



MLA - T

Magnetic Loop Antenna - Top Bands

Magnetic loop antenna **MLA-T (Magnetic Loop Antenna Top Bands)** is operation with power up to 100W and designed mainly for portable use on 160m, 80m and 40m bands. On 160m band 3S loss against dipole in several tens of meters high needs to be expected while this loss has strong dependence on polarization of received signal. Operation on 40m band is possible by shorting of loop by mechanical jumper which is included. Robust design of 4 loops MLA provides relatively good efficiency even with extremely small diameter of antenna. Antenna is serving satisfactory results mainly on 40m and 80m band while 160m is compromise between minimal dimensions of antenna and physical attainable effect. Bands switching is not designed to remote control so MLA-T is not ideal solution for static base antennas. In its price category MLA-T extends commercial magnetic loop antennas range designed to two top HAM bands.

Remote tuning of manually switched band is done by DC motor with integrated transmission 1:600 and pulse speed control. Each start of motor is slowed down by 3 times for 3 seconds which allow to fast and precise fine tuning of antenna. Tuning direction (frequency UP/DOWN) is done by two buttons, whole tuning motor control is done by processor and firmware. For fast control of operation and tuning direction there are 3 color LEDs on control panel. Motor is powered by coaxial cable with DC crossover. On input side (at TRX) is crossover in control panel, on output side is crossover integrated in antenna assembly. For control panel and antenna tuning is used standard DC power adapter 230V/12V/0,8A which is included. Antenna and control panel is connected with coaxial cable 50 Ohm. Outdoor side is connected by waterproof N connector, indoor side to control panel is connected by standard PL connector. Cable for TRX and control panel connection is included (2m PL-PL).

Technical parameters

Frequency range	1,8 to 1,95 MHz and 3,3 to 4 MHz
Input impedance	50 Ohm
Max. power	100 W
tuned SWR	max. 1:1,1
MLA input connector	N
Control panel connector	2x PL
MLA dimensions	820 x 1050 x 220 mm (w,h,d)
MLA weight	12 kg
Loop diameter	800 mm
Ratio d/ on 160m	0,5 %

IMPORTANT WARNING

MLA-T is for indoor usable with maximum power of 10W. For higher powers than 10W don't use it as indoor antenna ! Even there is no proof of negative effect of high frequency radiation at this power level you should avoid exposure of long time exposure. At 100W is minimal recommended distance of operator from antenna at least 5m. Don't touch antenna while it is powered by high frequency power to avoid injury or death. Using of MLA antennas can cause EMC problems because standard electronic shielding (without ferromagnetic material) are not effective against magnetic part of field. MLA-T is not suitable for persons with heart pacemaker.

Caution: High frequency magnetic field passes through walls with low loss!

