1.8–3 GHz Four-Input Amplifier and Combiner

The original block diagram shows IN1–IN4 feeding amplified branches that join one OUT over 1800–3000 MHz. The table gives 30 dB typical gain and 5 dBm typical saturated output. It provides no noise figure, input isolation or amplitude/phase balance, so low-noise performance and combining improvements are not asserted.



Typical supply is 5 V at 350 mA, with feed-through DC and a separate ground sheet. The table specifies an 80 × 60 × 14 mm body and SMA-K female ports. Supply 7 V and input 12 dBm are absolute maxima. Confirm simultaneous-input test conditions and final connector placement before integration.

Electrical specifications

Parameter	Value	Unit
Operating frequency	1800–3000	MHz
Gain	30 (Typical)	dB
Saturated output power (Psat) [1]	5 (Typical)	dBm
Input S11 (signed source value) [2]	−10 (Typical)	dB
Supply voltage	5 (Typical)	VDC
Dynamic current	350 (Typical)	mA

[1] Saturated output (Psat), not P1dB or guaranteed linear output.

[2] Negative S11 convention retained from source; not recast as positive return loss.

Absolute maximum ratings

Parameter	Value	Unit
Absolute maximum supply voltage	≤7 (Absolute maximum rating; continuous operation or performance at this limit is not established. Maximum: 7 VDC.)	VDC
Absolute maximum input power	≤12 (Absolute maximum rating; continuous operation or performance at this limit is not established. Maximum: 12 dBm.)	dBm
Operating temperature	−40–+70	°C
Storage temperature	−40–+85	°C

Interfaces and contacts

Interface	Specification
Number of RF inputs	4
Number of combined RF outputs	1

Interfaces and contacts

Interface	Specification
Amplification and combining paths	Four amplified inputs combine into one output (The source does not define per-path versus simultaneous-input test conditions, input isolation or amplitude/phase balance; no guaranteed combining improvement is derived.)
RF input connector	SMA-K female
RF output connector	SMA-K female
DC supply interface	Feed-through capacitor
Ground interface	Grounding metal sheet

Mechanical specifications

Parameter	Value	Unit
Body dimensions	80 × 60 × 14	mm
Mounting-hole center spacing	55.6 × 75.6	mm
Mounting holes	4 × Φ2.7T (Original marking 4×Φ2.7T is retained. The source does not expand T; a through-hole interpretation is not confirmed.)	mm

Document notice

Specifications are subject to revision. Before design release, confirm the current document revision and product-specific requirements with LCRF. The approved quotation and order documentation define the supplied configuration.