4.6 Unwanted emissions into restricted frequency bands
[Unerwünschte Aussendungen in eingeschränkten Frequenzbändern]

4.6.1 Radiated emission measurements < 30 MHz [gestrahlte Aussendungsmessungen < 30 MHz]

Test base [Prüfgrundlage]	**Requirements acc. to customer's specifications / test plan** [Anforderungen nach Lastenheft / Prüfplan des Auftraggebers]
	47 CFR Ch. I (10-1-12 Edition), FCC Part 15 Subpart C, §15.209
	ANSI C63.10-2009

Requirements / limits [Anforderung / Grenzwert]	47 CFR Ch. I (10-1-12 Edition), FCC Part 15 Subpart C, §15.209

Version of EUT [Prüflingsversion]	Test using the device without temporary antenna connector (DUT2). [Prüfung unter Verwendung des Gerätes ohne vorübergehenden Antennenanschluss (DUT2).]

Test conditions / test set-up [Prüfbedingungen / Prüfaufbau]	Test facility [Messeinrichtung]	FAR
	Frequency range [Frequenzbereich]	9 kHz – 30 MHz
	Measurement distance [Messentfernung]	3 m
	Polarisation of antenna [Antennenpolarisation]	crosswise / lengthwise [quer / längs zur Messachse]
	Turntable movement [Drehscheibenbewegung]	0 – 360°
	Application as [Betrieb als]	Tabletop device [Tischgerät]
	Remarks [Bemerkungen]: - Pre-test in fully anechoic chamber in a distance of 3 m [Vormessung im Voll-Absorberraum mit einem Messabstand von 3 m]	
		
	Figure 16:	Measurement of unwanted emissions [Messung von unerwünschten Aussendungen]

Operating modes
[Betriebsarten]
	- Continuous transmitting, settings of transceiver:
	[kontinuierliches Senden, Einstellungen des Transceivers:]
	  - Modulation/Rate [Modulation/Datenrate]: OQPSK250, OQPSK2000
	  - Channel [Kanal]: 11
	  - TX Pout [Sendeausgangsleistung]: MAX
	  - Test selection [Testauswahl]: CW, w/ modulation (100 % duty cycle)

Performance of test [Prüfdurchführung]	- Max-hold evaluation of measurement values due to variation of turntable direction and antenna polarisation [Bestimmung der maximalen Messwerte durch Variation der Drehscheibenausrichtung und der Antennenpolarisation]
	- Test at mains power supply via external power supply [Prüfung bei Versorgungsspannung über externe Spannungsversorgung]

Test Results: Electrical Field Strength

Common Information

SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	04.12.2012
Test name:	1314-12-EE 076
Test result:	Passed

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK250, Ch. 11, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: ESCS30 Inv.0624-02 00000-00030MHz HFHZ-Z2 Inv.1610 Lab06 E-field extrapol auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	80 Hz	QPK	200 Hz	1 s	0 dB
150 kHz - 30 MHz	4 kHz	QPK	9 kHz	1 s	0 dB

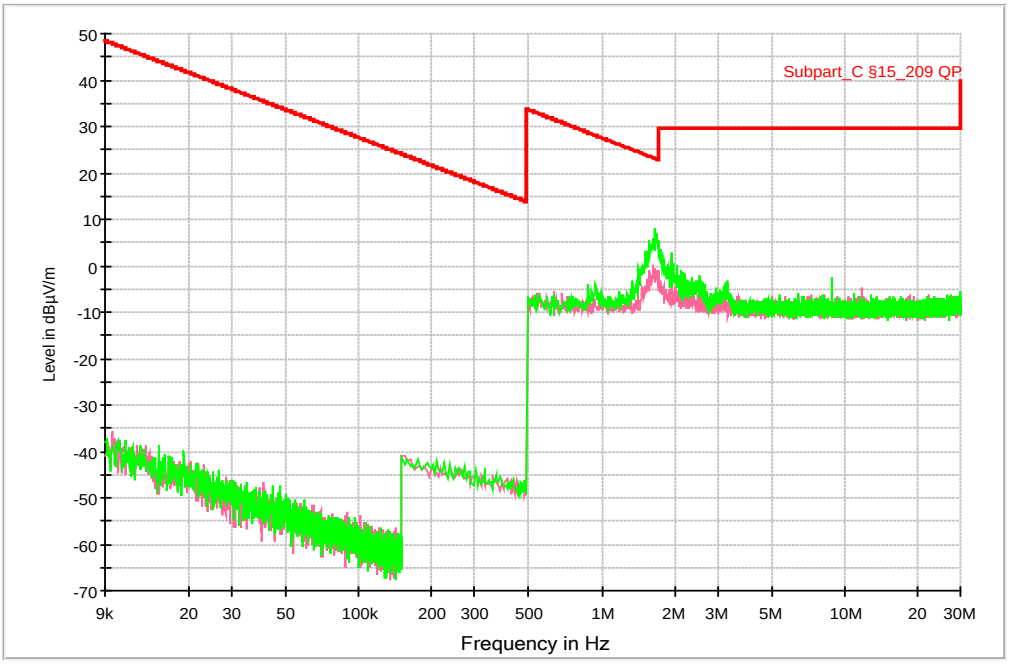


Diagram 45:	Measurement of unwanted emissions at 3 m distance; 9 kHz – 30 MHz; transmitter operating in OQPSK250 mode [Messung von unerwünschten Aussendungen in 3 m Entfernung; 9 kHz – 30 MHz; Transmitter sendet im OQPSK250-Modus]
Evaluation [Bewertung]	Measuring values below the limits [Messwerte unterhalb der Grenzwerte]
Remark [Bemerkung]	The measurement values at actual test distance are extrapolated to 30/300 m measuring distance with the factor of 40 dB / decade acc. to §15.31 (f)(2). The extrapolation factor is already included in the transducer of the measurement instrument. [Die Messwerte bei angewendeter Prüfentfernung sind extrapoliert zu 30/300 m Messentfernung mit dem Faktor von 40 dB / Dekade nach §15.31 (f)(2). Der Extrapolationsfaktor ist bereits bei der Messung im Transducer des Messgerätes enthalten.]

Test Results: Electrical Field Strength

Common Information

SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	04.12.2012
Test name:	1314-12-EE 077
Test result:	Passed

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK2000, Ch. 11, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: ESCS30 Inv.0624-02 00000-00030MHz HFHZ-Z2 Inv.1610 Lab06 E-field extrapol auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
9 kHz - 150 kHz	80 Hz	QPK	200 Hz	1 s	0 dB
150 kHz - 30 MHz	4 kHz	QPK	9 kHz	1 s	0 dB

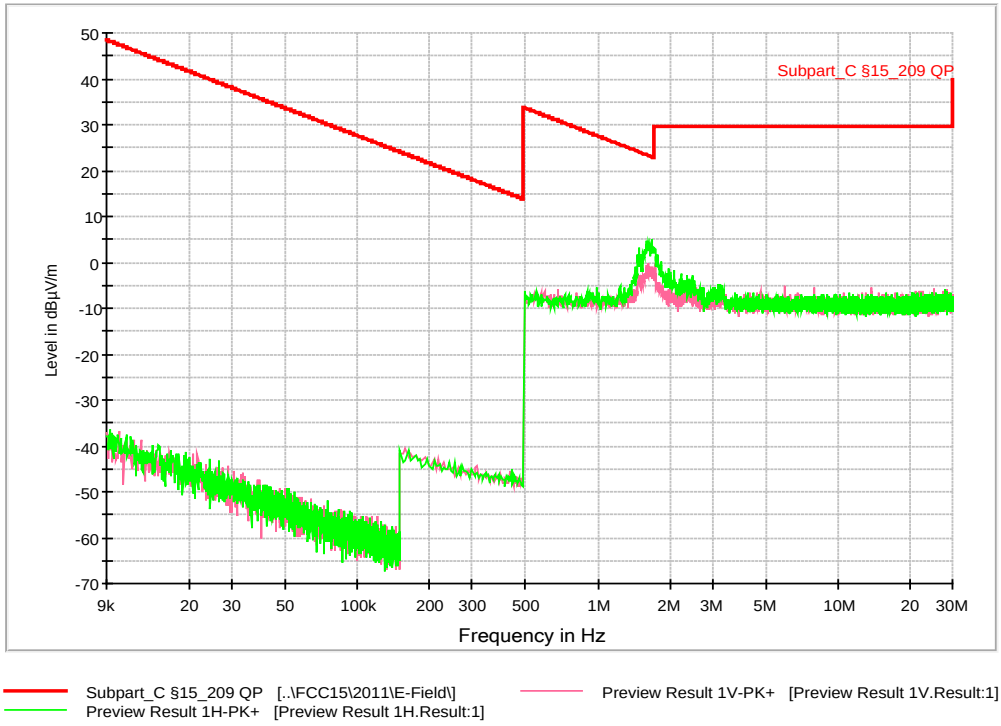


Diagram 46:	Measurement of unwanted emissions at 3 m distance; 9 kHz – 30 MHz; transmitter operating in OQPSK2000 mode [Messung von unerwünschten Aussendungen in 3 m Entfernung; 9 kHz – 30 MHz; Transmitter sendet im OQPSK2000-Modus]
Evaluation [Bewertung]	Measuring values below the limits [Messwerte unterhalb der Grenzwerte]
Remark [Bemerkung]	The measurement values at actual test distance are extrapolated to 30/300 m measuring distance with the factor of 40 dB / decade acc. to §15.31 (f)(2). The extrapolation factor is already included in the transducer of the measurement instrument. [Die Messwerte bei angewendeter Prüfentfernung sind extrapoliert zu 30/300 m Messentfernung mit dem Faktor von 40 dB / Dekade nach §15.31 (f)(2). Der Extrapolationsfaktor ist bereits bei der Messung im Transducer des Messgerätes enthalten.]

Test result [Prüfresultat]	Passed [bestanden]

4.6.2 Radiated emission measurements > 30 MHz and < 1 GHz
[gestrahlte Aussendungsmessungen > 30 MHz und < 1 GHz]

Test base [Prüfgrundlage]	**Requirements acc. to customer's specifications / test plan** [Anforderungen nach Lastenheft / Prüfplan des Auftraggebers]
	47 CFR Ch. I (10-1-11 Edition), FCC Part 15 Subpart C, §15.209
	ANSI C63.10-2009

Requirements / limits [Anforderung / Grenzwert]	47 CFR Ch. I (10-1-11 Edition), FCC Part 15 Subpart C, §15.209

Version of EUT [Prüflingsversion]	Test using the device without temporary antenna connector (DUT2). [Prüfung unter Verwendung des Gerätes ohne vorübergehenden Antennenanschluss (DUT2).]

Test conditions / test set-up [Prüfbedingungen / Prüfaufbau]	Test facility [Messeinrichtung]	SAC
	Frequency range [Frequenzbereich]	30 MHz – 1 GHz
	Measurement distance [Messentfernung]	3 m
	Height of antenna [Antennenhöhe]	1 m – 4 m
	Polarisation of antenna [Antennenpolarisation]	horizontal / vertical [horizontal / vertikal]
	Turntable movement [Drehscheibenbewegung]	± 180°
	Application as [Betrieb als]	Tabletop device [Tischgerät]
		
	Figure 17: Measurement of unwanted emissions [Messung von unerwünschten Aussendungen]	

Operating modes
[Betriebsarten]
	- Continuous transmitting, settings of transceiver:
	[kontinuierliches Senden, Einstellungen des Transceivers:]
	  - Modulation/Rate [Modulation/Datenrate]: OQPSK250, OQPSK2000
	  - Channel [Kanal]: 11, 18, 26
	  - TX Pout [Sendeausgangsleistung]: MAX
	  - Test selection [Testauswahl]: CW, w/ modulation (100 % duty cycle)

Performance of test [Prüfdurchführung]	- Max-hold evaluation of measurement values due to variation of turntable direction, antenna height and antenna polarisation [Bestimmung der maximalen Messwerte durch Variation der Drehscheibenausrichtung, der Antennenhöhe und der Antennenpolarisation]
	- Test at mains power supply via external power supply [Prüfung bei Versorgungsspannung über externe Spannungsversorgung]

Test Results: Electrical Field Strength

Common Information

SLG Test Site:	Lab 01
Operator:	Puder, D.
Date:	22.11.2012
Test name:	1314-12-EE 007
Test result:	Passed

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK250, Ch. 11, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: ESU26 Inv.1678 (1) 00030-01000MHz CBL6112B Inv.0628 03m Auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	40 kHz	QPK	120 kHz	1 s	30 dB

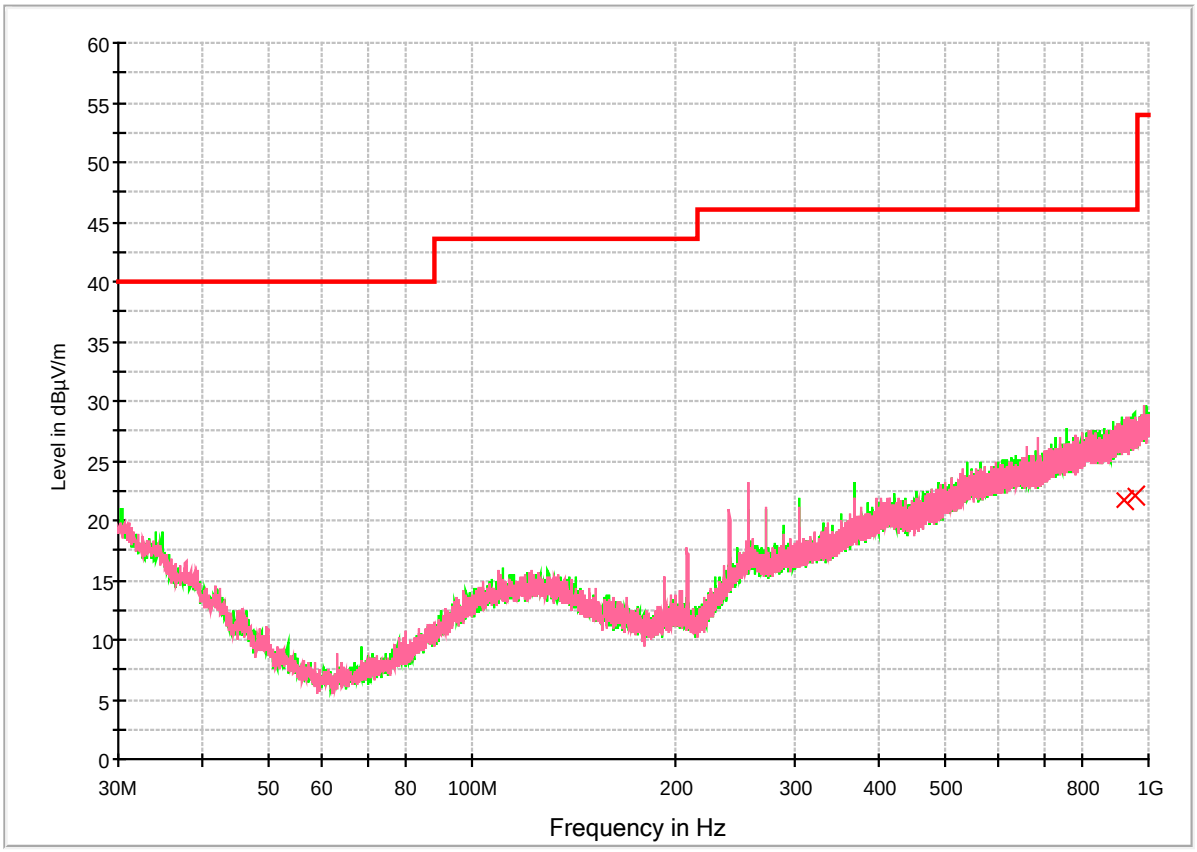


Diagram 47:	Measurement of unwanted emissions at 3 m distance; 30 MHz – 1 GHz; transmitter operating in OQPSK250 mode at channel 11 [Messung von unerwünschten Aussendungen in 3 m Entfernung; 30 MHz – 1 GHz; Transmitter sendet im OQPSK250-Modus auf Kanal 11]
Evaluation [Bewertung]	Measuring values below the limits [Messwerte unterhalb der Grenzwerte]

Test Results: Electrical Field Strength

Common Information

SLG Test Site:	Lab 01
Operator:	Puder, D.
Date:	22.11.2012
Test name:	1314-12-EE 007
Test result:	Passed

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK250, Ch. 11, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: ESU26 Inv.1678 (1) 00030-01000MHz CBL6112B Inv.0628 03m Auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	40 kHz	QPK	120 kHz	1 s	30 dB

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
923.790000	21.7	201.0	V	-90.0	24.6	24.4	46.0
952.800000	22.0	201.0	H	133.0	24.8	24.0	46.0

Table 8:	Measurement of unwanted emissions at 3 m distance; 30 MHz – 1 GHz; transmitter operating in OQPSK250 mode at channel 11 [Messung von unerwünschten Aussendungen in 3 m Entfernung; 30 MHz – 1 GHz; Transmitter sendet im OQPSK250-Modus auf Kanal 11]
Evaluation [Bewertung]	Measuring values below the limits [Messwerte unterhalb der Grenzwerte]

Test Results: Electrical Field Strength

Common Information

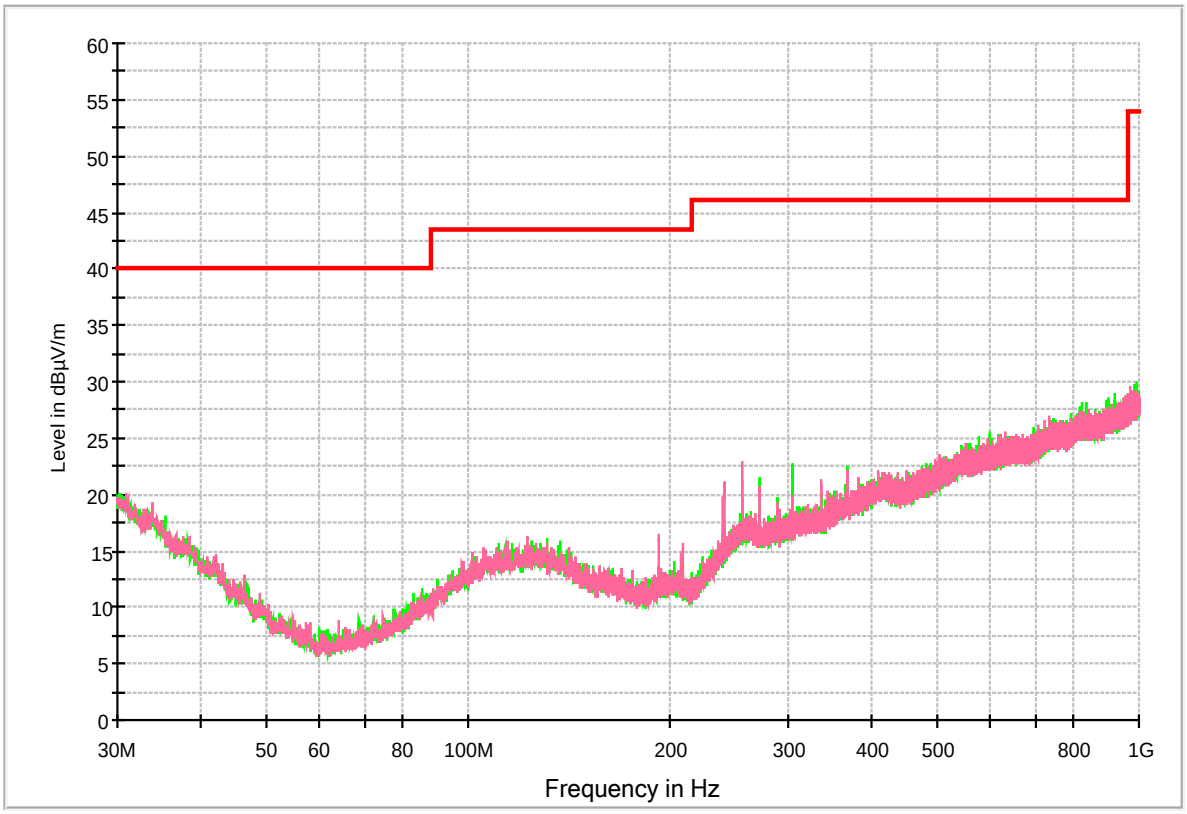
SLG Test Site:	Lab 01
Operator:	Puder, D.
Date:	22.11.2012
Test name:	1314-12-EE 008
Test result:	Passed

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK250, Ch. 18, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: ESU26 Inv.1678 (1) 00030-01000MHz CBL6112B Inv.0628 03m Auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	40 kHz	QPK	120 kHz	1 s	30 dB



Cl.B 03m QP [..\FCC15\2009\E-Field\]
Preview Result 1H-PK+ [Preview Result 1H.Result:1]
Preview Result 1V-PK+ [Preview Result 1V.Result:1]
Data Reduction Result 1 [1]-PK+ [Data Reduction Result 1 [1].Result:1]

Diagram 48:	Measurement of unwanted emissions at 3 m distance; 30 MHz – 1 GHz; transmitter operating in OQPSK250 mode at channel 18 [Messung von unerwünschten Aussendungen in 3 m Entfernung; 30 MHz – 1 GHz; Transmitter sendet im OQPSK250-Modus auf Kanal 18]
Evaluation [Bewertung]	Measuring values below the limits [Messwerte unterhalb der Grenzwerte]

Test Results: Electrical Field Strength

Common Information

SLG Test Site:	Lab 01
Operator:	Puder, D.
Date:	22.11.2012
Test name:	1314-12-EE 009
Test result:	Passed

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK250, Ch. 26, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: ESU26 Inv.1678 (1) 00030-01000MHz CBL6112B Inv.0628 03m Auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	40 kHz	QPK	120 kHz	1 s	30 dB

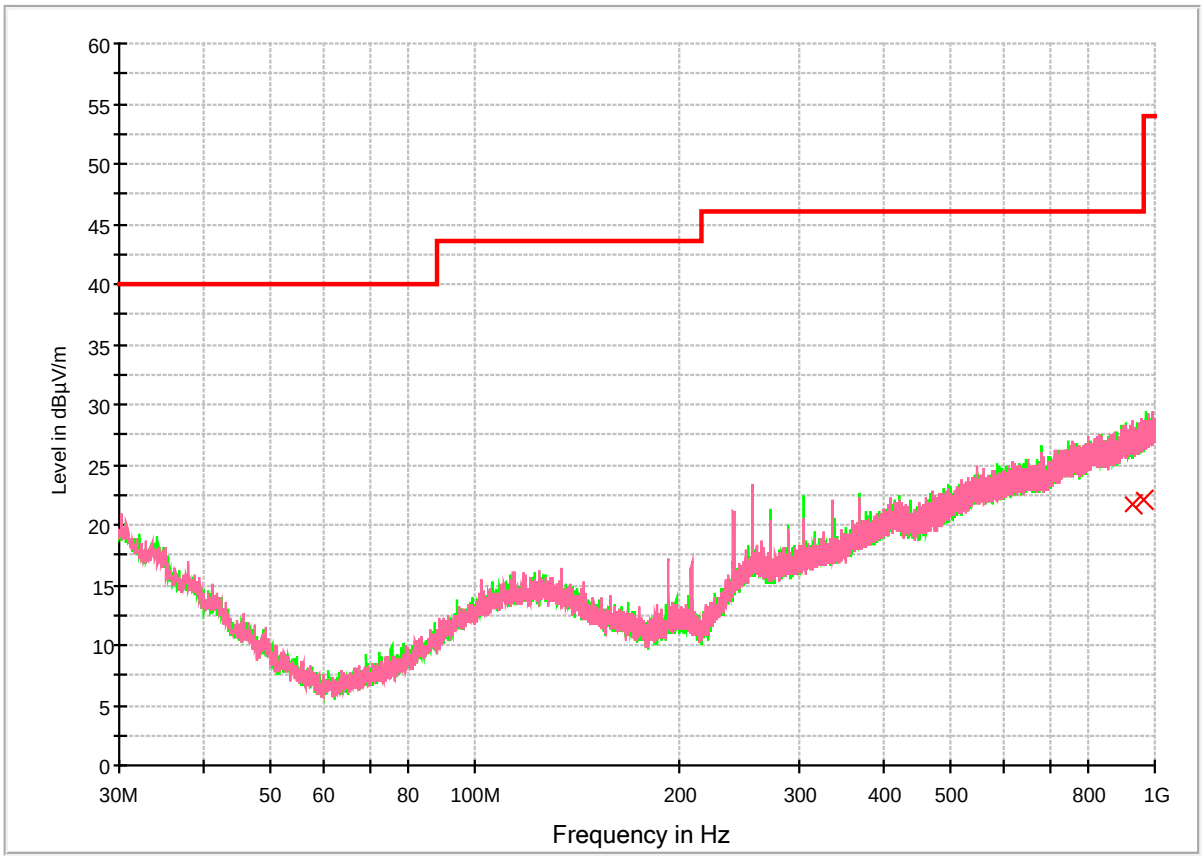


Diagram 49:	Measurement of unwanted emissions at 3 m distance; 30 MHz – 1 GHz; transmitter operating in OQPSK250 mode at channel 26 [Messung von unerwünschten Aussendungen in 3 m Entfernung; 30 MHz – 1 GHz; Transmitter sendet im OQPSK250-Modus auf Kanal 26]
Evaluation [Bewertung]	Measuring values below the limits [Messwerte unterhalb der Grenzwerte]

Test Results: Electrical Field Strength

Common Information

SLG Test Site:	Lab 01
Operator:	Puder, D.
Date:	22.11.2012
Test name:	1314-12-EE 009
Test result:	Passed

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK250, Ch. 26, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: ESU26 Inv.1678 (1) 00030-01000MHz CBL6112B Inv.0628 03m Auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	40 kHz	QPK	120 kHz	1 s	30 dB

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
928.200000	21.8	234.0	V	200.0	24.6	24.2	46.0
959.880000	22.1	274.0	V	-87.0	24.9	23.9	46.0

Table 9:	Measurement of unwanted emissions at 3 m distance; 30 MHz – 1 GHz; transmitter operating in OQPSK250 mode at channel 26 [Messung von unerwünschten Aussendungen in 3 m Entfernung; 30 MHz – 1 GHz; Transmitter sendet im OQPSK250-Modus auf Kanal 26]
Evaluation [Bewertung]	Measuring values below the limits [Messwerte unterhalb der Grenzwerte]

Test Results: Electrical Field Strength

Common Information

SLG Test Site:	Lab 01
Operator:	Puder, D.
Date:	22.11.2012
Test name:	1314-12-EE 010
Test result:	Passed

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK2000, Ch. 11, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: ESU26 Inv.1678 (1) 00030-01000MHz CBL6112B Inv.0628 03m Auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	40 kHz	QPK	120 kHz	1 s	30 dB

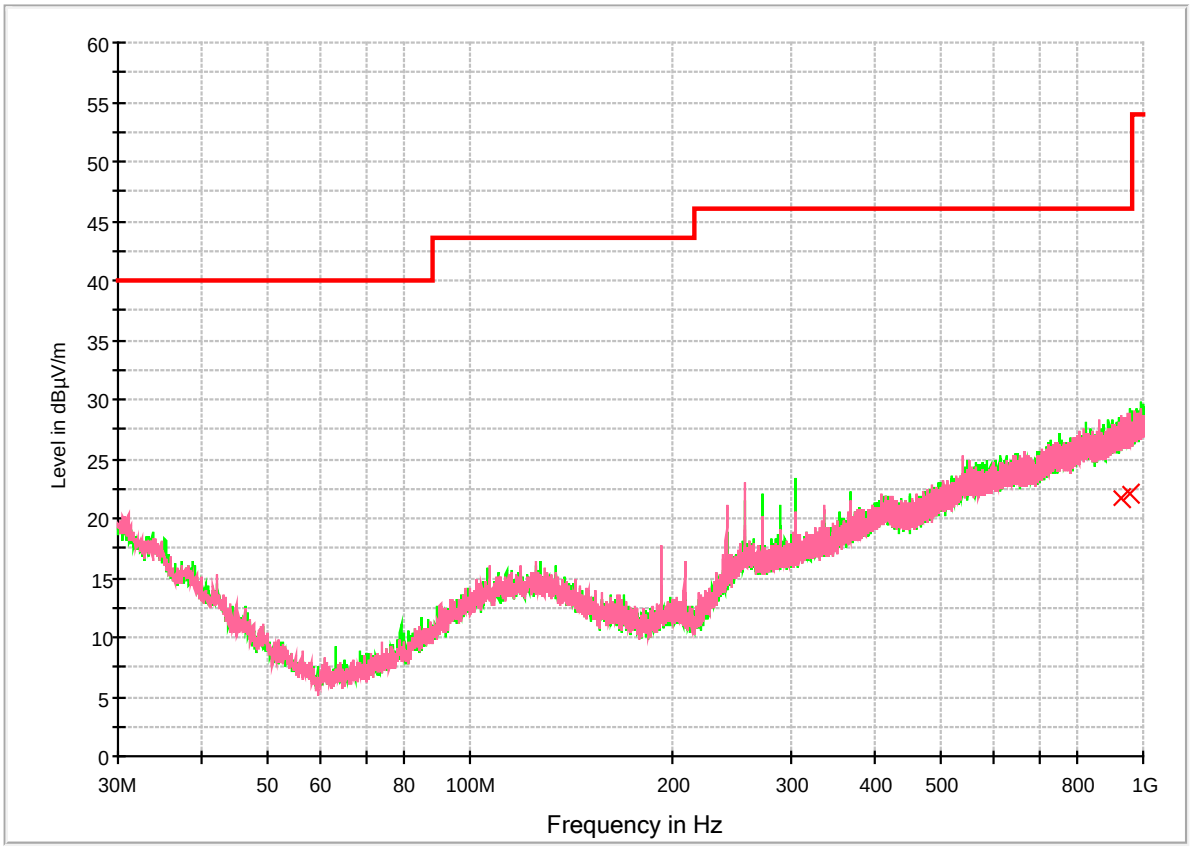


Diagram 50:	Measurement of unwanted emissions at 3 m distance; 30 MHz – 1 GHz; transmitter operating in OQPSK2000 mode at channel 11 [Messung von unerwünschten Aussendungen in 3 m Entfernung; 30 MHz – 1 GHz; Transmitter sendet im OQPSK2000-Modus auf Kanal 11]
Evaluation [Bewertung]	Measuring values below the limits [Messwerte unterhalb der Grenzwerte]

Test Results: Electrical Field Strength

Common Information

SLG Test Site:	Lab 01
Operator:	Puder, D.
Date:	22.11.2012
Test name:	1314-12-EE 010
Test result:	Passed

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK2000, Ch. 11, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: ESU26 Inv.1678 (1) 00030-01000MHz CBL6112B Inv.0628 03m Auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	40 kHz	QPK	120 kHz	1 s	30 dB

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
927.930000	21.8	183.0	V	-20.0	24.6	24.2	46.0
954.930000	22.0	214.0	H	115.0	24.8	24.0	46.0

Table 10:	Measurement of unwanted emissions at 3 m distance; 30 MHz – 1 GHz; transmitter operating in OQPSK2000 mode at channel 11 [Messung von unerwünschten Aussendungen in 3 m Entfernung; 30 MHz – 1 GHz; Transmitter sendet im OQPSK2000-Modus auf Kanal 11]
Evaluation [Bewertung]	Measuring values below the limits [Messwerte unterhalb der Grenzwerte]

Test Results: Electrical Field Strength

Common Information

SLG Test Site:	Lab 01
Operator:	Puder, D.
Date:	22.11.2012
Test name:	1314-12-EE 011
Test result:	Passed

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK2000, Ch. 18, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: ESU26 Inv.1678 (1) 00030-01000MHz CBL6112B Inv.0628 03m Auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	40 kHz	QPK	120 kHz	1 s	30 dB

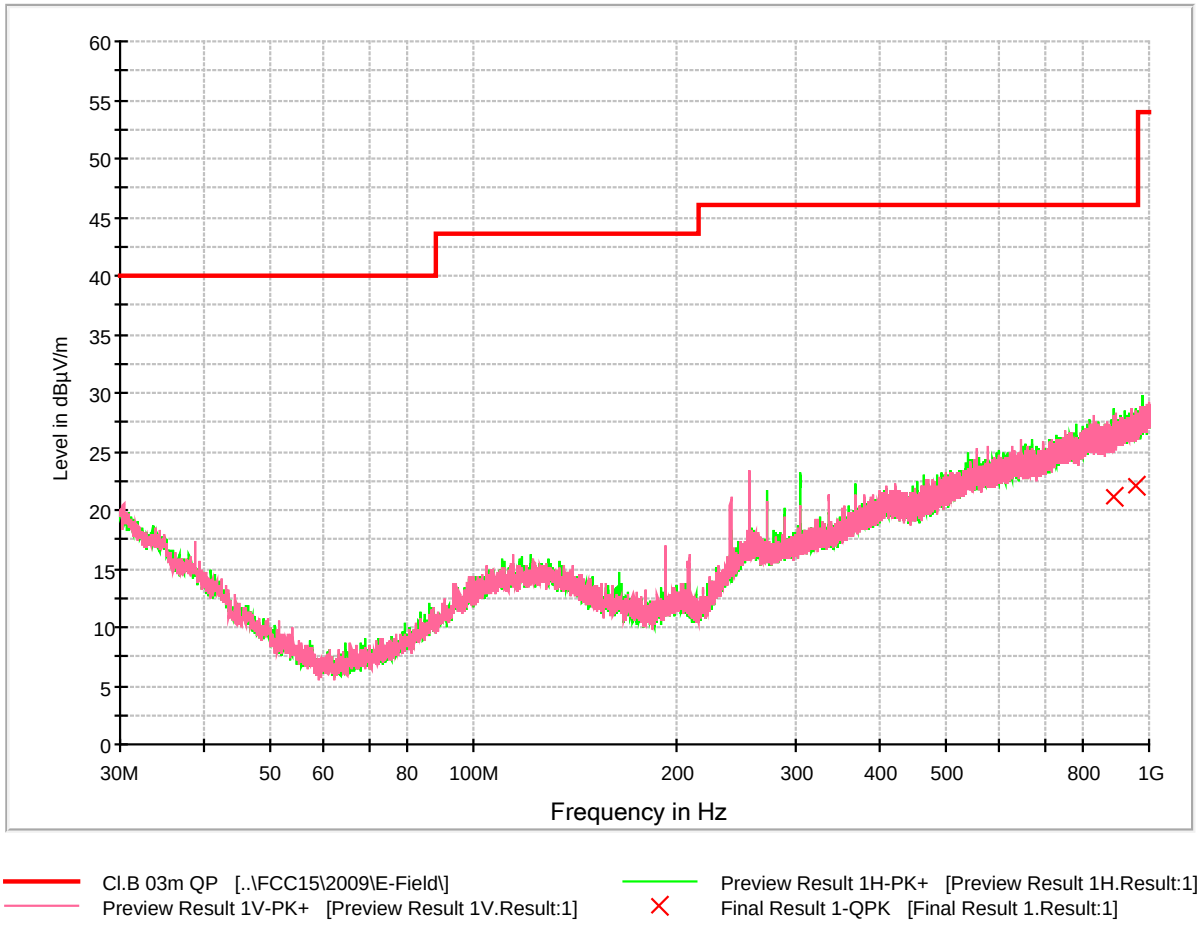


Diagram 51:	Measurement of unwanted emissions at 3 m distance; 30 MHz – 1 GHz; transmitter operating in OQPSK2000 mode at channel 18 [Messung von unerwünschten Aussendungen in 3 m Entfernung; 30 MHz – 1 GHz; Transmitter sendet im OQPSK2000-Modus auf Kanal 18]
Evaluation [Bewertung]	Measuring values below the limits [Messwerte unterhalb der Grenzwerte]

Test Results: Electrical Field Strength

Common Information

SLG Test Site:	Lab 01
Operator:	Puder, D.
Date:	22.11.2012
Test name:	1314-12-EE 011
Test result:	Passed

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK2000, Ch. 18, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: ESU26 Inv.1678 (1) 00030-01000MHz CBL6112B Inv.0628 03m Auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	40 kHz	QPK	120 kHz	1 s	30 dB

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
886.350000	21.2	332.0	H	105.0	24.1	24.9	46.0
957.210000	22.0	301.0	H	90.0	24.9	24.0	46.0

Table 11:	Measurement of unwanted emissions at 3 m distance; 30 MHz – 1 GHz; transmitter operating in OQPSK2000 mode at channel 18 [Messung von unerwünschten Aussendungen in 3 m Entfernung; 30 MHz – 1 GHz; Transmitter sendet im OQPSK2000-Modus auf Kanal 18]
Evaluation [Bewertung]	Measuring values below the limits [Messwerte unterhalb der Grenzwerte]

Test Results: Electrical Field Strength

Common Information

SLG Test Site:	Lab 01
Operator:	Puder, D.
Date:	22.11.2012
Test name:	1314-12-EE 012
Test result:	Passed

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK2000, Ch. 26, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: ESU26 Inv.1678 (1) 00030-01000MHz CBL6112B Inv.0628 03m Auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	40 kHz	QPK	120 kHz	1 s	30 dB

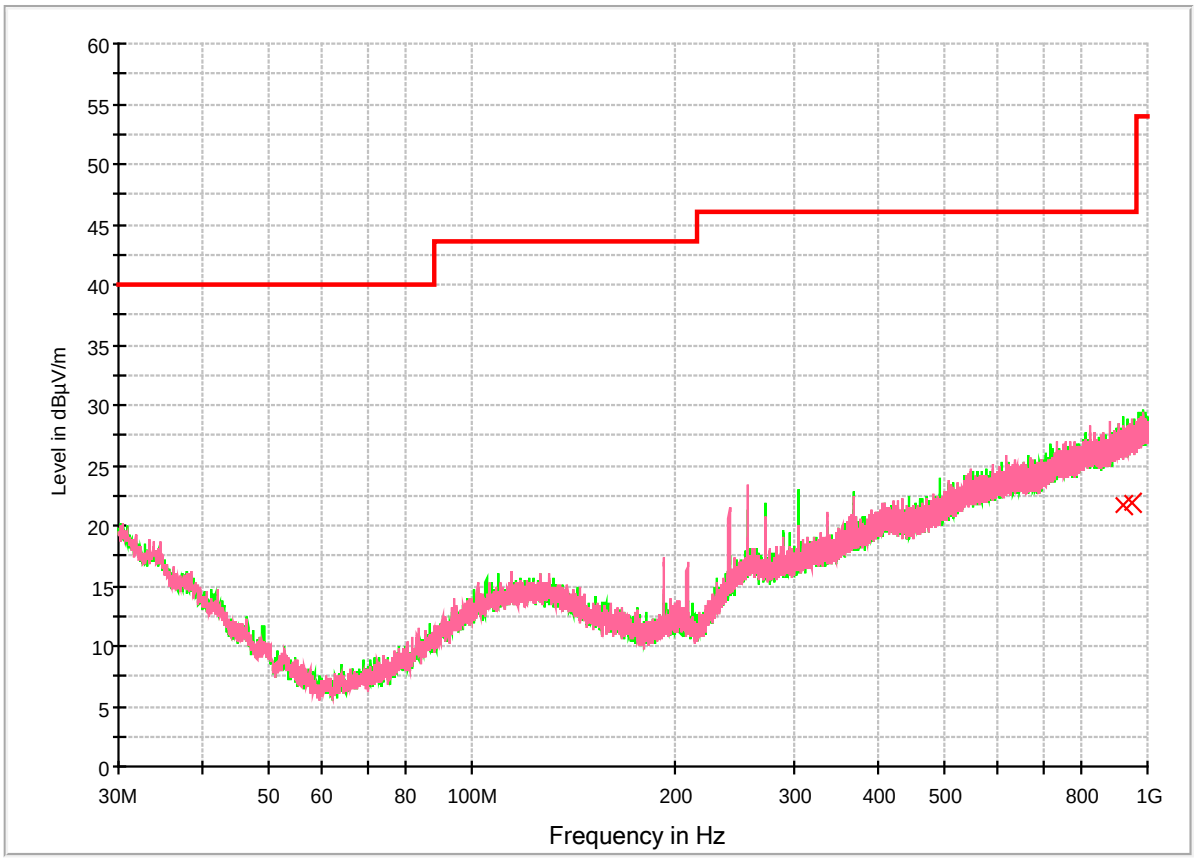


Diagram 52:	Measurement of unwanted emissions at 3 m distance; 30 MHz – 1 GHz; transmitter operating in OQPSK2000 mode at channel 26 [Messung von unerwünschten Aussendungen in 3 m Entfernung; 30 MHz – 1 GHz; Transmitter sendet im OQPSK2000-Modus auf Kanal 26]
Evaluation [Bewertung]	Measuring values below the limits [Messwerte unterhalb der Grenzwerte]

Test Results: Electrical Field Strength

Common Information

SLG Test Site:	Lab 01
Operator:	Puder, D.
Date:	22.11.2012
Test name:	1314-12-EE 012
Test result:	Passed

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK2000, Ch. 26, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: ESU26 Inv.1678 (1) 00030-01000MHz CBL6112B Inv.0628 03m Auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
30 MHz - 1 GHz	40 kHz	QPK	120 kHz	1 s	30 dB

Final Result 1

Frequency (MHz)	QuasiPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
917.760000	21.7	294.0	H	-74.0	24.5	24.3	46.0
951.150000	22.0	299.0	V	142.0	24.8	24.1	46.0

Table 12:	Measurement of unwanted emissions at 3 m distance; 30 MHz – 1 GHz; transmitter operating in OQPSK2000 mode at channel 26 [Messung von unerwünschten Aussendungen in 3 m Entfernung; 30 MHz – 1 GHz; Transmitter sendet im OQPSK2000-Modus auf Kanal 26]
Evaluation [Bewertung]	Measuring values below the limits [Messwerte unterhalb der Grenzwerte]

4.6.3 Radiated emission measurements > 1 GHz [gestrahlte Aussendungsmessungen > 1 GHz]

Test base [Prüfgrundlage]	**Requirements acc. to customer's specifications / test plan** [Anforderungen nach Lastenheft / Prüfplan des Auftraggebers]
	47 CFR Ch. I (10-1-12 Edition), FCC Part 15 Subpart C, §15.209
	ANSI C63.10-2009

Requirements / limits [Anforderung / Grenzwert]	47 CFR Ch. I (10-1-12 Edition), FCC Part 15 Subpart C, §15.209

Version of EUT [Prüflingsversion]	Test using the device without temporary antenna connector (DUT2). [Prüfung unter Verwendung des Gerätes ohne vorübergehenden Antennenanschluss (DUT2).]

Test conditions / test set-up [Prüfbedingungen / Prüfaufbau]	Test facility [Messeinrichtung]	FAR
	Frequency range [Frequenzbereich]	1 – 25 GHz
	Measurement distance [Messentfernung]	3 m
	Polarisation of antenna [Antennenpolarisation]	horizontal / vertical [horizontal / vertikal]
	Turntable movement [Drehscheibenbewegung]	0 - 360°
	Application as [Betrieb als]	Tabletop device [Tischgerät]

Figure 18: Measurement of unwanted emissions < 16 GHz
[Messung von unerwünschten Aussendungen < 16 GHz]

Figure 19: Measurement of unwanted emissions > 16 GHz
[Messung von unerwünschten Aussendungen > 16 GHz]

Operating modes [Betriebsarten]	- Continuous transmitting, settings of transceiver: [kontinuierliches Senden, Einstellungen des Transceivers:] - Modulation/Rate [Modulation/Datenrate]: OQPSK250, OQPSK500, OQPSK1000, OQPSK2000 - Channel [Kanal]: 11,18, 26 - TX Pout [Sendeausgangsleistung]: MAX - Test selection [Testauswahl]: CW, w/ modulation (100 % duty cycle)

Performance of test [Prüfdurchführung]	- Max-hold evaluation of measurement values due to variation of turntable direction, antenna height and antenna polarisation [Bestimmung der maximalen Messwerte durch Variation der Drehscheibenausrichtung, der Antennenhöhe und der Antennenpolarisation]
	- Test at mains power supply via external power supply [Prüfung bei Versorgungsspannung über externe Spannungsversorgung]

Test Results: Electrical Field Strength

Common Information

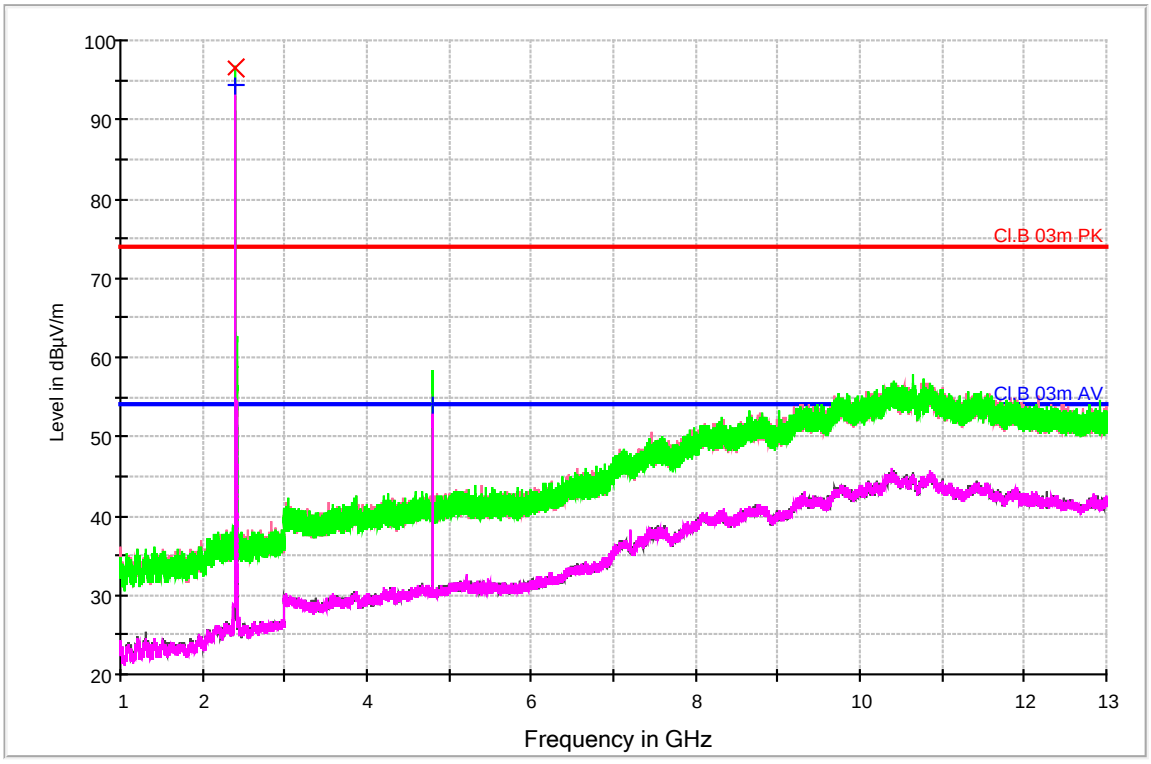
SLG Test Site:	Lab 06
Operator:	Puder, D.
Date:	14.11.2012
Test name:	1314-12-EE 001
Test result:	none

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK250, Ch. 11, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 01000-13000MHz BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
1 GHz - 13 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB



Cl.B 03m PK [..\FCC15\2011\E-Field\]
Preview Result 1V-PK+ [Preview Result 1V.Result:1]
Preview Result 1H-PK+ [Preview Result 1H.Result:1]
Final Result 1-PK+ [Final Result 1.Result:1]

Cl.B 03m AV [..\FCC15\2011\E-Field\]
Preview Result 2V-AVG [Preview Result 2V.Result:2]
Preview Result 2H-AVG [Preview Result 2H.Result:2]
Final Result 2-AVG [Final Result 2.Result:1]

Diagram 53:	Pre-measurement of unwanted emissions at 3 m distance; 1 – 13 GHz; transmitter operating in OQPSK250 mode at channel 11 [Vormessung von unerwünschten Aussendungen in 3 m Entfernung; 1 – 13 GHz; Transmitter sendet im OQPSK250-Modus auf Kanal 11]
Evaluation [Bewertung]	See final measurement diagrams 69 - 80 [siehe Nachmessungs-Diagramme 69 - 80]

Test Results: Electrical Field Strength

Common Information

SLG Test Site:	Lab 06
Operator:	Puder, D.
Date:	14.11.2012
Test name:	1314-12-EE 001
Test result:	none

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK250, Ch. 11, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 01000-13000MHz BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
1 GHz - 13 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB

Final Result 1

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
2404.503750	96.4	200.0	H	254.0	5.3	Fundamental frequency	-

Final Result 2

Frequency (MHz)	Average (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
2404.870000	94.3	200.0	H	254.0	5.3	Fundamental frequency	-
4810.928750	54.1	164.0	H	141.0	8.1	-0.2	54.0

Table 13:	Pre-measurement of unwanted emissions at 3 m distance; 1 – 13 GHz; transmitter operating in OQPSK250 mode at channel 11 [Vormessung von unerwünschten Aussendungen in 3 m Entfernung; 1 – 13 GHz; Transmitter sendet im OQPSK250-Modus auf Kanal 11]
Evaluation [Bewertung]	See final measurement tables 19 - 30 [siehe Nachmessungs-Tabellen 19 - 30]

Test Results: Electrical Field Strength

Common Information

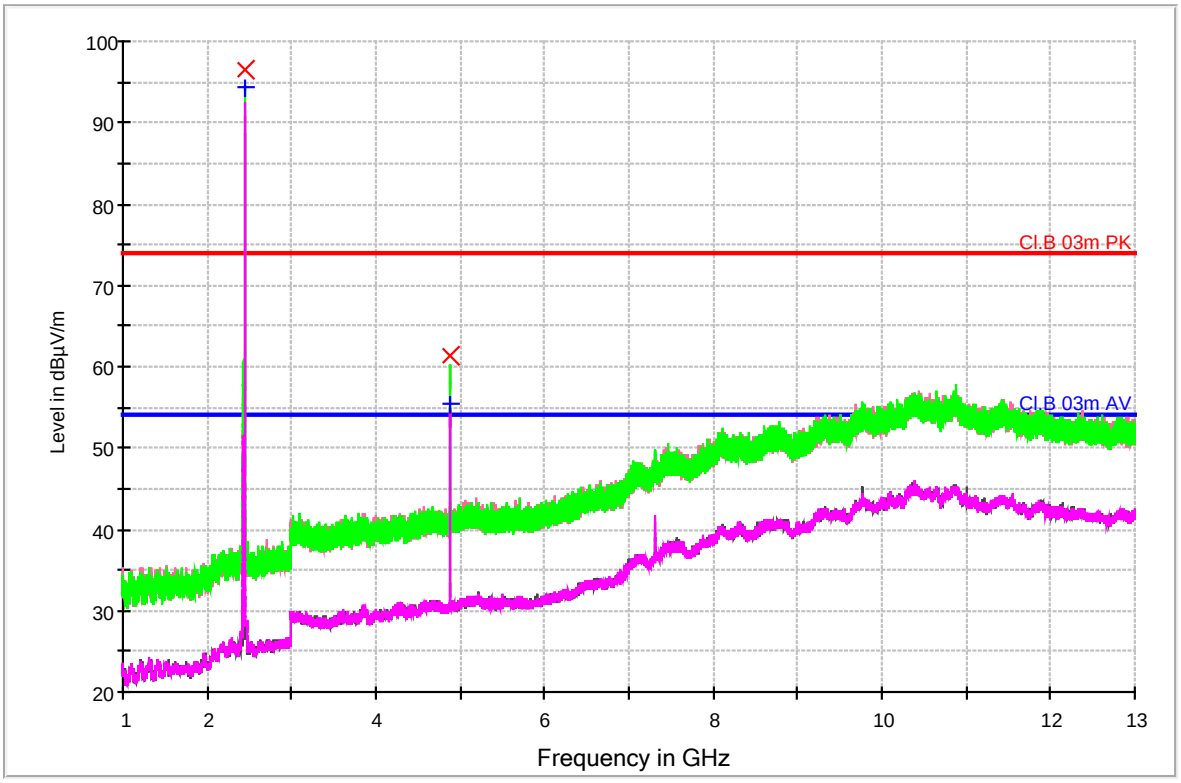
SLG Test Site:	Lab 06
Operator:	Puder, D.
Date:	14.11.2012
Test name:	1314-12-EE 002
Test result:	none

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK250, Ch. 18, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 01000-13000MHz BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
1 GHz - 13 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB



Cl.B 03m PK [..\FCC15\2011\E-Field\]
Preview Result 1V-PK+ [Preview Result 1V.Result:1]
Preview Result 1H-PK+ [Preview Result 1H.Result:1]
Final Result 1-PK+ [Final Result 1.Result:1]

Cl.B 03m AV [..\FCC15\2011\E-Field\]
Preview Result 2V-AVG [Preview Result 2V.Result:2]
Preview Result 2H-AVG [Preview Result 2H.Result:2]
Final Result 2-AVG [Final Result 2.Result:1]

Diagram 54:	Pre-measurement of unwanted emissions at 3 m distance; 1 – 13 GHz; transmitter operating in OQPSK250 mode at channel 18 [Vormessung von unerwünschten Aussendungen in 3 m Entfernung; 1 – 13 GHz; Transmitter sendet im OQPSK250-Modus auf Kanal 18]
Evaluation [Bewertung]	See final measurement diagrams 69 - 80 [siehe Nachmessungs-Diagramme 69 - 80]

Test Results: Electrical Field Strength

Common Information

SLG Test Site:	Lab 06
Operator:	Puder, D.
Date:	14.11.2012
Test name:	1314-12-EE 002
Test result:	none

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK250, Ch. 18, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 01000-13000MHz BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
1 GHz - 13 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB

Final Result 1

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
2439.510000	96.4	200.0	H	254.0	5.2	Fundamental frequency	-
4881.067500	61.2	154.0	H	144.0	8.3	12.8	74.0

Final Result 2

Frequency (MHz)	Average (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
2440.131250	94.3	200.0	H	254.0	5.2	Fundamental frequency	-
4880.902500	55.5	161.0	V	126.0	8.3	-1.5	54.0

Table 14:	Pre-measurement of unwanted emissions at 3 m distance; 1 – 13 GHz; transmitter operating in OQPSK250 mode at channel 18 [Vormessung von unerwünschten Aussendungen in 3 m Entfernung; 1 – 13 GHz; Transmitter sendet im OQPSK250-Modus auf Kanal 18]
Evaluation [Bewertung]	See final measurement tables 19 - 30 [siehe Nachmessungs-Tabellen 19 - 30]

Test Results: Electrical Field Strength

Common Information

SLG Test Site:	Lab 06
Operator:	Puder, D.
Date:	14.11.2012
Test name:	1314-12-EE 003
Test result:	none

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK250, Ch. 26, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 01000-13000MHz BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
1 GHz - 13 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB

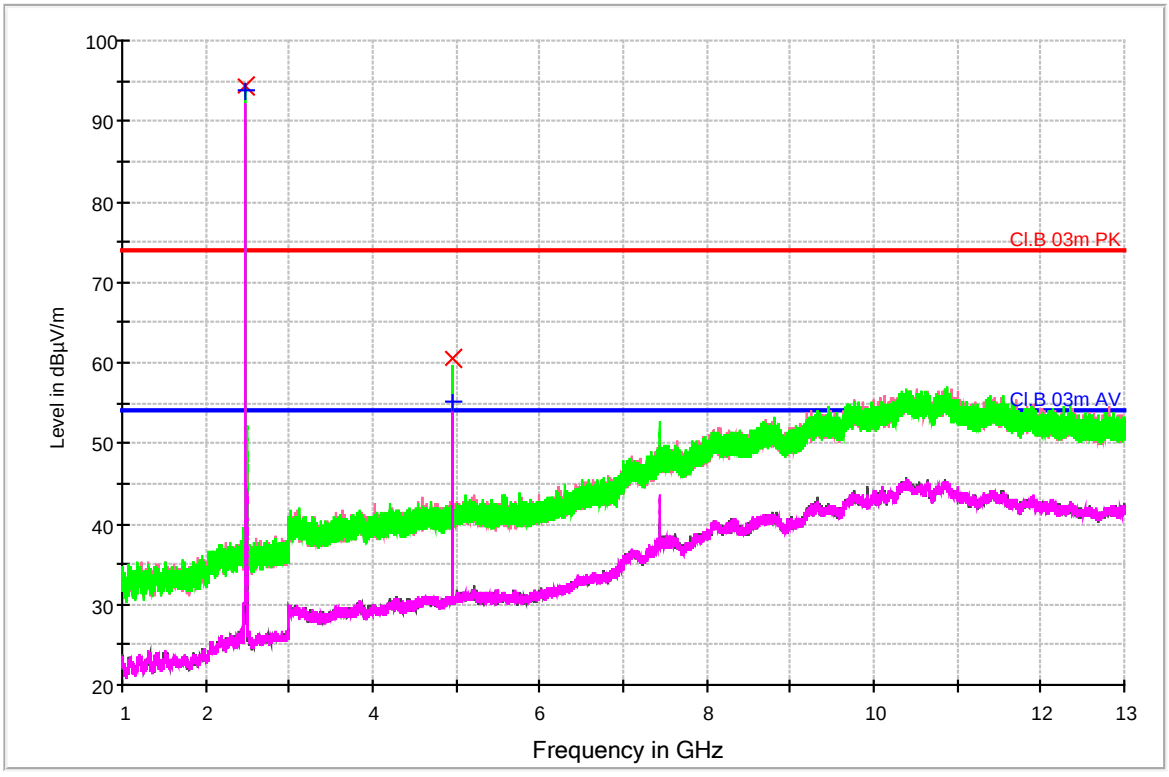


Diagram 55:	Pre-measurement of unwanted emissions at 3 m distance; 1 – 13 GHz; transmitter operating in OQPSK250 mode at channel 26 [Vormessung von unerwünschten Aussendungen in 3 m Entfernung; 1 – 13 GHz; Transmitter sendet im OQPSK250-Modus auf Kanal 26]
Evaluation [Bewertung]	See final measurement diagrams 69 - 80 [siehe Nachmessungs-Diagramme 69 - 80]

Test Results: Electrical Field Strength

Common Information

SLG Test Site:	Lab 06
Operator:	Puder, D.
Date:	14.11.2012
Test name:	1314-12-EE 003
Test result:	none

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK250, Ch. 26, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 01000-13000MHz BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
1 GHz - 13 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB

Final Result 1

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
2479.541250	94.4	127.0	H	153.0	5.1	Fundamental frequency	-
4960.945000	60.4	150.0	H	144.0	8.4	13.6	74.0

Final Result 2

Frequency (MHz)	Average (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
2479.923750	93.8	140.0	H	254.0	5.1	Fundamental frequency	-
4958.983750	55.1	152.0	H	149.0	8.4	-1.1	54.0

Table 15:	Pre-measurement of unwanted emissions at 3 m distance; 1 – 13 GHz; transmitter operating in OQPSK250 mode at channel 26 [Vormessung von unerwünschten Aussendungen in 3 m Entfernung; 1 – 13 GHz; Transmitter sendet im OQPSK250-Modus auf Kanal 26]
Evaluation [Bewertung]	See final measurement tables 19 - 30 [siehe Nachmessungs-Tabellen 19 - 30]

Test Results: Electrical Field Strength

Common Information

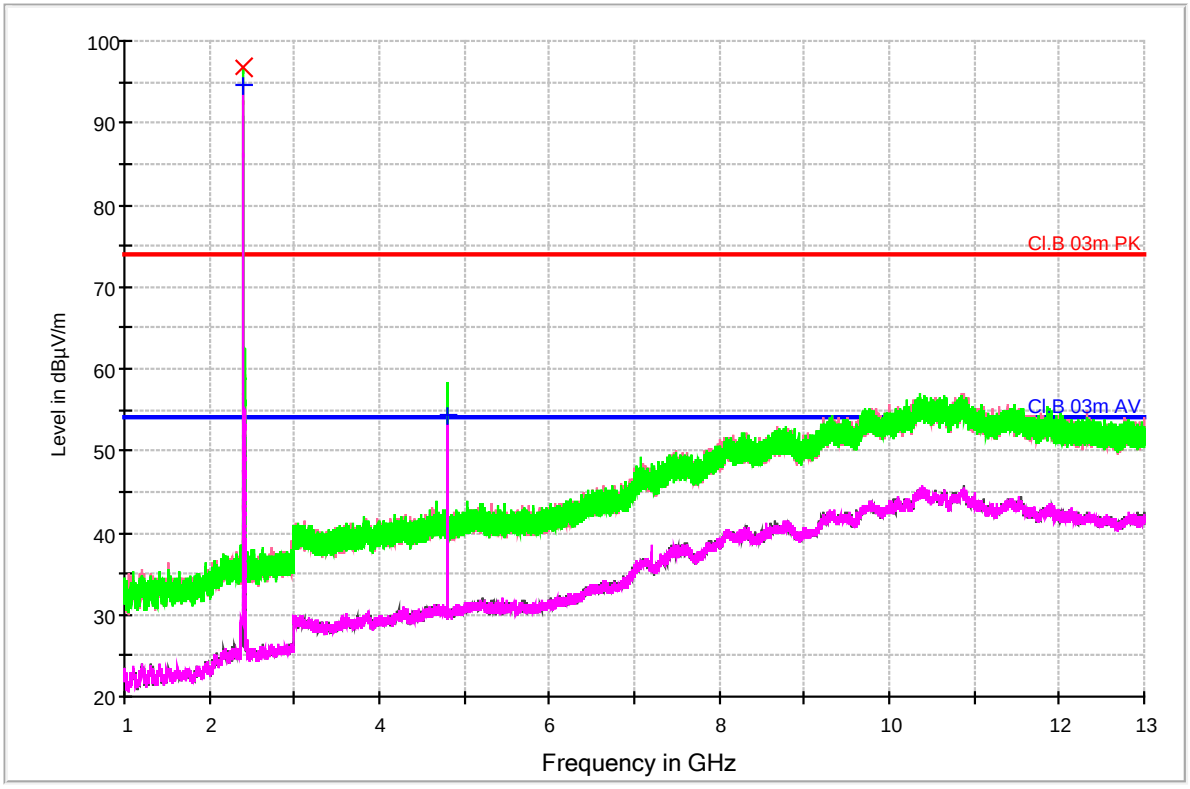
SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	14.11.2012
Test name:	1314-12-EE 004
Test result:	none

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK2000, Ch. 11, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 01000-13000MHz BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
1 GHz - 13 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB



Cl.B 03m PK [..\FCC15\2011\E-Field\]
Preview Result 1V-PK+ [Preview Result 1V.Result:1]
Preview Result 1H-PK+ [Preview Result 1H.Result:1]
Final Result 1-PK+ [Final Result 1.Result:1]

Cl.B 03m AV [..\FCC15\2011\E-Field\]
Preview Result 2V-AVG [Preview Result 2V.Result:2]
Preview Result 2H-AVG [Preview Result 2H.Result:2]
Final Result 2-AVG [Final Result 2.Result:1]

Diagram 56:	Pre-measurement of unwanted emissions at 3 m distance; 1 – 13 GHz; transmitter operating in OQPSK2000 mode at channel 11 [Vormessung von unerwünschten Aussendungen in 3 m Entfernung; 1 – 13 GHz; Transmitter sendet im OQPSK2000-Modus auf Kanal 11]
Evaluation [Bewertung]	See final measurement diagrams 69 - 80 [siehe Nachmessungs-Diagramme 69 - 80]

Test Results: Electrical Field Strength

Common Information

SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	14.11.2012
Test name:	1314-12-EE 004
Test result:	none

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK2000, Ch. 11, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 01000-13000MHz BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
1 GHz - 13 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB

Final Result 1

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
2404.497500	96.7	148.0	H	255.0	5.3	Fundamental frequency	-

Final Result 2

Frequency (MHz)	Average (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
2404.940000	94.6	111.0	H	255.0	5.3	Fundamental frequency	-
4809.002500	54.3	159.0	H	144.0	8.1	-0.3	54.0

Table 16:	Pre-measurement of unwanted emissions at 3 m distance; 1 – 13 GHz; transmitter operating in OQPSK2000 mode at channel 11 [Vormessung von unerwünschten Aussendungen in 3 m Entfernung; 1 – 13 GHz; Transmitter sendet im OQPSK2000-Modus auf Kanal 11]
Evaluation [Bewertung]	See final measurement tables 19 - 30 [siehe Nachmessungs-Tabellen 19 - 30]

Test Results: Electrical Field Strength

Common Information

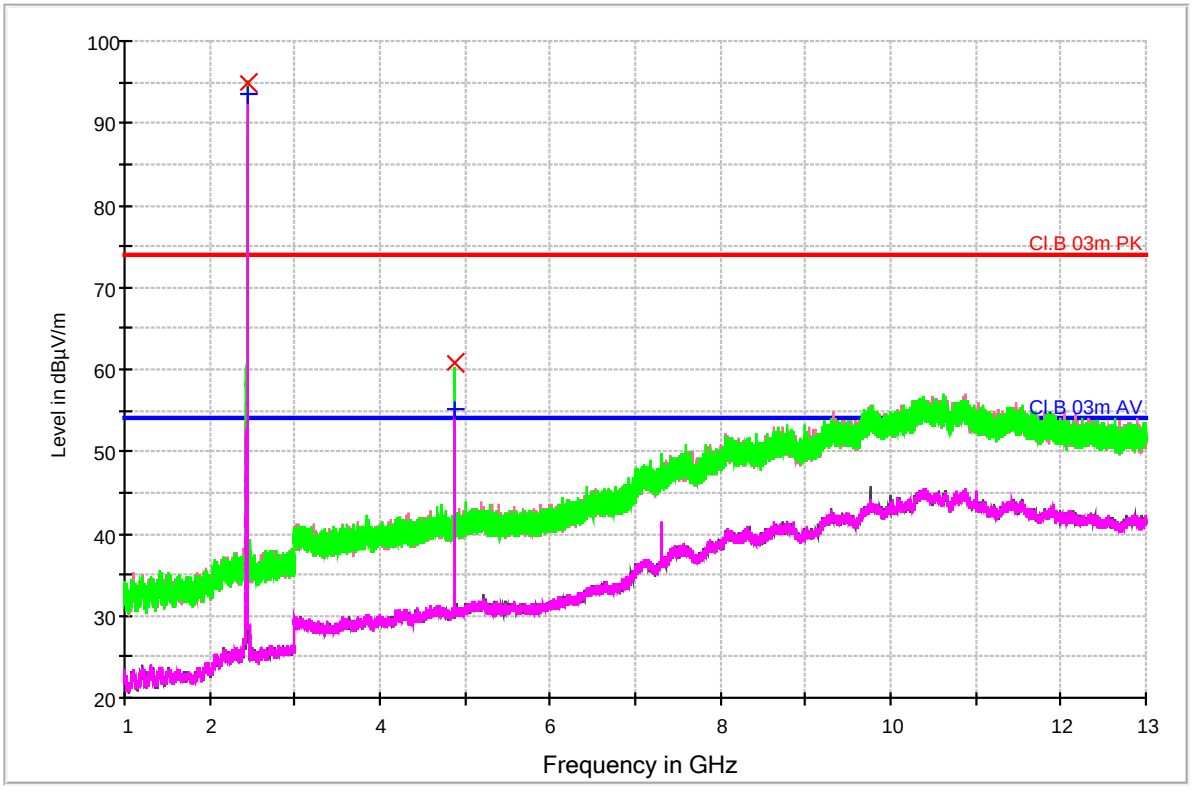
SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	14.11.2012
Test name:	1314-12-EE 005
Test result:	none

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK2000, Ch. 18, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 01000-13000MHz BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
1 GHz - 13 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB



Cl.B 03m PK [..\FCC15\2011\E-Field\]
Preview Result 1V-PK+ [Preview Result 1V.Result:1]
Preview Result 1H-PK+ [Preview Result 1H.Result:1]
Final Result 1-PK+ [Final Result 1.Result:1]
Cl.B 03m AV [..\FCC15\2011\E-Field\]
Preview Result 2V-AVG [Preview Result 2V.Result:2]
Preview Result 2H-AVG [Preview Result 2H.Result:2]
Final Result 2-AVG [Final Result 2.Result:1]

Diagram 57:	Pre-measurement of unwanted emissions at 3 m distance; 1 – 13 GHz; transmitter operating in OQPSK2000 mode at channel 18 [Vormessung von unerwünschten Aussendungen in 3 m Entfernung; 1 – 13 GHz; Transmitter sendet im OQPSK2000-Modus auf Kanal 18]
Evaluation [Bewertung]	See final measurement diagrams 69 - 80 [siehe Nachmessungs-Diagramme 69 - 80]

Test Results: Electrical Field Strength

Common Information

SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	14.11.2012
Test name:	1314-12-EE 005
Test result:	none

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK2000, Ch. 18, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 01000-13000MHz BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
1 GHz - 13 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB

Final Result 1

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
2439.503750	94.8	181.0	H	258.0	5.2	Fundamental frequency	-
4879.152500	60.7	160.0	H	114.0	8.3	13.3	74.0

Final Result 2

Frequency (MHz)	Average (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
2440.060000	93.7	177.0	H	257.0	5.2	Fundamental frequency	-
4880.917500	55.1	149.0	H	144.0	8.3	-1.1	54.0

Table 17:	Pre-measurement of unwanted emissions at 3 m distance; 1 – 13 GHz; transmitter operating in OQPSK2000 mode at channel 18 [Vormessung von unerwünschten Aussendungen in 3 m Entfernung; 1 – 13 GHz; Transmitter sendet im OQPSK2000-Modus auf Kanal 18]
Evaluation [Bewertung]	See final measurement tables 19 - 30 [siehe Nachmessungs-Tabellen 19 - 30]

Test Results: Electrical Field Strength

Common Information

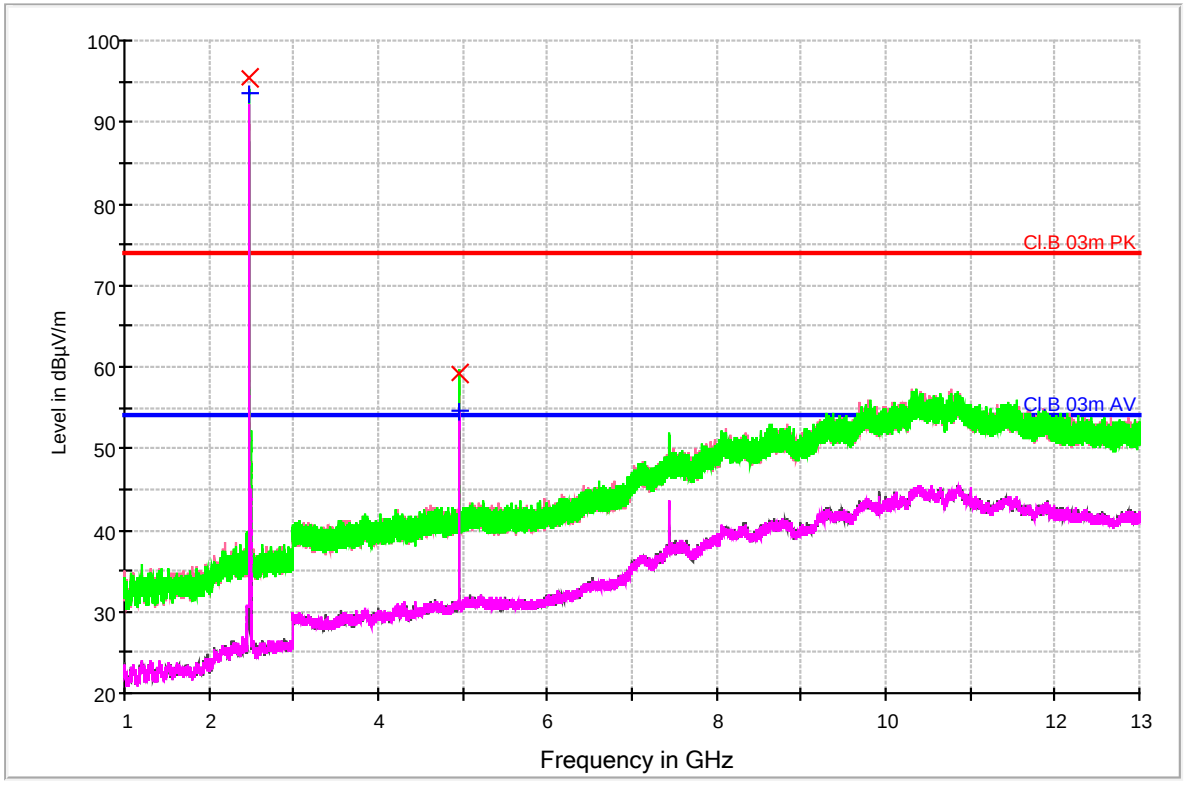
SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	14.11.2012
Test name:	1314-12-EE 006
Test result:	none

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK2000, Ch. 26, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 01000-13000MHz BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
1 GHz - 13 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB



Cl.B 03m PK [..\FCC15\2011\E-Field\]
Preview Result 1V-PK+ [Preview Result 1V.Result:1]
Preview Result 1H-PK+ [Preview Result 1H.Result:1]
Final Result 1-PK+ [Final Result 1.Result:1]

Cl.B 03m AV [..\FCC15\2011\E-Field\]
Preview Result 2V-AVG [Preview Result 2V.Result:2]
Preview Result 2H-AVG [Preview Result 2H.Result:2]
Final Result 2-AVG [Final Result 2.Result:1]

Diagram 58:	Pre-measurement of unwanted emissions at 3 m distance; 1 – 13 GHz; transmitter operating in OQPSK2000 mode at channel 26 [Vormessung von unerwünschten Aussendungen in 3 m Entfernung; 1 – 13 GHz; Transmitter sendet im OQPSK2000-Modus auf Kanal 26]
Evaluation [Bewertung]	See final measurement diagrams 69 - 80 [siehe Nachmessungs-Diagramme 69 - 80]

Test Results: Electrical Field Strength

Common Information

SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	14.11.2012
Test name:	1314-12-EE 006
Test result:	none

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK2000, Ch. 26, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 01000-13000MHz BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
1 GHz - 13 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB

Final Result 1

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
2479.498750	95.5	144.0	H	250.0	5.1	Fundamental frequency	-
4960.818750	59.3	150.0	H	114.0	8.4	14.7	74.0

Final Result 2

Frequency (MHz)	Average (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
2479.916250	93.5	144.0	H	251.0	5.1	Fundamental frequency	-
4958.977500	54.5	153.0	H	159.0	8.4	-0.5	54.0

Table 18:	Pre-measurement of unwanted emissions at 3 m distance; 1 – 13 GHz; transmitter operating in OQPSK2000 mode at channel 26 [Vormessung von unerwünschten Aussendungen in 3 m Entfernung; 1 – 13 GHz; Transmitter sendet im OQPSK2000-Modus auf Kanal 26]
Evaluation [Bewertung]	See final measurement tables 19 - 30 [siehe Nachmessungs-Tabellen 19 - 30]

Test Results: Electrical Field Strength

Common Information

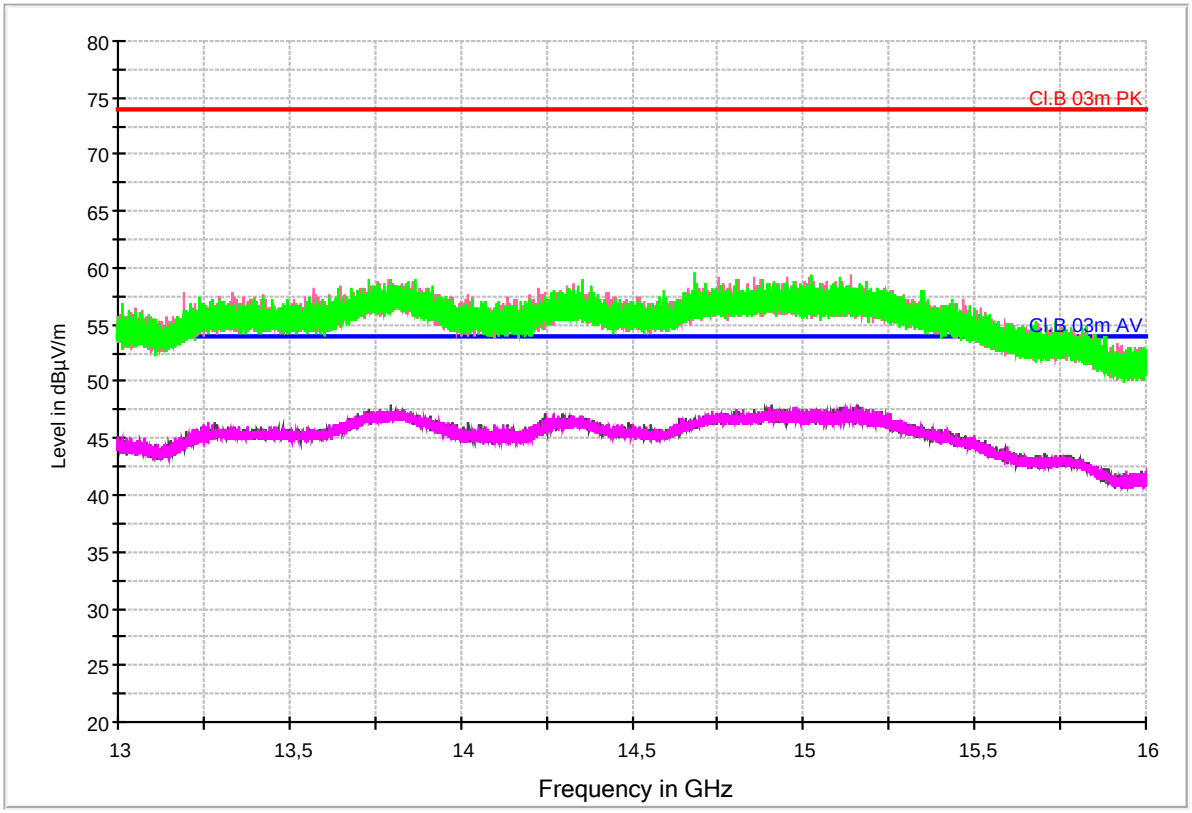
SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	29.11.2012
Test name:	1314-12-EE 046
Test result:	Passed

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK250, Ch. 11, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 13000-18000MHz BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
13 GHz - 16 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB



Cl.B 03m PK [..\FCC15\2011\E-Field\]
Preview Result 1V-PK+ [Preview Result 1V.Result:1]
Preview Result 1H-PK+ [Preview Result 1H.Result:1]
Cl.B 03m AV [..\FCC15\2011\E-Field\]
Preview Result 2V-AVG [Preview Result 2V.Result:2]
Preview Result 2H-AVG [Preview Result 2H.Result:2]

Diagram 59:	Pre-measurement of unwanted emissions at 3 m distance; 13 – 16 GHz; transmitter operating in OQPSK250 mode at channel 11 [Vormessung von unerwünschten Aussendungen in 3 m Entfernung; 13 – 16 GHz; Transmitter sendet im OQPSK250-Modus auf Kanal 11]
Evaluation [Bewertung]	No relevant unwanted emissions found [Keine relevanten unerwünschten Aussendungen gefunden]

Test Results: Electrical Field Strength

Common Information

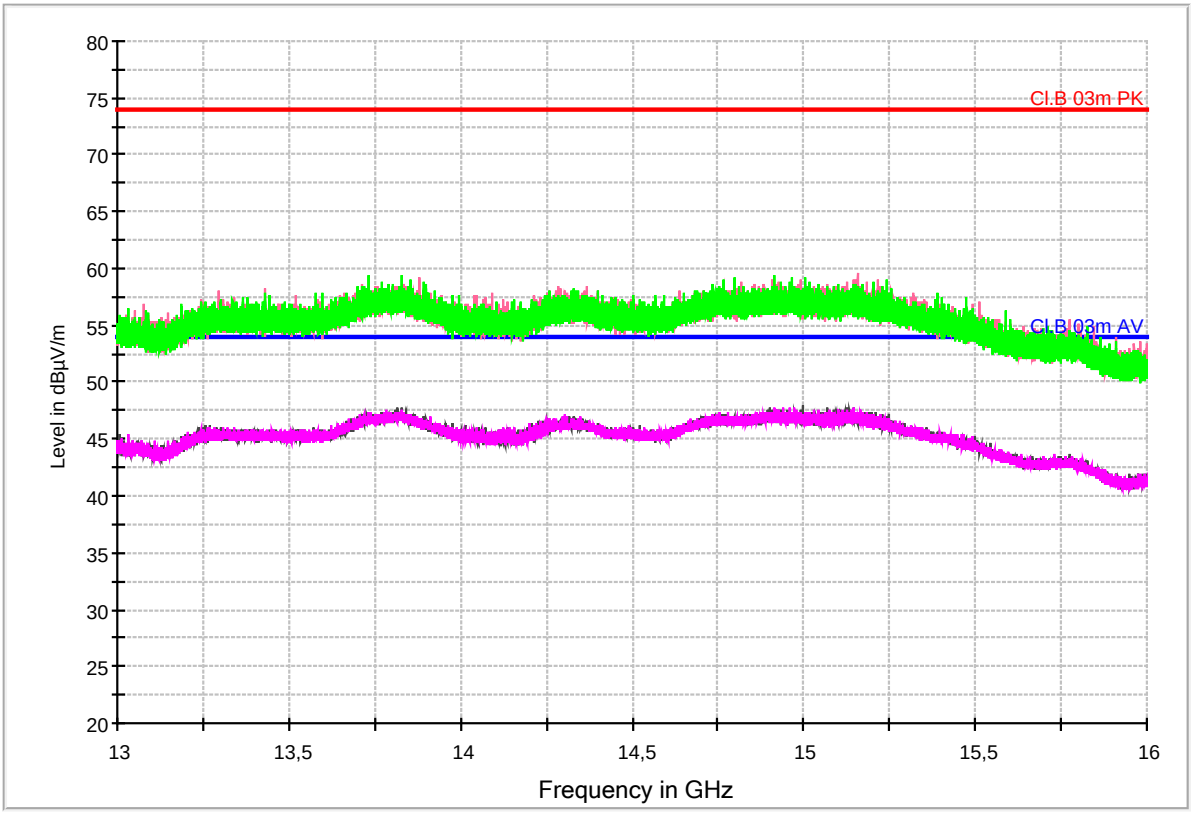
SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	29.11.2012
Test name:	1314-12-EE 047
Test result:	Passed

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK250, Ch. 18, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 13000-18000MHz BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
13 GHz - 16 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB



Cl.B 03m PK [..\FCC15\2011\E-Field\]
Preview Result 1V-PK+ [Preview Result 1V.Result:1]
Preview Result 1H-PK+ [Preview Result 1H.Result:1]
Cl.B 03m AV [..\FCC15\2011\E-Field\]
Preview Result 2V-AVG [Preview Result 2V.Result:2]
Preview Result 2H-AVG [Preview Result 2H.Result:2]

Diagram 60:	Pre-measurement of unwanted emissions at 3 m distance; 13 – 16 GHz; transmitter operating in OQPSK250 mode at channel 18 [Vormessung von unerwünschten Aussendungen in 3 m Entfernung; 13 – 16 GHz; Transmitter sendet im OQPSK250-Modus auf Kanal 18]
Evaluation [Bewertung]	No relevant unwanted emissions found [Keine relevanten unerwünschten Aussendungen gefunden]

Test Results: Electrical Field Strength

Common Information

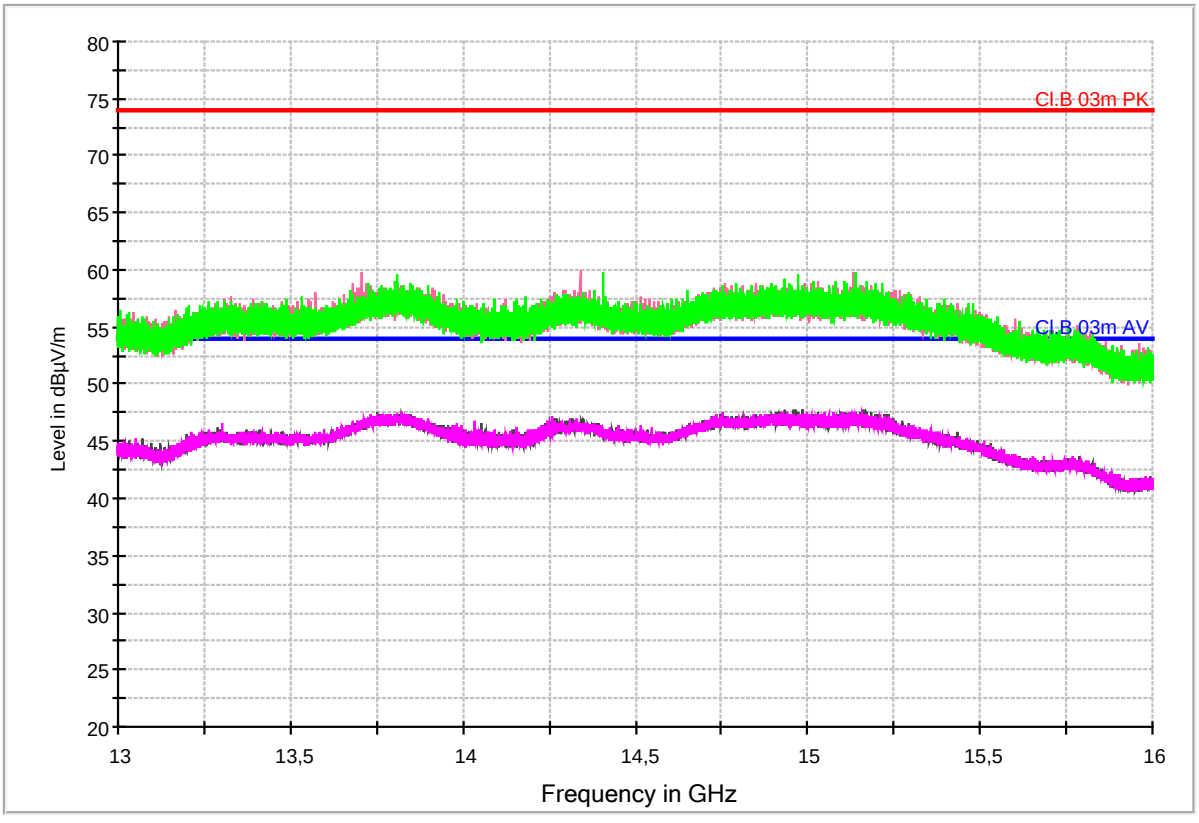
SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	29.11.2012
Test name:	1314-12-EE 048
Test result:	Passed

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK250, Ch. 26, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 13000-18000MHz BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
13 GHz - 16 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB



Cl.B 03m PK [..\FCC15\2011\E-Field\]
Preview Result 1V-PK+ [Preview Result 1V.Result:1]
Preview Result 1H-PK+ [Preview Result 1H.Result:1]
Cl.B 03m AV [..\FCC15\2011\E-Field\]
Preview Result 2V-AVG [Preview Result 2V.Result:2]
Preview Result 2H-AVG [Preview Result 2H.Result:2]

Diagram 61:	Pre-measurement of unwanted emissions at 3 m distance; 13 – 16 GHz; transmitter operating in OQPSK250 mode at channel 26 [Vormessung von unerwünschten Aussendungen in 3 m Entfernung; 13 – 16 GHz; Transmitter sendet im OQPSK250-Modus auf Kanal 26]
Evaluation [Bewertung]	No relevant unwanted emissions found [Keine relevanten unerwünschten Aussendungen gefunden]

Test Results: Electrical Field Strength

Common Information

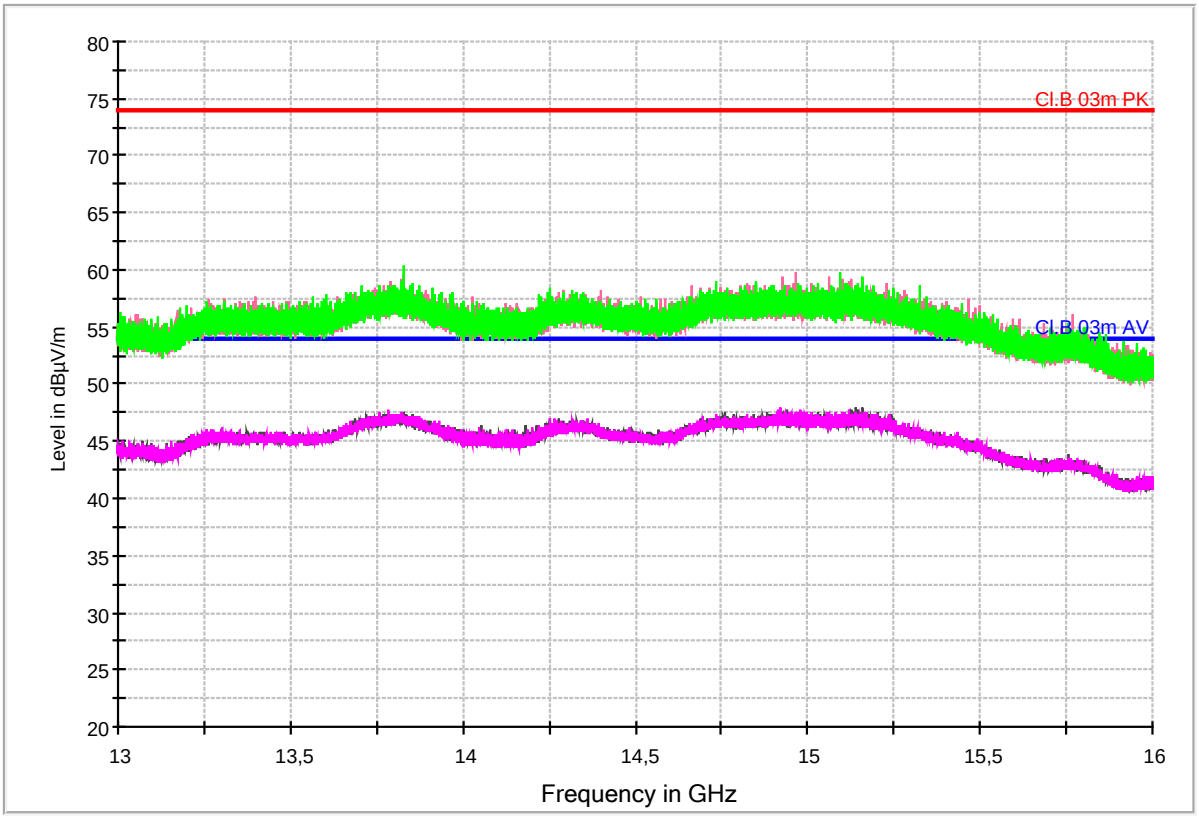
SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	29.11.2012
Test name:	1314-12-EE 049
Test result:	Passed

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK2000, Ch. 11, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 13000-18000MHz BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
13 GHz - 16 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB



Cl.B 03m PK [..\FCC15\2011\E-Field\]
Preview Result 1V-PK+ [Preview Result 1V.Result:1]
Preview Result 1H-PK+ [Preview Result 1H.Result:1]
Cl.B 03m AV [..\FCC15\2011\E-Field\]
Preview Result 2V-AVG [Preview Result 2V.Result:2]
Preview Result 2H-AVG [Preview Result 2H.Result:2]

Diagram 62:	Pre-measurement of unwanted emissions at 3 m distance; 13 – 16 GHz; transmitter operating in OQPSK2000 mode at channel 11 [Vormessung von unerwünschten Aussendungen in 3 m Entfernung; 13 – 16 GHz; Transmitter sendet im OQPSK2000-Modus auf Kanal 11]
Evaluation [Bewertung]	No relevant unwanted emissions found [Keine relevanten unerwünschten Aussendungen gefunden]

Test Results: Electrical Field Strength

Common Information

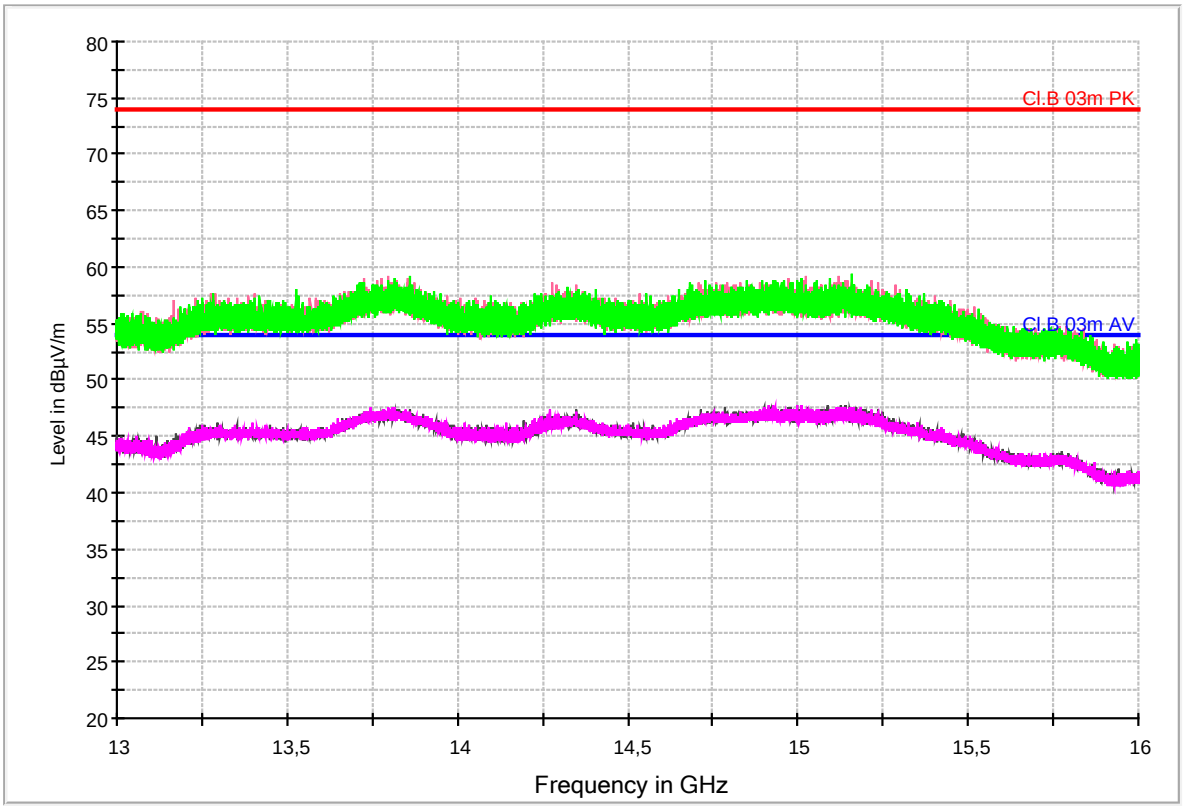
SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	29.11.2012
Test name:	1314-12-EE 050
Test result:	Passed

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK2000, Ch. 18, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 13000-18000MHz BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
13 GHz - 16 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB



Cl.B 03m PK [..\FCC15\2011\E-Field\]
Preview Result 1V-PK+ [Preview Result 1V.Result:1]
Preview Result 1H-PK+ [Preview Result 1H.Result:1]
Cl.B 03m AV [..\FCC15\2011\E-Field\]
Preview Result 2V-AVG [Preview Result 2V.Result:2]
Preview Result 2H-AVG [Preview Result 2H.Result:2]

Diagram 63:	Pre-measurement of unwanted emissions at 3 m distance; 13 – 16 GHz; transmitter operating in OQPSK2000 mode at channel 18 [Vormessung von unerwünschten Aussendungen in 3 m Entfernung; 13 – 16 GHz; Transmitter sendet im OQPSK2000-Modus auf Kanal 18]
Evaluation [Bewertung]	No relevant unwanted emissions found [Keine relevanten unerwünschten Aussendungen gefunden]

Test Results: Electrical Field Strength

Common Information

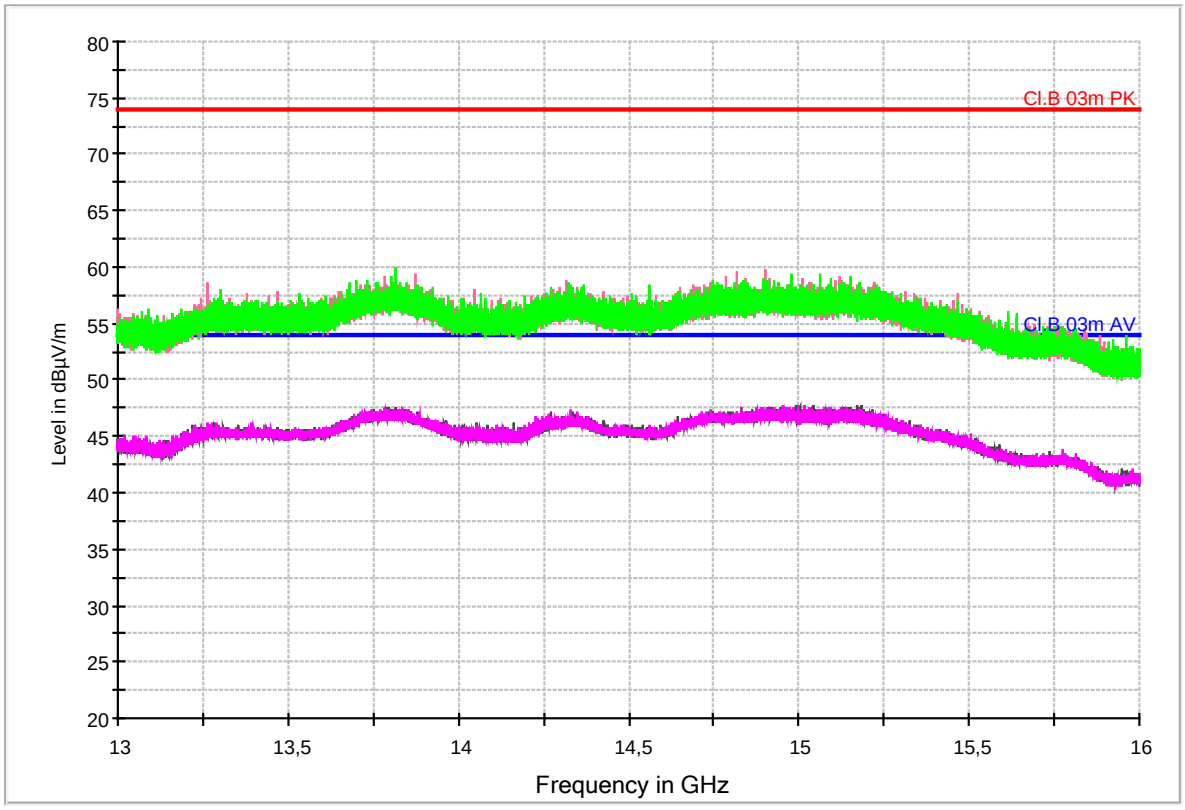
SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	29.11.2012
Test name:	1314-12-EE 051
Test result:	Passed

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK2000, Ch. 26, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 13000-18000MHz BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
13 GHz - 16 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB



Cl.B 03m PK [..\FCC15\2011\E-Field\]
Preview Result 1V-PK+ [Preview Result 1V.Result:1]
Preview Result 1H-PK+ [Preview Result 1H.Result:1]
Cl.B 03m AV [..\FCC15\2011\E-Field\]
Preview Result 2V-AVG [Preview Result 2V.Result:2]
Preview Result 2H-AVG [Preview Result 2H.Result:2]

Diagram 64:	Pre-measurement of unwanted emissions at 3 m distance; 13 – 16 GHz; transmitter operating in OQPSK2000 mode at channel 26 [Vormessung von unerwünschten Aussendungen in 3 m Entfernung; 13 – 16 GHz; Transmitter sendet im OQPSK2000- Modus auf Kanal 26]
Evaluation [Bewertung]	No relevant unwanted emissions found [Keine relevanten unerwünschten Aussendungen gefunden]

Test Results: Electrical Field Strength

Common Information

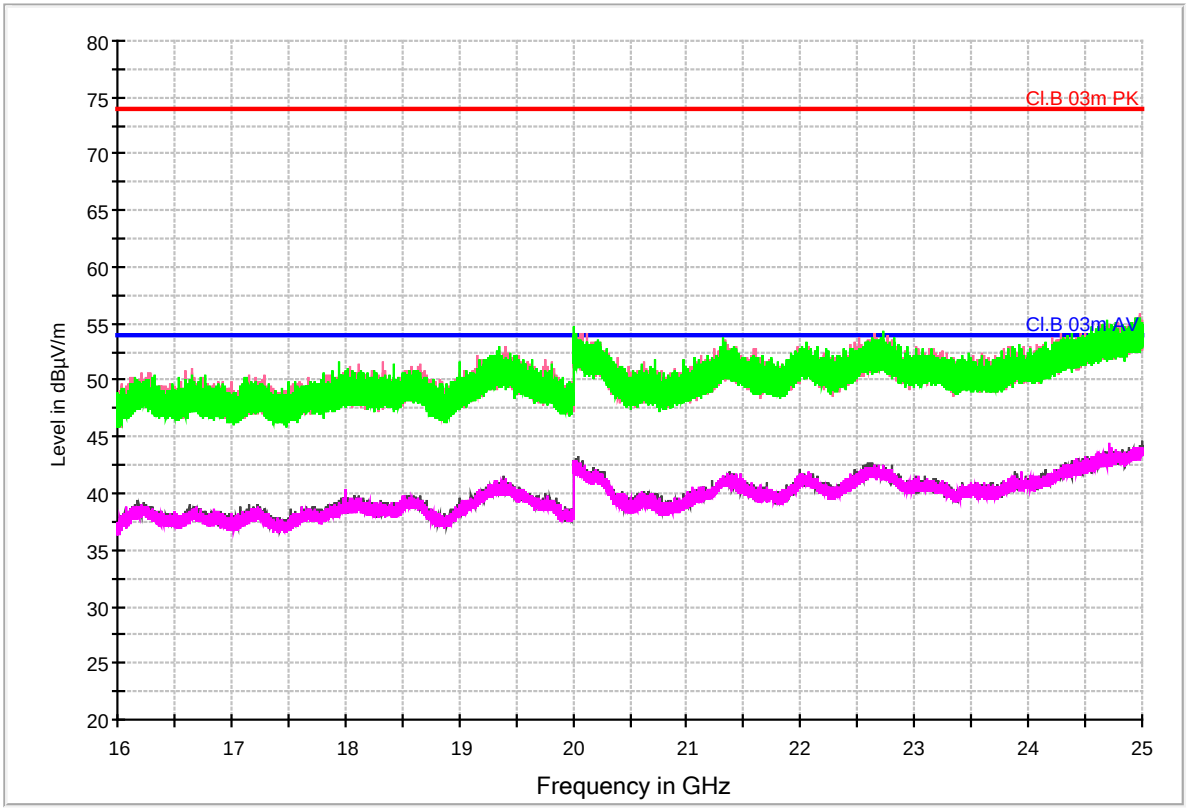
SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	30.11.2012
Test name:	1314-12-EE 052
Test result:	Passed

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK250, Ch. 11, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 14000-26500MHz BBHA9170 Inv.1672 BBV9719 Inv.1675 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
16 GHz - 25 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB



Cl.B 03m PK [..\FCC15\2011\E-Field\]
Preview Result 1V-PK+ [Preview Result 1V.Result:1]
Preview Result 1H-PK+ [Preview Result 1H.Result:1]
Cl.B 03m AV [..\FCC15\2011\E-Field\]
Preview Result 2V-AVG [Preview Result 2V.Result:2]
Preview Result 2H-AVG [Preview Result 2H.Result:2]

Diagram 65:	Pre-measurement of unwanted emissions at 3 m distance; 16 – 25 GHz; transmitter operating in OQPSK250 mode at channel 11 [Vormessung von unerwünschten Aussendungen in 3 m Entfernung; 16 – 25 GHz; Transmitter sendet im OQPSK250-Modus auf Kanal 11]
Evaluation [Bewertung]	No relevant unwanted emissions found [Keine relevanten unerwünschten Aussendungen gefunden]

Test Results: Electrical Field Strength

Common Information

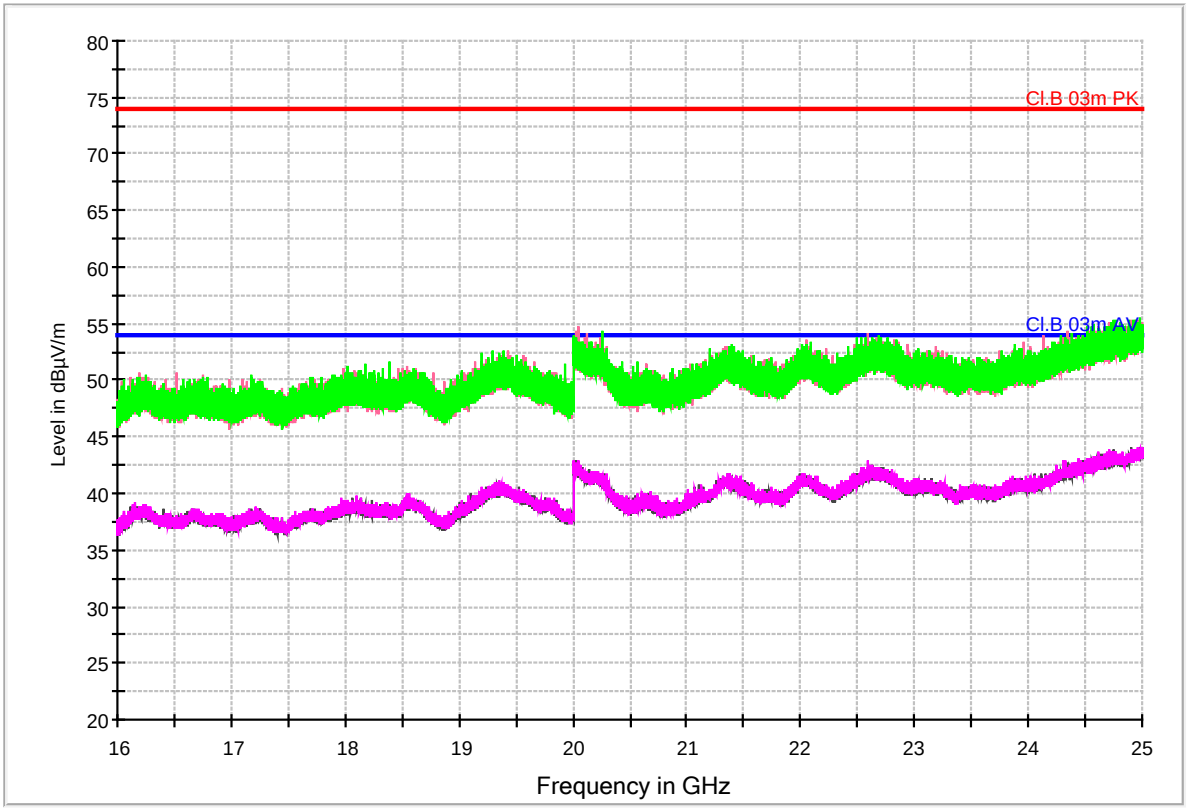
SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	30.11.2012
Test name:	1314-12-EE 053
Test result:	Passed

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK250, Ch. 18, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 14000-26500MHz BBHA9170 Inv.1672 BBV9719 Inv.1675 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
16 GHz - 25 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB



Cl.B 03m PK [..\FCC15\2011\E-Field\]
Preview Result 1V-PK+ [Preview Result 1V.Result:1]
Preview Result 1H-PK+ [Preview Result 1H.Result:1]
Cl.B 03m AV [..\FCC15\2011\E-Field\]
Preview Result 2V-AVG [Preview Result 2V.Result:2]
Preview Result 2H-AVG [Preview Result 2H.Result:2]

Diagram 66:	Pre-measurement of unwanted emissions at 3 m distance; 16 – 25 GHz; transmitter operating in OQPSK250 mode at channel 18 [Vormessung von unerwünschten Aussendungen in 3 m Entfernung; 16 – 25 GHz; Transmitter sendet im OQPSK250-Modus auf Kanal 18]
Evaluation [Bewertung]	No relevant unwanted emissions found [Keine relevanten unerwünschten Aussendungen gefunden]

Test Results: Electrical Field Strength

Common Information

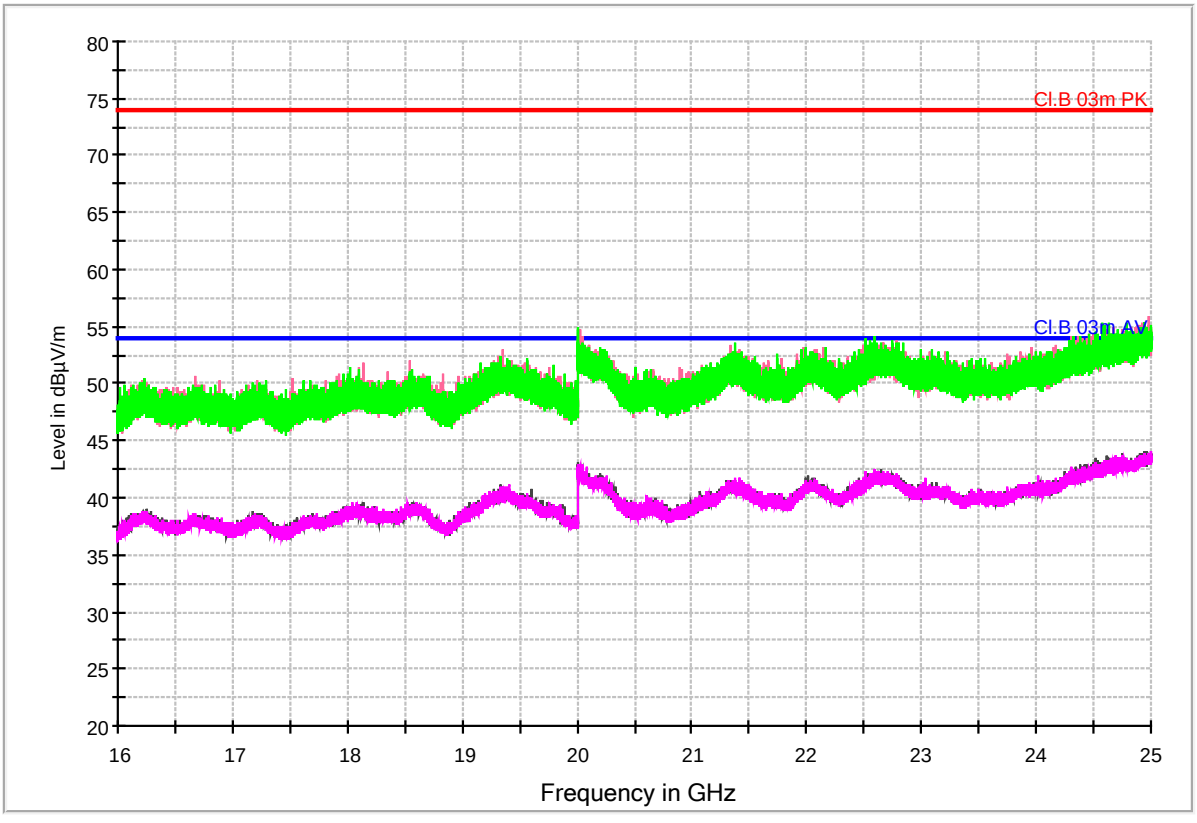
SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	30.11.2012
Test name:	1314-12-EE 054
Test result:	Passed

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK250, Ch. 26, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 14000-26500MHz BBHA9170 Inv.1672 BBV9719 Inv.1675 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
16 GHz - 25 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB



Cl.B 03m PK [..\FCC15\2011\E-Field\]
Preview Result 1V-PK+ [Preview Result 1V.Result:1]
Preview Result 1H-PK+ [Preview Result 1H.Result:1]
Cl.B 03m AV [..\FCC15\2011\E-Field\]
Preview Result 2V-AVG [Preview Result 2V.Result:2]
Preview Result 2H-AVG [Preview Result 2H.Result:2]

Diagram 67:	Pre-measurement of unwanted emissions at 3 m distance; 16 – 25 GHz; transmitter operating in OQPSK250 mode at channel 26 [Vormessung von unerwünschten Aussendungen in 3 m Entfernung; 16 – 25 GHz; Transmitter sendet im OQPSK250-Modus auf Kanal 26]
Evaluation [Bewertung]	No relevant unwanted emissions found [Keine relevanten unerwünschten Aussendungen gefunden]

Test Results: Electrical Field Strength

Common Information

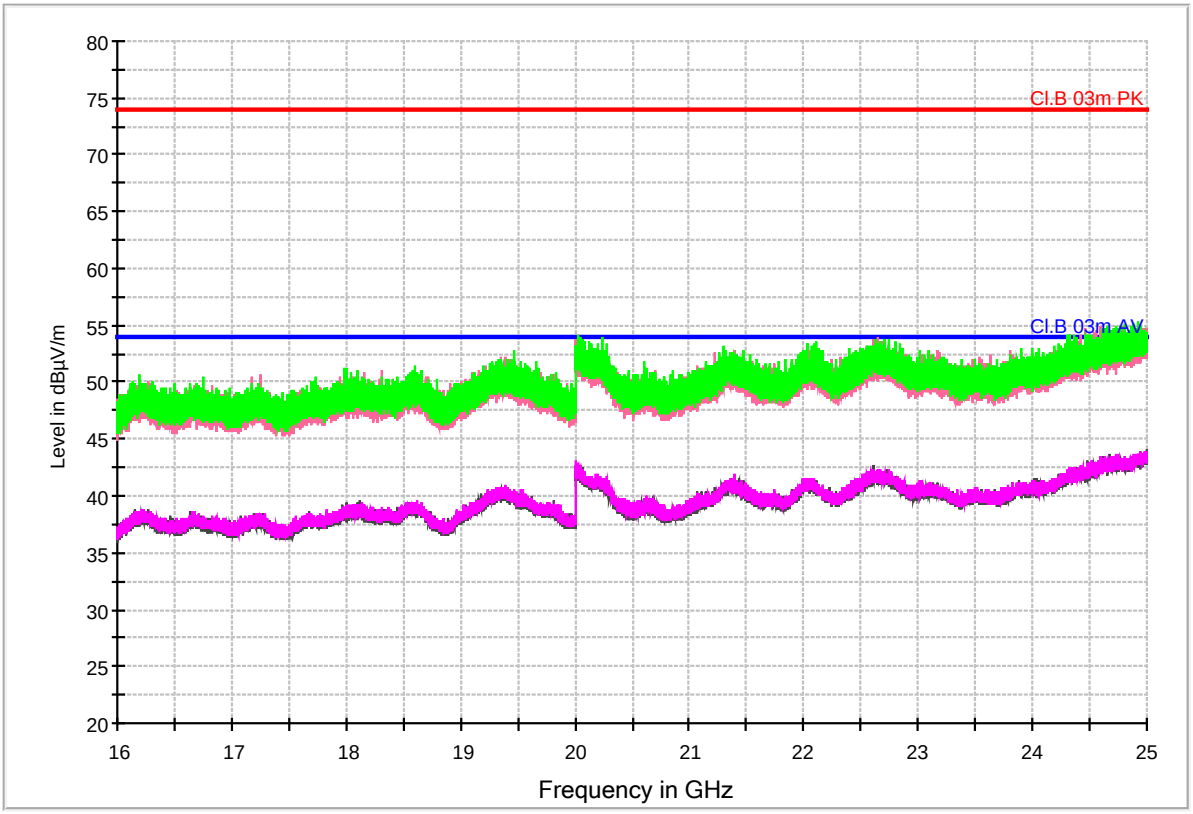
SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	30.11.2012
Test name:	1314-12-EE 055
Test result:	Passed

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK2000, Ch. 11, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 14000-26500MHz BBHA9170 Inv.1672 BBV9719 Inv.1675 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
16 GHz - 25 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB



Cl.B 03m PK [..\FCC15\2011\E-Field\]
Preview Result 1V-PK+ [Preview Result 1V.Result:1]
Preview Result 1H-PK+ [Preview Result 1H.Result:1]
Cl.B 03m AV [..\FCC15\2011\E-Field\]
Preview Result 2V-AVG [Preview Result 2V.Result:2]
Preview Result 2H-AVG [Preview Result 2H.Result:2]

Diagram 68:	Pre-measurement of unwanted emissions at 3 m distance; 16 – 25 GHz; transmitter operating in OQPSK2000 mode at channel 11 [Vormessung von unerwünschten Aussendungen in 3 m Entfernung; 16 – 25 GHz; Transmitter sendet im OQPSK2000-Modus auf Kanal 11]
Evaluation [Bewertung]	No relevant unwanted emissions found [Keine relevanten unerwünschten Aussendungen gefunden]

Test Results: Electrical Field Strength

Common Information

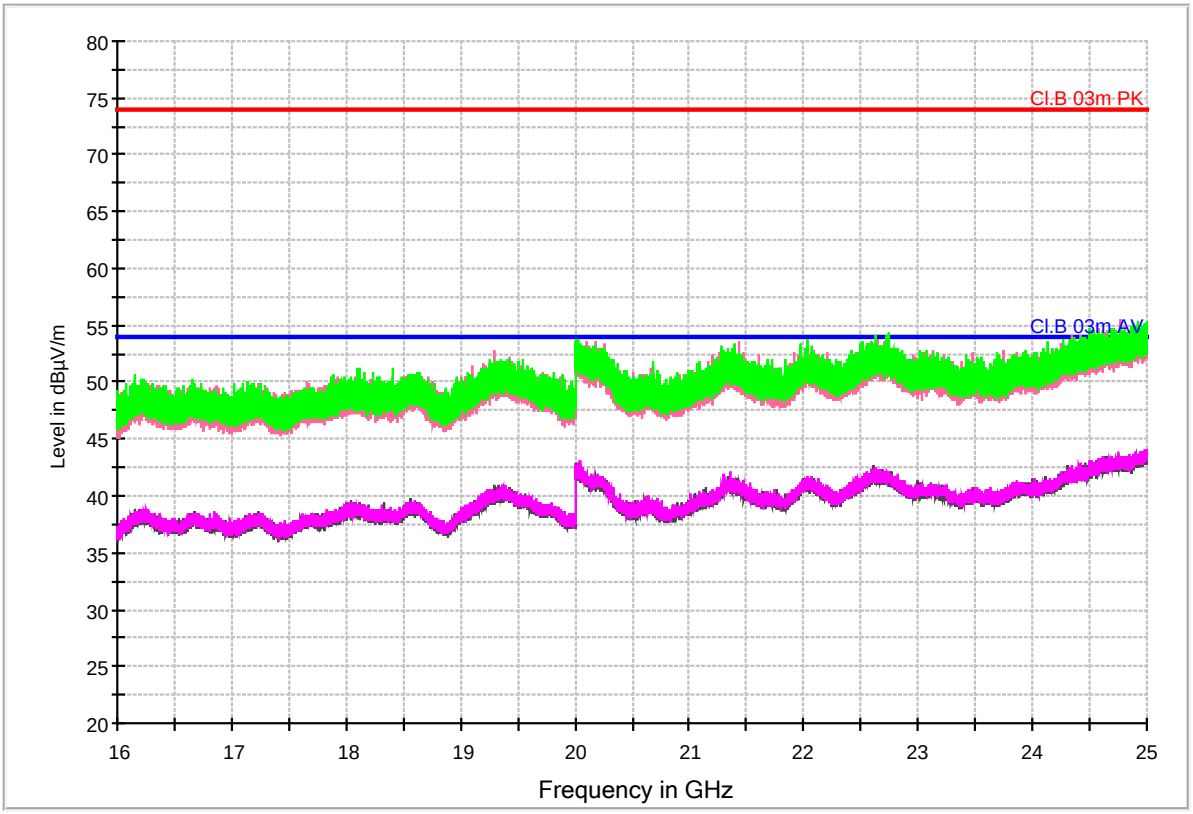
SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	30.11.2012
Test name:	1314-12-EE 056
Test result:	Passed

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK2000, Ch. 18, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 14000-26500MHz BBHA9170 Inv.1672 BBV9719 Inv.1675 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
16 GHz - 25 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB



Cl.B 03m PK [..\FCC15\2011\E-Field\]
Preview Result 1V-PK+ [Preview Result 1V.Result:1]
Preview Result 1H-PK+ [Preview Result 1H.Result:1]
Cl.B 03m AV [..\FCC15\2011\E-Field\]
Preview Result 2V-AVG [Preview Result 2V.Result:2]
Preview Result 2H-AVG [Preview Result 2H.Result:2]

Diagram 69:	Pre-measurement of unwanted emissions at 3 m distance; 16 – 25 GHz; transmitter operating in OQPSK2000 mode at channel 18 [Vormessung von unerwünschten Aussendungen in 3 m Entfernung; 16 – 25 GHz; Transmitter sendet im OQPSK2000-Modus auf Kanal 18]
Evaluation [Bewertung]	No relevant unwanted emissions found [Keine relevanten unerwünschten Aussendungen gefunden]

Test Results: Electrical Field Strength

Common Information

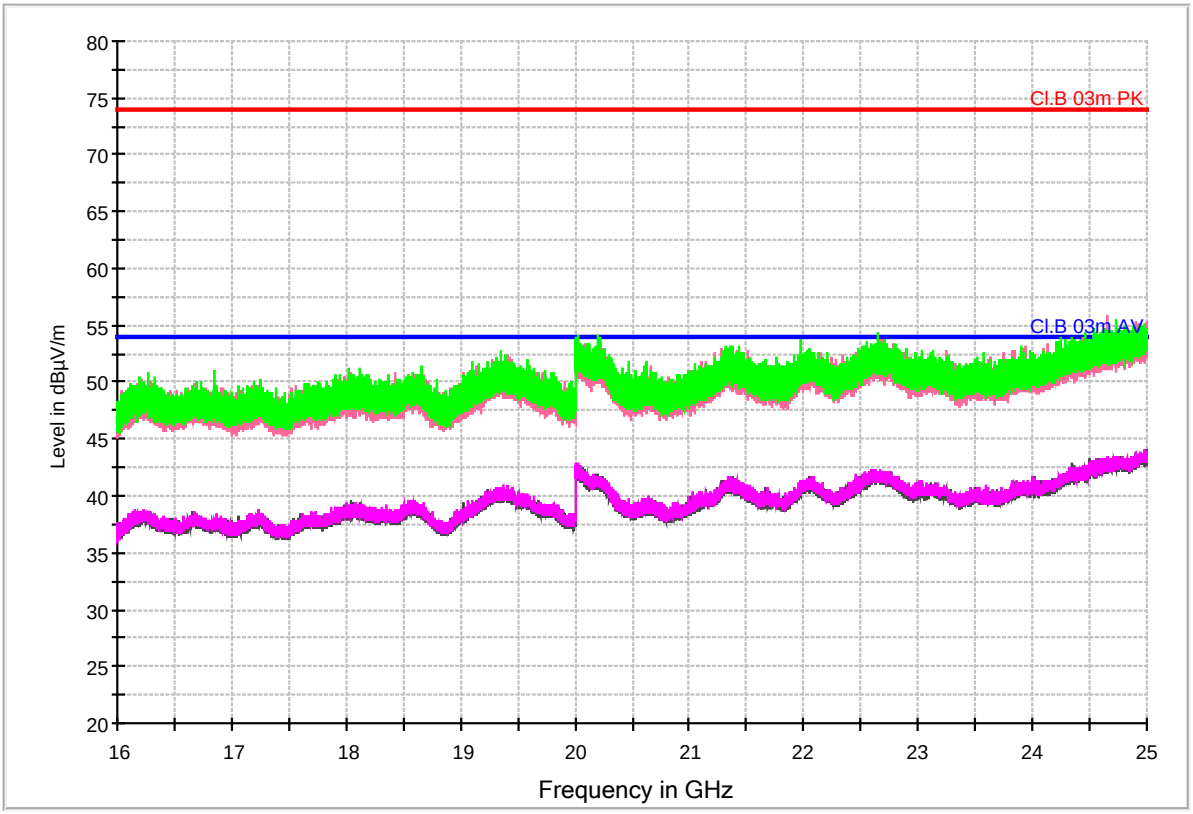
SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	30.11.2012
Test name:	1314-12-EE 057
Test result:	Passed

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK2000, Ch. 26, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 14000-26500MHz BBHA9170 Inv.1672 BBV9719 Inv.1675 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
16 GHz - 25 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB



Cl.B 03m PK [..\FCC15\2011\E-Field\]
Preview Result 1V-PK+ [Preview Result 1V.Result:1]
Preview Result 1H-PK+ [Preview Result 1H.Result:1]
Cl.B 03m AV [..\FCC15\2011\E-Field\]
Preview Result 2V-AVG [Preview Result 2V.Result:2]
Preview Result 2H-AVG [Preview Result 2H.Result:2]

Diagram 70:	Pre-measurement of unwanted emissions at 3 m distance; 16 – 25 GHz; transmitter operating in OQPSK2000 mode at channel 26 [Vormessung von unerwünschten Aussendungen in 3 m Entfernung; 16 – 25 GHz; Transmitter sendet im OQPSK2000-Modus auf Kanal 26]
Evaluation [Bewertung]	No relevant unwanted emissions found [Keine relevanten unerwünschten Aussendungen gefunden]

Test Results: Electrical Field Strength

Common Information

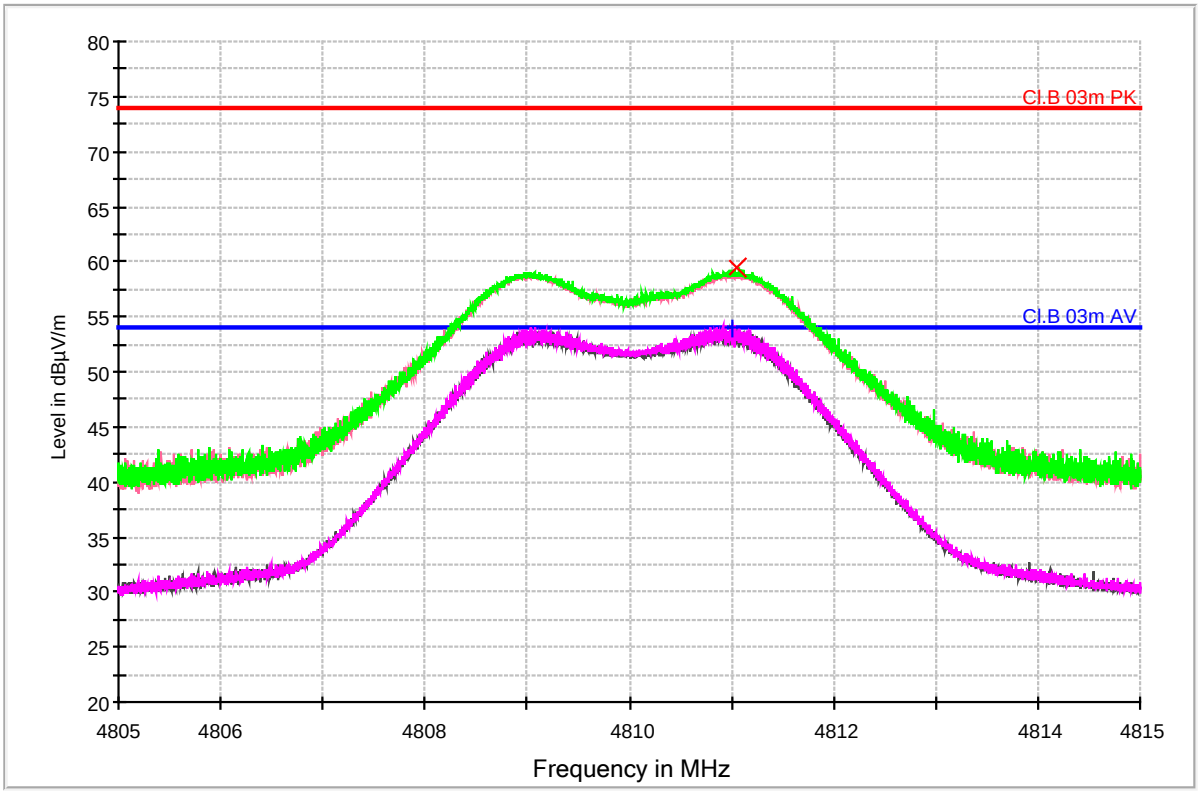
SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	28.11.2012
Test name:	1314-12-EE 022
Test result:	

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK250, Ch. 11, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 01000-13000MHz BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
4 GHz - 5 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB



Cl.B 03m PK [..\FCC15\2011\E-Field\]
Preview Result 1V-PK+ [Preview Result 1V.Result:1]
Preview Result 1H-PK+ [Preview Result 1H.Result:1]
Final Result 1-PK+ [Final Result 1.Result:1]
Cl.B 03m AV [..\FCC15\2011\E-Field\]
Preview Result 2V-AVG [Preview Result 2V.Result:2]
Preview Result 2H-AVG [Preview Result 2H.Result:2]
Final Result 2-AVG [Final Result 2.Result:1]

Diagram 71:	Final-measurement of unwanted emissions at 3 m distance; 4.81 GHz; transmitter operating in OQPSK250 mode at channel 11 [Nachmessung von unerwünschten Aussendungen in 3 m Entfernung; 4,81 GHz; Transmitter sendet im OQPSK250-Modus auf Kanal 11]
Evaluation [Bewertung]	See table 31 [siehe Tabelle 31]

Test Results: Electrical Field Strength

Common Information

SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	28.11.2012
Test name:	1314-12-EE 022
Test result:	

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK250, Ch. 11, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 01000-13000MHz BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
4 GHz - 5 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB

Final Result 1

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
4811.058497	59.4	181.0	H	144.0	8.1	14.6	74.0

Final Result 2

Frequency (MHz)	Average (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
4811.019262	54.0	181.0	H	149.0	8.1	0.0	54.0

Table 19:	Final-measurement of unwanted emissions at 3 m distance; 4.81 GHz; transmitter operating in OQPSK250 mode at channel 11 [Nachmessung von unerwünschten Aussendungen in 3 m Entfernung; 4,81 GHz; Transmitter sendet im OQPSK250-Modus auf Kanal 11]
Evaluation [Bewertung]	See table 31 [siehe Tabelle 31]

Test Results: Electrical Field Strength

Common Information

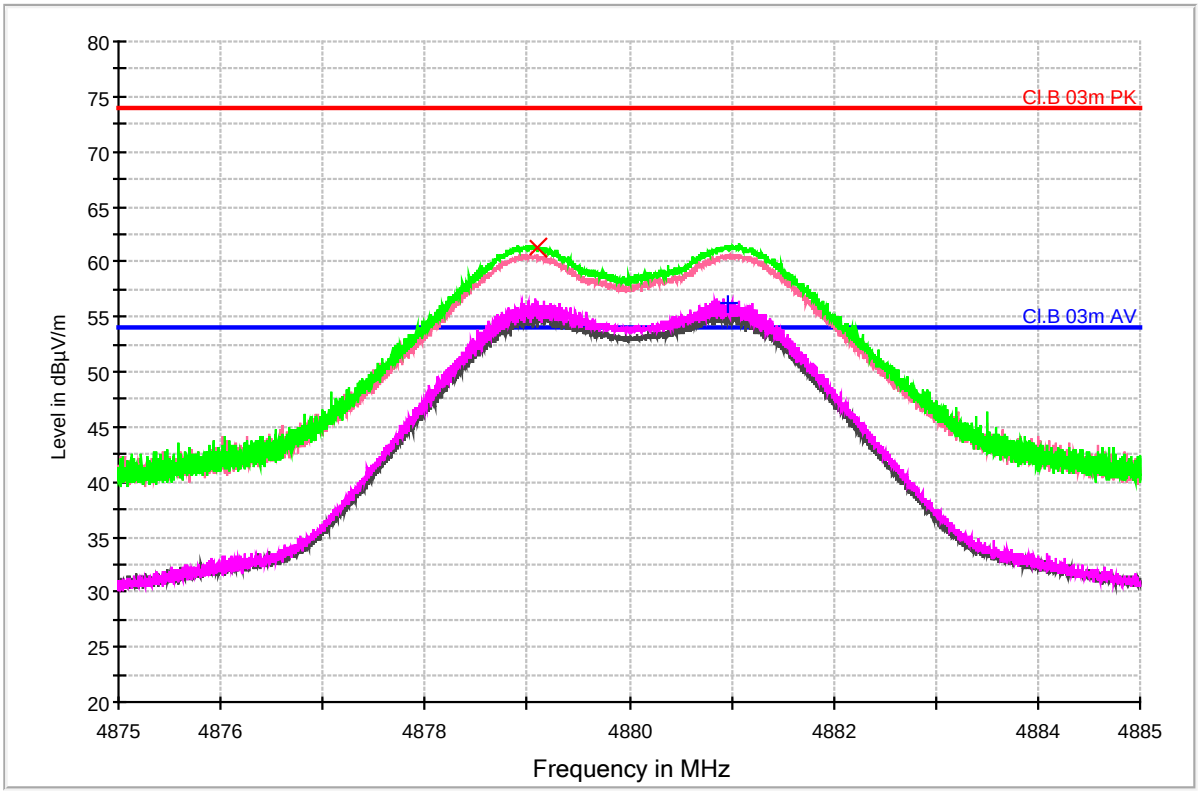
SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	28.11.2012
Test name:	1314-12-EE 026
Test result:	

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK250, Ch. 18, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 01000-13000MHz BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
4 GHz - 5 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB



Cl.B 03m PK [..\FCC15\2011\E-Field\]
Preview Result 1V-PK+ [Preview Result 1V.Result:1]
Preview Result 1H-PK+ [Preview Result 1H.Result:1]
Final Result 1-PK+ [Final Result 1.Result:1]
Cl.B 03m AV [..\FCC15\2011\E-Field\]
Preview Result 2V-AVG [Preview Result 2V.Result:2]
Preview Result 2H-AVG [Preview Result 2H.Result:2]
Final Result 2-AVG [Final Result 2.Result:1]

Diagram 72:	Final-measurement of unwanted emissions at 3 m distance; 4.88 GHz; transmitter operating in OQPSK250 mode at channel 18 [Nachmessung von unerwünschten Aussendungen in 3 m Entfernung; 4,88 GHz; Transmitter sendet im OQPSK250-Modus auf Kanal 18]
Evaluation [Bewertung]	See table 31 [siehe Tabelle 31]

Test Results: Electrical Field Strength

Common Information

SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	28.11.2012
Test name:	1314-12-EE 026
Test result:	

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK250, Ch. 18, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 01000-13000MHz BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
4 GHz - 5 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB

Final Result 1

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
4879.105821	61.4	157.0	H	153.0	8.3	12.6	74.0

Final Result 2

Frequency (MHz)	Average (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
4880.955403	56.2	150.0	H	153.0	8.3	-2.2	54.0

Table 20:	Final-measurement of unwanted emissions at 3 m distance; 4.88 GHz; transmitter operating in OQPSK250 mode at channel 18 [Nachmessung von unerwünschten Aussendungen in 3 m Entfernung; 4,88 GHz; Transmitter sendet im OQPSK250-Modus auf Kanal 18]
Evaluation [Bewertung]	See table 31 [siehe Tabelle 31]

Test Results: Electrical Field Strength

Common Information

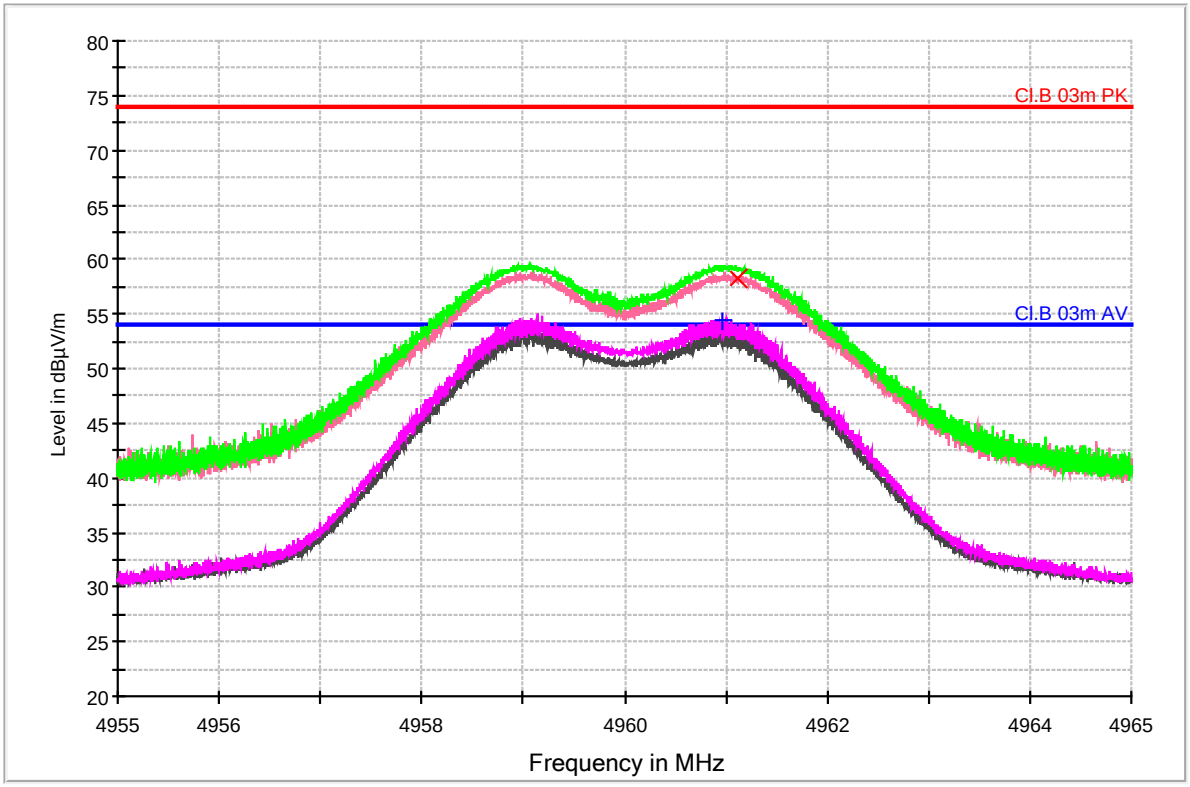
SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	28.11.2012
Test name:	1314-12-EE 030
Test result:	

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK250, Ch. 26, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 01000-13000MHz BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
4 GHz - 5 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB



Cl.B 03m PK [..\FCC15\2011\E-Field\]
Preview Result 1V-PK+ [Preview Result 1V.Result:1]
Preview Result 1H-PK+ [Preview Result 1H.Result:1]
Final Result 1-PK+ [Final Result 1.Result:1]

Cl.B 03m AV [..\FCC15\2011\E-Field\]
Preview Result 2V-AVG [Preview Result 2V.Result:2]
Preview Result 2H-AVG [Preview Result 2H.Result:2]
Final Result 2-AVG [Final Result 2.Result:1]

Diagram 73:	Final-measurement of unwanted emissions at 3 m distance; 4.96 GHz; transmitter operating in OQPSK250 mode at channel 26 [Nachmessung von unerwünschten Aussendungen in 3 m Entfernung; 4,96 GHz; Transmitter sendet im OQPSK250-Modus auf Kanal 26]
Evaluation [Bewertung]	See table 31 [siehe Tabelle 31]

Test Results: Electrical Field Strength

Common Information

SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	28.11.2012
Test name:	1314-12-EE 030
Test result:	

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK250, Ch. 26, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 01000-13000MHz BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
4 GHz - 5 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB

Final Result 1

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
4961.117061	58.2	150.0	H	119.0	8.4	15.7	74.0

Final Result 2

Frequency (MHz)	Average (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
4960.958138	54.5	173.0	H	155.0	8.4	-0.5	54.0

Table 21:	Final-measurement of unwanted emissions at 3 m distance; 4.96 GHz; transmitter operating in OQPSK250 mode at channel 26 [Nachmessung von unerwünschten Aussendungen in 3 m Entfernung; 4,96 GHz; Transmitter sendet im OQPSK250-Modus auf Kanal 26]
Evaluation [Bewertung]	See table 31 [siehe Tabelle 31]

Test Results: Electrical Field Strength

Common Information

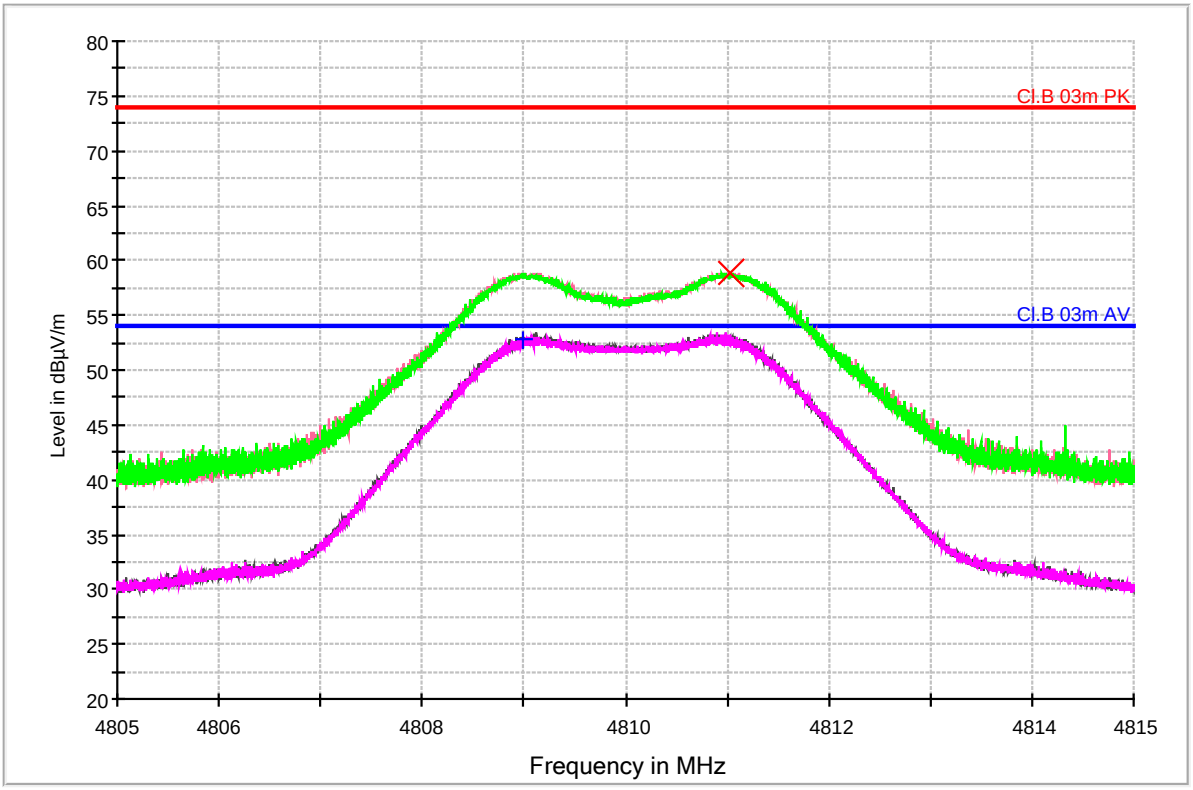
SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	28.11.2012
Test name:	1314-12-EE 023
Test result:	

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK500, Ch. 11, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 01000-13000MHz BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
4 GHz - 5 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB



Cl.B 03m PK [..\FCC15\2011\E-Field\]
Preview Result 1V-PK+ [Preview Result 1V.Result:1]
Preview Result 1H-PK+ [Preview Result 1H.Result:1]
Final Result 2-AVG [Final Result 2.Result:1]
Cl.B 03m AV [..\FCC15\2011\E-Field\]
Preview Result 2V-AVG [Preview Result 2V.Result:2]
Preview Result 2H-AVG [Preview Result 2H.Result:2]
Final result 1-PK+ [Final Result 1.Result:1]

Diagram 74:	Final-measurement of unwanted emissions at 3 m distance; 4.81 GHz; transmitter operating in OQPSK500 mode at channel 11 [Nachmessung von unerwünschten Aussendungen in 3 m Entfernung; 4,81 GHz; Transmitter sendet im OQPSK500-Modus auf Kanal 11]
Evaluation [Bewertung]	See table 31 [siehe Tabelle 31]

Test Results: Electrical Field Strength

Common Information

SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	28.11.2012
Test name:	1314-12-EE 023
Test result:	

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK500, Ch. 11, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 01000-13000MHz BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
4 GHz - 5 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB

Final Result 1

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
4811.038750	58.9	181.0	H	144.0	8.1	14.6	74.0

Final Result 2

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
4808.985938	52.9	165.0	V	311.0	8.1	1.1	54.0

Table 22:	Final-measurement of unwanted emissions at 3 m distance; 4.81 GHz; transmitter operating in OQPSK500 mode at channel 11 [Nachmessung von unerwünschten Aussendungen in 3 m Entfernung; 4,81 GHz; Transmitter sendet im OQPSK500-Modus auf Kanal 11]
Evaluation [Bewertung]	See table 31 [siehe Tabelle 31]

Test Results: Electrical Field Strength

Common Information

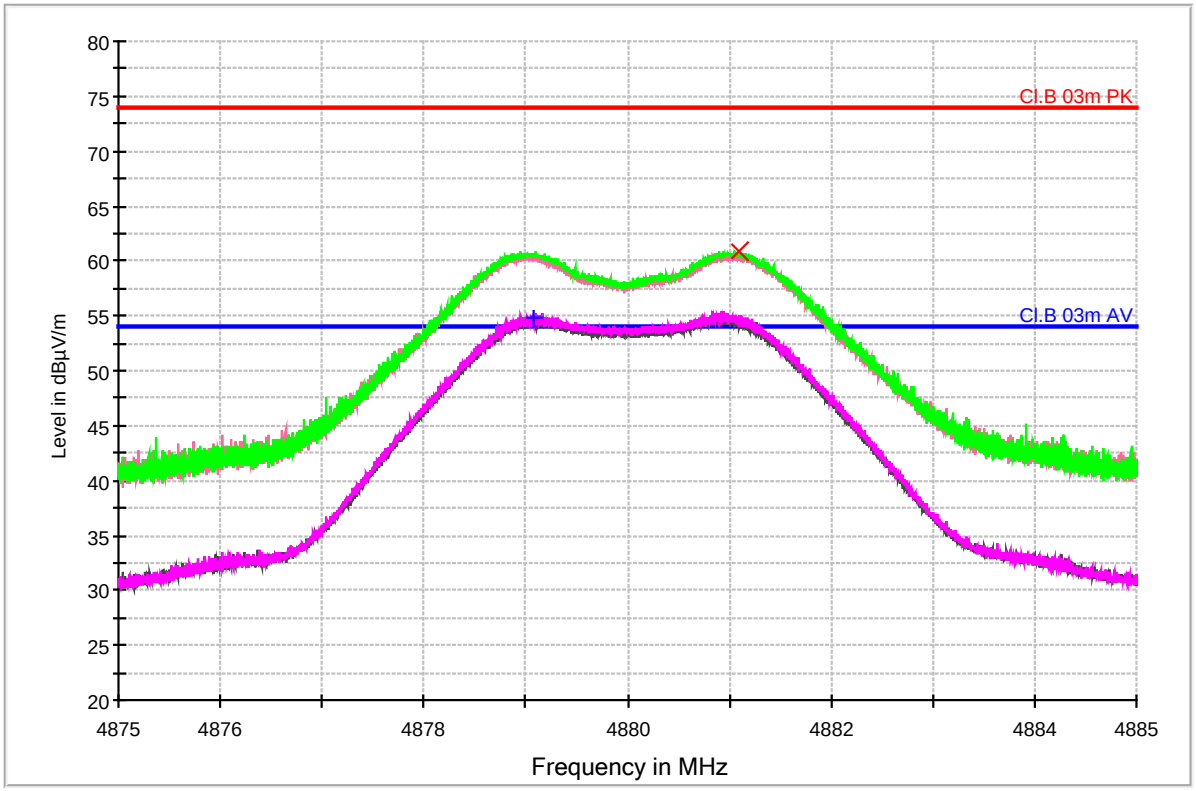
SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	28.11.2012
Test name:	1314-12-EE 027
Test result:	

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK500, Ch. 18, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 01000-13000MHz BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
4 GHz - 5 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB



Cl.B 03m PK [..\FCC15\2011\E-Field\]
Preview Result 1V-PK+ [Preview Result 1V.Result:1]
Preview Result 1H-PK+ [Preview Result 1H.Result:1]
Final Result 1-PK+ [Final Result 1.Result:1]
Cl.B 03m AV [..\FCC15\2011\E-Field\]
Preview Result 2V-AVG [Preview Result 2V.Result:2]
Preview Result 2H-AVG [Preview Result 2H.Result:2]
Final Result 2-AVG [Final Result 2.Result:1]

Diagram 75:	Final-measurement of unwanted emissions at 3 m distance; 4.88 GHz; transmitter operating in OQPSK500 mode at channel 18 [Nachmessung von unerwünschten Aussendungen in 3 m Entfernung; 4,88 GHz; Transmitter sendet im OQPSK500-Modus auf Kanal 18]
Evaluation [Bewertung]	See table 31 [siehe Tabelle 31]

Test Results: Electrical Field Strength

Common Information

SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	28.11.2012
Test name:	1314-12-EE 027
Test result:	

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK500, Ch. 18, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 01000-13000MHz BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
4 GHz - 5 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB

Final Result 1

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
4881.105694	60.9	173.0	H	154.0	8.3	13.0	74.0

Final Result 2

Frequency (MHz)	Average (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
4879.086454	54.8	177.0	H	149.0	8.3	-0.8	54.0

Table 23:	Final-measurement of unwanted emissions at 3 m distance; 4.88 GHz; transmitter operating in OQPSK500 mode at channel 18 [Nachmessung von unerwünschten Aussendungen in 3 m Entfernung; 4,88 GHz; Transmitter sendet im OQPSK500-Modus auf Kanal 18]
Evaluation [Bewertung]	See table 31 [siehe Tabelle 31]

Test Results: Electrical Field Strength

Common Information

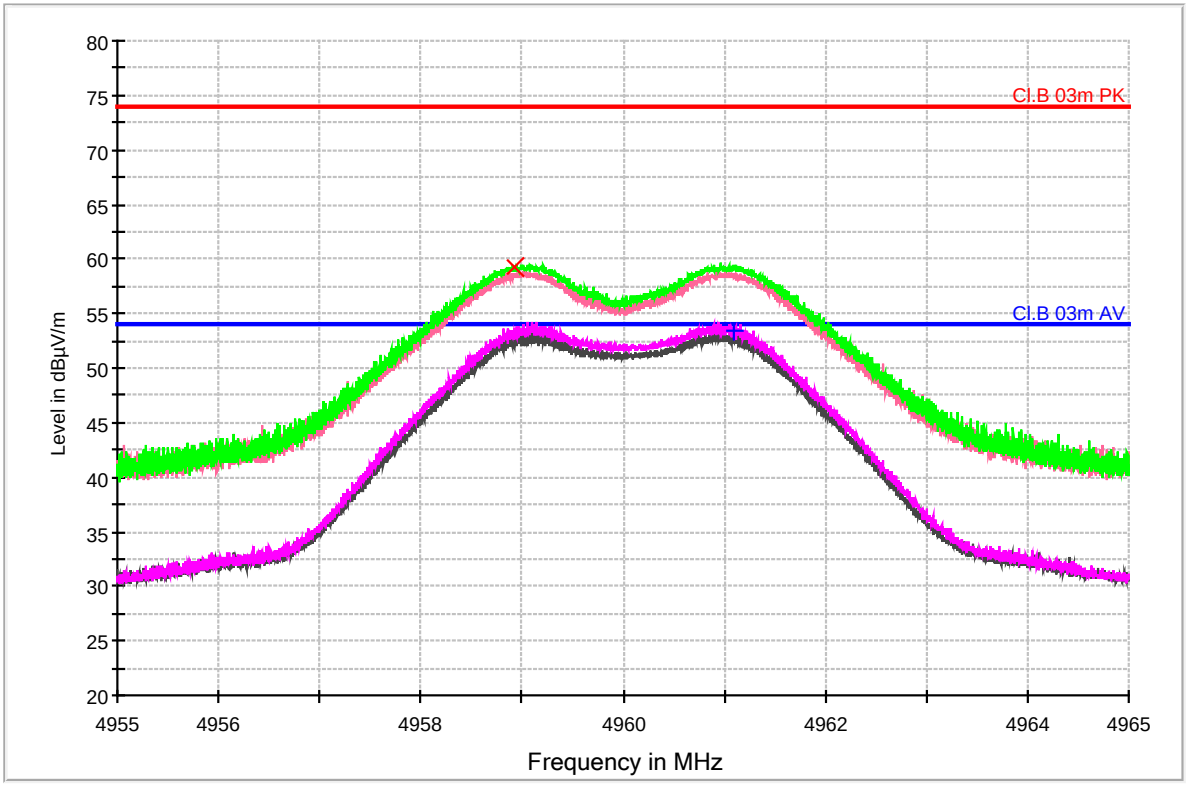
SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	28.11.2012
Test name:	1314-12-EE 031
Test result:	

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK500, Ch. 26, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 01000-13000MHz BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
4 GHz - 5 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB



Cl.B 03m PK [..\FCC15\2011\E-Field\]
Preview Result 1V-PK+ [Preview Result 1V.Result:1]
Preview Result 1H-PK+ [Preview Result 1H.Result:1]
Final Result 1-PK+ [Final Result 1.Result:1]

Cl.B 03m AV [..\FCC15\2011\E-Field\]
Preview Result 2V-AVG [Preview Result 2V.Result:2]
Preview Result 2H-AVG [Preview Result 2H.Result:2]
Final Result 2-AVG [Final Result 2.Result:1]

Diagram 76:	Final-measurement of unwanted emissions at 3 m distance; 4.96 GHz; transmitter operating in OQPSK500 mode at channel 26 [Nachmessung von unerwünschten Aussendungen in 3 m Entfernung; 4,96 GHz; Transmitter sendet im OQPSK500-Modus auf Kanal 26]
Evaluation [Bewertung]	See table 31 [siehe Tabelle 31]

Test Results: Electrical Field Strength

Common Information

SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	28.11.2012
Test name:	1314-12-EE 031
Test result:	

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK500, Ch. 26, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 01000-13000MHz BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
4 GHz - 5 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB

Final Result 1

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
4958.921730	59.2	148.0	H	160.0	8.4	14.8	74.0

Final Result 2

Frequency (MHz)	Average (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
4961.096056	53.4	156.0	H	160.0	8.4	0.6	54.0

Table 24:	Final-measurement of unwanted emissions at 3 m distance; 4.96 GHz; transmitter operating in OQPSK500 mode at channel 26 [Nachmessung von unerwünschten Aussendungen in 3 m Entfernung; 4,96 GHz; Transmitter sendet im OQPSK500-Modus auf Kanal 26]
Evaluation [Bewertung]	See table 31 [siehe Tabelle 31]

Test Results: Electrical Field Strength

Common Information

SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	28.11.2012
Test name:	1314-12-EE 024
Test result:	

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK1000, Ch. 11, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 01000-13000MHz BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
4 GHz - 5 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB

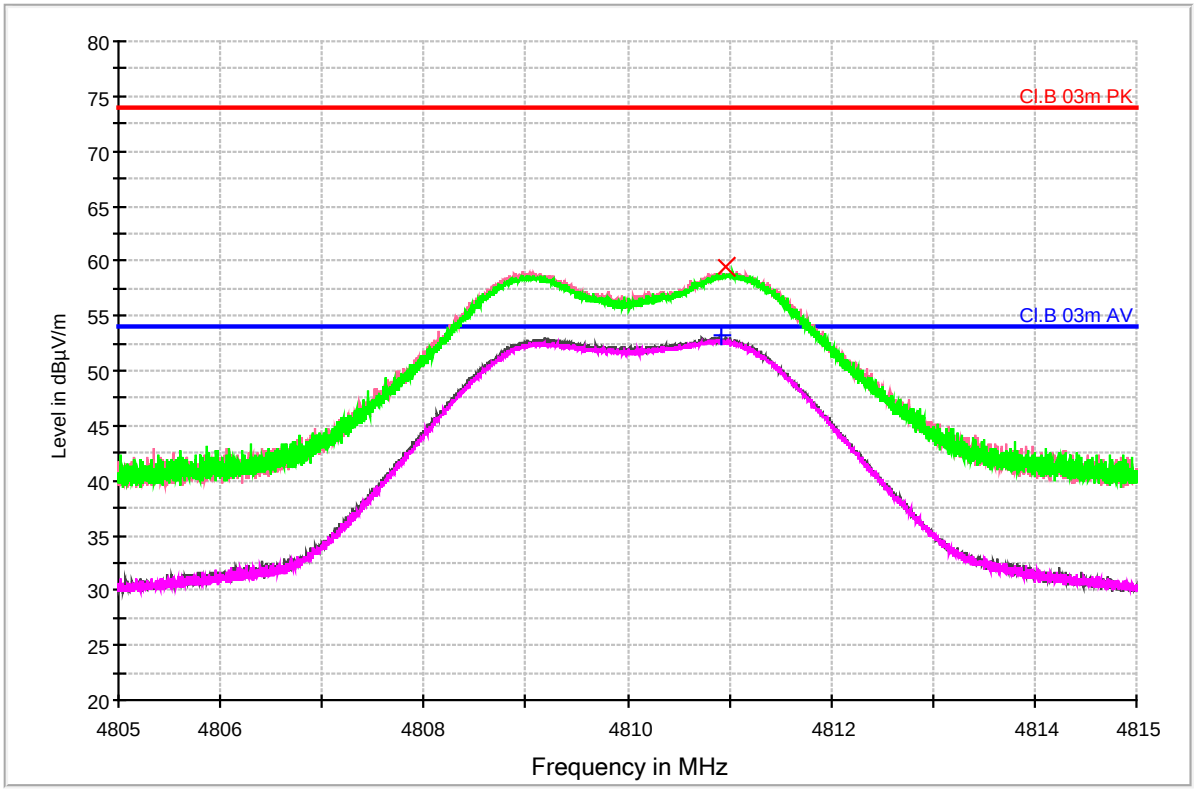


Diagram 77:	Final-measurement of unwanted emissions at 3 m distance; 4.81 GHz; transmitter operating in OQPSK1000 mode at channel 11 [Nachmessung von unerwünschten Aussendungen in 3 m Entfernung; 4,81 GHz; Transmitter sendet im OQPSK1000-Modus auf Kanal 11]
Evaluation [Bewertung]	See table 31 [siehe Tabelle 31]

Test Results: Electrical Field Strength

Common Information

SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	28.11.2012
Test name:	1314-12-EE 024
Test result:	

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK1000, Ch. 11, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 01000-13000MHz BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
4 GHz - 5 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB

Final Result 1

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
4810.970315	59.4	164.0	V	311.0	8.1	14.6	74.0

Final Result 2

Frequency (MHz)	Average (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
4810.920768	53.2	162.0	V	312.0	8.1	0.8	54.0

Table 25:	Final-measurement of unwanted emissions at 3 m distance; 4.81 GHz; transmitter operating in OQPSK1000 mode at channel 11 [Nachmessung von unerwünschten Aussendungen in 3 m Entfernung; 4,81 GHz; Transmitter sendet im OQPSK1000-Modus auf Kanal 11]
Evaluation [Bewertung]	See table 31 [siehe Tabelle 31]

Test Results: Electrical Field Strength

Common Information

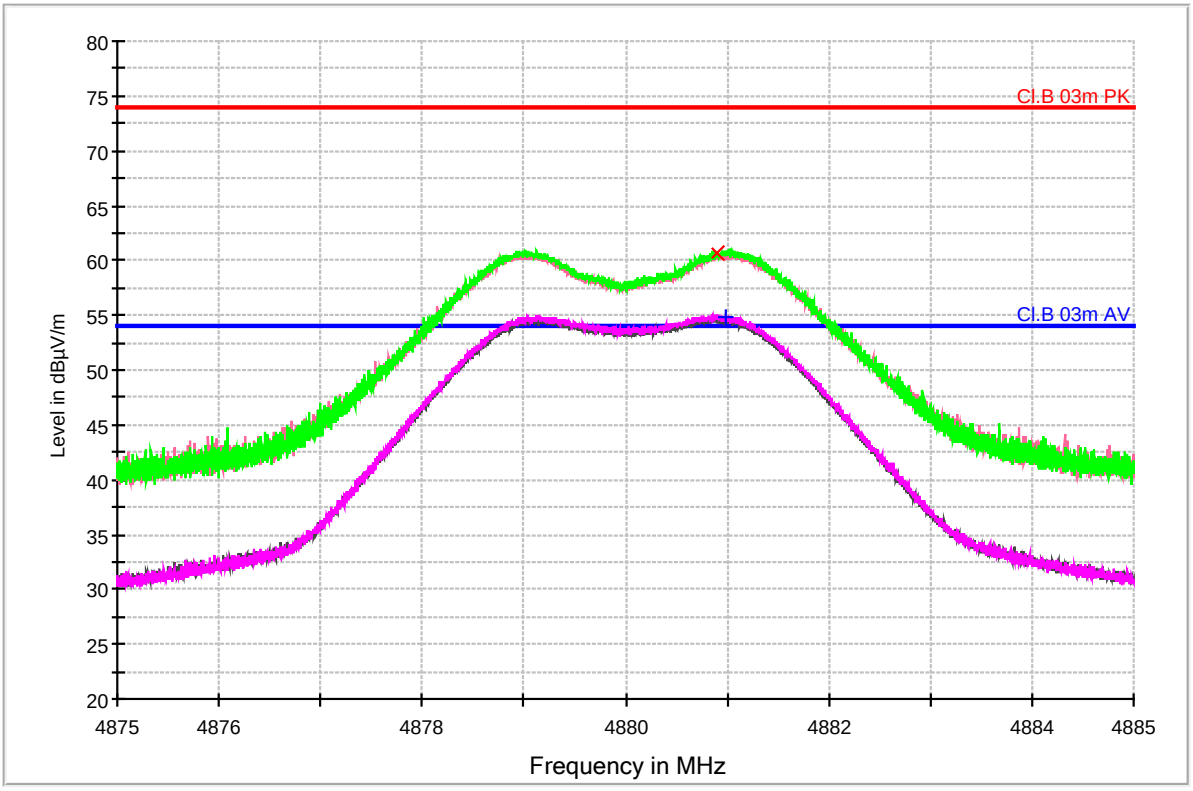
SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	28.11.2012
Test name:	1314-12-EE 028
Test result:	

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK1000, Ch. 18, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 01000-13000MHz BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
4 GHz - 5 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB



Cl.B 03m PK [..\FCC15\2011\E-Field\]
Preview Result 1V-PK+ [Preview Result 1V.Result:1]
Preview Result 1H-PK+ [Preview Result 1H.Result:1]
Final Result 1-PK+ [Final Result 1.Result:1]
Cl.B 03m AV [..\FCC15\2011\E-Field\]
Preview Result 2V-AVG [Preview Result 2V.Result:2]
Preview Result 2H-AVG [Preview Result 2H.Result:2]
Final Result 2-AVG [Final Result 2.Result:1]

Diagram 78:	Final-measurement of unwanted emissions at 3 m distance; 4.88 GHz; transmitter operating in OQPSK1000 mode at channel 18 [Nachmessung von unerwünschten Aussendungen in 3 m Entfernung; 4,88 GHz; Transmitter sendet im OQPSK1000-Modus auf Kanal 18]
Evaluation [Bewertung]	See table 31 [siehe Tabelle 31]

Test Results: Electrical Field Strength

Common Information

SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	28.11.2012
Test name:	1314-12-EE 028
Test result:	

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK1000, Ch. 18, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 01000-13000MHz BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
4 GHz - 5 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB

Final Result 1

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
4880.897324	60.7	144.0	H	154.0	8.3	13.3	74.0

Final Result 2

Frequency (MHz)	Average (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
4880.995538	54.7	177.0	H	154.0	8.3	-0.8	54.0

Table 26:	Final-measurement of unwanted emissions at 3 m distance; 4.88 GHz; transmitter operating in OQPSK1000 mode at channel 18 [Nachmessung von unerwünschten Aussendungen in 3 m Entfernung; 4,88 GHz; Transmitter sendet im OQPSK1000-Modus auf Kanal 18]
Evaluation [Bewertung]	See table 31 [siehe Tabelle 31]

Test Results: Electrical Field Strength

Common Information

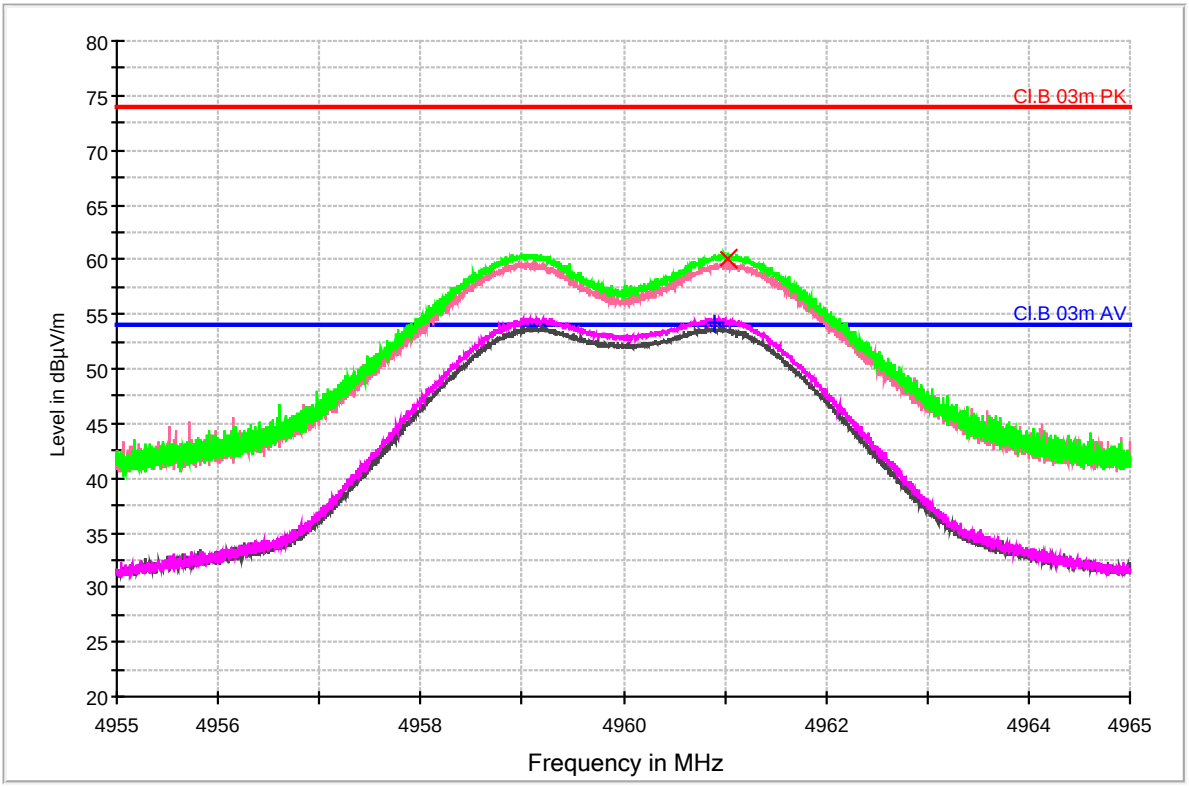
SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	28.11.2012
Test name:	1314-12-EE 032
Test result:	

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK1000, Ch. 26, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 01000-13000MHz BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
4 GHz - 5 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB



Cl.B 03m PK [..\FCC15\2011\E-Field\]
Preview Result 1V-PK+ [Preview Result 1V.Result:1]
Preview Result 1H-PK+ [Preview Result 1H.Result:1]
Final Result 1-PK+ [Final Result 1.Result:1]

Cl.B 03m AV [..\FCC15\2011\E-Field\]
Preview Result 2V-AVG [Preview Result 2V.Result:2]
Preview Result 2H-AVG [Preview Result 2H.Result:2]
Final Result 2-AVG [Final Result 2.Result:1]

Diagram 79:	Final-measurement of unwanted emissions at 3 m distance; 4.96 GHz; transmitter operating in OQPSK1000 mode at channel 26 [Nachmessung von unerwünschten Aussendungen in 3 m Entfernung; 4,96 GHz; Transmitter sendet im OQPSK1000-Modus auf Kanal 26]
Evaluation [Bewertung]	See table 31 [siehe Tabelle 31]

Test Results: Electrical Field Strength

Common Information

SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	28.11.2012
Test name:	1314-12-EE 032
Test result:	

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK1000, Ch. 26, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 01000-13000MHz BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
4 GHz - 5 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB

Final Result 1

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
4961.033273	60.0	176.0	H	159.0	8.4	14.0	74.0

Final Result 2

Frequency (MHz)	Average (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
4960.899170	54.2	156.0	H	159.0	8.4	-0.3	54.0

Table 27:	Final-measurement of unwanted emissions at 3 m distance; 4.96 GHz; transmitter operating in OQPSK1000 mode at channel 26 [Nachmessung von unerwünschten Aussendungen in 3 m Entfernung; 4,96 GHz; Transmitter sendet im OQPSK1000- Modus auf Kanal 26]
Evaluation [Bewertung]	See table 31 [siehe Tabelle 31]

Test Results: Electrical Field Strength

Common Information

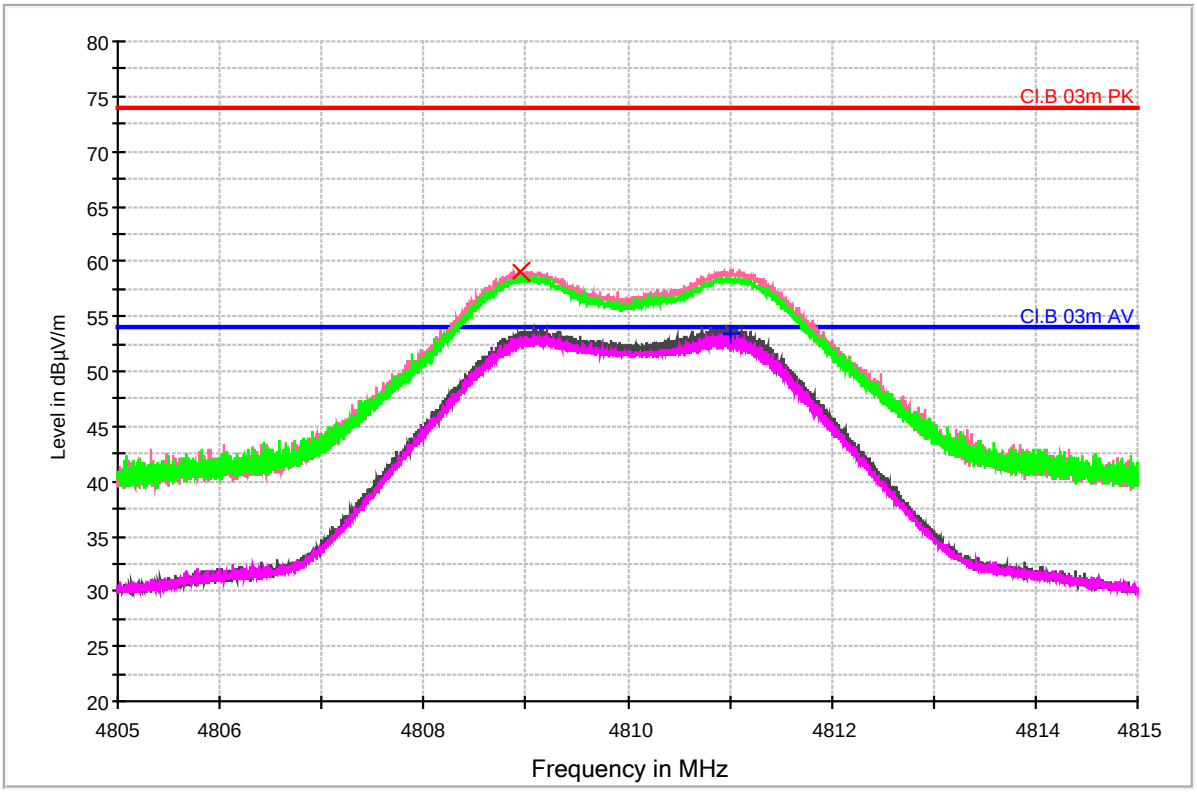
SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	28.11.2012
Test name:	1314-12-EE 025
Test result:	

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK2000, Ch. 11, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 01000-13000MHz BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
4 GHz - 5 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB



Cl.B 03m PK [..\FCC15\2011\E-Field\]
Preview Result 1V-PK+ [Preview Result 1V.Result:1]
Preview Result 1H-PK+ [Preview Result 1H.Result:1]
Final Result 1-PK+ [Final Result 1.Result:1]
Cl.B 03m AV [..\FCC15\2011\E-Field\]
Preview Result 2V-AVG [Preview Result 2V.Result:2]
Preview Result 2H-AVG [Preview Result 2H.Result:2]
Final Result 2-AVG [Final Result 2.Result:1]

Diagram 80:	Final-measurement of unwanted emissions at 3 m distance; 4.81 GHz; transmitter operating in OQPSK2000 mode at channel 11 [Nachmessung von unerwünschten Aussendungen in 3 m Entfernung; 4,81 GHz; Transmitter sendet im OQPSK2000-Modus auf Kanal 11]
Evaluation [Bewertung]	See table 31 [siehe Tabelle 31]

Test Results: Electrical Field Strength

Common Information

SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	28.11.2012
Test name:	1314-12-EE 025
Test result:	

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK2000, Ch. 11, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 01000-13000MHz BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
4 GHz - 5 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB

Final Result 1

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
4808.956211	59.1	170.0	V	121.0	8.1	14.8	74.0

Final Result 2

Frequency (MHz)	Average (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
4811.004248	53.4	170.0	V	121.0	8.1	0.5	54.0

Table 28:	Final-measurement of unwanted emissions at 3 m distance; 4.81 GHz; transmitter operating in OQPSK2000 mode at channel 11 [Nachmessung von unerwünschten Aussendungen in 3 m Entfernung; 4,81 GHz; Transmitter sendet im OQPSK2000-Modus auf Kanal 11]
Evaluation [Bewertung]	See table 31 [siehe Tabelle 31]

Test Results: Electrical Field Strength

Common Information

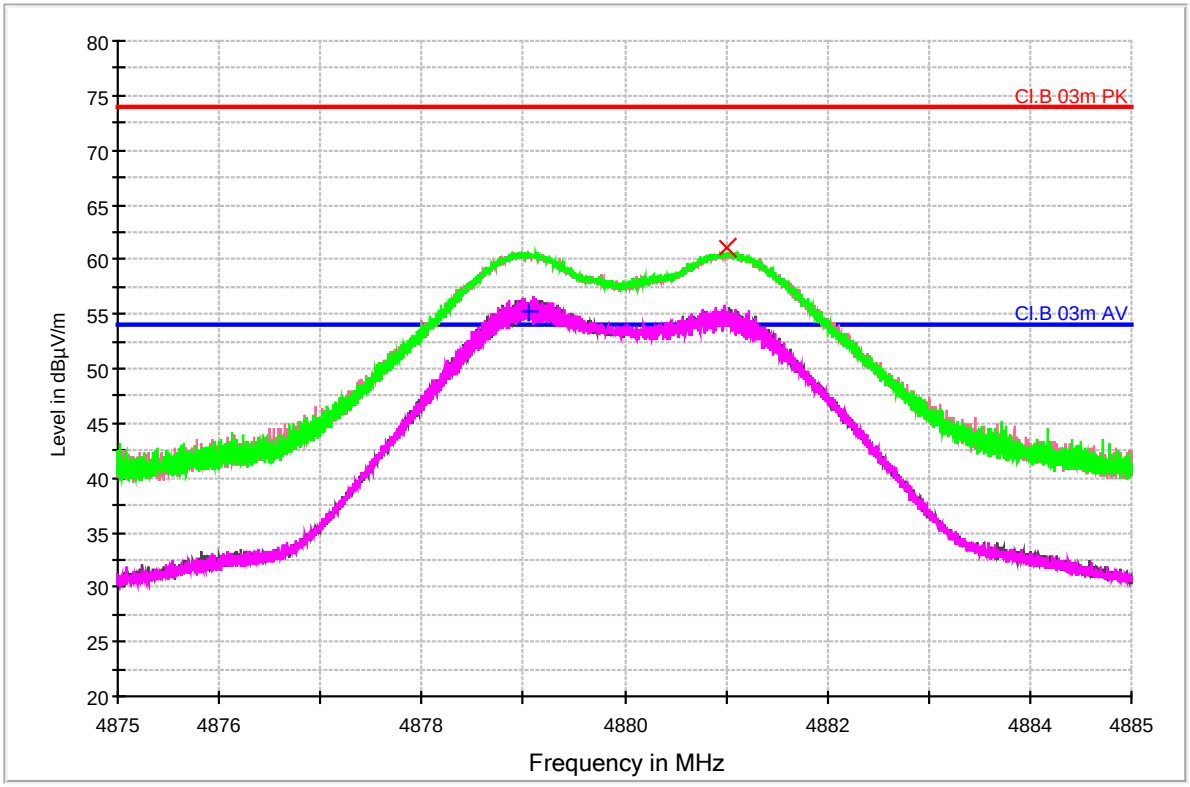
SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	28.11.2012
Test name:	1314-12-EE 029
Test result:	

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK2000, Ch. 18, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 01000-13000MHz BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
4 GHz - 5 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB



Cl.B 03m PK [..\FCC15\2011\E-Field\]
Preview Result 1V-PK+ [Preview Result 1V.Result:1]
Preview Result 1H-PK+ [Preview Result 1H.Result:1]
Final Result 1-PK+ [Final Result 1.Result:1]

Cl.B 03m AV [..\FCC15\2011\E-Field\]
Preview Result 2V-AVG [Preview Result 2V.Result:2]
Preview Result 2H-AVG [Preview Result 2H.Result:2]
Final Result 2-AVG [Final Result 2.Result:1]

Diagram 81:	Final-measurement of unwanted emissions at 3 m distance; 4.88 GHz; transmitter operating in OQPSK2000 mode at channel 18 [Nachmessung von unerwünschten Aussendungen in 3 m Entfernung; 4,88 GHz; Transmitter sendet im OQPSK2000-Modus auf Kanal 18]
Evaluation [Bewertung]	See table 31 [siehe Tabelle 31]

Test Results: Electrical Field Strength

Common Information

SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	28.11.2012
Test name:	1314-12-EE 029
Test result:	

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK2000, Ch. 18, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 01000-13000MHz BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
4 GHz - 5 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB

Final Result 1

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
4880.998178	61.0	174.0	H	149.0	8.3	12.9	74.0

Final Result 2

Frequency (MHz)	Average (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
4879.064846	55.3	153.0	H	154.0	8.3	-1.3	54.0

Table 29:	Final-measurement of unwanted emissions at 3 m distance; 4.88 GHz; transmitter operating in OQPSK2000 mode at channel 18 [Nachmessung von unerwünschten Aussendungen in 3 m Entfernung; 4,88 GHz; Transmitter sendet im OQPSK2000-Modus auf Kanal 18]
Evaluation [Bewertung]	See table 31 [siehe Tabelle 31]

Test Results: Electrical Field Strength

Common Information

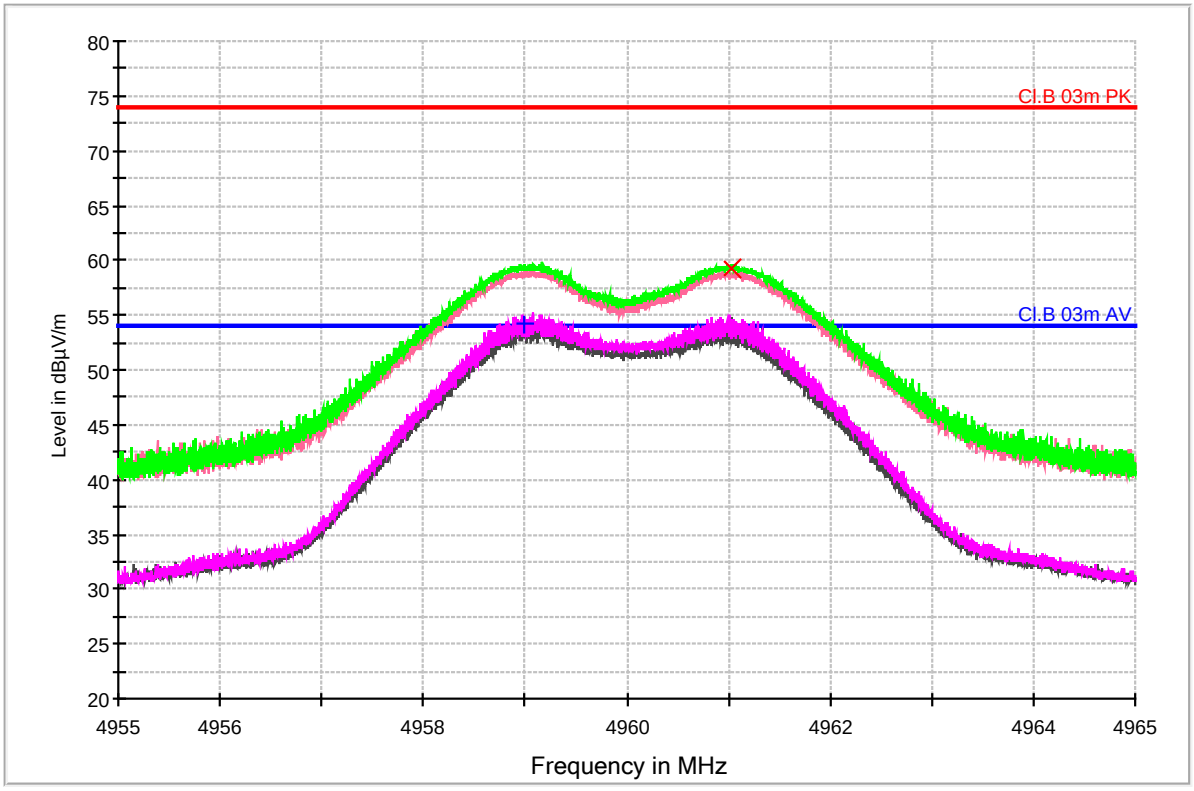
SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	28.11.2012
Test name:	1314-12-EE 033
Test result:	

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK2000, Ch. 26, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 01000-13000MHz BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
4 GHz - 5 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB



Cl.B 03m PK [..\FCC15\2011\E-Field\]
Preview Result 1V-PK+ [Preview Result 1V.Result:1]
Preview Result 1H-PK+ [Preview Result 1H.Result:1]
Final Result 1-PK+ [Final Result 1.Result:1]
Cl.B 03m AV [..\FCC15\2011\E-Field\]
Preview Result 2V-AVG [Preview Result 2V.Result:2]
Preview Result 2H-AVG [Preview Result 2H.Result:2]
Final Result 2-AVG [Final Result 2.Result:1]

Diagram 82:	Final-measurement of unwanted emissions at 3 m distance; 4.96 GHz; transmitter operating in OQPSK2000 mode at channel 26 [Nachmessung von unerwünschten Aussendungen in 3 m Entfernung; 4,96 GHz; Transmitter sendet im OQPSK2000-Modus auf Kanal 26]
Evaluation [Bewertung]	See table 31 [siehe Tabelle 31]

Test Results: Electrical Field Strength

Common Information

SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	28.11.2012
Test name:	1314-12-EE 033
Test result:	

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK2000, Ch. 26, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 01000-13000MHz BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
4 GHz - 5 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB

Final Result 1

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
4961.019935	59.2	165.0	H	110.0	8.4	14.8	74.0

Final Result 2

Frequency (MHz)	Average (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
4959.000390	54.3	173.0	H	156.0	8.4	-0.3	54.0

Table 30:	Final-measurement of unwanted emissions at 3 m distance; 4.96 GHz; transmitter operating in OQPSK2000 mode at channel 26 [Nachmessung von unerwünschten Aussendungen in 3 m Entfernung; 4,96 GHz; Transmitter sendet im OQPSK2000-Modus auf Kanal 26]
Evaluation [Bewertung]	See table 31 [siehe Tabelle 31]

Maximum measuring values in the frequency range > 1 GHz
[maximale Messwerte im Frequenzbereich >1 GHz]

	Operating mode [Betriebsart] [Mode]	**Channel** [Kanal] [No.]	**Frequency** [Frequenz] [GHz]	**Measuring values** [Messwerte] Pk [dBµV/m]	**Measuring values** [Messwerte] AV [dBµV/m]	**Limit acc.:** [Grenzwert nach:] § 15.209 Pk [dBµV/m]	Av [dBµV/m]
	OQPSK250	11 (2.405 GHz)	4.81	59.4	50.3* (59.4 – 9.1)	74	54
		18 (2.440 GHz)	4.88	61.4	52.3* (61.4 – 9.1)		
		26 (2.480 GHz)	4.96	58.2	43.1* (58.2 – 15.1)		
	OQPSK500	11 (2.405 GHz)	4.81	52.9	43.8* (52.9 – 9.1)		
		18 (2.440 GHz)	4.88	60.9	51.8* (60.9 – 9.1)		
		26 (2.480 GHz)	4.96	59.2	44.1* (59.2 – 15.1)		
	OQPSK1000	11 (2.405 GHz)	4.81	59.4	50.3* (59.4 – 9.1)		
		18 (2.440 GHz)	4.88	60.7	51.6* (60.7 – 9.1)		
		26 (2.480 GHz)	4.96	60.0	44.9* (60.0 – 15.1)		
	OQPSK2000	11 (2.405 GHz)	4.81	59.1	50.0* (59.1 – 9.1)		
		18 (2.440 GHz)	4.88	61.0	51.9* (61.0 – 9.1)		
		26 (2.480 GHz)	4.96	59.2	44.1* (59.2 – 15.1)		

Table 31:	Measuring values (radiated) [Messwerte (gestrahlt)]
Remark [Bemerkung]	* Under normal operating conditions, the transmitter dwell time on channel 26 is below 17.6 % and at all other channels below 35.2 % (see clause 4.1 of this report), therefore average detector readings are reduced by the duty cycle correction factor of 15.1 or 9.1 dB acc. to ANSI C63.10-2009 clause 7.5. [Unter normalen Betriebsbedingungen ist die Verweildauer des Senders auf dem Kanal 26 unter 17.6 % und auf allen anderen Kanälen unter 35.2 % (siehe Punkt 4.1 dieses Berichts), deswegen sind Mittelwert-Ergebnisse mit dem Korrekturfaktor von 15.1 oder 9.1 dB nach ANSI C63.10-2009 Abschnitt 7.5 reduziert.]
Evaluation [Bewertung]	Measuring values below the limits [Messwerte unterhalb der Grenzwerte]

4.6.4 Band edge measurements [Messungen an den Bandgrenzen]

Test base [Prüfgrundlage]	**Requirements acc. to customer's specifications / test plan** [Anforderungen nach Lastenheft / Prüfplan des Auftraggebers]
	47 CFR Ch. I (10-1-12 Edition), FCC Part 15 Subpart C, §15.209
	ANSI C63.10-2009
	558074 D01 DTS Meas Guidance v02

Requirements / limits [Anforderung / Grenzwert]	47 CFR Ch. I (10-1-12 Edition), FCC Part 15 Subpart C, §15.209

Version of EUT [Prüflingsversion]	Test using the device without temporary antenna connector (DUT2). [Prüfung unter Verwendung des Gerätes ohne vorübergehenden Antennenanschluss (DUT2).]

Test conditions / test set-up [Prüfbedingungen / Prüfaufbau]	Test facility [Messeinrichtung]	FAR
	Frequency range [Frequenzbereich]	2 – 3 GHz
	Measurement distance [Messentfernung]	3 m
	Polarisation of antenna [Antennenpolarisation]	horizontal / vertical [horizontal / vertikal]
	Turntable movement [Drehscheibenbewegung]	0 - 360°
	Application as [Betrieb als]	Tabletop device [Tischgerät]

Figure 20: Measurement of unwanted emissions [Messung von unerwünschten Aussendungen]

Operating modes [Betriebsarten]	- Continuous transmitting, settings of transceiver: [kontinuierliches Senden, Einstellungen des Transceivers:]
	  - Modulation/Rate [Modulation/Datenrate]: OQPSK250, OQPSK500 OQPSK1000, OQPSK2000
	  Channel [Kanal]: 11, 26
	  - TX Pout [Sendeausgangsleistung]: MAX
	  - Test selection [Testauswahl]: CW, w/ modulation (100 % duty cycle)

Performance of test [Prüfdurchführung]	- Max-hold evaluation of measurement values due to variation of turntable direction, antenna height and antenna polarisation [Bestimmung der maximalen Messwerte durch Variation der Drehscheibenausrichtung, der Antennenhöhe und der Antennenpolarisation]
	- Test at mains power supply via external power supply [Prüfung bei Versorgungsspannung über externe Spannungsversorgung]

Test Results: Electrical Field Strength

Common Information

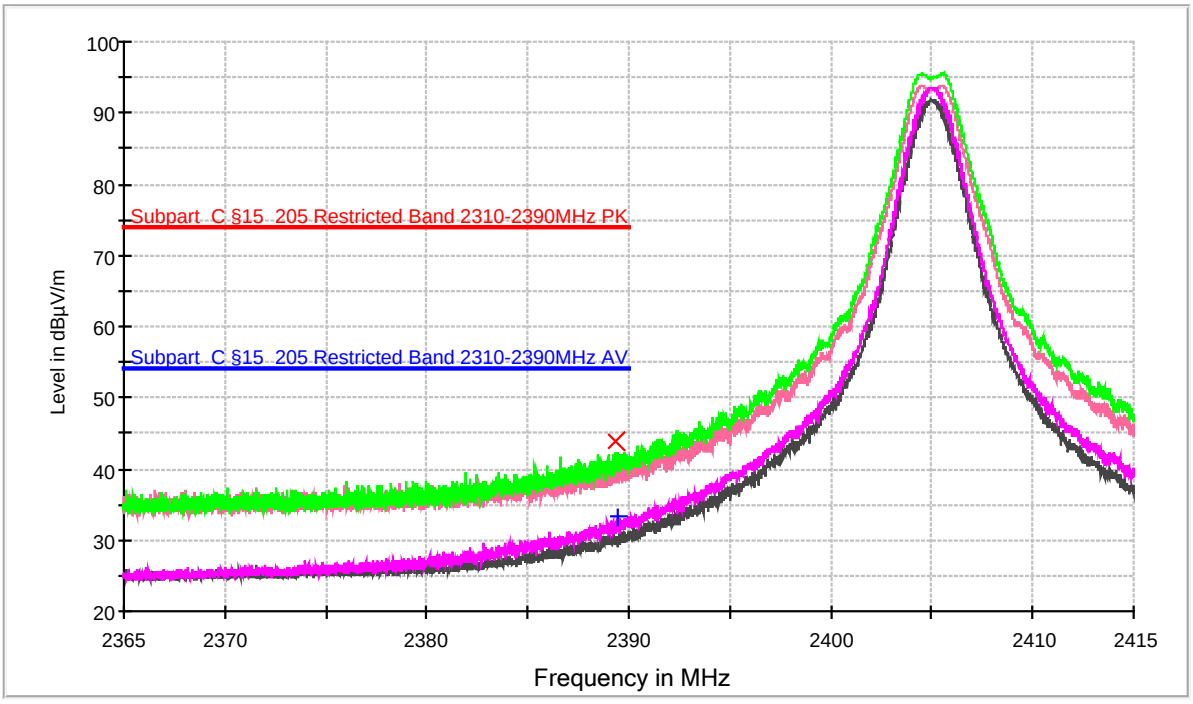
SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	29.11.2012
Test name:	1314-12-EE 034
Test result:	Passed

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK250, Ch. 11, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 802.15.4 2400MHz Lower edge BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
2 GHz - 3 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB



Subpart_C §15_205 Restricted Band 2310-2390MHz PK [..\FCC15\2011\E-Field\]
Subpart_C §15_205 Restricted Band 2310-2390MHz AV [..\FCC15\2011\E-Field\]
Preview Result 1V-PK+ [Preview Result 1V.Result:1]
Preview Result 2V-AVG [Preview Result 2V.Result:2]
Preview Result 1H-PK+ [Preview Result 1H.Result:1]
Preview Result 2H-AVG [Preview Result 2H.Result:2]
Final Result 1-PK+ [Final Result 1.Result:1]
Final Result 2-AVG [Final Result 2.Result:1]

Diagram 83:	Measurement of unwanted emissions at band edge; transmitter operating in OQPSK250 mode at channel 11 [Messung von unerwünschten Aussendungen an der Bandgrenze; Transmitter sendet im OQPSK250-Modus auf Kanal 11]
Evaluation [Bewertung]	Measuring values below the limits [Messwerte unterhalb der Grenzwerte]

Test Results: Electrical Field Strength

Common Information

SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	29.11.2012
Test name:	1314-12-EE 034
Test result:	Passed

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK250, Ch. 11, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 802.15.4 2400MHz Lower edge BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
2 GHz - 3 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB

Final Result 1

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
2389.381250	43.8	100.0	H	247.0	5.3	30.2	74.0

Final Result 2

Frequency (MHz)	Average (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
2389.400000	33.2	179.0	H	242.0	5.3	20.8	54.0

Table 32:	Measurement of unwanted emissions at band edge; transmitter operating in OQPSK250 mode at channel 11 [Messung von unerwünschten Aussendungen an der Bandgrenze; Transmitter sendet im OQPSK250-Modus auf Kanal 11]
Evaluation [Bewertung]	Measuring values below the limits [Messwerte unterhalb der Grenzwerte]

Test Results: Electrical Field Strength

Common Information

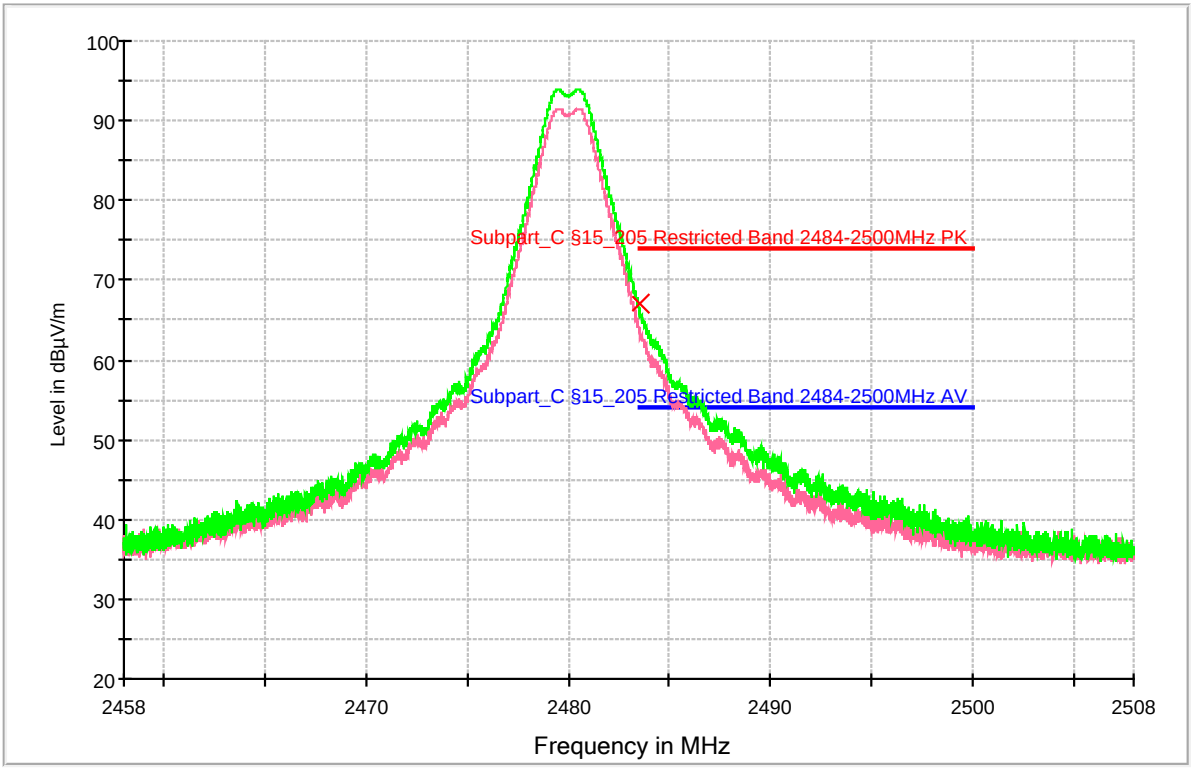
SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	29.11.2012
Test name:	1314-12-EE 038
Test result:	Passed

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK250, Ch. 26, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 802.15.4 2400MHz Lower edge BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
2 GHz - 3 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB



Subpart_C §15_205 Restricted Band 2484-2500MHz PK [..\FCC15\2011\E-Field\]
Subpart_C §15_205 Restricted Band 2484-2500MHz AV [..\FCC15\2011\E-Field\]
Preview Result 1V-PK+ [Preview Result 1V.Result:1]
Preview Result 1H-PK+ [Preview Result 1H.Result:1]
Final Result 1-PK+ [Final Result 1.Result:1]

Diagram 84:	Measurement of unwanted emissions at band edge; transmitter operating in OQPSK250 mode at channel 26 [Messung von unerwünschten Aussendungen an der Bandgrenze; Transmitter sendet im OQPSK250-Modus auf Kanal 26]
Evaluation [Bewertung]	Measuring values below the limits [Messwerte unterhalb der Grenzwerte]

Test Results: Electrical Field Strength

Common Information

SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	29.11.2012
Test name:	1314-12-EE 038
Test result:	Passed

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK250, Ch. 26, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 802.15.4 2400MHz Lower edge BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
2 GHz - 3 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB

Final Result 1

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
2483.500000	67.1	119.0	H	248.0	5.1	6.9	74.0

Table 33:	Measurement of unwanted emissions at band edge; transmitter operating in OQPSK250 mode at channel 26 [Messung von unerwünschten Aussendungen an der Bandgrenze; Transmitter sendet im OQPSK250-Modus auf Kanal 26]
Remark [Bemerkung]	The measurement of unwanted emissions at the upper edge of the authorized frequency band was complicated by the capture of RF energy from the fundamental emission within the RBW passband. For that reason the Integrated Power Measurement was used for performing a measurement of the average unwanted emission level at the band edge to show the compliance with the average limits. See diagram 89 - 92. [Die Messung von unerwünschten Aussendungen an der oberen Bandgrenze des autorisierten Frequenzbandes wurde durch die Einstreuung der HF-Energy der Sendegrundfrequenz innerhalb dem Durchlassband der RBW kompliziert. Aus diesem Grund wurde die integrierte Leistungsmessung für die Messung der Average- Pegel der unerwünschten Aussendungen verwendet um Übereinstimmung mit den Average Grenzwerten nachzuweisen. Siehe Diagramm 89 - 92.]
Evaluation [Bewertung]	Measuring values below the limits [Messwerte unterhalb der Grenzwerte]

Test Results: Electrical Field Strength

Common Information

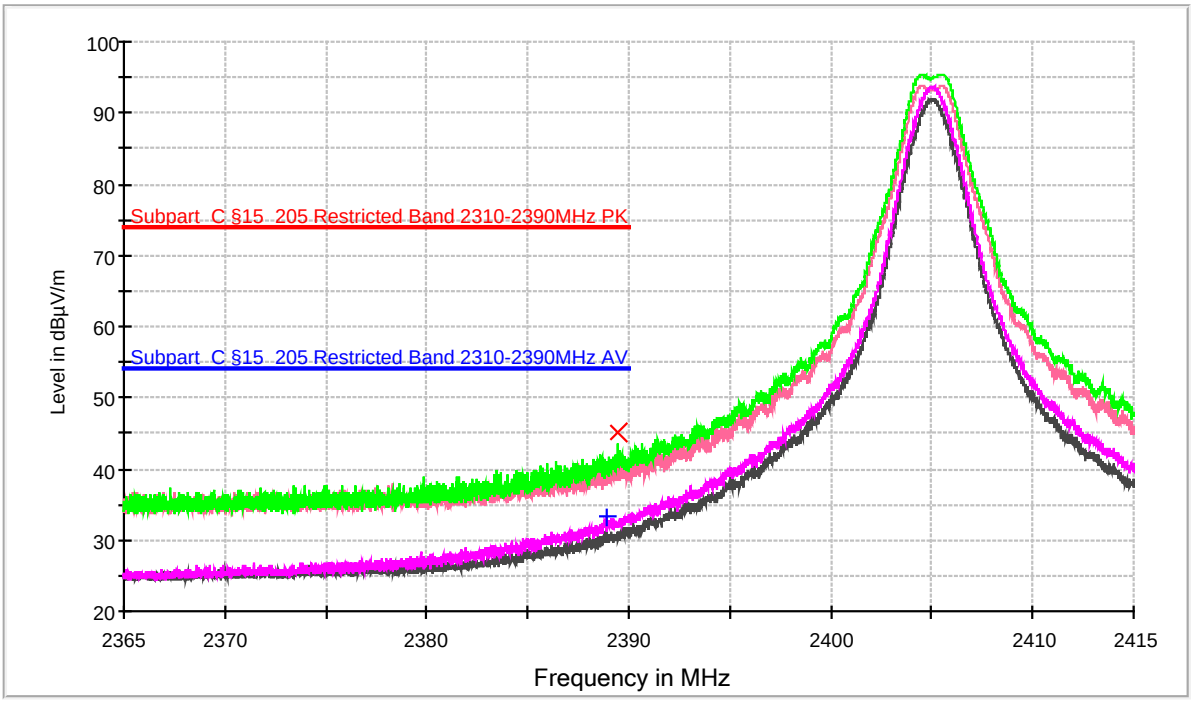
SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	29.11.2012
Test name:	1314-12-EE 035
Test result:	Passed

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK500, Ch. 11, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 802.15.4 2400MHz Lower edge BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
2 GHz - 3 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB



Subpart_C §15_205 Restricted Band 2310-2390MHz PK [..\FCC15\2011\E-Field\]
Subpart_C §15_205 Restricted Band 2310-2390MHz AV [..\FCC15\2011\E-Field\]
Preview Result 1V-PK+ [Preview Result 1V.Result:1]
Preview Result 2V-AVG [Preview Result 2V.Result:2]
Preview Result 1H-PK+ [Preview Result 1H.Result:1]
Preview Result 2H-AVG [Preview Result 2H.Result:2]
Final Result 1-PK+ [Final Result 1.Result:1]
Final Result 2-AVG [Final Result 2.Result:1]

Diagram 85:	Measurement of unwanted emissions at band edge; transmitter operating in OQPSK500 mode at channel 11 [Messung von unerwünschten Aussendungen an der Bandgrenze; Transmitter sendet im OQPSK500-Modus auf Kanal 11]
Evaluation [Bewertung]	Measuring values below the limits [Messwerte unterhalb der Grenzwerte]

Test Results: Electrical Field Strength

Common Information

SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	29.11.2012
Test name:	1314-12-EE 035
Test result:	Passed

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK500, Ch. 11, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 802.15.4 2400MHz Lower edge BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
2 GHz - 3 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB

Final Result 1

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
2389.468750	45.0	179.0	H	243.0	5.3	29.0	74.0

Final Result 2

Frequency (MHz)	Average (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
2388.943750	33.4	181.0	H	243.0	5.3	20.6	54.0

Table 34:	Measurement of unwanted emissions at band edge; transmitter operating in OQPSK500 mode at channel 11 [Messung von unerwünschten Aussendungen an der Bandgrenze; Transmitter sendet im OQPSK500-Modus auf Kanal 11]
Evaluation [Bewertung]	Measuring values below the limits [Messwerte unterhalb der Grenzwerte]

Test Results: Electrical Field Strength

Common Information

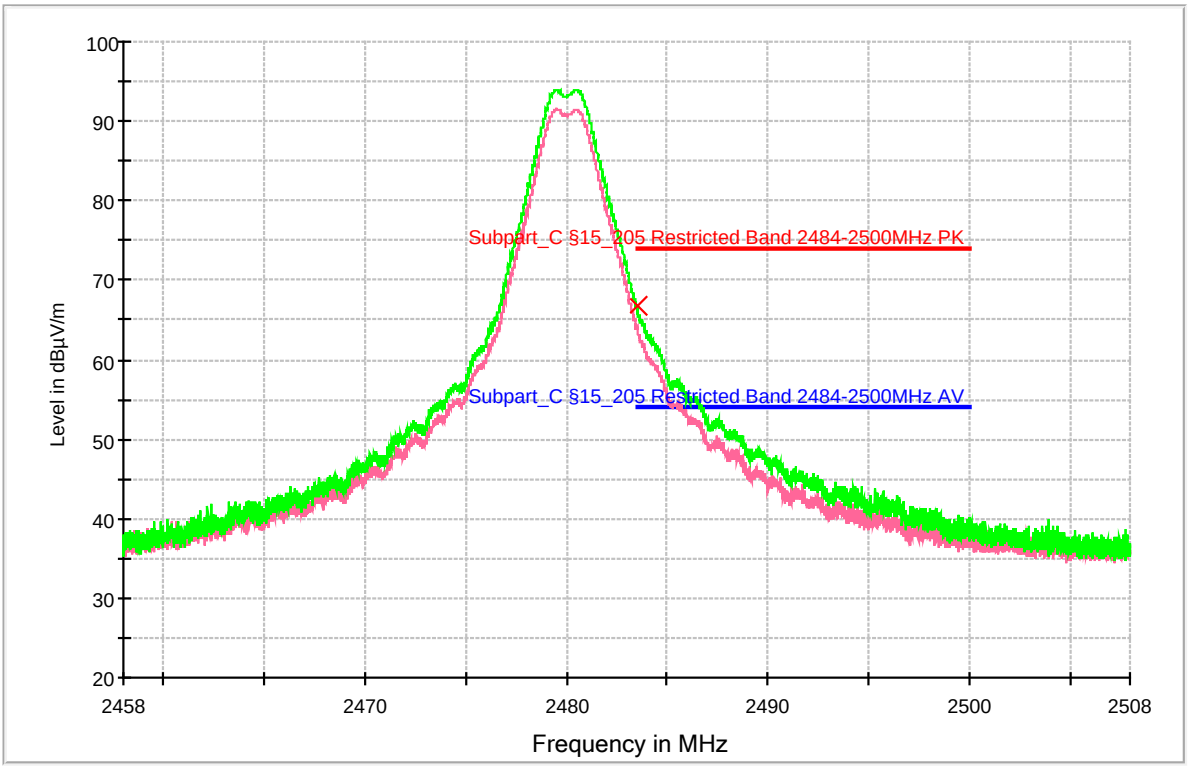
SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	29.11.2012
Test name:	1314-12-EE 039
Test result:	Passed

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK500, Ch. 26, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 802.15.4 2400MHz Lower edge BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
2 GHz - 3 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB



Subpart_C §15_205 Restricted Band 2484-2500MHz PK [..\FCC15\2011\E-Field\]
Subpart_C §15_205 Restricted Band 2484-2500MHz AV [..\FCC15\2011\E-Field\]
Preview Result 1V-PK+ [Preview Result 1V.Result:1]
Preview Result 1H-PK+ [Preview Result 1H.Result:1]
Final Result 1-PK+ [Final Result 1.Result:1]

Diagram 86:	Measurement of unwanted emissions at band edge; transmitter operating in OQPSK500 mode at channel 26 [Messung von unerwünschten Aussendungen an der Bandgrenze; Transmitter sendet im OQPSK500-Modus auf Kanal 26]
Evaluation [Bewertung]	Measuring values below the limits [Messwerte unterhalb der Grenzwerte]

Test Results: Electrical Field Strength

Common Information

SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	29.11.2012
Test name:	1314-12-EE 039
Test result:	Passed

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK500, Ch. 26, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 802.15.4 2400MHz Lower edge BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
2 GHz - 3 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB

Final Result 1

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
2483.506250	66.9	119.0	H	248.0	5.1	7.1	74.0

Table 35:	Measurement of unwanted emissions at band edge; transmitter operating in OQPSK500 mode at channel 26 [Messung von unerwünschten Aussendungen an der Bandgrenze; Transmitter sendet im OQPSK500-Modus auf Kanal 26]
Remark [Bemerkung]	The measurement of unwanted emissions at the upper edge of the authorized frequency band was complicated by the capture of RF energy from the fundamental emission within the RBW passband. For that reason the Integrated Power Measurement was used for performing a measurement of the average unwanted emission level at the band edge to show the compliance with the average limits. See diagram 89 - 92. [Die Messung von unerwünschten Aussendungen an der oberen Bandgrenze des autorisierten Frequenzbandes wurde durch die Einstreuung der HF-Energy der Sendegrundfrequenz innerhalb dem Durchlassband der RBW kompliziert. Aus diesem Grund wurde die integrierte Leistungsmessung für die Messung der Average- Pegel der unerwünschten Aussendungen verwendet um Übereinstimmung mit den Average Grenzwerten nachzuweisen. Siehe Diagramm 89 - 92.]
Evaluation [Bewertung]	Measuring values below the limits [Messwerte unterhalb der Grenzwerte]

Test Results: Electrical Field Strength

Common Information

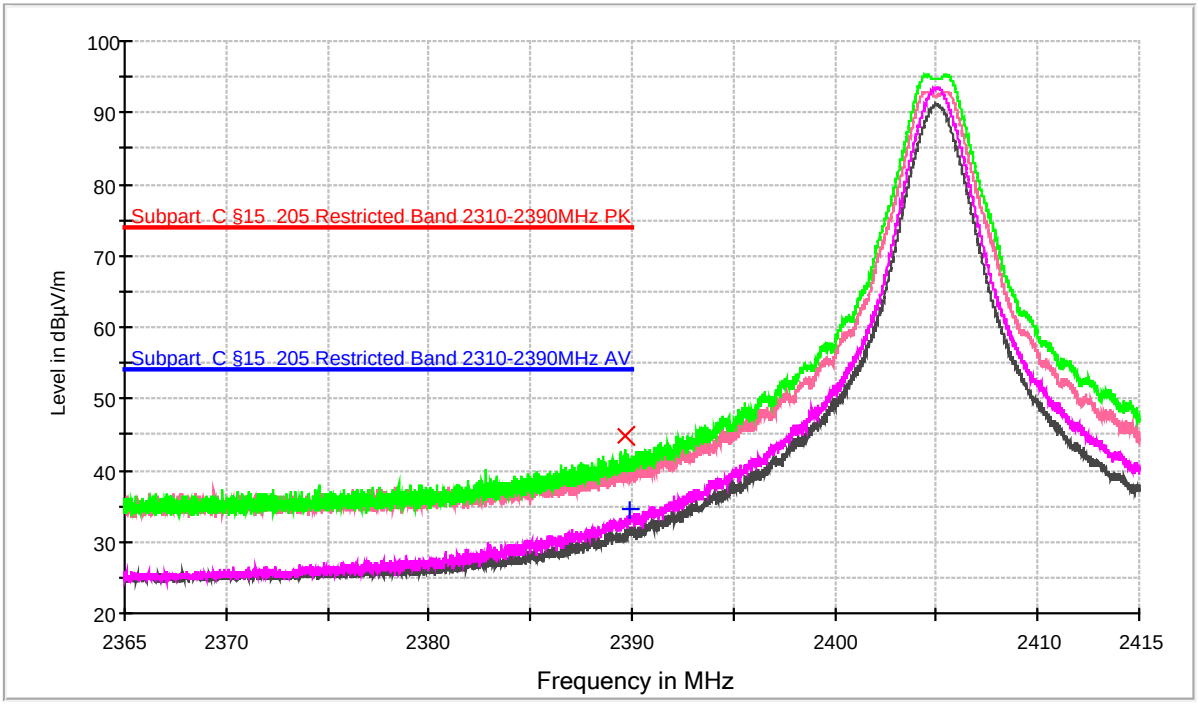
SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	29.11.2012
Test name:	1314-12-EE 036
Test result:	Passed

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK1000, Ch. 11, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 802.15.4 2400MHz Lower edge BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
2 GHz - 3 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB



Subpart_C §15_205 Restricted Band 2310-2390MHz PK [..\FCC15\2011\E-Field\]
Subpart_C §15_205 Restricted Band 2310-2390MHz AV [..\FCC15\2011\E-Field\]
Preview Result 1V-PK+ [Preview Result 1V.Result:1]
Preview Result 2V-AVG [Preview Result 2V.Result:2]
Preview Result 1H-PK+ [Preview Result 1H.Result:1]
Preview Result 2H-AVG [Preview Result 2H.Result:2]
Final Result 1-PK+ [Final Result 1.Result:1]
Final Result 2-AVG [Final Result 2.Result:1]

Diagram 87:	Measurement of unwanted emissions at band edge; transmitter operating in OQPSK1000 mode at channel 11 [Messung von unerwünschten Aussendungen an der Bandgrenze; Transmitter sendet im OQPSK1000-Modus auf Kanal 11]
Evaluation [Bewertung]	Measuring values below the limits [Messwerte unterhalb der Grenzwerte]

Test Results: Electrical Field Strength

Common Information

SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	29.11.2012
Test name:	1314-12-EE 036
Test result:	Passed

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK1000, Ch. 11, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 802.15.4 2400MHz Lower edge BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
2 GHz - 3 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB

Final Result 1

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
2389.706250	44.8	175.0	H	245.0	5.3	29.2	74.0

Final Result 2

Frequency (MHz)	Average (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
2389.875000	34.5	177.0	H	245.0	5.3	19.5	54.0

Table 36:	Measurement of unwanted emissions at band edge; transmitter operating in OQPSK1000 mode at channel 11 [Messung von unerwünschten Aussendungen an der Bandgrenze; Transmitter sendet im OQPSK1000-Modus auf Kanal 11]
Evaluation [Bewertung]	Measuring values below the limits [Messwerte unterhalb der Grenzwerte]

Test Results: Electrical Field Strength

Common Information

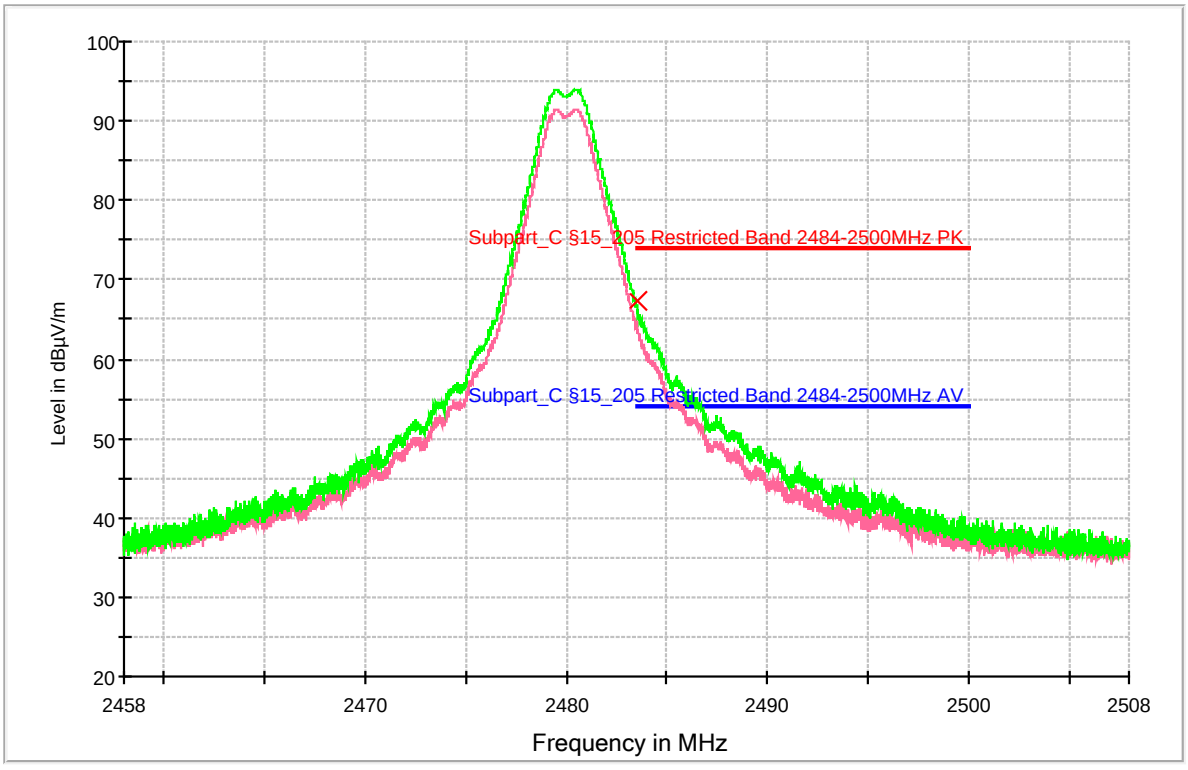
SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	29.11.2012
Test name:	1314-12-EE 040
Test result:	Passed

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK1000, Ch. 26, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 802.15.4 2400MHz Lower edge BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
2 GHz - 3 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB



Subpart_C §15_205 Restricted Band 2484-2500MHz PK [..\FCC15\2011\E-Field\]
Subpart_C §15_205 Restricted Band 2484-2500MHz AV [..\FCC15\2011\E-Field\]
Preview Result 1V-PK+ [Preview Result 1V.Result:1]
Preview Result 1H-PK+ [Preview Result 1H.Result:1]
Final Result 1-PK+ [Final Result 1.Result:1]

Diagram 88:	Measurement of unwanted emissions at band edge; transmitter operating in OQPSK1000 mode at channel 26 [Messung von unerwünschten Aussendungen an der Bandgrenze; Transmitter sendet im OQPSK1000-Modus auf Kanal 26]
Evaluation [Bewertung]	Measuring values below the limits [Messwerte unterhalb der Grenzwerte]

Test Results: Electrical Field Strength

Common Information

SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	29.11.2012
Test name:	1314-12-EE 040
Test result:	Passed

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK1000, Ch. 26, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 802.15.4 2400MHz Lower edge BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
2 GHz - 3 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB

Final Result 1

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
2483.500000	67.3	119.0	H	247.0	5.1	6.7	74.0

Table 37:	Measurement of unwanted emissions at band edge; transmitter operating in OQPSK1000 mode at channel 26 [Messung von unerwünschten Aussendungen an der Bandgrenze; Transmitter sendet im OQPSK1000-Modus auf Kanal 26]
Remark [Bemerkung]	The measurement of unwanted emissions at the upper edge of the authorized frequency band was complicated by the capture of RF energy from the fundamental emission within the RBW passband. For that reason the Integrated Power Measurement was used for performing a measurement of the average unwanted emission level at the band edge to show the compliance with the average limits. See diagram 89 - 92. [Die Messung von unerwünschten Aussendungen an der oberen Bandgrenze des autorisierten Frequenzbandes wurde durch die Einstreuung der HF-Energy der Sendegrundfrequenz innerhalb dem Durchlassband der RBW kompliziert. Aus diesem Grund wurde die integrierte Leistungsmessung für die Messung der Average- Pegel der unerwünschten Aussendungen verwendet um Übereinstimmung mit den Average Grenzwerten nachzuweisen. Siehe Diagramm 89 - 92.]
Evaluation [Bewertung]	Measuring values below the limits [Messwerte unterhalb der Grenzwerte]

Test Results: Electrical Field Strength

Common Information

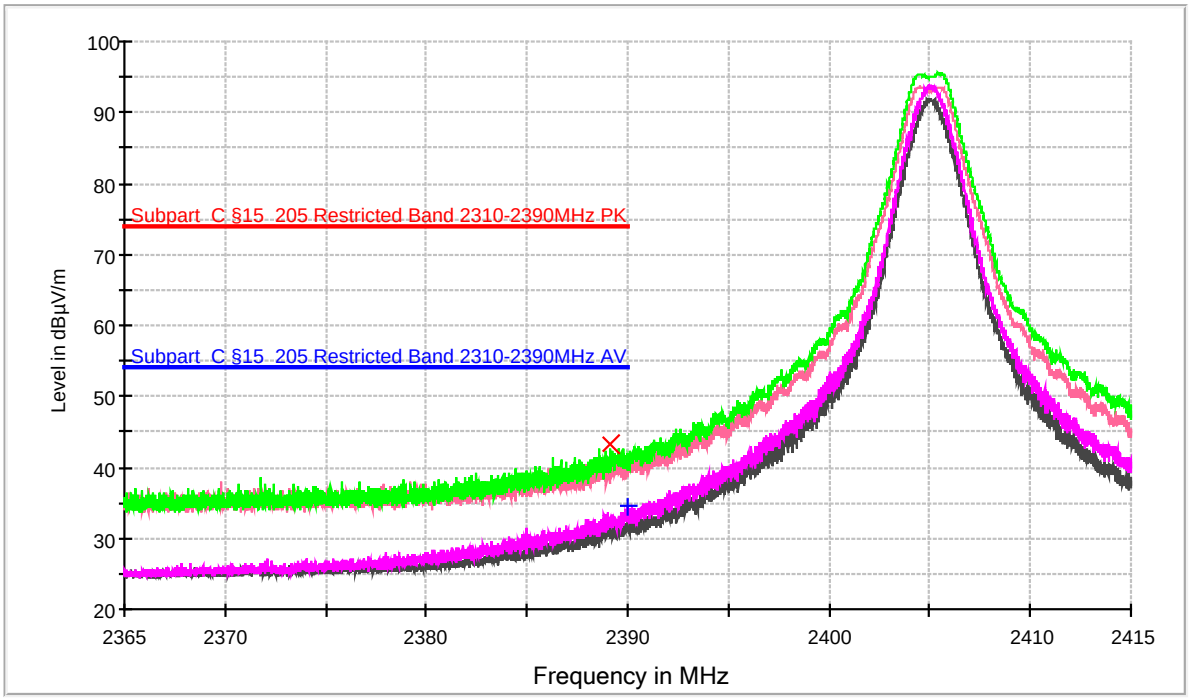
SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	29.11.2012
Test name:	1314-12-EE 037
Test result:	Passed

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK2000, Ch. 11, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 802.15.4 2400MHz Lower edge BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
2 GHz - 3 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB



Subpart_C §15_205 Restricted Band 2310-2390MHz PK [..\FCC15\2011\E-Field\]
Subpart_C §15_205 Restricted Band 2310-2390MHz AV [..\FCC15\2011\E-Field\]
Preview Result 1V-PK+ [Preview Result 1V.Result:1]
Preview Result 2V-AVG [Preview Result 2V.Result:2]
Preview Result 1H-PK+ [Preview Result 1H.Result:1]
Preview Result 2H-AVG [Preview Result 2H.Result:2]
Final Result 1-PK+ [Final Result 1.Result:1]
Final Result 2-AVG [Final Result 2.Result:1]

Diagram 89:	Measurement of unwanted emissions at band edge; transmitter operating in OQPSK2000 mode at channel 11 [Messung von unerwünschten Aussendungen an der Bandgrenze; Transmitter sendet im OQPSK2000-Modus auf Kanal 11]
Evaluation [Bewertung]	Measuring values below the limits [Messwerte unterhalb der Grenzwerte]

Test Results: Electrical Field Strength

Common Information

SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	29.11.2012
Test name:	1314-12-EE 037
Test result:	Passed

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK2000, Ch. 11, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 802.15.4 2400MHz Lower edge BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
2 GHz - 3 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB

Final Result 1

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
2389.156250	43.4	115.0	H	243.0	5.3	30.6	74.0

Final Result 2

Frequency (MHz)	Average (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
2389.975000	34.7	176.0	H	243.0	5.3	19.3	54.0

Table 38:	Measurement of unwanted emissions at band edge; transmitter operating in OQPSK2000 mode at channel 11 [Messung von unerwünschten Aussendungen an der Bandgrenze; Transmitter sendet im OQPSK2000-Modus auf Kanal 11]
Evaluation [Bewertung]	Measuring values below the limits [Messwerte unterhalb der Grenzwerte]

Test Results: Electrical Field Strength

Common Information

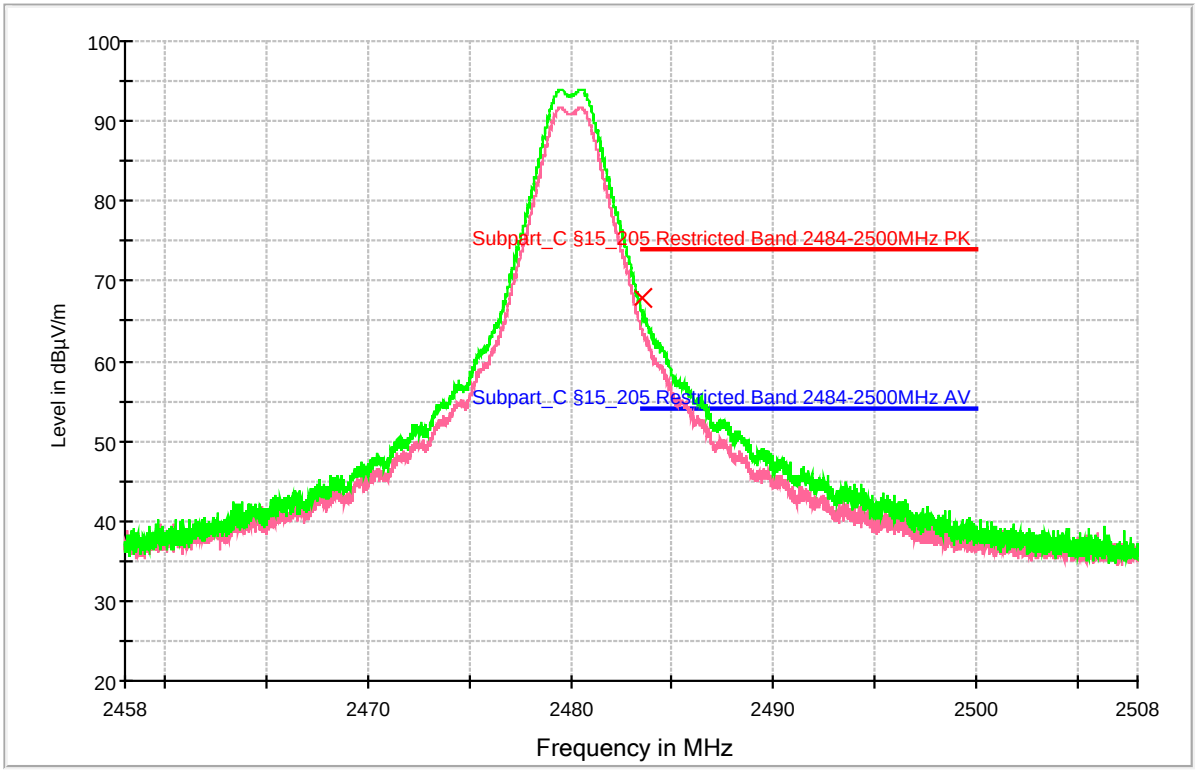
SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	29.11.2012
Test name:	1314-12-EE 041
Test result:	Passed

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK2000, Ch. 26, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 802.15.4 2400MHz Lower edge BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
2 GHz - 3 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB



Subpart_C §15_205 Restricted Band 2484-2500MHz PK [..\FCC15\2011\E-Field\]
Subpart_C §15_205 Restricted Band 2484-2500MHz AV [..\FCC15\2011\E-Field\]
Preview Result 1V-PK+ [Preview Result 1V.Result:1]
Preview Result 1H-PK+ [Preview Result 1H.Result:1]
Final Result 1-PK+ [Final Result 1.Result:1]

Diagram 90:	Measurement of unwanted emissions at band edge; transmitter operating in OQPSK2000 mode at channel 26 [Messung von unerwünschten Aussendungen an der Bandgrenze; Transmitter sendet im OQPSK2000-Modus auf Kanal 26]
Evaluation [Bewertung]	Measuring values below the limits [Messwerte unterhalb der Grenzwerte]

Test Results: Electrical Field Strength

Common Information

SLG Test Site:	Lab 06
Operator:	Wüschner, S.
Date:	29.11.2012
Test name:	1314-12-EE 041
Test result:	Passed

EUT Information

Type:	deRFmega128-22M00
Customer:	Dresden Elektronik Ingenieurtechnik GmbH
Test sample:	DUT2
Operation mode:	OQPSK2000, Ch. 26, max. Pout, CW
Test mains voltage:	3.3 VDC external power supply

EMI Auto Test Template: FSP30 Inv.0657 802.15.4 2400MHz Lower edge BBHA9120D Inv.0640-1 LNA6018 Inv.1699 Lab06 auto

Subrange	Step Size	Detectors	IF BW	Meas. Time	Preamp
2 GHz - 3 GHz	40 kHz	PK+; AVG	1 MHz	1 s	0 dB

Final Result 1

Frequency (MHz)	MaxPeak (dBµV/m)	Height (cm)	Polarization	Azimuth (deg)	Corr. (dB)	Margin (dB)	Limit (dBµV/m)
2483.500000	68.0	192.0	H	243.0	5.1	6.0	74.0

Table 39:	Measurement of unwanted emissions at band edge; transmitter operating in OQPSK2000 mode at channel 26 [Messung von unerwünschten Aussendungen an der Bandgrenze; Transmitter sendet im OQPSK2000-Modus auf Kanal 26]
Remark [Bemerkung]	The measurement of unwanted emissions at the upper edge of the authorized frequency band was complicated by the capture of RF energy from the fundamental emission within the RBW passband. For that reason the Integrated Power Measurement was used for performing a measurement of the average unwanted emission level at the band edge to show the compliance with the average limits. See diagram 89 - 92. [Die Messung von unerwünschten Aussendungen an der oberen Bandgrenze des autorisierten Frequenzbandes wurde durch die Einstreuung der HF-Energy der Sendegrundfrequenz innerhalb dem Durchlassband der RBW kompliziert. Aus diesem Grund wurde die integrierte Leistungsmessung für die Messung der Average-Pegel der unerwünschten Aussendungen verwendet um Übereinstimmung mit den Average Grenzwerten nachzuweisen. Siehe Diagramm 89 - 92.]
Evaluation [Bewertung]	Measuring values below the limits [Messwerte unterhalb der Grenzwerte]

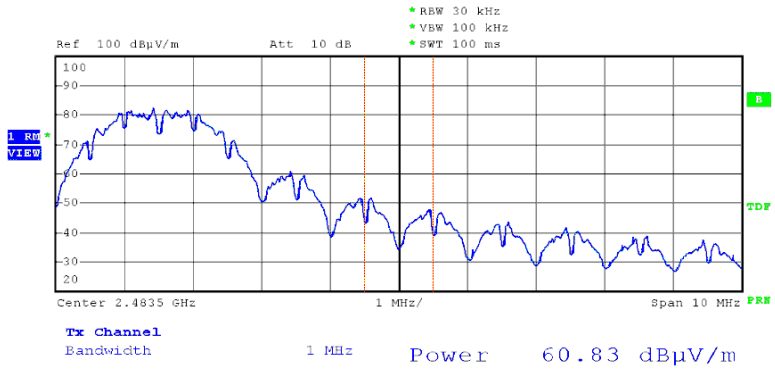


Diagram 91:	Integrated Power Measurement at the upper band edge; transmitter operating in OQPSK250 mode at channel 26 [Integrierte Leistungsmessung der oberen Bandgrenze; Transmitter sendet im OQPSK250-Modus auf Kanal 26]
Evaluation [Bewertung]	See table 40 for evaluation [siehe Tabelle 40 für die Bewertung]

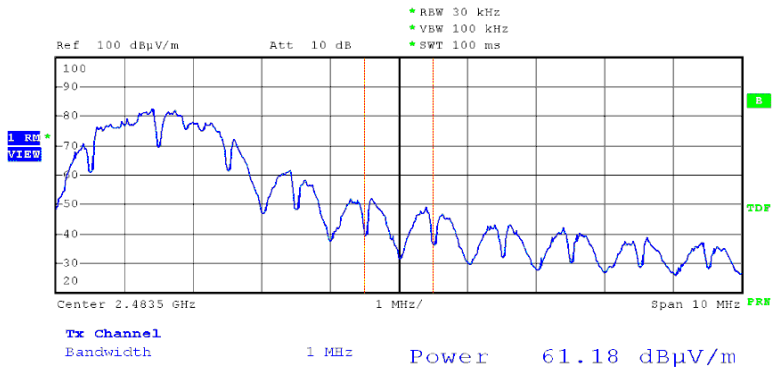


Diagram 92:	Integrated Power Measurement at the upper band edge; transmitter operating in OQPSK500 mode at channel 26 [Integrierte Leistungsmessung der oberen Bandgrenze; Transmitter sendet im OQPSK500-Modus auf Kanal 26]
Evaluation [Bewertung]	See table 40 for evaluation [siehe Tabelle 40 für die Bewertung]

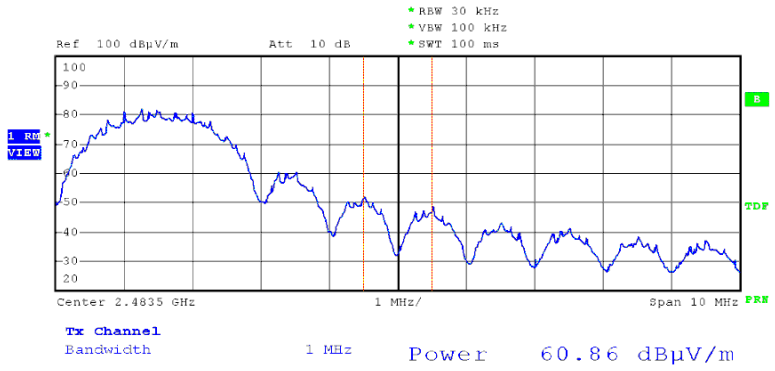


Diagram 93:	Integrated Power Measurement at the upper band edge; transmitter operating in OQPSK1000 mode at channel 26 [Integrierte Leistungsmessung der oberen Bandgrenze; Transmitter sendet im OQPSK1000-Modus auf Kanal 26]
Evaluation [Bewertung]	See table 40 for evaluation [siehe Tabelle 40 für die Bewertung]

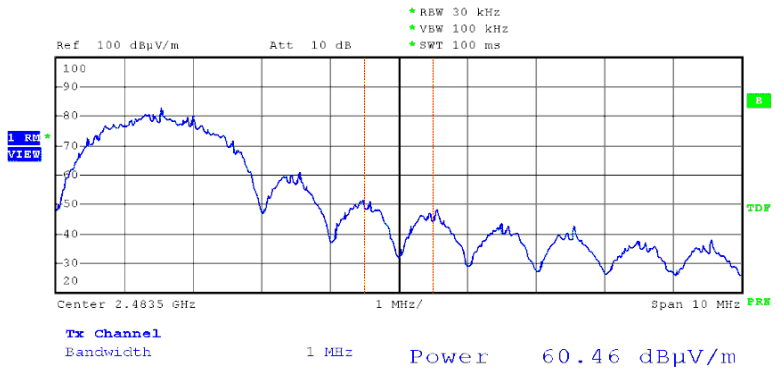


Diagram 94:	Integrated Power Measurement at the upper band edge; transmitter operating in OQPSK2000 mode at channel 26 [Integrierte Leistungsmessung der oberen Bandgrenze; Transmitter sendet im OQPSK2000-Modus auf Kanal 26]
Evaluation [Bewertung]	See table 40 for evaluation [siehe Tabelle 40 für die Bewertung]

Maximum measuring values at the upper band edge [maximale Messwerte an der oberen Bandgrenze]:						
	Operating mode [Betriebsart] [Mode]	**Frequency** [Frequenz] [GHz]	**Measuring values** [Messwerte] Pk [dBµV/m]	**Measuring values** [Messwerte] AV [dBµV/m]	**Limit acc.:** [Grenzwert nach:] § 15.209 Pk [dBµV/m]	Av [dBµV/m]
	OQPSK250	2.4835	67.1	52.0* (67.1 – 15.1)	74	54
	OQPSK500	2.4835	66.9	51.8* (66.9 – 15.1)		
	OQPSK1000	2.4835	67.3	52.2* (67.3 – 15.1)		
	OQPSK2000	2.4835	68.0	52.9* (68.0 – 15.1)		
Remarks [Bemerkungen]	* Under normal operating conditions, the transmitter dwell time on channel 26 is below 17.6 % and at all other channels below 35.2 % (see clause 4.1 of this report), therefore average detector readings are reduced by the duty cycle correction factor of 15.1 or 9.1 dB acc. to ANSI C63.10-2009 clause 7.5. [Unter normalen Betriebsbedingungen ist die Verweildauer des Senders auf dem Kanal 26 unter 17.6 % und auf allen anderen Kanälen unter 35.2 % (siehe Punkt 4.1 dieses Berichts), deswegen sind Mittelwert-Ergebnisse mit dem Korrekturfaktor von 15.1 oder 9.1 dB nach ANSI C63.10-2009 Abschnitt 7.5 reduziert.]					
Table 40:	Measuring values (radiated) [Messwerte (gestrahlt)]					
Evaluation [Bewertung]	Measuring values below the limits [Messwerte unterhalb der Grenzwerte]					

5 List of test equipment [Messmittel und Prüfgeräte]

Device [Gerät]	**Type** [Typ]	**Inventary No.** [Inv.-Nr.]	**Manufacturer** [Hersteller]	**Date of last calibration** [Datum der letzten Kalibrierung]	**Date of next calibration** [Datum der nächsten Kalibrierung]
Conducted measurements [leitungsgeführte Messungen]					
Shielded chamber – Lab 08		0612	Frankonia	N/A	N/A
Spectrum analyser	FSP 30	0657	Rohde & Schwarz	2011-06-28	2013-06-28
Radiated measurements < 30 MHz [gestrahlte Messungen < 30 MHz]					
Fully anechoic chamber – Lab 06	CDC	0611	Siemens Matsushita	N/A	N/A
Control computer with EMC software EMC32		2607	Fujitsu Siemens / Rohde & Schwarz	N/A	N/A
Antenna mast	U-AM2.25	0632-01	Maturo	N/A	N/A
Turntable	TT1.5 WI	1679-18	Maturo	N/A	N/A
Controller (for turntable and mast)	NCD	1679-08	Maturo	N/A	N/A
Loop antenna	HFH2-Z2	1610	Rohde & Schwarz	2012-08-08	2014-08-08
EMI test receiver	ESCS 30	0624-01	Rohde & Schwarz	2012-09-26	2013-03-26
Radiated measurements > 30 MHz and < 1 GHz [gestrahlte Messungen > 30 MHz und < 1 GHz]					
Semi anechoic chamber – Lab 01	SAC10	1679	AlbatrossProjects	N/A	N/A
Control computer with EMC software EMC32		1692	Fujitsu Siemens / Rohde & Schwarz	N/A	N/A
Antenna mast	AM4.0	1679-06	Maturo	N/A	N/A
Turntable	TT6.0-15t	1679-05	Maturo	N/A	N/A
Controller (for turntable and mast)	NCD	1660-01	Maturo	N/A	N/A
BiLog antenna	CBL 6112B	0628	Chase	2012-07-06	2014-07-06
EMI Test Receiver	ESU26	1678	Rohde & Schwarz	2011-08-17	2013-08-17
Radiated measurements > 1 GHz [gestrahlte Messungen > 1 GHz]					
Fully anechoic chamber – Lab 06	CDC	0611	Siemens Matsushita	N/A	N/A
Control computer with EMC software EMC32		2607	Fujitsu Siemens / Rohde & Schwarz	N/A	N/A
Antenna mast	U-AM2.25	0632-01	Maturo	N/A	N/A
Turntable	TT1.5 WI	1679-18	Maturo	N/A	N/A
Controller (for turntable and mast)	NCD	1679-08	Maturo	N/A	N/A
Horn antenna	BBHA 9120D	0640-1	Schwarzbeck	2010-10-26	2014-10-26
Horn antenna	BBHA 9170	1672	Schwarzbeck	2012-07-11	2014-07-11
Pre-amplifier	BBV 9719	1675	Schwarzbeck	2012-07-11	2014-07-11
Pre-amplifier	LNA 6018	1699	Teseq	2011-08-26	2013-02-26
Spectrum analyser	FSP 30	0657	Rohde & Schwarz	2011-06-28	2013-06-28