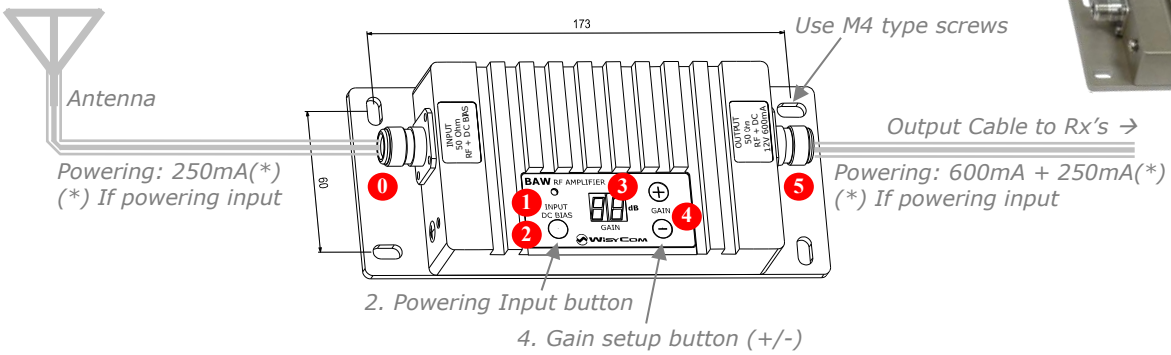
BROADBAND HIGH POWER ANTENNA AMPLIFIER



BAW is wideband antenna booster especially designed to allow long cables wirings and full broadband wireless receiver systems. It comes in four versions:

- BAW-L working in 470-670 MHz
- BAW-H working in 630-870 MHz
- BAW-N working in 470-700 MHz
- BAW-X working in 470-800 MHz

Operation

The BAW is powered by the receiver system through the coaxial cable attached to its output connector, and accordingly the receiver system must have the antenna feeding function.

BEWARE: BAW needs 600mA @ 12A to operate and it can feed a further antenna booster up to 250mA @ 12V (in this case the overall current supplied must be at least 850mA).

BAW housing is in ruggedized aluminum (nickel plated), with waterproof sealing (suitable for outdoor installations):

⇒ 4 holes for wall-installation (M4 screw type) 173mm X 60mm.

Radiofrequency connector is N-Female type:

⇒ ***Input connector*** 0, powered through antenna. Pushing button 2 it is possible to power up a remote booster (up to 250mA). When input power is active, "INPUT DC BIAS" led is on. If there is a fault on remote booster (i.e. a short circuit) then a L appears on the left digit of gain display 3.

⇒ ***Output connector*** 5, feeding a receiver system. BAW is powered thru this connector (600mA + 250mA if input powering), if there is a fault and there is not enough power to properly operate then a L appears on the right digit of gain display 3.

GAIN SETUP

BAW gain can be setup from 0 (relay bypass) to 22 dB (typical) using **+/-** buttons 4. With a long push (2 sec) + or – buttons, BAW enters in edit mode: display blinks and with short push it is possible to setup the desired gain. Once finished a long push either on + or – will exit the edit mode.

BEWARE: to avoid any overload of the receiver system even with very strong RF signals, you must carefully compensate the loss of the cable (see the chart below) with the gain of the BAW, without exceeding a total gain of max. 3 dB.

TECHNICAL SPECIFICATIONS

- Frequency : a window in one of following ranges:
  BAW-L ⇒ UHF (470 ÷ 670 MHz) *BAW-N* ⇒ UHF (470 ÷ 700 MHz)
  BAW-H ⇒ UHF (630 ÷ 870 MHz) *BAW-X* ⇒ UHF (470 ÷ 800 MHz)
- Input/output impedance : 50 ohm (SWR = < 1:1.5; typ. = 1:1.4).
- Connectors : N-female type.
- Gain (max) : 0 ÷ 22dB (typical), selectable in step of 1 dB (+/- button)
  → When 0 dB is selected then RF feed is by-passed (relay)
  → When BAW is not powered then RF feed is by-passed (relay)
- OIP3 : +47 dBm (Input 3° order Intercept Point) typical.
- Gain flatness : ± 1 dB, in the whole working window.
- Powering : +12 V, 600mA + up 250mA (*) (thru output coax. Cable)
  (*) if power input activated.
- Size (L x H x P) : 193mm x 80mm x 34mm (173mm x 60mm fasten holes).
- Weight : 650 g approx.

Typical attenuation of most used coax. cables (for length = 100 m):

Cable type	**diameter mm**	**attenuation @ 400 MHz**	**attenuation @ 900 MHz**
RG 58 C/U	4.95	32 dB	52 dB
RG 213 /U	10.3	13 dB	22 dB
RG 218 /U	22.1	7 dB	14 Db
Cellflex - ¼" foam dielectric	8.8	8.4 dB	12.8 Db