

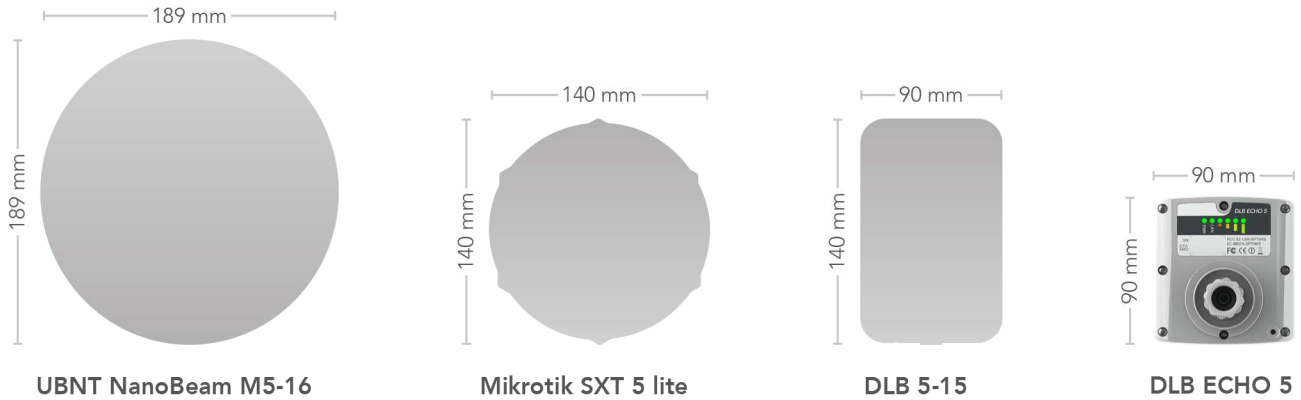


DLB ECHO 5 BROCHURE

LigoDLB ECHO 5 product is a universal device that can be used in a 3 different ways based on the capacity and distance requirements.

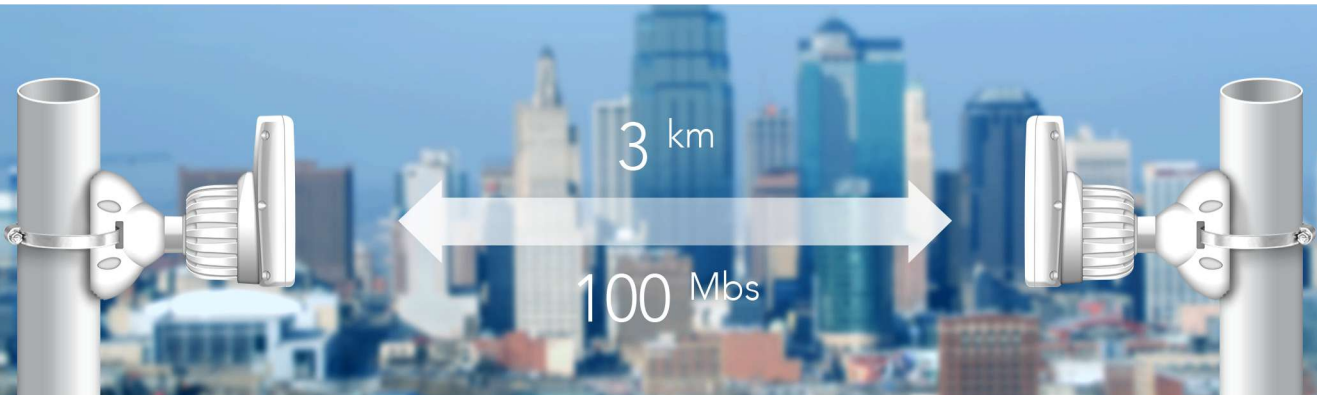
LigoDLB ECHO 5B – short to medium distance client device or point-to-point link when you with an optional ECHObracket designed by RF elements. With the mounting bracket it is a 15 dBi integrated directional antenna device with extremely small form factor. See the size comparison below with similar antenna characteristics devices.

Size comparison



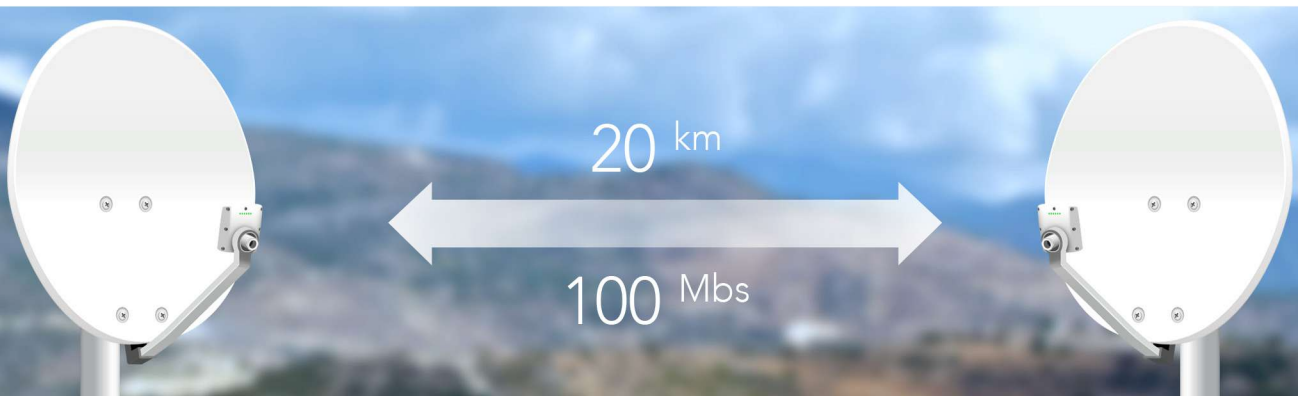
15 dBi antenna and powerful 29 dBm radio makes this device ideal for the short to medium distance communication with over 100 Mbps capacity within 3 km range.

Metropolitan, video surveillance



LigoDLB ECHO 5D – long distance client device or point-to-point link when purchased together with a 60 cm offset dish antenna provided by LigoWave. It is the highest gain, integrated antenna device available in the LigoDLB series. 27 dBi antenna gain allows building long distance links both in point-to-point and point-to-multipoint scenarios.

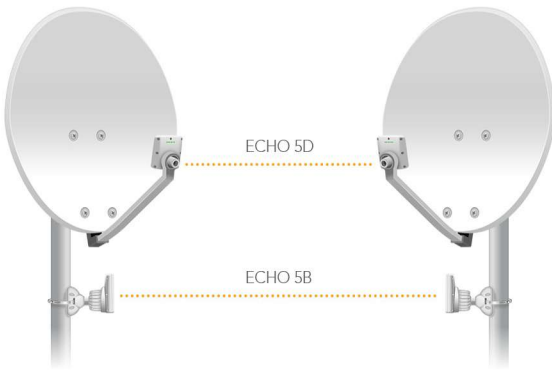
Rural, private user connectivity



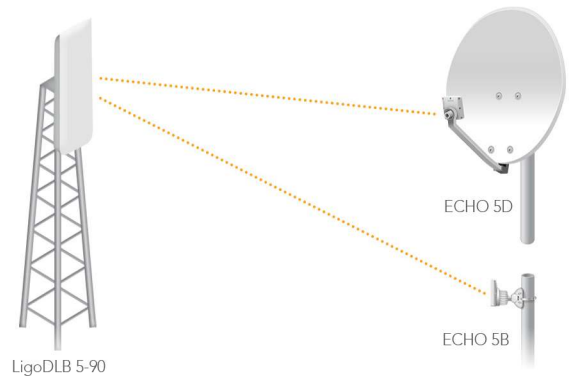
Capacity over distance comparison

The graphs below show LigoDLB ECHO 5B and LigoDLB ECHO 5D throughput over distance degradation in a point-to-point and point-to-multipoint scenario. For the PTMP scenario LigoDLB 5-90 is used as a base station and ECHO 5B and ECHO 5D as clients. In a PTP scenario a pair of ECHO 5B's and a pair of ECHO 5D's are used..

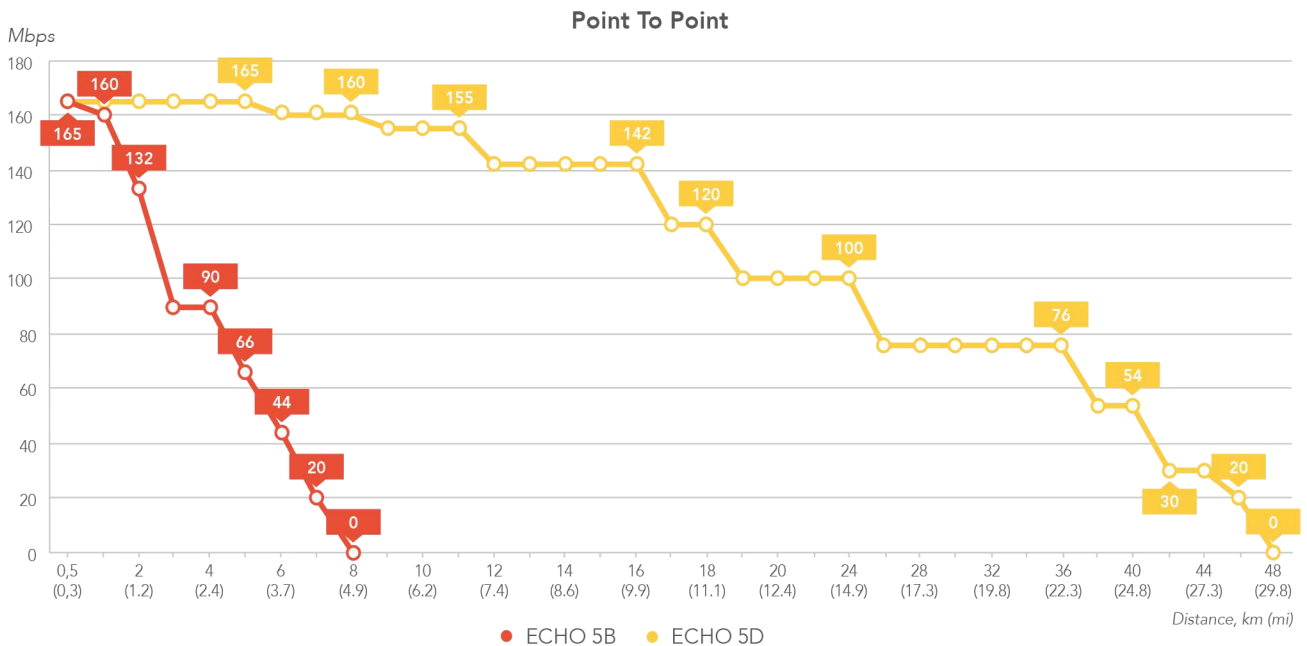
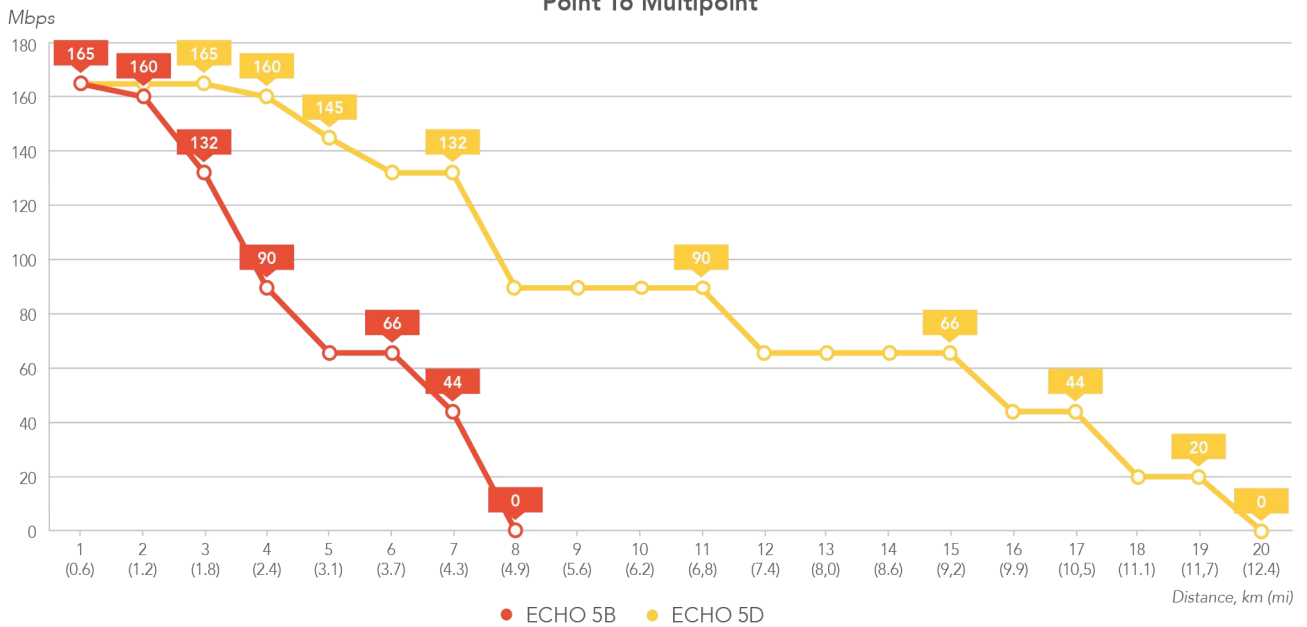
Point To Point



Point To Multipoint



Point To Multipoint



LigoDLB ECHO 5

The device has a universal mount that can fit into a standard satellite dish antenna manufactured and available for purchase anywhere in the world for a reasonable price. Different size and form factor of the dish provides a flexibility of controlling the gain based on the capacity and distance requirements.

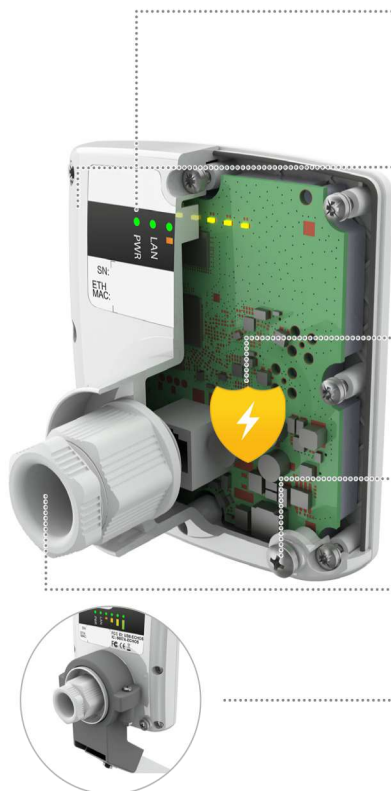
Fits any 3 rd party offset dish antenna



Small package – low transportation expenses

With a package size of 15 x 13 x 8 cm (5.9 x 5.2 x 3.15 inch) and a weight of 0.49 kg (17.28 oz). The volumetric weight of this device is lower than the real weight, which allows saving excessive expenses on the logistics. It makes LigoDLB ECHO 5 extremely attractive to the distant markets with a high logistical costs related to shipments.

Hardware highlights



External LED's for status reporting and antenna alignment.

Metal IP-67 standards rated enclosure allows operating in a harsh weather conditions and distributes heat generated by the radio

Integrated on-board surge protection components allow surviving voltage jumps and lightning strikes

Grounding pin

Weatherproof gland

Standart mount fits any offset dish antenna