

## **STMAX3015+ micro**

### **A budget RDS-enabled FM transmitter board with 15W output.**

The transmitter is fully controlled via serial port, settings are saved to non-volatile memory.

With a USB-to-Serial (TTL 5V) at 115200 baud, set the following parameters:

Frequency, power level, stereo/mono, audio gain, preemphasis.

RDS parameters: PI, PS, ECC, Radio Text, PS, PA, MS, DI, PTY.

The command-line interface is self-explanatory:

#### Help:

config-power:n - set power percentage to n (0 to 100)  
config-fq:n - set frequency to n MHz (example: 87.5)  
config-audio-stereo:n - set stereo mode to 0 (mono) or 1 (stereo)  
config-audio-input:n - set audio input to 0 (analog) or 1 (digital)  
config-audio-gain:n - set audio gain to 0 (low) or 1 (high)  
config-audio-pre:n - set preemphasis 0 (75 uS) or 1 (50 uS)  
config-alarm-temp:n - set alarm temperature to n degrees C (40 to 100)  
config-rds:n - turn RDS on (n=1) or off (n=0)  
config-rds-pi:nnnn - set PI to nnnn (hex)  
config-rds-ecc:n - set ECC to n  
config-rds-ps:n - set PS to n (up to 8 characters)  
config-rds-rt:n - set Radio Text to n (up to 64 characters)  
config-rds-tp:n - set TP bit (0 or 1)  
config-rds-ta:n - set TA bit (0 or 1)  
config-rds-ms:n - set MS bit (0 or 1)  
config-rds-di:n - set DI (0 or 15)  
config-rds-pty:n - set PTY (0 or 31)  
config-rds-afs:n1 n2 n3... - set up to 25 alternative frequencies in MHz  
config-save - save settings to non-volatile memory  
config-reboot - reboot the exciter board  
config-defaults - set factory defaults

#### Current settings:

Power: 100%

Frequency: 87.50 MHz (set by DIP switches)

Stereo: 1 (stereo), Input: 0 (no format converter), Gain: 0 (low), Preemphasis: 1 (50 uS)

Alarm temp: 80 C

RDS: 1 (on), TP: 0 (off), TA: 0 (off), MS: 0 (speech), DI: 1, PTY: 12

PI: 1234 (hex), ECC: 0, PS: \*PCS-EL\*

RT: Example radio text

AFs: 87.6 87.7 87.8