1. Operation description (Model : CS-600)

1) ENCODE_MDT75C271_IC: the U1 is a “32BIT_4BIT control ENCODE_IC” and has a function to output 400 Hz of ASK serial data which is decided by SW1.

2) High-frequency oscillation section: the Q1 is a “transformed colpitts oscillating circuit”, and Q1 is oscillated with resonating to the unique frequency (311.0625 MHz) of X1 Saw Resonator. The high frequency signal from Q1’s collector port is weak, so this signal is amplified by Q2, then the signal radiated from the antenna to the air.

3) The C3 is Q1's bias condenser, when “the serial data signal from the ENCODE_IC controller” is +(plus) direction, then the Q1 oscillates. When “the serial data signal from the ENCODE_IC controller” is -(minus) direction, then the Q1 stops oscillation.

4) Thus According to the “Serial data signal polarity(+, -)” Q1 repeats oscillation and non-oscillation, naturally we call that Q1 has a ASK modulation function.

5) The L2 is a Current-limit Coil which limits the current of Q1's collector port, L2 act to eliminates noise and spurious.

6) The C3 acts to bypass “the high frequency noise which current on VCC line” to the Ground.