

## FCC TEST REPORT

for

TT Micro AS

DAB+/DAB/FM/Internet radio

Model Number: Pinell explorer

Prepared for : TT Micro AS

Address : Olaf Helsetsvei 1,0496 Oslo Norway

Prepared By : NS Technology Co., Ltd.

Address : Chenwu Industrial Zone, Houjie Town, Dongguan City,  
Guangdong, China

Tel: 86-769-85935656

Fax: 86-769-85991080

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Date of Test : May 20,2010

Date of Report : May 28, 2010





<b>Applicant:</b>	TT Micro AS Olaf Helsetsvei 1,0496 Oslo Norway		
<b>Manufacturer:</b>	TT Micro AS Olaf Helsetsvei 1,0496 Oslo Norway		
<b>E.U.T:</b>	DAB+/DAB/FM/Internet radio		
<b>Model Number:</b>	R4		
<b>Trade Name:</b>	Pinell explorer	<b>Operating Frequency:</b>	IEEE802.11b 2412~2462MHz IEEE802.11g 2412~2462MHz
<b>Date of Receipt:</b>	May 7, 2010	<b>Date of Test:</b>	May 20,2010
<b>Test Specification:</b>	47 CFR FCC Part 2 Subpart J, section 2.1091		
<b>Test Result:</b>	The equipment under test was found to be compliance with the requirements of the standards applied.		
<b>Issue Date: May 28, 2010</b>			
Tested by:	Reviewed by:	Approved by:	
Jade/ Engineer	Iceman Hu / Supervisor	Steven Lee / Manager	
<b>Other Aspects:</b> None.			
Abbreviations: OK/P=passed      fail/F=failed      n.a/N=not applicable      E.U.T=equipment under tested			
This test report is based on a single evaluation of one sample of above mentioned products ,It is not permitted to be duplicated in extracts without written approval of NS Technology Co., Ltd.			



## Maximum Permissible Exposure

### 1 Applicable Standard

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 0.2m normally can be maintained between the user and the device.

#### (a) Limits for Occupational / Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density(S) (mW/cm <sup>2</sup> )	Averaging Times   E   <sup>2</sup> ,   H   <sup>2</sup> or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f)*	6
30-300	61.4	0.163	1.0	6
300-1500			F/300	6
1500-100000			5	6

#### (b) Limits for General Population / Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density(S) (mW/cm <sup>2</sup> )	Averaging Times   E   <sup>2</sup> ,   H   <sup>2</sup> or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/1500	30
1500-100000			1.0	30

Note: f=frequency in MHz; \*Plane-wave equivalent power density

### 2 MPE Calculation Method

$$E \text{ (V/m)} = (30 * P * G)^{0.5} / d$$

$$\text{Power Density: } Pd \text{ (W/m}^2\text{)} = E^2 / 377$$

E = Electric Field (V/m)

P = Peak RF output Power (W)

G = EUT Antenna numeric gain (numeric)

d = Separation distance between radiator and human body (m)

The formula can be changed to

$$Pd = (30 * P * G) / (377 * d^2)$$

From the peak EUT RF output power, the minimum mobile separation distance, d=0.2m, as well as the gain of the used antenna, the RF power density can be obtained.



### 3 Calculated Result and Limit

Mode	CH	Output power (dBm)	Output power (mW)	Antenna Gain (dBi)	MPE estimation result (mW/cm <sup>2</sup> ) at 20cm	Limit of MPE Estimation (mW/cm <sup>2</sup> )	Test result
IEEE 802.11b	CH1:2412MHz	13.86	24.32	0.5	0.0024	1	Compiles
	CH6:2437MHz	13.54	22.59	0.5	0.0022	1	Compiles
	CH11:2462MHz	13.18	20.80	0.5	0.0021	1	Compiles
IEEE 802.11g	CH1:2412MHz	8.75	7.50	0.5	0.0007	1	Compiles
	CH6:2437MHz	8.99	7.93	0.5	0.0008	1	Compiles
	CH11:2462MHz	8.65	7.33	0.5	0.0007	1	Compiles

