

Key Features

- 2.11 ~ 2.17 GHz, 50 Ohm Impedance
- 42 dBm P_{sat}
- 41.5 dB Gain
- 1.22:1 VSWR
- 2.0 dB Noise Figure
- 40% Power Added Efficiency
- Unconditional Stable
- Infinite Load VSWR Protection
- Single DC Power Supply
- Precision Machined Housing
- RoHS Compliant

Applications

- WCDMA
- Mobile Infrastructures
- Fix Wireless Communication

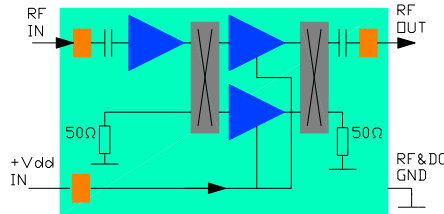
Additional heat sink is required for continuous operation!



Absolute Maximum Ratings

DC Power Supply Voltage	30 V
Drain Current, CW	2 A
Total Power Dissipation	56 W
RF Input Power, CW	30 dBm
Operating Temperature	-20 ~ +85 °C
Storage Temperature	-40 ~ +85 °C

Functional Block Diagram



Ordering Information

Model	Connectors
WPA21-41A	SMA Female

Marking: WPA21-41A

Specifications (Tested at +21°C)

Item	Symbol	Test Constraints	Min	Nom	Max	Unit
Frequency Range	BW	50 Ohm Impedance	2110		2170	MHz
Small Signal Gain	S ₂₁	2110 – 2170 MHz	40.0	41.5	43.0	dB
Input VSWR	SWR ₁	2110 – 2170 MHz		1.22:1	1.5:1	Ratio
Output VSWR	SWR ₂	2110 – 2170 MHz		1.22:1	1.5:1	Ratio
Gain Flatness	ΔG	2110 – 2170 MHz		+/- 0.5	+/- 1.0	dB
Reverse Isolation	S ₁₂	2110 – 2170 MHz		60		dB
Noise Figure	NF	2110 – 2170 MHz		2.0		dB
Output Saturated Power	P _{sat}	2110 – 2170 MHz	41.5	42.5		dBm
DC Power Added Efficiency	η	P _o = 16W	38	41		%
Current Consumption	I _{dd}	V _{dd} = +28 V, 0.315 A quiescent DC bias			2.0	A
Power Supply Operating Voltage	V _{dd}		+26		+30	V
Operating Temperature	T _o	Base plate	-20		+70	°C
Thermal Resistance	R _{th,c}	Junction to case			1.3	°C/W
Maximum CW RF Input Power	P _{IN, MAX}	DC – 6 GHz			30	dBm

Typical Performance

