

Duty Cycle Calculations for 5800RP transmitted messages (Manchester Encoded)
Message type, Transmission Time, and Duty Cycle (per 100 ms):

For incoming transmissions from the following devices;

FCC ID: CFS8DL5801, FCC ID: CFS8DL5802, FCC ID: CFS8DL5802CP, FCC ID: CFS8DL5802MN, FCC ID: CFS8DL5802MN2, FCC ID: CFS8DL5803, FCC ID: CFS8DL5804, FCC ID: CFS8DL5804BD, FCC ID: CFS8DL5806, FCC ID: CFS8DL5806A, FCC ID: CFS8DL5807, FCC ID: CFS8DL5808, FCC ID: CFS8DL5808LP, FCC ID: CFS8DL5809, FCC ID: CFS8DL5810, FCC ID: CFS8DL5814, FCC ID: CFS8DL5816, FCC ID: CFS8DL5816BL, FCC ID: CFS8DL5816MN2, FCC ID: CFS8DL5817, FCC ID: CFS8DL5817CB, FCC ID: CFS8DL5818, FCC ID: CFS8DL5819, FCC ID: CFS8DL5827, FCC ID: CFS8DL5827BD, FCC ID: CFS8DL58450W, FCC ID: CFS8DL5849, FCC ID: CFS8DL5850, FCC ID: CFS8DL5890, FCC ID: CFS8DL5869, FCC ID: CFS8DL5800RL, FCC ID: CFS8DL5800SS1, FCC ID: CFS8DL5800STAT.

Message consists of : 6 ID/control bytes + 2 repeater bytes + 16 bit preamble = 80 bits
 $80 \text{ bits} * 272 \text{ uS} = 21.76 \text{ mS} (21.76 \text{ mS}/100 \text{ mS}) * 50\% = 10.88\%$

For incoming transmissions from the following devices;

FCC ID: CFS8DL5800TM, FCC ID: CFS8DL6128RF, FCC ID: CFS8DL6128RFUL, FCC ID: CFS8DLFA260RF, FCC ID: CFS8DL6150RF, FCC ID: CFS8DLLYNX, FCC ID: CFS8DL5804BD.

Message consists of: 7 ID/control bytes + 2 repeater bytes + 16 bit preamble = 88 bits
 $88 \text{ bits} * 272 \text{ uS} = 23.94 \text{ mS} (23.94 \text{ mS}/100 \text{ mS}) * 50\% = 11.97\%$

For incoming transmissions from the following device;

FCC ID: CFS8DL5804E.

Message consists of: 23 preamble bits * 90uS * 50% = 1.04 mS, plus,
 $(66 \text{ ID/control bits} + 2 \text{ repeater bytes} = 82 \text{ bits} * 66.67\%) = 14.76\text{ms} = (15.8\text{mS}/100\text{mS}) = 15.8\%$

For incoming transmissions from the following device;

FCC ID: CFS8DL5839.

Message consists of: 12 ID/control bytes + 2 repeater bytes + 16 bit preamble = 128 bits
 $128 \text{ bits} * 272 \text{ uS} = 34.82 \text{ mS} (34.82 \text{ mS}/100 \text{ mS}) * 50\% = 17.41\%$

For incoming transmissions from the following devices;

FCC ID: CFS8DLLYNXR, FCC ID: CFS8DL5883

Message consists of: 13 ID/control bytes + 2 repeater bytes + 16 bit preamble = 136 bits
 $136 \text{ bits} * 272 \text{ uS} = 36.99 \text{ mS} (36.99 \text{ mS}/100 \text{ mS}) * 50\% = 18.5\%$

For incoming transmissions from the following devices;

FCC ID: CFS8DL5883.

Message consists of: 53 data bytes + 2 repeater bytes + 16 bit preamble = 456 bits
 $456 \text{ bits} * 100 \text{ uS} = 45.6 \text{ mS} (45.6 \text{ mS}/100 \text{ mS}) * 50\% = 22.8\%$

The worst case transmissions, reported in Exhibit 5 are at duty cycle of 18.5% for transmission of control information per 15.231a) and at a duty cycle of 22.8% for transmission of data per 15.231e).