

EXHIBIT 3

CFS8DL58450W

Message protocol, timing and duty cycle calculation.

The data output is phase encoded Manchester which has inherent 50% duty cycle and consists of 64 bits per word.

A supervision transmission is five identical words separated by (start to start) by nominal 125mSec (100mSec min, 150mSec max). Each message has a nominal data rate of 3.7 kB/s (3.2kB/s min to 4.2kB/s max). Therefore the duty cycle calculation is as follows:

The word format consists of 64 bits,

The duration of each bit is 312.5 uSec max.

The duty cycle over a 100mSec measuring period is calculated as follows:

Duty Cycle = Actual RF transmission ON time / 100mSec (interval)

Actual transmission ON time = 64 bits X 50% X 312.5uSec =  
= 10mSec

Therefore Duty cycle = 10 / 100 mSec = .10 = 10%, and peak to average field strength is 20dB.

Total on-air time for a supervision transmission is

$$64 \times 312.5 \times 4 \times 150 = 0.62 \text{ seconds}$$

In the case of an alarm transmission, the group of five transmissions is repeated twice, with the second group delayed from the first by 1 second.

The worst case on-air time is

$$2 \times (\text{supervision time}) + 1 = 2.24 \text{ seconds}$$

Summary :

Duty cycle = 10%  
On air time = 2.24 seconds max.