



3871 Series Solid State Power Amplifier

(9kHz~110GHz)



Ceyear Technologies Co., Ltd.

Ceyear 3871 series Power Amplifier is a broadband solid state amplifier and incorporates the patented spatial power combination technologies.. It is designed to have features of broad bandwidth, high gain, high power, wide dynamic range, low spurious signals and extremely load tolerant. These features enable the amplifier to be used as a cable test instrument covering multiple frequency bands. It is suitable for applications such as high power IC test, antenna testing, laboratory use, and electromagnetic compatibility /electromagnetic interference test, as well as narrower band applications like radar, microwave imaging, and satellite communications etc.

● Main Features

- **9 kHz to 110 GHz** frequency range.
- **Open Loop:** Gain and Output can be adjusted with a step accuracy of 0.1dB.
- **Internal stability:** With internal automatic level control circuits, the Output can be fixed and stable.
- **Remote control:** The parameter adjustment and function setting can be controlled by GPIB or LAN.
- **Display:** Display Output, reflected power, internal temperature, operating frequency.
- Standard 4U 19-inch or 5U or customized rack chassis.
- **0°C to 50°C** operating temperature.

● Main Performance

- Output display accuracy can reach $\pm 0.3\text{dB}$.
- Dynamic range of Output adjustment can reach 20dB ~ 40dB.
- Output stability can be reach $\pm 0.3\text{dB}$ at constant temperature.
- Output flatness can be reach $\pm 0.3\text{dB}$ at steady state.

● Multiple Protection

- **Input power:** 1mW - 1W (depending on the model).
- **Real-time monitoring of internal temperature:** High temperature alarm and automatic protection.
- **Real-time monitoring of reflected power:** Mismatch alarm and automatic protection.
- **Real-time monitoring of fan working status:** Fan working alarm and automatic protection.

● Special design

- The input port can be configured on the front or rear panel.
- The output port can be configured on the front or rear panel.
- Locked working status: Prevent misoperation.
- W and dBm power display at the same time.

Table 1 Standard Models

No.	Model	Frequency Band	Gain (dB)	Psat (dBm)
1	3871AD	9kHz~250MHz	54	51
2	3871AE	9kHz~250MHz	56	53
3	3871AH	80MHz~1GHz	54	51
4	3871AK	80MHz~1GHz	56	53
5	3871AA	1GHz~2.5GHz	53	50
6	3871AP	1GHz~2.5GHz	55	52
7	3871AB	1GHz~6GHz	48	45
8	3871AQ	2GHz~6GHz	53	50
9	3871AR	2GHz~6GHz	56	53
10	3871AS	500MHz~6GHz	50	47
11	3871AT	500MHz~6GHz	53	50
12	3871AU	500MHz~6GHz	56	53
13	3871DA	6GHz~18GHz	46	43
14	3871DB	6GHz~18GHz	50	47
15	3871DC	6GHz~18GHz	53	50
16	3871DD	6GHz~18GHz	56	53
17	3871DE	2GHz~18GHz	53	50
18	3871DK	2GHz~18GHz	50	47
19	3871DH	2GHz~18GHz	46	43
20	3871EA	18GHz~26.5GHz	43	40
21	3871EB	18GHz~26.5GHz	46	43
22	3871EC	18GHz~26.5GHz	53	50
23	3871FA	26GHz~32GHz	43	40
24	3871FB	32GHz~40GHz	43	40
25	3871FC	24GHz~30GHz	46	43
26	3871FN	33GHz~37GHz	45	45
27	3871FD	37GHz~43GHz	46	43
28	3871FE	26GHz~40GHz	43	40

29	3871FF	26GHz~40GHz	49	46
30	3871FG	26GHz~40GHz	53	50
31	3871FP	18GHz~40GHz	46	43
32	3871FQ	18GHz~40GHz	50	47
33	3871FR	18GHz~40GHz	53	50
34	3871FS	2GHz~40GHz	40	37
35	3871HA	40GHz~47GHz	40	37
36	3871LA	40GHz~60GHz	36	33
37	3871LB	40GHz~67GHz	30	27
38	3871LC	40GHz~67GHz	30	30
39	3871PB	75GHz~110GHz	25	22

Table 2 Customized Models

3871AB-020: 20W	Frequency: 0.5GHz~6GHz; Output: 20W; Output Port: N(f)
3871AB-040: 40W	Frequency: 0.5GHz~6GHz; Output: 40W; Output Port: N(f)
3871AS-060: 60W	Frequency: 0.5GHz~6GHz; Output: 60W; Output Port: N(f)
3871AS-080: 80W	Frequency: 0.5GHz~6GHz; Output: 80W; Output Port: N(f)
3871AT-150: 150W	Frequency: 0.5GHz~6GHz; Output: 150W; Output Port: N(f)
3871AT-200: 200W	Frequency: 0.8GHz~4.2GHz; Output: 200W; Output Port: N(f)
3871AT-250: 250W	Frequency: 0.8GHz~3.0GHz; Output: 250W; Output Port: N(f)
3871AT-300: 300W	Frequency: 2.1GHz~2.7GHz; Output: 300W; Output Port: N(f)
3871AU-250: 250W	Frequency: 0.5GHz~6.0GHz; Output: 250W; Output Port: N(f)
3871AU-300: 300W	Frequency: 0.5GHz~3.0GHz; Output: 300W; Output Port: N(f)
3871AU-350: 350W	Frequency: 0.5GHz~3.0GHz; Output: 350W; Output Port: N(f)
3871AU-400: 400W	Frequency: 0.5GHz~3.0GHz; Output: 400W; Output Port: N(f)
3871AU-450: 450W	Frequency: 0.5GHz~3.0GHz; Output: 450W; Output Port: N(f)
3871AU-3001: 300W	Frequency: 0.8GHz~4.2GHz; Output: 300W; Output Port: N(f)

3871AU-4001: 400W	Frequency: 0.8GHz~4.2GHz; Output: 400W; Output Port: N(f)
3871AU-500: 500W	Frequency: 2.1GHz~2.7GHz; Output: 500W; Output Port: N(f)
3871DA-040: 40W	Frequency: 6GHz~18GHz; Output: 40W; Output Port: N(f)
3871DB-060: 60W	Frequency: 6GHz~18GHz; Output: 60W; Output Port: N(f)
3871DB-080: 80W	Frequency: 6GHz~18GHz; Output: 80W; Output Port: N(f)
3871DC-150: 150W	Frequency: 6GHz~18GHz; Output: 150W; Output Port: N(f)
3871DH-005: 5W	Frequency: 2GHz~18GHz; Output: 5W; Output Port: N(f)
3871DH-010: 10W	Frequency: 2GHz~18GHz; Output: 10W; Output Port: N(f)
3871DK-080: 80W	Frequency: 2GHz~18GHz; Output: 80W; Output Port: N(f)
3871EB-040: 40W	Frequency: 18GHz~26.5GHz; Output: 40W; Output Port: WR42
3871EB-060: 60W	Frequency: 18GHz~26.5GHz; Output: 60W; Output Port: WR42
3871EB-080: 80W	Frequency: 18GHz~26.5GHz; Output: 80W; Output Port: WR42
3871EC-120: 120W	Frequency: 18GHz~26.5GHz; Output: 120W; Output Port: WR42
3871EC-150: 150W	Frequency: 18GHz~26.5GHz; Output: 150W; Output Port: WR42
3871EC-200: 200W	Frequency: 18GHz~26.5GHz; Output: 200W; Output Port: WR42
3871FN-050: 50W	Frequency: 33GHz~37GHz; Output: 50W; Output Port: WR28
3871FE-020: 20W	Frequency: 26GHz~40GHz; Output: 20W; Output Port: WR28
3871FF-060: 60W	Frequency: 26GHz~40GHz; Output: 60W; Output Port: WR28
3871FF-080: 80W	Frequency: 26GHz~40GHz; Output: 80W; Output Port: WR28
3871FG-150: 150W	Frequency: 26GHz~40GHz; Output: 150W; Output Port: WR28
3871FP-005: 5W	Frequency: 18GHz~40GHz; Output: 5W; Output Port: 24JS18000
3871FP-010: 10W	Frequency: 18GHz~40GHz; Output: 10W; Output Port: 24JS18000
3871FQ-060: 60W	Frequency: 18GHz~40GHz; Output: 60W; Output Port: 24JS18000
3871FQ-080: 80W	Frequency: 18GHz~40GHz; Output: 80W; Output Port: 24JS18000

3871LA-005: 5W

Frequency: 40GHz~60GHz; Output: 5W; Output Port: 1.85mm(m)

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