300–1100 MHz Four-Input Amplifier and Combiner



Over 300–1100 MHz, four amplified inputs IN1–IN4 join a common OUT in the original functional diagram. Gain is 30 dB typical and saturated output is 5 dBm typical. A noise-figure specification is absent. The diagram establishes the signal paths without proving input isolation, amplitude/phase balance or additional combining gain.

SMA-K female interfaces and separate feed-through DC/ground connections serve the 80 × 60 × 14 mm body. Typical supply and current are 5 V and 350 mA. Absolute limits are 7 V supply and 12 dBm input. Operation is −40 to +70 °C; storage is −40 to +85 °C.

Electrical specifications

Parameter	Value	Unit
Operating frequency	300–1100	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.