

**7. CONDUCTED DISTURBANCE VOLTAGE IN THE FREQUENCY RANGE 0,150 - 30 MHZ**

**7.1 Operating environment**

Temperature: 23 °C (15 - 35 °C)  
 Relative Humidity: 35 % (20 - 75 %)

**7.2 Measurement uncertainty**

Conducted disturbance voltage, quasi-peak detection: ±2,0 dB

The measurement uncertainty describes the overall uncertainty of the given measured value during operation of the EUT.

Measurement uncertainty is calculated in accordance with EA-4/02-1997.  
 The measurement uncertainty is given with a confidence of 95%.

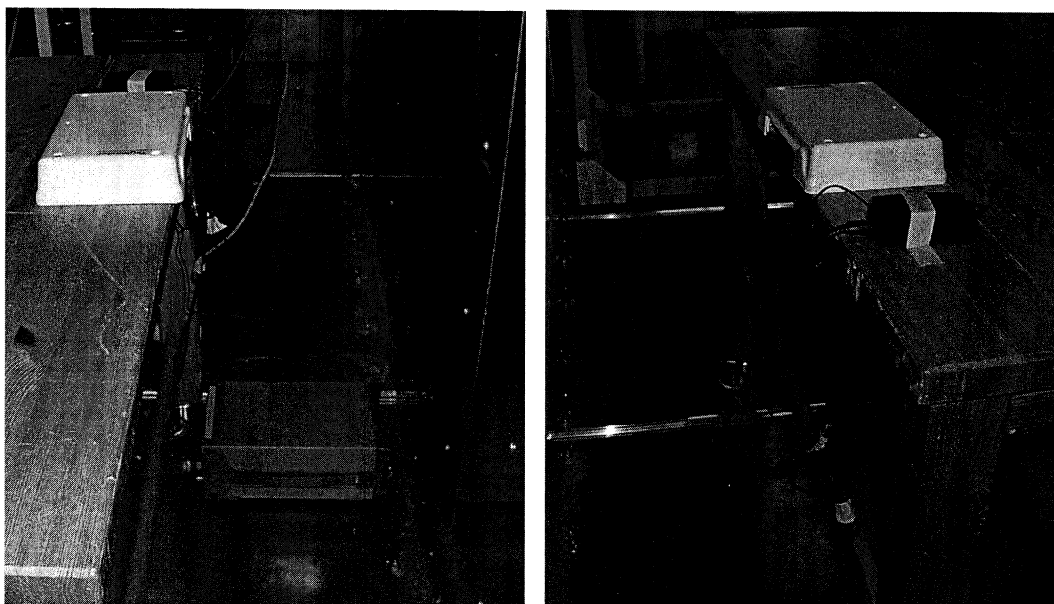
**7.3 Test equipment**

Test site: FCC

Equipment	Manufacturer	Type	SEMKO No.
Software:	Rohde & Schwarz	ES-K1 V1.60	
Measurement receiver:	Rohde & Schwarz	ESHS 30	4946
Artificial mains network:	Rohde & Schwarz	ESH3-Z5	2727
Transformer:	TUFVASSONS	AFM-1500	375

**7.4 Measurement set-up**

The mains terminal disturbance voltage was measured with the EUT located 0,8 m above the ground plane and 0,4 m from the vertical ground plane. The EUT was connected to an artificial mains network (AMN). The AMN was placed on a metallic, grounded floor. Amplitude measurements were performed with a quasi-peak detector. The test set-up photo is given below.



Intertek Semko AB

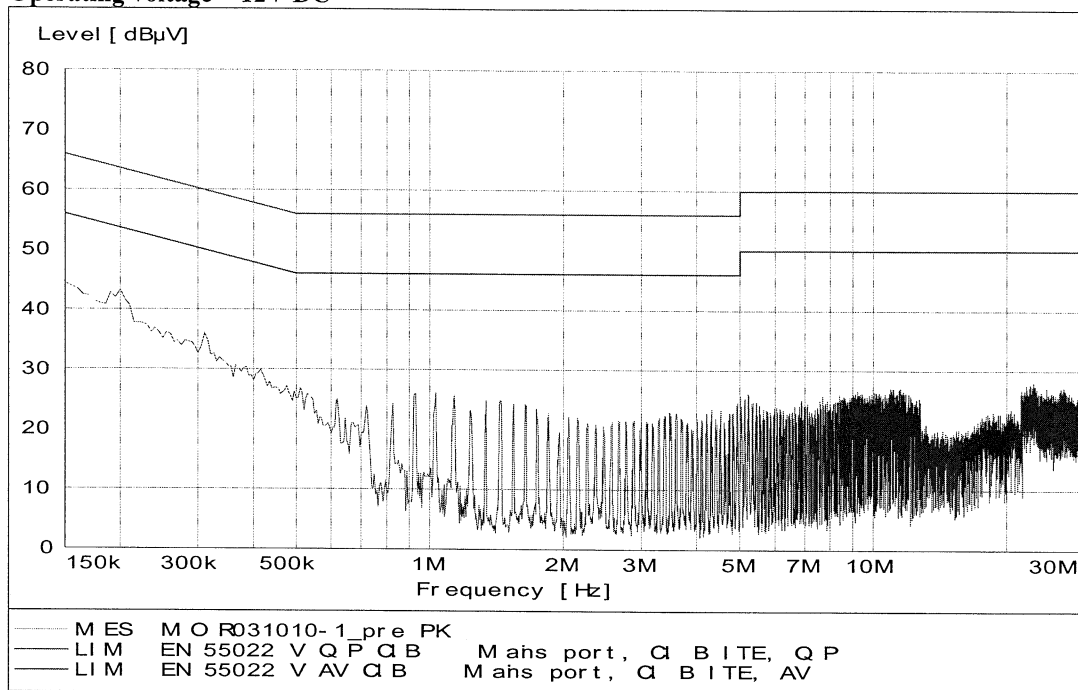
Torshamnsgatan 43, Box 1103, SE-164 22 Kista, Sweden  
 Telephone +46 8 750 00 00 , Fax +46 8 750 60 30, www.sweden.intertek-etlsemko.com  
 Registered in Sweden: No SE556024059901, Registered office: As address

**7.5 Test protocol**

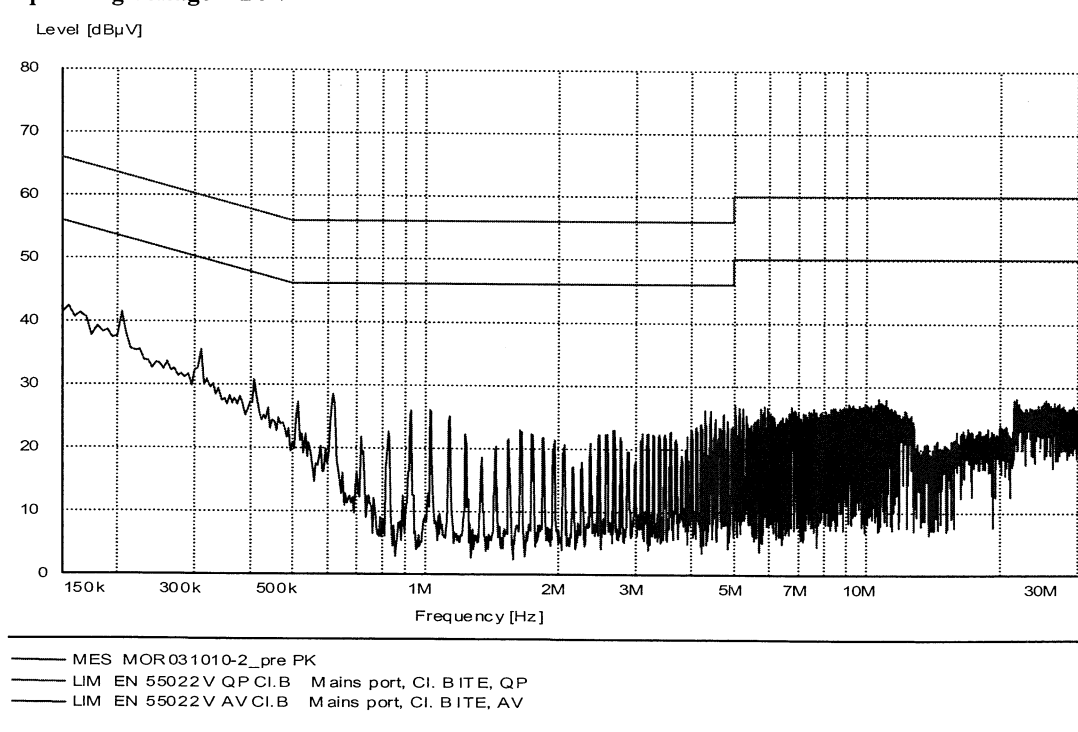
Date of test: October 10, 2003

An overview sweep performed with a peak detector is shown below.

**Operating voltage = 12V DC**



**Operating voltage = 24 V**



**8. OUTPUT FIELD STRENGTH**

**8.1 Measurement set-up**

In the Bluetooth anechoic chamber the EUT was placed on a non-metallic table, 1,4 m above the floor. The radiated disturbance electric field intensity was measured at a distance of 3 m. The specified test mode was enabled.

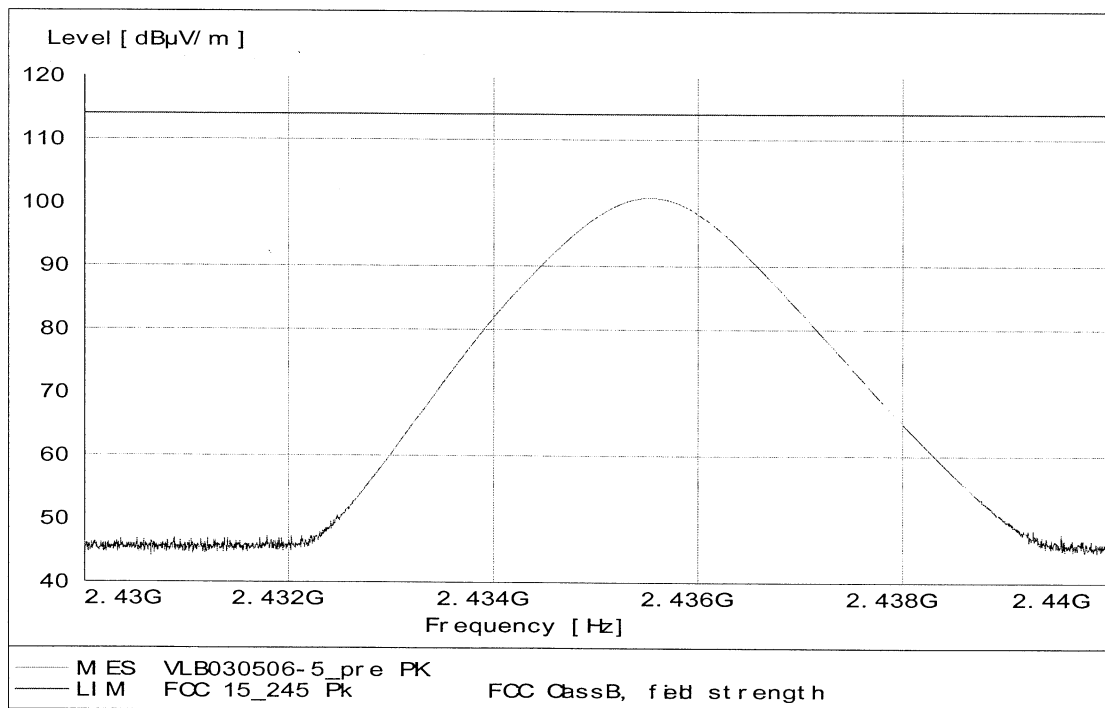
The receiving antenna was located at the height of 1,4 m above the floor. The polarisation was horizontal and vertical. The sweep was performed with the spectrum analyser in max-hold and average detection of the electric field intensity. The measurements were repeated with the EUT rotated stepwise. For the test set-up photo see Section 6.1.2.

**8.2 Test protocol**

Date of test: May 6, 2003

Channel No.	Output Field Strength dB( $\mu$ V/m)	Limit value dB( $\mu$ V/m)
1	101	114
50	102	
99	104	

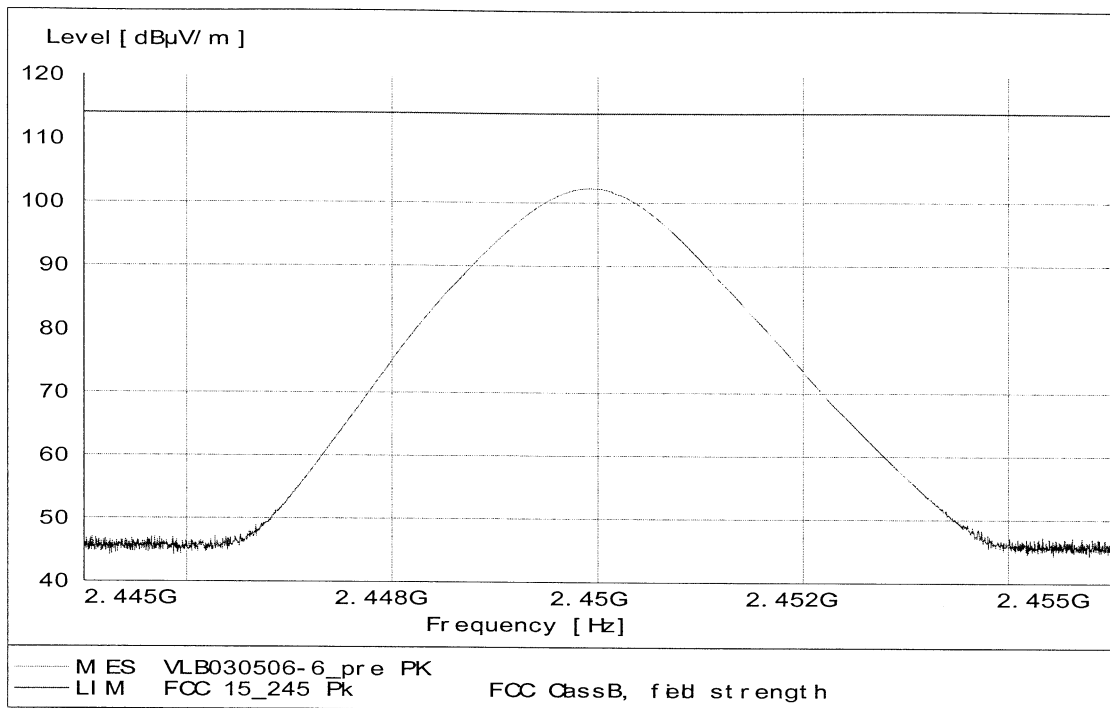
Output field strength, channel 1



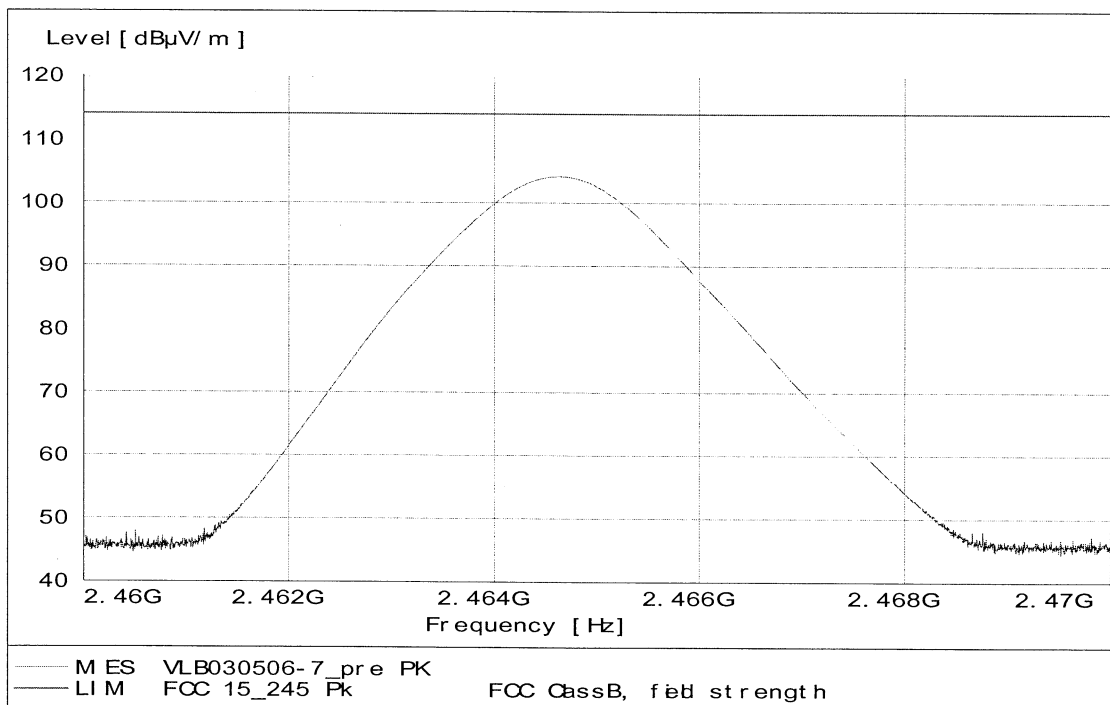
Intertek Semko AB

Torshamnsgatan 43, Box 1103, SE-164 22 Kista, Sweden  
 Telephone +46 8 750 00 00 , Fax +46 8 750 60 30, www.sweden.intertek-etlsemko.com  
 Registered in Sweden: No SE556024059901, Registered office: As address

Output field strength, channel 50



Output field strength, channel 99



Intertek Semko AB

Torshamnsgatan 43, Box 1103, SE-164 22 Kista, Sweden  
 Telephone +46 8 750 00 00 , Fax +46 8 750 60 30, www.sweden.intertek-etlsemko.com  
 Registered in Sweden: No SE556024059901, Registered office: As address

**9. BAND EDGE COMPLIANCE**

**9.1 Measurement set-up**

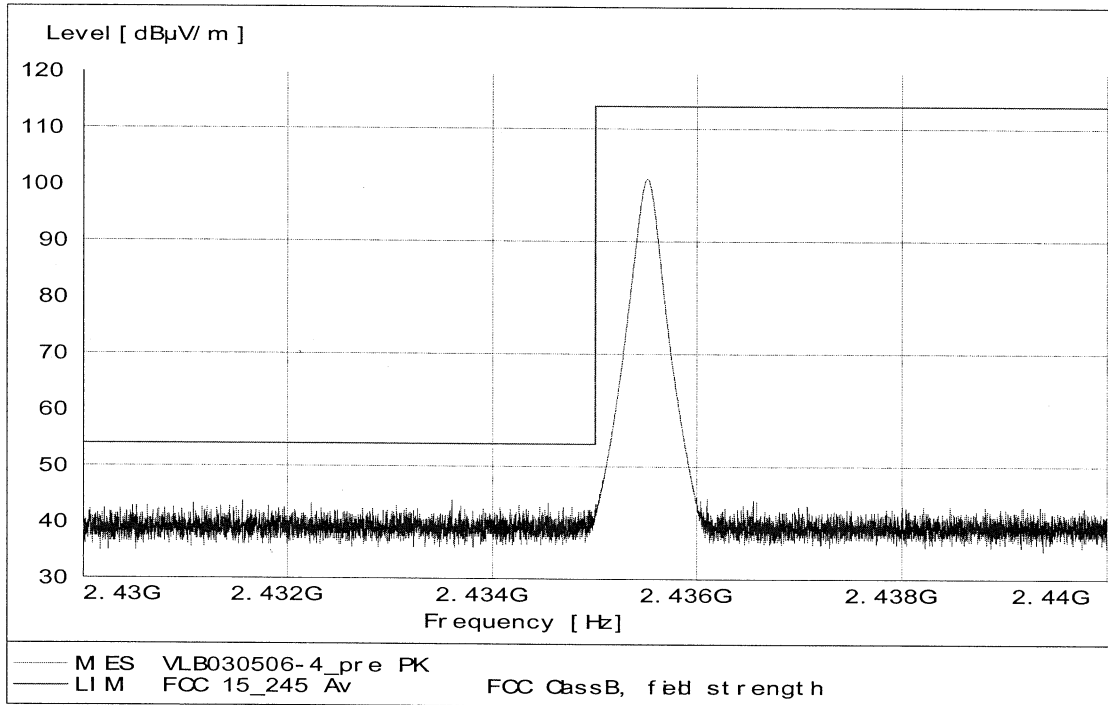
Measurement set-up is described in Section 7.1.

**9.2 Test protocol**

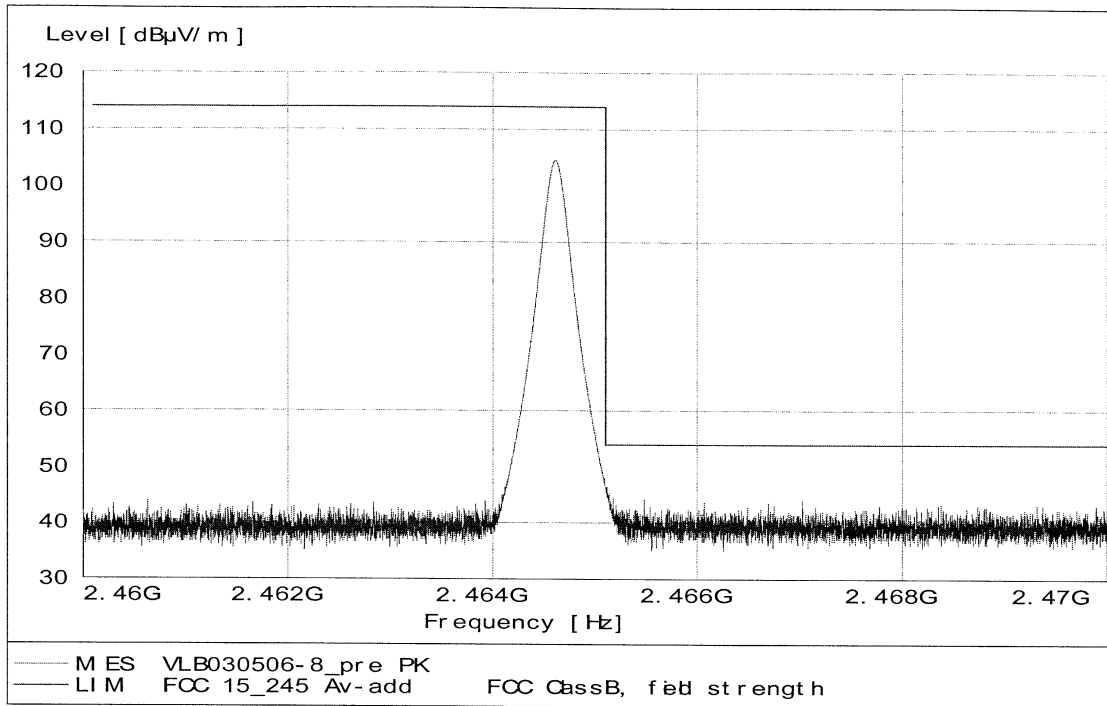
Date of test: May 6, 2003

Frequency MHz	Field Strength dB( $\mu$ V/m)	Limit value dB( $\mu$ V/m)
2435	42	54
2465	49	54

Band edge compliance at 2435 MHz



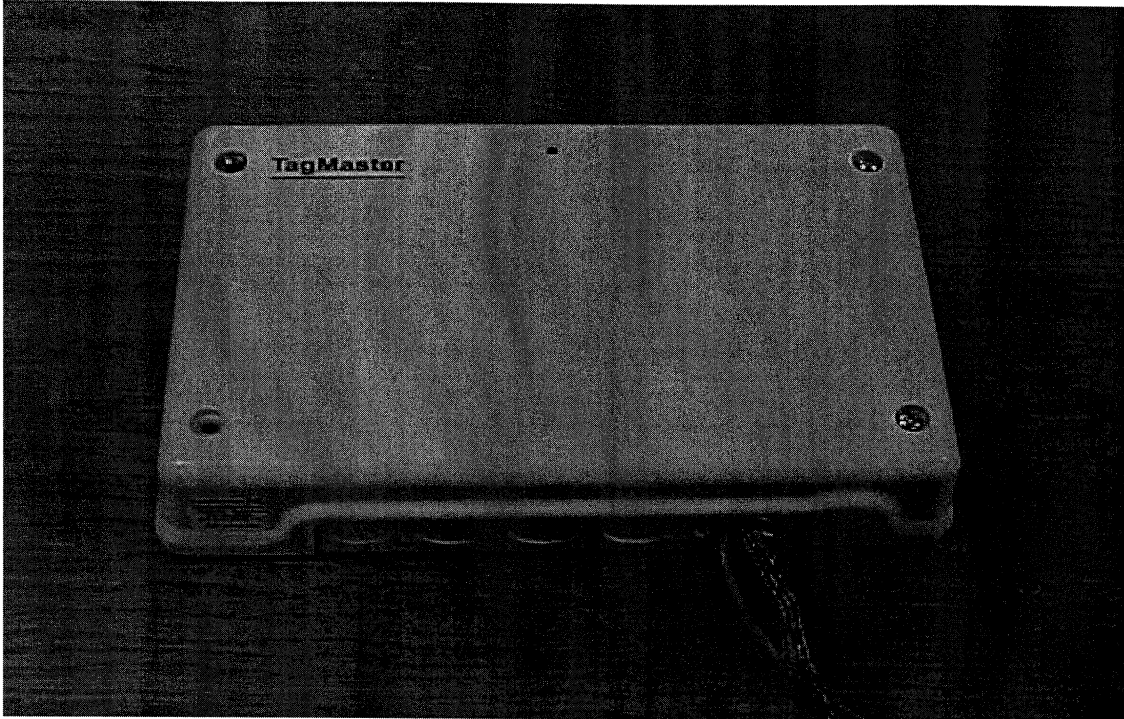
Band edge compliance at 2465 MHz



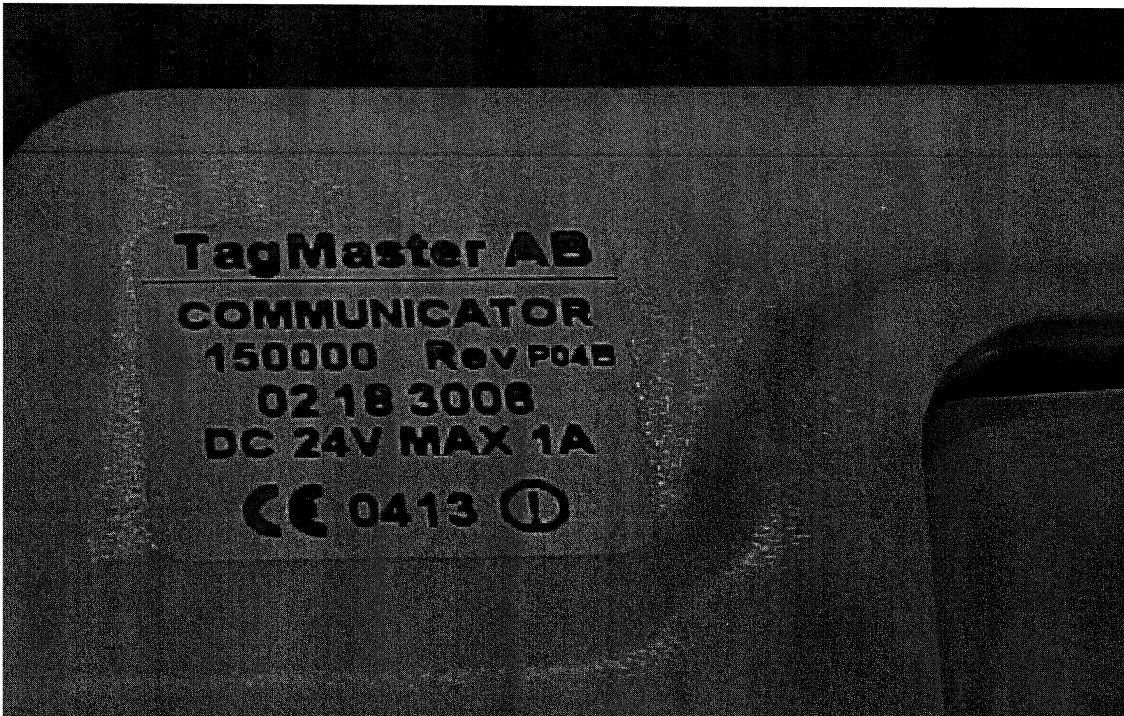
Intertek Semko AB

Torshamnsgatan 43, Box 1103, SE-164 22 Kista, Sweden  
 Telephone +46 8 750 00 00 , Fax +46 8 750 60 30, www.sweden.intertek-etlsemko.com  
 Registered in Sweden: No SE556024059901, Registered office: As address

APPENDIX – PHOTOS OF THE EUT



Identification photo



Intertek Semko AB

Torshamnsgatan 43, Box 1103, SE-164 22 Kista, Sweden

Telephone +46 8 750 00 00 , Fax +46 8 750 60 30, [www.sweden.intertek-etlsemko.com](http://www.sweden.intertek-etlsemko.com)

Registered in Sweden: No SE556024059901, Registered office: As address