



3871 Series Solid-state Power Amplifier



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Ceyear Technologies Co.,Ltd



3871 Series Solid-state Power Amplifier



● Main Features:

Open loop/Internal stability can be switched:

Gain and output power are variable in open loop state, and the output power can be fixed in internal stable amplitude state.

Adjustable gain/output power:

In open-loop state, gain and output power can be adjusted by gain knob, and the stepping accuracy reach 0.1dB.

Local/remote control switch:

Through GPIB or LAN connection, the amplifier parameters and functions can be set remotely.

Output/reflected power display:

Equipped with LCD screen which can display output power, reflection power, and internal temperature and operating frequency etc.

● Main Specifications:

High output power accuracy:

The output power accuracy of the amplifier can reach $\pm 0.3\text{dB}$ which is almost equal to the display accuracy of standard power meter.

Large dynamic range of power regulation:

The dynamic range of output power adjustment can reach 20dB ~ 40dB (different models have different configurations and can be customized).

Stable output power:

In temperature equilibrium state, the output power stability can reach $\pm 0.3\text{dB}$.

High flatness output power:

Under stable amplitude working condition, the output power flatness reaches $\pm 0.3\text{dB}$.

● **Multiple Protection Alarm:**

Input power overload protection:

Can bear 1mW to 1W input power (different models have different configurations), effectively preventing input overload damage.

Over-temperature alarm and protection:

This function can implement real-time monitor the internal temperature of amplifier to realize over-temperature alarm and automatic protection.

Mismatched alarm and protection:

Real-time monitoring of reflected power: When the reflected power is too large, it can realize mismatched alarm and automatic protection.

Air cooling alarm and protection:

Real-time monitoring of air fan working state: When the fan works abnormally, it can realize air cooling alarm and automatic protection.

● **Humanized Design:**

Input front or rear panel is optional:

Input ports can be configured on the front panel or rear panel as required.

Output front or rear panel is optional:

Output ports can be configured on the front panel or rear panel as required.

Working status locking function:

Status-locking function can effectively avoid faulty-operation.

W/dBm display:

Dual-unit power display which adapts to different users' requirements: W or dBm display format.

● **Broadband Power Amplifier:**

No.	Model	Fre (GHz)	Gain (dB)	Output power (dBm)	RF input port	RF output port
1	3871AD	10kHz~250MHz	46	50	N (f)	N (f)
2	3871AE	10kHz~250MHz	46	52	N (f)	N (f)
3	3871AC-1000	10kHz~250MHz	60	60	N (f)	L29 (f)
4	3871AC-2000	10kHz~250MHz	63	63	N (f)	L29 (f)
5*	3871AC-3500	10kHz~100MHz	66	65.5	N (f)	L29 (f)
6	3871AH	80MHz~1GHz	50	50	N (f)	N (f)
7	3871AK	80MHz~1GHz	53	52	N (f)	N (f)
8*	3871AK-1000	80MHz~1GHz	60	60	N (f)	L29 (f)
9	3871AK-2000	80MHz~1GHz	63	63	N (f)	L29 (f)
10	3871AA-2000	1~2	63	63	N (f)	L29 (f)
11	3871AP-2000	2~4	63	63	N (f)	24JS2000
12	3871AA	1~2.5	50	50	N (f)	N (f)
13*	3871AP-200	1~2.5	53	53	N (f)	N (f)
14	3871AP-400	1~2.5	56	56	N (f)	L29 (f)
15	3871AQ-400	2.5~6	56	56	N (f)	L29 (f)
16	3871AB	1~6	45	45	N (f)	N (f)
17	3871AB-020	0.5~6	43	43	N (f)	N (f)
18	3871AB-040	0.5~6	46	46	N (f)	N (f)
19	3871AS	0.5~6	47	47	N (f)	N (f)
20	3871AS-060	0.5~6	48	48	N (f)	N (f)
21	3871AS-080	0.5~6	49	49	N (f)	N (f)
22	3871AT	0.5~6	50	50	N (f)	N (f)
23	3871AT-150	0.5~6	52	52	N (f)	N (f)
24	3871AU	0.5~6	53	53	N (f)	N (f)

25*	3871AU-200	1~6	53	53	N (f)	N (f)
26	3871AU-400	1~6	56	56	N (f)	N (f)
27	3871AQ-200	2~8	53	53	N (f)	N (f)
28	3871DA	6~18	43	43	N (f)	N (f)
29	3871DA-040	6~18	46	46	N (f)	N (f)
30	3871DB	6~18	47	47	N (f)	N (f)
31	3871DB-060	6~18	48	48	N (f)	N (f)
32	3871DB-080	6~18	49	49	N (f)	N (f)
33	3871DC	6~18	50	50	N (f)	N (f)
34*	3871DC-200	6~18	53	53	N (f)	WRD500D36
35	3871DH	2~18	43	43	N (f)	N (f)
36	3871DH-005	2~18	37	37	N (f)	N (f)
37	3871DH-010	2~18	40	40	N (f)	N (f)
38	3871DK	2~18	46	46	N (f)	N (f)
39	3871DK-080	2~18	48	49	N (f)	N (f)
40	3871DE	2~18	49	50	N (f)	N (f)
41	3871EA	18~26.5	40	40	3.5mm(m)	WR42
42	3871EB	18~26.5	43	43	3.5mm(m)	WR42
43*	3871EB-050	18~26.5	47	47	3.5mm(m)	WR42
44	3871EB-060	18~26.5	48	48	3.5mm(m)	WR42
45	3871EB-080	18~26.5	49	49	3.5mm(m)	WR42
46	3871EC	18~26.5	50	50	3.5mm(m)	WR42
47	3871EC-120	18~26.5	51	51	3.5mm(m)	WR42
48	3871EC-150	18~26.5	51	52	3.5mm(m)	WR42
49	3871FA	26~32	38	38	2.4mm(m)	2.4mm(m)
50	3871FB	32~40	38	38	2.4mm(m)	2.4mm(m)
51	3871FE	26~40	40	40	2.4mm(m)	2.4mm(m)

52	3871FE-020	26~40	43	43	2.4mm(m)	2.4mm(m)
53	3871FF	26~40	46	46	2.4mm(m)	WR28
54*	3871FF-050	26~40	47	47	2.4mm(m)	WR28
55	3871FF-060	26~40	48	48	2.4mm(m)	WR28
56	3871FG-080	26~40	48	49	2.4mm(m)	WR28
57	3871FG	26~40	49	50	2.4mm(m)	WR28
58	3871FP	18~40	43	43	2.4mm(m)	24JS18000
59	3871FP-005	18~40	37	37	2.4mm(m)	24JS18000
60	3871FP-010	18~40	40	40	2.4mm(m)	24JS18000
61	3871FQ	18~40	47	47	2.4mm(m)	24JS18000
62	3871FQ-060	18~40	48	48	2.4mm(m)	24JS18000
63	3871FH	18~40	49	49	2.4mm(m)	24JS18000
64	3871HA	40~47	30	37	2.4mm(m)	2.4mm(m)
65	3871KA	45~60	25	25	1.85mm(m)	1.85mm(m)
66	3871LA	40~60	30	33	1.85mm(m)	1.85mm(m)
67	3871LA-005	40~60	37	37	1.85mm(m)	1.85mm(m)
68	3871DE-1001	30MHz~18GHz	50dBm(@30MHz-1GHz) ; 47dBm(@1GHz-6GHz); 43dBm(@6GHz-18GHz)		3.5mm (m)	N (f)

Note: The number mark with * comply with RS103 electric field radiation sensitivity 200V/m field strength

● **High Power Amplifier Module (10kHz-110GHz, can be customized)**

No.	Model	Fre (GHz)	Gain (dB Min)	Output power (dBm)	RF input/output port	DC power supply (Typ.)	Remark
1	80215AA	0.5~6	40	37	3.5mm(f)	0.8A@+28V	DC power supply (24VDC~48VDC) or AC 220V (external power adapter is needed)
2	80215AB	0.5~6	43	40	3.5mm(f)	1.5A@+28V	
3	80215AC	0.5~6	45	42	3.5mm(f)	2A@+28V	
4	80215DA	2~18	40	37	3.5mm(f)	0.8A@+28V	
5	80215DD	6~18	40	37	3.5mm(f)	0.8A@+28V	
6	80215EA	18~26.5	40	37	3.5mm(f)	0.8A@+28V	
7	80215EB	18~26.5	43	40	3.5mm(f)	1.5A@+28V	
8	80215FA	26.5~40	40	37	2.4mm(f)	0.8A@+28V	
9	80215FD	18~40	40	37	2.4mm(f)	0.8A@+28V	

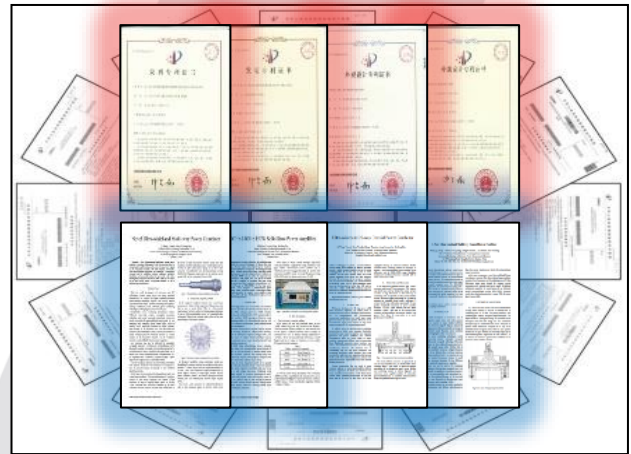
Our Capability

For solid-state power amplifier, Ceyear has 2000 square meters production line for professional assembly, debugging and automatic test. The team has strong technical innovation and abundant technical accumulation. We have made breakthroughs in the design



processing of power amplifier such as broadband space power synthesis technology, broadband impedance matching technology, adaptive power management technology, new type high-efficient heat dissipation technology, large dynamic range tiny stepping regulating technology and high precision data compensation technology. All the core technologies have complete intellectual property rights.

The Ceyear solid-state power amplifier have achieved independent design, independent production, independent assembly and independent testing. With proven processing technology, micro-assembly technology and production experiment process, Ceyear can offer mass production with high reliability.



Ceyear can also provide metrology services.



Our Products (4kHz ~ 110GHz)

The operating frequency ranges from 4 kHz to 110GHz, and the output power ranges from 0.1W to 200KW. The structure forms include module, standard desktop and large cabinet etc. Complete functions and high cost-performance are the main characteristics of Ceyear Amplifiers.





10kHz-100MHz, 3500W(left)/80MHz-1GHz, 2000W(middle)/1GHz-6GHz, 1000W(right)



6GHz-18GHz, 650W(up)/ 1GHz-2GHz, 14kW(right)



2GHz-4GHz, 15kW(left)/80MHz-1GHz, 500W ATR(middle)/ 1GHz-2GHz, 2000W(right)

Market and Application

As the important equipment in the high-power testing field, the amplifiers have been widely used in the high-power components characteristics test, electromagnetic compatibility test, 5G communication test, highly sensitive equipment transceiver test, communication and radar countermeasure simulation etc.



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