

## TW4702 Series Solid State Power Amplifier



Order Code **TW4702**

### Features:

- Wide frequency range, 500kHz to 110GHz
- 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

**Maxwellon TW4702** series is a **Broadband Modular State Power Amplifier** and incorporates the patented spatial power combination technology. 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. TW4702 series 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.

### Specifications

Standard Models	
TW4702AA	<ul style="list-style-type: none"> <li>• Frequency range: 500 MHz to 6 GHz</li> <li>• Gain: 40 dB</li> <li>• Past: 37 dBm</li> <li>• Input port: 3.5mm(f)</li> <li>• Output port: 3.5mm(f)</li> <li>• DC Power(Typ.): 0.8A@+28V</li> </ul>
TW4702AB	<ul style="list-style-type: none"> <li>• Frequency range: 500 MHz to 6 GHz</li> <li>• Gain: 43 dB</li> <li>• Past: 40 dBm</li> <li>• Input port: 3.5mm(f)</li> <li>• Output port: 3.5mm(f)</li> <li>• DC Power(Typ.): 1.5A@+28V</li> </ul>
TW4702AC	<ul style="list-style-type: none"> <li>• Frequency range: 500 MHz to 6 GHz</li> <li>• Gain: 45 dB</li> <li>• Past: 42 dBm</li> <li>• Input port: 3.5mm(f)</li> <li>• Output port: 3.5mm(f)</li> <li>• DC Power(Typ.): 2A@+28V</li> </ul>
TW4702AD	<ul style="list-style-type: none"> <li>• Frequency range: 500 MHz to 6 GHz</li> </ul>

	<ul style="list-style-type: none"> <li>• Gain: 46 dB</li> <li>• Past: 43 dBm</li> <li>• Input port: 3.5mm(f)</li> <li>• Output port: 3.5mm(f)</li> <li>• DC Power(Typ.): 3A@+28V</li> </ul>
TW4702DA	<ul style="list-style-type: none"> <li>• Frequency range: 2GHz to 18 GHz</li> <li>• Gain: 40 dB</li> <li>• Past: 37 dBm</li> <li>• Input port: 3.5mm(f)</li> <li>• Output port: 3.5mm(f)</li> <li>• DC Power(Typ.): 0.8A@+28V</li> </ul>
TW4702DB	<ul style="list-style-type: none"> <li>• Frequency range: 2GHz to 18 GHz</li> <li>• Gain: 43 dB</li> <li>• Past: 40 dBm</li> <li>• Input port: 3.5mm(f)</li> <li>• Output port: 3.5mm(f)</li> <li>• DC Power(Typ.): 1.5A@+28V</li> </ul>
TW4702DC	<ul style="list-style-type: none"> <li>• Frequency range: 2GHz to 18 GHz</li> <li>• Gain: 45 dB</li> <li>• Past: 42 dBm</li> <li>• Input port: 3.5mm(f)</li> <li>• Output port: 3.5mm(f)</li> <li>• DC Power(Typ.): 2A@+28V</li> </ul>
TW4702DD	<ul style="list-style-type: none"> <li>• Frequency range: 6GHz to 18 GHz</li> <li>• Gain: 40dB</li> <li>• Past: 37 dBm</li> <li>• Input port: 3.5mm(f)</li> <li>• Output port: 3.5mm(f)</li> <li>• DC Power(Typ.): 0.8A@+28V</li> </ul>
TW4702DE	<ul style="list-style-type: none"> <li>• Frequency range: 6GHz to 18 GHz</li> <li>• Gain: 43dB</li> <li>• Past: 40 dBm</li> <li>• Input port: 3.5mm(f)</li> <li>• Output port: 3.5mm(f)</li> <li>• DC Power(Typ.): 1.5A@+28V</li> </ul>
TW4702DF	<ul style="list-style-type: none"> <li>• Frequency range: 6GHz to 18 GHz</li> <li>• Gain: 45dB</li> <li>• Past: 42dBm</li> <li>• Input port: 3.5mm(f)</li> <li>• Output port: 3.5mm(f)</li> <li>• DC Power(Typ.): 2A@+28V</li> </ul>
TW4702DG	<ul style="list-style-type: none"> <li>• Frequency range: 6GHz to 18 GHz</li> <li>• Gain: 46dB</li> <li>• Past: 43dBm</li> </ul>

	<ul style="list-style-type: none"> <li>• Input port: 3.5mm(f)</li> <li>• Output port: 3.5mm(f)</li> <li>• DC Power(Typ.): 3A@+28V</li> </ul>
TW4702EA	<ul style="list-style-type: none"> <li>• Frequency range: 18GHz to 26.5 GHz</li> <li>• Gain: 40dB</li> <li>• Past: 37dBm</li> <li>• Input port: 3.5mm(f)</li> <li>• Output port: 3.5mm(f)</li> <li>• DC Power(Typ.): 0.8A@+28V</li> </ul>
TW4702EB	<ul style="list-style-type: none"> <li>• Frequency range: 18GHz to 26.5 GHz</li> <li>• Gain: 43dB</li> <li>• Past: 40dBm</li> <li>• Input port: 3.5mm(f)</li> <li>• Output port: 3.5mm(f)</li> <li>• DC Power(Typ.): 1.5A@+28V</li> </ul>
TW4702EC	<ul style="list-style-type: none"> <li>• Frequency range: 18GHz to 26.5 GHz</li> <li>• Gain: 46dB</li> <li>• Past: 43dBm</li> <li>• Input port: 3.5mm(f)</li> <li>• Output port: 3.5mm(f)</li> <li>• DC Power(Typ.): 3A@+28V</li> </ul>
TW4702FA	<ul style="list-style-type: none"> <li>• Frequency range: 26.5 GHz to 40 GHz</li> <li>• Gain: 40 dB</li> <li>• Past: 37 dBm</li> <li>• Input port: 2.4mm(f)</li> <li>• Output port: 2.4mm(f)</li> <li>• DC Power(Typ.): 0.8A@+28V</li> </ul>
TW4702FB	<ul style="list-style-type: none"> <li>• Frequency range: 26.5 GHz to 40 GHz</li> <li>• Gain: 43 dB</li> <li>• Past: 40 dBm</li> <li>• Input port: 2.4mm(f)</li> <li>• Output port: 2.4mm(f)</li> <li>• DC Power(Typ.): 1.5A@+28V</li> </ul>
TW4702FC	<ul style="list-style-type: none"> <li>• Frequency range: 26.5 GHz to 40 GHz</li> <li>• Gain: 46 dB</li> <li>• Past: 43 dBm</li> <li>• Input port: 2.4mm(f)</li> <li>• Output port: 2.4mm(f)</li> <li>• DC Power(Typ.): 3A@+28V</li> </ul>
TW4702FD	<ul style="list-style-type: none"> <li>• Frequency range: 18 GHz to 40 GHz</li> <li>• Gain: 40 dB</li> <li>• Past: 37 dBm</li> <li>• Input port: 2.4mm(f)</li> <li>• Output port: 2.4mm(f)</li> </ul>

	<ul style="list-style-type: none"> <li>• DC Power(Typ.): 0.8A@+28V</li> </ul>
TW4702FE	<ul style="list-style-type: none"> <li>• Frequency range: 18 GHz to 40 GHz</li> <li>• Gain: 43 dB</li> <li>• Past: 40 dBm</li> <li>• Input port: 2.4mm(f)</li> <li>• Output port: 2.4mm(f)</li> <li>• DC Power(Typ.): 1.5A@+28V</li> </ul>
TW4702FF	<ul style="list-style-type: none"> <li>• Frequency range: 18 GHz to 40 GHz</li> <li>• Gain: 44 dB</li> <li>• Past: 41 dBm</li> <li>• Input port: 2.4mm(f)</li> <li>• Output port: 2.4mm(f)</li> <li>• DC Power(Typ.): 2A@+28V</li> </ul>
TW4702FG	<ul style="list-style-type: none"> <li>• Frequency range: 18 GHz to 40 GHz</li> <li>• Gain: 46 dB</li> <li>• Past: 43 dBm</li> <li>• Input port: 2.4mm(f)</li> <li>• Output port: 2.4mm(f)</li> <li>• DC Power(Typ.): 3A@+28V</li> </ul>
TW4702KA	<ul style="list-style-type: none"> <li>• Frequency range: 40 GHz to 67 GHz</li> <li>• Gain: 30 dB</li> <li>• Past: 27 dBm</li> <li>• Input port: 1.85mm(f)</li> <li>• Output port: 1.85mm(f)</li> <li>• DC Power(Typ.): 0.2A@+20V</li> </ul>
TW4702KB	<ul style="list-style-type: none"> <li>• Frequency range: 40 GHz to 67 GHz</li> <li>• Gain: 33 dB</li> <li>• Past: 30 dBm</li> <li>• Input port: 1.85mm(f)</li> <li>• Output port: 1.85mm(f)</li> <li>• DC Power(Typ.): 0.5A@+20V</li> </ul>
TW4702KC	<ul style="list-style-type: none"> <li>• Frequency range: 40 GHz to 67 GHz</li> <li>• Gain: 33 dB</li> <li>• Past: 33 dBm</li> <li>• Input port: 1.85mm(f)</li> <li>• Output port: 1.85mm(f)</li> <li>• DC Power(Typ.): 1A@+20V</li> </ul>
TW4702KD	<ul style="list-style-type: none"> <li>• Frequency range: 40 GHz to 67 GHz</li> <li>• Gain: 40 dB</li> <li>• Past: 37 dBm</li> <li>• Input port: 1.85mm(f)</li> <li>• Output port: 1.85mm(f)</li> <li>• DC Power(Typ.): 1.5 A@+20V</li> </ul>
TW4702LA	<ul style="list-style-type: none"> <li>• Frequency range: 40 GHz to 60 GHz</li> </ul>

	<ul style="list-style-type: none"> <li>• Gain: 30 dB</li> <li>• Past: 27 dBm</li> <li>• Input port: WR19</li> <li>• Output port: WR19</li> <li>• DC Power(Typ.): 0.2A@+20V</li> </ul>
TW4702LB	<ul style="list-style-type: none"> <li>• Frequency range: 40 GHz to 60 GHz</li> <li>• Gain: 33 dB</li> <li>• Past: 30 dBm</li> <li>• Input port: WR19</li> <li>• Output port: WR19</li> <li>• DC Power(Typ.): 0.5A@+20V</li> </ul>
TW4702LC	<ul style="list-style-type: none"> <li>• Frequency range: 40 GHz to 60 GHz</li> <li>• Gain: 36 dB</li> <li>• Past: 33 dBm</li> <li>• Input port: WR19</li> <li>• Output port: WR19</li> <li>• DC Power(Typ.): 1A@+20V</li> </ul>
TW4702LD	<ul style="list-style-type: none"> <li>• Frequency range: 40 GHz to 60 GHz</li> <li>• Gain: 40 dB</li> <li>• Past: 37 dBm</li> <li>• Input port: WR19</li> <li>• Output port: WR19</li> <li>• DC Power(Typ.): 1.5A@+20V</li> </ul>
TW4702NA	<ul style="list-style-type: none"> <li>• Frequency range: 50 GHz to 75 GHz</li> <li>• Gain: 30 dB</li> <li>• Past: 27 dBm</li> <li>• Input port: WR15</li> <li>• Output port: WR15</li> <li>• DC Power(Typ.): 0.2A@+20V</li> </ul>
TW4702NB	<ul style="list-style-type: none"> <li>• Frequency range: 50 GHz to 75 GHz</li> <li>• Gain: 33 dB</li> <li>• Past: 30 dBm</li> <li>• Input port: WR15</li> <li>• Output port: WR15</li> <li>• DC Power(Typ.): 0.5A@+20V</li> </ul>
TW4702NC	<ul style="list-style-type: none"> <li>• Frequency range: 50 GHz to 75 GHz</li> <li>• Gain: 36 dB</li> <li>• Past: 33 dBm</li> <li>• Input port: WR15</li> <li>• Output port: WR15</li> <li>• DC Power(Typ.): 1A@+20V</li> </ul>
TW4702ND	<ul style="list-style-type: none"> <li>• Frequency range: 50 GHz to 75 GHz</li> <li>• Gain: 40 dB</li> <li>• Past: 37 dBm</li> </ul>

	<ul style="list-style-type: none"> <li>• Input port: WR15</li> <li>• Output port: WR15</li> <li>• DC Power(Typ.): 1.5A@+20V</li> </ul>
TW4702NE	<ul style="list-style-type: none"> <li>• Frequency range: 60 GHz to 90 GHz</li> <li>• Gain: 33 dB</li> <li>• Past: 30 dBm</li> <li>• Input port: WR12</li> <li>• Output port: WR12</li> <li>• DC Power(Typ.): 0.2A@+20V</li> </ul>
TW4702NF	<ul style="list-style-type: none"> <li>• Frequency range: 60 GHz to 90 GHz</li> <li>• Gain: 33 dB</li> <li>• Past: 30 dBm</li> <li>• Input port: WR12</li> <li>• Output port: WR12</li> <li>• DC Power(Typ.): 0.5A@+20V</li> </ul>
TW4702NG	<ul style="list-style-type: none"> <li>• Frequency range: 60 GHz to 90 GHz</li> <li>• Gain: 36 dB</li> <li>• Past: 33 dBm</li> <li>• Input port: WR12</li> <li>• Output port: WR12</li> <li>• DC Power(Typ.): 1A@+20V</li> </ul>
TW4702NH	<ul style="list-style-type: none"> <li>• Frequency range: 60 GHz to 90 GHz</li> <li>• Gain: 40 dB</li> <li>• Past: 37 dBm</li> <li>• Input port: WR12</li> <li>• Output port: WR12</li> <li>• DC Power(Typ.): 1.5A@+20V</li> </ul>
TW4702PA	<ul style="list-style-type: none"> <li>• Frequency range: 75 GHz to 110 GHz</li> <li>• Gain: 30 dB</li> <li>• Past: 27 dBm</li> <li>• Input port: WR10</li> <li>• Output port: WR10</li> <li>• DC Power(Typ.): 0.2A@+20V</li> </ul>
TW4702PB	<ul style="list-style-type: none"> <li>• Frequency range: 75 GHz to 110 GHz</li> <li>• Gain: 33 dB</li> <li>• Past: 30 dBm</li> <li>• Input port: WR10</li> <li>• Output port: WR10</li> <li>• DC Power(Typ.): 0.5A@+20V</li> </ul>
TW4702PC	<ul style="list-style-type: none"> <li>• Frequency range: 75 GHz to 110 GHz</li> <li>• Gain: 36 dB</li> <li>• Past: 33 dBm</li> <li>• Input port: WR10</li> <li>• Output port: WR10</li> </ul>

	<ul style="list-style-type: none"> <li>• DC Power(Typ.): 1A@+20V</li> </ul>
TW4702PD	<ul style="list-style-type: none"> <li>• Frequency range: 75 GHz to 110 GHz</li> <li>• Gain: 40 dB</li> <li>• Past: 37 dBm</li> <li>• Input port: WR10</li> <li>• Output port: WR10</li> <li>• DC Power(Typ.): 1.5A@+20V</li> </ul>

### Ordering Information

Part No.	Name	Frequency Range
TW4702AA	Broadband Modular State Power Amplifier	Frequency range: 500 MHz to 6 GHz
TW4702AB	Broadband Modular State Power Amplifier	Frequency range: 500 MHz to 6 GHz
TW4702AC	Broadband Modular State Power Amplifier	Frequency range: 500 MHz to 6 GHz
TW4702AD	Broadband Modular State Power Amplifier	Frequency range: 500 MHz to 6 GHz
TW4702DA	Broadband Modular State Power Amplifier	Frequency range: 2GHz to 18 GHz
TW4702DB	Broadband Modular State Power Amplifier	Frequency range: 2GHz to 18 GHz
TW4702DC	Broadband Modular State Power Amplifier	Frequency range: 2GHz to 18 GHz
TW4702DD	Broadband Modular State Power Amplifier	Frequency range: 6GHz to 18 GHz
TW4702DE	Broadband Modular State Power Amplifier	Frequency range: 6GHz to 18 GHz
TW4702DF	Broadband Modular State Power Amplifier	Frequency range: 6GHz to 18 GHz
TW4702DG	Broadband Modular State Power Amplifier	Frequency range: 6GHz to 18 GHz
TW4702EA	Broadband Modular State Power Amplifier	Frequency range: 18GHz to 26.5 GHz
TW4702EB	Broadband Modular State Power Amplifier	Frequency range: 18GHz to 26.5 GHz
TW4702EC	Broadband Modular State Power Amplifier	Frequency range: 18GHz to 26.5 GHz
TW4702FA	Broadband Modular State Power Amplifier	Frequency range: 26.5 GHz to 40 GHz
TW4702FB	Broadband Modular State Power Amplifier	Frequency range: 26.5 GHz to 40 GHz
TW4702FC	Broadband Modular State Power Amplifier	Frequency range: 26.5 GHz to 40 GHz
TW4702FD	Broadband Modular State Power Amplifier	Frequency range: 18 GHz to 40 GHz
TW4702FE	Broadband Modular State Power Amplifier	Frequency range: 18 GHz to 40 GHz
TW4702FF	Broadband Modular State Power Amplifier	Frequency range: 18 GHz to 40 GHz
TW4702FG	Broadband Modular State Power Amplifier	Frequency range: 18 GHz to 40 GHz
TW4702KA	Broadband Modular State Power Amplifier	Frequency range: 40 GHz to 67 GHz
TW4702KB	Broadband Modular State Power Amplifier	Frequency range: 40 GHz to 67 GHz
TW4702KC	Broadband Modular State Power Amplifier	Frequency range: 40 GHz to 67 GHz
TW4702KD	Broadband Modular State Power Amplifier	Frequency range: 40 GHz to 67 GHz
TW4702LA	Broadband Modular State Power Amplifier	Frequency range: 40 GHz to 60 GHz
TW4702LB	Broadband Modular State Power Amplifier	Frequency range: 40 GHz to 60 GHz
TW4702LC	Broadband Modular State Power Amplifier	Frequency range: 40 GHz to 60 GHz
TW4702LD	Broadband Modular State Power Amplifier	Frequency range: 40 GHz to 60 GHz
TW4702NA	Broadband Modular State Power Amplifier	Frequency range: 50 GHz to 75 GHz
TW4702NB	Broadband Modular State Power Amplifier	Frequency range: 50 GHz to 75 GHz
TW4702NC	Broadband Modular State Power Amplifier	Frequency range: 50 GHz to 75 GHz
TW4702ND	Broadband Modular State Power Amplifier	Frequency range: 50 GHz to 75 GHz

TW4702NE	Broadband Modular State Power Amplifier	Frequency range: 60 GHz to 90 GHz
TW4702NF	Broadband Modular State Power Amplifier	Frequency range: 60 GHz to 90 GHz
TW4702NG	Broadband Modular State Power Amplifier	Frequency range: 60 GHz to 90 GHz
TW4702NH	Broadband Modular State Power Amplifier	Frequency range: 60 GHz to 90 GHz
TW4702PA	Broadband Modular State Power Amplifier	Frequency range: 75 GHz to 110 GHz
TW4702PB	Broadband Modular State Power Amplifier	Frequency range: 75 GHz to 110 GHz
TW4702PC	Broadband Modular State Power Amplifier	Frequency range: 75 GHz to 110 GHz
TW4702PD	Broadband Modular State Power Amplifier	Frequency range: 75 GHz to 110 GHz

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