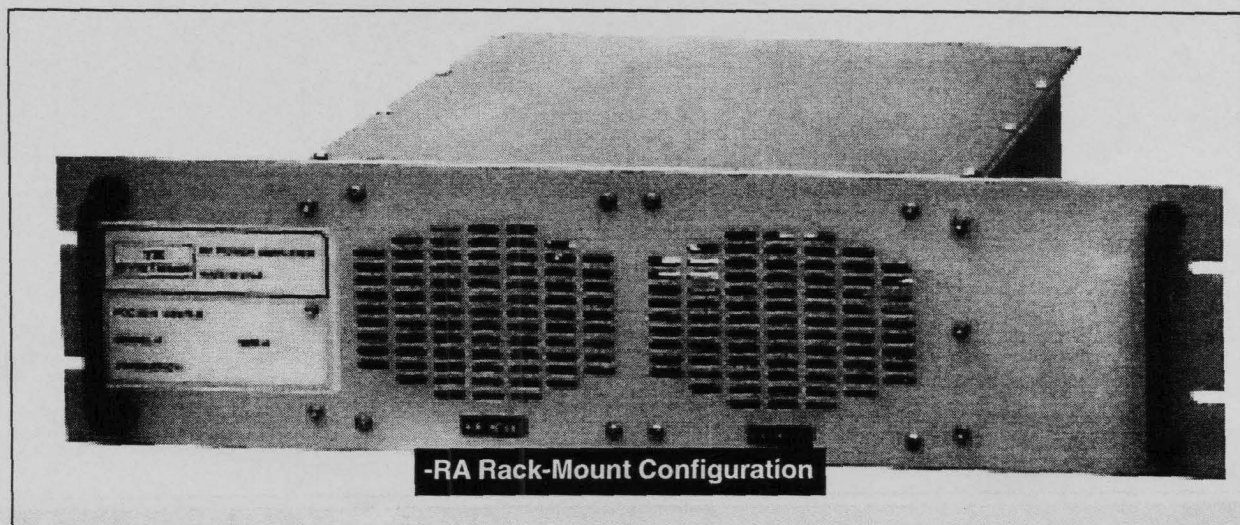
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Product Data Sheet

VHF/UHF CONT DUTY AMPS

MODEL 1550RA+RB SERIES

MODEL 4550RA+RB SERIES



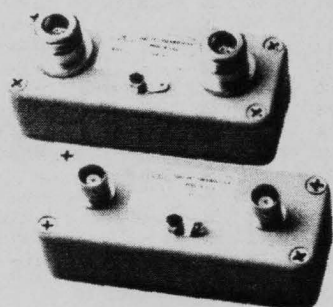
-RA Rack-Mount Configuration

MODEL#	INPUT POWER	OUTPUT POWER	VOLTAGE/CURRENT	CONNECTOR	SIZE
at Freq=150-174 MHz...					
1550RAD	.25-.40W	350W	+13.8Vdc/58A	UHF(f)	5.25x19x15"
1550RA	2-5W	350W	+13.8Vdc/56A	UHF(f)	5.25x19x15"
1552RA	10-25W	350W	+13.8Vdc/50A	UHF(f)	5.25x19x15"
1554RA	50-80W	350W	+13.8Vdc/40A	UHF(f)	5.25x19x15"
1560RBD	.25-.40W	650W	+13.8Vdc/112A	UHF(f)	7x19x18"
1560RB	5-10W	650W	+13.8Vdc/108A	UHF(f)	7x19x18"
1562RB	25-50W	650W	+13.8Vdc/100A	UHF(f)	7x19x18"
at Freq=450-470 MHz...					
4550RAD	.25-.40W	175W	+13.8Vdc/37A	UHF(f)	5.25x19x15"
4550RA	2-6W	175W	+13.8Vdc/35A	UHF(f)	5.25x19x15"
4552RA	25W	175W	+13.8Vdc/30A	UHF(f)	5.25x19x15"
4554RA	60-80W	175W	+13.8Vdc/26A	UHF(f)	5.25x19x15"
4560RBD	.25-.40	280W	+13.8Vcd/74A	UHF(f)	7x19x18"
4560RB	5-10W	280W	+13.8Vcd/70A	UHF(f)	7x19x18"
4562RB	40-50W	280W	+13.8Vdc/60A	UHF(f)	7x19x18"
4564RB	100-150W	280W	+13.8Vdc/50A	UHF(f)	7x19x18"

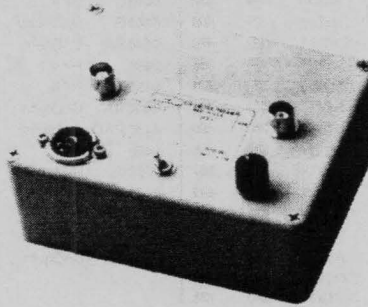
Performance Highlights....

- ☐ Continuous-duty operation is provided from forced-air cooling.
- ☐ Air flow is from front-to-back provided by dual, redundant fans.
- ☐ RF amplifier deck is easily removed to provide in-field servicing or exchange.
- ☐ DC voltage connection is to large, threaded studs easily accessible on backside of unit.
- ☐ Ideal for Paging applications.

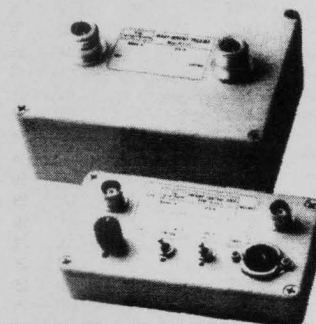
LOW-NOISE PREAMPLIFIERS - COMMERCIAL COMMUNICATIONS SERIES



Preamp



Switching Preamp



Mast-Mount Preamp

FEATURES

PREAMP - Straight RF amplifier providing a minimum noise figure with highest associated gain. High quality GaAs FET transistors are used that have very low noise figure performance (.5dB typically). Additionally, they are rated at +18 dBm 3rd-order intercept point which minimizes intermod susceptibility. All units are housed in an RF tight finished enclosure with DC feedthru capacitor for RF bypassing.

SWITCHING PREAMP - Performance features are the same as the preamp except that the unit RF switches to a "thru" condition upon sensing transmitted RF power from a transceiver. Controls are provided to turn on/off, adjust the relay switching speed or hard key the unit from the transceiver's PTT line. All units are housed in a finished metal enclosure.

MAST-MOUNT PREAMP - Performance features are the same as the switching preamp except that this unit is separated into a RF section and a DC control unit. The RF enclosure is weather tight and is mounted at the antenna (hardware bracket supplied) for optimum noise figure performance. The DC control unit is operated in conjunction with the two-way radio and controls the operation of the RF preamp section remotely. An optional bias Tee can be added for high transmit power. All units are housed in attractively styled finished metal enclosures.

SPECIFICATIONS

Model	Function	Frequency ¹ (MHz)	Preamp ² NF	Gain	MAX. RF Input (W)	DC Power (+Vdc)	(mA)	Connector (RF)	Size (h, w, d")
0420B	Preamp	35-50	.5	25	-	8-20	25	BNC	1.5 x 1.7 x 3.6
0420N	Preamp	35-50	.5	25	-	8-20	25	N	1.5 x 1.9 x 3.6
0425B	SW Preamp	35-50	.5	18	100	11-14	100	BNC	3.7 x 2.7 x 4.7
0620B	Preamp	66-88	.5	24	-	8-20	25	BNC	1.5 x 1.7 x 3.6
0620N	Preamp	66-88	.5	24	-	8-20	25	N	1.5 x 1.7 x 3.6
0625B	SW Preamp	66-88	.5	18	100	11-14	100	BNC	3.7 x 2.7 x 4.7
1520B	Preamp	150-174	.5	24	-	8-20	25	BNC	1.5 x 1.7 x 3.6
1520N	Preamp	150-174	.5	24	-	8-20	25	N	1.5 x 1.9 x 3.6
1525B	SW Preamp	150-174	.5	18	100	11-14	100	BNC	3.7 x 2.7 x 4.7
2220B	Preamp	220-222	.5	22	-	8-20	25	BNC	1.5 x 1.7 x 3.6
2220N	Preamp	220-222	.6	22	-	8-20	25	N	1.5 x 1.9 x 3.6
2225B	SW Preamp	220-222	.5	18	100	11-14	100	BNC	3.7 x 2.7 x 4.7
4520B	Preamp	450-512	.5	18	-	8-20	25	BNC	1.5 x 1.7 x 3.6
4520N	Preamp	450-512	.5	18	-	8-20	25	N	1.5 x 1.9 x 3.6
4525B	SW Preamp	450-512	.8	14	50	11-14	100	BNC	3.7 x 2.7 x 4.7
8820B	Preamp	806-960	.7	15	-	8-20	25	BNC	1.5 x 1.7 x 3.6
8820N	Preamp	806-960	.7	15	-	8-20	25	N	1.5 x 1.7 x 3.6

1. Specify exact frequency. 2. Preamp BW_{3dB} = 4% nom. SW and MM Preamp BW_{3dB} = 2% nom.

ORDERING INFORMATION

- Orders may be placed factory direct or through our authorized representative or dealer in your area.
- Specify model # and center frequency for preamplifier(s).
- All models include a specification/operation sheet and are shipped UPS (insured), FOB Los Angeles.
- Although product information and descriptions are current, TE Systems reserves the right to improve or change its products, specifications, designs and pricing without notice.

PRICE SHEET - COMMERCIAL SERIES AMPLIFIER AND PREAMP PRODUCTS

450 MHz

(Models arranged by increasing input/output power)

Model#	Type	Freq (MHz)	P(in) (W)	P(out) (W)	Ic (A)	Options/ Features	Size (h, w, d")	Dlr \$	List \$
4505	Standard	450-512	1-5	15-50	12		3x6x11	336	457
4505G	Standard	450-512	1-5	15-50	12	GaAs Preamp	3x6x11	392	534
4505R	CnDty/cc	450-512	1-5	15-50	12		12x19x4	544	740
4510	Standard	450-512	10	100	19		3x6x11	366	538
4510G	Standard	450-512	10	100	19	GaAs Preamp	3x6x11	452	615
4510R	CnDty/cc	450-512	10	100	19		12x19x4	604	821
4512	Standard	450-512	15-25	100	19		3x6x11	396	538
4512G	Standard	450-512	15-25	100	19	GaAs Preamp	3x6x11	452	615
4512R	CnDty/cc	450-512	15-25	100	19		12x19x4	604	821
4512RA	CnDty/fn	450-512	15-25	100	19		5x19x15	671	908
4514	Standard	450-512	35-50	100	16		3x6x11	355	483
4514R	CnDty/cc	450-512	35-50	100	16		12x19x4	563	766
4546RA	CnDty/fn	450-512	0.1	100	21		5x19x15	941	1276
4548	HPA	450-512	1-4	100	20		3x10x11	571	777
4548G	HPA	450-512	1-4	100	20	GaAs Preamp	3x10x11	627	863
4548RA	CnDty/fn	450-512	1-4	100	20		5x19x15	937	1274
4548RE	CnDty/cc	450-512	1-4	100	20		17x19x4	833	1133

Model#	Type	Freq (MHz)	P(in) (W)	P(out) (W)	Ic (A)	Options/ Features	Size (h, w, d")	Dlr \$	List \$
4550	HPA	450-512	5-10	175	35		3x10x11	624	848
4550G	HPA	450-512	5-10	175	35	GaAs Preamp	3x10x11	680	925
4550RA	CnDty/fn	450-512	2-6	175	35		5x19x15	999	1345
4550RAD	CnDty/fn	450-512	25-4	175	35		5x19x15	1214	1651
4552	HPA	450-512	25	175	30		3x10x11	595	809
4552G	HPA	450-512	25	175	30	GaAs Preamp	3x10x11	651	886
4552RA	CnDty/fn	450-512	25	175	30		5x19x15	933	1268
4554	HPA	450-512	60-80	175	26		3x10x11	564	767
4554RA	CnDty/fn	450-512	60-80	175	26		5x19x15	929	1264
4560RB	CnDty/fn	450-512	5-10	280	70		7x19x18	1545	2101
4560RBD	CnDty/fn	450-512	25-4	280	74		7x19x18	1753	2384
4562RB	CnDty/fn	450-512	40-50	280	60		7x19x18	1488	2024
4564RB	CnDty/fn	450-512	100-150	280	50		7x19x18	1426	1939

800 MHz

(Models arranged by increasing input/output power; 900-960MHz amps are 28Vdc, see note 3)

Model#	Type	Freq (MHz)	P(in) (W)	P(out) (W)	Ic (A)	Options/ Features	Size (h, w, d")	Dlr \$	List \$
8805	Standard	806-960	2	15	4	T/R switching	3x6x11	472	642
8805G	Standard	806-960	2	15	4	T/R Sw+Preamp	3x6x11	592	805
8805ARN	CnDty/cc	806-960	.001	15	5		8.75x19x4	822	1118
8805BRN	CnDty/cc	806-960	.01	15	5		8.75x19x4	772	1050
8805CRN	CnDty/cc	806-960	.1	15	5		8.75x19x4	722	982
8805DRN	CnDty/cc	806-960	25-4	15	5		8.75x19x4	672	914
8805ERN	CnDty/cc	806-960	4-1	15	5		8.75x19x4	622	846
8805FRN	CnDty/cc	806-960	2-5	15	4		8.75x15x4	572	778
8810	Standard	806-960	5	50	12	T/R Switching	3x6x11	490	666
8810ARN	CnDty/cc	806-960	.001	50	13		8.75x19x4	840	1142
8810BRN	CnDty/cc	806-960	.01	50	13		8.75x19x4	790	1074
8810CRN	CnDty/cc	806-960	.1	50	13		8.75x19x4	740	1006
8810DRN	CnDty/cc	806-960	25-4	50	13		8.75x19x4	690	938
8810ERN	CnDty/cc	806-960	4-1	50	12		8.75x19x4	640	870
8810FRN	CnDty/cc	806-960	2-5	50	12		8.75x19x4	590	802
8810GRN	CnDty/cc	806-960	5-10	50	12		8.75x19x4	540	734
8810HRN	CnDty/cc	806-960	15-20	50	12		8.75x19x4	490	666
8812	Standard	806-960	15-20	50	9	T/R Switching	3x6x11	390	530
8812HRN	CnDty/cc	806-960	15-20	50	9		8.75x19x4	490	666

Model#	Type	Freq (MHz)	P(in) (W)	P(out) (W)	Ic (A)	Options/ Features	Size (h, w, d")	Dlr \$	List \$
8814AR	CnDty/cc	806-960	.001	80-100	23		12x19x4	1444	1964
8814BR	CnDty/cc	806-960	.01	80-100	23		12x19x4	1394	1896
8814CR	CnDty/cc	806-960	.1	80-100	23		12x19x4	1344	1828
8814DR	CnDty/cc	806-960	25-4	80-100	23		12x19x4	1294	1760
8814ER	CnDty/cc	806-960	4-1	80-100	23		12x19x4	1244	1692
8814FR	CnDty/cc	806-960	2-5	80-100	22		12x19x4	1194	1624
8814GR	CnDty/cc	806-960	5-10	80-100	21		12x19x4	1144	1556
8814HR	CnDty/cc	806-960	15-20	80-100	20		12x19x4	1044	1420
8814IR	CnDty/cc	806-960	35-45	80-100	18		12x19x4	994	1352
8817ARA	CnDty/fn	806-960	.001	150-200	45		5x19x15	2738	3724
8817BRA	CnDty/fn	806-960	.01	150-200	45		5x19x15	2688	3656
8817CRA	CnDty/fn	806-960	.1	150-200	45		5x19x15	2638	3588
8817DRA	CnDty/fn	806-960	25-4	150-200	45		5x19x15	2588	3520
8817ERA	CnDty/fn	806-960	4-1	150-200	45		5x19x15	2538	3452
8817FRA	CnDty/fn	806-960	2-5	150-200	44		5x19x15	2488	3384
8817GRA	CnDty/fn	806-960	5-10	150-200	43		5x19x15	2438	3316
8817HRA	CnDty/fn	806-960	15-20	150-200	42		5x19x15	2388	3248
8817IRA	CnDty/fn	806-960	35-45	150-200	40		5x19x15	2338	3180

Ordering Options:

- Many model variations offered - consult factory.
- Specify center frequency (5 MHz bandwidth).
- Amps at Freq=900-960MHz are 28 Vdc only - consult factory for pricing.

Note: CnDty Amps are transmit only, no T/R switching.

800 MHz Drive Options Summary:

- | | | | |
|----|-----------------------------|----|------------------------|
| -E | Input drive is .4-1 mW | -F | Input drive is 2-5 W |
| -A | Input drive is 1 mW nominal | -G | Input drive is 5-10 W |
| -B | Input drive is 10 mW | -H | Input drive is 15-20 W |
| -C | Input drive is 100 mW | -I | Input drive is 34-45 W |
| -D | Input drive is 250-400 mW | | |

Type/Description 806-960 MHz Amps:

Standard - The most popular configuration suitable for base or mobile operation. Duty is intermittent and has thermal switch protection. Recommended for output powers up to 200 Watts. Size/ Wt is 3x6x11"(h,w,d), 6 Lbs.

CnDty/cc (-RN) - Continuous-duty, rack-mount, medium-power amplifiers. Cooling is by convection from large vertically oriented heatsinks mounted frontside on the rack panel. Size/Wt is 8.75x19x4"(h,w,d), 15 Lbs.

CnDty/cc (-R) - Continuous-duty, rack-mount, medium-power amplifiers. Cooling is by convection from large vertically oriented heatsinks mounted frontside on the rack panel. Size/Wt is 12x19x4"(h,w,d), 17 Lbs.

CnDty/fn (-RA) - Continuous-duty, rack-mount, high-power amplifiers. Cooling is from forced-air (dual-redundant fans) with airflow from front-to-back. Size/Wt is 5x19x15"(h,w,d), 18 Lbs.

OPTIONS/CONFIGURATION KEY

Standard (Mobile/Base) Amplifiers

- G Preamp option (automatic RF-switching included within Power Amplifier)

Repeater/Continuous-Duty Amplifiers

- RN Continuous duty, conv cool 8.75x19x4 inches (19" rack-mount)
Used for reduced height applications and lower Pout amps
- R Continuous duty, convection-cool 12.25x19x4 inches (19" rack-mount)
Used for all VHF amps w/Pout = 160W or UHF amps w/Pout = 100W
- RE Continuous duty, convection-cool 17.5x19x4 inches (19" rack-mount)
Used for all UHF amps w/Pout = 170W
- RH Continuous duty, convection-cool 24.5x19x4 inches (19" rack-mount)
Used for all VHF amps w/Pout = 350W
- RA Continuous duty, forced-air cool, 5.25x19x15" (h,w,d)
- RB Continuous duty, forced-air cool, 7x19x18" (h,w,d)

Amplifiers/Preamps (as applicable)

- B BNC(f) connector
N N(f) connector

Type description

- LPA Low-Power Amplifier (3x6x5")
Mobile Standard Mobile-Size Amplifier (2.8x5.8x10.5")
HPA High-Power Amplifier (2.8x10x11.5")
Cont-Duty Repeater/Continuous-Duty Amplifier (see above for sizes)

ACCESSORIES

Model#	Description	Dlr \$	List \$
MMB-1	Mobile Mount Bracket (fits all 3x6x11" Mobile Amplifiers)	16	22
MMB-2	Mobile Mount Bracket (fits all 3x10x11" HPA Amplifiers)	16	22
MMB-3	Mobile Mount Bracket (fits all 3x6x5" LPA Amplifiers)	16	22
FAN-LPA	Cooling Fan + Bracket (12Vdc, fits all 3x6x5" LPA Amplifiers)	64	87
FAN-STD	Cooling Fan + Bracket (12Vdc, fits all 3x6x11" Mobile Amplifiers)	73	99
FAN-HPA	Cooling Fan + Bracket (12Vdc, fits all 3x10x11" HPA Amplifiers)	77	105
FAN-RN	Cooling Fan + Bracket (12Vdc, fits all -RN Repeater Amplifiers)	96	131
FAN-R	Cooling Fan + Bracket (12Vdc, fits all -R Repeater Amplifiers)	96	131
FAN-RE	Cooling Fan + Bracket (12Vdc, fits all -RE Repeater Amplifiers)	117	159
FAN-RH	Cooling Fan + Bracket (12Vdc, fits all -RH Repeater Amplifiers)	117	159
SH-75	Mounting shelf (19" rack) for PS-75 Power Supply	40	56
SH-275	Mounting shelf (19" rack) for two PS-75 Power Supplies	70	96