

## DECT AIRSPY

### General Description

The RTX2030 DECT AirSpy tool is a generic communication monitoring and analyzer tool for DECT/DECT 6.0/CAT-iq. It consists of a dedicated DECT RF Capture Unit and Windows application SW and can assist product developers/installers in performing:

- Protocol analysis
- Deployment analysis in both single and multi-cell environments
- Traffic analysis
- Slot and frame timing analysis

### The Capture Unit

The Capture Unit can operate in three different modes - each optimized for different analysis scenarios:

- Asynchronous slide scanning mode for DECT spectrum discovery
- Synchronized cell scanning mode for DECT network cell survey and analysis
- Synchronized bearer receive mode for detailed protocol analysis between FP and PP

The Capture Unit receives DECT RF signals and performs native packet processing. Further analysis and presentation is done in the AirSpy Analysis SW tool.



### DECT AirSpy Analysis SW

The PC application offers a multi window environment for control and presentation of information from the Capture Unit. The tool implements the following functions:

- Interpretation and display of information on different hierarchical levels:
  - Physical (EU, US, user configurable)
  - MAC (Nt, Pt, Qt and Mt messages)
  - DLC (Class-A messages)
  - NWK
- Real-time display of bearer position and physical parameters
- Protocol interpretation
- Post capture analysis
- Message filtering on FP and PP identities
- Physical parameter measurements:
  - Signal strength, RSSI
  - Timing analysis with DECT symbol time and 1/9 symbol time resolution
- Generate log files of captured information for further specific analysis

## RTX2030 - DECT AIRSPY

### KEY FEATURES

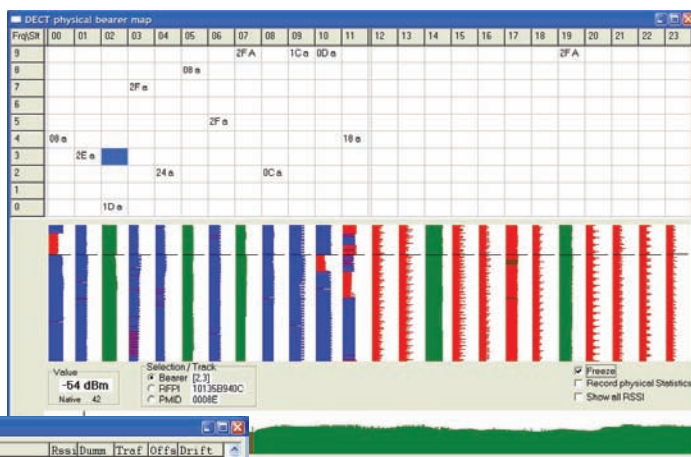
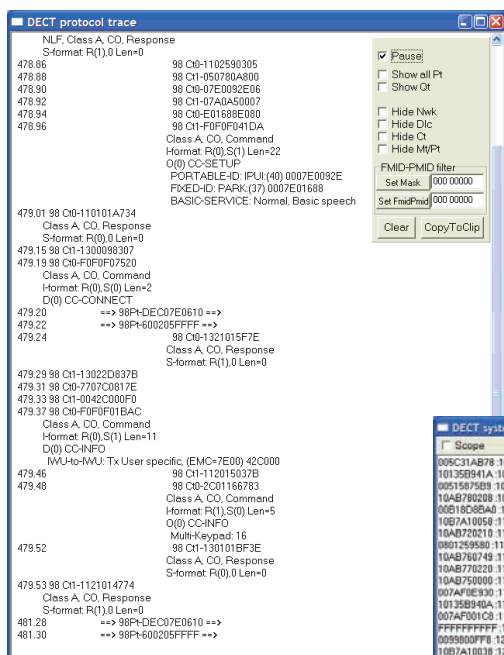
- Real-time display of bearer position and physical parameters
- Physical parameter measurements (Timing analysis, signal strength)
- Interpretation and display of information on different hierarchical levels (PHY, MAC, DLC, NWK)
- User configurable frequency band (EU, US)
- Various filtering options
- Protocol interpretation and post capture analysis
- Built-in diversity antennas

### CAPTURE UNIT

- Frequency band DECT (1880-1930 MHz)
- Power source USB
- Connectors USB
- SMA (for external antenna)
- Receiver sensitivity <-92dBm at 10<sup>-4</sup> BER

### PC ANALYSIS SW

- Supported OS's Windows 2000/XP/Vista
- System requirements >733MHz Pentium
- Available USB port
- 512 Mb RAM and 50 Mb Hard Disk space



DECT system scanner

Scope	RFP1	ResID	Dumm	Traff	Offs	Der ft					
009C31AB78	105 39 3	0	10	13	5B	94 1C	46	153	420	-0.75	
101358941A	106 29 9	1	00	0C	D0	63 F0	44	33	467	-0.24	
00515879B9	107 36 9	2	10	13	5B	94 2E	45	143	424	-0.74	
10AD780208	108 30 0	3	FF	FF	FF	FF FF	44	26	303	-10.92	
00518265AD	109 25 7	4	01	10	9E	0E 20	42	78	248	-2.02	
10B7A10059	110 31 6	5	00	00	10	06 18	45	70	216	-1.22	
10AB720210	111 27 6	6	10	AB	71	01 20	42	104	357	-0.77	
0002259580	112 27 9	7	10	13	5B	94 0A	42	4	40	-9.38	
10AB780749	113 29 5	8	00	00	10	03 C0	29	16	261	-1.28	
10AB750000	115 31 2	9	00	00	D0	63 E8	42	70	242	-0.20	
007AF0E330	116 28 3	10	00	B7	72	0C 58	37	62	180	9.59	
101358940A	117 42 4	11	10	13	5B	94 13	32	7	429	-0.67	
007AF001C8	118 35 1	12	00	F1	19	73 30	32	69	241	1.92	
FFFFFFFF	119 43 1	13	10	B7	A1	00 50	41	129	356	-0.75	
005880FF8	120 33 5	14	00	5C	31	AB 78	30	33	292	5.16	
10AB700014	123 34 9	15	00	99	80	DE 18	37	67	321	2.78	
10AD720214	124 25 0	16	00	7A	FF	2A C0	40	69	64	0.34	
00B7710060	125 29 0	17	00	7A	FC	F6 08	38	71	92	-0.53	
		18	00	99	80	21 58	37	31	35	463	0.76

Offset 4508 Nr 7762/819 Xt 1597 RFP1 126 10AB750010