




Applicant: Daniels Electronics Ltd.
43 Erie St
Victoria, BC, V8V 1P8

Equipment Under Test: VT-3/140-SN & VT-3/160-SN VHF Transmitters
132-174 MHz


FCC ID: H4JVT-3-150-SN

In Accordance With: 47 CFR Parts 22, 80 & 90

Tested By: Daniels Electronics Ltd.
43 Erie St
Victoria, BC, V8V 1P8

Authorized By: 

Dale Reitsma, D&D Manager

Testing Verified By: 

Michael J. Cyr, Communication System Designer

Date: 13 September 2005

Total Number of Pages: 7

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1. Summary of Test Data

Name of Test	Para No.	Result
Occupied Bandwidth	2.1049	Complies

Notes:

- 1) This application is for approval of the VT-3/150-SN VHF Narrow Band Transmitter Family operating in the 132-174 MHz frequency band of the Land Mobile Services Band. This family includes two models, VT-3/140-SN & VT-3/160-SN, and was previously approved by the FCC for emission designators 11K0F3E and 16K0F3E under FCC ID H4JVT-3-150-SN. This application is being made specifically to add emission designator 9K2F1D. As such, only relevant test data has been provided in this report.
- 2) The emission designator was calculated as follows:

Emission Designator (4-LEVEL DATA):

$$B_n = 2M + 2DK = 2 \times (1/2) \times (3200 \text{ baud}) + 2 \times (2500\text{Hz}) \times (1.2) = 9K2$$

General

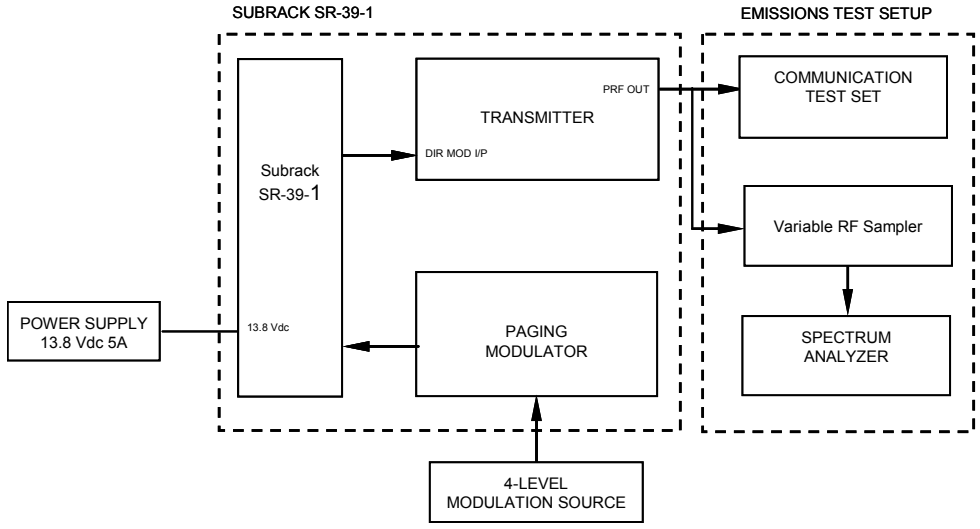
All measurements are traceable to national standards.

These tests were conducted on a sample of the equipment for the purpose of demonstrating compliance with FCC Part 22, 80, & 90.

Test Conditions:

Indoor Temperature: 23°C
 Humidity: 30%

Test Arrangement Diagram:



2. General Equipment Specifications

Manufacturer: Daniels Electronics Ltd.

Family Number: VT-3/150-SN

Model Number: VT-3/140-SN (132 – 150 MHz)
VT-3/160-SN (150 – 174 MHz)

Serial Numbers of EUTs: D&D #10160

Starting Date of Testing: 30 August, 2005

Primary Power: 13.8Vdc

Modulation: 4-LEVEL DATA @ 6400bps (3200 Baud).

Emission Designator: 9K2F1D

Power Output: 8.0W

Channel Spacing: 12.5 KHz

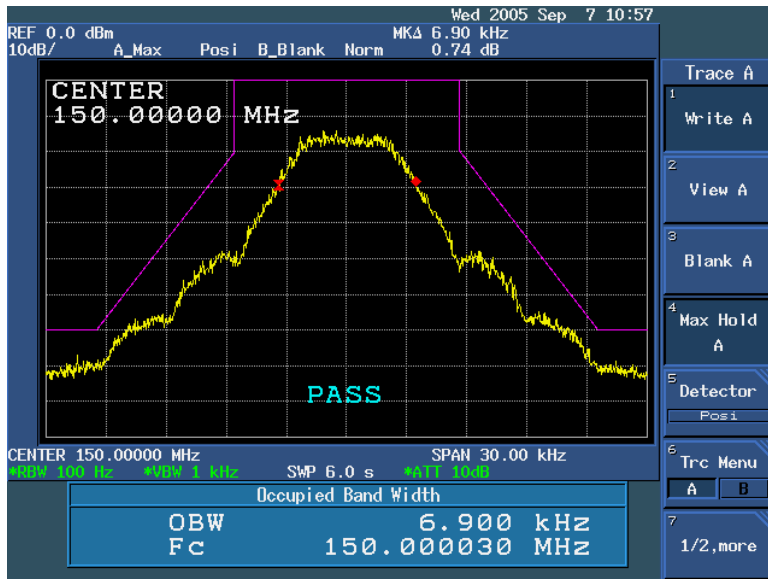
Frequency Range: 132 – 174 MHz

3. Occupied Bandwidth (47 CFR §2.1049)

Test Results: Complies

Minimum Standard: Mask D

Test Data: See following graph:



FCC Mask D
9K2F1D
8W, 12.5 KHz Channel Spacing

4. Test Equipment List

CAL CYCLE	EQUIPMENT	MANUFACTURER	MODEL	SERIAL	LAST CAL	NEXT CAL
N/A	Paging Modulator	Daniels Electronics Ltd	CI-PM-3	D&D 10150	N/A	N/A
2 Year	Radio Test Set	IFR	2948	294504/340	21-Nov-03	21-Nov-05
1 Year	Spectrum Analyzer	ADVANTEST	R3132	121000134	30-Mar-05	30-Mar-06
N/A	Variable RF Sampler	Bird	4275-020	DE 2803	N/A	N/A
N/A	4-Level Modulation Source	Daniels Electronics Ltd	Paging Test Code	N/A	N/A	N/A