

Atlantic Microwave Multi-Octave Battery Powered Amplifier

BOX Series

The BOX Series is a self-contained, battery powered, versatile, small signal, low noise amplifier having a multi-octave bandwidth from 1 to 20GHz. The MIC design utilises GaAs PHEMT distributed amplifier MMIC technology, together with proprietary matching circuits within a robust die-cast aluminium alloy housing which also contains a rechargeable NiMH battery. A battery charger is supplied with each unit. The amplifier is fitted with type N connectors, female input and female output as standard. The main applications include EMC testing, remote antenna site testing, portable communications, satcoms, countermeasures and radar equipment.

- Battery Powered
- Ultra Broad Band 1GHz - 20GHz
- High Gain 25dB typ.
- Flat Response
- Low Noise
- Low Cost
- High Versatility
- UK Manufacture



Operating frequency range



High Versatility



Flat Response



Self Contained



Low Cost

General Electrical Specifications		
Frequency Range	1.0-20.0GHz	
Operating Temperature Range:		
Model BOX-010200	0 +50C Ambient Conditions	
RF Connector	Type N, Stainless Steel	
Connectors:	Standard Optional	Female Input, Female Output Type N Male or Female
Housing	Die-cast Aluminium Alloy	
Finish	Matt Black	
Dimensions	175 x 80 x 60 mm	
Tripod Mounting Point	1/4" UNC Threaded Hole in Base	

Note 1: The specification is subject to regular reviews and will be updated from time to time as part of our continuing product development and improved spec accuracy.

Note 2: Operation beyond the quoted limits stated above may cause instantaneous and permanent damage.

Parameter		Typ.	Min.	Max.
Small Signal Gain	@ +25C	25dB	21dB	
Gain Variation	over any 50MHz	0.15dB		
	over any 500MHz	0.50dB		
	over 1-20GHz			+/-2.5dB
Noise Figure	@ +25C	3.0dB @ 5GHz		
		5.0dB @ 15GHz		
Output Power	1dB GCP @ +25C	+11dBm @ 1GHz	+8dBm @ 1GHz	
		+14dBm @ 5GHz	+11dBm @ 5GHz	
		+14dBm @ 10GHz	+11dBm @ 10GHz	
		+13dBm @ 15GHz	+10dBm @ 15GHz	
		+12dBm @ 20GHz	+9dBm @ 20GHz	
		Saturated @ +25C	+12dBm @ 1GHz	
		+15dBm @ 5GHz		
		+15dBm @ 10GHz		
		+14dBm @ 15GHz		
		+13dBm @ 20GHz		
Third order Intercept	@ +25C	+28dBm @ 1GHz		
		+20dBm @ 5GHz		
Input VSWR		2.0:1		2.5:1
Output VSWR		2.5:1		3.0:1
Supply to Charger		Frequency 50/60Hz	80V	230V
Battery Run Time		24 hours		
Battery Standby Time		28 days		

