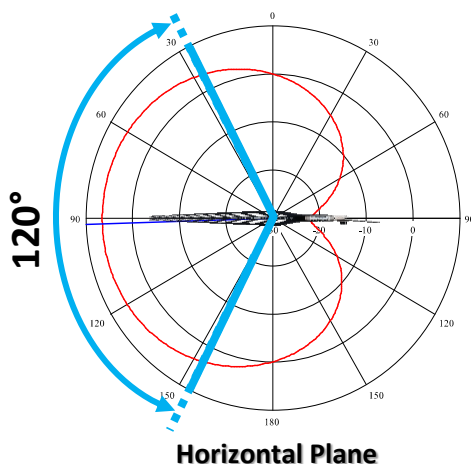




LBNA2/LNNA2 is a wideband UHF antenna LPDA (*log periodic dipole array*) with integrated bandpass filter and low noise booster.

It enhances reception providing approximately 7dB gain with typical beam-width of 120 degrees. Thanks to an exclusive skeleton design with sloped elements, this antenna can work in 420-1300 MHz band (bypass mode). It is possible to enable the integrated passband filter (470-960 MHz) and the internal booster (adjustable in 1 dB step).

The feeding line is integrated on the PCB (for mechanical robustness) and all the electronic and mounting base are made by solid metal with waterproof gasketing.



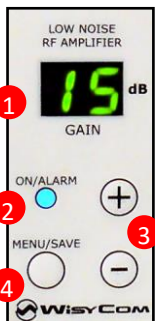
ANTENNA PLACEMENT



Here above some examples of diversity antenna configurations.

In example 1 the antennas are side to side: although 20 cm (1 foot) it is enough for the diversity to work, in this case it is advisable to keep them at least at 1 m (5 feet) distance in order not to get them interfere each other. In the example 2 the antennas are mounted vertically in a more convenient configuration (since they do not interfere much), this configuration is very good also with 2 antennas used for transmission.

BOOSTER



- 1) 2 digits LED display with booster gain indication [dB].
Brightness can be adjusted through the user menu.
- 2) Signaling LED multicolor:
 - White: when turning-on indicates the booster start up
 - Yellow: booster bypassed, antenna becomes passive
 - Green: active booster with gain between 1 ÷ 8 dB
 - Blue: active booster with gain between 9 ÷ 15 dB
 - Red: fast blinking, powering insufficient (lower than \approx 9,5Vdc)
- 3) + / - adjusting buttons
- 4) MENU/SAVE selection button allows to edit the following parameters (after 5 second gain indication is restored by default).

GAIN SETUP


Push MENU/SAVE to enter gain edit mode



Then edit the gain with + / -



Push again MENU/SAVE for confirm or wait 5 sec to return without saving

It is possible to setup the gain between 1 ÷ 15 dB in steps of 1dB. Decreasing gain to the lowest value, “bP” is displayed: booster is bypassed and antenna operates in a passive way:

-in **bypass mode** internal filter is disabled and the antenna is working in **420÷1300 MHz** range. Confirm the new setup value within 5 sec. by pressing one more time on the MENU/SAVE button. Without any confirmation within 5 sec. the modification is cancelled.

Typical attenuation of most common coaxial cable (30m / 100 ft.)

Cable type	Diameter mm (in)	Attenuation @ 400 MHz	Attenuation @ 900 MHz
RG 58 C/U	4.95 (1.9)	9.6 dB	10.4 dB
RG 213 /U	10.3 (4)	3.9 dB	6.6 dB
RG 218 /U	22.1 (8.6)	2.1 dB	4.2 dB
Cellflex - ¼" foam	8.8 (3.4)	2.5 dB	3.9 dB

DISPLAY BRIGHTNESS SETUP


Push twice MENU/SAVE to enter brightness edit mode



Then setup your desired brightness with +/-



Push again MENU/SAVE for confirm or wait 5 sec to return without saving

ACCESSORIES


Code	Description
POULBN	Soft Pouch for directional antennas: - LBN-LNN-LBNA-LNNA - LBN2-LNN2-LBNA2-LNNA2 - LBP-LNP

CONFORMITY

- RoHS Directive (2002/95/EC)
- WEEE Directive (2002/96/EC)



SPECIFICATIONS**ANTENNA**

- Gain: 7dBi typical
- 3-dB beam-width: horizontal plane 120° – vertical plane 90°
- Front to back ratio: 10dB @ 870MHz
- Bandwidth: 420÷1300 MHz
- Polarization: vertical

BOOSTER

- Passband filter: 470÷960 MHz (rev.4);
470÷870 MHz (previous ver.)
(B1 470÷700 optional)
- Gain: 0÷16 dB typical (1 dB step selection)
- Gain flatness: +/-1 dB, in the entire working window
- OIP3: +43 dBm typical
- Powering: +12 Vdc / 100mA

MECHANICAL

- Connectors: BNC-F (LBNA2), N-F (LNNA2)
- Body Material: Epoxy fiberglass with skeletal design
- Finishing: Black matte textured weather resistance coating
- Mounting: 5/4" & 3/8" thread (metal support and mounting base)
- Weight: 532 g (LBNA2/LNNA2)
- Size: 335 mm(L) x 276 mm(H) x 61 mm(D)

