

Mobile ANum

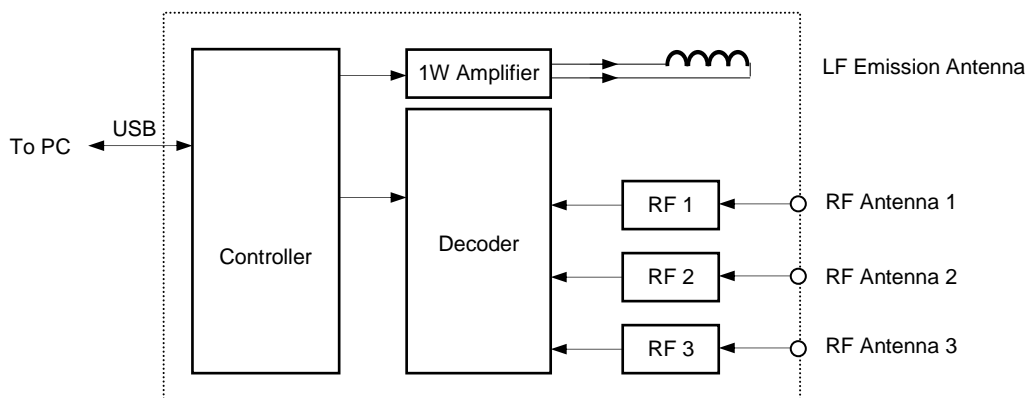


Hardware description

The Mobile ANum tool allows to send LF Data or LF CW and, in the same time, to decode up to 3 different internal channels.

The 3 internal channels are RF receivers (ex : 315MHz, 433.92MHz, 434.42MHz).

This tool is powered only with USB.



Software description

A specific software (ANumLFRF.exe) allows to control this bench with a useful and simple GUI. RF frames descriptions must be defined. During Run phase, the software find the nearest appropriate description and display all decoded fields.

Note : the software is the same when using ANumLFRF tool. It is designed for a low resolution screen like UMPC (800 x 480 pixels min).

Characteristics

LF part

Power	1W
Frequency	119kHz , 121.9kHz , 125kHz , 128.2kHz , 131.6kHz
Baudrate	1960 bds Manchester to 10kbds Manchester (512µs to 100µs per Manchester bit)
Coding	Standard or Inverted
Data Modes	Manual, Script, Broadcast, Individual

RF part

Frequency	Basis : 315MHz, 433.92MHz, 434.42MHz (ASK and FSK)
Sensibility	-100dBm
Baudrate	1kbds Manchester to 20kbds Manchester
Tolerance	+/- 20% on baudrate
Connectors	SMA

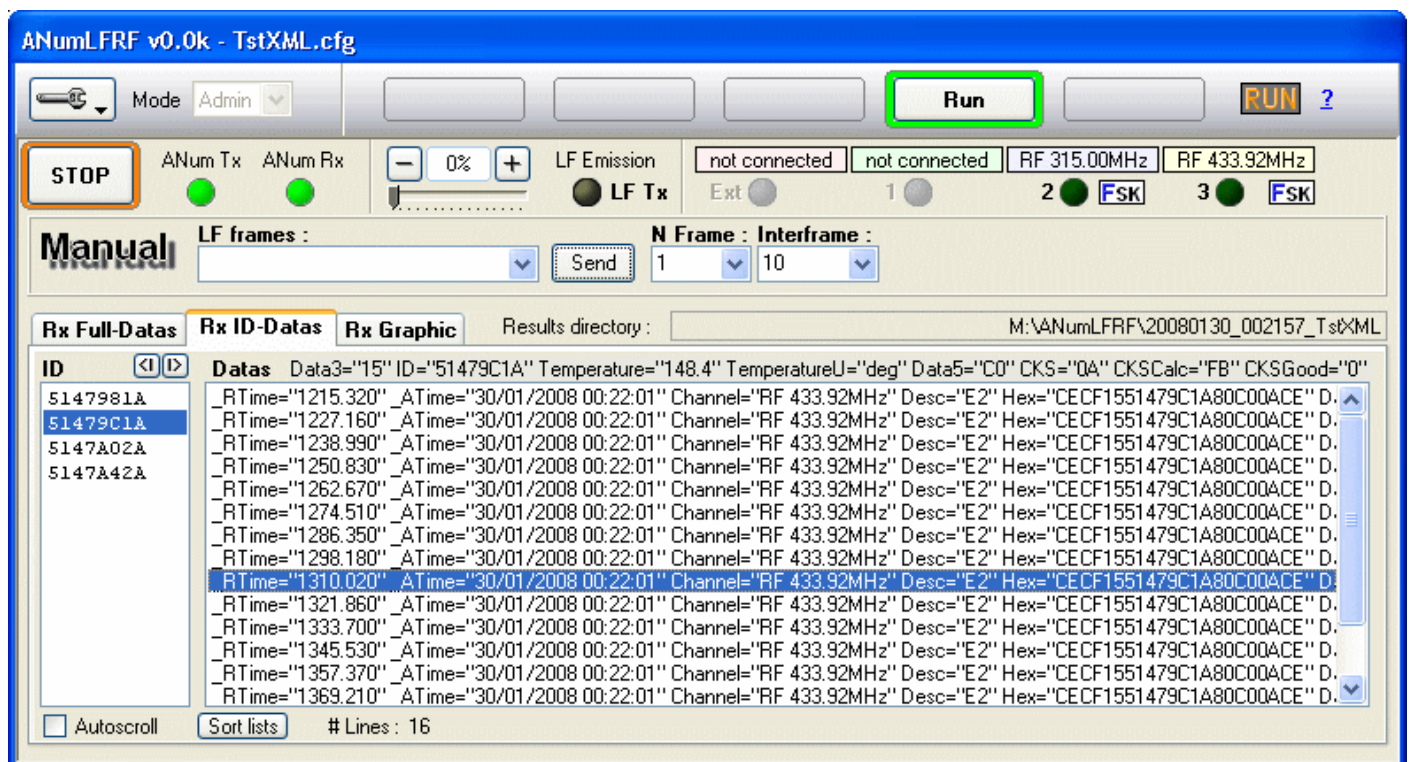
Frame decoding

Protocols	16 different per channel (baudrate and content) Manchester, Biphas-S, PWM
Frame length	512 bits max
Fields	- automatic display for each frame field - physical value conversion
Checksum	Checksum calculation (Add, Xor, Not)
ID	ID filtering

Software





Display	Full datas list, sorted ID lists, graphical view
Files	Full datas file, sorted ID files (all files are in XML format)
Update	Automatic update for correction or new version
Requirements	minimum configuration : Windows XP SP1, 512 MB Ram, 1GHz frequency

Screen shots



The screenshot shows the ANumLFRF v0.0k software interface. The title bar reads "ANumLFRF v0.0k - TstXML.cfg". The interface includes a "Mode" dropdown set to "Admin", a "Run" button, and a "STOP" button. Below these are status indicators for "ANum Tx" and "ANum Rx" (both green), "LF Emission" (off), and "LF Tx" (off). There are also indicators for "Ext" (off), "1" (off), "2" (on, FSK), and "3" (on, FSK). The "Manual" section shows "LF frames" set to 1 and "N Frame : Interframe" set to 10. The "Results directory" is set to "M:\ANumLFRF\20080130_002157_TstXML". The main display area shows a list of received data points under the "Rx ID-Datas" tab. The list includes columns for "ID" and "Datas". The "ID" column lists several IDs, with "51479C1A" highlighted. The "Datas" column contains detailed information for each ID, including reception time (_RTime), acquisition time (_ATime), channel, description (Desc), and hex value (Hex). The "Autoscroll" checkbox is unchecked, and the "Sort lists" button is visible. The "# Lines : 16" indicator is shown at the bottom of the list.

Comment : Text
Name : Text
Preamble : Binary, Hexa or both
Baudrate : bauds Manchester
Coding : Standard Inverted

Standard	Inverted
0 	0 
1 	1 

Fields :

Name	Size	Offset	Resolution	Unite	Display
Data1	8	0	1		N
Data2	8	0	1		N
Data3	8	0	1		N
ID	32	0	1		N
Temperature	8	-5.2	1.2	deg	Y
Data5					
CKS					

Field description

Name	Size	Offset	Resolution	Unite	Display
Temperature	8	-5.2	1.2	deg	Y

"ID" must be used for the identifier
 "CKS" must be used for the checksum
 Display = Y or N

CKS Calculation
Mask : Ex : FF FF FF 00 FF
Method : ADD XOR **NOT :**