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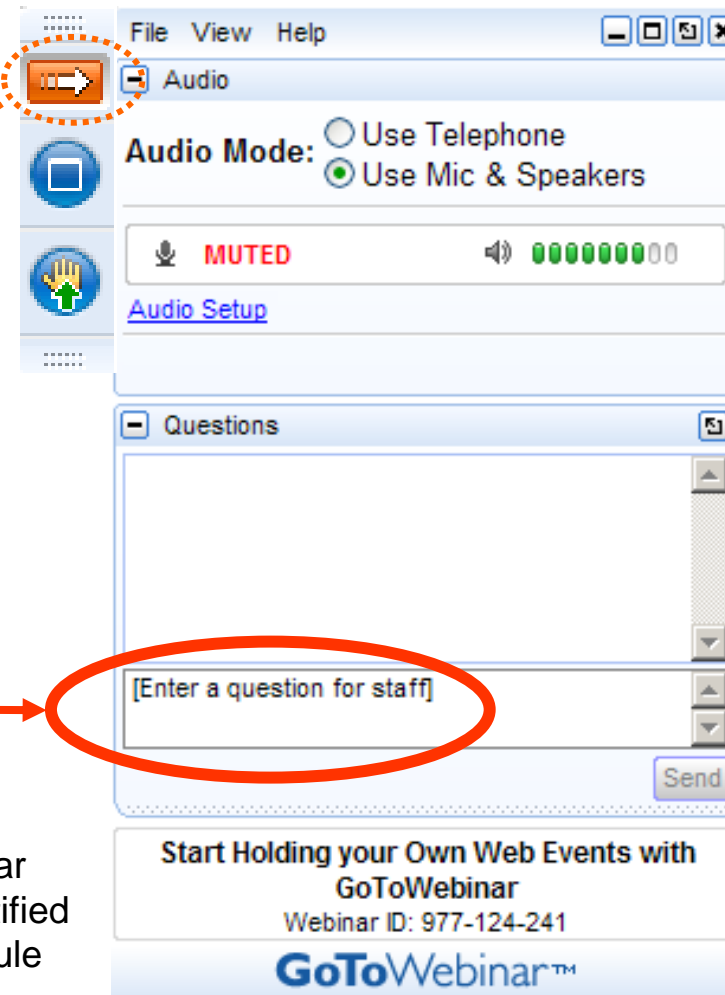


RBDS-RDS

Your questions please?

(if you don't see the control panel, click on the orange arrow icon to expand it)

Please enter your questions in the text box of the webinar control panel (remember to press send)



The screenshot shows a GoToWebinar control panel window. At the top, there is a menu bar with 'File', 'View', and 'Help'. Below the menu bar, there is a section for 'Audio' settings. An orange arrow icon is circled in red and has a dotted orange line pointing to it. The audio settings include 'Audio Mode' with two radio buttons: 'Use Telephone' (unselected) and 'Use Mic & Speakers' (selected). Below this, there is a 'MUTED' indicator with a microphone icon and a volume level indicator showing 00. A link for 'Audio Setup' is visible. Below the audio settings, there is a 'Questions' section. A text box with the placeholder text '[Enter a question for staff]' is circled in red, and a red arrow points to it. A 'Send' button is located to the right of the text box. At the bottom of the control panel, there is a promotional banner for GoToWebinar with the text 'Start Holding your Own Web Events with GoToWebinar' and 'Webinar ID: 977-124-241'.



Remember: The completion of a Nautel webinar qualifies for $\frac{1}{2}$ SBE re-certification credit, identified under Category I of the Re-certification Schedule for SBE Certifications.

Ideas for things to cover

- Sidechain vs. Inline
 - Benefits of each
 - How to decide...
- Integral or Third Party
 - Will my box do the job already, or do I need more?
- What are the fields
 - What is optional?
 - Is there anything that **MUST** be included?
- The Gotchas
 - Moving the data
 - Port numbers
 - Refresh rate

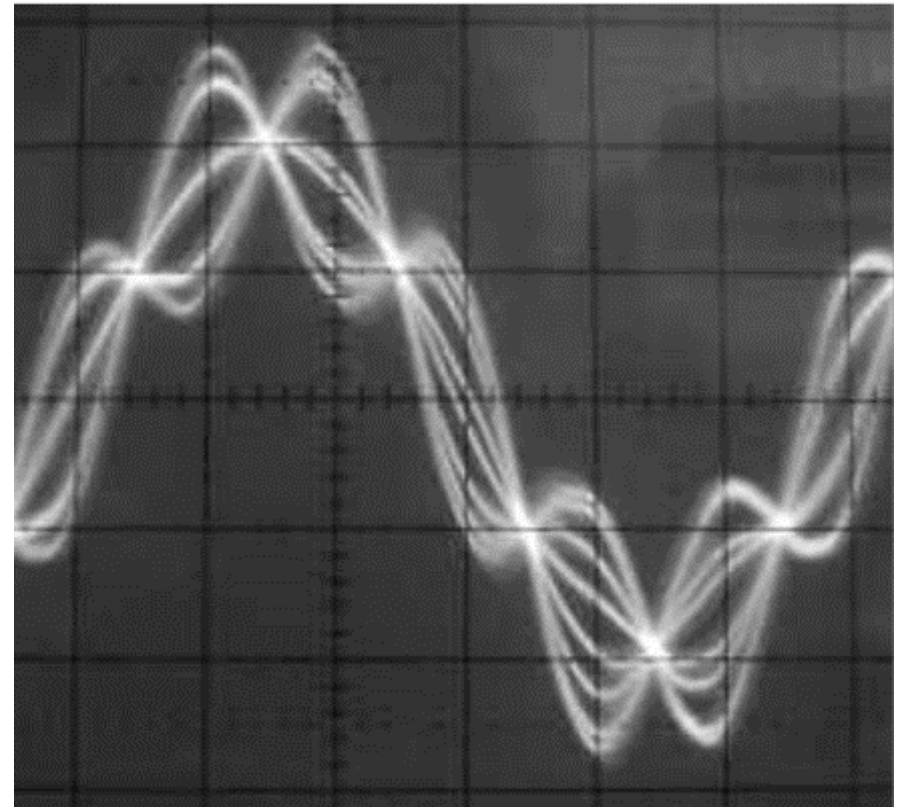
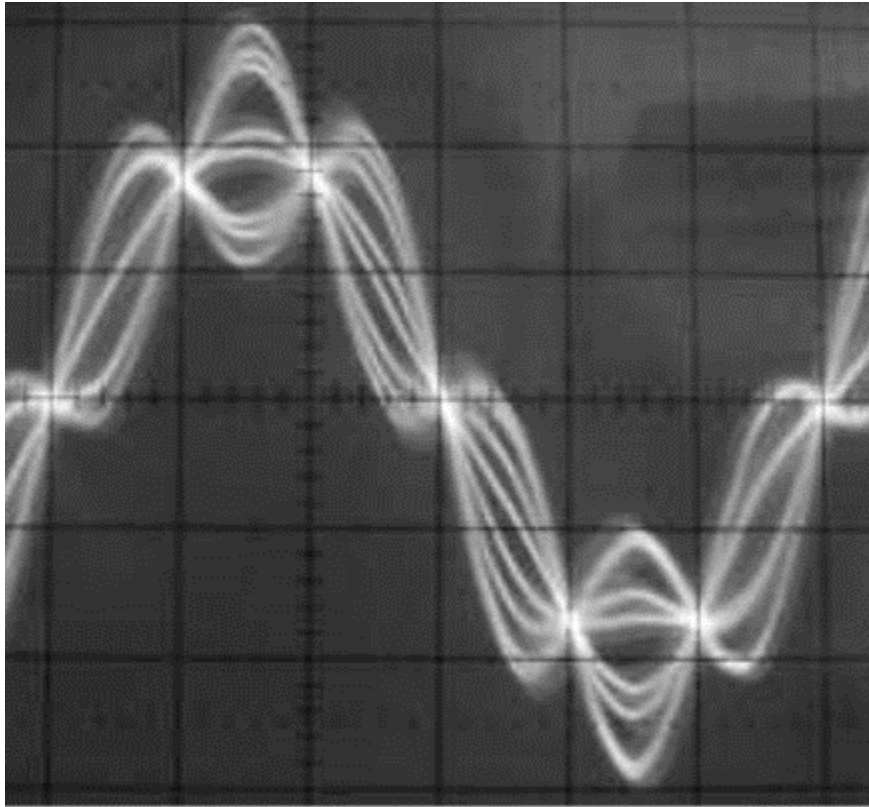
General	Main Audio	SCA	RDS
RDS		Enabled	
Data Source	ASCII over IP		
Injection Level	4.0		%
Phase	30.0		°
PI Code (hex)	0xCE42		
PS Name	Cove FM		
Scrolling Enable/Speed	Off		
Scrolling PS Name			
Scrolling Type	Word		
Radio Text			
PTY	22: SPARE/PUBLIC		
PTYN			

General	Main Audio	SCA	RDS
Scrolling PS Name			
Scrolling Type	Word		
Radio Text			
PTY	22: SPARE/PUBLIC		
PTYN			
Music/Speech	Music		
Traffic Info	None		
Alt. Frequencies	None		
Artificial Head	Disabled		
Compression Flag	Disabled		
Dynamic PTY	Dynamic		
Stereo	Stereo		

Gp #	Description of Use	Gp #	Description of Use
0A	Basic tuning and switching information	8A	Traffic Message Channel or ODA
0B	Basic tuning and switching information	8B	Open Data Applications
1A	Program Item Number and slow labeling codes	9A	Emergency Warning System or ODA
1B	Program Item Number	9B	Open Data Applications
2A	Radiotext only	10A	Program Type Name
2B	Radiotext only	10B	Open Data Applications
3A	Applications Identification for ODA	11A	Open Data Applications
3B	Open Data Applications	11B	Open Data Applications
4A	Clock-time and date	12A	Open Data Applications
4B	Open Data Applications	12B	Open Data Applications
5A	Transparent Data Channels or ODA	13A	Enhanced Radio Paging or ODA
5B	Transparent Data Channels or ODA	13B	Open Data Applications
6A	In House applications or ODA	14A	Enhanced Other Networks data
6B	In House applications or ODA	14B	Enhanced Other Networks data
7A	Radio Paging or ODA	15A	Undefined
7B	Open Data Applications	15B	Fast switching information only

It is not required that broadcasters air all of the various RDS data groups. In fact, through most of the world the only group that the authorities would ever require would be the 0A group, which contains identification information about the station.

In normal operation, the A groups contain the data, and the B groups are generally used for error correction.



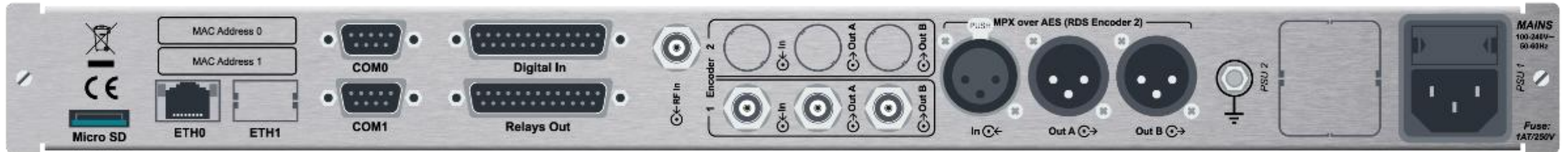
Audemat RDS Encoder | Front panel

User-friendly front panel



Audemat RDS Encoder | Back panel

Multiple IO's back panel



Easy configuration | Set it up in less than 30 seconds

- Configure the most used RDS features such as :
 - PI
 - PS
 - PTY
 - TP
 - TA
 - Radiotext
 - Group sequence
 - AF List

The screenshot shows the 'Easy Config' interface for RDS settings. The settings are as follows:

- Enable RDS:** A green toggle switch is turned ON.
- DSN #1:** A green dot is next to a button labeled 'Set as current'.
- PI:** The value is 1234.
- PS:** The value is AUDEMAT.
- PTY:** The value is 3-Information. There is a checkbox for RBDS which is currently unchecked.
- PTYn (10A):** The value is PTYn (10A).
- TP:** A checkbox which is unchecked.
- TA:** A checkbox which is unchecked.
- Clock Time (4A):** A green checkmark is next to the label.
- AF method A:** A text input field with a placeholder: 'Enter frequencies with space as separator. Example: 88.0 90.5 100.2'.
- Radiotext:** A text input field containing 'Z100 NY's #1 Hit Music Station'.
- Radiotext: Repeat:** A dropdown menu with 'Inf.' selected.
- Group Sequence:** A text input field containing '9A 15A 15A 15A 15A 8A 0A 0A 0A 8A 0A 2A' and a question mark icon.

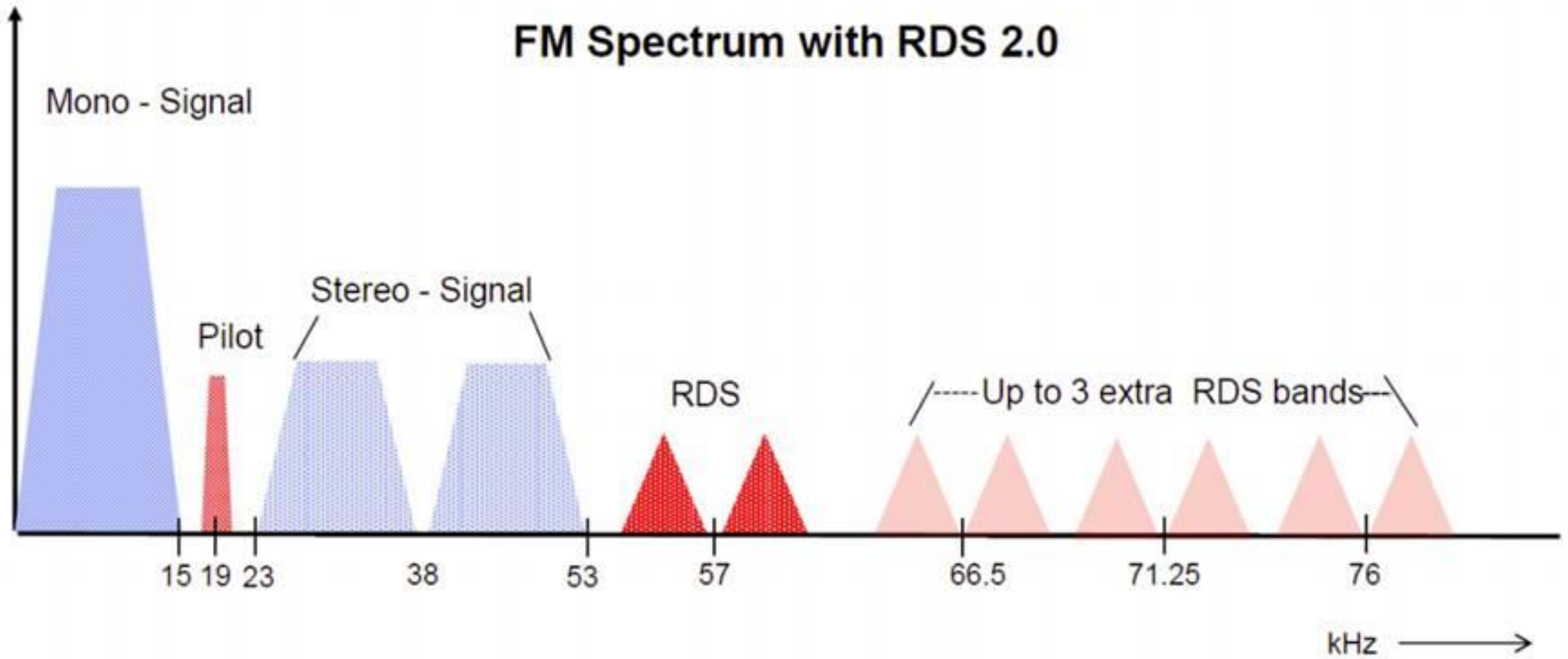
New features | FM Tuner

- Confident FM tuner built into the box!
 - Automatic tuning on the PI/Call Letters
 - Realtime RDS decoding
 - Group analyzer
- Standard for US market
- Option for RoW

The screenshot displays the AUDEMAT RDS ENCODER interface. On the left is a navigation menu with options: Status, RDS, RT Plus, RDS2 RFT, FM Tuner (highlighted), RDS Settings, Communication, and System. The main area is divided into several sections:

- Tuner:** Shows a frequency of 98.00 MHz. It includes a search function for call signs and various radio parameters like Lock, RF Level (90 dBµV), MPX Deviation (4.0 kHz), and RDS Level (4.0 kHz).
- Analyzer:** Displays BER (Block Error Rate) statistics for Error Rate, Block corr., and Block OK, comparing 'Inst.' and 'Global' values. It also features a 'Group' analyzer showing the percentage of signal for various RDS groups (0, 2, 3, 4, 15).
- RDS:** Lists RDS parameters such as PI (A205), Call Sign (KGBT), PS (AUDEMAT), PTY (6-Classic Rock), and TA (AUDEMAT RDS Encoder).
- AF:** Shows a list of AF frequencies: 2, AF, 90.2, 93.1k.
- Clock Time:** Displays the current time as 2019-02-01 10:07:40 1/2h.

FM Spectrum with RDS 2.0



Resources:

- https://www.nautel.com/content/user_files/2018/03/Nautel-RW-ebook-RDS-Basics-and-Best-Practices-2018.pdf – RDS basics ebook
- <https://picodes.nrscstandards.org/> - U.S. PI code calculator, links for stations and translators
- <https://studylib.net/doc/18372295/rds-basics> - more data on the data!
- http://ftp.audemat.com/ftp/ftp_inc/RDS_PRIMER.pdf - Audemat's "The RDS Primer"
- <https://www.nrscstandards.org/standards-and-guidelines/documents/guidelines/g300-c.pdf> - the NRSC Usage Guideline



Online Information



Webinars

<https://www.nautel.com/resources/webinars/>



Nautel Waves Newsletter

<https://www.nautel.com/newsletters/>



YouTube

<http://www.youtube.com/user/NautelLtd>



Online Info, such as the Broadcasters' Desktop Resource

<https://www.thebdr.net/>

THANK YOU!

