

The **AW-PA-50W-S** series is a 50 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- $\langle f_{\text{low}} \rangle$ - $\langle f_{\text{high}} \rangle$ -50-S**) is listed below — select the frequency option that matches your link.

Features

- High output power: 50 W (47 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)		50 W (47 dBm)
Gain (S21)	dB	40 ± 1
Impedance	Ω	50
RF Connector		SMA female
DC Supply	V	28 V
Supply Current	A	≤ 3.6 A
Power Lead		15 cm red / black wire
Housing		Brushed aluminium

Model Selection — Frequency Options

Model	Frequency	Output Power	Size (mm)	Weight
AW-PA-200-300-50-S	200 – 300 MHz	50 W	96 × 53 × 17	0.15 kg
AW-PA-300-400-50-S	300 – 400 MHz	50 W	96 × 53 × 17	0.15 kg
AW-PA-400-500-50-S	400 – 500 MHz	50 W	96 × 53 × 17	0.15 kg
AW-PA-500-600-50-S	500 – 600 MHz	50 W	96 × 53 × 17	0.15 kg
AW-PA-600-700-50-S	600 – 700 MHz	50 W	96 × 53 × 17	0.15 kg
AW-PA-700-830-50-S	700 – 830 MHz	50 W	96 × 53 × 17	0.15 kg
AW-PA-830-960-50-S	830 – 960 MHz	50 W	96 × 53 × 17	0.15 kg
AW-PA-960-1100-50-S	960 – 1100 MHz	50 W	96 × 53 × 17	0.15 kg
AW-PA-1160-1280-50-S	1160 – 1280 MHz	50 W	96 × 53 × 17	0.15 kg

Model	Frequency	Output Power	Size (mm)	Weight
AW-PA-1220-1420-50-S	1220 – 1420 MHz	50 W	96 × 53 × 17	0.15 kg
AW-PA-1450-1550-50-S	1450 – 1550 MHz	50 W	96 × 53 × 17	0.15 kg
AW-PA-1550-1620-50-S	1550 – 1620 MHz	50 W	96 × 53 × 17	0.15 kg
AW-PA-1650-1760-50-S	1650 – 1760 MHz	50 W	96 × 53 × 17	0.15 kg
AW-PA-2200-2400-50-S	2.2 – 2.4 GHz	50 W	96 × 53 × 17	0.15 kg
AW-PA-2400-2485-50-S	2.4 – 2.485 GHz	50 W	96 × 53 × 17	0.15 kg
AW-PA-3400-3600-50-S	3.4 – 3.6 GHz	50 W	96 × 53 × 17	0.15 kg
AW-PA-4900-5050-50-S	4.9 – 5.05 GHz	50 W	132 × 53 × 17	0.21 kg
AW-PA-5150-5350-50-S	5.15 – 5.35 GHz	50 W	132 × 53 × 17	0.21 kg
AW-PA-5725-5850-50-S	5.725 – 5.85 GHz	50 W	132 × 53 × 17	0.21 kg