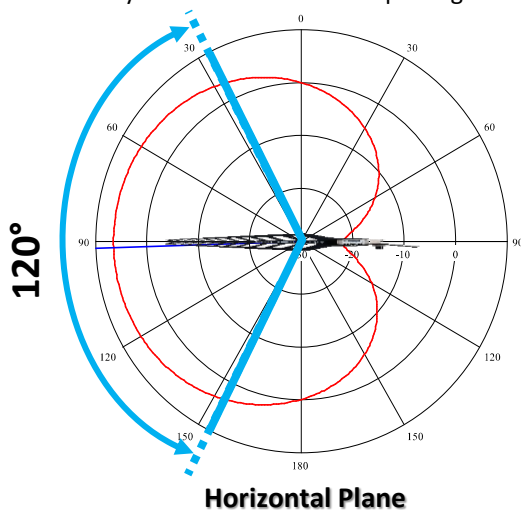




**LBNA2/LNNA2** is a wideband UHF antenna LPDA (*log periodic dipole array*) with integrated bandpass filter and low noise booster.

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 (470-870 MHz / 470-700 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.



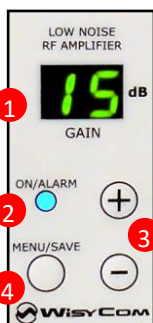
## ANTENNA PLACEMENT



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 ≈ 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 - 1/4" 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÷870 MHz (B1 470÷700 optional)
- Gain: 0÷15 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)

