

# USMC10180 Low Noise Broadband Amplifier

100 MHz – 18 GHz



- **MULTIPLE APPLICATIONS**

Electromagnetic Compatibility (EMC) testing  
Instrumentation  
Antenna field measurements  
Communication systems

- **BROADBAND PERFORMANCE**

24 or 48 dB of flat gain from 100 MHz to 18 GHz

- **OPTIONAL BUILT-IN BATTERY**

Internal battery for field operation and zero electrical noise or power cables

- **READY FOR THE TOUGHEST ENVIRONMENT**

Wide operating temperature range. IP65 compliant

The USMC10180 low noise broadband amplifiers by US Microwave Laboratories offer exceptional performance at a very competitive price. Covering the bandwidth between 100 MHz and 18 GHz, they provide 24 or 48 dB of flat gain, very low noise figure, and an optional built-in battery and smart charger.

These amplifiers are ideal for Electromagnetic Compatibility (EMC) testing and certification. The low noise figure and high gain of the USMC10180 permit the visualization of signals that would otherwise appear below the noise floor in a radiated emissions test.

Designed and manufactured in the U.S.A., the USMC10180 conforms to the European RoHS requirements and is ECCN EAR99.



**RF & microwave components and equipment**

**All our products are designed and manufactured in the U.S.A.**



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Specifications subject to change without notice

## Electrical specifications (valid over the entire temperature range)

	USMC0125L (24 dB gain)			USMC0125H (48 dB gain)			UNIT
	Min	Typ	Max	Min	Typ	Max	
Frequency range	0.1		18	0.1		18	GHz
Nominal gain	24	24.5	25	48	49	50	dB
Gain flatness		±1.5			±3		dB
Input & output impedance		50			50		ohm
Input VSWR			2.5:1			2.5:1	
Output VSWR			2.5:1			2.5:1	
P1dB	12		16	12		16	dBm
Noise figure > 1 GHz	2.5	3	4.5	2.5	3	4.5	dB
Operating supply voltage							
Internal battery	17	18	19	17	18	19	V dc
External dc power	11	12	15	11	12	15	
Current consumption							
Internal battery	65		690	65		870	mA
External dc power		190			370		
Reverse polarity protection			Yes, non destructive				
Maximum input/reverse output power			17			17	dBm
Maximum input/output dc voltage			5			5	V dc

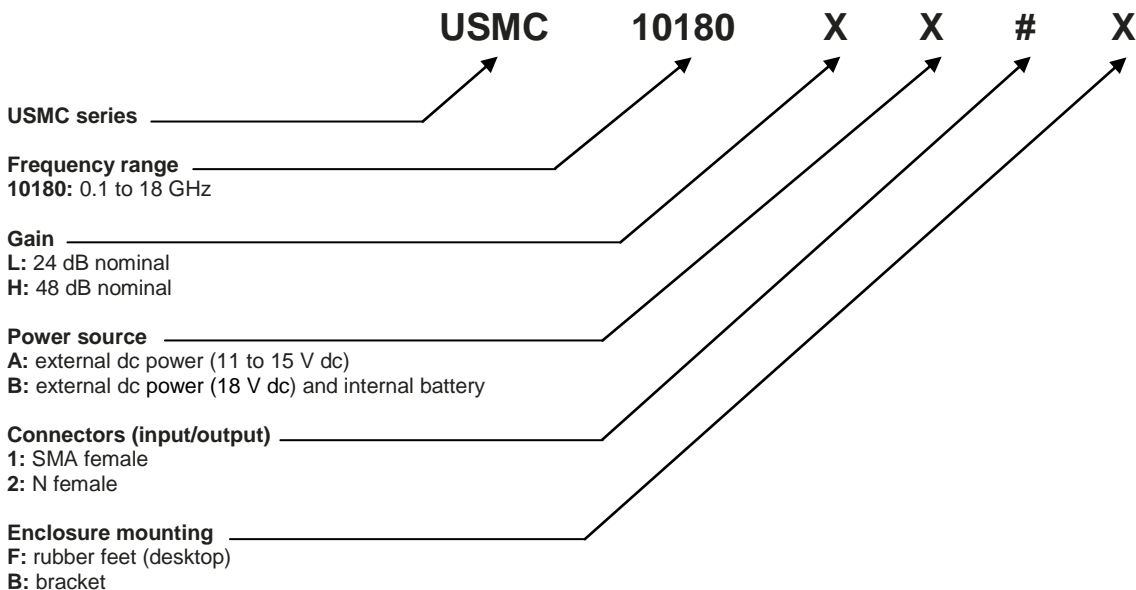
## Mechanical and environmental specifications

	USMC0125LA/HA (external dc power)	USMC0125LB/HB (internal battery)	UNIT
	Operating temperature	-30 to 85	
DC supply connector	Waterproof circular connector with threaded lock		
Dimensions (excl. connectors and feet)	W: 4.25 (108.0), H: 2.31 (58.61), D: 6.73 (171.0) no bracket; 7.52 (191.0) with bracket		inch (mm)
Weight	1.2/1.3 (0.54/0.59)	1.8/1.9 (0.82/0.86)	lb (kg)
IP rating	IP65		

## Accessories

External ac adaptor: 90 to 264 V ac, 47 to 63 Hz; European and US plugs; CE and UL approved.

## Part number



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