

LOG PERIODIC ANTENNA FOR 21, 24, 27, 28 AND 30- MHz

The Log Periodic Antenna works at 21, 24, 27, 28 and 30 – MHz. As all antennas of the type, the LPDA is easy tuned and works with a high efficiency. The antenna contains additional directors for 21 and 28-MHz and reflector for 21- MHz.

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The 10-element Log- Periodic Antenna (see [Figure 1, at page 63](#)) was designed by UA3THQ and modified by me, UW3TU.

Data

Boom = 7000 mm
 G at 28-MHz= 9 dB; F/b=30 dB
 G at 24- MHz= 6 dB; F/b=20 dB
 G at 21- MHz =8 dB; F/b=24 Db
 Input resistance at X-X is 200- Ohms

Adjustment of the antenna consists of the selection of a minimum SWR by the length of the stub (see [Figure 1](#)) at 21- MHz. After that the SWR should be not more than 1.3:1 at all operated ranges.

Feeding is done by a 50- Ohm coaxial cable through a broadband transformer 1:4.

Stuff: Aluminum tubes of 24 mm OD. Vibrators W1 - W7 are isolated from the boom, the gap in all vibrators is 80 mm (see [Figure 2](#)). Stub has initial length in 1.5 meters, and made of a copper wire of 1.5- mm diameter

Reference:

[Radiolubitel # 9, 1992, p. 43](#)

73! DX!

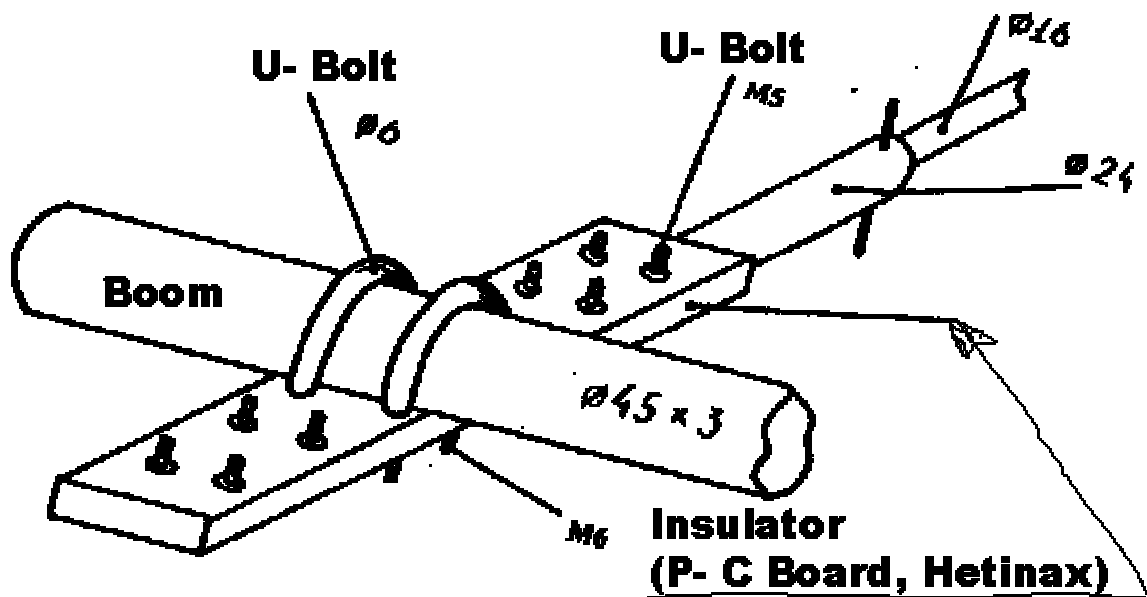


Figure 2

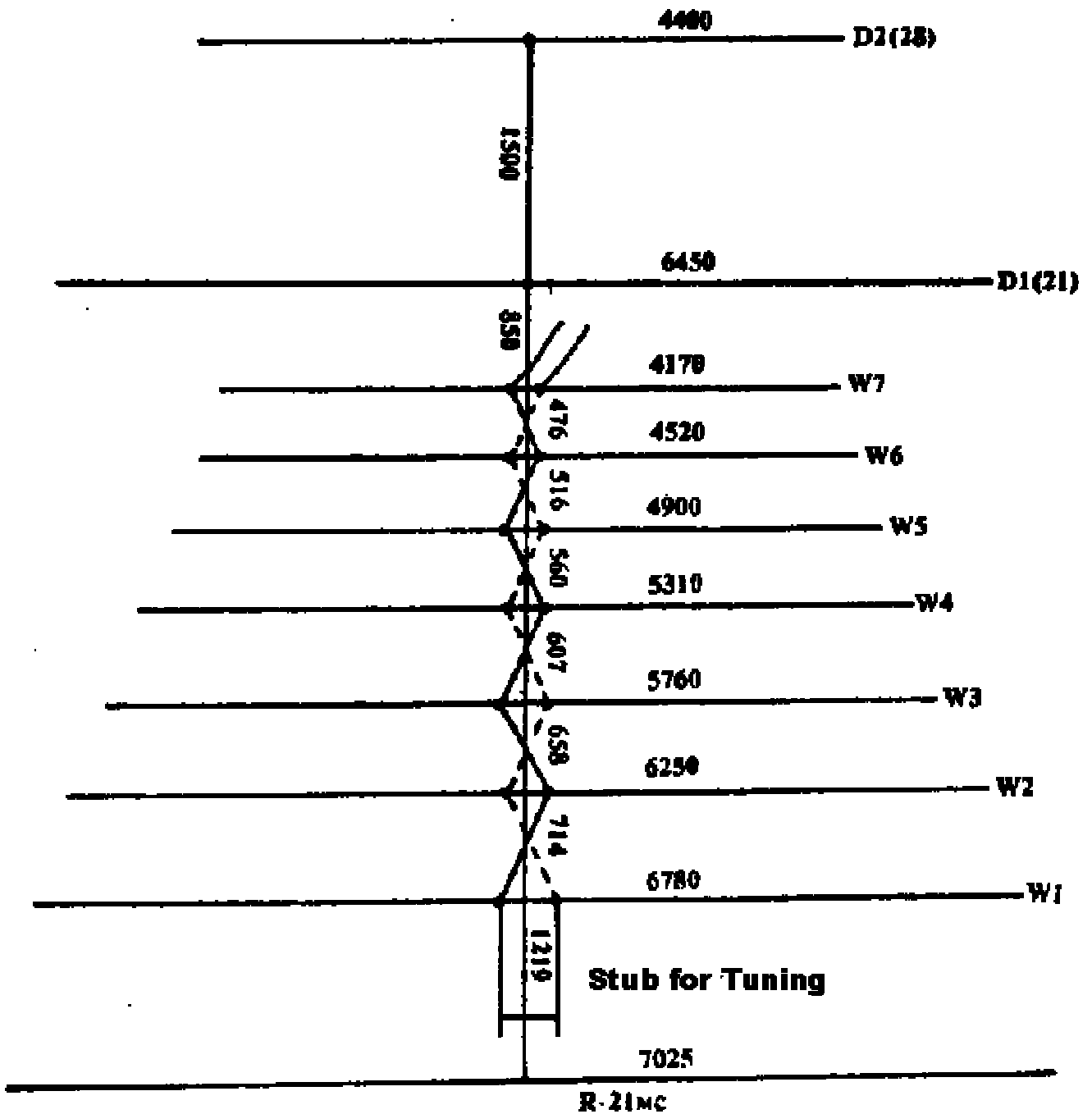


Figure 1

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