# AW-PA-30W-S

Unidirectional GaN Power Amplifier

The **AW-PA-30W-S** series is a 30 W unidirectional GaN power amplifier module for enhancing drone / FPV data and video links. It delivers **40 dB** typical gain across a chosen narrow band from **200 MHz to 5.85 GHz**, in a compact brushed-aluminium housing with a simple DC supply and SMA connectors. Each orderable part number (**AW-PA-<$f_{low}$>-<$f_{high}$>-30-S**) is listed below — select the frequency option that matches your link.

## Features

- High output power: 30 W (45 dBm)
- 40 ± 1 dB typical gain
- Unidirectional design for transmit-path link enhancement
- GaN technology — high efficiency, rugged
- SMA female connectors, 50 Ω
- Simple DC supply with 15 cm red/black power lead
- Compact brushed-aluminium module

## Applications

FPV / UAV / drone data & video link enhancement; long-range transmission; signal boosting for narrowband links.

## Electrical & Mechanical Specifications

| Parameter | Unit | Specification |
|---|---|---|
| Output Power (P1dB) | | 30 W (45 dBm) |
| Gain (S21) | dB | 40 ± 1 |
| Impedance | Ω | 50 |
| RF Connector | | SMA female |
| DC Supply | V | 24 V |
| Supply Current | A | ≤ 2.8 A |
| Power Lead | | 15 cm red / black wire |
| Housing | | Brushed aluminium |

## Model Selection — Frequency Options

| Model | Frequency | Output Power | Size (mm) | Weight |
|---|---|---|---|---|
| **AW-PA-200-300-30-S** | 200 – 300 MHz | 30 W | 96 × 53 × 17 | 0.15 kg |
| **AW-PA-300-400-30-S** | 300 – 400 MHz | 30 W | 96 × 53 × 17 | 0.15 kg |
| **AW-PA-400-500-30-S** | 400 – 500 MHz | 30 W | 96 × 53 × 17 | 0.15 kg |
| **AW-PA-500-600-30-S** | 500 – 600 MHz | 30 W | 96 × 53 × 17 | 0.15 kg |
| **AW-PA-600-700-30-S** | 600 – 700 MHz | 30 W | 96 × 53 × 17 | 0.15 kg |
| **AW-PA-700-830-30-S** | 700 – 830 MHz | 30 W | 96 × 53 × 17 | 0.15 kg |
| **AW-PA-830-960-30-S** | 830 – 960 MHz | 30 W | 96 × 53 × 17 | 0.15 kg |
| **AW-PA-960-1100-30-S** | 960 – 1100 MHz | 30 W | 96 × 53 × 17 | 0.15 kg |
| **AW-PA-1160-1280-30-S** | 1160 – 1280 MHz | 30 W | 96 × 53 × 17 | 0.15 kg |

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| Model | Frequency | Output Power | Size (mm) | Weight |
|---|---|---|---|---|
| **AW-PA-1220-1420-30-S** | 1220 – 1420 MHz | 30 W | 96 × 53 × 17 | 0.15 kg |
| **AW-PA-1450-1550-30-S** | 1450 – 1550 MHz | 30 W | 96 × 53 × 17 | 0.15 kg |
| **AW-PA-1550-1620-30-S** | 1550 – 1620 MHz | 30 W | 96 × 53 × 17 | 0.15 kg |
| **AW-PA-1650-1760-30-S** | 1650 – 1760 MHz | 30 W | 96 × 53 × 17 | 0.15 kg |
| **AW-PA-2200-2400-30-S** | 2.2 – 2.4 GHz | 30 W | 96 × 53 × 17 | 0.15 kg |
| **AW-PA-2400-2485-30-S** | 2.4 – 2.485 GHz | 30 W | 96 × 53 × 17 | 0.15 kg |
| **AW-PA-3400-3600-30-S** | 3.4 – 3.6 GHz | 30 W | 96 × 53 × 17 | 0.15 kg |
| **AW-PA-4900-5050-30-S** | 4.9 – 5.05 GHz | 30 W | 132 × 53 × 17 | 0.21 kg |
| **AW-PA-5150-5350-30-S** | 5.15 – 5.35 GHz | 30 W | 132 × 53 × 17 | 0.21 kg |
| **AW-PA-5725-5850-30-S** | 5.725 – 5.85 GHz | 30 W | 132 × 53 × 17 | 0.21 kg |

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