

RF-EXPOSURE REPORT FCC 47 CFR Part 2.1091 ISED RSS-102 Maximum permissible exposure	
Report Reference No	G0M-2403-2482-TFC091MP-V04
Testing Laboratory	Eurofins Product Service GmbH
Address	Storkower Str. 38c 15526 Reichenwalde Germany
Accreditation	 A2LA Accredited Testing Laboratory, Certificate No.: 1983.01 FCC Test Firm Designation Number: DE0008 ISED Testing Laboratory site: 3470A
Applicant	Atlas Copco Airpower N.V.
Address	Boomsesteenweg 957 2610 Antwerpen, Wilrijk Belgien
Test Specification	According to FCC/ISED rules
Standard	FCC 47 CFR 2.1091 ISED RSS-102
Non-Standard Test Method	None
Equipment under Test (EUT):	
Product Description	Machine mounted device, wireless interface for compressor machines
Model(s)	SBP
Brand Name(s)	None
Hardware Version(s)	NVG_04
Software Version(s)	navigator_2024.04.08.1_rnd
FCC ID	UXQGWSBPA
IC	6712B-GWSBPA
Test Result	PASSED

Possible test case verdicts:		
required by standard but not tested	N/T	
not required by standard	N/R	
test object does meet the requirement	P(PASS)	
test object does not meet the requirement	F(FAIL)	
Testing:		
Test Lab Temperature	20 °C - 30 °C	
Test Lab Humidity	25 % - 55 %	
Date of performance	2024-07-04	
Date of receipt of test item	2024-04-19	
Report:		
Compiled by	Stephan Liebich	
Tested by (+ signature) (Responsible for Test)	Burkhard Pudell	
Approved by (+ signature) (Senior Radio Expert)	Radwan Jaafar	
Date of Issue	2025-04-04	
Total number of pages	44	
General Remarks:		
The test results presented in this report relate only to the object tested. The results contained in this report reflect the results for this particular model and serial number. It is the responsibility of the manufacturer to ensure that all production models meet the intent of the requirements detailed within this report. This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.		
Additional Comments:		
None		

VERSION HISTORY

Version History			
Version	Issue Date	Remarks	Revised By
01	2024-07-04	Initial Release	--
02	2024-08-28	Replaced document: G0M-2403-2482-TFC091MP-V01 Replaced by: G0M-2403-2482-TFC091MP-V02 Changes: Change of RF-Exposure Category, antenna gain and re-calculation of results	St. Liebich
03	2024-10-25	Replaced document: G0M-2403-2482-TFC091MP-V02 Replaced by: G0M-2403-2482-TFC091MP-V03 Changes: Update of SRD 915 MHz information and re-calculation of results	St. Liebich
04	2025-04-04	Replaced document: G0M-2403-2482-TFC091MP-V03 Replaced by: G0M-2403-2482-TFC091MP-V04 Changes: Change of the Reference Documents in section 1.1	E. Sohrabi

ABBREVIATIONS AND ACRONYMS

Acronyms	
Acronym	Description
EIRP	Equivalent Isotropic Radiated Power
EUT	Equipment Under Test
MPE	Maximum Permissible Exposure

REPORT INDEX

1	Equipment (Test Item) Under Test.....	6
1.1	Reference Documents.....	7
1.2	Power density radiation sources.....	8
1.3	Field strength radiation sources	8
1.4	Concurrent Sources	8
2	Result Summary.....	9
3	RF-Exposure classification	12
4	RF-Exposure limits	13
5	RF-Exposure Evaluation	14
6	Single Source Evaluation Results - FCC	15
7	Single Source Evaluation Results - ISED	25
8	Concurrent Evaluation Results - FCC.....	35
9	Concurrent Evaluation Results - ISED.....	40

1 Equipment (Test Item) Under Test

Description	Machine mounted device, wireless interface for compressor machines		
Model	SBP		
Brand Name(s)	None		
Sample Identification	EUT #	Sample-ID	Serial Number
	EUT 1	See ref-documents	See ref-documents
Hardware Version(s)	NVG_04		
Software Version(s)	navigator_2024.04.08.1_rnd		
PMN	SBP		
HVIN	NVG_04		
FVIN	navigator_2024.04.08.1_rnd		
HMN	SBP		
FCC ID	UXQGWSBPA		
IC	6712B-GWSBPA		
Equipment type	End Product		
Environment	Workers		

1.1 Reference Documents

Document Type	Document No.	Issued by	Date
TEST REPORT	G0M-2403-2482-TFC247FH-V01	Eurofins Product Service GmbH	2024-07-04
TEST REPORT	G0M-2403-2482-TFCCOLOC-V01	Eurofins Product Service GmbH	2024-07-04
FCC Radio Test Report	BTL-FCCP-1-2206H019	BTL Inc.	2022-08-04
FCC Radio Test Report	BTL-FCCP-2-2206H019	BTL Inc.	2022-08-04
FCC Radio Test Report	BTL-FCCP-3-2206H019	BTL Inc.	2022-08-04
RF SPOT CHECK Report	2212RSU048-U1	MRT Technology (Suzhou) Co., Ltd	2023-03-05
RF SPOT CHECK Report	2212RSU048-U2	MRT Technology (Suzhou) Co., Ltd	2023-03-05
RF Exposure Evaluation Declaration	2212RSU048-U4	MRT Technology (Suzhou) Co., Ltd	2023-03-05
Antenna Data Sheet	Navigator Antenna Specification	haltian	2024-04-30

1.2 Power density radiation sources

Mode	Operating Frequency [MHz]	Maximum conducted power [dBm]	Maximum radiated power [dBm EIRP]	Maximum duty cycle [%]	Maximum antenna gain [dBi]	Maximum antenna diameter [cm]
SRD 915 MHz	902.97	14.5	12.00	100	-2.5	N/A
Bluetooth	2480	8.74	10.93	100	2.19	N/A
Bluetooth LE	2480	10.43	12.62	100	2.19	N/A
IEEE 802.11 (2.4 GHz)	2437	23.84	26.03	100	2.19	N/A
GSM 850	836	32.99	32.89	100	-0.1	N/A
GSM 1900	1880.0	29.95	31.35	100	1.4	N/A
UMTS FDDII	1880.0	25.7	27.1	100	1.4	N/A
UMTS FDDIV	1732.5	25.7	26.44	100	0.74	N/A
UMTS FDDV	836.5	25.7	27.75	100	-0.10	N/A
LTE FDD2	1880.0	25.7	27.1	100	1.4	N/A
LTE FDD4	1732.5	25.7	26.44	100	0.74	N/A
LTE FDD5	836.5	25.7	27.75	100	-0.1	N/A
LTE FDD7	2535.0	25.7	26.61	100	0.91	N/A
LTE FDD12	707.5	25.7	27.43	100	-0.42	N/A
LTE FDD13	782.0	25.7	26.99	100	-0.86	N/A
LTE FDD25	1882.5	25.7	27.1	100	1.4	N/A
LTE FDD26	831.5	25.7	27.75	100	-0.1	N/A
LTE FDD38	2571	25.7	26.54	100	0.84	N/A
LTE FDD41	2497	25.7	26.67	100	0.97	N/A
Comment: Max. power for UMTS/LTE was assumed according related standard.						

1.3 Field strength radiation sources

None

1.4 Concurrent Sources

Concurrent operating conditions
SRD 915 MHz + Bluetooth + IEEE 802.11 (2.4 GHz) + GSM 850
SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + GSM 1900
SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + UMTS FDDII
SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + UMTS FDDIV
SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + UMTS FDDV
SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD2
SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD4
SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD5
SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD7
SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD12
SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD13
SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD25
SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD26
SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD38
SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD41
Comment: --

2 Result Summary

FCC MPE Evaluation - Single radiation sources					
Product Standard Reference	Requirement	Reference Method	Mode	Distance [m]	Verdict
47 CFR 2.1091	Maximum permissible exposure	FCC KDB 447498	SRD 915 MHz	0.20	PASS
47 CFR 2.1091	Maximum permissible exposure	FCC KDB 447498	Bluetooth	0.20	PASS
47 CFR 2.1091	Maximum permissible exposure	FCC KDB 447498	Bluetooth LE	0.20	PASS
47 CFR 2.1091	Maximum permissible exposure	FCC KDB 447498	IEEE 802.11 (2.4 GHz)	0.20	PASS
47 CFR 2.1091	Maximum permissible exposure	FCC KDB 447498	GSM 850	0.20	PASS
47 CFR 2.1091	Maximum permissible exposure	FCC KDB 447498	GSM 1900	0.20	PASS
47 CFR 2.1091	Maximum permissible exposure	FCC KDB 447498	UMTS FDDII	0.20	PASS
47 CFR 2.1091	Maximum permissible exposure	FCC KDB 447498	UMTS FDDIV	0.20	PASS
47 CFR 2.1091	Maximum permissible exposure	FCC KDB 447498	UMTS FDDV	0.20	PASS
47 CFR 2.1091	Maximum permissible exposure	FCC KDB 447498	LTE FDD2	0.20	PASS
47 CFR 2.1091	Maximum permissible exposure	FCC KDB 447498	LTE FDD4	0.20	PASS
47 CFR 2.1091	Maximum permissible exposure	FCC KDB 447498	LTE FDD5	0.20	PASS
47 CFR 2.1091	Maximum permissible exposure	FCC KDB 447498	LTE FDD7	0.20	PASS
47 CFR 2.1091	Maximum permissible exposure	FCC KDB 447498	LTE FDD12	0.20	PASS
47 CFR 2.1091	Maximum permissible exposure	FCC KDB 447498	LTE FDD13	0.20	PASS
47 CFR 2.1091	Maximum permissible exposure	FCC KDB 447498	LTE FDD25	0.20	PASS
47 CFR 2.1091	Maximum permissible exposure	FCC KDB 447498	LTE FDD26	0.20	PASS
47 CFR 2.1091	Maximum permissible exposure	FCC KDB 447498	LTE FDD38	0.20	PASS
47 CFR 2.1091	Maximum permissible exposure	FCC KDB 447498	LTE FDD41	0.20	PASS
Comment: --					

ISED MPE Evaluation - Single radiation sources					
Product Standard Reference	Requirement	Reference Method	Mode	Distance [m]	Verdict
ISED RSS-102	Maximum permissible exposure	ISED RSS-102	SRD 915 MHz	0.20	PASS
ISED RSS-102	Maximum permissible exposure	ISED RSS-102	Bluetooth	0.20	PASS
ISED RSS-102	Maximum permissible exposure	ISED RSS-102	Bluetooth LE	0.20	PASS
ISED RSS-102	Maximum permissible exposure	ISED RSS-102	IEEE 802.11 (2.4 GHz)	0.20	PASS
ISED RSS-102	Maximum permissible exposure	ISED RSS-102	GSM 850	0.20	PASS
ISED RSS-102	Maximum permissible exposure	ISED RSS-102	GSM 1900	0.20	PASS
ISED RSS-102	Maximum permissible exposure	ISED RSS-102	UMTS FDDII	0.20	PASS
ISED RSS-102	Maximum permissible exposure	ISED RSS-102	UMTS FDDIV	0.20	PASS
ISED RSS-102	Maximum permissible exposure	ISED RSS-102	UMTS FDDV	0.20	PASS
ISED RSS-102	Maximum permissible exposure	ISED RSS-102	LTE FDD2	0.20	PASS
ISED RSS-102	Maximum permissible exposure	ISED RSS-102	LTE FDD4	0.20	PASS
ISED RSS-102	Maximum permissible exposure	ISED RSS-102	LTE FDD5	0.20	PASS
ISED RSS-102	Maximum permissible exposure	ISED RSS-102	LTE FDD7	0.20	PASS
ISED RSS-102	Maximum permissible exposure	ISED RSS-102	LTE FDD12	0.20	PASS
ISED RSS-102	Maximum permissible exposure	ISED RSS-102	LTE FDD13	0.20	PASS
ISED RSS-102	Maximum permissible exposure	ISED RSS-102	LTE FDD25	0.20	PASS
ISED RSS-102	Maximum permissible exposure	ISED RSS-102	LTE FDD26	0.20	PASS
ISED RSS-102	Maximum permissible exposure	ISED RSS-102	LTE FDD38	0.20	PASS
ISED RSS-102	Maximum permissible exposure	ISED RSS-102	LTE FDD41	0.20	PASS
Comment: --					

FCC MPE Evaluation - Multi-transmitter sources					
Product Standard Reference	Requirement	Reference Method	Mode	Distance [m]	Verdict
47 CFR 2.1091	Maximum permissible exposure	FCC KDB 447498	SRD 915 MHz + Bluetooth + IEEE 802.11 (2.4 GHz) + GSM 850	0.20	PASS
47 CFR 2.1091	Maximum permissible exposure	FCC KDB 447498	SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + GSM 1900	0.20	PASS
47 CFR 2.1091	Maximum permissible exposure	FCC KDB 447498	SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + UMTS FDDII	0.20	PASS
47 CFR 2.1091	Maximum permissible exposure	FCC KDB 447498	SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + UMTS FDDIV	0.20	PASS
47 CFR 2.1091	Maximum permissible exposure	FCC KDB 447498	SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + UMTS FDDV	0.20	PASS
47 CFR 2.1091	Maximum permissible exposure	FCC KDB 447498	SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD2	0.20	PASS
47 CFR 2.1091	Maximum permissible exposure	FCC KDB 447498	SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD4	0.20	PASS
47 CFR 2.1091	Maximum permissible exposure	FCC KDB 447498	SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD5	0.20	PASS
47 CFR 2.1091	Maximum permissible exposure	FCC KDB 447498	SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD7	0.20	PASS
47 CFR 2.1091	Maximum permissible exposure	FCC KDB 447498	SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD12	0.20	PASS
47 CFR 2.1091	Maximum permissible exposure	FCC KDB 447498	SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD13	0.20	PASS
47 CFR 2.1091	Maximum permissible exposure	FCC KDB 447498	SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD25	0.20	PASS
47 CFR 2.1091	Maximum permissible exposure	FCC KDB 447498	SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD26	0.20	PASS
47 CFR 2.1091	Maximum permissible exposure	FCC KDB 447498	SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD38	0.20	PASS
47 CFR 2.1091	Maximum permissible exposure	FCC KDB 447498	SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD41	0.20	PASS
Comment: --					

ISED MPE Evaluation - Multi-transmitter sources					
Product Standard Reference	Requirement	Reference Method	Mode	Distance [m]	Verdict
ISED RSS-102	Maximum permissible exposure	ISED RSS-102	SRD 915 MHz + Bluetooth + IEEE 802.11 (2.4 GHz) + GSM 850	0.20	PASS
ISED RSS-102	Maximum permissible exposure	ISED RSS-102	SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + GSM 1900	0.20	PASS
ISED RSS-102	Maximum permissible exposure	ISED RSS-102	SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + UMTS FDDII	0.20	PASS
ISED RSS-102	Maximum permissible exposure	ISED RSS-102	SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + UMTS FDDIV	0.20	PASS
ISED RSS-102	Maximum permissible exposure	ISED RSS-102	SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + UMTS FDDV	0.20	PASS
ISED RSS-102	Maximum permissible exposure	ISED RSS-102	SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD2	0.20	PASS
ISED RSS-102	Maximum permissible exposure	ISED RSS-102	SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD4	0.20	PASS
ISED RSS-102	Maximum permissible exposure	ISED RSS-102	SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD5	0.20	PASS
ISED RSS-102	Maximum permissible exposure	ISED RSS-102	SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD7	0.20	PASS
ISED RSS-102	Maximum permissible exposure	ISED RSS-102	SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD12	0.20	PASS
ISED RSS-102	Maximum permissible exposure	ISED RSS-102	SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD13	0.20	PASS
ISED RSS-102	Maximum permissible exposure	ISED RSS-102	SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD25	0.20	PASS
ISED RSS-102	Maximum permissible exposure	ISED RSS-102	SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD26	0.20	PASS
ISED RSS-102	Maximum permissible exposure	ISED RSS-102	SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD38	0.20	PASS
ISED RSS-102	Maximum permissible exposure	ISED RSS-102	SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD41	0.20	PASS
Comment: --					

3 RF-Exposure classification

RF-Exposure Categories	
Fixed	A fixed device is defined as a device physically secured at one fixed location and cannot be easily re-located.
Mobile	A mobile device is defined as a transmitting device designed to be used in other than fixed locations and to generally be used in such a way that a separation distance of at least 20 centimeters is normally maintained between the transmitter's radiating structure(s) and the body of the user or nearby persons.
Portable	A portable device is defined as a transmitting device designed to be used so that the radiating structure(s) of the device is/are within 20 centimeters of the body of the user.

RF-Exposure Categories	
Occupational / Controlled	Limits apply in situations in which persons are exposed as a consequence of their employment provided those persons are fully aware of the potential for exposure and can exercise control over their exposure. Limits for occupational/controlled exposure also apply in situations when an individual is transient through a location where occupational/controlled limits apply provided he or she is made aware of the potential for exposure.
General population / Uncontrolled	Exposures apply in situations in which the general public may be exposed, or in which persons that are exposed as a consequence of their employment may not be fully aware of the potential for exposure or cannot exercise control over their exposure.

4 RF-Exposure limits

FCC Limits – General Population / Uncontrolled Exposure				
Frequency range [MHz]	Electric field strength [V/M]	Magnetic field strength [A/M]	Power density [W/m ²]	Averaging time [min]
0.3 – 1.34	614	1.63	1000	30
1.34 – 30	824/f	2.19/f	1800/f ²	30
30 – 300	27.5	0.073	2	30
300 – 1500	-	-	f/150	30
1500 – 100000	-	-	10.0	30

FCC Limits – Occupational / Controlled Exposure				
Frequency range [MHz]	Electric field strength [V/M]	Magnetic field strength [A/M]	Power density [W/m ²]	Averaging time [min]
0.3 – 3.0	614	1.63	1000	6
3.0 – 30	1842/f	4.89/f	9000/f ²	6
30 – 300	61.4	0.163	10.0	6
300 – 1500	-	-	f/30	6
1500 – 100000	-	-	50	6

ISED Limits – General Population / Uncontrolled Exposure				
Frequency range [MHz]	Electric field strength [V/M]	Magnetic field strength [A/M]	Power density [W/m ²]	Averaging time [min]
0.003 – 10	83	90	-	Instantaneous
0.1 – 10	-	0.73/f	-	6
1.1 – 10	87/f ^{0.5}	-	-	6
10 – 20	27.46	0.0728	2	6
20 – 48	58.07/f ^{0.5}	0.1540/f ^{0.25}	8.944/f ^{0.5}	6
48 – 300	22.06	0.05852	1.291	6
300 – 6000	3.142·f ^{0.3417}	0.008335·f ^{0.3417}	0.02619·f ^{0.6834}	6
6000 – 15000	61.4	0.163	10	6
15000 – 150000	61.4	0.163	10	616000/f ^{1.2}
150000 – 300000	0.158·f ^{0.5}	4.21·10 ⁻⁴ ·f ^{0.5}	6.67·10 ⁻⁵ ·f	616000/f ^{1.2}

ISED Limits – Occupational / Controlled Exposure				
Frequency range [MHz]	Electric field strength [V/M]	Magnetic field strength [A/M]	Power density [W/m ²]	Averaging time [min]
0.003 – 10	170	180	-	Instantaneous
0.1 – 10	-	1.6/f	-	6
1.1 – 10	193/f ^{0.5}	-	-	6
10 – 20	61.4	0.163	10	6
20 – 48	129.8/f ^{0.5}	0.3444/f ^{0.25}	44.72/f ^{0.5}	6
48 – 300	49.33	0.1309	6.455	6
300 – 6000	15.60·f ^{0.25}	0.04138·f ^{0.25}	0.6455·f ^{0.5}	6
6000 – 15000	137	0.364	50	6
15000 – 150000	137	0.364	50	616000/f ^{1.2}
150000 – 300000	0.354·f ^{0.5}	9.40·10 ⁻⁴ ·f ^{0.5}	3.33·10 ⁻⁴ ·f	616000/f ^{1.2}

5 RF-Exposure Evaluation

Evaluation Relations
$\lambda[m] = \frac{c \left[\frac{m}{s} \right]}{f[Hz]} ; R_{FF}[m] \geq \frac{2 \cdot D[m]^2}{\lambda[m]}$ $S[W/m^2] = \frac{P_{E.I.R.P.}[W]}{4\pi R[m]^2} ; R[m] = \sqrt{\frac{P_{E.I.R.P.}[W]}{4\pi S[W/m^2]}}$ $DCC [dB] = 10 \cdot \log_{10} \left(\frac{DC[\%]}{100} \right)$ $\sum_{i=1}^N \frac{S_i \left[\frac{W}{m^2} \right]}{S_{Li} \left[\frac{W}{m^2} \right]} + \sum_{j=1}^M \left(\frac{E_j \left[\frac{V}{m} \right]}{E_{Lj} \left[\frac{V}{m} \right]} \right)^2 + \sum_{k=1}^O \left(\frac{H_k \left[\frac{A}{m} \right]}{H_{Lk} \left[\frac{A}{m} \right]} \right)^2 < 1$

Evaluation Procedure
<u>Standalone operation evaluation:</u> For each radio and frequency band the worst case transmission mode with the highest peak conducted or radiated power is evaluated at the frequency that results in the most restrictive rf-exposure limit. From the peak power values, antenna gains and duty cycles taken from the reference documents, the source average radiated power values are calculated. From the average radiated power the power densities at antenna far-field distance is calculated. The distance from the radiation source for compliance power density is calculated. If the separation distance is lower than the far-field distance, the far-field distance is given as compliance separation distance because the plane wave power density assessment is only valid in the far-field of the radiation source. For radiation sources for which the average electric and magnetic fields are measured using field probes, the measured field strength values are compared to the reference limits. For those sources no calculations are performed. Compliance with the reference values is determined with the near field measurements. <u>Concurrent operation evaluation:</u> First the evaluation distance is set to an appropriate value. For all radiation sources for which power densities are calculated, the power densities at the evaluation distance are calculated and for all other sources the electric or magnetic field strengths are measured using field probes. Finally the ratios of the power densities and/or field strength values and the corresponding limits are calculated and summed and the sum is compared to the maximum of 1.

6 Single Source Evaluation Results - FCC

SRD 915 MHz	
Transmission Mode	
Transmission Frequency (f) [MHz]	902.97
Antenna far-field distance	
Maximum antenna diameter (D) [m]	N/A
Transmission wavelength (λ) [m]	N/A
Antenna far-field distance (R_{FF}) [m]	N/A
Source average power	
Peak radiated power (PR) [dBm EIRP]	14.15
Maximum transmission duty cycle (DC)	1.00
Duty cycle correction (DCC) [dB]	0.00
Average radiated power (PRAVG) [dBm EIRP]	14.15
Power density	
Compliance power density limit [W/m ²]	30.099
Power density (S) @ Antenna far-field distance [W/m ²]	N/A
Power density (S) @ 0.20 m [W/m ²]	0.052
Power density ratio @ 0.20 m	0.00
Distance for compliance power density (S=SL) [m]	0.008
Compliance	
Verdict	PASS
Comment: --	

Bluetooth	
Transmission Mode	
Transmission Frequency (f) [MHz]	2480
Antenna far-field distance	
Maximum antenna diameter (D) [m]	N/A
Transmission wavelength (λ) [m]	N/A
Antenna far-field distance (R_{FF}) [m]	N/A
Source average power	
Peak radiated power (PR) [dBm EIRP]	10.93
Maximum transmission duty cycle (DC)	1.00
Duty cycle correction (DCC) [dB]	0.00
Average radiated power (PRAVG) [dBm EIRP]	10.93
Power density	
Compliance power density limit [W/m ²]	50.000
Power density (S) @ Antenna far-field distance [W/m ²]	N/A
Power density (S) @ 0.20 m [W/m ²]	0.025
Power density ratio @ 0.20 m	0.00
Distance for compliance power density (S=SL) [m]	0.004
Compliance	
Verdict	PASS
Comment: --	

Bluetooth LE	
Transmission Mode	
Transmission Frequency (f) [MHz]	2480
Antenna far-field distance	
Maximum antenna diameter (D) [m]	N/A
Transmission wavelength (λ) [m]	N/A
Antenna far-field distance (R_{FF}) [m]	N/A
Source average power	
Peak radiated power (PR) [dBm EIRP]	12.62
Maximum transmission duty cycle (DC)	1.00
Duty cycle correction (DCC) [dB]	0.00
Average radiated power (PRAVG) [dBm EIRP]	12.62
Power density	
Compliance power density limit [W/m ²]	50.000
Power density (S) @ Antenna far-field distance [W/m ²]	N/A
Power density (S) @ 0.20 m [W/m ²]	0.036
Power density ratio @ 0.20 m	0.00
Distance for compliance power density (S=SL) [m]	0.005
Compliance	
Verdict	PASS
Comment: --	

IEEE 802.11 (2.4 GHz)	
Transmission Mode	
Transmission Frequency (f) [MHz]	2437
Antenna far-field distance	
Maximum antenna diameter (D) [m]	N/A
Transmission wavelength (λ) [m]	N/A
Antenna far-field distance (R_{FF}) [m]	N/A
Source average power	
Peak radiated power (PR) [dBm EIRP]	26.03
Maximum transmission duty cycle (DC)	1.00
Duty cycle correction (DCC) [dB]	0.00
Average radiated power (PRAVG) [dBm EIRP]	26.03
Power density	
Compliance power density limit [W/m ²]	50.000
Power density (S) @ Antenna far-field distance [W/m ²]	N/A
Power density (S) @ 0.20 m [W/m ²]	0.797
Power density ratio @ 0.20 m	0.02
Distance for compliance power density (S=SL) [m]	0.025
Compliance	
Verdict	PASS
Comment: --	

GSM 850	
Transmission Mode	
Transmission Frequency (f) [MHz]	836
Antenna far-field distance	
Maximum antenna diameter (D) [m]	N/A
Transmission wavelength (λ) [m]	N/A
Antenna far-field distance (R_{FF}) [m]	N/A
Source average power	
Peak radiated power (PR) [dBm EIRP]	32.89
Maximum transmission duty cycle (DC)	1.00
Duty cycle correction (DCC) [dB]	0.00
Average radiated power (PRAVG) [dBm EIRP]	32.89
Power density	
Compliance power density limit [W/m ²]	27.867
Power density (S) @ Antenna far-field distance [W/m ²]	N/A
Power density (S) @ 0.20 m [W/m ²]	3.870
Power density ratio @ 0.20 m	0.14
Distance for compliance power density (S=SL) [m]	0.075
Compliance	
Verdict	PASS
Comment: --	

GSM 1900	
Transmission Mode	
Transmission Frequency (f) [MHz]	1880.0
Antenna far-field distance	
Maximum antenna diameter (D) [m]	N/A
Transmission wavelength (λ) [m]	N/A
Antenna far-field distance (R_{FF}) [m]	N/A
Source average power	
Peak radiated power (PR) [dBm EIRP]	31.35
Maximum transmission duty cycle (DC)	1.00
Duty cycle correction (DCC) [dB]	0.00
Average radiated power (PRAVG) [dBm EIRP]	31.35
Power density	
Compliance power density limit [W/m ²]	50.000
Power density (S) @ Antenna far-field distance [W/m ²]	N/A
Power density (S) @ 0.20 m [W/m ²]	2.715
Power density ratio @ 0.20 m	0.05
Distance for compliance power density (S=SL) [m]	0.047
Compliance	
Verdict	PASS
Comment: --	

UMTS FDDII	
Transmission Mode	
Transmission Frequency (f) [MHz]	1880.0
Antenna far-field distance	
Maximum antenna diameter (D) [m]	N/A
Transmission wavelength (λ) [m]	N/A
Antenna far-field distance (R_{FF}) [m]	N/A
Source average power	
Peak radiated power (PR) [dBm EIRP]	27.1
Maximum transmission duty cycle (DC)	1.00
Duty cycle correction (DCC) [dB]	0.00
Average radiated power (PRAVG) [dBm EIRP]	27.10
Power density	
Compliance power density limit [W/m ²]	50.000
Power density (S) @ Antenna far-field distance [W/m ²]	N/A
Power density (S) @ 0.20 m [W/m ²]	1.020
Power density ratio @ 0.20 m	0.02
Distance for compliance power density (S=SL) [m]	0.029
Compliance	
Verdict	PASS
Comment: --	

UMTS FDDIV	
Transmission Mode	
Transmission Frequency (f) [MHz]	1732.5
Antenna far-field distance	
Maximum antenna diameter (D) [m]	N/A
Transmission wavelength (λ) [m]	N/A
Antenna far-field distance (R_{FF}) [m]	N/A
Source average power	
Peak radiated power (PR) [dBm EIRP]	26.44
Maximum transmission duty cycle (DC)	1.00
Duty cycle correction (DCC) [dB]	0.00
Average radiated power (PRAVG) [dBm EIRP]	26.44
Power density	
Compliance power density limit [W/m ²]	50.000
Power density (S) @ Antenna far-field distance [W/m ²]	N/A
Power density (S) @ 0.20 m [W/m ²]	0.876
Power density ratio @ 0.20 m	0.02
Distance for compliance power density (S=SL) [m]	0.026
Compliance	
Verdict	PASS
Comment: --	

UMTS FDDV	
Transmission Mode	
Transmission Frequency (f) [MHz]	836.5
Antenna far-field distance	
Maximum antenna diameter (D) [m]	N/A
Transmission wavelength (λ) [m]	N/A
Antenna far-field distance (R_{FF}) [m]	N/A
Source average power	
Peak radiated power (PR) [dBm EIRP]	27.75
Maximum transmission duty cycle (DC)	1.00
Duty cycle correction (DCC) [dB]	0.00
Average radiated power (PRAVG) [dBm EIRP]	27.75
Power density	
Compliance power density limit [W/m ²]	27.883
Power density (S) @ Antenna far-field distance [W/m ²]	N/A
Power density (S) @ 0.20 m [W/m ²]	1.185
Power density ratio @ 0.20 m	0.04
Distance for compliance power density (S=SL) [m]	0.041
Compliance	
Verdict	PASS
Comment: --	

LTE FDD2	
Transmission Mode	
Transmission Frequency (f) [MHz]	1880.0
Antenna far-field distance	
Maximum antenna diameter (D) [m]	N/A
Transmission wavelength (λ) [m]	N/A
Antenna far-field distance (R_{FF}) [m]	N/A
Source average power	
Peak radiated power (PR) [dBm EIRP]	27.1
Maximum transmission duty cycle (DC)	1.00
Duty cycle correction (DCC) [dB]	0.00
Average radiated power (PRAVG) [dBm EIRP]	27.10
Power density	
Compliance power density limit [W/m ²]	50.000
Power density (S) @ Antenna far-field distance [W/m ²]	N/A
Power density (S) @ 0.20 m [W/m ²]	1.020
Power density ratio @ 0.20 m	0.02
Distance for compliance power density (S=SL) [m]	0.029
Compliance	
Verdict	PASS
Comment: --	

LTE FDD4	
Transmission Mode	
Transmission Frequency (f) [MHz]	1732.5
Antenna far-field distance	
Maximum antenna diameter (D) [m]	N/A
Transmission wavelength (λ) [m]	N/A
Antenna far-field distance (R_{FF}) [m]	N/A
Source average power	
Peak radiated power (PR) [dBm EIRP]	26.44
Maximum transmission duty cycle (DC)	1.00
Duty cycle correction (DCC) [dB]	0.00
Average radiated power (PRAVG) [dBm EIRP]	26.44
Power density	
Compliance power density limit [W/m ²]	50.000
Power density (S) @ Antenna far-field distance [W/m ²]	N/A
Power density (S) @ 0.20 m [W/m ²]	0.876
Power density ratio @ 0.20 m	0.02
Distance for compliance power density (S=SL) [m]	0.026
Compliance	
Verdict	PASS
Comment: --	

LTE FDD5	
Transmission Mode	
Transmission Frequency (f) [MHz]	836.5
Antenna far-field distance	
Maximum antenna diameter (D) [m]	N/A
Transmission wavelength (λ) [m]	N/A
Antenna far-field distance (R_{FF}) [m]	N/A
Source average power	
Peak radiated power (PR) [dBm EIRP]	27.75
Maximum transmission duty cycle (DC)	1.00
Duty cycle correction (DCC) [dB]	0.00
Average radiated power (PRAVG) [dBm EIRP]	27.75
Power density	
Compliance power density limit [W/m ²]	27.883
Power density (S) @ Antenna far-field distance [W/m ²]	N/A
Power density (S) @ 0.20 m [W/m ²]	1.185
Power density ratio @ 0.20 m	0.04
Distance for compliance power density (S=SL) [m]	0.041
Compliance	
Verdict	PASS
Comment: --	

LTE FDD7	
Transmission Mode	
Transmission Frequency (f) [MHz]	2535.0
Antenna far-field distance	
Maximum antenna diameter (D) [m]	N/A
Transmission wavelength (λ) [m]	N/A
Antenna far-field distance (R_{FF}) [m]	N/A
Source average power	
Peak radiated power (PR) [dBm EIRP]	26.61
Maximum transmission duty cycle (DC)	1.00
Duty cycle correction (DCC) [dB]	0.00
Average radiated power (PRAVG) [dBm EIRP]	26.61
Power density	
Compliance power density limit [W/m ²]	50.000
Power density (S) @ Antenna far-field distance [W/m ²]	N/A
Power density (S) @ 0.20 m [W/m ²]	0.911
Power density ratio @ 0.20 m	0.02
Distance for compliance power density (S=SL) [m]	0.027
Compliance	
Verdict	PASS
Comment: --	

LTE FDD12	
Transmission Mode	
Transmission Frequency (f) [MHz]	707.5
Antenna far-field distance	
Maximum antenna diameter (D) [m]	N/A
Transmission wavelength (λ) [m]	N/A
Antenna far-field distance (R_{FF}) [m]	N/A
Source average power	
Peak radiated power (PR) [dBm EIRP]	27.43
Maximum transmission duty cycle (DC)	1.00
Duty cycle correction (DCC) [dB]	0.00
Average radiated power (PRAVG) [dBm EIRP]	27.43
Power density	
Compliance power density limit [W/m ²]	23.583
Power density (S) @ Antenna far-field distance [W/m ²]	N/A
Power density (S) @ 0.20 m [W/m ²]	1.101
Power density ratio @ 0.20 m	0.05
Distance for compliance power density (S=SL) [m]	0.043
Compliance	
Verdict	PASS
Comment: --	

LTE FDD13	
Transmission Mode	
Transmission Frequency (f) [MHz]	782.0
Antenna far-field distance	
Maximum antenna diameter (D) [m]	N/A
Transmission wavelength (λ) [m]	N/A
Antenna far-field distance (R_{FF}) [m]	N/A
Source average power	
Peak radiated power (PR) [dBm EIRP]	26.99
Maximum transmission duty cycle (DC)	1.00
Duty cycle correction (DCC) [dB]	0.00
Average radiated power (PRAVG) [dBm EIRP]	26.99
Power density	
Compliance power density limit [W/m ²]	26.067
Power density (S) @ Antenna far-field distance [W/m ²]	N/A
Power density (S) @ 0.20 m [W/m ²]	0.995
Power density ratio @ 0.20 m	0.04
Distance for compliance power density (S=SL) [m]	0.039
Compliance	
Verdict	PASS
Comment: --	

LTE FDD25	
Transmission Mode	
Transmission Frequency (f) [MHz]	1882.5
Antenna far-field distance	
Maximum antenna diameter (D) [m]	N/A
Transmission wavelength (λ) [m]	N/A
Antenna far-field distance (R_{FF}) [m]	N/A
Source average power	
Peak radiated power (PR) [dBm EIRP]	27.1
Maximum transmission duty cycle (DC)	1.00
Duty cycle correction (DCC) [dB]	0.00
Average radiated power (PRAVG) [dBm EIRP]	27.10
Power density	
Compliance power density limit [W/m ²]	50.000
Power density (S) @ Antenna far-field distance [W/m ²]	N/A
Power density (S) @ 0.20 m [W/m ²]	1.020
Power density ratio @ 0.20 m	0.02
Distance for compliance power density (S=SL) [m]	0.029
Compliance	
Verdict	PASS
Comment: --	

LTE FDD26	
Transmission Mode	
Transmission Frequency (f) [MHz]	831.5
Antenna far-field distance	
Maximum antenna diameter (D) [m]	N/A
Transmission wavelength (λ) [m]	N/A
Antenna far-field distance (R_{FF}) [m]	N/A
Source average power	
Peak radiated power (PR) [dBm EIRP]	27.75
Maximum transmission duty cycle (DC)	1.00
Duty cycle correction (DCC) [dB]	0.00
Average radiated power (PRAVG) [dBm EIRP]	27.75
Power density	
Compliance power density limit [W/m ²]	27.717
Power density (S) @ Antenna far-field distance [W/m ²]	N/A
Power density (S) @ 0.20 m [W/m ²]	1.185
Power density ratio @ 0.20 m	0.04
Distance for compliance power density (S=SL) [m]	0.041
Compliance	
Verdict	PASS
Comment: --	

LTE FDD38	
Transmission Mode	
Transmission Frequency (f) [MHz]	2571
Antenna far-field distance	
Maximum antenna diameter (D) [m]	N/A
Transmission wavelength (λ) [m]	N/A
Antenna far-field distance (R_{FF}) [m]	N/A
Source average power	
Peak radiated power (PR) [dBm EIRP]	26.54
Maximum transmission duty cycle (DC)	1.00
Duty cycle correction (DCC) [dB]	0.00
Average radiated power (PRAVG) [dBm EIRP]	26.54
Power density	
Compliance power density limit [W/m ²]	50.000
Power density (S) @ Antenna far-field distance [W/m ²]	N/A
Power density (S) @ 0.20 m [W/m ²]	0.897
Power density ratio @ 0.20 m	0.02
Distance for compliance power density (S=SL) [m]	0.027
Compliance	
Verdict	PASS
Comment: --	

LTE FDD41	
Transmission Mode	
Transmission Frequency (f) [MHz]	2497
Antenna far-field distance	
Maximum antenna diameter (D) [m]	N/A
Transmission wavelength (λ) [m]	N/A
Antenna far-field distance (R_{FF}) [m]	N/A
Source average power	
Peak radiated power (PR) [dBm EIRP]	26.67
Maximum transmission duty cycle (DC)	1.00
Duty cycle correction (DCC) [dB]	0.00
Average radiated power (PRAVG) [dBm EIRP]	26.67
Power density	
Compliance power density limit [W/m ²]	50.000
Power density (S) @ Antenna far-field distance [W/m ²]	N/A
Power density (S) @ 0.20 m [W/m ²]	0.924
Power density ratio @ 0.20 m	0.02
Distance for compliance power density (S=SL) [m]	0.027
Compliance	
Verdict	PASS
Comment: --	

7 Single Source Evaluation Results - ISED

SRD 915 MHz	
Transmission Mode	
Transmission Frequency (f) [MHz]	902.97
Antenna far-field distance	
Maximum antenna diameter (D) [m]	N/A
Transmission wavelength (λ) [m]	N/A
Antenna far-field distance (R_{FF}) [m]	N/A
Source average power	
Peak radiated power (PR) [dBm EIRP]	14.15
Maximum transmission duty cycle (DC)	1.00
Duty cycle correction (DCC) [dB]	0.00
Average radiated power (PRAVG) [dBm EIRP]	14.15
Power density	
Compliance power density limit [W/m ²]	19.397
Power density (S) @ Antenna far-field distance [W/m ²]	N/A
Power density (S) @ 0.20 m [W/m ²]	0.052
Power density ratio @ 0.20 m	0.00
Distance for compliance power density (S=SL) [m]	0.010
Compliance	
Verdict	PASS
Comment: --	

Bluetooth	
Transmission Mode	
Transmission Frequency (f) [MHz]	2480
Antenna far-field distance	
Maximum antenna diameter (D) [m]	N/A
Transmission wavelength (λ) [m]	N/A
Antenna far-field distance (R_{FF}) [m]	N/A
Source average power	
Peak radiated power (PR) [dBm EIRP]	10.93
Maximum transmission duty cycle (DC)	1.00
Duty cycle correction (DCC) [dB]	0.00
Average radiated power (PRAVG) [dBm EIRP]	10.93
Power density	
Compliance power density limit [W/m ²]	32.146
Power density (S) @ Antenna far-field distance [W/m ²]	N/A
Power density (S) @ 0.20 m [W/m ²]	0.025
Power density ratio @ 0.20 m	0.00
Distance for compliance power density (S=SL) [m]	0.006
Compliance	
Verdict	PASS
Comment: --	

Bluetooth LE	
Transmission Mode	
Transmission Frequency (f) [MHz]	2480
Antenna far-field distance	
Maximum antenna diameter (D) [m]	N/A
Transmission wavelength (λ) [m]	N/A
Antenna far-field distance (R_{FF}) [m]	N/A
Source average power	
Peak radiated power (PR) [dBm EIRP]	12.62
Maximum transmission duty cycle (DC)	1.00
Duty cycle correction (DCC) [dB]	0.00
Average radiated power (PRAVG) [dBm EIRP]	12.62
Power density	
Compliance power density limit [W/m ²]	32.146
Power density (S) @ Antenna far-field distance [W/m ²]	N/A
Power density (S) @ 0.20 m [W/m ²]	0.036
Power density ratio @ 0.20 m	0.00
Distance for compliance power density (S=SL) [m]	0.007
Compliance	
Verdict	PASS
Comment: --	

IEEE 802.11 (2.4 GHz)	
Transmission Mode	
Transmission Frequency (f) [MHz]	2437
Antenna far-field distance	
Maximum antenna diameter (D) [m]	N/A
Transmission wavelength (λ) [m]	N/A
Antenna far-field distance (R_{FF}) [m]	N/A
Source average power	
Peak radiated power (PR) [dBm EIRP]	26.03
Maximum transmission duty cycle (DC)	1.00
Duty cycle correction (DCC) [dB]	0.00
Average radiated power (PRAVG) [dBm EIRP]	26.03
Power density	
Compliance power density limit [W/m ²]	31.866
Power density (S) @ Antenna far-field distance [W/m ²]	N/A
Power density (S) @ 0.20 m [W/m ²]	0.797
Power density ratio @ 0.20 m	0.03
Distance for compliance power density (S=SL) [m]	0.032
Compliance	
Verdict	PASS
Comment: --	

GSM 850	
Transmission Mode	
Transmission Frequency (f) [MHz]	836
Antenna far-field distance	
Maximum antenna diameter (D) [m]	N/A
Transmission wavelength (λ) [m]	N/A
Antenna far-field distance (R_{FF}) [m]	N/A
Source average power	
Peak radiated power (PR) [dBm EIRP]	32.89
Maximum transmission duty cycle (DC)	1.00
Duty cycle correction (DCC) [dB]	0.00
Average radiated power (PRAVG) [dBm EIRP]	32.89
Power density	
Compliance power density limit [W/m ²]	18.664
Power density (S) @ Antenna far-field distance [W/m ²]	N/A
Power density (S) @ 0.20 m [W/m ²]	3.870
Power density ratio @ 0.20 m	0.21
Distance for compliance power density (S=SL) [m]	0.091
Compliance	
Verdict	PASS
Comment: --	

GSM 1900	
Transmission Mode	
Transmission Frequency (f) [MHz]	1880.0
Antenna far-field distance	
Maximum antenna diameter (D) [m]	N/A
Transmission wavelength (λ) [m]	N/A
Antenna far-field distance (R_{FF}) [m]	N/A
Source average power	
Peak radiated power (PR) [dBm EIRP]	31.35
Maximum transmission duty cycle (DC)	1.00
Duty cycle correction (DCC) [dB]	0.00
Average radiated power (PRAVG) [dBm EIRP]	31.35
Power density	
Compliance power density limit [W/m ²]	27.988
Power density (S) @ Antenna far-field distance [W/m ²]	N/A
Power density (S) @ 0.20 m [W/m ²]	2.715
Power density ratio @ 0.20 m	0.10
Distance for compliance power density (S=SL) [m]	0.062
Compliance	
Verdict	PASS
Comment: --	

UMTS FDDII	
Transmission Mode	
Transmission Frequency (f) [MHz]	1880.0
Antenna far-field distance	
Maximum antenna diameter (D) [m]	N/A
Transmission wavelength (λ) [m]	N/A
Antenna far-field distance (R_{FF}) [m]	N/A
Source average power	
Peak radiated power (PR) [dBm EIRP]	27.1
Maximum transmission duty cycle (DC)	1.00
Duty cycle correction (DCC) [dB]	0.00
Average radiated power (PRAVG) [dBm EIRP]	27.10
Power density	
Compliance power density limit [W/m ²]	27.988
Power density (S) @ Antenna far-field distance [W/m ²]	N/A
Power density (S) @ 0.20 m [W/m ²]	1.020
Power density ratio @ 0.20 m	0.04
Distance for compliance power density (S=SL) [m]	0.038
Compliance	
Verdict	PASS
Comment: --	

UMTS FDDIV	
Transmission Mode	
Transmission Frequency (f) [MHz]	1732.5
Antenna far-field distance	
Maximum antenna diameter (D) [m]	N/A
Transmission wavelength (λ) [m]	N/A
Antenna far-field distance (R_{FF}) [m]	N/A
Source average power	
Peak radiated power (PR) [dBm EIRP]	26.44
Maximum transmission duty cycle (DC)	1.00
Duty cycle correction (DCC) [dB]	0.00
Average radiated power (PRAVG) [dBm EIRP]	26.44
Power density	
Compliance power density limit [W/m ²]	26.868
Power density (S) @ Antenna far-field distance [W/m ²]	N/A
Power density (S) @ 0.20 m [W/m ²]	0.876
Power density ratio @ 0.20 m	0.03
Distance for compliance power density (S=SL) [m]	0.036
Compliance	
Verdict	PASS
Comment: --	

UMTS FDDV	
Transmission Mode	
Transmission Frequency (f) [MHz]	836.5
Antenna far-field distance	
Maximum antenna diameter (D) [m]	N/A
Transmission wavelength (λ) [m]	N/A
Antenna far-field distance (R_{FF}) [m]	N/A
Source average power	
Peak radiated power (PR) [dBm EIRP]	27.75
Maximum transmission duty cycle (DC)	1.00
Duty cycle correction (DCC) [dB]	0.00
Average radiated power (PRAVG) [dBm EIRP]	27.75
Power density	
Compliance power density limit [W/m ²]	18.669
Power density (S) @ Antenna far-field distance [W/m ²]	N/A
Power density (S) @ 0.20 m [W/m ²]	1.185
Power density ratio @ 0.20 m	0.06
Distance for compliance power density (S=SL) [m]	0.050
Compliance	
Verdict	PASS
Comment: --	

LTE FDD2	
Transmission Mode	
Transmission Frequency (f) [MHz]	1880.0
Antenna far-field distance	
Maximum antenna diameter (D) [m]	N/A
Transmission wavelength (λ) [m]	N/A
Antenna far-field distance (R_{FF}) [m]	N/A
Source average power	
Peak radiated power (PR) [dBm EIRP]	27.1
Maximum transmission duty cycle (DC)	1.00
Duty cycle correction (DCC) [dB]	0.00
Average radiated power (PRAVG) [dBm EIRP]	27.10
Power density	
Compliance power density limit [W/m ²]	27.988
Power density (S) @ Antenna far-field distance [W/m ²]	N/A
Power density (S) @ 0.20 m [W/m ²]	1.020
Power density ratio @ 0.20 m	0.04
Distance for compliance power density (S=SL) [m]	0.038
Compliance	
Verdict	PASS
Comment: --	

LTE FDD4	
Transmission Mode	
Transmission Frequency (f) [MHz]	1732.5
Antenna far-field distance	
Maximum antenna diameter (D) [m]	N/A
Transmission wavelength (λ) [m]	N/A
Antenna far-field distance (R_{FF}) [m]	N/A
Source average power	
Peak radiated power (PR) [dBm EIRP]	26.44
Maximum transmission duty cycle (DC)	1.00
Duty cycle correction (DCC) [dB]	0.00
Average radiated power (PRAVG) [dBm EIRP]	26.44
Power density	
Compliance power density limit [W/m ²]	26.868
Power density (S) @ Antenna far-field distance [W/m ²]	N/A
Power density (S) @ 0.20 m [W/m ²]	0.876
Power density ratio @ 0.20 m	0.03
Distance for compliance power density (S=SL) [m]	0.036
Compliance	
Verdict	PASS
Comment: --	

LTE FDD5	
Transmission Mode	
Transmission Frequency (f) [MHz]	836.5
Antenna far-field distance	
Maximum antenna diameter (D) [m]	N/A
Transmission wavelength (λ) [m]	N/A
Antenna far-field distance (R_{FF}) [m]	N/A
Source average power	
Peak radiated power (PR) [dBm EIRP]	27.75
Maximum transmission duty cycle (DC)	1.00
Duty cycle correction (DCC) [dB]	0.00
Average radiated power (PRAVG) [dBm EIRP]	27.75
Power density	
Compliance power density limit [W/m ²]	18.669
Power density (S) @ Antenna far-field distance [W/m ²]	N/A
Power density (S) @ 0.20 m [W/m ²]	1.185
Power density ratio @ 0.20 m	0.06
Distance for compliance power density (S=SL) [m]	0.050
Compliance	
Verdict	PASS
Comment: --	

LTE FDD7	
Transmission Mode	
Transmission Frequency (f) [MHz]	2535.0
Antenna far-field distance	
Maximum antenna diameter (D) [m]	N/A
Transmission wavelength (λ) [m]	N/A
Antenna far-field distance (R_{FF}) [m]	N/A
Source average power	
Peak radiated power (PR) [dBm EIRP]	26.61
Maximum transmission duty cycle (DC)	1.00
Duty cycle correction (DCC) [dB]	0.00
Average radiated power (PRAVG) [dBm EIRP]	26.61
Power density	
Compliance power density limit [W/m ²]	32.500
Power density (S) @ Antenna far-field distance [W/m ²]	N/A
Power density (S) @ 0.20 m [W/m ²]	0.911
Power density ratio @ 0.20 m	0.03
Distance for compliance power density (S=SL) [m]	0.033
Compliance	
Verdict	PASS
Comment: --	

LTE FDD12	
Transmission Mode	
Transmission Frequency (f) [MHz]	707.5
Antenna far-field distance	
Maximum antenna diameter (D) [m]	N/A
Transmission wavelength (λ) [m]	N/A
Antenna far-field distance (R_{FF}) [m]	N/A
Source average power	
Peak radiated power (PR) [dBm EIRP]	27.43
Maximum transmission duty cycle (DC)	1.00
Duty cycle correction (DCC) [dB]	0.00
Average radiated power (PRAVG) [dBm EIRP]	27.43
Power density	
Compliance power density limit [W/m ²]	17.170
Power density (S) @ Antenna far-field distance [W/m ²]	N/A
Power density (S) @ 0.20 m [W/m ²]	1.101
Power density ratio @ 0.20 m	0.06
Distance for compliance power density (S=SL) [m]	0.051
Compliance	
Verdict	PASS
Comment: --	

LTE FDD13	
Transmission Mode	
Transmission Frequency (f) [MHz]	782.0
Antenna far-field distance	
Maximum antenna diameter (D) [m]	N/A
Transmission wavelength (λ) [m]	N/A
Antenna far-field distance (R_{FF}) [m]	N/A
Source average power	
Peak radiated power (PR) [dBm EIRP]	26.99
Maximum transmission duty cycle (DC)	1.00
Duty cycle correction (DCC) [dB]	0.00
Average radiated power (PRAVG) [dBm EIRP]	26.99
Power density	
Compliance power density limit [W/m ²]	18.051
Power density (S) @ Antenna far-field distance [W/m ²]	N/A
Power density (S) @ 0.20 m [W/m ²]	0.995
Power density ratio @ 0.20 m	0.06
Distance for compliance power density (S=SL) [m]	0.047
Compliance	
Verdict	PASS
Comment: --	

LTE FDD25	
Transmission Mode	
Transmission Frequency (f) [MHz]	1882.5
Antenna far-field distance	
Maximum antenna diameter (D) [m]	N/A
Transmission wavelength (λ) [m]	N/A
Antenna far-field distance (R_{FF}) [m]	N/A
Source average power	
Peak radiated power (PR) [dBm EIRP]	27.1
Maximum transmission duty cycle (DC)	1.00
Duty cycle correction (DCC) [dB]	0.00
Average radiated power (PRAVG) [dBm EIRP]	27.10
Power density	
Compliance power density limit [W/m ²]	28.007
Power density (S) @ Antenna far-field distance [W/m ²]	N/A
Power density (S) @ 0.20 m [W/m ²]	1.020
Power density ratio @ 0.20 m	0.04
Distance for compliance power density (S=SL) [m]	0.038
Compliance	
Verdict	PASS
Comment: --	

LTE FDD26	
Transmission Mode	
Transmission Frequency (f) [MHz]	831.5
Antenna far-field distance	
Maximum antenna diameter (D) [m]	N/A
Transmission wavelength (λ) [m]	N/A
Antenna far-field distance (R_{FF}) [m]	N/A
Source average power	
Peak radiated power (PR) [dBm EIRP]	27.75
Maximum transmission duty cycle (DC)	1.00
Duty cycle correction (DCC) [dB]	0.00
Average radiated power (PRAVG) [dBm EIRP]	27.75
Power density	
Compliance power density limit [W/m ²]	18.613
Power density (S) @ Antenna far-field distance [W/m ²]	N/A
Power density (S) @ 0.20 m [W/m ²]	1.185
Power density ratio @ 0.20 m	0.06
Distance for compliance power density (S=SL) [m]	0.050
Compliance	
Verdict	PASS
Comment: --	

LTE FDD38	
Transmission Mode	
Transmission Frequency (f) [MHz]	2571
Antenna far-field distance	
Maximum antenna diameter (D) [m]	N/A
Transmission wavelength (λ) [m]	N/A
Antenna far-field distance (R_{FF}) [m]	N/A
Source average power	
Peak radiated power (PR) [dBm EIRP]	26.54
Maximum transmission duty cycle (DC)	1.00
Duty cycle correction (DCC) [dB]	0.00
Average radiated power (PRAVG) [dBm EIRP]	26.54
Power density	
Compliance power density limit [W/m ²]	32.730
Power density (S) @ Antenna far-field distance [W/m ²]	N/A
Power density (S) @ 0.20 m [W/m ²]	0.897
Power density ratio @ 0.20 m	0.03
Distance for compliance power density (S=SL) [m]	0.033
Compliance	
Verdict	PASS
Comment: --	

LTE FDD41	
Transmission Mode	
Transmission Frequency (f) [MHz]	2497
Antenna far-field distance	
Maximum antenna diameter (D) [m]	N/A
Transmission wavelength (λ) [m]	N/A
Antenna far-field distance (R_{FF}) [m]	N/A
Source average power	
Peak radiated power (PR) [dBm EIRP]	26.67
Maximum transmission duty cycle (DC)	1.00
Duty cycle correction (DCC) [dB]	0.00
Average radiated power (PRAVG) [dBm EIRP]	26.67
Power density	
Compliance power density limit [W/m ²]	32.256
Power density (S) @ Antenna far-field distance [W/m ²]	N/A
Power density (S) @ 0.20 m [W/m ²]	0.924
Power density ratio @ 0.20 m	0.03
Distance for compliance power density (S=SL) [m]	0.034
Compliance	
Verdict	PASS
Comment: --	

8 Concurrent Evaluation Results - FCC

SRD 915 MHz + Bluetooth + IEEE 802.11 (2.4 GHz) + GSM 850	
Information	
Number of concurrent modes	4
Evaluation distance [m]	0.20
Maximum MPE Ratios	
SRD 915 MHz	0.00
Bluetooth	0.00
IEEE 802.11 (2.4 GHz)	0.02
GSM 850	0.14
Sum of MPE Ratios	
Sum	0.16
Compliance	
Verdict	PASS

SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + GSM 1900	
Information	
Number of concurrent modes	4
Evaluation distance [m]	0.20
Maximum MPE Ratios	
SRD 915 MHz	0.00
Bluetooth LE	0.00
IEEE 802.11 (2.4 GHz)	0.02
GSM 1900	0.05
Sum of MPE Ratios	
Sum	0.07
Compliance	
Verdict	PASS

SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + UMTS FDDII	
Information	
Number of concurrent modes	4
Evaluation distance [m]	0.20
Maximum MPE Ratios	
SRD 915 MHz	0.00
Bluetooth LE	0.00
IEEE 802.11 (2.4 GHz)	0.02
UMTS FDDII	0.02
Sum of MPE Ratios	
Sum	0.04
Compliance	
Verdict	PASS

SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + UMTS FDDIV	
Information	
Number of concurrent modes	4
Evaluation distance [m]	0.20
Maximum MPE Ratios	
SRD 915 MHz	0.00
Bluetooth LE	0.00
IEEE 802.11 (2.4 GHz)	0.02
UMTS FDDIV	0.02
Sum of MPE Ratios	
Sum	0.04
Compliance	
Verdict	PASS

SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + UMTS FDDV	
Information	
Number of concurrent modes	4
Evaluation distance [m]	0.20
Maximum MPE Ratios	
SRD 915 MHz	0.00
Bluetooth LE	0.00
IEEE 802.11 (2.4 GHz)	0.02
UMTS FDDV	0.04
Sum of MPE Ratios	
Sum	0.06
Compliance	
Verdict	PASS

SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD2	
Information	
Number of concurrent modes	4
Evaluation distance [m]	0.20
Maximum MPE Ratios	
SRD 915 MHz	0.00
Bluetooth LE	0.00
IEEE 802.11 (2.4 GHz)	0.02
LTE FDD2	0.02
Sum of MPE Ratios	
Sum	0.04
Compliance	
Verdict	PASS

SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD4	
Information	
Number of concurrent modes	4
Evaluation distance [m]	0.20
Maximum MPE Ratios	
SRD 915 MHz	0.00
Bluetooth LE	0.00
IEEE 802.11 (2.4 GHz)	0.02
LTE FDD4	0.02
Sum of MPE Ratios	
Sum	0.04
Compliance	
Verdict	PASS

SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD5	
Information	
Number of concurrent modes	4
Evaluation distance [m]	0.20
Maximum MPE Ratios	
SRD 915 MHz	0.00
Bluetooth LE	0.00
IEEE 802.11 (2.4 GHz)	0.02
LTE FDD5	0.04
Sum of MPE Ratios	
Sum	0.06
Compliance	
Verdict	PASS

SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD7	
Information	
Number of concurrent modes	4
Evaluation distance [m]	0.20
Maximum MPE Ratios	
SRD 915 MHz	0.00
Bluetooth LE	0.00
IEEE 802.11 (2.4 GHz)	0.02
LTE FDD7	0.02
Sum of MPE Ratios	
Sum	0.04
Compliance	
Verdict	PASS

SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD12	
Information	
Number of concurrent modes	4
Evaluation distance [m]	0.20
Maximum MPE Ratios	
SRD 915 MHz	0.00
Bluetooth LE	0.00
IEEE 802.11 (2.4 GHz)	0.02
LTE FDD12	0.05
Sum of MPE Ratios	
Sum	0.07
Compliance	
Verdict	PASS

SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD13	
Information	
Number of concurrent modes	4
Evaluation distance [m]	0.20
Maximum MPE Ratios	
SRD 915 MHz	0.00
Bluetooth LE	0.00
IEEE 802.11 (2.4 GHz)	0.02
LTE FDD13	0.04
Sum of MPE Ratios	
Sum	0.06
Compliance	
Verdict	PASS

SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD25	
Information	
Number of concurrent modes	4
Evaluation distance [m]	0.20
Maximum MPE Ratios	
SRD 915 MHz	0.00
Bluetooth LE	0.00
IEEE 802.11 (2.4 GHz)	0.02
LTE FDD25	0.02
Sum of MPE Ratios	
Sum	0.04
Compliance	
Verdict	PASS

SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD26	
Information	
Number of concurrent modes	4
Evaluation distance [m]	0.20
Maximum MPE Ratios	
SRD 915 MHz	0.00
Bluetooth LE	0.00
IEEE 802.11 (2.4 GHz)	0.02
LTE FDD26	0.04
Sum of MPE Ratios	
Sum	0.06
Compliance	
Verdict	PASS

SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD38	
Information	
Number of concurrent modes	4
Evaluation distance [m]	0.20
Maximum MPE Ratios	
SRD 915 MHz	0.00
Bluetooth LE	0.00
IEEE 802.11 (2.4 GHz)	0.02
LTE FDD38	0.02
Sum of MPE Ratios	
Sum	0.04
Compliance	
Verdict	PASS

SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD41	
Information	
Number of concurrent modes	4
Evaluation distance [m]	0.20
Maximum MPE Ratios	
SRD 915 MHz	0.00
Bluetooth LE	0.00
IEEE 802.11 (2.4 GHz)	0.02
LTE FDD41	0.02
Sum of MPE Ratios	
Sum	0.04
Compliance	
Verdict	PASS

9 Concurrent Evaluation Results - ISED

SRD 915 MHz + Bluetooth + IEEE 802.11 (2.4 GHz) + GSM 850	
Information	
Number of concurrent modes	4
Evaluation distance [m]	0.20
Maximum MPE Ratios	
SRD 915 MHz	0.00
Bluetooth	0.00
IEEE 802.11 (2.4 GHz)	0.03
GSM 850	0.21
Sum of MPE Ratios	
Sum	0.24
Compliance	
Verdict	PASS

SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + GSM 1900	
Information	
Number of concurrent modes	4
Evaluation distance [m]	0.20
Maximum MPE Ratios	
SRD 915 MHz	0.00
Bluetooth LE	0.00
IEEE 802.11 (2.4 GHz)	0.03
GSM 1900	0.10
Sum of MPE Ratios	
Sum	0.13
Compliance	
Verdict	PASS

SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + UMTS FDDII	
Information	
Number of concurrent modes	4
Evaluation distance [m]	0.20
Maximum MPE Ratios	
SRD 915 MHz	0.00
Bluetooth LE	0.00
IEEE 802.11 (2.4 GHz)	0.03
UMTS FDDII	0.04
Sum of MPE Ratios	
Sum	0.07
Compliance	
Verdict	PASS

SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + UMTS FDDIV	
Information	
Number of concurrent modes	4
Evaluation distance [m]	0.20
Maximum MPE Ratios	
SRD 915 MHz	0.00
Bluetooth LE	0.00
IEEE 802.11 (2.4 GHz)	0.03
UMTS FDDIV	0.03
Sum of MPE Ratios	
Sum	0.06
Compliance	
Verdict	PASS

SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + UMTS FDDV	
Information	
Number of concurrent modes	4
Evaluation distance [m]	0.20
Maximum MPE Ratios	
SRD 915 MHz	0.00
Bluetooth LE	0.00
IEEE 802.11 (2.4 GHz)	0.03
UMTS FDDV	0.06
Sum of MPE Ratios	
Sum	0.09
Compliance	
Verdict	PASS

SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD2	
Information	
Number of concurrent modes	4
Evaluation distance [m]	0.20
Maximum MPE Ratios	
SRD 915 MHz	0.00
Bluetooth LE	0.00
IEEE 802.11 (2.4 GHz)	0.03
LTE FDD2	0.04
Sum of MPE Ratios	
Sum	0.07
Compliance	
Verdict	PASS

SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD4	
Information	
Number of concurrent modes	4
Evaluation distance [m]	0.20
Maximum MPE Ratios	
SRD 915 MHz	0.00
Bluetooth LE	0.00
IEEE 802.11 (2.4 GHz)	0.03
LTE FDD4	0.03
Sum of MPE Ratios	
Sum	0.06
Compliance	
Verdict	PASS

SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD5	
Information	
Number of concurrent modes	4
Evaluation distance [m]	0.20
Maximum MPE Ratios	
SRD 915 MHz	0.00
Bluetooth LE	0.00
IEEE 802.11 (2.4 GHz)	0.03
LTE FDD5	0.06
Sum of MPE Ratios	
Sum	0.09
Compliance	
Verdict	PASS

SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD7	
Information	
Number of concurrent modes	4
Evaluation distance [m]	0.20
Maximum MPE Ratios	
SRD 915 MHz	0.00
Bluetooth LE	0.00
IEEE 802.11 (2.4 GHz)	0.03
LTE FDD7	0.03
Sum of MPE Ratios	
Sum	0.06
Compliance	
Verdict	PASS

SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD12	
Information	
Number of concurrent modes	4
Evaluation distance [m]	0.20
Maximum MPE Ratios	
SRD 915 MHz	0.00
Bluetooth LE	0.00
IEEE 802.11 (2.4 GHz)	0.03
LTE FDD12	0.06
Sum of MPE Ratios	
Sum	0.09
Compliance	
Verdict	PASS

SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD13	
Information	
Number of concurrent modes	4
Evaluation distance [m]	0.20
Maximum MPE Ratios	
SRD 915 MHz	0.00
Bluetooth LE	0.00
IEEE 802.11 (2.4 GHz)	0.03
LTE FDD13	0.06
Sum of MPE Ratios	
Sum	0.09
Compliance	
Verdict	PASS

SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD25	
Information	
Number of concurrent modes	4
Evaluation distance [m]	0.20
Maximum MPE Ratios	
SRD 915 MHz	0.00
Bluetooth LE	0.00
IEEE 802.11 (2.4 GHz)	0.03
LTE FDD25	0.04
Sum of MPE Ratios	
Sum	0.07
Compliance	
Verdict	PASS

SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD26	
Information	
Number of concurrent modes	4
Evaluation distance [m]	0.20
Maximum MPE Ratios	
SRD 915 MHz	0.00
Bluetooth LE	0.00
IEEE 802.11 (2.4 GHz)	0.03
LTE FDD26	0.06
Sum of MPE Ratios	
Sum	0.09
Compliance	
Verdict	PASS

SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD38	
Information	
Number of concurrent modes	4
Evaluation distance [m]	0.20
Maximum MPE Ratios	
SRD 915 MHz	0.00
Bluetooth LE	0.00
IEEE 802.11 (2.4 GHz)	0.03
LTE FDD38	0.03
Sum of MPE Ratios	
Sum	0.06
Compliance	
Verdict	PASS

SRD 915 MHz + Bluetooth LE + IEEE 802.11 (2.4 GHz) + LTE FDD41	
Information	
Number of concurrent modes	4
Evaluation distance [m]	0.20
Maximum MPE Ratios	
SRD 915 MHz	0.00
Bluetooth LE	0.00
IEEE 802.11 (2.4 GHz)	0.03
LTE FDD41	0.03
Sum of MPE Ratios	
Sum	0.06
Compliance	
Verdict	PASS

=== End of test report ===