

30W 50Ω 0.1 to 200 MHz


Description

The KSA30WB1200 High Power Amplifier that operates from 100 kHz to 200 MHz at a saturated output power of 30W. This class A amplifier is designed for a 50 ohm input/output impedance and offers high efficiency, operating over a wide dynamic range with an impressive gain of 43dB. Extensive safety features to prevent amplifier damage include over-temperature protection and the ability to handle short and open loads.

Applications

High power output across broad frequency range supports a wide array of applications, from EMC/EMI, broadcasting, medical, and high-power lab testing to marine band, public safety, and aircraft communications.

Electrical Specifications (at 25°C):

Parameters	Frequency (MHz)	Min	Typical	Max	Units
Frequency Range		0.1		200	MHz
Gain	0.1 - 200	40	43	-	dB
Gain Flatness			-/+1.36	-/+1.6	dB
Output Power @ 1dB compression	0.1 100 200	40 40 40	42 42 41.5	- - -	dBm
Saturated Output Power @ 3dBm compression (Power Input = 8dBm)	0.1 100 200	42 44 44	44 45 45	- - -	dBm
Noise Figure	10 - 200	-	8.9	10	dB
Output Third Order Intercept Point (OIP3) (2 tone, 0.5W/tone, 1MHz spacing)	0.1 - 200	-	+52	-	dBm
Input VSWR	0.1 – 200	-	1.4	2.0	:1
Output VSWR	0.1 - 200	-	4.0	-	:1
Isolation	0.1 – 50 50 - 200	-	60 70	-	dB
AC Supply Voltage @ 60Hz		-	120		V
Supply Current @ 60Hz		-	1.2		A

Environmental Parameters:

Operating Temperature	-10°C to 50°C
Storage Temperature	-30°C to 100°C
Input RF Power (no damage)	20 dBm
Thermal Shock	-55° to 100°C, 5 cycles

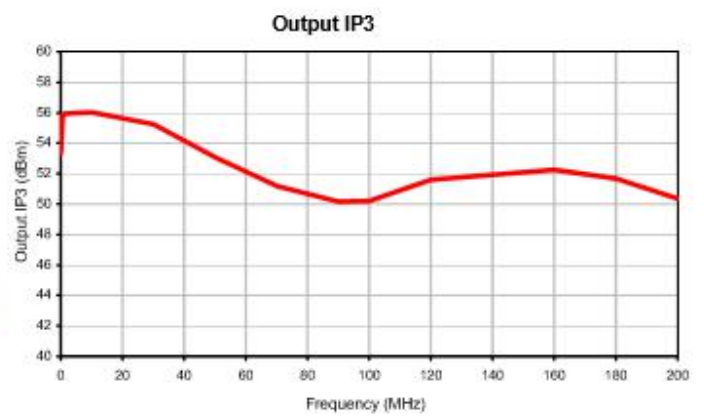
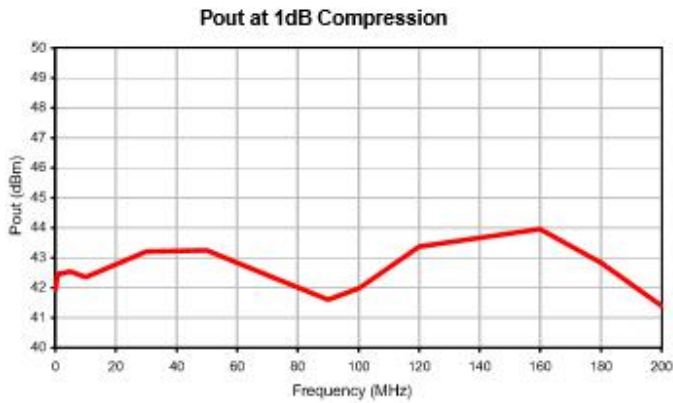
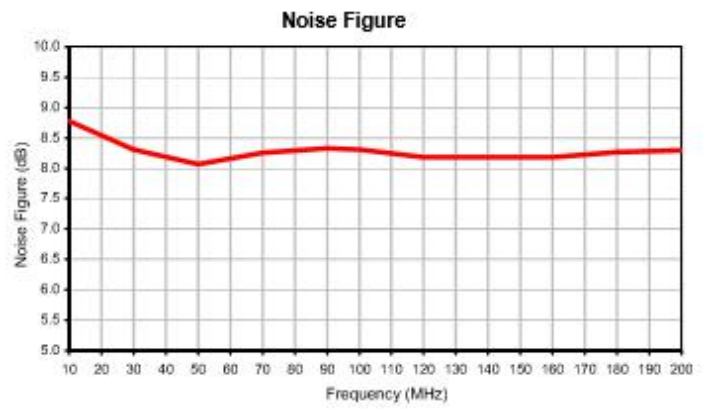
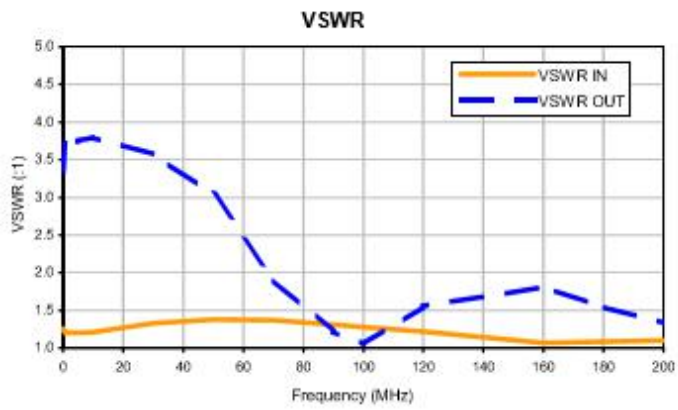
Mechanical:

Overall Length (not including RF connectors):	300mm
Overall Width:	200mm
Overall Height:	96mm
Weight:	2.35kg or 5.18lbs

Enclosure body: Aluminum (Gray)
Input Connector: N-type
Output Connector: N-type
LED Power Indicator (Red)

Performance Plots

FREQ. (MHz)	GAIN (dB)	DIRECTIVITY (dB)	VSWR (:1)		NOISE FIGURE (dB)	POUT @ 1 dB COMPRESSION (dBm)	OUTPUT IP3 (dBm)
			IN	OUT			
0.1	45.61	22.22	1.26	3.36	--	41.93	53.37
0.7	45.30	21.72	1.20	3.72	--	42.38	55.84
1.0	45.34	21.74	1.21	3.72	--	42.45	55.89
2.0	45.28	22.68	1.20	3.71	--	42.47	55.96
5.0	45.06	25.54	1.20	3.75	--	42.55	56.00
10.0	44.81	23.79	1.21	3.80	8.78	42.36	56.03
30.0	44.37	24.74	1.33	3.58	8.31	43.21	55.23
50.0	43.78	25.79	1.38	3.05	8.07	43.25	53.09
70.0	44.40	24.81	1.37	1.91	8.26	42.41	51.20
90.0	44.59	24.14	1.31	1.22	8.33	41.60	50.17
100.0	44.73	24.08	1.28	1.05	8.31	41.98	50.22
120.0	44.36	25.25	1.22	1.56	8.18	43.38	51.61
160.0	44.20	26.43	1.07	1.81	8.18	43.96	52.27
180.0	44.32	26.07	1.08	1.55	8.27	42.83	51.66
200.0	43.86	28.10	1.10	1.33	8.30	41.39	50.36



Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.

All components in this product are fully compliant with:

