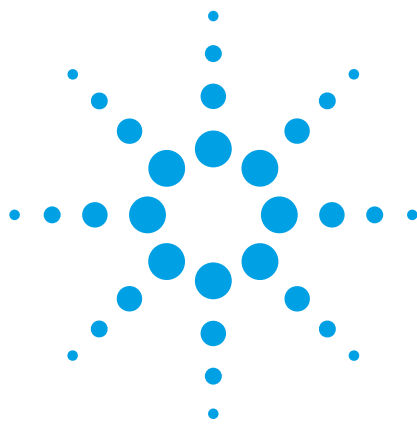




Agilent

8347A, 8447A, and 8447D Amplifiers

Data Sheet



RF & Microwave Amplifiers Specifications Summary for 8347A RF Amplifier (Discontinued) and 8447A/D Preamplifier

	8347A RF Amplifier (Discontinued)	8447A Preamplifier	8447D Preamplifier
Frequency range	100 kHz to 3 GHz	0.1 to 400 MHz	100 kHz to 1.3 GHz
Typical 3 dB bandwidth	—	50 kHz to 700 MHz	75 kHz to 1.7 GHz
Maximum leveled output power	$\geq +20$ dBm	—	—
Output power leveling range	(≥ 300 kHz): $+2$ to $+20$ dBm	—	—
Gain (mean, per channel)	≥ 25 dB	$20 \text{ dB} \pm 1.0 \text{ dB}$ at 10 MHz (20° to 30°C)	$> 25 \text{ dB}$ (20° to 30°C)
Gain flatness across full frequency range	Internally leveled $\pm 300 \text{ kHz}$: $\pm 1.5 \text{ dB}$	$\pm 1.8 \text{ dB}$ (0° to 55°C) $\pm 0.7 \text{ dB}$ (20° to 30°C) characteristic	$\pm 1.5 \text{ dB}$
Noise figure	10 MHz to 3 GHz: 15 dB Below 10 MHz: 20 dB	$< 7 \text{ dB}$	$< 8.5 \text{ dB}$
Output power for 1 dB gain compression	$+22 \text{ dBm}$	$> +6 \text{ dBm}$	$> +7 \text{ dBm}$ typical
Third-order intercept	$+30 \text{ dBm}$	—	—
Harmonic distortion	(at $+20 \text{ dBm}$ output) Internal level off (ALC off): $\leq -25 \text{ dBc}$	-32 dB for 0 dBm output Internal level on (ALC on): $\leq -20 \text{ dBc}$	-30 dB for 0 dBm output (typical)
Maximum input for minimum internally leveled output	-14 dBm	—	—
Output for $< -60 \text{ dB}$ harmonic distortion	—	-25 dBm (characteristic)	-30 dBm
VSWR	2.0: 1 input 1.5: 1 output internally leveled 2.0: 1 output unleveled below 2 GHz 3.0: 1 output unleveled 2 GHz to 3 GHz	< 1.7	< 2.0 input < 2.2 output 1 to 1300 MHz
Reverse isolation	60 dB	$> 30 \text{ dB}$	$> 40 \text{ dB}$
Maximum dc voltage output	—	$\pm 10 \text{ V}$	$\pm 10 \text{ V}$
Size	213 mm W x 102 mm H x 298 mm D (8.4 in x 4.0 in x 11.8 in)	130 mm W x 85.8 mm H x 216 mm D (5.1 in x 3.4 in x 8.5 in)	130 mm W x 85.8 mm H x 216 mm D (5.1 in x 3.4 in x 8.5 in)
Weight	Net, 4 kg (8 lb) Shipping, 5 kg (11 lb)	Net, 1.56 kg (3.4 lb) Shipping, 2.3 kg (5.1 lb)	Net, 1.56 kg (3.4 lb) Shipping, 2.3 kg (5.1 lb)
Power requirements	—	110 or 230 Vac $\pm 10\%$, 48 to 440 Hz, 15 W	110 or 230 Vac $\pm 10\%$, 48 to 440 Hz, 15 W
Options available	—	Option 001: Dual-channel amp	Option 001: Dual-channel amp BNC (f) connectors BNC (f) connectors Option 010: Single-channel amp Type-N (f) connectors Option 011: Dual-channel amp Type-N (f) connectors





Agilent Email Updates

www.agilent.com/find/emailupdates

Get the latest information on the products and applications you select.



Agilent Direct

www.agilent.com/find/agilentdirect

Quickly choose and use your test equipment solutions with confidence.



www.agilent.com/find/open

Agilent Open simplifies the process of connecting and programming test systems to help engineers design, validate and manufacture electronic products. Agilent offers open connectivity for a broad range of system-ready instruments, open industry software, PC-standard I/O and global support, which are combined to more easily integrate test system development.

Remove all doubt

Our repair and calibration services will get your equipment back to you, performing like new, when promised. You will get full value out of your Agilent equipment throughout its lifetime. Your equipment will be serviced by Agilent-trained technicians using the latest factory calibration procedures, automated repair diagnostics and genuine parts. You will always have the utmost confidence in your measurements.

Agilent offers a wide range of additional expert test and measurement services for your equipment, including initial start-up assistance, onsite education and training, as well as design, system integration, and project management.

For more information on repair and calibration services, go to:

www.agilent.com/find/removealldoubt

www.agilent.com

For more information on Agilent Technologies' products, applications or services, please contact your local Agilent office. The complete list is available at:

www.agilent.com/find/contactus

Americas

Canada	(877) 894-4414
Latin America	305 269 7500
United States	(800) 829-4444

Asia Pacific

Australia	1 800 629 485
China	800 810 0189
Hong Kong	800 938 693
India	1 800 112 929
Japan	0120 (421) 345
Korea	080 769 0800
Malaysia	1 800 888 848
Singapore	1 800 375 8100
Taiwan	0800 047 866
Thailand	1 800 226 008

Europe & Middle East

Austria	0820 87 44 11
Belgium	32 (0) 2 404 93 40
Denmark	45 70 13 15 15
Finland	358 (0) 10 855 2100
France	0825 010 700*
	*0.125 € fixed network rates
Germany	01805 24 6333**
	**0.14€/minute
Ireland	1890 924 204
Israel	972-3-9288-504/544
Italy	39 02 92 60 8484
Netherlands	31 (0) 20 547 2111
Spain	34 (91) 631 3300
Sweden	0200-88 22 55
Switzerland (French)	41 (21) 8113811(Opt 2)
Switzerland (German)	0800 80 53 53 (Opt 1)
United Kingdom	44 (0) 118 9276201

Other European Countries:

www.agilent.com/find/contactus

Revised: October 24, 2007

Product specifications and descriptions in this document subject to change without notice.

© Agilent Technologies, Inc. 2004, 2008
Printed in USA, February 21, 2008
5989-1696EN



Agilent Technologies