






**Conformance Test Report
for EN301 406 v1.5.1 (2003-07)
Digital Enhanced Cordless Telecommunic. (DECT);
Harmonized EN for Digital Enhanced Cordless
Telecommunications(DECT) covering essential
requirements under article 3.2 of R&TTE Directive;
Generic radio**

Report No.: 06-05-CAT-012-1

Client: Aztech Systems Ltd.
Product: DECT phone
System Under Test (SUT): H315-S1 (PP)
Manufacturer: Aztech Systems Ltd.
Date test item received: 2006/05/08
Date test campaign completed: 2006/06/12
Date of issue: 2006/06/13

*The test report include test result of conformance log layer 1.
Total number of pages of this test report: 27 pages*

The test result only corresponds to the tested sample. It is not permitted to copy this report, in part or in full, without the permission of the test laboratory.

Tested by  Alex Chen	Checked by  David Song	Approved by  Jeff Pong
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Contents

1 General

1.1 Reason for measurements and identification of the protocol	3
1.1.1 Global statement of conformance	3
1.2 Identification and functional description of the test candidate	3
1.2.1 Client identification	3
1.2.2 Identification of the Test Candidate	4
1.2.3 Functional description	4
1.3 Climatic Conditions	5
1.4 Measurement accuracy	5
1.5 Test equipment used	5
1.6 Explanation of the results abbreviations	6
1.7 Comments for testing	6
2 IUT conformance status according to EN301 406 V1.5.1(2003-07)	7
2.1 IUT conformance summary	7
2.2 EN301 406 V1.5.1(2003-07) results overview	7
2.3 Test campaign repor	9
2.3.1 TC1 Accuracy and stability of RF carriers (4.5.1)	9
2.3.2 TC2 Timing jitter: slot-slot on the same channel (4.5.2)	9
2.3.3 TC3 Reference timing accuracy of a RFP	9
2.3.4 TC4 Measurement of packet timing accuracy	9
2.3.5 TC5 Transmission Burst(4.5.3)	10
2.3.6 TC6 Transmitted power :PP and RFP with intergral antenna(4.5.4.1.1)	14
2.3.7 TC7 Transmitted power :PP and RFP with an external antenna Connector(4.5.4.1.2)	14
2.3.8 TC8 RF-carrier modulation (4.5.5)	15
2.3.9 TC9 Emissions due to modulation(4.5.6.2)	15
2.3.10 TC10 Emissions due to transmitter transients(4.5.6.3)	16
2.3.11 TC11 Emissions due to intermodulation(4.5.6.4)	19
2.3.12 TC12 Spurious emissions when allocated a transmit channel(4.5.6.5)	19
2.3.13 TC13 Radio receiver sensitivity(4.5.7.1)	20
2.3.14 TC14 Radio receiver reference bit error ratio(4.5.7.2)	20
2.3.15 TC15 Receiver interference performance(4.5.7.3)	21
2.3.16 TC16 Radio receiver blocking, case1(4.5.7.4)	22
2.3.17 TC17 Radio receiver blocking, case2(4.5.7.5)	23
2.3.18 TC18 Receiver intermodulation performance(4.5.7.6)	23
2.3.19 TC19 Spurious emissions when the radio endpoint has no allocated transmit channel (4.5.7.7)	24
2.3.20 TC20 Synchronisation port (4.5.8)	25
2.3.21 TC21 Equipment identity verification/safeguards(4.5.9)	25
2.3.22 TC22 Efficient use of radio spectrum(4.5.10)	25
2.3.23 TC23 WRS(4.5.11)	25
2.3.24 TC24 PP to PP communication (4.5.12)	25
2.3.25 TC25 Direct communication(4.5.13)	25
2.3.26 TC26 Higher level modulation(4.5.14)	25
3 Annex	
4 Appendix Photo of the Test Candidate	26

1.1 Reason for measurements and identification of the protocol

The Test Candidate shall be tested to
DECT, General terminal attachment requirements

EN 300 406 V1.5.1	2003-07
EN 300 175-2, PHL	July 2003

1.1.1 Global statement of conformance

Has the applicant filled out the Client Test Preparation Information in accordance to EN301 406	Yes
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see annex ,EN301 406 Statement of the applicant

1.2 Identification and functional description of the test candidate

1.2.1 Client identification

Name	Aztech Systems Ltd.
Contact person	Mr. Terence Kwong
Address	31 Ubi Road 1, Aztech Building, Singapore 408694
Phone No.	+852 2655 8991
Fax No.	+852 2753 0578

1.2.2 Identification of the Test Candidate:

RFPI of the FP with int. antenna	- -
RFPI of the FP with temp. ant. con.	0090F9A818
Hardware version	- -
Software version	- -
Operating voltage nom/min/max	2.7VAC/2.4VAC/3.0VAC
Serial No of the FP with int. antenna.	- -
Serial No of the FP with temp. ant. con.	- -

1.2.3 Functional description

The Test Candidate is a Portable Part with integrated antennas of a cordless telephone system for 3.1 kHz voice-communications on **DECT-standard**. For the integrated antennas a diversity-switch is included to the equipment. This Portable Part is used in combination with a Fixed Part (FP) for connections to the analogue public switched telephone network

For the tests one sample with integrated antenna and one sample with 50 Ω -connector were available to the test lab.

1.3 Climatic Conditions

Temperature °C nominal value aimed +15°C - +35°C	Rel. Humidity % aimed 20% - 75%	Atmospheric Pressure aimed 86 - 106 kPa
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The requirements for temperature, rel. humidity and atmospheric pressure were observed and be within the specified range.

1.4 Measurement accuracy

The measurement accuracy is in accordance with EN301 406 V1.5.1 (2003-07)

Note: All values reflect a confidence level of 95 %.

The actual measurement uncertainties are described at each test.

1.5 Test equipment used

Equipment	Inventory-No.:
R&S DECT Type approval system TS 8930 FTAS:	
Process Controller	H1882000176
R&S Signalling unit TS1220	-
RF-Generator	H1882000179
RF-Generator	H1882000187
Spectrum- Analyzer	H1882000186
Switch Matrix	H1882000185
RF-Generator	H1882000162
Software	DOS-Version 3.02F from 19.02.99
Anechoic Chamber V	
Spectrum- Analyzer	H1882000161
RF-Pre-Amplifier	H1882000169
RF-Pre-Amplifier	H1882000170
RF-Filter	H1882000189
RF-Filter	H1882000190
RF-Antenna	H1882000145
RF-Antenna	H1882000146
RF-Antenna	H1882001604
RF-Antenna	H1882001605
Control-PC	H1882000140
Software T_Case_12	V 3.1 from 19.07.99

1.6 Explanation of the results abbreviations

P = pass, inside of the specification

P* = pass, inside of the specification in consideration of the test accuracy

F = failed, exceeding the specification

O = not implicated

- = not tested

? = no clear result considering to the specification

* = see note

1.7 Comments for testing

Delivery date of Test Candidate: 2006.05.08
The tests were done from 2006.05.08 at 2006.06.12

Electronics Testing Center ,Taiwan

No.8, Lane 29, Wen-Ming Road Lo-ShanTsun Kui-Shan Hsiang
Taoyuan Hsien 333, Taiwan R.O.C.

During the tests were present:

Mr. Alex Chen from **ETC**

Mr. Jeff Pong from **TÜV SÜD Hong Kong Ltd.**

Mr. Terence Kwong from **Aztech Systems Ltd.**

The test set-up and tests are according to EN301 406 V1.5.1(2003-07) and **DTAAB DT.04 V10 from 11/99** and the internal test comments of the test lab.

All measurements, in exception of parts of Testcase 6 and Testcase 12, were done at the equipment with 50 Ω -temporary antenna connector.

All radiated measurements were done in the anechoic chamber

The test site and the whole test equipment is according to standards

CTR6, TBR 6, third edition, June 1999.

EN301 406 V1.5.1(2003-07)

2 IUT conformance status according to EN301 406 V1.5.1 (2003-07)

2.1 IUT conformance summary

The IUT **has not been** shown by conformance assessment to be non conforming to the general terminal attachment requirements, EN301 406

2.2 EN301 406 results overview

Test case	Point	Testcase description	Remarks	Sel.	Run	Verdict
1	4.5.1	Accuracy and stability of RF carriers		Y	Y	Pass
2	4.5.2	Timing jitter: slot - slot on the same channel		Y	Y	Pass
3		Reference timing accuracy of a RFP		N	N	----
4		Measurement of packet timing accuracy	only for portable part	Y	Y	Pass
5	4.5.3	Transmission burst		Y	Y	Pass
6	4.5.4.1.1	Transmitted power (with an internal antenna) NTP		Y	Y	Pass
7	4.5.4.1.2	Transmitted power (with an external antenna connector)		Y	Y	Pass
8	4.5.5	RF carrier modulation		Y	Y	Pass
9	4.5.6.2	Emissions due to modulation		Y	Y	Pass
10	4.5.6.3	Emissions due to transmitter transients		Y	Y	Pass
11	4.5.6.4	Emissions due to intermodulation	only for basestation with more than one transmitter	N	N	---
12	4.5.6.5	Spurious emissions when allocated a transmit channel	Conducted spurious	Y	Y	Pass
			Radiated spurious			Pass
13	4.5.7.1	Radio receiver sensitivity		Y	Y	Pass
14	4.5.7.2	Radio receiver reference bit error ratio		Y	Y	Pass
15	4.5.7.3	Radio receiver interference performance		Y	Y	Pass
16	4.5.7.4	Radio receiver blocking case 1		Y	Y	Pass
17	4.5.7.5	Radio receiver blocking case 2		Y	Y	Pass
18	4.5.7.6	Receiver intermodulation performance		Y	Y	Pass
19	4.5.7.7	Spurious emissions when the radio endpoint has no allocated transmit channel	only for portable part	Y	Y	Pass

EN301 406 results overview

Test case	Point	Testcase description	Remarks	Sel.	Verdict
20	4.5.8	Synchronisation port		N	No test
21	4.5.9	Equipment identity verification /safeguards		N	Manufacturer declaration
22	4.5.10	Efficient use of radio spectrum		N	Manufacturer declaration
23	4.5.11	WRS		N	No test
24	4.5.12	PP to PP communication		N	No test
25	4.5.13	Direct communication		N	No test
26	4.5.14	Higher level modulation		N	No test

2.3 Test campaign report

2.3.1 TC 1 Accuracy and stability of RF carriers (4.5.1)

aimed for $t \geq 1$ s with $\Delta f \leq \pm 50$ kHz under nominal and extreme conditions

	Deviation [kHz]		
	channel 0	channel 5	channel 9
nom. Temperature and nom. Voltage	7.36	11.00	20.25
0°C and minimum voltage	15.02	22.06	32.51
0°C and maximum voltage	23.69	26.73	25.96
+40°C and minimum voltage	6.61	6.57	13.20
+40°C and maximum voltage	14.11	17.89	17.37

Measurement uncertainty: < 1%

aimed for $t \leq 1$ s with $\Delta f \leq \pm 100$ kHz under nominal and extreme conditions

	Deviation [kHz]		
	Channel 0	Channel 5	Channel 9
nom. Temperature and nom. Voltage	6.26	13.82	21.60
0°C and minimum voltage	14.88	21.95	32.14
0°C and maximum voltage	23.43	28.88	31.75
+40°C and minimum voltage	2.72	5.74	13.31
+40°C and maximum voltage	8.45	18.54	16.68

Comment: minimum voltage =2.4 V

P
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P

2.3.2 TC 2 Timing jitter: slot- slot on the same channel (8.3)

Test in channel 5 aimed $< \pm 1$ μ s	Deviation [μ s]	
	positive	Negative
nom. Temperature and nom. Voltage	0.122	-0.127
0°C and minimum voltage	0.120	-0.132
0°C and maximum voltage	0.136	-0.127
+40°C and minimum voltage	0.118	-0.127
+40°C and maximum voltage	0.124	-0.116

Measurement uncertainty: ≤ 77.4 ns

Comment: minimum voltage =2.4V

P
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2.3.3 TC 3 Reference timing accuracy of a RFP only recommended for fixed part

2.3.4 TC 4 Measurement of packet transmission accuracy

The packet time delay minimum shall be greater than 5ms -2 μ s

The packet time delay maximum shall be less than 5ms+2 μ s

Voltage(V)	Temperature(°C)	Packet Time Delay(μ s)					
		channel 0		channel 5		channel 9	
		max.	min.	max.	min.	max.	min.
nom.	nom.	0.143	-0.090	0.089	-0.147	0.156	-0.113
min.	min.	0.120	-0.106	0.092	-0.105	0.128	-0.125
	max.	0.128	-0.097	0.082	-0.108	0.121	-0.110
max.	min.	0.102	-0.119	0.143	-0.141	0.112	-0.141
	max.	0.126	-0.120	0.126	-0.120	0.131	-0.117

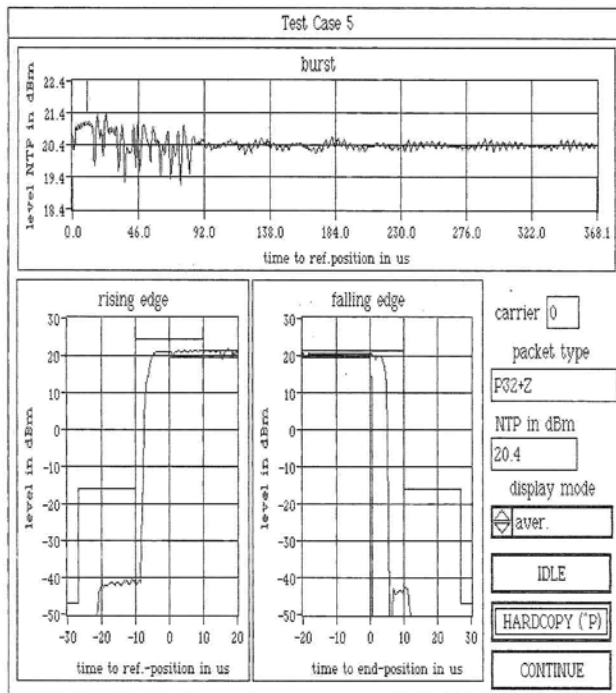
Measurement uncertainty: ≤ 77.4 ns

Comment: minimum voltage =2.4V

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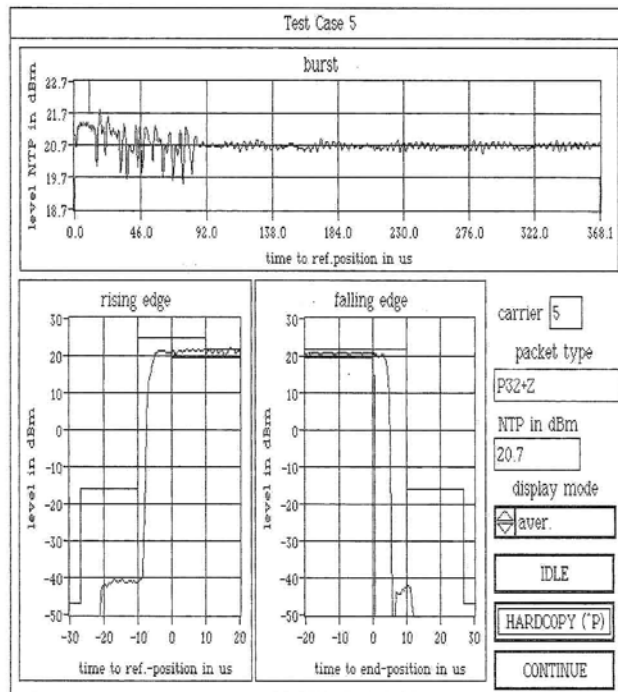
2.3.5 TC 5 Transmission Burst (4.5.3)

Measurement uncertainty: + 0.85 dB / -0.92 dB



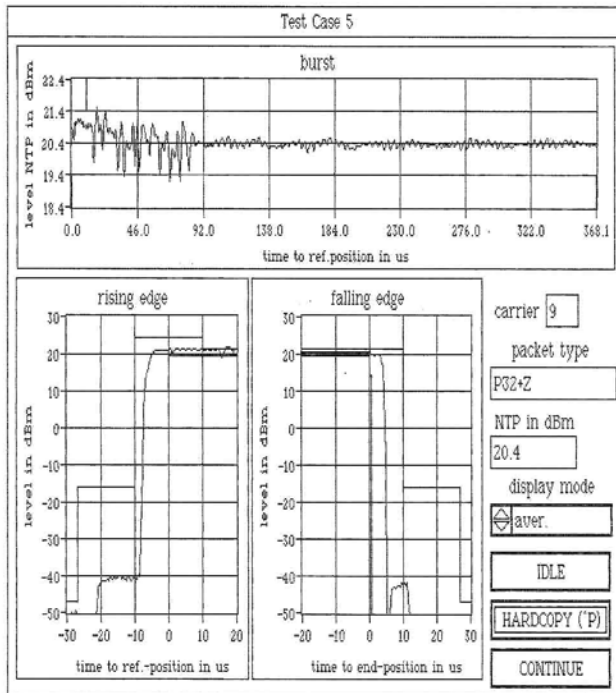
Nom. Temperature and nom. Voltage

P



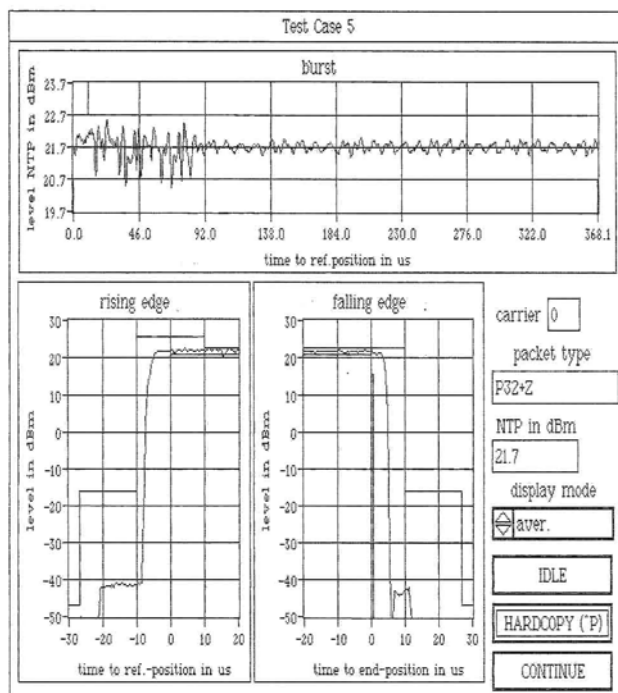
Nom. Temperature and nom. Voltage

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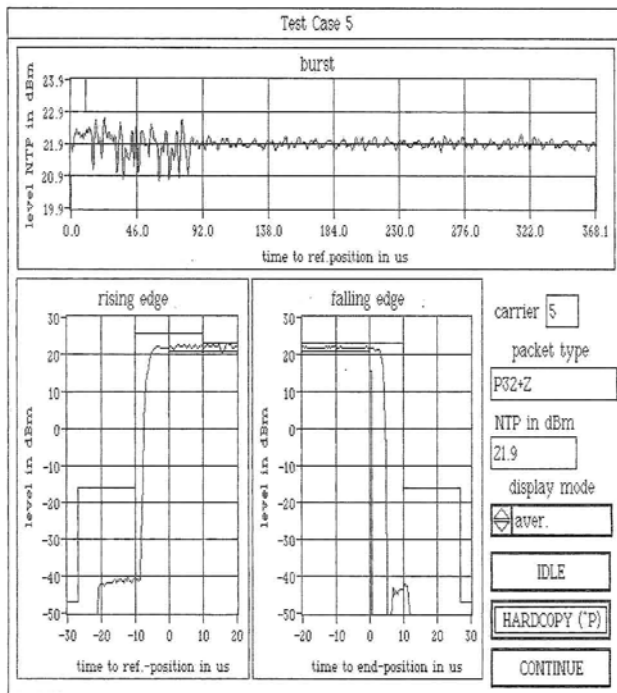
Nom. Temperature and nom. Voltage

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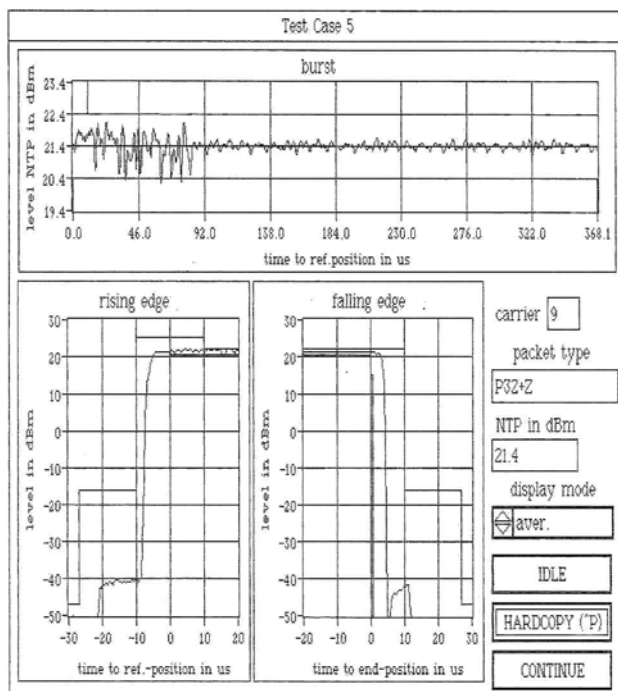
+0°C temperature and nom. Voltage

P



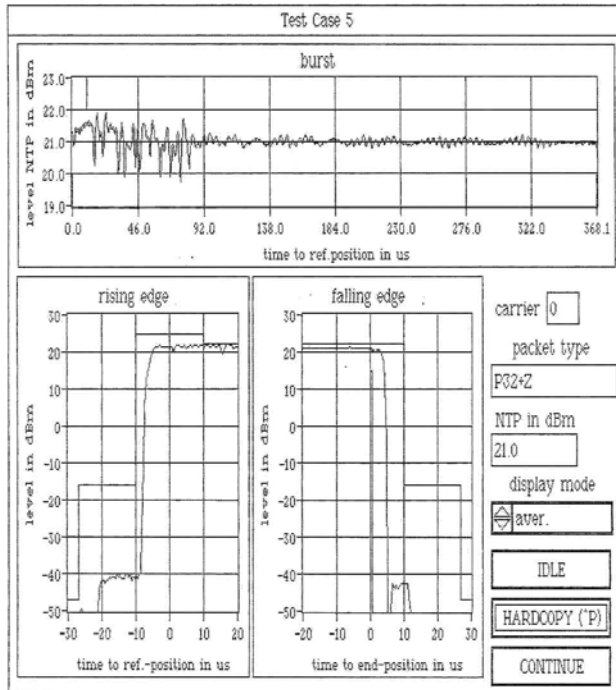
+0°C temperature and nom. Voltage

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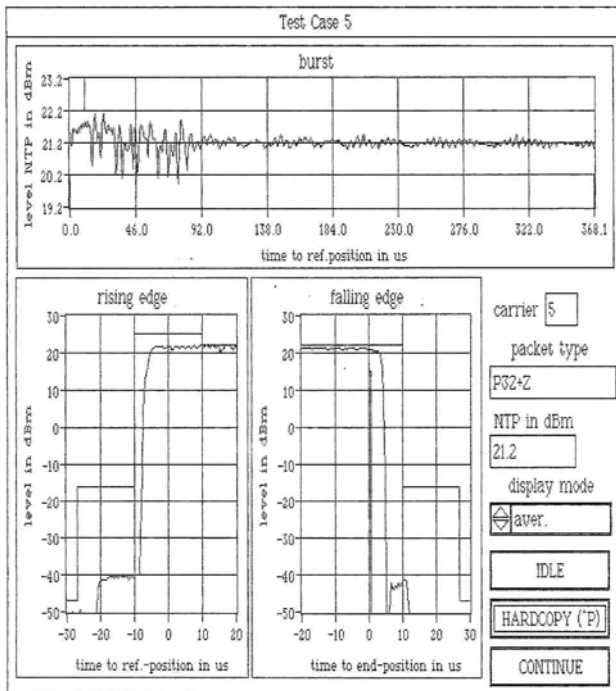
+0°C temperature and nom. Voltage

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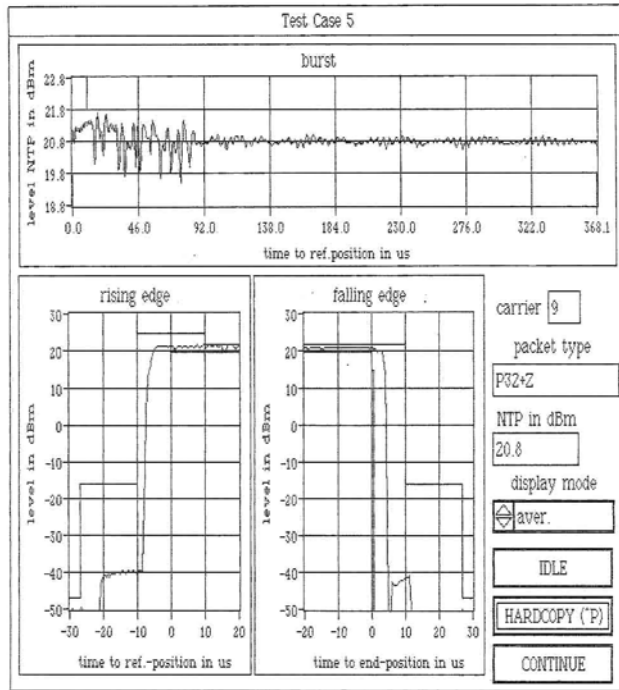
+40°C temperature and nom. Voltage

P



+40°C temperature and nom. Voltage

P



+40°C temperature and nom. Voltage

P

2.3.6 TC 6 Transmitted power: PP and RFP with integral antenna (4.5.4.1.1)

Conducted RF-output power in the Burst: aimed ≤ 250 mW (24 dBm)
 Height of receive antenna: actual = **1.50 m**
 Radiated field strength maximum at position in degrees: ant. 0 actual = **10°** hor

Antenna gain: aimed with max. 12 dB

Antenna	conducted Power	radiated Power	Antenna gain
Channel 0	20.50 dBm	18.26 dBm	-2.24 dB
Channel 5	20.80 dBm	18.83 dBm	-1.97 dB
Channel 9	20.50 dBm	18.84 dBm	-1.66 dB

P

Measurement uncertainty radiated: + 3.53 dB / -3.53 dB
 Measurement uncertainty conducted: + 0.85 dB / -0.92 dB

2.3.7 TC 7 Transmitted power: FP with an external antenna Connector (4.5.4.1.2)

not applicable

2.3.8 TC 8 RF-carrier modulation (4.5.5)

part 1: aimed $> \pm 259 \text{ kHz} < \pm 403 \text{ kHz}$
 part 2-3: aimed $> \pm 202 \text{ kHz} < \pm 403 \text{ kHz}$
 part 4: aimed $< \pm 15 \text{ kHz/slot}$

Measurement uncertainty part 1-3: $\pm 10 \text{ kHz}$
 part 4: $\pm 2 \text{ kHz}$

TRAFFIC SLOT: 20
 TRAFFIC CARRIER: 5
 PACKET TYPE: P32+Z
 part1: 10 bursts evaluated
 maximum positive modulation: 339.79 kHz
 maximum negative modulation: -341.29 kHz
 part2: 10 bursts evaluated
 maximum positive modulation: 338.12 kHz
 maximum negative modulation: -338.50 kHz
 part3: 10 bursts evaluated
 maximum positive modulation: 309.17 kHz
 maximum negative modulation: -310.52 kHz
 part4: 200 bursts evaluated
 averaged frequency drift: -3.78 kHz/slot

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2.3.9 TC 9 Emissions due to modulation (4.5.6.2)

Measurement uncertainty: + 0.49 dB / -0.51 dB
 One exception $< -33 \text{ dBm}$ (500 nW) permissible

TRAFFIC SLOT: 22
 TRAFFIC CARRIER: 0
 PACKET TYPE: P32+Z
 measured NTP: 20.40 dBm

	measured values	limits	
CARRIER 0: integrated power	20.40 dBm	---	P
CARRIER 1: integrated power	- 18.07 dBm	-8 dBm	P
CARRIER 2: integrated power	- 38.58 dBm	-30 dBm	P
CARRIER 3: integrated power	- 46.98 dBm	-41 dBm	P
CARRIER 4: integrated power	- 50.15 dBm	-44 dBm	P
CARRIER 5: integrated power	- 51.03 dBm	-44 dBm	P
CARRIER 6: integrated power	- 51.44 dBm	-44 dBm	P
CARRIER 7: integrated power	- 51.67 dBm	-44 dBm	P
CARRIER 8: integrated power	- 51.68 dBm	-44 dBm	P
CARRIER 9: integrated power	- 51.81 dBm	-44 dBm	P

TRAFFIC SLOT: 14
 TRAFFIC CARRIER: 5
 PACKET TYPE: P32+Z
 measured NTP: 20.70 dBm

	measured values	limits	
CARRIER 0: integrated power	- 50.96 dBm	-44 dBm	P
CARRIER 1: integrated power	- 49.92 dBm	-44 dBm	P
CARRIER 2: integrated power	- 45.96 dBm	-41 dBm	P
CARRIER 3: integrated power	- 37.92 dBm	-30 dBm	P
CARRIER 4: integrated power	- 18.72 dBm	-8 dBm	P
CARRIER 5: integrated power	20.70 dBm	---	P
CARRIER 6: integrated power	- 18.40 dBm	-8 dBm	P
CARRIER 7: integrated power	- 38.02 dBm	-30 dBm	P
CARRIER 8: integrated power	- 46.57 dBm	-41 dBm	P
CARRIER 9: integrated power	- 49.89 dBm	-44 dBm	P

TRAFFIC SLOT: 16
 TRAFFIC CARRIER: 9
 PACKET TYPE: P32+Z
 measured NTP: 20.40 dBm

		measured values	limits	
CARRIER 0:	integrated power	- 52.04 dBm	-44 dBm	P
CARRIER 1:	integrated power	- 51.94 dBm	-44 dBm	P
CARRIER 2:	integrated power	- 51.78 dBm	-44 dBm	P
CARRIER 3:	integrated power	- 51.59 dBm	-44 dBm	P
CARRIER 4:	integrated power	- 51.08 dBm	-44 dBm	P
CARRIER 5:	integrated power	- 50.01 dBm	-44 dBm	P
CARRIER 6:	integrated power	- 46.00 dBm	-41 dBm	P
CARRIER 7:	integrated power	- 37.90 dBm	-30 dBm	P
CARRIER 8:	integrated power	- 18.76 dBm	-8 dBm	P
CARRIER 9:	integrated power	20.40 dBm	---	P

2.3.10 TC 10 Emissions due to transmitter transients (4.5.6.3)

Measurement uncertainty: + 0.49 dB / -0.51 dB

TRAFFIC SLOT: 18
 TRAFFIC CARRIER: 0
 PACKET TYPE: P32+Z

		measured values	limits	
CARRIER 0:	max. Power	123.30 mW (20.91 dBm)	---	p
CARRIER 1:	max. Power	93.13 uW (-10.31 dBm)	-6 dBm	p
CARRIER 2:	max. Power	187.18 nW (-37.28 dBm)	-14 dBm	p
CARRIER 3:	max. Power	25.64 nW (-45.91 dBm)	-24 dBm	p
CARRIER 4:	max. Power	9.32 nW (-50.30 dBm)	-30 dBm	p
CARRIER 5:	max. Power	9.27 nW (-50.33 dBm)	-30 dBm	p
CARRIER 6:	max. Power	9.38 nW (-50.28 dBm)	-30 dBm	p
CARRIER 7:	max. Power	8.29 nW (-50.81 dBm)	-30 dBm	p
CARRIER 8:	max. Power	19.03 nW (-47.21 dBm)	-30 dBm	p
CARRIER 9:	max. Power	6.12 nW (-52.13 dBm)	-30 dBm	p

TRAFFIC SLOT: 20
TRAFFIC CARRIER: 1
PACKET TYPE: P32+Z

		measured values	limits	
CARRIER 0:	max. Power	69.11 uW (-11.60 dBm)	-6 dBm	p
CARRIER 1:	max. Power	124.02 mW (20.93 dBm)	---	p
CARRIER 2:	max. Power	81.41 uW (-10.89 dBm)	-6 dBm	p
CARRIER 3:	max. Power	244.95 nW (-36.11 dBm)	-14 dBm	p
CARRIER 4:	max. Power	31.83 nW (-44.97 dBm)	-24 dBm	p
CARRIER 5:	max. Power	10.60 nW (-49.75 dBm)	-30 dBm	p
CARRIER 6:	max. Power	7.42 nW (-51.29 dBm)	-30 dBm	p
CARRIER 7:	max. Power	8.59 nW (-50.66 dBm)	-30 dBm	p
CARRIER 8:	max. Power	10.06 nW (-49.97 dBm)	-30 dBm	p
CARRIER 9:	max. Power	26.09 nW (-45.83 dBm)	-30 dBm	p

TRAFFIC SLOT: 22
TRAFFIC CARRIER: 2
PACKET TYPE: P32+Z

		measured values	limits	
CARRIER 0:	max. Power	313.13 nW (-35.04 dBm)	-14 dBm	p
CARRIER 1:	max. Power	75.45 uW (-11.22 dBm)	-6 dBm	p
CARRIER 2:	max. Power	125.48 mW (20.99 dBm)	---	p
CARRIER 3:	max. Power	95.89 uW (-10.18 dBm)	-6 dBm	p
CARRIER 4:	max. Power	216.65 nW (-36.64 dBm)	-14 dBm	p
CARRIER 5:	max. Power	25.64 nW (-45.91 dBm)	-24 dBm	p
CARRIER 6:	max. Power	11.11 nW (-49.54 dBm)	-30 dBm	p
CARRIER 7:	max. Power	8.49 nW (-50.71 dBm)	-30 dBm	p
CARRIER 8:	max. Power	7.51 nW (-51.24 dBm)	-30 dBm	p
CARRIER 9:	max. Power	8.95 nW (-50.48 dBm)	-30 dBm	p

TRAFFIC SLOT: 14
TRAFFIC CARRIER: 3
PACKET TYPE: P32+Z

		measured values	limits	
CARRIER 0:	max. Power	39.52 nW (-44.03 dBm)	-24 dBm	p
CARRIER 1:	max. Power	351.98 nW (-34.53 dBm)	-14 dBm	p
CARRIER 2:	max. Power	76.34 uW (-11.17 dBm)	-6 dBm	p
CARRIER 3:	max. Power	126.22 mW (21.01 dBm)	---	p
CARRIER 4:	max. Power	90.97 uW (-10.41 dBm)	-6 dBm	p
CARRIER 5:	max. Power	223.07 nW (-36.52 dBm)	-14 dBm	p
CARRIER 6:	max. Power	30.55 nW (-45.15 dBm)	-24 dBm	p
CARRIER 7:	max. Power	11.05 nW (-49.57 dBm)	-30 dBm	p
CARRIER 8:	max. Power	10.73 nW (-49.69 dBm)	-30 dBm	p
CARRIER 9:	max. Power	7.17 nW (-51.45 dBm)	-30 dBm	p

TRAFFIC SLOT: 16
TRAFFIC CARRIER: 4
PACKET TYPE: P32+Z

		measured values	limits	
CARRIER 0:	max. Power	15.42 nW (-48.12 dBm)	-30 dBm	P
CARRIER 1:	max. Power	38.83 nW (-44.11 dBm)	-24 dBm	p
CARRIER 2:	max. Power	273.73 nW (-35.63 dBm)	-14 dBm	p
CARRIER 3:	max. Power	86.31 uW (-10.64 dBm)	-6 dBm	p
CARRIER 4:	max. Power	126.96 mW (21.04 dBm)	---	p
CARRIER 5:	max. Power	81.41 uW (-10.89 dBm)	-6 dBm	p
CARRIER 6:	max. Power	223.07 nW (-36.52 dBm)	-14 dBm	p
CARRIER 7:	max. Power	34.14 nW (-44.67 dBm)	-24 dBm	p
CARRIER 8:	max. Power	12.13 nW (-49.16 dBm)	-30 dBm	p
CARRIER 9:	max. Power	9.66 nW (-50.15 dBm)	-30 dBm	p

TRAFFIC SLOT: 18
 TRAFFIC CARRIER: 5
 PACKET TYPE: P32+Z

		measured values	limits	
CARRIER 0:	max. Power	8.79 nW (-50.56 dBm)	-30 dBm	p
CARRIER 1:	max. Power	12.64 nW (-48.98 dBm)	-30 dBm	p
CARRIER 2:	max. Power	41.17 nW (-43.85 dBm)	-24 dBm	p
CARRIER 3:	max. Power	298.82 nW (-35.25 dBm)	-14 dBm	p
CARRIER 4:	max. Power	78.14 uW (-11.07 dBm)	-6 dBm	p
CARRIER 5:	max. Power	129.96 mW (21.14 dBm)	---	p
CARRIER 6:	max. Power	83.82 uW (-10.77 dBm)	-6 dBm	p
CARRIER 7:	max. Power	255.18 nW (-35.93 dBm)	-14 dBm	p
CARRIER 8:	max. Power	40.69 nW (-43.91 dBm)	-24 dBm	p
CARRIER 9:	max. Power	11.05 nW (-49.57 dBm)	-30 dBm	p

TRAFFIC SLOT: 20
 TRAFFIC CARRIER: 6
 PACKET TYPE: P32+Z

		measured values	limits	
CARRIER 0:	max. Power	9.16 nW (-50.38 dBm)	-30 dBm	p
CARRIER 1:	max. Power	9.60 nW (-50.18 dBm)	-30 dBm	p
CARRIER 2:	max. Power	12.34 nW (-49.09 dBm)	-30 dBm	p
CARRIER 3:	max. Power	42.39 nW (-43.73 dBm)	-24 dBm	p
CARRIER 4:	max. Power	281.85 nW (-35.50 dBm)	-14 dBm	p
CARRIER 5:	max. Power	81.41 uW (-10.89 dBm)	-6 dBm	p
CARRIER 6:	max. Power	129.96 mW (21.14 dBm)	---	p
CARRIER 7:	max. Power	56.99 uW (-12.44 dBm)	-6 dBm	p
CARRIER 8:	max. Power	268.97 nW (-35.70 dBm)	-14 dBm	p
CARRIER 9:	max. Power	29.16 nW (-45.35 dBm)	-24 dBm	p

TRAFFIC SLOT: 22
 TRAFFIC CARRIER: 7
 PACKET TYPE: P32+Z

		measured values	limits	
CARRIER 0:	max. Power	7.92 nW (-51.02 dBm)	-30 dBm	p
CARRIER 1:	max. Power	8.79 nW (-50.56 dBm)	-30 dBm	p
CARRIER 2:	max. Power	10.85 nW (-49.64 dBm)	-30 dBm	p
CARRIER 3:	max. Power	14.37 nW (-48.43 dBm)	-30 dBm	p
CARRIER 4:	max. Power	36.20 nW (-44.41 dBm)	-24 dBm	p
CARRIER 5:	max. Power	265.84 nW (-35.75 dBm)	-14 dBm	p
CARRIER 6:	max. Power	79.99 uW (-10.97 dBm)	-6 dBm	p
CARRIER 7:	max. Power	132.26 mW (21.21 dBm)	---	p
CARRIER 8:	max. Power	79.06 uW (-11.02 dBm)	-6 dBm	p
CARRIER 9:	max. Power	258.18 nW (-35.88 dBm)	-14 dBm	p

TRAFFIC SLOT: 14
 TRAFFIC CARRIER: 8
 PACKET TYPE: P32+Z

		measured values	limits	
CARRIER 0:	max. Power	22.81 nW (-46.42 dBm)	-30 dBm	p
CARRIER 1:	max. Power	8.29 nW (-50.81 dBm)	-30 dBm	p
CARRIER 2:	max. Power	10.42 nW (-49.82 dBm)	-30 dBm	p
CARRIER 3:	max. Power	9.43 nW (-50.25 dBm)	-30 dBm	p
CARRIER 4:	max. Power	13.96 nW (-48.55 dBm)	-30 dBm	p
CARRIER 5:	max. Power	39.52 nW (-44.03 dBm)	-24 dBm	p
CARRIER 6:	max. Power	281.85 nW (-35.50 dBm)	-14 dBm	p
CARRIER 7:	max. Power	79.06 uW (-11.02 dBm)	-6 dBm	p
CARRIER 8:	max. Power	132.26 mW (21.21 dBm)	---	p
CARRIER 9:	max. Power	79.53 uW (-10.99 dBm)	-6 dBm	p

TRAFFIC SLOT: 16
 TRAFFIC CARRIER: 9
 PACKET TYPE: P32+Z

		measured values	limits
CARRIER 0:	max. Power	6.64 nW (-51.78 dBm)	-30 dBm
CARRIER 1:	max. Power	20.29 nW (-46.93 dBm)	-30 dBm
CARRIER 2:	max. Power	9.71 nW (-50.13 dBm)	-30 dBm
CARRIER 3:	max. Power	9.83 nW (-50.08 dBm)	-30 dBm
CARRIER 4:	max. Power	10.42 nW (-49.82 dBm)	-30 dBm
CARRIER 5:	max. Power	12.42 nW (-49.06 dBm)	-30 dBm
CARRIER 6:	max. Power	43.90 nW (-43.57 dBm)	-24 dBm
CARRIER 7:	max. Power	349.93 nW (-34.56 dBm)	-14 dBm
CARRIER 8:	max. Power	80.93 uW (-10.92 dBm)	-6 dBm
CARRIER 9:	max. Power	132.26 mW (21.21 dBm)	---

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2.3.11 TC 11 Emissions due to intermodulation (4.5.6.4)

only for basestations with several transmitters

2.3.12 TC 12 Spurious emissions when allocated a transmit channel (4.5.6.5)

Channel 5, radiated

values <6 dB of the limit-line are listed

30 MHz – 1 GHz	aimed ≤ -36 dBm	actual ≤ -53.10 dBm
1 GHz – 4 GHz	aimed ≤ -30 dBm	actual ≤ -39.26 dBm
Peak at 3.777 GHz hor.	aimed ≤ -30 dBm	actual ≤ -37.69 dBm
broadcast bands according to TBR 6	aimed ≤ -47 dBm	actual ≤ -58.57 dBm

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Measurement uncertainty f<1GHz: +2.89 dB / -2.98 dB
 f>1GHz: +3.53 dB / -3.53 dB

Channel 5, conducted

TRAFFIC SLOT: 2
 TRAFFIC CARRIER: 5
 PACKET TYPE: P32+Z

Wideband Measurements

Range from 300kHz to 12750.00 MHz

Measurement uncertainty f>1GHz: +1.40 dB / -1.75 dB

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2.3.13 TC 13 Radio receiver sensitivity (4.5.7.1)

At a level of -83 dBm the BER shall be $\leq 10^{-3}$.

Measurement uncertainty: + 0.25 dB / -0.27 dB

TRAFFIC SLOT:	16			
TRAFFIC CARRIER:	0			
PACKET TYPE:	P32+Z			
Center frequency offset:	0 kHz			
BER: 0.00000000	FER: 0.000000	evaluated:	320 kbit	P
Center frequency offset:	50 kHz			
BER: 0.00000601	FER: 0.000000	evaluated:	332 kbit	P
Center frequency offset:	-50 kHz			
BER: 0.00000000	FER: 0.000000	evaluated:	320 kbit	P
TRAFFIC SLOT:	18			
TRAFFIC CARRIER:	5			
PACKET TYPE:	P32+Z			
Center frequency offset:	0 kHz			
BER: 0.00000000	FER: 0.000000	evaluated:	320 kbit	P
Center frequency offset:	50 kHz			
BER: 0.00000000	FER: 0.000000	evaluated:	320 kbit	P
Center frequency offset:	-50 kHz			
BER: 0.00000000	FER: 0.000000	evaluated:	320 kbit	P
TRAFFIC SLOT:	20			
TRAFFIC CARRIER:	9			
PACKET TYPE:	P32+Z			
Center frequency offset:	0 kHz			
BER: 0.00000000	FER: 0.000000	evaluated:	320 kbit	P
Center frequency offset:	50 kHz			
BER: 0.00000000	FER: 0.000000	evaluated:	320 kbit	P
Center frequency offset:	-50 kHz			
BER: 0.00000000	FER: 0.000000	evaluated:	320 kbit	P

2.3.14 TC 14 Radio receiver reference bit error ratio (4.5.7.2)

At a level of -73 dBm the BER shall be $\leq 10^{-5}$, the FER shall be $\leq 5 \cdot 10^{-4}$.

Measurement uncertainty: + 0.25 dB / -0.27 dB

TRAFFIC SLOT:	18			
TRAFFIC CARRIER:	0			
PACKET TYPE:	P32+Z			
BER: 0.00000000	FER: 0.000000	evaluated:	32.000 Mbit	P
TRAFFIC SLOT:	20			
TRAFFIC CARRIER:	5			
PACKET TYPE:	P32+Z			
BER: 0.00000000	FER: 0.000000	evaluated:	32.000 Mbit	P
TRAFFIC SLOT:	22			
TRAFFIC CARRIER:	9			
PACKET TYPE:	P32+Z			
BER: 0.00000000	FER: 0.000000	evaluated:	32.000 Mbit	P

2.3.15 TC 15 Receiver interference performance (4.5.7.3)

The BER shall be $\leq 10^{-3}$.

Measurement uncertainty: + 0.32 dB / -0.34 dB

TRAFFIC SLOT: 14
 TRAFFIC CARRIER: 0
 PACKET TYPE: P32+Z
 BER: FER: kBit: intf.car: lev in dBm:
 0.000000 0.000000 320 -3 -33.0
 0.000000 0.000000 320 -2 -39.0
 0.000000 0.000000 320 -1 -60.0
 0.000266 0.000000 804 0 -84.0
 0.000000 0.000000 320 1 -60.0
 0.000000 0.000000 320 2 -39.0
 0.000000 0.000000 320 3 -33.0
 0.000000 0.000000 320 4 -33.0
 0.000000 0.000000 320 5 -33.0
 0.000000 0.000000 320 6 -33.0
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 0.000000 0.000000 320 11 -33.0
 0.000000 0.000000 320 12 -33.0

TRAFFIC SLOT: 16
 TRAFFIC CARRIER: 5
 PACKET TYPE: P32+Z
 BER: FER: kBit: intf.car: lev in dBm:
 0.000000 0.000000 320 -3 -33.0
 0.000000 0.000000 320 -2 -33.0
 0.000000 0.000000 320 -1 -33.0
 0.000000 0.000000 320 0 -33.0
 0.000000 0.000000 320 1 -33.0
 0.000000 0.000000 320 2 -33.0
 0.000000 0.000000 320 3 -39.0
 0.000000 0.000000 332 4 -60.0
 0.000180 0.000489 654 5 -84.0
 0.000000 0.000000 320 6 -60.0
 0.000000 0.000000 320 7 -39.0
 0.000000 0.000000 320 8 -33.0
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 0.000000 0.000000 320 10 -33.0
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2.3.17 TC 17 Radio receiver blocking, case 2 (4.5.7.5)

The BER shall be $\leq 10^{-3}$.

Measurement uncertainty: + 0.63 dB / -0.71 dB

TRAFFIC SLOT:	22				
TRAFFIC CARRIER:	0				
PACKET TYPE:	P32+Z				
BER: 0.00000000	FER: 0.000000	evaluated:	320 kbit		P
TRAFFIC SLOT:	14				
TRAFFIC CARRIER:	5				
PACKET TYPE:	P32+Z				
BER: 0.00000000	FER: 0.000000	evaluated:	320 kbit		P
TRAFFIC SLOT:	16				
TRAFFIC CARRIER:	9				
PACKET TYPE:	P32+Z				
BER: 0.00000000	FER: 0.000000	evaluated:	320 kbit		P

2.3.18 TC 18 Receiver intermodulation performance (4.5.7.6)

The BER shall be $\leq 10^{-3}$.

Measurement uncertainty: + 0.40 dB / -0.43 dB

TRAFFIC SLOT:	18				
TRAFFIC CARRIER:	0				
PACKET TYPE:	P32+Z				
M: 0 A: 2 B: 4					
BER: 0.000000	FER: 0.0000	eval.data:	320 kbit		P
M: 0 A: -2 B: -4					
BER: 0.000000	FER: 0.0000	eval.data:	320 kbit		P
TRAFFIC SLOT:	20				
TRAFFIC CARRIER:	5				
PACKET TYPE:	P32+Z				
M: 5 A: 7 B: 9					
BER: 0.000000	FER: 0.0000	eval.data:	320 kbit		P
M: 5 A: 3 B: 1					
BER: 0.000000	FER: 0.0000	eval.data:	320 kbit		P
TRAFFIC SLOT:	22				
TRAFFIC CARRIER:	9				
PACKET TYPE:	P32+Z				
M: 9 A: 11 B: 13					
BER: 0.000000	FER: 0.0000	eval.data:	320 kbit		P
M: 9 A: 7 B: 5					
BER: 0.000000	FER: 0.0000	eval.data:	320 kbit		P

2.3.19 TC 19 Spurious emissions when the radio endpoint has no allocated transmit ch. (4.5.7.7)

The EUT shall conformance

Outside the DECT band:

The emission as measured shall not be greater than 2nW (-57dbm) between 30MHz and 1GHz; and between 1GHz and 12.75GHz the emission as measured shall not exceed 20nW(-47dBm).

Inside the DECT band:

The power level as measured of any spurious emission shall not exceed 2nW(-57dBm) in a 1MHz Bandwidth.

In one 1MHz band within the DECT frequency band, the maximum allowable ERP shall be less than 20nW(-47dBm)

In up to two bands of 30KHz, the maximum ERP shall less than 250nw(-36dBm)

Radiated spurious emission

RF ranges	Maximun peak power level	Result/max.value
30MHz-----1.0GHz	2nW(-57dBm)	-66.50 dBm
1GHz-----4GHz	20nW(-47dBm)	-52.69 dBm
Inside the DECT band	2nW(-57dBm)	-58.74 dBm

Measurement uncertainty radiated: + 3.53 dB / -3.53 dB

Conducted spurious emission

RF ranges	Maximun peak power level	Result/max.value
30MHz-----1.0GHz	2nW(-57dBm)	-65.24 dBm
1GHz-----12.75GHz	20nW(-47dBm)	-56.14 dBm
Inside the DECT band	2nW(-57dBm)	-60.75 dBm

Measurement uncertainty conducted:+ 0.85 dB / -0.92 dB

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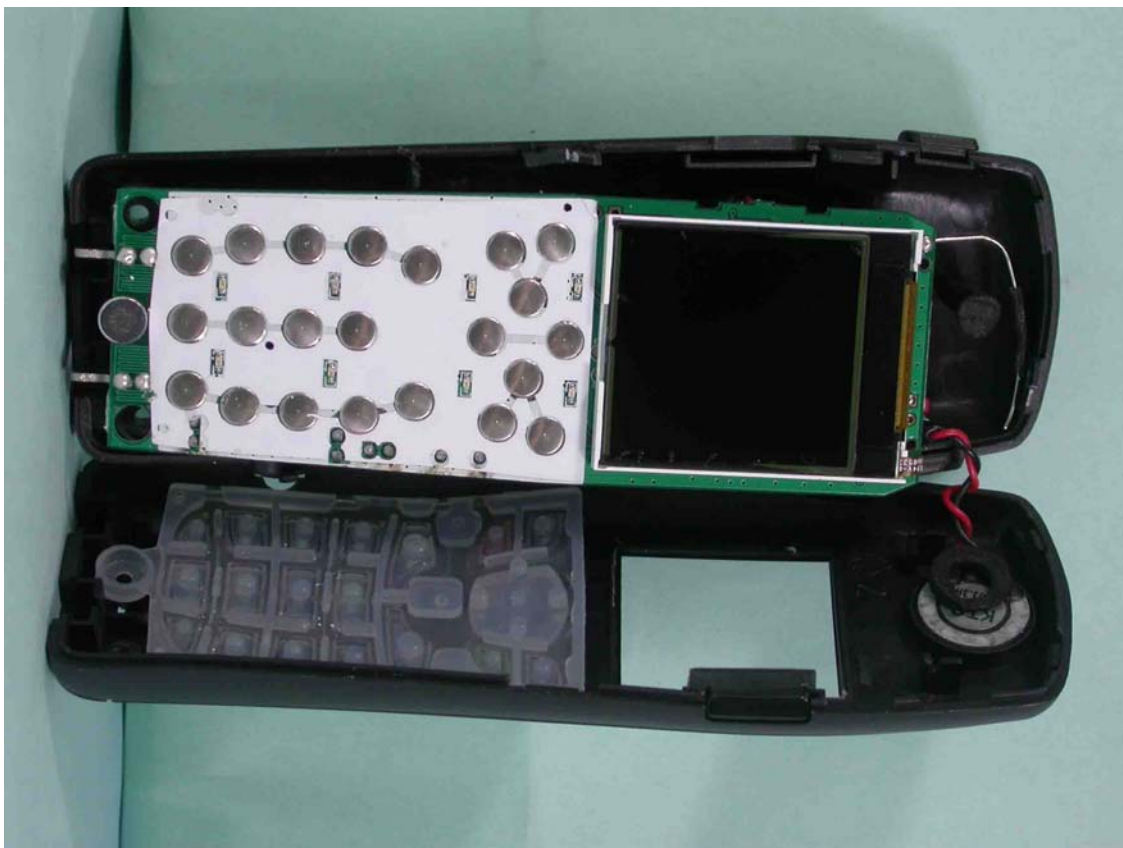
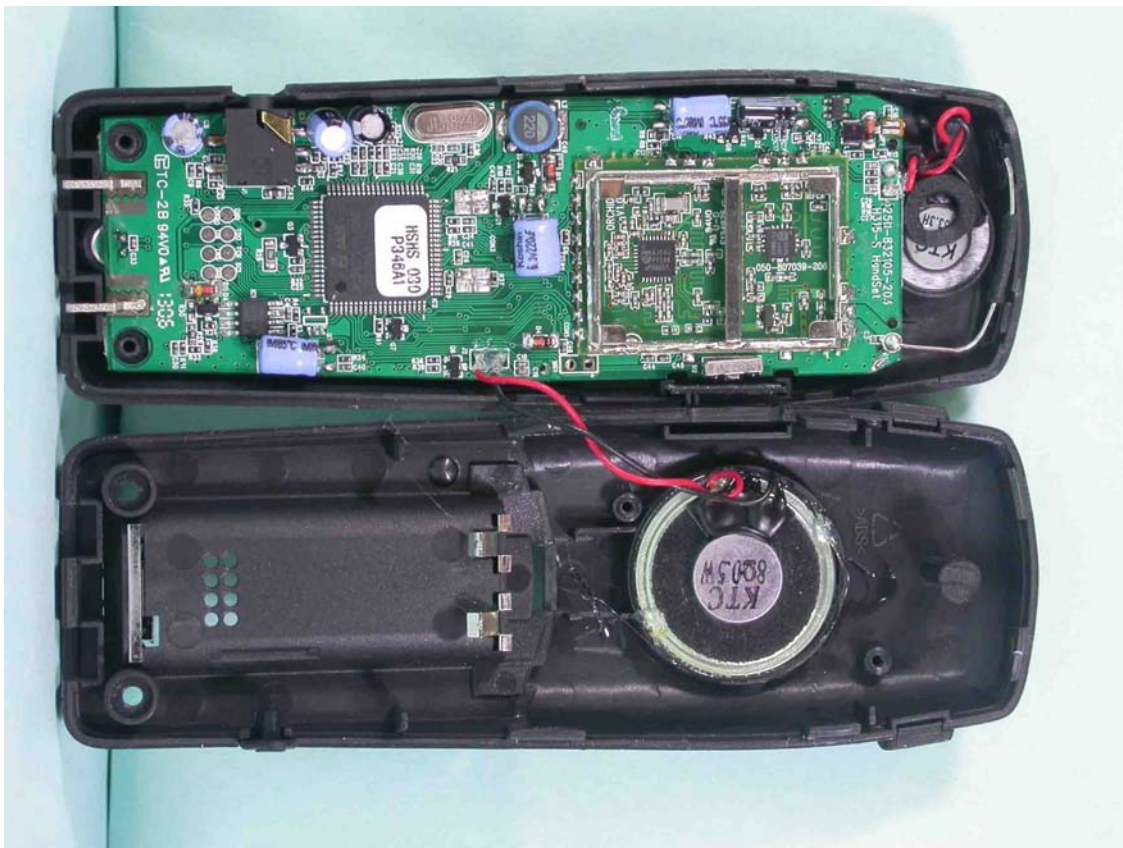
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- 2.3.20 TC 20 Synchronisation port (4.5.8)**
No test
- 2.3.21 TC 21 Equipment identity verification (4.5.9)**
Statement of the applicant“
- 2.3.22 TC 22 Efficient use of radio spectrum (4.5.10)**
Statement of the applicant“
- 2.3.23 TC23 WRS (4.5.11)**
No test
- 2.3.24 TC24 PP to PP communication (4.5.12)**
No test
- 2.3.25 TC25 Direct communication (4.5.13)**
No test
- 2.3.26 TC26 Higher level modulation (4.5.14)**
No test

4 Appendix Photo of the Test Candidate (exterior)



Photo of the Test Candidate (interior)



MANUFACTURER DECLARATION

AZTECH SYSTEMS LTD

31 Ubi Road 1, Aztech Building, Singapore

(Name / Address)

declare for the Digital Enhanced Cordless Telecommunications (DECT) telephone system specified as

H315-S1 / HS315-S1

(Model Number)

For the portable radio termination (PT):

The first PT transmission on the newly selected channel is made in accordance with the scan sequence of the addressed RFP.

To continue transmitting on the newly selected physical channel the PT transmissions within 2 frames of the first PT transmission.

For the fixed radio termination (FT):

The RFP do not transmit on more than 2 physical channels for which complementary physical channels do not exist.

A complementary physical channel is a physical channel between the same two radio endpoints which occurs 5 ms before or after the physical channel to which is complementary.

When an FT is addressing a specific PT then the first FT transmission is made in accordance with the scan sequence of the addressed PT receiver.

To continue transmitting on the selected physical channel the FT receives an indication that the PT is receiving the FT transmissions within 2 frames of the first FT transmission.

For the channel release:

A REP cease transmission on all physical channels if it has not received a valid indication of the other radio endpoint's identity within 10 seconds of the receipt of the last indication.

A REP which transmits on both the physical channel and complementary physical channel ceases to transmit on the channels if either:

- The receiving endpoint indicate to the transmitting endpoint that transmission cease on both these physical channels; or
- The transmitting FT or PT is no longer attempting to receive at least one physical channel from the FT or PT to which it is transmitting.

In General:

No more than two physical channels based on the half slot format are sent within the same frame to the same REP;

The EUT is capable of communicating on all 10 DECT RF channels

12-May-06

(Date)

AZTECH SYSTEMS LTD

(Printed full name)

AZTECH SYSTEMS LTD

31 UBI ROAD 1, AZTECH BUILDING

SINGAPORE 408894

TEL: (65) 7417211 FAX: (65) 7411073

TLX: RS 30550 AZTECH

(Authorized signature and company chop)

B A B T

MANUFACTURER DECLARATION

AZTECH SYSTEMS LTD

31 Ubi Road 1, Aztech Building, Singapore

(Name / Address)

declares for the Digital Enhanced Cordless Telecommunications (DECT) telephone system specified as

H315-S1 / HS315-S1

(Model Number)

The Portable Part (PP):

It is not possible for the user to alter the IPEI using any normally accessible procedure. We supply, in addition to the equipment, sufficient means in the equipment with instructions in the documentation to permit validation of the Equipment Manufacturer's Code and verification of the existence of the Portable equipment Serial Number (PSN) code in the equipment.

The Fixed Part (FP):


DECT FPs which do not transmit the TA escape message transmits the Nr message as defined in EN 300 175-3 [3] at least once every 10 seconds on all active physical channels; These Nr identity messages are transmitted with the appropriate A-field header code as defined in EN 300 175-3[3] and the Nr message contains an ETSI distributed code as defined in EN 300 175-6[6].

(Date) 12-May-06

AZTECH SYSTEMS LTD

(Printed full Name)

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TLX: RS 36560 AZTECH


(Authorized Signature & Company Chop)

BABT