

# **FCC EMC Test Report**

FCC ID: 2ATQM1000-0608

Product: Access modem

Trade Mark: N/A

Model Number: Refer to Page 7 ~ 8

#### Prepared for

Incoax Networks AB
Mobilvagen 10, 223 62 Lund, Sweden

## Prepared by

Shenzhen NTEK Testing Technology Co., Ltd.

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Version 2.0 Page 1 of 32



## **TEST RESULT CERTIFICATION**

Applicant's Name...... Incoax Networks AB

Address ...... Mobilvagen 10, 223 62 Lund, Sweden

Manufacturer's Name ....: Incoax Networks AB

Address ...... Mobilvagen 10, 223 62 Lund, Sweden

Factory's Name ...... AOMAGA (VIET NAM) ELECTRONIC COMPANY LIMITED

Lot TT, Road TS5, Tien Son Industrial Park, Tan Hong Ward, Tu

Address ....: Son City, Bac Ninh Province, Vietnam

**Product description** 

Product Name.....: Access modem

Model Number...... Refer to Page 7 ~ 8

47 CFR FCC part 15 subpart B, 10-1-2023

ANSI C63.4:2014

Standards .....: ICES-003 Issue 7:October 2020

ICES-Gen Issue 1:July 2018

This device described above has been tested by NTEK, and the test results show that the equipment under test (EUT) is in compliance with Part 15 of FCC Rules. And it is applicable only to the tested sample identified in the report.

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Test Sample Number.....: S231108067001

Date of Test .....

Date (s) of performance of tests .....: 16 Nov. 2023 ~ 17 Nov. 2023

Date of Issue .....: 17 Nov. 2023

Test Result **Pass** 

> Allen Huang Testing Engineer

**Technical Manager** 

Authorized Signatory

Version 2.0 Page 2 of 32





Table of Contents	Page
1 . TEST SUMMARY	4
1.1 TEST FACILITY	4
1.2 MEASUREMENT UNCERTAINTY	4
2 . GENERAL INFORMATION	6
2.1 GENERAL DESCRIPTION OF EUT	6
2.2 DESCRIPTION OF TEST MODES	8
2.3 DESCRIPTION OF TEST SETUP	8
2.4 DESCRIPTION TEST PERIPHERAL AND EUT PERIPHERAL	9
2.5 MEASUREMENT INSTRUMENTS LIST	10
2.6 MEASUREMENT SOFTWARE	11
3 . EMC EMISSION TEST	12
3.1 CONDUCTED EMISSION MEASUREMENT	12
3.1.1 POWER LINE CONDUCTED EMISSION (Frequency Range 150kHz-30MHz)	
3.1.2 TEST PROCEDURE	12
3.1.3 TEST SETUP	12
3.1.4 EUT OPERATING CONDITIONS	12
3.1.5 TEST RESULTS	13
3.2 RADIATED EMISSION MEASUREMENT	17
3.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT (Below 1000MHz)	17
3.2.2 LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)	17
3.2.3 TEST PROCEDURE	17
3.2.4 TEST SETUP	18
3.2.5 EUT OPERATING CONDITIONS 3.2.6 TEST RESULTS (30-1000MHz)	18 19
4 . EUT TEST PHOTO	23
ATTACHMENT PHOTOGRAPHS OF EUT	24

Version 2.0 Page 3 of 32

Report No.: S23110806701001

#### 1. TEST SUMMARY

Test procedures according to the technical standards:

EMC Emission					
Standard Test Item Limit Judgment Remark					
47 CFR FCC part 15 subpart B, 10-1-2023	Conducted	Class B	PASS		
ANSI C63.4:2014	Emission	Class B FASS			
ICES-003 Issue 7:October 2020	Radiated	Class B	PASS		
ICES-Gen Issue 1:July 2018	Emission	Class D	FASS		

#### NOTE:

(1) "N/A" denotes test is not applicable in this Test Report

(2) For client's request and manual description, the test will not be executed.

#### 1.1 TEST FACILITY

Shenzhen NTEK Testing Technology Co., Ltd.

Add.: 1&5/F, Building C, 1&2/F, Building E, Fenda Science Park, Sanwei Community,

Hangcheng Street, Baoan District, Shenzhen, Guangdong, China

CNAS-Lab. : The Laboratory has been assessed and proved to be in compliance

with CNAS-CL01:2018 (identical to ISO/IEC 17025:2017)

The Certificate Registration Number is L5516

ISED-Registration : The Company Number: 9270A.

CAB identifier: CN0074.

FCC- Accredited : Test Firm Registration Number: 463705

**Designation Number: CN1184** 

A2LA-Lab. : The Certificate Registration Number is 4298.01

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 General requirements for

the competence of testing and calibration laboratories.

This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system

(refer to joint ISO-ILAC-IAF Communiqué dated April 2017).

#### 1.2 MEASUREMENT UNCERTAINTY

The reported uncertainty of measurement  $\mathbf{y} \pm \mathbf{U}$ , where expended uncertainty  $\mathbf{U}$  is based on a standard uncertainty multiplied by a coverage factor of  $\mathbf{k=2}$ , providing a level of confidence of approximately  $\mathbf{95}$  %.

Test Item	Measurement Frequency Range	K	U(dB)
Conducted Emission	0.009MHz ~ 0.15MHz	2	3.6
Conducted Emission	0.15MHz ~ 30MHz	2	3.1
Radiated Emission	30MHz ~ 1000MHz	2	5.2
Radiated Emission	1000MHz ~ 18000MHz	2	5.1

Version 2.0 Page 4 of 32



Report No.: S23110806701001

## **Revision History**

Report No.	Version	Description	Issued Date
S23110806701001	Rev.01	Initial issue of report	Nov. 17, 2023

Page 5 of 32 Version 2.0





## 2. GENERAL INFORMATION

## 2.1 GENERAL DESCRIPTION OF EUT

Equipment	Access modem			
Model Number	InCoax Access A2512 RPF AD ER, InCoax Access A2512 AD ER			
Additional Model Number(s)	Refer to Page 8			
Model Difference	Refer to Page 8			
	The EUT is a Access mod	dem.		
	Operating frequency:	Below 108 MHz (Declaration by Manufacturer)		
Product Description	Connecting I/O port:	N/A		
	Based on the application, features, or specification exhibited in User's Manual. More details of EUT technical specification, please refer to the User's Manual.			
Power Source	AC Voltage			
	Adapter Model 1: BI12TA	-120100-I		
	Adapter Rating:			
	Input: AC 100-240V, 50/60Hz, 0.5A			
Power Pating	Output: DC 12.0V, 1.0A, 12.0W			
Power Rating	Adapter Model 2: F30L2-560050SPACP			
	Adapter Rating:			
	Input: AC 100-240V, 50/60Hz, 0.8A			
	Output: DC 56.0V, 0.5A, 28.0W			

Version 2.0 Page 6 of 32





Model name	Rating	Interface	Difference Description
InCoax Access A2511 RPF AA InCoax Access A2511 RPF AB InCoax Access A2511 RPF AC InCoax Access A2511 RPF AD InCoax Access A2511 RPF AE InCoax Access A2511 RPF IP InCoax Access A2511 RPF AA ER InCoax Access A2511 RPF AB ER InCoax Access A2511 RPF AC ER InCoax Access A2511 RPF AD ER InCoax Access A2511 RPF AD ER InCoax Access A2511 RPF AE ER InCoax Access A2511 RPF AE ER InCoax Access A2511 RPF IP ER	56VDC, 0.5A	RF single port, LAN port	The models in the preceding boxes difference only in the model name
InCoax Access A2512 RPF AD ER InCoax Access A2512 RPF AA ER InCoax Access A2512 RPF AB ER InCoax Access A2512 RPF AC ER InCoax Access A2512 RPF AE ER InCoax Access A2512 RPF AA InCoax Access A2512 RPF AB InCoax Access A2512 RPF AC InCoax Access A2512 RPF AC InCoax Access A2512 RPF AD InCoax Access A2512 RPF AD	56VDC, 0.5A	RF dual port, LAN port	The models in the preceding boxes difference only in the model name
InCoax Access A2511 AA InCoax Access A2511 AB InCoax Access A2511 AC InCoax Access A2511 AD InCoax Access A2511 AE InCoax Access A2511 IP InCoax Access A2511 AA ER InCoax Access A2511 AB ER InCoax Access A2511 AC ER InCoax Access A2511 AD ER InCoax Access A2511 AD ER InCoax Access A2511 AE ER InCoax Access A2511 IP ER	12VDC, 1A	RF single port, LAN port	The models in the preceding boxes difference only in the model name
InCoax Access A2512 AA InCoax Access A2512 AB InCoax Access A2512 AC InCoax Access A2512 AD InCoax Access A2512 AE InCoax Access A2512 AE InCoax Access A2512 AB ER InCoax Access A2512 AC ER InCoax Access A2512 AC ER InCoax Access A2512 AD ER InCoax Access A2512 AE ER	12VDC, 1A	RF dual port, LAN port	The models in the preceding boxes difference only in the model name

Version 2.0 Page 7 of 32





## 2.2 DESCRIPTION OF TEST MODES

To investigate the maximum EMI emission characteristics generates from EUT, the test system was pre-scanning tested base on the consideration of following EUT operation mode or test configuration mode which possible have effect on EMI emission level. Each of these EUT operation mode(s) or test configuration mode(s) mentioned above was evaluated respectively.

Pretest Mode	Description
Mode 1	Working

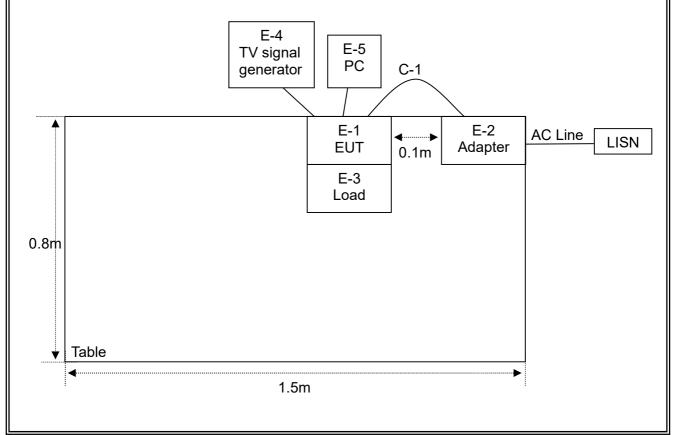
For Conducted Test			
Final Test Mode	Description		
Mode 1	Working		

For Radiated Test			
Final Test Mode	Description		
Mode 1	Working		

Note: All test rates have been taken into account and the current test results are based on 1000M network speeds

#### 2.3 DESCRIPTION OF TEST SETUP

Mode CE: Working



Version 2.0 Page 8 of 32





## 2.4 DESCRIPTION TEST PERIPHERAL AND EUT PERIPHERAL

The EUT has been tested as an independent unit together with other necessary accessories or support units. The following support units or accessories were used to form a representative test configuration during the tests.

Item	Equipment	Brand	Model/Type No.	Series No.	Note
E-1	Access modem	N/A	InCoax Access A2512 RPF AD ER	N/A	EUT
<u></u> ⊏-1	Access modem	N/A	InCoax Access A2512 AD ER	N/A	EUT
E-2	Adapter 1	Biron	BI12TA-120100-I	N/A	EUT
	Adapter 2	FRECOM	F30L2-560050SPACP	N/A	EUT
E-3	Load	N/A	75R	N/A	
E-4	TV signal generator	N/A	N/A	N/A	
E-5	PC	N/A	N/A	N/A	

Item	Shielded Type	Ferrite Core	Length	Note
C-1	NO	NO	150cm	

#### Note:

- (1) The support equipment was authorized by Declaration of Confirmation.
- (2) For detachable type I/O cable should be specified the length in cm in <code>"Length\_"</code> column.
- (3) "YES" means "shielded" "with core"; "NO" means "unshielded" "without core".

Version 2.0 Page 9 of 32

Report No.: S23110806701001

## 2.5 MEASUREMENT INSTRUMENTS LIST

## 2.5.1 CONDUCTED TEST

Item	Name of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	Single Phase LISN	R&S	ENV216	101490	May 29, 2023	May 28, 2024	1 year
2	Single Phase LISN	R&S	ENV216	101313	Mar. 27, 2023	Mar. 26, 2024	1 year
3	Three-Phase LISN	SCHWARZB ECK	NNLK 8129	8129245	Mar. 27, 2023	Mar. 26, 2024	1 year
4	Low Frequency Cable	N/A	R-03	N/A	Jun. 17, 2022	Jun. 16, 2025	3 years
5	50Ω Coaxial Switch	Anritsu	MP59B	620098370 4	May 06, 2023	May 05, 2026	3 years
6	EMI Test Receiver	R&S	ESCI	101160	Mar. 27, 2023	Mar. 26, 2024	1 year
7	EMI Test Receiver	R&S	ESPI3	101417	Nov. 03, 2023	Nov. 02, 2024	1 year
8	EMI Test Receiver	R&S	ESPI3	100145	Nov. 03, 2023	Nov. 02, 2024	1 year

#### 2.5.2 RADIATED TEST

2.5	.2 RADIATED TEST						
Item	Name of Equipment	Manufacturer	Type No.	Serial No.	Last calibration	Calibrated until	Calibration period
1	3m Anechoic Chamber	N/A	9*6*6	N/A	May 14, 2021	May 13, 2024	3 years
2	3m Anechoic Chamber	N/A	9*6*6	N/A	Jul. 28, 2022	Jul. 27, 2025	3 years
3	<b>EMI Test Receiver</b>	R&S	ESPI7	101318	Mar. 27, 2023	Mar. 26, 2024	1 year
4	Bilog Antenna	TESEQ	CBL6111D	31216	Mar. 16, 2023	Mar. 15, 2024	1 year
5	50Ω Coaxial Switch	Anritsu	MP59B	620098370 5	May 06, 2023	May 05, 2026	3 years
6	Cable	Talent Microwave	A81-NWMS MAM-12M	21120897	Dec. 16, 2021	Dec. 15, 2024	3 years
7	Cable	Talent Microwave	A81-NMNM -10M	22084896	Sep. 09, 2022	Sep. 08, 2025	3 years
8	Cable	Talent Microwave	A81-NMNM -2M	22084895	Sep. 09, 2022	Sep. 08, 2025	3 years
9	Log-Periodic Antenna	SCHWARZB ECK	VULB 9162	584	Jan. 11, 2023	Jan. 10, 2024	1 year
10	Log-Periodic Antenna	SCHWARZB ECK	VULB 9162	586	Jan. 11, 2023	Jan. 10, 2024	1 year
11	Attenuator	Eastsheep	5W-N-JK-6 G-6DB	N/A	Aug. 08, 2023	Aug. 07, 2024	1 year
12	Attenuator	Eastsheep	5W-N-JK-6 G-6DB	N/A	Jul. 31, 2023	Jul. 30, 2024	1 year
13	Broadband Horn Antenna	EM	EM-AH-101 80	201107140	Mar. 31, 2022	Mar. 30, 2025	3 years
14	Broadband Horn Antenna	SCHWARZB ECK	BBHA 9120 D	2816	Jan. 12, 2023	Jan. 11, 2024	1 year
15	Broadband Horn Antenna	SCHWARZB ECK	BBHA 9120 D	2817	Jan. 12, 2023	Jan. 11, 2024	1 year
16	Spectrum Analyzer	Keysight	N9020A	MY532802 44	Nov. 03, 2023	Nov. 02, 2024	1 year
17	Spectrum Analyzer	Agilent	E4440A	MY410001 30	Mar. 27, 2023	Mar. 26, 2024	1 year
18	Pre-Amplifier	EMC	EMC05183 5SE	980246	May 29, 2023	May 28, 2024	1 year
19	Cable	Keysight	A40-2.92M 2.92M-2M	1808041	Nov. 01, 2022	Oct. 31, 2025	3 years
20	Broadband Horn Antenna	SCHWARZB ECK	BBHA 9170	803	Nov. 07, 2022	Nov. 06, 2025	3 years

Version 2.0 Page 10 of 32





## 2.6 MEASUREMENT SOFTWARE

CONDUCTED TEST							
Software name	Manufacturer	Version number					
EZ-EMC_CE	Farad	AIT-03A					
	RADIATED TEST						
Software name	Manufacturer	Version number					
EZ-EMC_RE	Farad	AIT-03A					

Version 2.0 Page 11 of 32





#### 3. EMC EMISSION TEST

#### 3.1 CONDUCTED EMISSION MEASUREMENT

#### 3.1.1 POWER LINE CONDUCTED EMISSION (Frequency Range 150kHz-30MHz)

Frequency Range	□Class	□Class A (dBμV)		B (dBµV)
(MHz)	Quasi-peak	Average	Quasi-peak	Average
0.15 - 0.5	79.00	66.00	66 - 56 *	56 - 46 *
0.50 - 5.0	73.00	60.00	56.00	46.00
5.0 - 30.0	73.00	60.00	60.00	50.00

#### Note:

- (1) The tighter limit applies at the band edges.
- (2) The limit of " \* " marked band means the limitation decreases linearly with the logarithm of the frequency in the range.

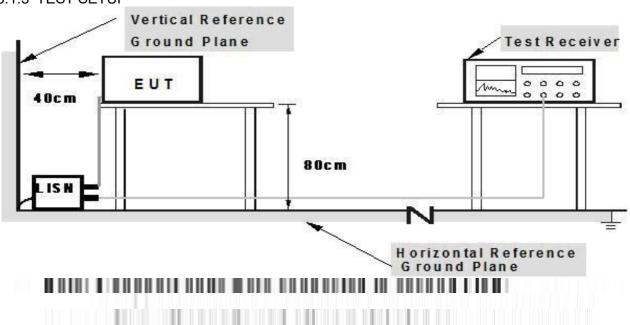
The following table is the setting of the receiver

Receiver Parameters	Setting
Attenuation	10 dB
Start Frequency	0.15 MHz
Stop Frequency	30 MHz
IF Bandwidth	9 kHz

## 3.1.2 TEST PROCEDURE

- a. The EUT was placed 0.8 meters from the horizontal ground plane with EUT being connected to the power mains through a line impedance stabilization network (LISN). All other support equipments powered from additional LISN(s). The LISN provide 50 Ohm/ 50uH of coupling impedance for the measuring instrument.
- b. Interconnecting cables that hang closer than 40 cm to the ground plane shall be folded back and forth in the center forming a bundle 30 to 40 cm long.
- c. I/O cables that are not connected to a peripheral shall be bundled in the center. The end of the cable may be terminated, if required, using the correct terminating impedance. The overall length shall not exceed 1 m.
- d. LISN at least 80 cm from nearest part of EUT chassis.
- e. For the actual test configuration, please refer to the related Item -EUT Test Photos.

#### 3.1.3 TEST SETUP



## 3.1.4 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of **2.3** Unless otherwise a special operating condition is specified in the follows during the testing.

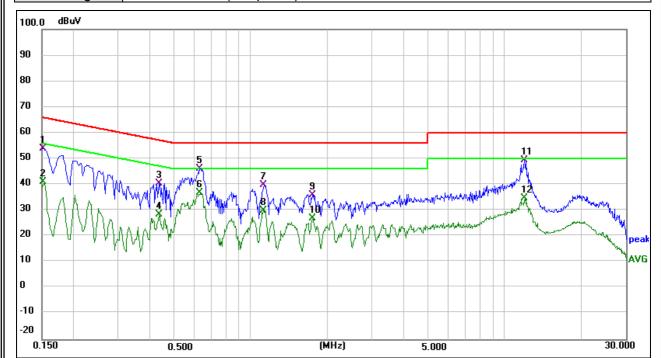
Version 2.0 Page 12 of 32





## 3.1.5 TEST RESULTS

EUT:	Access modem	Model Name:	InCoax Access A2512 AD ER
Temperature:	17.0°C	Relative Humidity:	59%
Pressure:	1010hPa	Test Date:	2023-11-16
Test Mode:	Working	Phase:	L
Test Voltage:	AC 120V/60Hz(Adapter 1)		



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.1516	43.93	9.93	53.86	65.91	-12.05	QP	Р	
2	0.1516	31.26	9.93	41.19	55.91	-14.72	AVG	Р	
3	0.4340	29.89	10.51	40.40	57.18	-16.78	QP	Р	
4	0.4340	18.06	10.51	28.57	47.18	-18.61	AVG	Р	
5	0.6300	35.27	10.91	46.18	56.00	-9.82	QP	Р	
6 *	0.6300	26.04	10.91	36.95	46.00	-9.05	AVG	Р	
7	1.1180	28.00	11.90	39.90	56.00	-16.10	QP	Р	
8	1.1180	18.06	11.90	29.96	46.00	-16.04	AVG	Р	
9	1.7460	22.76	13.16	35.92	56.00	-20.08	QP	Р	
10	1.7460	13.74	13.16	26.90	46.00	-19.10	AVG	Р	
11	11.9460	39.84	9.70	49.54	60.00	-10.46	QP	Р	
12	11.9460	25.19	9.70	34.89	50.00	-15.11	AVG	Р	

## Remark:

Correct Factor = Insertion Loss + Cable Loss

Measurement Level = Reading Level + Correct Factor

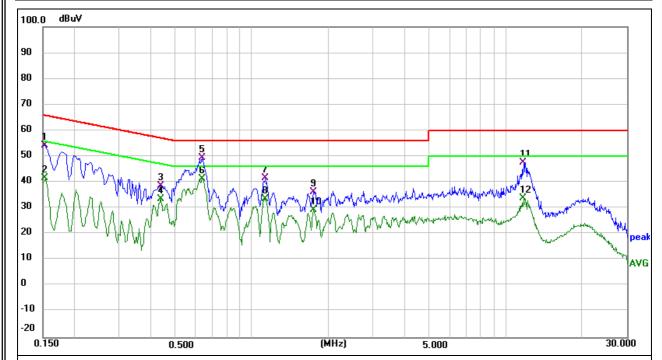
Over Level = Measurement Level - Limit

Page 13 of 32 Version 2.0





EUT:	Access modem	Model Name:	InCoax Access A2512 AD ER
Temperature:	17.0°C	Relative Humidity:	59%
Pressure:	1010hPa	Test Date:	2023-11-16
Test Mode:	Working	Phase:	N
Test Voltage:	AC 120V/60Hz(Adapter 1)		



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.1539	44.44	9.93	54.37	65.79	-11.42	QP	Р	
2	0.1539	31.58	9.93	41.51	55.79	-14.28	AVG	Р	
3	0.4380	28.27	10.53	38.80	57.10	-18.30	QP	Р	
4	0.4380	23.12	10.53	33.65	47.10	-13.45	AVG	Р	
5	0.6340	38.64	10.91	49.55	56.00	-6.45	QP	Р	
6 *	0.6340	30.36	10.91	41.27	46.00	-4.73	AVG	Р	
7	1.1340	29.62	11.92	41.54	56.00	-14.46	QP	Р	
8	1.1340	21.60	11.92	33.52	46.00	-12.48	AVG	Р	
9	1.7500	23.20	13.16	36.36	56.00	-19.64	QP	Р	
10	1.7500	16.10	13.16	29.26	46.00	-16.74	AVG	Р	
11	11.7819	38.06	9.70	47.76	60.00	-12.24	QP	Р	
12	11.7819	24.10	9.70	33.80	50.00	-16.20	AVG	Р	

Correct Factor = Insertion Loss + Cable Loss

Measurement Level = Reading Level + Correct Factor

Over Level = Measurement Level - Limit

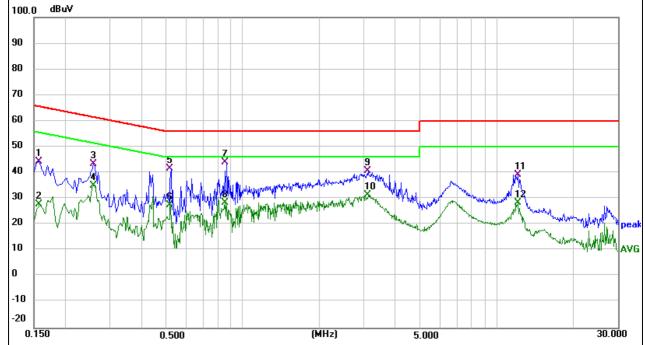
Version 2.0 Page 14 of 32





EUT:	Access modem	Model Name:	InCoax Access A2512 RPF AD ER	
Temperature:	17.0℃	Relative Humidity:	59%	
Pressure:	1010hPa	Test Date:	2023-11-16	
Test Mode:	Working	Phase:	L	
Test Voltage:	AC 120V/60Hz(Adapter 2)			

Test voltage: | AC 120V/60Hz(Adapter 2)



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.1580	34.52	9.95	44.47	65.57	-21.10	QP	Р	
2	0.1580	17.85	9.95	27.80	55.57	-27.77	AVG	Р	
3	0.2580	33.32	10.16	43.48	61.50	-18.02	QP	Р	
4	0.2580	24.89	10.16	35.05	51.50	-16.45	AVG	Р	
5	0.5180	30.83	10.69	41.52	56.00	-14.48	QP	Р	
6	0.5180	16.78	10.69	27.47	46.00	-18.53	AVG	Р	
7 *	0.8500	32.55	11.36	43.91	56.00	-12.09	QP	Р	
8	0.8500	16.96	11.36	28.32	46.00	-17.68	AVG	Р	
9	3.1099	30.97	9.67	40.64	56.00	-15.36	QP	Р	
10	3.1099	21.78	9.67	31.45	46.00	-14.55	AVG	Р	
11	12.1300	29.49	9.70	39.19	60.00	-20.81	QP	Р	
12	12.1300	18.62	9.70	28.32	50.00	-21.68	AVG	Р	

#### Remark:

Correct Factor = Insertion Loss + Cable Loss

Measurement Level = Reading Level + Correct Factor

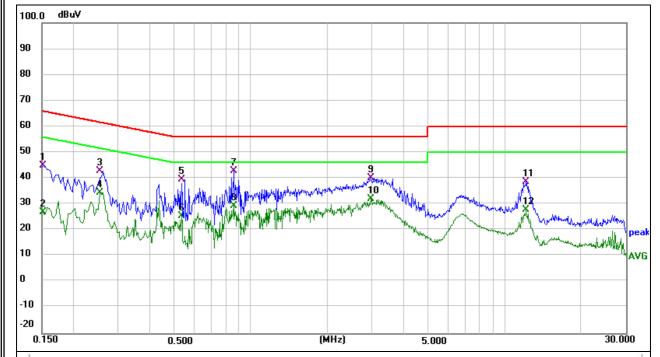
Over Level = Measurement Level - Limit

Version 2.0 Page 15 of 32





EUT:	Access modem	Model Name:	InCoax Access A2512 RPF AD ER
Temperature:	17.0°C	Relative Humidity:	59%
Pressure:	1010hPa	Test Date:	2023-11-16
Test Mode:	Working	Phase:	N
Test Voltage:	AC 120V/60Hz(Adapter 2)		



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB)	Level (dBuV)	Limit (dBuV)	Margin (dB)	Detector	P/F	Remark
1	0.1516	35.05	9.93	44.98	65.91	-20.93	QP	Р	
2	0.1516	16.97	9.93	26.90	55.91	-29.01	AVG	Р	
3	0.2540	32.68	10.14	42.82	61.63	-18.81	QP	Р	
4	0.2540	24.27	10.14	34.41	51.63	-17.22	AVG	Р	
5	0.5340	28.89	10.71	39.60	56.00	-16.40	QP	Р	
6	0.5340	14.60	10.71	25.31	46.00	-20.69	AVG	Р	
7 *	0.8540	31.64	11.36	43.00	56.00	-13.00	QP	Р	
8	0.8540	17.87	11.36	29.23	46.00	-16.77	AVG	Р	
9	2.9620	30.47	9.67	40.14	56.00	-15.86	QP	Р	
10	2.9620	22.28	9.67	31.95	46.00	-14.05	AVG	Р	
11	12.1739	29.05	9.70	38.75	60.00	-21.25	QP	Р	
12	12.1739	18.02	9.70	27.72	50.00	-22.28	AVG	Р	

Correct Factor = Insertion Loss + Cable Loss

Measurement Level = Reading Level + Correct Factor

Over Level = Measurement Level - Limit

Version 2.0 Page 16 of 32





#### 3.2 RADIATED EMISSION MEASUREMENT

#### 3.2.1 LIMITS OF RADIATED EMISSION MEASUREMENT (Below 1000MHz)

	At 3m					
FREQUENCY (MHz)	□Class A (dBμV/m)	⊠Class B (dBµV/m)				
30 ~ 88	49.5	40.0				
88 ~ 216	53.9	43.5				
216 ~ 960	56.9	46.0				
960 ~ 1000	60.0	54.0				

#### 3.2.2 LIMITS OF RADIATED EMISSION MEASUREMENT (Above 1000MHz)

		At 3m						
FREQUENCY (MHz)	□Class A	(dBµV/m)	⊠Class B	(dBµV/m)				
	Average	Peak	Average	Peak				
Above 1000	60	80	54	74				

#### Note:

- (1) The limit for radiated test was performed according to as following: FCC PART 15B.
- (2) The tighter limit applies at the band edges.
- (3) Emission level ( $dB\mu V/m$ )=20log Emission level ( $\mu V/m$ ).

#### 3.2.3 TEST PROCEDURE

- a. The measuring distance of at 3m shall be used for measurements at frequency up to 1GHz. For frequencies above 1GHz, any suitable measuring distance may be used.
- b. The EUT was placed on the top of a rotating table 0.8 meters above the ground at a 3 meter open area test site. The table was rotated 360 degrees to determine the position of the highest radiation.
- c. The height of the equipment or of the substitution antenna shall be 0.8 m; the height of the test antenna shall vary between 1 m to 4 m. Both horizontal and vertical polarizations of the antenna are set to make the measurement.
- d. The initial step in collecting conducted emission data is a spectrum analyzer peak detector mode pre-scanning the measurement frequency range. Significant peaks are then marked and then Quasi Peak detector mode re-measured, above 1G Average detector mode will be instead.
- e. If the Peak Mode measured value compliance with and lower than Quasi Peak Mode Limit, the EUT shall be deemed to meet QP(AV) Limits and then no additional QP Mode measurement performed.
- f. For the actual test configuration, please refer to the related Item -EUT Test Photos.

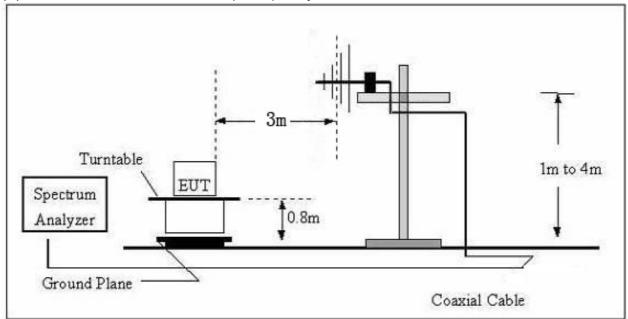
Version 2.0 Page 17 of 32



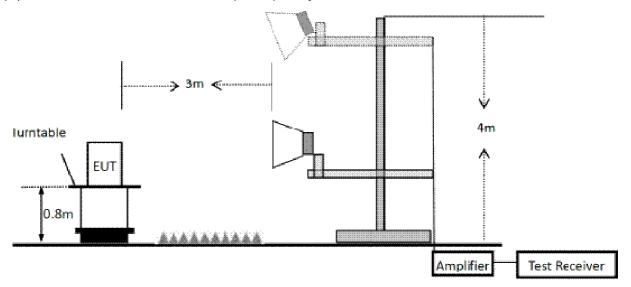


## 3.2.4 TEST SETUP

## (A) Radiated Emission Test Set-Up Frequency Below 1 GHz



## (B) Radiated Emission Test Set-Up Frequency Above 1GHz



## 3.2.5 EUT OPERATING CONDITIONS

The EUT tested system was configured as the statements of **2.3** Unless otherwise a special operating condition is specified in the follows during the testing.

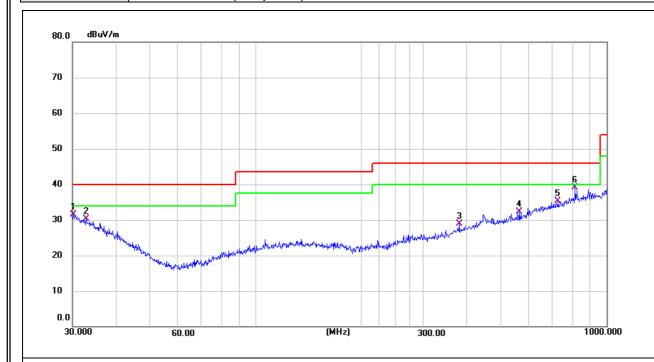
Version 2.0 Page 18 of 32





## 3.2.6 TEST RESULTS (30-1000MHz)

EUT:	Access modem	Model Name:	InCoax Access A2512 AD ER
Temperature:	25.2°C	Relative Humidity:	54%
Pressure:	1010hPa	Test Date:	2023-11-17
Test Mode:	Working	Polarization:	Horizontal
Test Power:	AC 120V/60Hz(Adapter 1)		



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	30.2111	5.15	26.30	31.45	40.00	-8.55	QP			Р	
2	32.8636	5.40	24.83	30.23	40.00	-9.77	QP			Р	
3	379.9141	6.17	22.69	28.86	46.00	-17.14	QP			Р	
4	564.6389	6.58	25.79	32.37	46.00	-13.63	QP			Р	
5	726.8052	7.06	28.28	35.34	46.00	-10.66	QP			Р	
6 '	813.1115	9.54	29.55	39.09	46.00	-6.91	QP			Р	

## Remark:

Correct Factor = Antenna Factor + Cable Loss

Measurement Level = Reading Level + Correct Factor

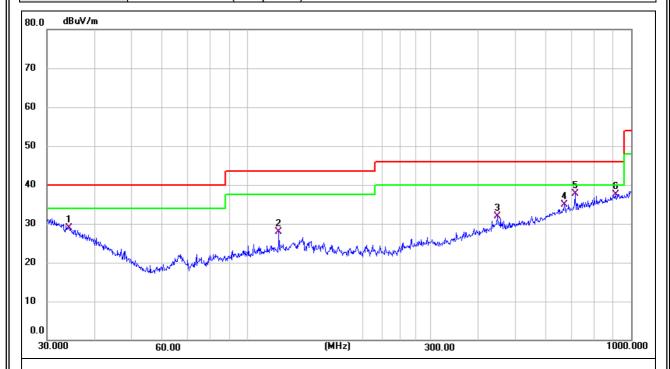
Over Level = Measurement Level - Limit

Version 2.0 Page 19 of 32





EUT:	Access modem	Model Name:	InCoax Access A2512 AD ER
Temperature:	25.2°C	Relative Humidity:	54%
Pressure:	1010hPa	Test Date:	2023-11-17
Test Mode:	Working	Polarization:	Vertical
Test Power:	AC 120V/60Hz(Adapter 1)		



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	34.2760	4.87	24.04	28.91	40.00	-11.09	QP			Р	
2	120.6991	9.26	18.63	27.89	43.50	-15.61	QP			Р	
3	447.9822	7.79	24.04	31.83	46.00	-14.17	QP			Р	
4	670.4892	7.50	27.37	34.87	46.00	-11.13	QP			Р	
5 ^	714.1733	9.72	28.05	37.77	46.00	-8.23	QP			Р	
6	912.8620	6.82	30.75	37.57	46.00	-8.43	QP			Р	

Correct Factor = Antenna Factor + Cable Loss

Measurement Level = Reading Level + Correct Factor

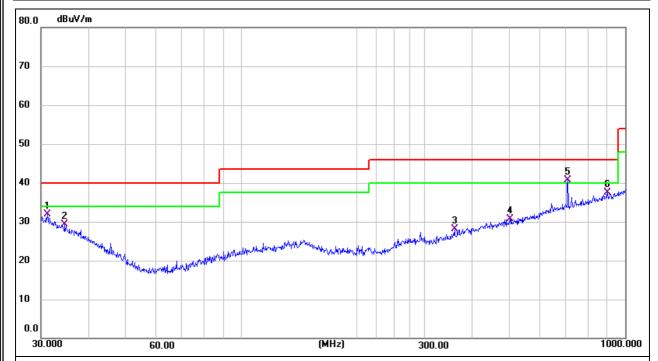
Over Level = Measurement Level - Limit

Version 2.0 Page 20 of 32





EUT:	Access modem	Model Name:	InCoax Access A2512 RPF AD ER
Temperature:	25.2°C	Relative Humidity:	54%
Pressure:	1010hPa	Test Date:	2023-11-17
Test Mode:	Working	Polarization:	Horizontal
Test Power:	AC 120V/60Hz(Adapter 2)		



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	Limit (dBuV/m)	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	31.1798	6.05	25.76	31.81	40.00	-8.19	QP			Р	
2	34.6385	5.55	23.84	29.39	40.00	-10.61	QP			Р	
3	359.1860	6.03	22.03	28.06	46.00	-17.94	QP			Р	
4	501.1790	5.99	24.77	30.76	46.00	-15.24	QP			Р	
5 *	709.1820	12.73	27.99	40.72	46.00	-5.28	QP			Р	
6	900.1471	6.81	30.61	37.42	46.00	-8.58	QP			Р	

Correct Factor = Antenna Factor + Cable Loss

Measurement Level = Reading Level + Correct Factor

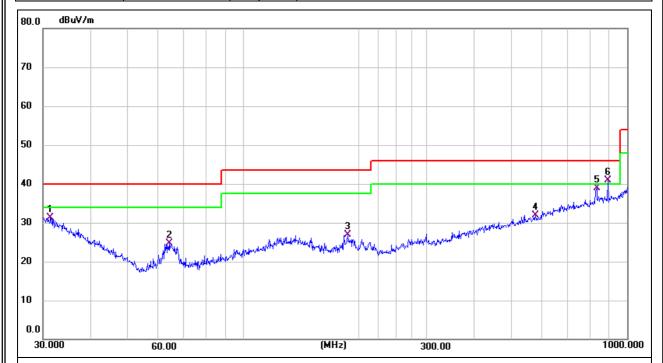
Over Level = Measurement Level - Limit

Version 2.0 Page 21 of 32





EUT:	Access modem	Model Name:	InCoax Access A2512 RPF AD ER
Temperature:	25.2°C	Relative Humidity:	54%
Pressure:	1010hPa	Test Date:	2023-11-17
Test Mode:	Working	Polarization:	Vertical
Test Power:	AC 120V/60Hz(Adapter 2)		



No.	Frequency (MHz)	Reading (dBuV)	Factor (dB/m)	Level (dBuV/m)	The same of the sa	Margin (dB)	Detector	Height (cm)	Azimuth (deg.)	P/F	Remark
1	31.3992	5.65	25.64	31.29	40.00	-8.71	QP			Р	
2	63.9828	12.29	12.36	24.65	40.00	-15.35	QP			Р	
3	187.0958	10.48	16.41	26.89	43.50	-16.61	QP			Р	
4	576.6443	5.95	25.98	31.93	46.00	-14.07	QP			Р	
5	833.3171	9.13	29.87	39.00	46.00	-7.00	QP			Р	
6 *	890.7277	10.34	30.51	40.85	46.00	-5.15	QP			Р	

Correct Factor = Antenna Factor + Cable Loss

Measurement Level = Reading Level + Correct Factor

Over Level = Measurement Level - Limit

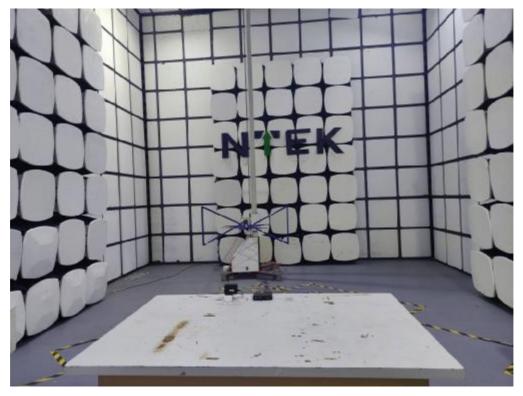
Version 2.0 Page 22 of 32



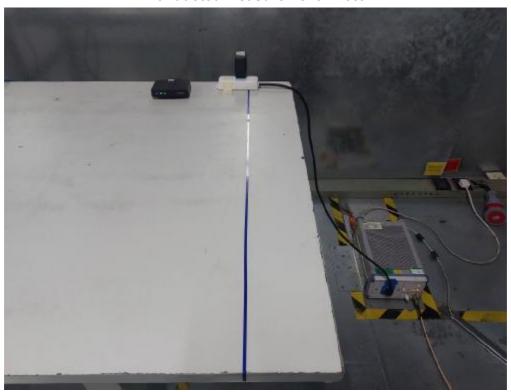


## 4. EUT TEST PHOTO





**Conducted Measurement Photo** 



Version 2.0 Page 23 of 32





## ATTACHMENT PHOTOGRAPHS OF EUT

Photo 1 (InCoax Access A2512 AD ER)



Photo 2



Version 2.0 Page 24 of 32





Photo 3



Photo 4



Version 2.0 Page 25 of 32





## Photo 5

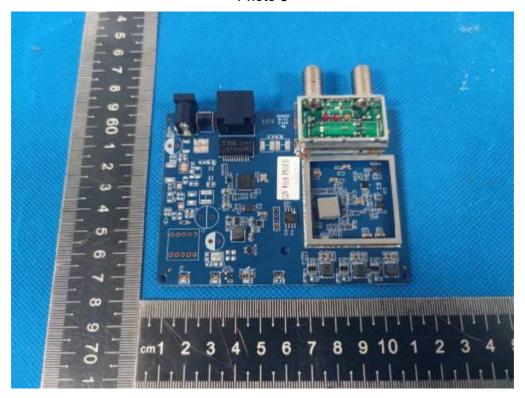
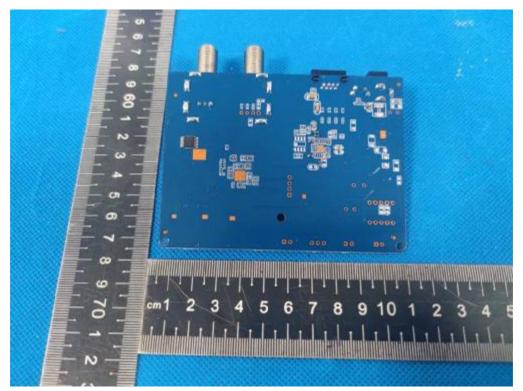


Photo 6



Version 2.0 Page 26 of 32









Photo 8



Version 2.0 Page 27 of 32

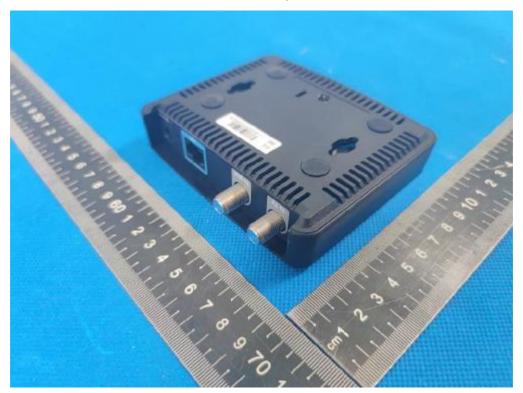




Photo 9 (InCoax Access A2512 RPF AD ER)



Photo 10



Version 2.0 Page 28 of 32

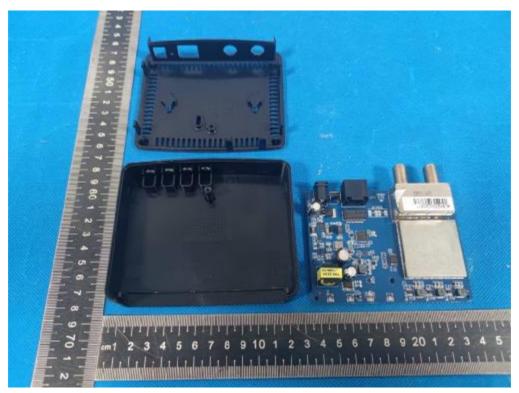




Photo 11



Photo 12



Version 2.0 Page 29 of 32

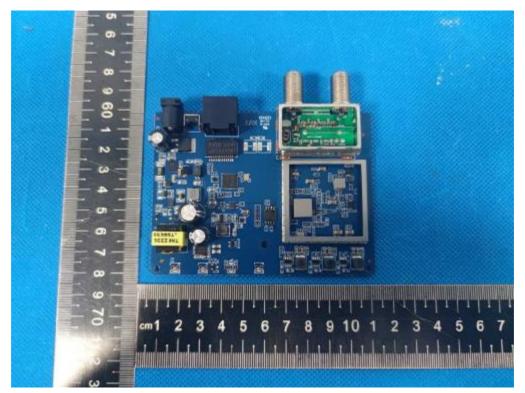








Photo 14



Version 2.0 Page 30 of 32





Photo 15

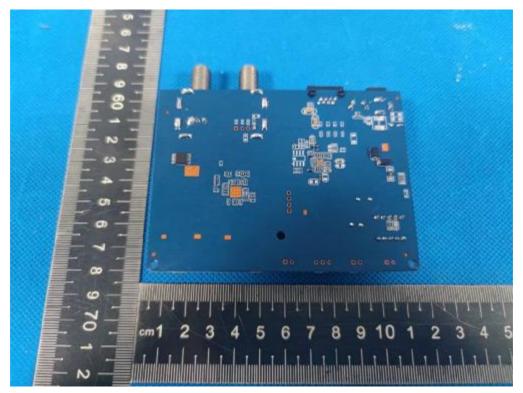


Photo 16



Version 2.0 Page 31 of 32





Photo 17



----- End of Report -----

Version 2.0 Page 32 of 32