



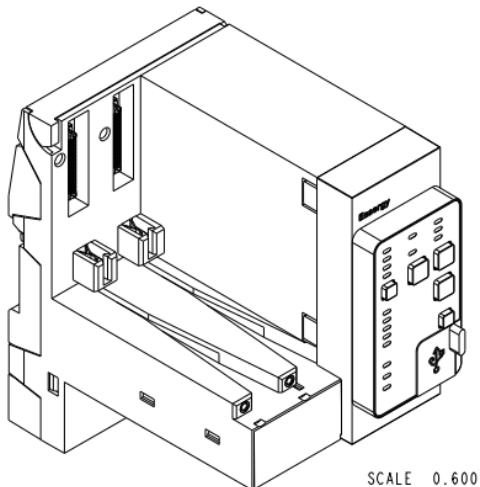
**LCIE SUD EST**  
Laboratoire de Moirans  
Z.I. Centr'Alp  
170, Rue de Chatagnon  
38430 MOIRANS - FRANCE

## GENERAL INFORMATION

FCCID: 2AHHK-EASERGYHU250

### 1.1. Product description

The Easergy HU250 is a communication gateway for the Easergy T300 offer range. This gateway offers the controlling of MV switch controllers through different communication means: wired and wireless. The Easergy HU250 embeds a wireless communication which is the Wifi. The Wifi communication is ensured by a Texas Instrument Wifi module: **WL1805 with the following**.



The commercial and technical (internal) references of the products are :

Product description	HU250 Basic Head Unit gateway
Commercial reference	EMS59000
Technical Reference	NHA77914

### 1.2. Product drawing and composition

The Easergy HU250 is composed of 5 electronics boards

Board Reference	Board Name	Comment
HRB87113	IO_FE PCBA	Part of EAV32102-HU250 IO POWER SUBASSEMBLY
NHA54624	POWER_FE PCBA	Part of EAV32102-HU250 IO POWER SUBASSEMBLY
HRB87096	IHM_FE PCBA	Part of EAV32105 - 02 1 EACH [ ] - HU250 HMI SUBASSEMBLY
NHA55552	MAIN_FE PCBA	Part of HRB87117-MAIN_FE PCBA COATED
HRB87092	COM_FE PCBA	

*Data sheet of equipment*



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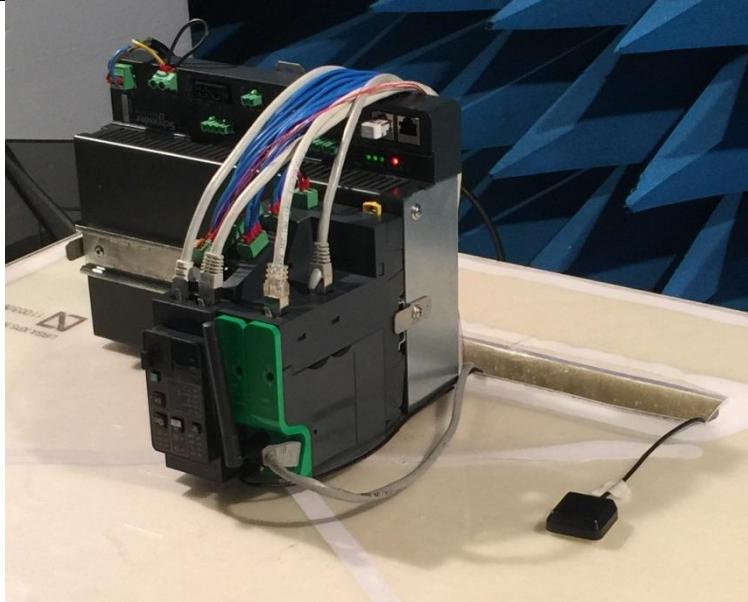
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### 1.3. Tested System Details

#### Equipment under test (EUT):

**EMS59000**

**Serial Number: MP1-7**



Photography of EUT

#### Power supply:

During all the tests, EUT is supplied by  $V_{nom}$ : 12VDC

For measurement with different voltage, it will be presented in test method.

Name	Type	Rating	Reference / Sn	Comments
Supply1	<input type="checkbox"/> AC <input checked="" type="checkbox"/> DC <input type="checkbox"/> Battery	12VDC	-	-



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**Inputs/outputs - Cable:**

Access	Type	Length used (m)	Declared <3m	Shielded	Under test	Comments
1	Power supply (DC)	0.05	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12V
2	WLAN	1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
3	Modbus	1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
4	3rd Party	1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
5	Lampes BVE	1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
6	Outputs	1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
7	Inputs	1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
8	K7 RS485	1	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
9	LAN1	1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	com for test

**Auxiliary equipment used during test:**

Type	Reference	Sn	Comments
Power Supply DC	EMS58588 (PS50)	15260019	Provided by Schneider
Power supply DC	TDK	-	Ref LCIE : A7044055
K7 GSM/GPS	EMS59153	-	
K7 RS485	EMS59151	-	

**Equipment information:**

Type:	<b>WIFI</b>			
Frequency band:	[2400 – 2483.5] MHz			
Standard:	<input checked="" type="checkbox"/> 802.11b	<input checked="" type="checkbox"/> 802.11g	<input checked="" type="checkbox"/> 802.11n HT20	<input checked="" type="checkbox"/> 802.11n HT40
Spectrum Modulation:	<input checked="" type="checkbox"/> DSSS <input checked="" type="checkbox"/> OFDM			
Number of Channel:	13			
Spacing channel:	5MHz			
Channel bandwidth:	<input checked="" type="checkbox"/> 20MHz		<input checked="" type="checkbox"/> 40MHz	
Antenna Type:	<input checked="" type="checkbox"/> Integral		<input type="checkbox"/> External	<input type="checkbox"/> Dedicated
Antenna connector:	<input type="checkbox"/> Yes		<input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> Temporary for test
	<input checked="" type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
Transmit chains:	<input checked="" type="checkbox"/> Single antenna		<input type="checkbox"/> Symmetrical	<input type="checkbox"/> Asymmetrical
	Gain 1: 2.27dBi	Gain 2: dBi	Gain 3: dBi	Gain 4: dBi
Beam forming gain:	<input type="checkbox"/> Yes: dB		<input checked="" type="checkbox"/> No	
Receiver chains	<input checked="" type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4
Type of equipment:	<input checked="" type="checkbox"/> Stand-alone		<input type="checkbox"/> Plug-in	<input type="checkbox"/> Combined
Ad-Hoc mode:	<input type="checkbox"/> Yes		<input checked="" type="checkbox"/> No	
Adaptivity mode:	<input checked="" type="checkbox"/> Yes (Load Based)		<input type="checkbox"/> Off mode	<input checked="" type="checkbox"/> No
	Clear Channel Assessment Time			μs
	q value for Load Based Equipment			
Duty cycle:	<input checked="" type="checkbox"/> Continuous duty		<input type="checkbox"/> Intermittent duty	<input type="checkbox"/> 100% duty
Equipment type:	<input type="checkbox"/> Production model		<input checked="" type="checkbox"/> Pre-production model	
Type of power source:	<input type="checkbox"/> AC power supply	<input checked="" type="checkbox"/> DC power supply	<input type="checkbox"/> Battery (Select Type)	



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#### **1.4. Test Methodology**

Both conducted and radiated testing were performed according to the procedures in ANSI C63.4 or ANSI C63.10, FCC Part 15 Subpart C.

Radiated testing was performed at an antenna to EUT distance of 10 meters. During testing, all equipment's and cables were moved relative to each other in order to identify the worst case set-up.

#### **1.5. Test facility**

Tests have been performed **From August 11th to 14th, 2015.**

This test facility has been fully described in a report and accepted by FCC as compliant with the radiated and AC line conducted test site criteria in ANSI C63.4 and ANSI C63.10 (registration number 94821).

This test facility has also been accredited by COFRAC (French accreditation authority for European Union test lab accreditation organization) according to NF EN ISO/IEC 17025, accreditation number 1-1633 as compliant with test site criteria and competence in 47 CFR Part 15/ANSI C63.4 and EN55022/CISPR22 norms for 89/336/EEC European EMC Directive application. All pertinent data for this test facility remains unchanged.