



# ROGERS LABS, INC.

4405 West 259<sup>th</sup> Terrace  
Louisburg, KS 66053  
Phone / Fax (913) 837-3214

August 2, 2001

Timco Engineering Inc.  
849 NW State Road 45  
Newberry, FL 32669  
Telephone 888.472.2424  
Fax 352.472.2030

Applicant: Coyote DataCom, Inc.  
12721 Benson  
Overland Park, KS 66213

RE: Request for information on job # 824U1

Equipment: FCC ID: PHO-DR915

Gentlemen:

Please find enclosed the response to request for additional information regarding the submittal for grant of certification of this unit.

A copy of the information request has been reproduced here for reference.

1 August 2001

SCOT ROGERS  
ROGERS LABS, INC.  
913 837-3214  
ROGERS@MICOKS.NET

SUBJECT: COYOTE DATACOM, INC. FCC ID: PHO-DR915

REFERENCE: JOB #:824U1

Dear SCOT ROGERS:

In reviewing this application, we have discovered the following problem/s;

1. The plot on Page 12 of 35 is not readable. Please resend this page.
2. 15.247(a)(1)(ii): The limit is 400mSec in 10 seconds. Please provide data that shows that the EUT is on less than 400mSec in the 10 seconds.
3. Is the hopping sequence pseudorandom, please provide a technical description of how this is achieved.
4. Please confirmed that you used the test procedure approved by the FCC.

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Coyote DataCom Inc.  
MODEL: DR-915  
Test #: 010723  
Test to: FCC Parts 2 and 15

FCCID#: PHO-DR915

FCCresponseletter824U1.doc

08/02/2001

## RESPONSE

1. The plot from page 12 of 35 in the report is reproduced here for clarity.

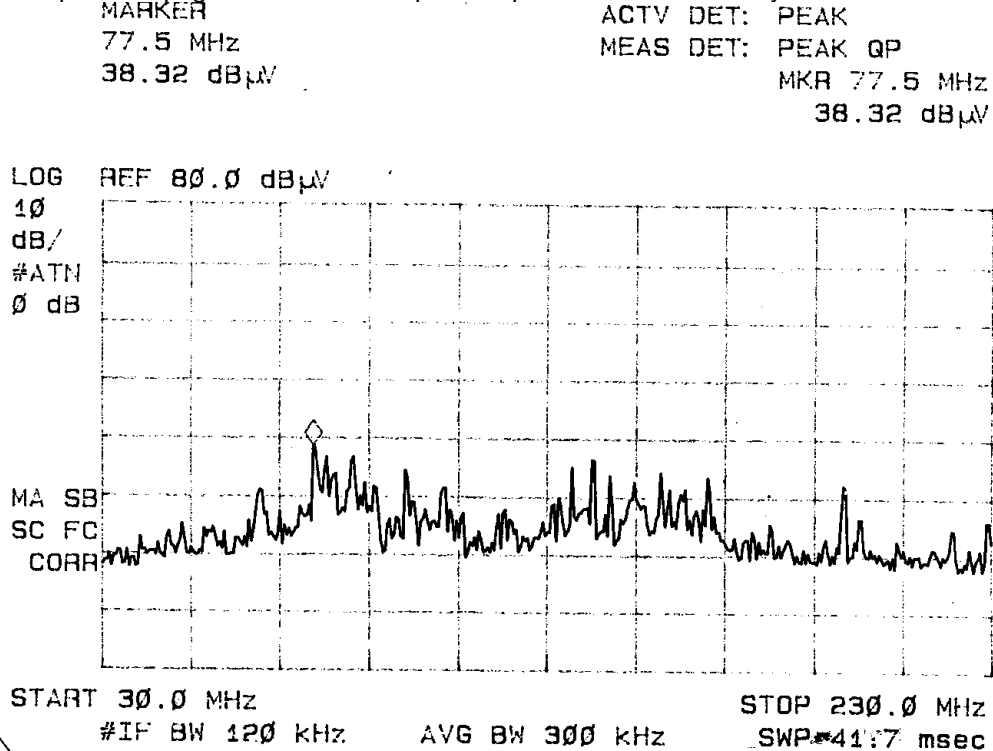


Figure 3 radiated emissions taken at 1-meter distance in the screen room.

2. Both questions 2 and 3 are discussed below.

This is the pseudo random channel lookup table...

```
flash const unsigned char TX_TABLE[] = { 0, 26, 4, 10, 46, 34, 14, 40, 6, 20,
36, 16, 22, 12, 24, 44, 18, 28, 32, 8, 38, 30, 42, 2, 48 };
```

This routine initiates the channel change for the next TX channel. The routine sequentially goes through the channels in the randomized table above. This guarantees that all channels are used equally.

```
void GotoNextTxChannel (void)
{
    tx_channel++;
    if ( tx_channel > 24 )
    {
        tx_channel = 0;           //start at beginning of table
        while (scan_timer);      //check for FCC time limit
        scan_timer = FCC_TIME;   //reset 10 second timer
    }
}
```

The Data Radio utilizes two methods for limiting channel occupancy to 400 mS per channel in a 10 second interval. When the radio is streaming data, packet transmissions are set at 150 mS. By guaranteeing that each channel is used equally there is no possibility of any channel transmitting more than 400 mS in any 10 second period/

The second limitation is imposed using a simple software driven timer. Each time the transmitter uses channel 1 in the transmit hop table a 10 second timer is started. In the event the radio goes through the entire table and back to channel 1 before the 10 seconds has elapsed, the radio is forced to wait in receive mode the remainder of the 10 second period.

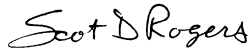
These two tests applied together guarantee that the DR-915 will not, in any case, exceed the channel occupancy limitations set forth by the FCC part 15 rules for frequency hopping transmitters.

4. The test method used was taken from DA00-0705. This release of filing and measurement guidelines for frequency hopping spread spectrum systems describes the test procedures and instrument settings used for the tests of 15.247.

Should you require any further information, please contact the undersigned.

Thank you for your consideration in this matter.

Sincerely,



Scot Rogers  
Rogers Labs, Inc.  
Enclosures