Menu 0
Last trigger statistics

0.1 DTMF received
Displays DTMF code as it was received

0.2 DTMF decoded
Displays DTMF code as it was decoded

0.3 LFC time decoded
Length [ms] of LFC carrier as it was detected

0.4 Last activation
Time [s] since last trigger activation

0.5 Trigger status
Mx0 missing chars; Wr wrong chars; Ux unrecoverred; Lc LFC error

0.6 Triggered spot
Triggered spot number as it its index in filename on removable media

0.7 Last time played
Last spot playing time, include all delays from system

0.8 Maximum playing time
Maximum playing time of triggered spot. It is defined for Code 1/2 in 8.5 and 8.6 and for Code 3 (manual trigger) is hard-set to 30s. After this time, playing (and transmitting) is forced to stop for security

Menu 1
Overall statistics

1.1 Code_001 activated
Code 001 triggers since last reboot or since Up-time 00:00:00:00

1.2 Code_002 activated
Code 002 triggers since last reboot or since Up-time 00:00:00:00

1.3 DTMF missing chars
Missing chars since last reboot or since Up-time 00:00:00:00

1.4 DTMF wrong chars
Wrong chars since last reboot or since Up-time 00:00:00:00

1.5 Allowed errors exc.
Allowed errors exceeded since last reboot or Up-time 00:00:00:00
There are 12. chars in a Code and user can define how many of them can be wrong/missing by setting variable “DTMF allowed errors in 3.4

1.6 LFC errors
LFC errors since last reboot or Up-time 00:00:00:00

1.7 False characters
False characters detected since last reboot since Up-time 00:00:00:00
They are defined as a group of chars received in number less than 3 in period less than 4sec. Those are NOT a part of statistics!

1.8 Up-time
System uptime; resets while reboot or power-up

Menu 2
Transmitter settings

2.1 Tx idle frequency

Transmitter “idle" frequency [kHz]; Means PLL frequency when transmitter is off. This is used for parking PLL off the receiving frequency to avoid interfere FM receiver. Range from 87500 to 108000

2.2 Tx out frequency

Transmitter “broadcast” frequency [kHz]; Range from 87500 to 108000

2.3 Power soft attack

If set to “ON”, Tx power rises slowly to desired value preset in 2.4; Usually rises for a few seconds to reach desired value. If set to “OFF”, Tx power starts in full within a few hundred miliseconds.

2.4. Output power

Desired output power regulated and measured at the transmitter output

2.5 Transmitter volume

Transmitter audio volume, regulated at input of the FM modulator; For maximum volume set to ‘32’

2.6 Fallback power

Transmit power used when antenna issue detected; Measure return power value exceeds value in 9.27.2; Note: this value does no represents watts or SWR, its just na A/D value representation. Value of “10” equals cca SWR 1,5

Menu 3
Trigger settings

3.1 Trigger code 1
Code 1 value, only 9 last characters allowed

3.2 Trigger code 2
Code 2 value, only 9 last characters allowed

3.3 Trigger method
Method used for triggering, last version supports DTMF only. If DTMF/LFC selected, offset 10 used to trigger spot when DTMF code and LFC presented simultaneously

3.4 DTMF allowed errors
Maximum amount of errors in detected code to decode it as a valid

3.5 LFC min. time
Minimum time of LFC carrier necessary to decode LFC as valid

3.6 DTMF max. time
Maximum time of decoder activation since first character is received. This exclude false characters recognition. If they recognized, this counter resets.

Menu 4
Receiver settings

4.1 Rx frequency
Receiver frequency, FM receiver frequency to listen for code

4.2 Rx AGC
Receiver automatic gain; 0 = automatic

4.3 Rx pre-amp
Receiver preamplifier ON/OFF

4.4 Rx pre-amp gain
Rx preamplifier gain; +9db/+6db

4.5 Rx volume
Receiver volume; 63 = max

4.6 Rx force mono
If set to “on”, receiver is set to MONO

Menu 5
Sytem settings

5.1 Factory settings

To load factory settings, use following sequence:
- set "Factory settings" to 1
- save settings in menu 5.6
- reboot device

5.2 Power save

Activate power saving in [s]; 0 = off; 255=maximum
Note: this action does not affect decoding and other functionality

5.3 Wake-up on trigger

If set, module wakes from “Power save” mode when trigger activated

5.4 Auto lock

Automatic screen lock in [s]; 0 = off; 255 = max

5.5 Lock when transmit

Automatically lock the screen when transmit to prevent issues

5.6 Save settings

Save all settings to internal Flash memory

Menu 6
Advanced settings

6.1 Ventilator assign	
Assign all fans to adequate temperature sensors and sets their priority For detailed settings check “SubMenu 20: Ventilator assign procedure” in attachment	

6.2 Banned codes	
Sometimes there are DTMF characters used in third party airings. If periodically such codes occurs, they may be pyt ont the blacklist to remoe them from “wrong codes” statistics	

6.2.1 Blacklist enable	**21.1**
Blacklist record activating. Each position represents bit in entered value; left justified. 0 = all unused; 1 = first allowed; 2 = second allowed; 3 = first and second allowed; 9 = first and fourth allowed	

6.2.2 – 6.2.6 Banned codes	**21.2-21.6**
Enter DTMF codes to be banned as they appears in decoder	

6.3 Adv.Rx/MP3 settings
Some tunning variables for receiver and MP3 player

6.3.1 High freq. cut off **22.1**
Lowpass filter for FM receiver, use values 0 (off) to 6

6.3.2 Chan. Filter bandwith **22.2**
Bandwith for filter, use values 0(off) to 6

6.3.3 Deemphasis **22.3**
Deemphasis 75us for EUROPE, 50us for US countries

6.3.4 Force FM stereo **22.4**
Force FM stereo output as long as stereo carrier detected

6.3.5 MP3 volume **22.5**
MP3 player output volume, maximum value 35

6.4. Timming functions
Functions that rely on time

6.4.1 Hibernation ON **23.1**
Start time for mode when triggering is OFF, low power mode

6.4.2 Hibernation OFF **23.2**
End of low power mode, triggering activatted

6.4.3 Daily report at **23.3**
The time for full report sending, this time should be inserted within Hibernation time 6.4.1 and 6.4.2

6.4.4 Force online trigger **23.4**
Trigger report after playing stops; 0 = off; time[s] = delay after play

6.4.5 Automated trig. Period **23.5**
Period [s] for repeated playing and transmitting spot in 6.5

6.4.6 Set D/T **23.6**
Manually set date/time; value is stored automatically. GSM overrides.

6.5 Auto trigger spot
Number of the spot to be played if automated trigger 6.4.5 activated
000 = off; 001 = play spot 001_xxx.mp3

6.6 Display calibration
Enter menu for TFT display touch calibration procedure

Menu 7
Security and protection

7.1 Report temp. alarm
Not supported in current version

7.2 Force Tx_FAN2&4 ON
Minimal value of FAN2 and FAN4 power when transmitter is ON

7.3 Shutdown temperature
If any temperature reaches this value, transmitter shut down

7.4 Shutdown humidity
If humidity reaches this value, transmitter shut down

7.5 Security code enable
Enable locking screen PIN

7.6 Security code
Security PIN code (default 123)

Menu 8
Playback settings

- **8.1 Code_1 DTMF spot**
  Number of the spot to be played if Code1 activated
- **8.2 Code_1 LFC spot**
  Number of the spot to be played if Code1 and LFC carrier activated
- **8.3 Code_2 DTMF spot**
  Number of the spot to be played if Code2 activated
- **8.4 Code_2 LFC spot**
  Number of the spot to be played if Code2 and LFC carrier activated
- **8.5 Code_1 max. length**
  Maximum playing length of spot 001_xxx.mp3 [s]
- **8.6 Code_2 max. length**
  Maximum playing length of spot 002_xxx.mp3 [s]

Menu 9
Various settings

9.1 Event browser
Show full log of trigger activities as they saved in FLASH memory
For detailed description see Submenu “24 - Event browser usage"

9.2 Logger settings
Quick access to the serial console log with main commands

9.2.1 !EE!
Perform erasing trigger log and resets pointers

9.2.2 N/A
Not supported in current version

9.2.3 RST
Resets GPRS module, full reset takes up to 30s

9.2.4 CMD
Used to manually enter command number.
See “Serial console commands and logging” attachment for details

9.2.5 K?
Command “K”; K = 0 for simplified logs; K = 1 for detailed logs

9.2.6 CLR
Clears LOG screen and reset pointer

9.3 Connection settings **25**
Displays GPRS current settings by clicking to particullar black frame
Note: configuration cannot be performed from this menu. Use console commands to configure GPRS module

9.4 Extra events **26**
Various activities settings

9.4.1 GSM synchronize **26.1**
Hour and minute of the day when time synchronize performed

9.4.2 Force report from **26.2**
Setup first and last index of event to be transmitted manually

9.4.3 FM_Rx watchdog **26.3**
How many seconds of silence from FM are allowed before reboot FM

9.4.4 RS485 watchdog **26.4**
Number of non-response seconds from temperature sensors allowed

9.4.5 RF Tx watchdog **26.5**
Number of seconds to wait for response from Tx before reboot module

9.4.6 MP3 silence stop **26.6**
Number of silence seconds from MP3 before playing is forced to stop

9.5 Advanced Tx settings
Special features for transmitter tuning and special modes

9.5.1 PLL to TxF time **27.1**
Delay to activate transmitter allowing PLL tunning from idle to Tx freq.

9.5.2 Ret. power to failsafe **27.2**
Returned power that activates failsafe transmit power

9.5.3 Ret. power to Tx_off **27.3**
Returned power that deactivates transmitter

9.5.4 RadioBroadcastPower **27.4**
Not supported in current version

9.5.5 RBC idle power **27.5**
Not supported in current version

9.5.6 Tx Lo Volt lock **27.6**
Undervoltage protection; below this value, Transmit inhibited 110=11V

9.6 BlackBox ID
Enter value in decadic form; displays in HEX