



Application Note 11/23/2009 Proof of Performance Testing

1 Proof of Performance Testing

The Proof of Performance Test (PoP Scan) feature collects and stores signal level and quality data for later transfer to a PC for reporting. This feature may be used to document the quality of installation for later reference.

1.1 Install PC Software

The SatTransfer program is required to transfer the data from the instrument to the PC and to print reports. This software is available from the Applied Instruments web site along with the FlashUpdate software used to upgrade the instrument. (See Updating section of <u>Operation Manual</u>.)

1.2 Collect Test Data

Perform your satellite dish alignment as usual. When the system is fully peaked, use one of two main menu options to perform the PoP Scan and collect the data:

PoP Scan – uses the presently selected LNB port and collects data for that LNB only. Full PoP Scan – steps through all LNB positions and collects data for all related orbital positions.

Tip: You should choose Full PoP Scan when you're connected to a multi-LNB head (LNBF assembly with built-in multi-switch) that is receiving signals from more than one satellite. You should choose PoP Scan when you're connected to a single LNB that is receiving signals from a single satellite.

Note: When choosing PoP Scan, the user must first power the LNB using the LNB soft key or the system may be powered externally. When using the Full PoP Scan, the meter must power the LNB so that it is able to cycle through the various LNBs.



The meter will scan through all transponders on the satellite collecting the measurement data. You may press STOP to abort the scan, otherwise, wait until the scan completes.



When the scan completes, the following screen displays a summary of the data:



You press "Exit" to discard the data or "Save" to continue.

1.3 Saving Data

If you press "Save" the following screen appears allowing you to enter some identification data about the test:

Note:

Alphabetic characters can be entered in the following way:

- Press the key once to display the numeric digit.
- Press it quickly a second time to display the first alphabetic character.
- Press it quickly a third time to display the next alpha character, etc.
- A new key always moves to a new column.
- A pause will also move to a new column.
- Left/right keys move between columns.



Again, press "Save" to continue and the next screen lets you enter a file name:



The file name must be unique. An error message will appear if you enter a name that has already been used. At present, there is no method for determining which names have been used on the instrument other than by running the SatTransfer program.

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There is file storage space for about 70 files. The actual limit depends on the number of transponders used.

Press "SAVE" again and the system will copy the file from temporary storage to flash file storage. The instrument must then restart and go through the initialization count-down. If an error occurs during the copy process or the flash storage area is too full, the message "Flash copy failed" will appear and the test data will be lost.

If you fill up the file storage space, you may transfer all of the stored files to a PC and then erase the meter's flash memory to create new space.

1.4 Transfer Data File to PC

After the data is collected you can take the meter back to your PC and transfer the files to the PC disk using the SatTransfer program. You will receive the SatTransfer program when downloading the FlashUpdate program. The SatTransfer program, SatTransfer.exe, will most likely be found in the default location of C:\FlashUpdate\

- 1) Connect the meter to your PC using the supplied download cable and turn the meter on.
- 2) Start SatTransfer after the meter has completed its 10 second boot-up countdown. An icon that looks like the Super Buddy should be installed on your desktop for this purpose.



SatTransfer.Ink

3) The File Transfer window appears somewhat like the following example.

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Erase All F	iles	Ţ	RANSFER>			

The box on the left displays the files stored on the meter. The box on the right shows the files stored on the PC. The files are stored in a text file format (.txt) so they can be easily opened in Excel or other PC applications.

By default, the text files are stored in a "Data" folder under the "FlashUpdate" folder where the SatTransfer program is installed. You may navigate to other folders by double clicking on the folder icons shown in the destination file box. The [parent] folder icon takes you up one level.

Select the files on the left that you want to transfer by clicking on them. Selected files are highlighted. You may select more than one by pressing and holding Ctrl. Then click on "Transfer" to have the files copied to the PC folder. A status message near the top of the screen

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will show you when the transfer is complete and the right hand box will be redrawn with the newly added files.

1.5 Erasing Files

When you have transferred all desired files, click "Erase All Files" to erase the files from the meter and free up the flash storage space. Due to the way the flash memory works, it is not possible to erase only selected files; all files must be erased to free up the memory.

1.6 Print Reports

The File Transfer window is not the only window available in the SatTransfer program. You may also open one or more report windows to display and print the data.

There are two ways to open a report window:

- 1) Double click the text file in the right side of the File Transfer window.
- 2) Use the menu bar File, Open function.

The report may be viewed on the screen or printed using the File, Print menu option.

When a report window is opened, it is usually mostly hidden behind the File Transfer window. The File Transfer window may be moved aside or closed to get it out of the way:

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The report itself may not fit entirely on the screen but you may scroll down to see the rest.

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11 .11929 1179.000 -0.410 V DVB 3/4 22000 -34.4 65 8.0 8.1 9.3 LOCK 13.1 120 12 .11936 1186.000 -0.927 H DVB 3/4 22000 -33.4 55 65 7.0 8.2 LOCK 18.0 120 14 .11967 127.000 -0.927 H DVB 3/4 22000 -33.5 55 7.0 7.1 8.3 LOCK 18.0 120 15 .11991 1241.000 -0.427 V DVB 3/4 22000 -33.5 71 8.7 8.8 10.0 LOCK 13.1 120 17 .12022 1272.000 -0.433 V DVB 3/4 22000 -33.5 75 9.4 9.5 10.7 LOCK 13.1 120 19 .12053 130.000 -0.433 V DVB 3/4 22000 -33.5 75 9.4 9.5 10.7 LOCK 13.1 120 <td< td=""><td>Tran 1 - 3 D 4 - 5 - 7 - 8 - 9 -</td><td>Defiek MHz 11706 11789 11778 11636 11667 11674 11696</td><td>Fixeq MHz 966.000 1039.000 1028.000 1086.000 1117.000 1124.000 1148.000</td><td>Error MH2 0.016 0.404 0.349 0.406 0.408 0.914 0.412</td><td>Poll VVHV VHV</td><td>Ned Type DVB DVB DVB DVB DVB DVB DVB DVB</td><td>Code : Rate 1/2 2/3 3/4 3/4 2/3 2/3 3/4</td><td>: 97,0 Symbol Rate 7160 28125 3979 20765 2000 22000 22000 22000</td><td>41.5 -41.5 -35.0 -37.7 -34.8 -34.1 -33.5 -34.0</td><td>st IRD 51q0 43 63 72 77 61 57 77</td><td>CIN db 56 78 86 97 76 7.2 98</td><td>Eb/No dB 7.4 8.4 8.9 9.8 8.2 7.8 9.9</td><td>Es/No Leck dB Status 8.9 LOCK 9.1 LOCK 10.1 LOCK 11.0 LOCK 8.9 LOCK 8.5 LOCK 11.1 LOCK</td><td>LNB Volts 13.1 13.1 18.0 13.1 13.1 13.1 13.1 13.1</td><td>LNB mA 120 120 120 120 120 120 120 120</td><td></td><td></td></td<>	Tran 1 - 3 D 4 - 5 - 7 - 8 - 9 -	Defiek MHz 11706 11789 11778 11636 11667 11674 11696	Fixeq MHz 966.000 1039.000 1028.000 1086.000 1117.000 1124.000 1148.000	Error MH2 0.016 0.404 0.349 0.406 0.408 0.914 0.412	Poll VVHV VHV	Ned Type DVB DVB DVB DVB DVB DVB DVB DVB	Code : Rate 1/2 2/3 3/4 3/4 2/3 2/3 3/4	: 97,0 Symbol Rate 7160 28125 3979 20765 2000 22000 22000 22000	41.5 -41.5 -35.0 -37.7 -34.8 -34.1 -33.5 -34.0	st IRD 51q0 43 63 72 77 61 57 77	CIN db 56 78 86 97 76 7.2 98	Eb/No dB 7.4 8.4 8.9 9.8 8.2 7.8 9.9	Es/No Leck dB Status 8.9 LOCK 9.1 LOCK 10.1 LOCK 11.0 LOCK 8.9 LOCK 8.5 LOCK 11.1 LOCK	LNB Volts 13.1 13.1 18.0 13.1 13.1 13.1 13.1 13.1	LNB mA 120 120 120 120 120 120 120 120		
12 11938 1186 000 -0.927 H DVB 3/4 2000 -33.4 55 5.9 7.0 8.2 LOCK 18.0 120 14 11967 1217.000 -0.925 H DVB 3/4 22000 -33.2 56 7.0 8.2 LOCK 18.0 120 15 11991 1241.000 -0.427 V DVB 3/4 22000 -33.6 71 8.7 8.8 100 LOCK 13.1 120 17 .12022 1272.000 -0.433 V DVB 3/4 22000 -33.6 75 9.4 9.5 10.7 LOCK 13.1 120 19 12053 130.000 -0.433 V DVB 3/4 22000 -33.6 77 9.6 9.9 11.1 LOCK 13.1 120 20 12060 1310.000 -0.936 H DVB 3/4 22000 -33.3 67 8.3 8.4 9.6 LOCK 13.1 120 21 12084 1334.000 -0.936 H DVB 3/4 <td>Tran 1 . 3 D 4 . 5 . 7 . 8 . 9 . 11 .</td> <td>Dadlask MHz 11706 11789 11778 11836 11867 11874 11890 11904</td> <td>Fixeq MHz 966.000 1039.000 1086.000 1086.000 1117.000 1124.000 1148.000 1154.000</td> <td>Error MH2 0.016 0.404 0.349 0.406 0.408 0.914 0.412 -0.415</td> <td>Pol VVHVVHVHVH</td> <td>Ned Type DVB DVB DVB DVB DVB DVB DVB DVB DVB</td> <td>Code : Rate 1/2 2/3 3/4 3/4 2/3 2/3 3/4 1/2</td> <td>: 97, Q Rate 7160, 26125 3979 20765 2000 22000 22000 8660</td> <td>40 VVe 409m -41.5 -35.0 -37.7 -34.8 -34.1 -33.5 -34.0 -34.4</td> <td>st IRD 43 63 72 77 61 57 77 47</td> <td>C/N db 5.6 7.8 8.8 9.7 7.6 7.2 9.8 6.0</td> <td>Eb/No dB 7.4 8.4 8.9 9.8 8.2 7.8 9.9 7.8 9.9 7.8</td> <td>Es/No Leck dB Status 69 LOCK 91 LOCK 101 LOCK 110 LOCK 89 LOCK 85 LOCK 11,1 LOCK 73 LOCK</td> <td>LNB Volts 13.1 13.1 13.0 13.1 13.1 13.0 13.1 13.0</td> <td>LNB mA 120 120 120 120 120 120 120 120 120</td> <td></td> <td></td>	Tran 1 . 3 D 4 . 5 . 7 . 8 . 9 . 11 .	Dadlask MHz 11706 11789 11778 11836 11867 11874 11890 11904	Fixeq MHz 966.000 1039.000 1086.000 1086.000 1117.000 1124.000 1148.000 1154.000	Error MH2 0.016 0.404 0.349 0.406 0.408 0.914 0.412 -0.415	Pol VVHVVHVHVH	Ned Type DVB DVB DVB DVB DVB DVB DVB DVB DVB	Code : Rate 1/2 2/3 3/4 3/4 2/3 2/3 3/4 1/2	: 97, Q Rate 7160, 26125 3979 20765 2000 22000 22000 8660	40 VVe 409m -41.5 -35.0 -37.7 -34.8 -34.1 -33.5 -34.0 -34.4	st IRD 43 63 72 77 61 57 77 47	C/N db 5.6 7.8 8.8 9.7 7.6 7.2 9.8 6.0	Eb/No dB 7.4 8.4 8.9 9.8 8.2 7.8 9.9 7.8 9.9 7.8	Es/No Leck dB Status 69 LOCK 91 LOCK 101 LOCK 110 LOCK 89 LOCK 85 LOCK 11,1 LOCK 73 LOCK	LNB Volts 13.1 13.1 13.0 13.1 13.1 13.0 13.1 13.0	LNB mA 120 120 120 120 120 120 120 120 120		
14 11967 1217.000 -0.925 H DVB 3/4 22000 -33.2 58 7.0 7.1 8.3 LOCK 18.0 120 15 .11991 1241.000 -0.427 V DVB 3/4 22000 -33.5 71 8.7 8.8 10.0 LOCK 13.1 120 17 .12052 127.2000 -0.430 V DVB 3/4 22000 -33.5 75 9.4 9.5 10.7 LOCK 13.1 120 19 .12053 130.000 -0.433 V DVB 3/4 22000 -33.5 77 9.8 9.9 11.1 LOCK 13.1 120 20 .12060 131.000 -0.936 H VH 3/4 22000 -33.3 67 8.8 9.6 LOCK 18.0 120 21 12064 1334.000 -0.495 V VH 3/4 22000 -33.3 67 <td>Tran 1 3 0 4 5 7 8 9 11 11</td> <td>Dadiak MHz 11706 11789 11778 11836 11667 11674 11676 11674 11806 11904</td> <td>Freq MHz 966.000 1039.000 1088.000 1088.000 1117.000 1124.000 1148.000 1154.000 1179.000</td> <td>Error MH2 0.016 0.404 0.349 0.406 0.408 0.914 0.412 0.412 0.415 0.410</td> <td>Pol VVHVVHVHV</td> <td>Ned Type DVB DVB DVB DVB DVB DVB DVB DVB DVB DVB</td> <td>tellite Rate 1/2 2/3 3/4 3/4 2/3 2/3 3/4 1/2 3/4</td> <td>Symbol Rate 7160 26125 3979 20765 22000 22000 22000 22000 22000 22000 22000</td> <td>40 VVe 409m -41.5 -35.0 -37.7 -34.8 -34.1 -34.5 -34.0 -34.4 -34.4 -34.4</td> <td>st IRD 51q0 43 63 72 77 61 57 77 47 65</td> <td>C/N db 56 78 88 97 76 7.2 96 80 80</td> <td>Eb/No dB 7.4 8.4 8.9 9.8 8.2 7.8 9.9 7.8 9.9 7.8 8.1</td> <td>Es/No Lock dB Status 6.9 LOCK 10.1 LOCK 11.0 LOCK 10.9 LOCK 8.9 LOCK 8.5 LOCK 11.1 LOCK 11.1 LOCK 11.1 LOCK 11.1 LOCK 11.1 LOCK 11.1 LOCK 11.1 LOCK</td> <td>LNB Volts 13.1 13.1 13.0 13.1 13.1 13.0 13.1 18.0 13.1 13.1</td> <td>LNB mA 120 120 120 120 120 120 120 120 120</td> <td></td> <td></td>	Tran 1 3 0 4 5 7 8 9 11 11	Dadiak MHz 11706 11789 11778 11836 11667 11674 11676 11674 11806 11904	Freq MHz 966.000 1039.000 1088.000 1088.000 1117.000 1124.000 1148.000 1154.000 1179.000	Error MH2 0.016 0.404 0.349 0.406 0.408 0.914 0.412 0.412 0.415 0.410	Pol VVHVVHVHV	Ned Type DVB DVB DVB DVB DVB DVB DVB DVB DVB DVB	tellite Rate 1/2 2/3 3/4 3/4 2/3 2/3 3/4 1/2 3/4	Symbol Rate 7160 26125 3979 20765 22000 22000 22000 22000 22000 22000 22000	40 VVe 409m -41.5 -35.0 -37.7 -34.8 -34.1 -34.5 -34.0 -34.4 -34.4 -34.4	st IRD 51q0 43 63 72 77 61 57 77 47 65	C/N db 56 78 88 97 76 7.2 96 80 80	Eb/No dB 7.4 8.4 8.9 9.8 8.2 7.8 9.9 7.8 9.9 7.8 8.1	Es/No Lock dB Status 6.9 LOCK 10.1 LOCK 11.0 LOCK 10.9 LOCK 8.9 LOCK 8.5 LOCK 11.1 LOCK 11.1 LOCK 11.1 LOCK 11.1 LOCK 11.1 LOCK 11.1 LOCK 11.1 LOCK	LNB Volts 13.1 13.1 13.0 13.1 13.1 13.0 13.1 18.0 13.1 13.1	LNB mA 120 120 120 120 120 120 120 120 120		
15 11991 1241 000 -0.427 V DVB 3/4 22000 -33 5 71 8.7 8.8 10.0 LOCK 13.1 120 17 17022 127.000 -0.430 V DVB 3/4 22000 -33.6 75 9.4 9.5 10.7 LOCK 13.1 120 19 12053 130.000 -0.433 V DVB 3/4 22000 -33.9 77 9.6 9.5 11.1 LOCK 13.1 120 20 12050 130.000 -0.433 V DVB 3/4 22000 -33.9 57 8.3 8.4 9.6 LOCK 13.1 120 20 12060 130.000 -0.936 H DVB 3/4 22000 -33.3 57 R.3 8.4 9.6 LOCK 18.0 120 21 12084 1334.000 -0.941 H DVB 3/4 2	Tran 1 . 3 D 4 . 5 . 7 . 8 . 9 . 11 . 11 . 12 .	Dadiak MHz 11706 11789 11778 11836 11856 11874 11896 11904 11929 11936	Freq MHz 966.000 1039.000 1028.000 1086.000 11124.000 1124.000 1148.000 1154.000 1186.000	Error MH2 0.016 0.404 0.349 0.408 0.914 0.412 0.412 0.415 0.410 0.927	Pol VVIV VIVIVI	Ned Type DVB DVB DVB DVB DVB DVB DVB DVB DVB DVB	tellite Rate 1/2 2/3 3/4 3/4 2/3 2/3 3/4 1/2 3/4 3/4 3/4	 97, Q Symbol Rate 7160 26125 3979 20765 22000 22000 22000 22000 22000 22000 22000 22000 	VVe Level dBm -41.5 -35.0 -37.7 -34.8 -34.1 -33.5 -34.0 -34.4 -34.4 -34.4 -34.4 -35.4	st IRD 51q0 43 83 727 81 57 77 47 55 55	C/N db 56 76 86 97 76 7.2 98 60 80 80	Eb/No dB 7.4 8.4 8.9 9.8 8.2 7.8 9.9 7.8 8.1 7.0	Es/No Leck dB Status 69 LOCK 91 LOCK 101 LOCK 110 LOCK 110 LOCK 89 LOCK 85 LOCK 111 LOCK 93 LOCK 82 LOCK	LNB Volts 13.1 13.1 13.1 13.1 13.1 13.1 13.0 13.1 18.0	LNB mA 120 120 120 120 120 120 120 120 120 120		
17 12022 1272.000 -0.430 V DVB 3/4 22000 -33.6 75 9.4 9.5 10.7 LOCK 13.1 120 19 12053 1303.000 -0.433 V DVB 3/4 22000 -33.5 77 9.6 9.5 11.1 LOCK 13.1 120 20 12065 1310.000 -0.433 V DVB 3/4 22000 -33.3 57 8.8 9.6 10.1 LOCK 13.1 120 21 12064 134.000 -0.936 H DVB 3/4 22000 -33.3 52 7.7 7.8 9.0 LOCK 13.1 120 22 .12064 134.000 -0.941 H DVB 3/4 20000 -33.9 73 8.9 9.0 10.2 LOCK 13.1 120 22 .12091 1441.000 -0.941 H DVB 3/4 20000 -33.9 73 8.9 9.0 10.2 LOCK 13.0 120	Tran 1 . 3 D 4 . 5 . 7 . 8 . 9 . 11 . 11 . 12 . 14 .	Dadiak MHz 11706 11769 11778 11836 11867 11874 11896 11904 11929 11938 11967	Fixeq MHz 966.000 1039.000 1028.000 1086.000 1117.000 1124.000 1154.000 1179.000 1179.000 1178.000 1217.000	Error MH2 0.016 0.404 0.349 0.406 0.408 0.408 0.410 0.412 0.415 0.410 0.927 0.925	PO >>T> >T>T>T >TT	Ned Type DVB DVB DVB DVB DVB DVB DVB DVB DVB DVB	tellite Rate 1/2 2/3 3/4 3/4 2/3 2/3 3/4 1/2 3/4 3/4 3/4 3/4 3/4	 97, Q Symbol Rate 7160 26125 3979 20765 22000 	VVe dBm -41.5 -35.0 -37.7 -34.8 -34.1 -33.5 -34.0 -34.4 -34.4 -34.4 -33.4 -33.4 -33.2	st IRD 43 83 727 81 57 77 47 85 55 55	CIN db 5.6 7.8 8.8 9.7 7.6 7.2 9.6 6.0 8.0 8.0 8.0 5.9 7.0	Eb/No dB 7.4 8.4 9.8 8.2 7.8 9.9 7.8 7.8 9.9 7.8 8.1 7.0 7.1	Es/No Lock dB Status 9.1 LOCK 9.1 LOCK 10.1 LOCK 11.0 LOCK 8.5 LOCK 11.1 LOCK 7.3 LOCK 9.3 LOCK 8.2 LOCK 8.3 LOCK	LNB Volts 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.	LNB mA 120 120 120 120 120 120 120 120 120 120		
19 12053 1303.000 -0.433 V DVB 3/4 22000 -33.9 77 9.6 9.9 11.1 LOCK 13.1 120 20 12060 1310.000 -0.936 H DVB 3/4 22000 -33.3 67 8.3 8.4 9.6 LOCK 18.0 120 21 12084 1334.000 -0.499 V DVB 3/4 22000 -33.9 62 7.7 7.8 9.0 LOCK 13.1 120 22 .12091 1341.000 -0.941 H DVB 3/4 20000 -33.9 73 8.9 9.0 10.2 LOCK 13.1 120	Tran 1 3 D 4 - 5 - 7 8 9 - 11 - 11 - 12 - 14 - - - - - - - - - - - - -	Dadiak MHz 11706 11769 11836 11867 11874 11896 11904 11938 11957 11991	Fixeq MHz 966,000 1039,000 1028,000 11086,000 1124,000 1148,000 1148,000 1154,000 1186,000 11217,000 1217,000	Error MH2 0.016 0.404 0.349 0.406 0.408 0.914 0.412 0.412 0.412 0.412 0.927 0.925 0.427	PO >> I> >I> I> I> I>	Ned Type DVB DVB DVB DVB DVB DVB DVB DVB DVB DVB	tellite Rate 1/2 2/3 3/4 3/4 2/3 2/3 2/3 3/4 1/2 3/4 3/4 3/4 3/4 3/4	: 97, Q Symbol Rate 7160 26125 3979 20765 22000 2000 2000 200	VVe dBm -41.5 -35.0 -37.7 -34.8 -34.1 -35.5 -34.1 -35.5 -34.0 -34.4 -34.4 -34.4 -33.4 -33.2 -33.5	st IRD 33190 43 63 72 77 61 57 77 47 65 55 65 71	CIN db 56 78 88 97 76 7.2 96 80 80 89 7.0 87	Eb/No dB 7.4 8.4 9.8 8.2 7.8 9.9 7.8 9.9 7.8 8.1 7.0 7.1 8.8	Es/No Lock dB Status 69 LOCK 91 LOCK 101 LOCK 110 LOCK 69 LOCK 65 LOCK 111 LOCK 73 LOCK 93 LOCK 83 LOCK 83 LOCK 100 LOCK	LNB Volts 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.	LNB mA 120 120 120 120 120 120 120 120 120 120		
20 12060 1310.000 -0.936 H DVB 3/4 22000 -33.3 67 8.3 8.4 9.6 LOCK 18.0 120 21 12064 1334.000 -0.439 V DVB 3/4 22000 -33.3 62 7.7 7.8 9.0 LOCK 13.1 120 22 12091 1341.000 -0.941 H DVB 3/4 20000 -33.9 73 8.9 9.0 10.2 LOCK 19.0 120	Tran 1 3 D 4 5 7 8 9 11 11 12 14 15 17 17	Dadiak MHz 11706 11769 11778 11836 11867 11874 11874 11904 11904 11929 11938 11967 11991	Freq MHz 966.000 1039.000 1028.000 1026.000 1124.000 1148.000 1148.000 1148.000 1148.000 1179.000 1179.000 1241.000 1241.000	Error MHz 0.016 0.404 0.404 0.408 0.408 0.914 0.412 0.415 0.415 0.415 0.925 0.427 0.925 0.427	PO VVIV VIVV VIIV V	Ned Type DVB DVB DVB DVB DVB DVB DVB DVB DVB DVB	tellite Rate 1/2 2/3 3/4 3/4 2/3 2/3 2/3 3/4 1/2 3/4 3/4 3/4 3/4 3/4 3/4	: 97, U Symbol Rate 7160 26125 3979 20765 22000 22000 22000 22000 22000 22000 22000 22000 22000 22000 22000	VVe dBm -41.5 -35.0 -37.7 -34.8 -34.1 -33.5 -34.0 -34.4 -34.4 -34.4 -35.4 -34.4 -35.5 -34.0 -34.5 -34.0 -34.5 -34.0 -34.5 -34.5 -34.0 -34.5 -33.5	st IRD 33 g0 43 63 72 77 61 57 77 47 65 55 65 71 75	CIN 56 78 88 97 76 72 98 60 80 69 70 87 94	Eb/No dB 7.4 8.9 9.8 8.2 7.8 9.9 7.8 9.9 7.8 8.1 7.0 7.1 8.8 9.5	Es/No Lock dB Status 69 LOCK 101 LOCK 101 LOCK 101 LOCK 101 LOCK 69 LOCK 65 LOCK 111 LOCK 73 LOCK 83 LOCK 83 LOCK 83 LOCK 100 LOCK 107 LOCK	LNB Volts 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.	LNB mA 120 120 120 120 120 120 120 120 120 120		
21 . 12064 1334.000 -0.439 V DVB 3/4 22000 -33.3 52 7.7 7.8 9.0 LOCK 13.1 120 22 . 12091 1341.000 -0.941 H DVB 3/4 20000 -33.9 73 8.9 9.0 10.2 LOCK 18.0 120	Tran 1 3 0 4 5 7 8 9 11 11 12 14 15 17 19	Dadiak MHz 11706 11769 11636 11667 11674 11696 11904 11929 11936 11907 11997 11997 11997 11997 11997	Fixeq MHz 966.000 1039.000 1086.000 1086.000 1142.000 1142.000 1142.000 1154.000 1154.000 1277.000 1241.000 1272.000	Error MHz 0.016 0.404 0.408 0.408 0.408 0.914 0.412 0.412 0.415 0.410 0.927 0.925 0.427 0.925 0.420	PO VIIV VIIV VIIV VV	Ned Type DVB DVB DVB DVB DVB DVB DVB DVB DVB DVB	tellite Rate 1/2 2/3 3/4 3/4 2/3 2/3 2/3 3/4 1/2 3/4 3/4 3/4 3/4 3/4 3/4 3/4	: 97, U Symbol Rate 7160 26125 3979 20765 22000 22000 22000 22000 22000 22000 22000 22000 22000 22000 22000 22000 22000	VVe dBm -41.5 -35.0 -37.7 -34.8 -34.1 -33.5 -34.0 -34.4 -33.4 -33.4 -33.4 -33.5 -33.6 -33.6 -33.9	st IRD 33 g0 43 63 72 77 61 57 77 47 65 55 55 71 75 77	CIN db 56 78 87 76 72 98 60 80 80 80 80 80 80 80 80 80 8	Eb/No dB 7.4 8.9 9.8 8.2 7.8 9.9 7.8 9.9 7.8 8.1 7.0 7.1 8.8 9.5 9.5	Es/No Lock dB Status 6.9 LOCK 9.1 LOCK 10.1 LOCK 11.0 LOCK 8.5 LOCK 8.5 LOCK 11.1 LOCK 7.3 LOCK 8.3 LOCK 8.3 LOCK 8.3 LOCK 10.7 LOCK 11.1 LOCK	LNB Volts 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.	LNB mA 120 120 120 120 120 120 120 120 120 120		
22 . 12091 1341.000 -0.941 H DVB 3/4 20000 -33.9 73 8.9 9.0 10.2 LOCK 18.0 120	Tran 1 3 D 4 5 7 8 9 11 11 12 14 15 17 19 20	Dadiak MHz 11706 11789 11778 11667 11667 11674 11696 11904 11929 11938 11967 11997 11997 12022 12053 12060	Freq MHz 956 D00 1039 000 1028 000 1026 000 1124 D00 1148 D00 1154 D00 1154 D00 1154 000 1277 000 1241 000 1272 000 1303 000 1303 000	Error MHz 0.016 0.404 0.349 0.408 0.914 0.412 0.412 0.412 0.412 0.412 0.427 0.927 0.927 0.925 0.427 0.420 0.433 0.433 0.936	PO VIIV VIIV VIIV VVI	Sa Med Type DVB DVB DVB DVB DVB DVB DVB DVB DVB DVB	tellite Rate 1/2 2/3 3/4 3/4 2/3 2/3 3/4 1/2 3/4 3/4 3/4 3/4 3/4 3/4 3/4 3/4 3/4	: 97, U Symbol Rate 7160 26125 3979 20765 22000 22000 22000 22000 22000 22000 22000 22000 22000 22000 22000 22000 22000 22000	VVe dBm -41.5 -35.0 -37.7 -34.6 -34.1 -33.5 -34.0 -34.4 -33.4 -33.4 -33.5 -33.6 -33.9 -33.3	St IRD 43 63 72 77 61 57 77 47 65 55 55 71 75 77 57 57 57 57 57 57 57 57	CIN db 5.6 8.6 9.7 7.6 7.2 9.8 6.0 8.0 8.0 8.0 8.9 7.0 8.7 9.4 9.8 8.3	Els/No dB 7.4 8.9 9.8 8.2 7.8 9.9 7.8 8.1 7.0 7.1 7.0 7.1 7.0 7.8 8.1 7.0 7.8 8.1 7.0 8.1 7.0 8.1 8.5 9.9 8.4	Es/No Lock dB Status 69 LOCK 91 LOCK 101 LOCK 110 LOCK 89 LOCK 89 LOCK 89 LOCK 811 LOCK 111 LOCK 93 LOCK 93 LOCK 83 LOCK 83 LOCK 100 LOCK 107 LOCK 107 LOCK 96 LOCK	LNB Volts 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.	LNB mA 120 120 120 120 120 120 120 120 120 120		
	Tran 1 3 D 4 5 7 8 9 11 11 12 14 15 17 17 19 20 21	Dadiak MHz 11706 117789 117789 11876 11874 11876 11904 11904 11904 11905 11905 11967 11991 12002 12003 12060 12064	Freq 966.000 1039.000 1028.000 1086.000 1144.000 1144.000 1145.000 1154.000 1154.000 1179.000 1241.000 1241.000 1233.000 1330.000 1330.000	Error MH2 0.404 0.408 0.408 0.412 0.412 0.412 0.415 0.410 0.925 0.427 0.925 0.427 0.430 0.936 0.433 0.936 0.439	PO >>I> >I>I>I>I>	Sa Med Type DVB DVB DVB DVB DVB DVB DVB DVB DVB DVB	tellite Rate 1/2 2/3 3/4 3/4 2/3 2/3 3/4 1/2 3/4 3/4 3/4 3/4 3/4 3/4 3/4 3/4 3/4 3/4	: 97, U Symbol Rate 7160 26125 3979 20765 22000 22000 22000 22000 22000 22000 22000 22000 22000 22000 22000 22000 22000 22000 22000	VVe dBm -41.5 -35.0 -37.7 -34.8 -34.5 -34.0 -34.4 -33.5 -34.4 -33.4 -33.4 -33.5 -33.5 -33.5 -33.5 -33.3 -33.3 -33.3	St IRD 43 43 57 77 47 55 55 55 57 77 57 57 57 57 5	CMI 4b 56 78 86 97 72 98 80 80 80 80 80 80 80 87 88 80 87 98 83 77	Els/No dB 7.4 8.9 9.8 8.2 7.8 9.9 7.8 8.1 7.0 7.1 7.0 7.1 7.0 7.8 8.1 7.0 7.8 8.1 7.0 7.8 8.1 7.0 7.8 8.1 7.0 7.8 8.1 7.8 8.5 7.8 8.1 7.8 8.5 7.8 8.1 7.8 8.5 7.8 8.5 7.8 8.5 7.8 8.5 7.8 8.5 7.8 8.5 7.8 8.5 7.8 8.5 7.8 8.5 7.8 8.5 7.8 8.5 7.8 8.5 7.8 8.5 7.8 8.5 8.5 7.8 8.5 8.5 8.5 8.5 8.5 8.5 8.5 8.5 8.5 8	Es/No Lock dB Status 69 LOCK 91 LOCK 110 LOCK 110 LOCK 69 LOCK 65 LOCK 111 LOCK 73 LOCK 93 LOCK 83 LOCK 83 LOCK 100 LOCK 107 LOCK 111 LOCK 96 LOCK 90 LOCK	LNB Volts 13.1 13.1 13.1 13.1 13.1 13.1 13.1 13.	LNB mA 120 120 120 120 120 120 120 120 120 120		

It is recommended to select File/Properties/Results only before printing Proof of Performance Scans to reduce the number of columns printed. Most field technicians do not need to or want to see the transponder parameters (modulation type, code rate, baud rate). Screenshots of the Properties settings change and the subsequent trimmed down Proof of Performance Scan results are shown below.



Proof of Performance	Testing with a	a Super Buddy™

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	Tran MHz	MHz	dBm	SiqQ	db	«В	dB Status	Volta	mA		
	1 956.000	-0.016	-41.5	43	5.6	7.4	6.9 LOCK	13.1	120		
	4 1039,000	0.349	-35.0	72	68	8.9	10.1 LOCK	18.0	120		
	5 1086,000	-0.406	-34.6	77	9.7	9.B	11.0 LOCK	13.1	120		
	7 1117 000	-0.408	-34.1	61	7.6	8.2	89 LOCK	13.1	120		
	8 1124,000	-0.914	-33.5	57	7.2	7.B	85 LOCK	18.D	120		
	9 1148.000	-0.412	-34.D	77	9.8	9.9	11.1 LOCK	13.1	120		
	111154.000	-0.415	-34.4	47	6.0	7.B	7.3 LOCK	18.D	120		
	11 1179.000	-0.410	-34.4	66	8.0	8.1	9.3 LOCK	13.1	120		
	12 1186.000	-0.927	-33.4	66	6.9	7.0	8.2 LOCK	18.0	120		
	14 1217.000	-0.925	-33.2	66	7.0	7.1	8.3 LOCK	18.0	120		
	15 1241.000	-0.427	-33.5	71	8.7	8.B	10.0 LOCK	13.1	120		
	17 1272.000	-0.430	-33.6	75	9.4	9.5	10.7 LOCK	13.1	120		
	19 1303.000	-0.433	-33.9	77	9.8	9.9	11.1 LOCK	13.1	120		
	20 1310.000	-0.936	-33.3	67	8.3	8.4	9.6 LOCK	18.0	120		
	21 1334.000	-0.439	-33.3	62	7.7	7.B	9.0 LOCK	13.1	120		
	22 1341.000	-0.941	-33.9	73	89	9.D	10.2 LOCK	18.0	120		
4											ALL DOT