R&S®BBA130 broadband amplifier

The amplifier you can tune

The perfect choice for

- EMC immunity
- Device/product validation tests
- Quality assurance
- Production testing

Key specifications	
Frequency ranges	80 MHz to 1.0 GHz 0.69 GHz to 3.2 GHz 2.5 GHz to 6.0 GHz
Nominal output power 80 MHz to 1.0 GHz 0.69 GHz to 3.2 GHz 2.5 GHz to 6.0 GHz	 100 W to 4200 W 45 W to 1200 W 22 W to 280 W
Nominal output load	50 Ω
Gain flatness	±3.8 dB (or better; see data sheet)
Gain adjustment range	> 15 dB
Bias	Class A through Class AB, continuous
Max. RF input level	max. +15 dBm

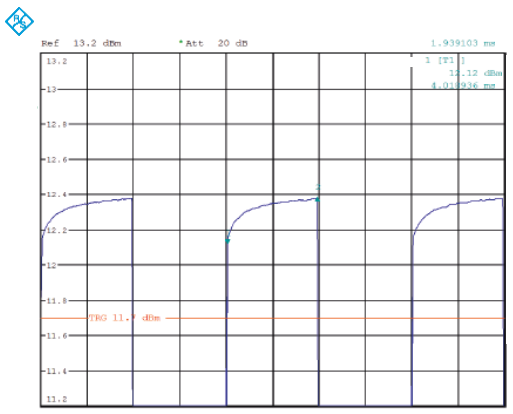
Optimally tune to your specific application

The R&S®BBA130 broadband amplifier is air-cooled and offers a variety of settings so you can optimally tune the output signal to your specific application. During operation, you can adjust the operating class for transistors between Class A and Class AB as well as choose between maximum output power or higher mismatch tolerance at the output.

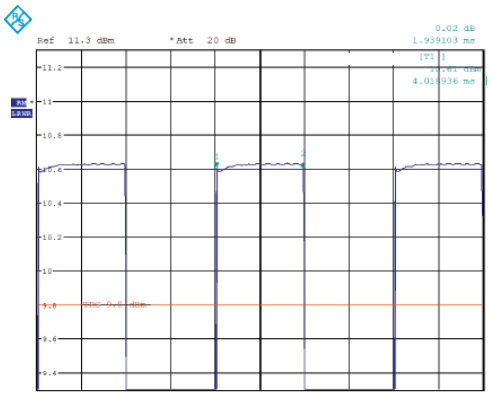
Your benefit	Features
An amplifier for every application	▮ User-optimized tuning ▮ Adjustable bias point ▮ Maximum output power versus higher mismatch tolerance
Flexible control and operation	▮ Manual operation ▮ Local and remote operation via web browser and PC ▮ Remote control via Ethernet, GPIB or optical LAN ▮ Two different interlocks
Developed with experience and competence	▮ Outstanding expertise in amplifier development founded on decades of experience ▮ State-of-the-art RF design ▮ Series production in one of Europe's most advanced plants

▷ For more information, visit
www.rohde-schwarz.com/catalog/bba130

Pulsed signal with Class A operation

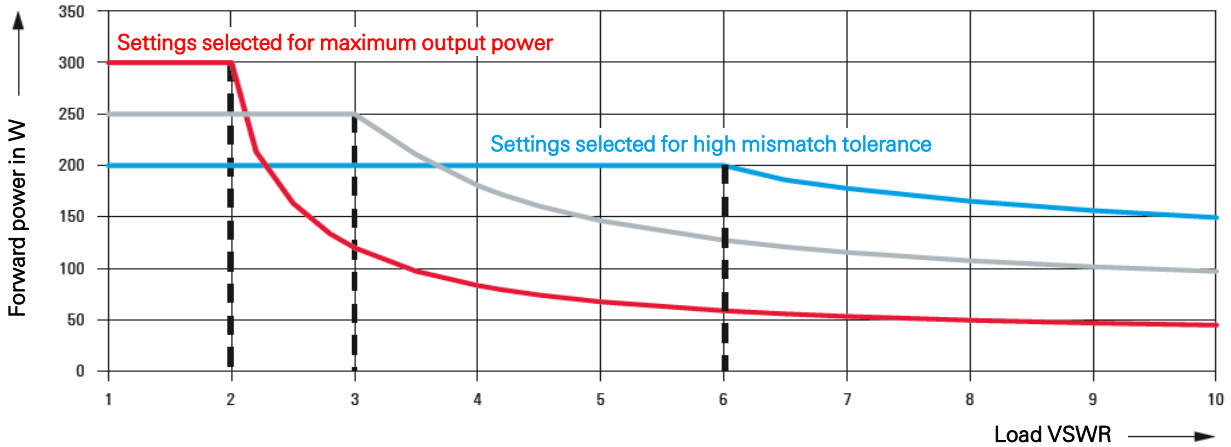


Pulsed signal with Class AB operation



The R&S®BBA130 allows you to set the transistor bias to Class A, Class AB, or anywhere in between while the amplifier is in operation. To generate a clean CW signal, operate the R&S®BBA130 in Class A. Setting a bias point in Class A provides excellent linearity with good harmonic performance. To accurately amplify pulsed signals, select a bias point in Class AB (refer to "Class AB operation" above). Setting a bias point in Class AB permits accurate reproduction of pulsed signals as well as improved efficiency.

Maximum output power versus mismatch tolerance



Amplifiers are used for a number of different applications. Impedance matching at the amplifier output is typically good during design and validation tests but not well suited to EMC or scientific applications. The R&S BBA130 allows you to choose between delivering high maximum output power when there is a good impedance match (see red trace above with power reduction starting for VSWR > 2:1) or robustness against mismatch with lower output power (see blue trace above with power reduction starting for VSWR > 6:1).

Popular models (4 HU, air-cooled)

Single-band power amplifiers	Type
750 W, 80 MHz to 1.0 GHz	BBA130-BC750
300 W, 0.69 GHz to 3.2 GHz	BBA130-D300
280 W, 2.5 GHz to 6.0 GHz	BBA130-E280
Twin-band power amplifiers	
350 W/350 W, 80 MHz to 1.0 GHz	BBA130-BC350BC350
160 W/160 W, 0.69 GHz to 3.2 GHz	BBA130-D160D160
150 W/150 W, 2.5 GHz to 6.0 GHz	BBA130-E150E150
Dual-band power amplifiers	
350 W/160 W, 80 MHz to 1.0 GHz/ 0.69 GHz to 3.2 GHz	BBA130-BC350D160
160 W/150 W, 0.69 GHz to 3.2 GHz/ 2.5 GHz to 6.0 GHz	BBA130-D160E150

Popular options

Option	Type
GPIB remote control, external converter	R&S®BBA-B101
RF input switch (1:2 or 2:1, N)	R&S®BBA-B110
RF input switch (1:6, N)	R&S®BBA-B116
RF output switch (2:1 or 1:2, N)	R&S®BBA-B120
RF output switch (2:2, 7/16)	R&S®BBA-B121
RF output switch (2:2, 7/8" EIA)	R&S®BBA-B122
RF output switch (2:2, 1 5/8" EIA)	R&S®BBA-B123
RF output switch (6:1, N)	R&S®BBA-B126
Fast amplifier mute	R&S®BBA-B130
DC block input protection (N)	R&S®BBA-B132
RF sample ports (N front)	R&S®BBA-B140
RF sample ports (N rear)	R&S®BBA-B140
Detected sample ports (N front)	R&S®BBA-B141
Detected sample ports (N rear)	R&S®BBA-B141
Sample port switch (dual-port, N front)	R&S®BBA-B142
Sample port switch (dual-port, N rear)	R&S®BBA-B142
Transparent I/O	R&S®BBA-B160

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