DEKRA Testing and Certification, S.A.U.
Parque Tecnológico de Andalucía,
c/ Severo Ochoa nº 2 · 29590 Campanillas · Málaga · España

Nº 51/LE147

Informe de ensayo nº:
Test report No:

NIE: 53584REM.002A2

Test report (Modification 2)

FCC Rules and Regulations CFR 47, Part 15, Subpart C (10-1-15 Edition)
&
ICES-003 ISSUE 6 (2016)

Identificación del objeto ensayado .....: Identification of item tested	WIFI Gateway
Marca .....: Trademark	BOSCH
Modelo y/o referencia tipo .....: Model and /or type reference	8738714760 (WIFI Dongle UART 3.3V)
Otra identificación del producto .....: Other identification of the product	S/N: 8150-620-000014-8738714760
Versión final del HW .....: Final HW version	8738714765_V10
Versión final del SW .....: Final SW version	8738722745 WFAF1003
FCC ID.....:	---
IC.....:	---
Características.....: Features	802.11b/g/n Station 802.11b/g Access Point (AP) WPA/WPA2
Fabricante.....: Manufacturer	Bosch Termotecnologia s.a. EN 16 - Km 3.7. 3800-533. Cacia. Aveiro. Portugal.
Método de ensayo solicitado, norma .....: Test method requested, standard	FCC CFR 47, Part 15, Subpart C (10-1-15 Edition) & ICES-003 Issue 6 (2016)
Resultado.....: Summary	IN COMPLIANCE
Aprobado por (nombre / cargo y firma) .....: Approved by (name / position & signature)	Rafael López EMC Lab Manager RAFAEL LÓPEZ MARTÍN 2019.06.14 14:55:25 +02'00'
Fecha de realización .....: Date of issue	2019-06-14
Formato de informe No.....: Report template No	FDT11_20

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The results presented in this Test Report apply only to the particular item under test established in this document.

General conditions

1. This report is only referred to the item that has undergone the test.
2. This report does not constitute or imply on its own an approval of the product by the Certification Bodies or competent Authorities.
3. This document is only valid if complete; no partial reproduction can be made without previous written permission of AT4 wireless.
4. This test report cannot be used partially or in full for publicity and/or promotional purposes without previous written permission of DEKRA Testing and Certification, S.A.U. and the Accreditation Bodies.

Uncertainty

Uncertainty (factor k=2) was calculated according to the DEKRA Testing and Certification, S.A.U. internal document PODT000.

Usage of samples

Samples under test have been selected by: the Client.

Sample S/01 is composed of the following elements:

Control Nº	Description	Model	Serial number	Reception date
53584/003	WIFI Gateway	8738714760 (WIFI Dongle UART 3.3V)	8150-620-000014-8738714760	2017-08-01

Auxiliary elements used with the sample S/01:

Control Nº	Description	Model	Serial number	Reception date
53584/001	Control device	HMAF 2004	8150-719-000663-8738710208	2017-08-01
53584/002	AC/DC adapter	KSAS01224000050HE	---	2017-08-01

Test sample description

Gateway for water heaters with WIFI connectivity and UART or EMS (2-wire) interface.

Identification of the client

Bosch Termotecnologia s.a.
EN 16 - Km 3.7.
3800-533. Cacia.
Aveiro.
Portugal.

Testing period

The performed test started on 2017-08-25 and finished on 2017-08-28.
The tests have been performed at DEKRA Testing and Certification, S.A.U.

Environmental conditions

In the control chamber, the following limits were not exceeded during the test:

Temperature	Min. = 15 ºC Max. = 35 ºC
Relative humidity	Min. = 30 % Max. = 75 %
Air pressure	Min. = 860 mbar Max. = 1060 mbar

In the semianechoic chamber, the following limits were not exceeded during the test.

Temperature	Min. = 15 ºC Max. = 35 ºC
Relative humidity	Min. = 30 % Max. = 75 %
Air pressure	Min. = 860 mbar Max. = 1060 mbar

In the chamber for conducted measurements, the following limits were not exceeded during the test:

Temperature	Min. = 15 ºC Max. = 35 ºC
Relative humidity	Min. = 30 % Max. = 60 %
Air pressure	Min. = 860 mbar Max. = 1060 mbar

Remarks and comments

The tests have been performed by the technical personnel: Alberto Parada & Jorge Mora.

The total uncertainty of the measurement system for the measured radio disturbance characteristics of EUT from 30 MHz to 1000 MHz is I = ± 4,9 dB for quasi-peak measurements, I = ± 4,6 dB for peak measurements (k = 2)

The total uncertainty of the measurement system for the measured radio disturbance characteristics of EUT from 1000 MHz to 26GHz is I = ± 2,6 dB for peaks and average measurements (k = 2).

FCC 15.107 conducted emission test is only applicable for equipment designed to be connected to the public utility (AC) power line, so it is not applicable for this DC powered device considered in this report.

Sample tested with the SW Version: 8738714766 WFAF0101, the client declares the differences between this version and the 8738714766 WFAF0103 in the appendix C.

Modifications to the reference test report

It was introduced the following modifications in respect to the test report number 53584REM.002 related with the same samples, in the next clauses and sub-clauses:

It was modified a typo in the SW Version code in the page 1.

It was added the information related the Conducted Emission test.

This modification test report cancels and replaces the test report 53584REM.002.

Testing verdicts (Legend)

Not applicable ..... :	N/A
Pass ..... :	P
Fail ..... :	F
Not measured ..... :	N/M

List of equipment used during the test					
CONTROL NUMBER	**DESCRIPTION**	**MANUFACTURER**	**MODEL**	**LAST CALIBRATION**	**NEXT CALIBRATION**
2942	EMI TEST Receiver	ROHDE & SCHWARZ	ESU40	2016-06-14	2017-10-09
4578	Bilog Antenna	ETS LINDGREN	3142E	2017-04-03	2020-04-03
2933	Preamplifier	A.H Systems	PAM-0207	2016-09-19	2017-09-19
4612	Horn Antenna	SCHWARZBECK	BBHA 9120 D	2016-12-19	2019-12-19
3783	Preamplifier	BONN ELEKTRONIK	BLMA 0118-3A	2017-05-03	2018-05-03
4656	Horn Antenna	SCHWARZBECK	BBHA 9170	2017-03-24	2020-03-24
1975	Preamplifier	MITEQ	JS4-12002600-30-5A	2015-10-06	2017-10-06
4570	Thermohigrometer	HW GROUP	HWg-STE	2017-04-25	2018-04-25
4567	Thermohigrometer	HW GROUP	HWg-STE	2017-04-25	2018-04-25
4522	EMC measurement software	ROHDE & SCHWARZ	EMC32 V9.01	---	---

Appendix A – Test result

APPENDIX A CONTENT

DESCRIPTION OF THE OPERATION MODES

The operation modes used by the samples to which the present report refers, are shown in the following table:

OPERATION MODE	DESCRIPTION
OM#01	EUT ON. WiFi disconnected. Power supply: 3.3Vdc (Via AC/DC adapter 110Vac with output: 24Vdc. connected to auxiliary device) (Worst Case)
OM#02	EUT ON. WiFi communication established with an auxiliary device. Power supply: 3.3Vdc (Via AC/DC adapter 110Vac with output: 24Vdc. connected to auxiliary device) (Worst Case)

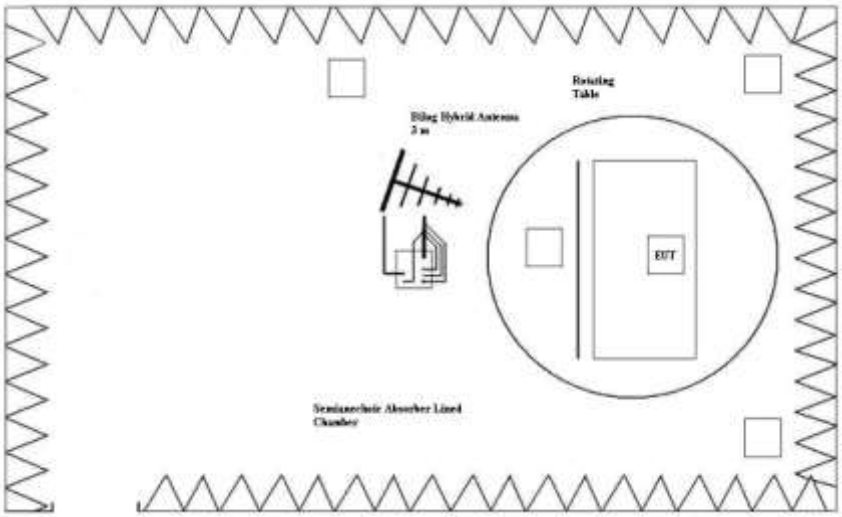
RADIATED EMISSION. ELECTROMAGNETIC FIELD MEASURE

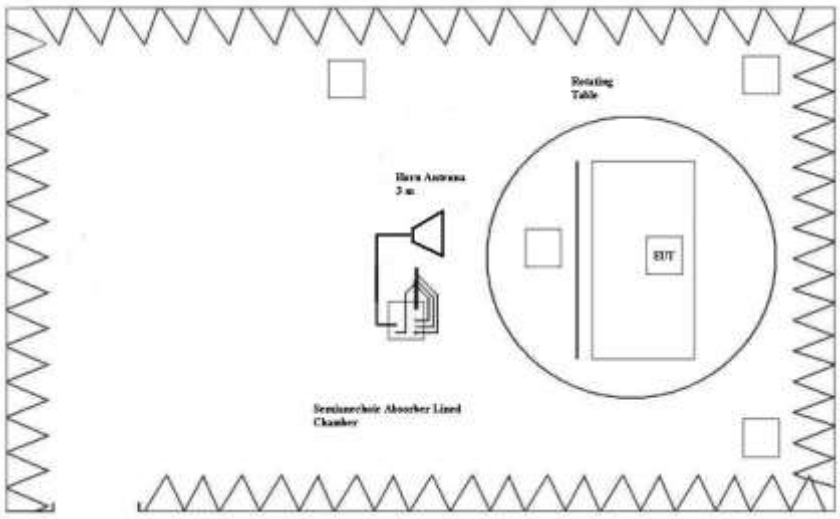
LIMITS:	Product standard:	FCC CFR 47, Part 15, Subpart C (10-1-15 Edition), Secs. 15.209 & ICES-003 Issue 6 (2016)
	Test standard:	FCC CFR 47, Part 15, Subpart C (10-1-15 Edition), Secs. 15.209 & ICES-003 Issue 6 (2016)

Limits of interference Class B

The applied limit for radiated emissions, 3 m distance, according with the requirements of FCC Rules and Regulations 47 CFR Part 15, Subpart C (10-01-15 Edition), Secs. 15.209 & ICES-003 Issue 6 (2016) in the frequency range 30 MHz to 26 GHz for class B equipments.

Frequency range (MHz)	QP Limit at 3 m		PK Limit at 3 m
	(μV/m)	(dBμV/m)	(dBμV/m)
30 to 88	100	40	---
88 to 216	150	43.5	---
216 to 960	200	46	---
Above 960	500	54	74





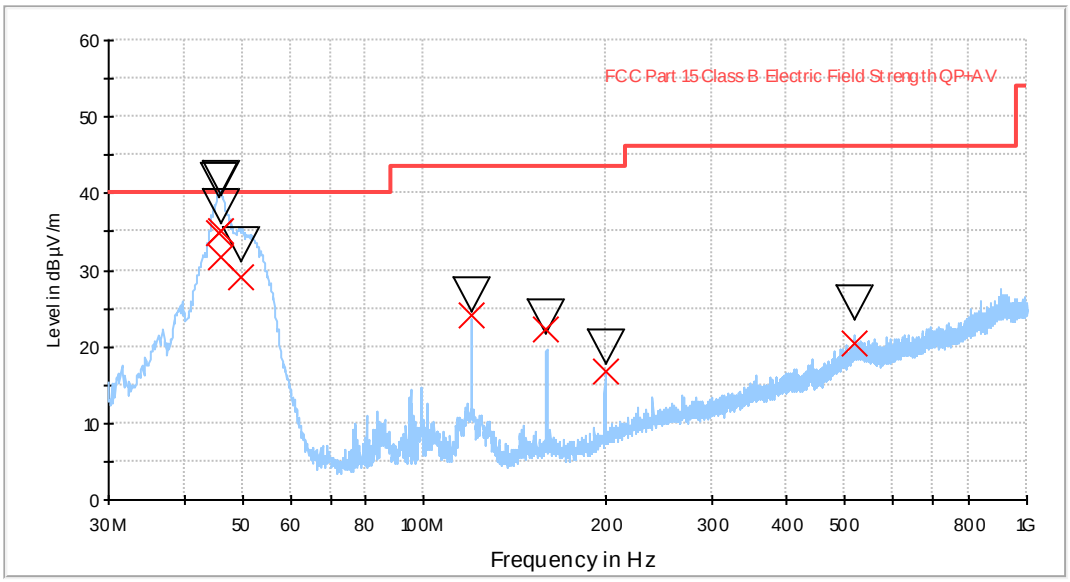
TESTED SAMPLE:	S#01
TESTED OPERATION MODES:	OM#01
TEST RESULTS:	CRmmnnRRPP: CR, Radiation Condition; mm: Sample number; nn: Operation mode; RR: Range; PP: Polarization.

CRmmnnRRPP	Description	Result
CR0101LR	Range: 30 MHz - 1000 MHz.	P
CR0101HR1_PH	Range: 1 GHz - 18 GHz. Horizontal Polarization.	P
CR0101HR1_PV	Range: 1 GHz - 18 GHz. Vertical Polarization.	P
CR0101HR2_PH	Range: 18 GHz - 26 GHz. Horizontal Polarization.	P
CR0101HR2_PV	Range: 18 GHz - 26 GHz. Vertical Polarization.	P

Radiated Emission. CR0101LR

Project:	53584REM.002
Company:	Bosch Termotecnología S.A
Sample:	S/01
Operation mode:	MO#01
Description:	EUT ON. WIFI disconnected. Power Supply 3.3 Vdc (Via AC/DC adapter 230Vac with output=24Vdc connected to auxiliary device) (Worst Case)

FCC class B



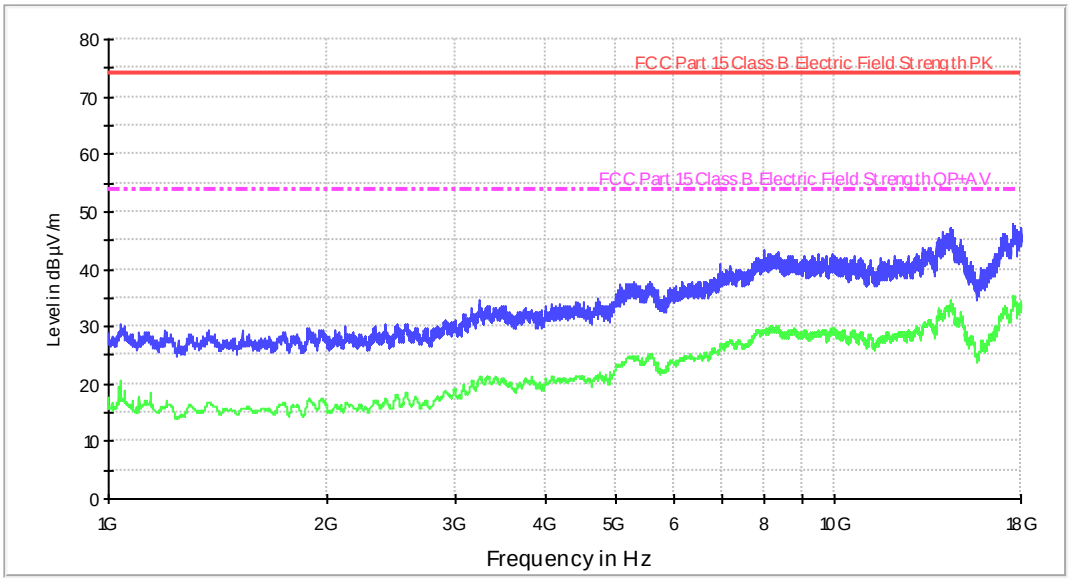
Maximizations

Frequency (MHz)	MaxPeak (dBµV/m)	QuasiPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)
45.842685	41.6	35.0	98.0	V	146.0
45.981964	38.3	31.7	116.0	V	143.0
46.082766	41.9	35.2	98.0	V	159.0
49.623046	33.2	29.0	98.0	V	236.0
119.851102	26.8	24.0	98.0	V	62.0
159.660521	23.9	22.2	98.0	V	257.0
199.819238	19.9	16.7	157.0	H	212.0
519.271543	25.8	20.4	170.0	H	163.0

Radiated Emission. CR0101HR1_PH

Project:	53584REM.002
Company:	Bosch Termotecnología S.A
Sample:	S/01
Operation mode:	MO#01
Description:	EUT ON. WIFI disconnected. Power Supply 3.3 Vdc (Via AC/DC adapter 230Vac with output=24Vdc connected to auxiliary device) Horizontal polarization. (Worst Case)

FCC 1-18GHz class B



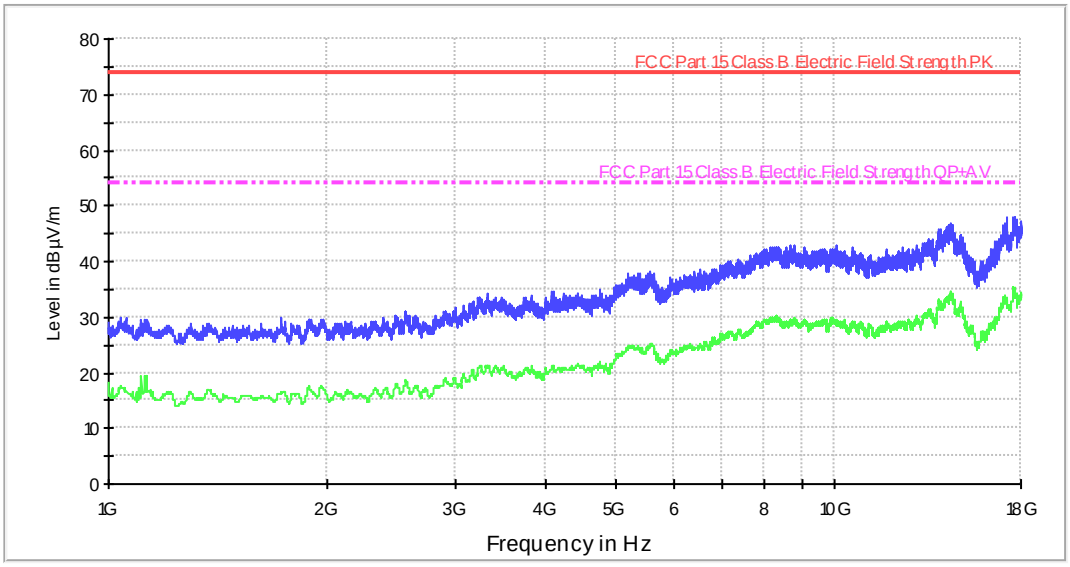
Subrange Maxima

Frequency (MHz)	MaxPeak-ClearWrite (dBµV/m)	Average-ClearWrite (dBµV/m)
1040.000000	30.3	20.6
1373.000000	29.4	16.8
2118.000000	30.0	16.6
3160.000000	33.3	20.4
3238.000000	34.7	21.3
5279.000000	37.7	24.3
6954.000000	40.7	26.8
7978.000000	43.3	29.2
13197.000000	43.8	30.1
17601.000000	47.8	35.1

Radiated Emission. CR0101HR1_PV

Project:	53584REM.002
Company:	Bosch Termotecnología S.A
Sample:	S/01
Operation mode:	MO#01
Description:	EUT ON. WIFI disconnected. Power Supply 3.3 Vdc (Via AC/DC adapter 230Vac with output=24Vdc connected to auxiliary device) Vertical polarization. (Worst Case)

FCC 1-18GHz class B



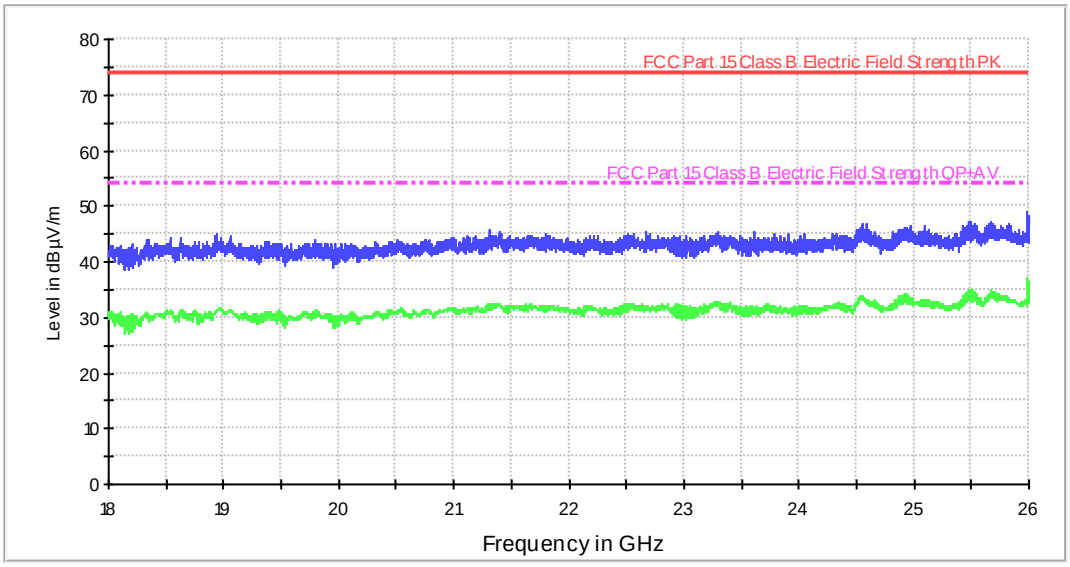
Subrange Maxima

Frequency (MHz)	MaxPeak-ClearWrite (dBµV/m)	Average-ClearWrite (dBµV/m)
1037.000000	30.0	17.1
1730.000000	29.8	16.4
1901.000000	29.7	16.9
3168.000000	32.9	20.4
4076.000000	34.5	21.1
5547.000000	38.3	24.9
7365.000000	40.4	27.6
10019.000000	43.0	29.5
13423.000000	43.9	30.9
17658.000000	48.1	35.0

Radiated Emission. CR0101HR2_PH

Project:	53584REM.002
Company:	Bosch Termotecnología S.A
Sample:	S/01
Operation mode:	MO#01
Description:	EUT ON. WIFI disconnected. Power Supply 3.3 Vdc (Via AC/DC adapter 230Vac with output=24Vdc connected to auxiliary device). Horizontal polarization. (Worst Case)

FCC 18-26GHz class B



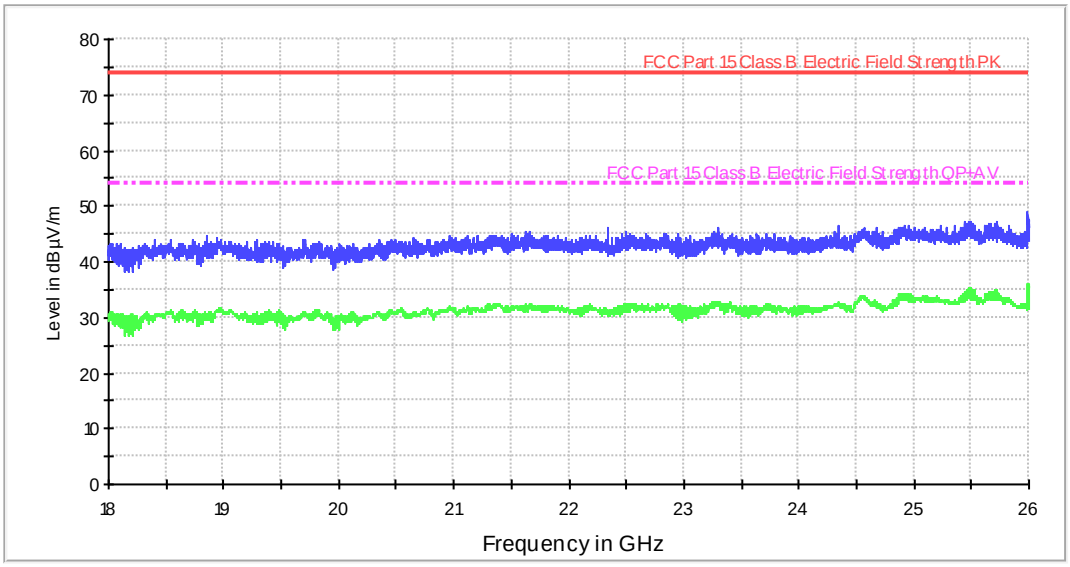
Subrange Maxima

Frequency (MHz)	MaxPeak-ClearWrite (dBµV/m)	Average-ClearWrite (dBµV/m)
18632.000000	44.4	31.3
18935.000000	44.9	31.2
19802.000000	44.0	31.1
20748.000000	44.0	31.1
21309.000000	45.7	32.4
21795.000000	45.0	31.3
22670.000000	45.5	31.8
23290.000000	45.4	32.7
24554.000000	46.8	33.8
25986.000000	49.0	36.7

Radiated Emission. CR0101HR2_PV

Project:	53584REM.002
Company:	Bosch Termotecnología S.A
Sample:	S/01
Operation mode:	MO#01
Description:	EUT ON. WIFI disconnected. Power Supply 3.3 Vdc (Via AC/DC adapter 230Vac with output=24Vdc connected to auxiliary device). Vertical polarization. (Worst Case)

FCC 18-26GHz class B



Subrange Maxima

Frequency (MHz)	MaxPeak-ClearWrite (dBµV/m)	Average-ClearWrite (dBµV/m)
18396.000000	44.0	30.2
18854.000000	44.7	30.7
19695.000000	44.1	30.9
20654.000000	44.3	31.0
21630.000000	45.3	32.5
22342.000000	46.1	31.1
22491.000000	45.6	32.4
23295.000000	46.2	32.9
24349.000000	46.4	32.5
25991.000000	49.0	36.1

CONTINUOUS CONDUCTED EMISSION ON POWER LEADS

LIMITS:	Product standard:	FCC CFR 47, Part 15, Subpart C (10-1-15 Edition), Secs. 15.209 & ICES-003 Issue 6 (2016)
	Test standard:	FCC CFR 47, Part 15, Subpart C (10-1-15 Edition), Secs. 15.209 & ICES-003 Issue 6 (2016)

CLASS B

The applied limit for continuous conducted emissions in power leads, according with the requirements of FCC Rules and Regulations 47 CFR Part 15, Subpart B (10-1-16 Edition), Secs. 15.107 & ICES-003 Issue 6 (January 2016), in the frequency range 0,15 to 30 MHz, for Class B equipment was:

Frequency range	**Limit (dBµV)**	
(MHz)	**Quasi-peak**	**Average**
0,15 to 0,5	66-56*	56-46*
0,5 to 5	56	46
5 to 30	60	50

*Decreases with the logarithm of the frequency.

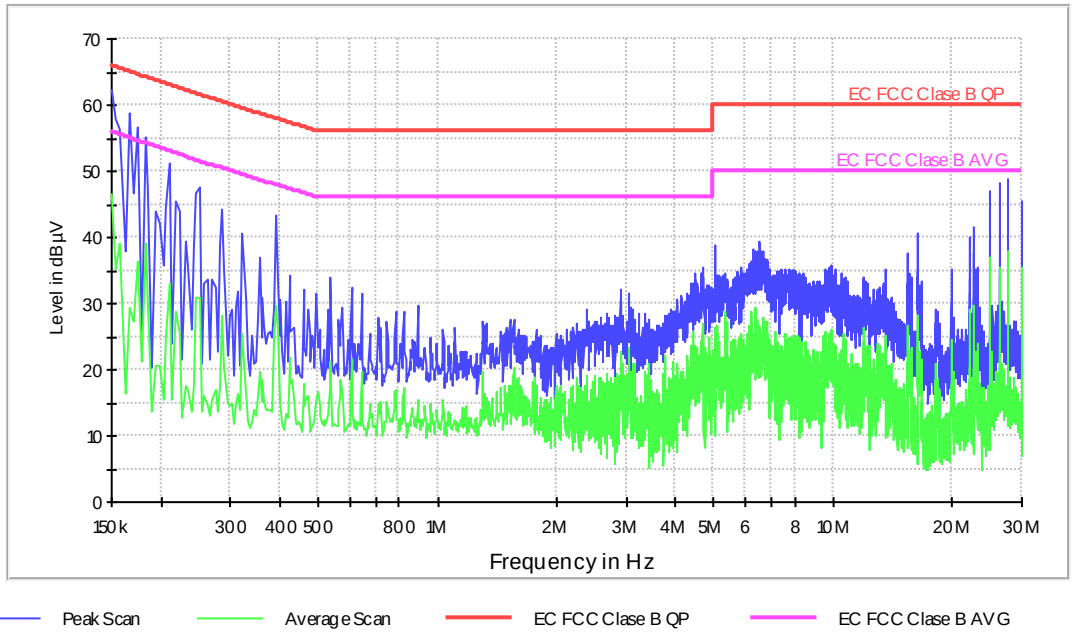
TESTED SAMPLES:	S/01
TESTED OPERATION MODES:	OM#01; OM#02
TEST RESULTS:	CCmmnnhh: CC, Conducted Condition; mm: Sample number; nn: Operation mode; hh: wire

CCmmnnhh	**DESCRIPTION**	**RESULT**
CC01010N	Neutral wire noise.	P
CC0101L1	Phase wire noise.	P
CC0102L1	Phase wire noise.	P
CC01020N	Neutral wire noise.	P

Conducted Emission. CC01010N

Project:	60433REM.002
Company:	BOSCH TERMOTECNOLOGIA
Sample:	S/01
Operation mode:	OM#01
Description:	EUT ON. WIFI disconnected. Power Supply 3.3 Vdc (Via AC/DC adapter 230Vac with output=24Vdc connected to auxiliary device): Phase Wire Noise

EC FCC Class B ESPI CC



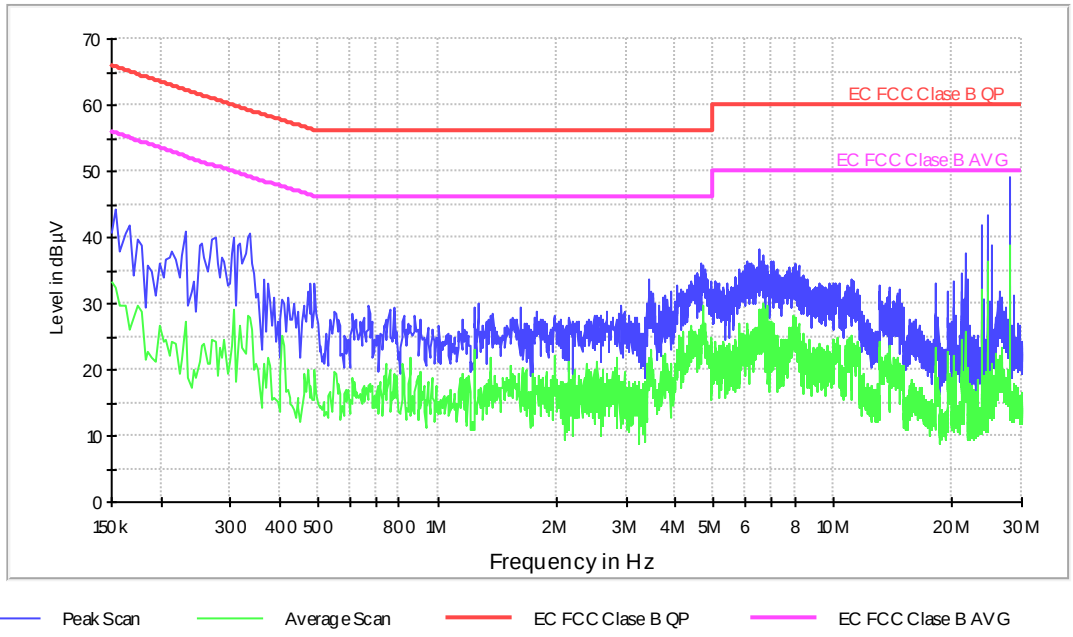
Subrange Maxima

Frequency (MHz)	MaxPeak-ClearWrite (dBµV)	Average-ClearWrite (dBµV)
0.150000	62.3	46.8
0.286000	44.1	28.0
0.538000	34.0	21.1
0.890000	29.6	15.3
1.522000	27.6	17.6
2.898000	32.1	22.4
5.038000	38.7	26.4
6.538000	39.5	26.7
16.386000	40.5	28.3
27.750000	48.9	32.5

Conducted Emission. CC0101L1

Project:	60433REM.002
Company:	BOSCH TERMOTECNOLOGIA
Sample:	S/01
Operation mode:	OM#01
Description:	EUT ON. WIFI disconnected. Power Supply 3.3 Vdc (Via AC/DC adapter 230Vac with output=24Vdc connected to auxiliary device): Phase Wire Noise

EC FCC Class B ESPI CC



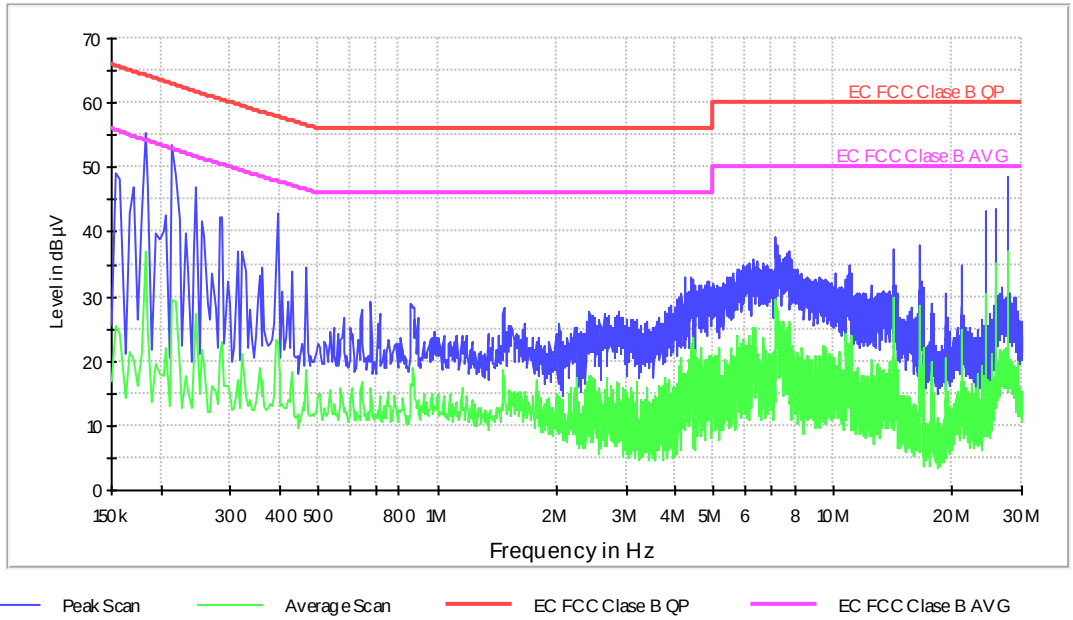
Subrange Maxima

Frequency (MHz)	MaxPeak-ClearWrite (dBµV)	Average-ClearWrite (dBµV)
0.154000	44.1	32.5
0.334000	40.5	27.9
0.478000	33.0	17.5
1.238000	29.5	22.9
1.270000	29.9	17.1
3.426000	33.7	20.5
6.062000	36.4	25.9
6.482000	38.3	29.0
11.174000	33.6	20.1
28.106000	49.2	38.9

Conducted Emission. CC01020N

Project:	60433REM.002
Company:	BOSCH TERMOTECNOLOGIA
Sample:	S/01
Operation mode:	OM#02
Description:	EUT ON. WIFI communication established with ancillary device. Power Supply 3.3 Vdc (Via AC/DC adapter 230Vac with output=24Vdc connected to auxiliary device): Neutral Wire Noise

EC FCC Class B ESPI CC



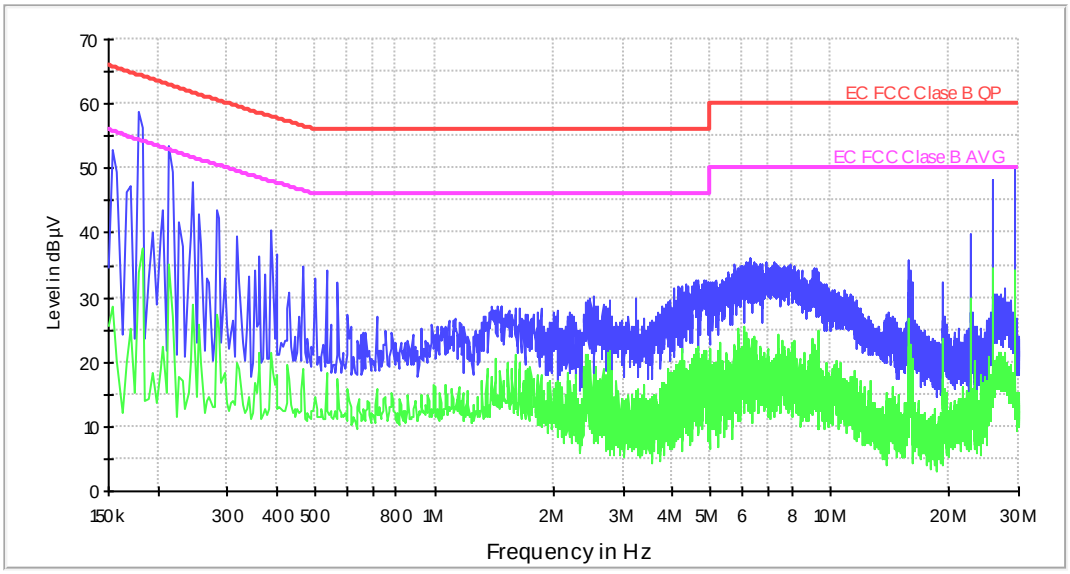
Subrange Maxima

Frequency (MHz)	MaxPeak-ClearWrite (dBµV)	Average-ClearWrite (dBµV)
0.182000	55.4	37.0
0.394000	42.8	23.0
0.466000	34.6	18.7
0.858000	28.9	16.5
1.470000	28.4	16.8
2.886000	27.7	16.5
6.114000	35.2	18.9
7.170000	39.2	27.3
16.574000	37.9	28.5
27.710000	48.6	36.9

Conducted Emission. CC0102L1

Project:	60433REM.002
Company:	BOSCH TERMOTECNOLOGIA
Sample:	S/01
Operation mode:	OM#02
Description:	EUT ON. WIFI communication established with ancillary device. Power Supply 3.3 Vdc (Via AC/DC adapter 230Vac with output=24Vdc connected to auxiliary device): Phase Wire Noise

EC FCC Class B ESPI CC



Subrange Maxima

Frequency (MHz)	MaxPeak-ClearWrite (dBµV)	Average-ClearWrite (dBµV)
0.178000	58.8	33.8
0.282000	43.5	27.3
0.466000	34.7	18.9
1.126000	26.6	13.0
1.398000	28.7	14.7
2.518000	30.1	18.2
5.750000	35.1	22.7
6.258000	36.0	19.1
15.706000	35.9	26.7
29.358000	49.8	33.1

Appendix B – SW Version Changes

Termotecnologia

Software Version Changes

Project Number:	8674
Project Name:	FP Low NOx
Test Proponent:	Diogo Guimarães
Product Type:	Software
WF	WFAF1003
Manufacturer:	Bosch
Sample Stage:	Production
Sample Number:	NA

BOSCH Termotecnologia SA
E.N. 16 - km 3,7 - Aveiro
3800-533 - Cacia
Portugal

Contact person: Diogo Guimarães
Department : TT-DW/ENG3.2
Telephone :
E-mail: Diogo.guimaraes@pt.bosch.com

Report No.:

Aveiro, 23 Apr 2018

This report includes 5 pages including referred enclosures

Conclusions

The new software is an update of WFAF0101.
New software version WFAF1003 tested with positive results.

Termotecnologia

Table of Contents

1. Purpose

This document describes the differences between the SW versions WFAF0101, WFAF1002 and WFAF1003. Note that version WFAF1002 was not released for production and was only used for internal validations.

2. Changes

2.1. New Features

2.1.1. WFAF0101 -> WFAL1002

- Recirculation on demand implementation, with the addition of a new REST resource;
- Mac Address powerbus implementation to display in the HMI;
- Delete Wifi Profiles after end of EOL so that there's no existing profile after production;
- Brute force protection implementation to prevent that an attacker tries to brute force the user password;

2.1.2. WFAF1002 -> WFAL1003

- Read and Write Software production data;
- Read and Write Hardware production data;

2.2. Corrected Issues

2.2.1. WFAF0101 -> WFAL1002

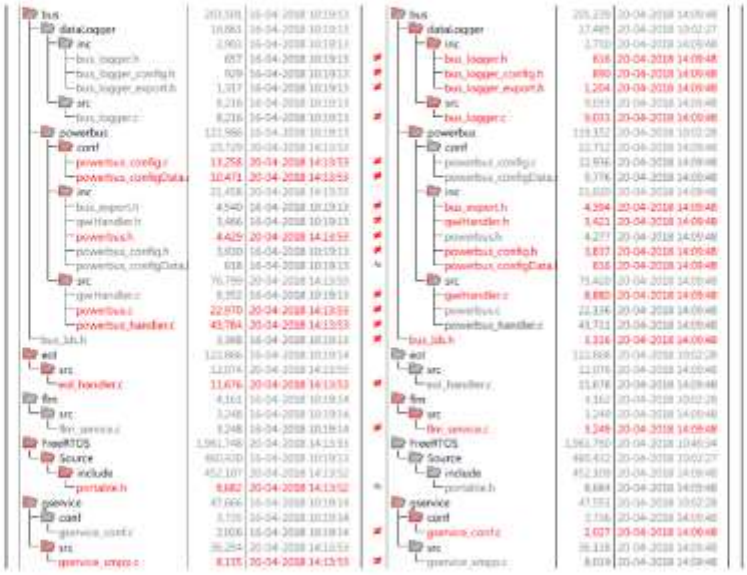
- Data Logger round buffer handling improvements to handle the write index in a more efficient way.
- Historical Data Update to correct the way the number of cycles and hours is converted into a JSON packet.

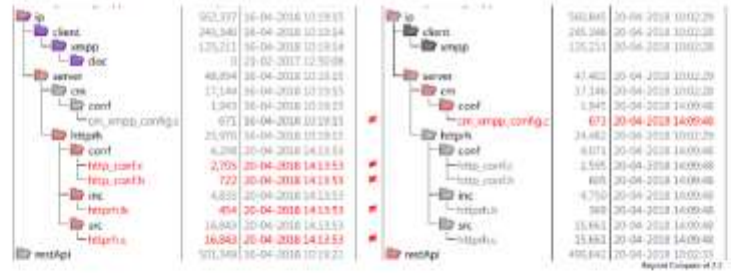
2.2.2. WFAF1002 -> WFAL1003

- Factory and Laboratory for version datatype corrections because factory versions were being detected as factory and vice-versa;
- Wifi Profile Erasure improvment in the end of production process;
- gService string attribution corrections;
- Brute Force mechanism bug correction since in each wrong attempt in was adding 5 minutes between each attempt instead of multiplying by two;
- TLS Ciphers update since previously used ones were considered weak;
- DNS supports dynamic hosts;
- Change Power Management to Always On;
- Update MD5 hash calculating mechanism to be more efficient;

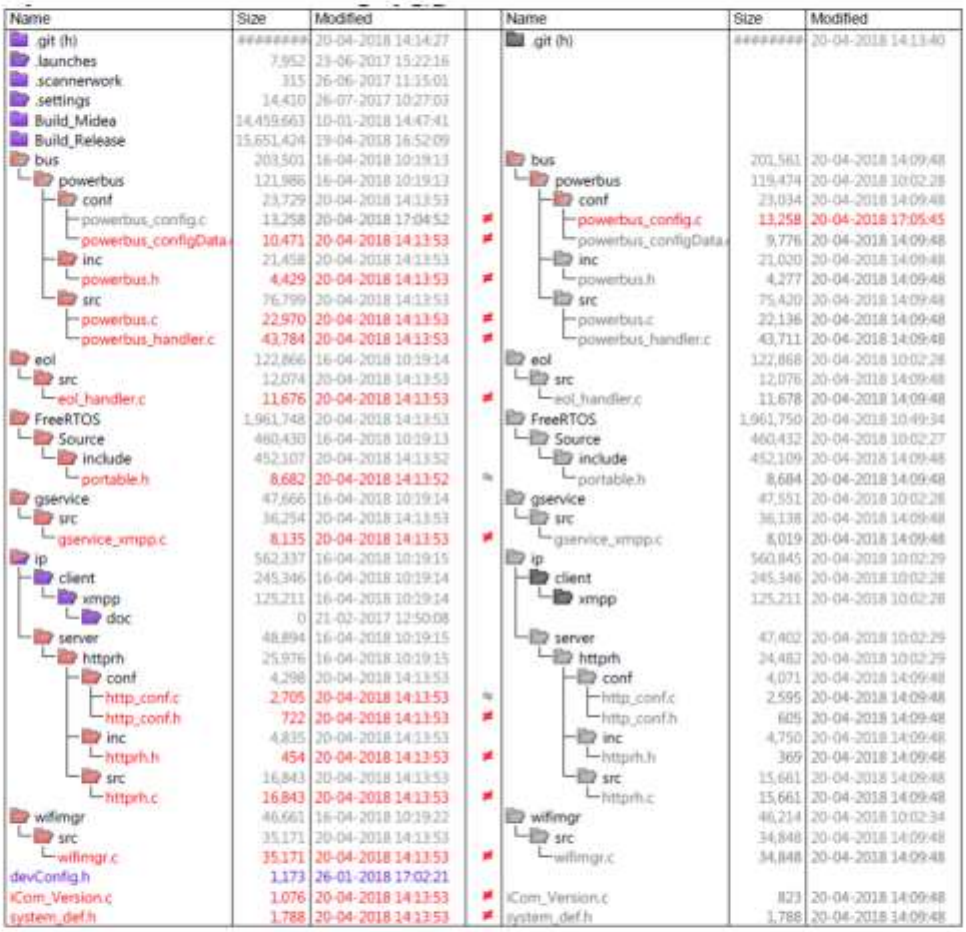
3. SW Folder comparison

3.1. WFAF0101->WFAF1002





3.2. WFAF1002->WFAF1003



Name	Size	Modified		Name	Size	Modified
.git (h)	########	20-04-2018 14:14:27		.git (h)	########	20-04-2018 14:13:40
.launches	7,952	23-06-2017 15:22:16				
.scannerwork	315	26-06-2017 11:15:01				
.settings	14,410	26-07-2017 10:27:03				
Build_Midea	14,459,663	10-01-2018 14:47:41				
Build_Release	15,651,424	19-04-2018 16:52:09				
bus	203,501	16-04-2018 10:19:13		bus	201,561	20-04-2018 14:09:48
powerbus	121,986	16-04-2018 10:19:13		powerbus	119,474	20-04-2018 10:02:28
conf	23,729	20-04-2018 14:13:53		conf	23,034	20-04-2018 14:09:48
powerbus_config.c	13,258	20-04-2018 17:04:52	≠	powerbus_config.c	13,258	20-04-2018 17:05:45
powerbus_configData.c	10,471	20-04-2018 14:13:53	≠	powerbus_configData.c	9,776	20-04-2018 14:09:48
inc	21,458	20-04-2018 14:13:53		inc	21,020	20-04-2018 14:09:48
powerbus.h	4,429	20-04-2018 14:13:53	≠	powerbus.h	4,277	20-04-2018 14:09:48
src	76,799	20-04-2018 14:13:53		src	75,420	20-04-2018 14:09:48
powerbus.c	22,970	20-04-2018 14:13:53	≠	powerbus.c	22,136	20-04-2018 14:09:48
powerbus_handler.c	43,784	20-04-2018 14:13:53	≠	powerbus_handler.c	43,711	20-04-2018 14:09:48
eol	122,866	16-04-2018 10:19:14		eol	122,868	20-04-2018 10:02:28
src	12,074	20-04-2018 14:13:53		src	12,076	20-04-2018 14:09:48
eol_handler.c	11,676	20-04-2018 14:13:53	≠	eol_handler.c	11,678	20-04-2018 14:09:48
FreeRTOS	1,961,748	20-04-2018 14:13:53		FreeRTOS	1,961,750	20-04-2018 10:49:34
Source	460,430	16-04-2018 10:19:13		Source	460,432	20-04-2018 10:02:27
include	452,107	20-04-2018 14:13:52		include	452,109	20-04-2018 14:09:48
portable.h	8,682	20-04-2018 14:13:52	≈	portable.h	8,684	20-04-2018 14:09:48
gservice	47,666	16-04-2018 10:19:14		gservice	47,551	20-04-2018 10:02:28
src	36,254	20-04-2018 14:13:53		src	36,138	20-04-2018 14:09:48
gservice_xmpp.c	8,135	20-04-2018 14:13:53	≠	gservice_xmpp.c	8,019	20-04-2018 14:09:48
ip	562,337	16-04-2018 10:19:15		ip	560,845	20-04-2018 10:02:29
client	245,346	16-04-2018 10:19:14		client	245,346	20-04-2018 10:02:28
xmpp	125,211	16-04-2018 10:19:14		xmpp	125,211	20-04-2018 10:02:28
doc	0	21-02-2017 12:50:08				
server	48,894	16-04-2018 10:19:15		server	47,402	20-04-2018 10:02:29
httprh	25,976	16-04-2018 10:19:15		httprh	24,482	20-04-2018 10:02:29
conf	4,298	20-04-2018 14:13:53		conf	4,071	20-04-2018 14:09:48
http_conf.c	2,705	20-04-2018 14:13:53	≈	http_conf.c	2,595	20-04-2018 14:09:48
http_conf.h	722	20-04-2018 14:13:53	≠	http_conf.h	605	20-04-2018 14:09:48
inc	4,835	20-04-2018 14:13:53		inc	4,750	20-04-2018 14:09:48
httprh.h	454	20-04-2018 14:13:53	≠	httprh.h	369	20-04-2018 14:09:48
src	16,843	20-04-2018 14:13:53		src	15,661	20-04-2018 14:09:48
httprh.c	16,843	20-04-2018 14:13:53	≠	httprh.c	15,661	20-04-2018 14:09:48
wifimgr	46,661	16-04-2018 10:19:22		wifimgr	46,214	20-04-2018 10:02:34
src	35,171	20-04-2018 14:13:53		src	34,848	20-04-2018 14:09:48
wifimgr.c	35,171	20-04-2018 14:13:53	≠	wifimgr.c	34,848	20-04-2018 14:09:48
devConfig.h	1,173	26-01-2018 17:02:21				
iCom_Version.c	1,076	20-04-2018 14:13:53	≠	iCom_Version.c	823	20-04-2018 14:09:48
system_def.h	1,788	20-04-2018 14:13:53	≠	system_def.h	1,788	20-04-2018 14:09:48

4. SW Versions History

Date	Main uP	Safety uP	Laboratory	Factory	Major Changes
24/10/2017			WFAL1009	WFAL1001	Initial Release
12/02/2018			WFAL1012	WFAF1002	Recirculation on demand implementation; - Mac Address powerbus implementation - Delete Wifi Profiles after end of EOL - Brute force protection implementation - Data Logger round buffer handling improvements. - Mac Address powerbus implementation. - Historical Data Update.
19/04/2018			WFAL1015	WFAF1003	- Factory and Laboratory for version datatype corrections - Read and Write Software production data - Read and Write Hardware production data - Wi-Fi Profile Erasure Improvement - gService string attribution corrections - Brute Force mechanism bug correction - TLS Ciphers update - Dns supports dynamic hosts - Change Power Management to Always On - Update MD5 hash