



## ADA1000F EMI/EMS Test result

October 13, 2004  
Design engineering dep.

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No.	Test item	Conditions	Conditions of Acceptability	Result
1	Line conduction	(1) Rated input(AC100V,120V,230V) (2) Rated load (3) Ambient temp. $25 \pm 10^{\circ}\text{C}$	(1)Meets the undermentioned standard. FCC Part15 classB , VCCI classB CISPR22 classB , EN55022-B	OK
2	Radiated emission	(1) Rated input(AC100V,120V,230V) (2) Rated load (3) Ambient temp. $25 \pm 10^{\circ}\text{C}$	(1)Meets the undermentioned standard. FCC Part15 classB , VCCI classB CISPR22 classB , EN55022-B	OK
3	Harmonic current (EN61000-3-2)	(1) Rated input (AC100V,230V) (2) Load - 0 - Rated load (3) Ambient temp. $25 \pm 10^{\circ}\text{C}$	(1)Meets the undermentioned standard. EN61000-3-2 classA	OK
4	Static electricity immunity test (EN61000-4-2)	(1) Rated input (AC230V) (2) Rated load (3) Ambient temp. $25 \pm 10^{\circ}\text{C}$ (4) Contact discharge voltage 8[kV] (Level 4)	(1)No protection circuit failure. (2)No output voltage drop with control circuit failure. (3)No any other function failure	OK
5	Radiated, radio-frequency, electromagnetic field immunity test (EN61000-4-3)	(1) Rated input (AC230V) (2) Rated load (3) Ambient temp. $25 \pm 10^{\circ}\text{C}$ (4)Testing field strength 10[V/m] (Level 3)	(1)No protection circuit failure. (2)No output voltage drop with control circuit failure. (3)No any other function failure	OK
6	Electrical fast transient/ burst immunity test (EN61000-4-4)	(1) Rated input (AC230V) (2) Rated load (3) Ambient temp. $25 \pm 10^{\circ}\text{C}$ (4) Test peak voltage 4[kV] (Level 4)	(1)No protection circuit failure. (2)No output voltage drop with control circuit failure. (3)No any other function failure	OK
7	Surge immunity test (EN61000-4-5)	(1) Rated input (AC230V) (2) Rated load (3) Ambient temp. $25 \pm 10^{\circ}\text{C}$ (4) Test voltage Line to line 2[kV] (Level 3) Line to earth 4[kV] (Level 4)	(1)The power supply is not stop (2)Circuit does not malfunction. (3)No abnormality of the insulation destruction etc. (4)Parts are no damaged.	OK
8	Immunity to conducted disturbances, induced by radio-frequency fields (EN61000-4-6)	(1) Rated input (AC230V) (2) Rated load (3) Ambient temp. $25 \pm 10^{\circ}\text{C}$ (4) Voltage level (e.m.f.) 10[V] (Level 3)	(1)No protection circuit failure. (2)No output voltage drop with control circuit failure. (3)No any other function failure	OK
9	Power frequency magnetic field immunity test (EN61000-4-8)	(1) Rated input (AC230V) (2) Rated load (3) Ambient temp. $25 \pm 10^{\circ}\text{C}$ (4) Magnetic field 30A/m (Level 4)	(1)No protection circuit failure. (2)No output voltage drop with control circuit failure. (3)No any other function failure	OK
10	Voltage dips, short interruptions and voltage variations immunity test (EN61000-4-11)	(1) Rated input (AC230V) -30% reduction at 10mS min. -60% reduction at 100mS min -95% reduction at 5S min. - $\pm 10\%$ variation at 15 minutes (2) Rated load (3) Ambient temp. $25 \pm 10^{\circ}\text{C}$	(1)No protection circuit failure. (2)No output voltage drop with control circuit failure. (3)No any other function failure	OK



# RADIATED EMISSION

Model Name : ADA1000F-24

Model No. :

Serial No. :

Points : 3

Detector : PEAK/QP

Polarization : Hori. & Vert.

Limit: [EN 55022] Class B<3m>

Power Supply : 230V(1Phase) 50Hz

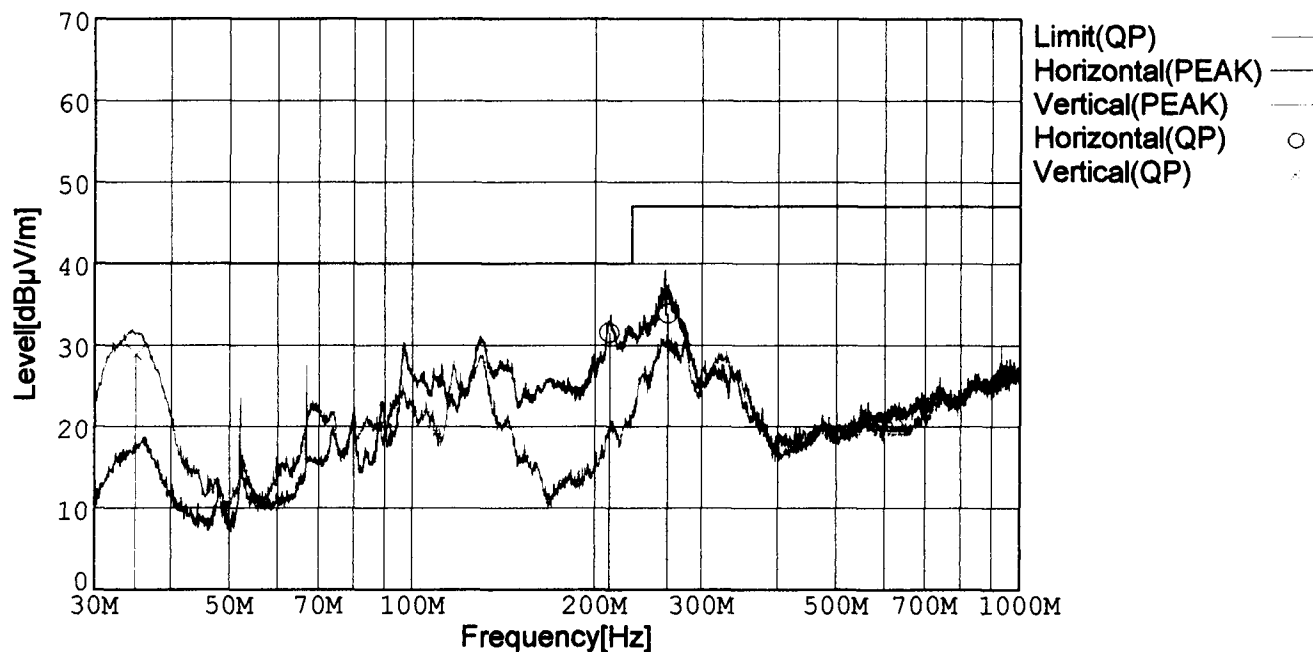
Temp. : 25deg C

Humi. : 45%

Date : 2002/11/19 17:03

Test Equip. : R3132,ESPC

Comment : Load100%(+24V42A)



Frequency [MHz]	Meter Reading (QP) [dBμV]	Ant. Type	Antenna Factor [dB/m]	Cable & Preamp [dB]	Level (QP) [dBμV/m]	Angle[°]	Height [cm]	Polar.	Limit [dBμV/m]	Margin [dB]
211.672	46.5	BL	8.5	-23.5	31.5	236	150	Hori.	40.0	8.5
264.298	44.0	BL	13.1	-23.3	33.8	136	113	Hori.	47.0	13.2
35.055	41.3	BL	15.3	-27.8	28.8	138	113	Vert.	40.0	11.2

BL: Biconi-Log



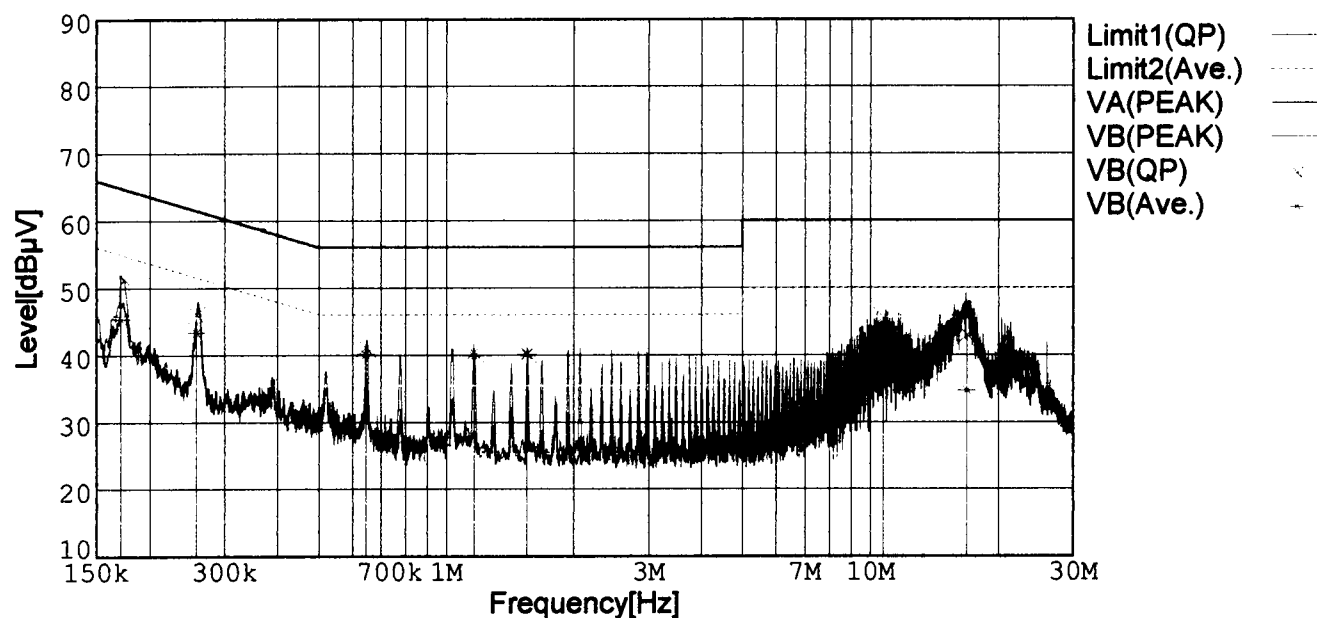
# LINE CONDUCTION

Model Name : ADA1000F-24  
 Model No. :  
 Serial No. :  
 Points : 7  
 Detector : PEAK/QP/Ave.  
 Line Mode : VB

Power Supply : 230V(1Phase) 50Hz  
 Temp. : 25deg C  
 Humi. : 45%  
 Date : 2002/11/19 11:39  
 Test Equip. : R3132,ESPC  
 Comment : Load100%(+24V42A)

Limit1: [EN 55022] Class B(QP)

Limit2: [EN 55022] Class B(Ave.)



Frequency [MHz]	Meter Reading (QP) [dBμV]	Meter Reading (Ave.) [dBμV]	Factor [dB]	Level (QP) [dBμV]	Level (Ave.) [dBμV]	Line	Limit (QP) [dBμV]	Limit (Ave.) [dBμV]	Margin (QP)[dB]	Margin (Ave.) [dB]
0.1714	41.8	35.3	10.0	51.8	45.3	VB	64.9	54.9	13.1	9.6
0.2582	36.0	33.3	10.0	46.0	43.3	VB	61.5	51.5	15.5	8.2
0.6473	31.0	29.9	10.1	41.1	40.0	VB	56.0	46.0	14.9	6.0
1.1630	30.3	29.7	10.1	40.4	39.8	VB	56.0	46.0	15.6	6.2
1.5505	30.0	29.8	10.2	40.2	40.0	VB	56.0	46.0	15.8	6.0
10.7258	35.0	30.7	10.6	45.6	41.3	VB	60.0	50.0	14.4	8.7
16.8994	32.2	23.9	10.7	42.9	34.6	VB	60.0	50.0	17.1	15.4