# 1. Radio Technical Description

The DL300 Remote control transmits in the 915 MHz ISM band. It uses narrow band frequency hopping, with at least 50 carriers between 902 and 928 MHz. The maximum output power is +20 dBm.

When the user press the button on the DL300 Remote, it transmits in 2GFSK, at a fixed carrier from the hopping table, for about 18 ms. The transmitter is then stopped for 50 ms after what, if the button is still pressed, the transmission is reactivated, at another carrier frequency, for another 18 ms and so on, untill the button is released (usually less than 2 seconds). The frequency channels (from 5 to 54) in the hopping table are all mixed, as in the following table:

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| 35, | 43, | 46, | 32, | 21, | 9, | 5, | 18, | 41, | 52, |
| 14, | 51, | 29, | 7, | 38, | 11, | 31, | 37, | 22, | 33, |
| 53, | 39, | 16, | 30, | 44, | 26, | 50, | 6, | 48, | 15, |
| 45, | 34, | 13, | 54, | 24, | 20, | 12, | 55, | 25, | 36, |
| 8, | 23, | 19, | 42, | 10, | 28, | 49, | 27, | 17, | 40 |

The hopping is not done on consecutive channels. When a transmission is completed, the hopping table pointer is saved in memory and restored for the next transmission. Doing so, each frequency is used equally over time. Every channel in the hopping table is used only once in a 3.4 seconds of transmission window (time required to scan all channels in the hopping table).