

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




Report Number : NSE-F10064957

Date of Test : May 20,2010

Date of Report : May 28, 2010





Applicant:	TT Micro AS		
Address:	Olaf Helsetsvei 1,0496 Oslo Norway		
Manufacturer:	TT Micro AS		
Address:	Olaf Helsetsvei 1,0496 Oslo Norway		
E.U.T:	DAB+/DAB/FM/Internet radio		
Model Number:	R4		
Trade Name:	Pinell explorer	Operating Frequency:	IEEE802.11b 2412~2462MHz IEEE802.11g 2412~2462MHz
Date of Receipt:	May 7, 2010	Date of Test:	May 20,2010
Test Specification:	47 CFR FCC Part 2 Subpart J, section 2.1091		
Test Result:	The equipment under test was found to be compliance with the requirements of the standards applied.		
Issue Date: May 28, 2010			
Tested by:	Reviewed by:	Approved by:	
			
Jade/ Engineer	Iceman Hu / Supervisor	Steven Lee / Manager	
Other Aspects:	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 ²)	Averaging Times E ² , H ² 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 ²)	Averaging Times E ² , H ² 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

$$E \text{ (V/m)} = (30 \cdot P \cdot G)^{0.5} / d \quad \text{Power Density: } Pd \text{ (W/m}^2\text{)} = E^2 / 377$$

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

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

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 ²) at 20cm	Limit of MPE Estimation (mW/cm ²)	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