ROHDE&SCHWARZ

akkreditiert durch die / *accredited by the*

Deutsche Akkreditierungsstelle GmbH

als Kalibrierlaboratorium im / *as calibration laboratory in the*

Deutschen Kalibrierdienst

DKD

Deutsche Akkreditierungsstelle D-K-15195-01-00

Kalibrierschein *Calibration Certificate*	Kalibrierzeichen *Calibration Mark*

606107
D-K-15195-01-00
2021-07

Gegenstand *Object*	**EMI Test Receiver**
Hersteller *Manufacturer*	**ROHDE & SCHWARZ**
Typ *Type*	**ESU26**
Fabrikat/Serien-Nr. *Serial number*	**100409** **Inventarienummer: 901553**
Auftraggeber *Customer*	**RISE Research Institutes of Sweden AB** **Brinellgatan 4** **SE 504 62 Borås**
Auftragsnummer *Order No.*	**8800006606 10, X1004157**

Anzahl der Seiten des Kalibrierscheins **41**
Number of pages of the certificate

Ort, Datum der Kalibrierung **Köln, 2021-07-22**
Place, date of calibration

Dieser Kalibrierschein dokumentiert die Rückführung auf nationale Normale zur Darstellung der Einheiten in Übereinstimmung mit dem Internationalen Einheitensystem (SI).
Die DAkkS ist Unterzeichner der multilateralen Übereinkommen der European co-operation for Accreditation (EA) und der International Laboratory Accreditation Cooperation (ILAC) zur gegenseitigen Anerkennung der Kalibrierscheine.
Für die Einhaltung einer angemessenen Frist zur Wiederholung der Kalibrierung ist der Benutzer verantwortlich.
This calibration certificate documents the traceability to national standards, which realize the units of measurement according to the International System of Units (SI).
The DAkkS is signatory to the multilateral agreements of the European co-operation for Accreditation (EA) and of the International Laboratory Accreditation Cooperation (ILAC) for the mutual recognition of calibration certificates.
The user is obliged to have the object recalibrated at appropriate intervals.

Datum der Ausstellung *Date of issue*	Freigabe des Kalibrierscheins durch *Approval of the calibration certificate by*	
2021-07-22	Christian May Leitung des Laboratoriums *Laboratory management*	Uwe Reinacher Bearbeiter *Person in charge*

Calibration Procedure

The calibration was performed according to service manual 1302.6163.82-04 following the procedures as described in calibration guideline VDI/VDE/DGQ/DKD 2622 part 12 by compairing the relevant measurands of the instrument under test with the numerical values of the quantities represented by the reference standards used. The receiver fulfills the requirements of the international standard CISPR 16-1-1:2015 Edition 4.0.

Statement of Compliance

Incoming: All measured values are within the datasheet specifications.

Outgoing: All measured values are within the datasheet specifications.

Working Standards used

Item	Type	Serial Number	Calibration Certificate Number	Cal. Due
Signal Generator	SMF100A	105795	602089-D-K-15195-01-00-2021-06	2022-06-30
Signal Generator	SMA100B	102331	597407-D-K-15195-01-00-2021-04	2023-04-30
Signal Generator	SMF100A	105796	K20-948-D-K-15195-01-00-2020-09	2021-09-30
Step Attenuator 139dB 6GHz	RSC	101943	593163-D-K-15195-01-00-2021-03	2022-03-31
Spectrum Analyzer	FSW50	103192	598705-D-K-15195-01-00-2021-05	2022-05-31
Power Sensor	NRP18A	101217	593167-D-K-15195-01-00-2021-03	2022-03-31
Power Sensor	NRP-Z55	130785	593173-D-K-15195-01-00-2021-03	2022-03-31
Power Splitter	1534	1319	604492-D-K-15195-01-00-2021-06	2022-06-30
Calibration Kit	ZV-Z229	101005	564640-D-K-15195-01-00-2020-08	2021-08-31
Network Analyzer	ZVA40	100418	587949-D-K-15195-01-00-2021-02	2022-02-28
Calibration Pulse Gen. CIS	IGUU2918	100969	564697-D-K-15195-01-00-2020-09	2021-09-30
Frequency Standard	XSRM	300877/030	K20-1365-D-K-15195-01-00-2020-11	2021-11-30

Remarks

SelfTest passed
TotalCal passed
Section 23,24 contains customer requested "ClickRateAnalyzer" measurements.

Environmental Conditions

Ambient Temperature	(23 ± 3) °C	Relative Humidity	(45 ± 30) %

Comments on the measured results

The measurement results in the test report stated below have been tested for compliance with the given specifications and marked if necessary. The associated uncertainty of measurement has been taken into account. Measurement results that are not covered by the DAkkS accreditation are marked with [1].

Ref.: ILAC G8:09/2019 'Guidelines on Decision Rules and Statements of Conformity'.

The expanded measurement uncertainty corresponds to the measurement results from the standard measurement uncertainty multiplied by the coverage factor k = 2.
It was determined in accordance with EA-4/02 M:2013. The true value is located in the corresponding interval with a probability of 95 %.

In addition to the calibration results, the calibration certificate includes functional measurements that might have an influence on the measurement uncertainty of the calibration results. The functional measurement results are marked and are not intended to be used to support the further dissemination of metrological traceability. They are intended to verify the requirements on the measurement object according to manufacturer specifications and technical standards.

The following abbrevations may be used in this certificate:

[1]	Measurement results that are not covered by the DAkkS accreditation.
{a}	No measurement uncertainty stated because the errors always add together. So it is sure that a measurement result evaluted as "PASS" is pass.
{b}	The measurement uncertainty depends on the measurement result. The stated measurement uncertainty is valid for the close area around the specification. Measurement results outside the close area have a higher measurement uncertainty but are within the specification.
{c} , [2]	Functional test, therefore no measurement uncertainty is stated.
{d}	Typical value, refer to performance test.
{e}	The measurement uncertainty is taken into account when setting the measuring system.
{f}	Functional measurement result, not to be used for metrological traceability
DL , DT	Data Limit for symmetrical tolerance limits
UGB	Uncertainty guard band: Measuring uncertainty violates the data sheet tolerance
UGB1 , u	Measurement results marked as UGB1 show conformity with a probability of >50 % and <95 %.
UGB2 , **u**	Measurement results marked as UGB2 show non-conformity with a probability of >50 % and <95 %.
FAIL , f	Measurement results marked as FAIL show non-conformity
n. i.	not installed: Does not apply due to instrument configuration
n. m.	not measured
ref.	Reference value, used for relative measurements

Object Data

Firmware version:	4.73 SP5
Installed options:	B2, B16, B24

Page	Section	Test Description	Result
6	1	Ref.-Frequency Accuracy	PASS (1 n. i.)
6	2	1st IF Image Freq. Rejection	PASS
6	3	2nd IF Image Freq. Rejection	see Section 2
6	4	3rd IF Image Freq. Rejection	see Section 2
6	5	1st IF Rejection	see Section 2
6	6	2nd IF Rejection	see Section 2
6	7.1	3rd-order Intercept (Presel. off, Preamp. off)	PASS
7	7.2	3rd-order Intercept (Presel. on, Preamp. off)	PASS
7	7.3	3rd-order Intercept (Presel. on, Preamp. on)	PASS
7	8.1	2nd-order Intercept (Presel. off, Preamp. off)	PASS
7	8.2	2nd-order Intercept (Presel. on, Preamp. off)	PASS
7	8.3	2nd-order Intercept (Presel. on, Preamp. on)	PASS
8	9	IF Bandwidths, Level Error	PASS
9	10	IF Bandwidths	see Section 9
10	11	IF Bandwidths, Shape Factor	see Section 9
10	12.1	Noise Display (Presel. off, Preamp. off)	PASS
11	12.2	Noise Display (Presel. on, Preamp. off)	PASS
11	12.3	Noise Display (Presel. on, Preamp. on)	PASS
12	12.4	Noise Display (LN Preamp on, only ESU B24)	PASS
12	13	Level Accuracy	PASS
13	14.1	Frequency Response (Presel. off, Preamp. off)	PASS
13	14.2	Frequency Response (Presel. off, Preamp. off)	PASS
14	14.3	Frequency Response (Presel. off, Preamp. off)	PASS
14	14.4	Frequency Response (Presel. off, Preamp. off)	PASS
15	14.5	Frequency Response (Presel. off, Preamp. off)	PASS
15	14.6	Frequency Response (Presel. on, Preamp. off)	PASS
16	14.7	Frequency Response (Presel. on, Preamp. on)	PASS
16	14.8	Frequency Response (Presel. off, Preamp. off)	PASS
17	14.9	Frequency Response (Presel. on, Preamp. off)	PASS
17	14.10	Frequency Response (Presel. on, Preamp. on)	PASS
18	14.11	Frequency Response (Freq > 3,6 GHz)	PASS
19	14.12	Frequency Response (LN Preamp on, only ESU B24)	PASS
20	15.1	Display Linearity at 500 Hz RBW	PASS
20	15.2	Display Linearity at 300 kHz RBW	PASS
21	16	Input-Attenuator Accuracy	PASS
21	17	IF Gain Switching Accuracy	PASS
22	18.1	Sinewave Voltage Accuracy (Receiver Mode)	PASS
22	18.1	Sinewave Voltage Accuracy (Receiver Mode) (cont)	see Section 18.1
23	18.2	Peak and Quasipeak Detector Amplitude Relationship (Receiver Mode)	PASS
23	18.3	Quasipeak Variation with Repetition Frequency (Receiver Mode)	PASS
24	18.3	Quasipeak Variation with Repetition Frequency (Receiver Mode) (cont)	see Section 18.3
24	18.3	Quasipeak Variation with Repetition Frequency (Receiver Mode) (cont)	see Section 18.3
24	18.4	CISPR Average Amplitude Relationship (Receiver Mode)	PASS
25	18.5	CISPR Average Variation with Repetition Frequency (Receiver Mode)	PASS
25	18.5	CISPR Average Variation with Repetition Frequency (Receiver Mode) (	see Section 18.5
26	18.6	CISPR Average Response to Intermittent Disturbance (Receiver Mode)	PASS
26	18.7	RMS Average Amplitude Relationship (Receiver Mode)	PASS
26	18.8	RMS Average Variation with Repetition Frequency (Receiver Mode)	PASS
27	18.8	RMS Average Variation with Repetition Frequency (Receiver Mode) (cc	see Section 18.8
27	18.8	RMS Average Variation with Repetition Frequency (Receiver Mode) (cc	see Section 18.8
27	18.9	RMS Average Response to Intermittent Disturbance (Receiver Mode)	PASS

Test Description	Lower Limit	Result Measured	Upper Limit	Uncertainty
1 Ref.-Frequency Accuracy				
without Opt. B4 10 MHz	-1,00 Hz	0,11 Hz	1,00 Hz	0,05 Hz
with Opt. B4 10 MHz	-0,30 Hz	n. i.	0,30 Hz	0,05 Hz
2 1st IF Image Freq. Rejection				
fin = 11 MHz	--	-105,3 dBc	-90,0 dBc	0,5 dB
101 MHz	--	-105,9 dBc	-90,0 dBc	0,5 dB
1701 MHz	--	-102,2 dBc	-90,0 dBc	0,5 dB
3001 MHz	--	-100,1 dBc	-90,0 dBc	0,5 dB
3 2nd IF Image Freq. Rejection				
fin = 101 MHz	--	-105,9 dBc	-90,0 dBc	0,5 dB
3700 MHz	--	-102,3 dBc	-70,0 dBc	0,5 dB
5000 MHz	--	-101,5 dBc	-70,0 dBc	0,5 dB
7999 MHz	--	-100,5 dBc	-70,0 dBc	0,5 dB
26000 MHz	--	-92,7 dBc	-70,0 dBc	0,5 dB
4 3rd IF Image Freq. Rejection				
fin = 101 MHz	--	-98,2 dBc	-90,0 dBc	0,5 dB
4500 MHz	--	-96,8 dBc	-70,0 dBc	0,5 dB
26000 MHz	--	-95,9 dBc	-70,0 dBc	0,5 dB
5 1st IF Rejection				
fin = 11 MHz	--	-105,8 dBc	-90,0 dBc	0,5 dB
101 MHz	--	-105,6 dBc	-90,0 dBc	0,5 dB
1701 MHz	--	-102,1 dBc	-90,0 dBc	0,5 dB
2990 MHz	--	-99,8 dBc	-90,0 dBc	0,5 dB
6 2nd IF Rejection				
fin = 101 MHz	--	-105,5 dBc	-90,0 dBc	0,5 dB
4500 MHz	--	-103,9 dBc	-70,0 dBc	0,5 dB
7.1 3rd-order Intercept (Presel. off, Preamp. off)				
results calculated from power and attenuation measurements				
fin = 28 MHz	17,0 dBm	23,6 dBm	--	1,5 dB
106 MHz	17,0 dBm	42,7 dBm	--	1,5 dB
261 MHz	17,0 dBm	26,5 dBm	--	1,5 dB
640 MHz	22,0 dBm	25,9 dBm	--	1,5 dB
1000 MHz	22,0 dBm	29,4 dBm	--	1,5 dB
1700 MHz	22,0 dBm	28,1 dBm	--	1,5 dB
2500 MHz	22,0 dBm	31,7 dBm	--	1,5 dB
3590 MHz	22,0 dBm	32,1 dBm	--	1,5 dB
4001 MHz	12,0 dBm	18,2 dBm	--	1,5 dB
5001 MHz	12,0 dBm	19,0 dBm	--	1,5 dB
7999 MHz	12,0 dBm	21,3 dBm	--	1,5 dB
12000 MHz	12,0 dBm	20,8 dBm	--	1,5 dB
20000 MHz	12,0 dBm	24,4 dBm	--	1,5 dB
26000 MHz	12,0 dBm	20,6 dBm	--	1,5 dB

Test Description		Lower Limit	Result Measured	Upper Limit	Uncertainty
7.2 3rd-order Intercept (Presel. on, Preamp. off)					
results calculated from power and attenuation measurements					
fin =	28 MHz	9,0 dBm	16,4 dBm	--	1,5 dB
	106 MHz	9,0 dBm	16,2 dBm	--	1,5 dB
	261 MHz	9,0 dBm	16,1 dBm	--	1,5 dB
	640 MHz	12,0 dBm	18,6 dBm	--	1,5 dB
	1000 MHz	12,0 dBm	20,2 dBm	--	1,5 dB
	1700 MHz	12,0 dBm	19,8 dBm	--	1,5 dB
	2500 MHz	12,0 dBm	18,9 dBm	--	1,5 dB
	3590 MHz	12,0 dBm	19,8 dBm	--	1,5 dB
7.3 3rd-order Intercept (Presel. on, Preamp. on)					
results calculated from power and attenuation measurements					
fin =	28 MHz	-10,0 dBm	-2,2 dBm	--	1,5 dB
	106 MHz	-10,0 dBm	-2,1 dBm	--	1,5 dB
	261 MHz	-10,0 dBm	-0,1 dBm	--	1,5 dB
	640 MHz	-10,0 dBm	0,4 dBm	--	1,5 dB
	1000 MHz	-10,0 dBm	4,6 dBm	--	1,5 dB
	1700 MHz	-10,0 dBm	4,4 dBm	--	1,5 dB
	2500 MHz	-10,0 dBm	5,6 dBm	--	1,5 dB
	3590 MHz	-10,0 dBm	8,4 dBm	--	1,5 dB
8.1 2nd-order Intercept (Presel. off, Preamp. off)					
results calculated from power and attenuation measurements					
fin =	40 MHz	35,0 dBm	63,3 dBm	--	1,0 dB
	290 MHz	45,0 dBm	69,5 dBm	--	1,0 dB
	1790 MHz	35,0 dBm	58,8 dBm	--	1,0 dB
8.2 2nd-order Intercept (Presel. on, Preamp. off)					
results calculated from power and attenuation measurements					
fin =	40 MHz	40,0 dBm	70,0 dBm	--	1,0 dB
	290 MHz	55,0 dBm	72,4 dBm	--	1,0 dB
	1790 MHz	55,0 dBm	79,5 dBm	--	1,0 dB
8.3 2nd-order Intercept (Presel. on, Preamp. on)					
results calculated from power and attenuation measurements					
fin =	40 MHz	35,0 dBm	68,0 dBm	--	1,0 dB
	290 MHz	45,0 dBm	72,2 dBm	--	1,0 dB
	1790 MHz	45,0 dBm	59,2 dBm	--	1,0 dB

Test Description			Lower Limit	Result Measured	Upper Limit	Uncertainty
9	**IF Bandwidths, Level Error**					
100	Hz	Analog 3dB	-0,10 dB	0,00 dB	0,10 dB	0,02 dB
1	kHz		-0,10 dB	0,02 dB	0,10 dB	0,02 dB
10	kHz		--	0,00 dB	--	reference
100	kHz		-0,10 dB	-0,03 dB	0,10 dB	0,02 dB
300	kHz		-0,20 dB	0,04 dB	0,20 dB	0,02 dB
1	MHz		-0,20 dB	0,04 dB	0,20 dB	0,02 dB
3	MHz		-0,20 dB	0,03 dB	0,20 dB	0,02 dB
10	MHz		-0,50 dB	0,03 dB	0,50 dB	0,02 dB
100	Hz	Analog 6dB	-0,10 dB	-0,01 dB	0,10 dB	0,02 dB
200	Hz		-0,10 dB	-0,01 dB	0,10 dB	0,02 dB
1	kHz		-0,10 dB	0,02 dB	0,10 dB	0,02 dB
9	kHz		-0,10 dB	-0,01 dB	0,10 dB	0,02 dB
100	kHz		-0,10 dB	-0,03 dB	0,10 dB	0,02 dB
120	kHz		-0,10 dB	-0,03 dB	0,10 dB	0,02 dB
1	MHz		-0,20 dB	0,01 dB	0,20 dB	0,02 dB
100	Hz	FFT 3dB	-0,20 dB	-0,07 dB	0,20 dB	0,02 dB
300	Hz		-0,20 dB	-0,07 dB	0,20 dB	0,02 dB
1	kHz		-0,20 dB	-0,07 dB	0,20 dB	0,02 dB
3	kHz		-0,20 dB	-0,07 dB	0,20 dB	0,02 dB

Test Description	Lower Limit	Result Measured	Upper Limit	Uncertainty
10 IF Bandwidths				
100 Hz 3dB bandwidth	97,0 Hz	100,5 Hz	103,0 Hz	1,0 Hz
1 kHz	970 Hz	1000 Hz	1030 Hz	10 Hz
10 kHz	9,70 kHz	10,05 kHz	10,30 kHz	100 Hz
100 kHz	97,0 kHz	99,5 kHz	103,0 kHz	1,0 kHz
300 kHz	270,0 kHz	315,9 kHz	330,0 kHz	3,0 kHz
1 MHz	900 kHz	1014 kHz	1100 kHz	10 kHz
3 MHz	2,700 MHz	2,971 MHz	3,300 MHz	30 kHz
10 MHz	7,00 MHz	9,86 MHz	11,00 MHz	100 kHz
100 Hz 6dB bandwidth	97,0 Hz	100,0 Hz	103,0 Hz	1,0 Hz
200 Hz	194 Hz	200 Hz	206 Hz	2 Hz
1 kHz	0,97 kHz	1,00 kHz	1,03 kHz	10 Hz
9 kHz	8,7 kHz	9,0 kHz	9,3 kHz	100 Hz
10 kHz	9,7 kHz	10,0 kHz	10,3 kHz	100 Hz
100 kHz	97 kHz	99 kHz	103 kHz	1 kHz
120 kHz	116,4 kHz	118,8 kHz	123,6 kHz	1,0 kHz
1 MHz	900 kHz	1000 kHz	1100 kHz	10 kHz
200 Hz 6dB Filter:				
-20 dB left	-220,0 Hz	-181,9 Hz	-90,0 Hz	1,0 Hz
-6 dB left	-110,0 Hz	-99,4 Hz	-90,0 Hz	1,0 Hz
-1,5 dB left	-110,0 Hz	-49,7 Hz	-45,0 Hz	1,0 Hz
-1,5 dB right	45,0 Hz	49,7 Hz	110,0 Hz	1,0 Hz
-6 dB right	90,0 Hz	99,4 Hz	110,0 Hz	1,0 Hz
-20 dB right	90,0 Hz	181,9 Hz	220,0 Hz	1,0 Hz
9 kHz 6dB Filter:				
-20 dB left	-10,00 kHz	-8,30 kHz	-4,00 kHz	10 Hz
-6 dB left	-5,00 kHz	-4,52 kHz	-4,00 kHz	10 Hz
-1,5 dB left	-5,00 kHz	-2,28 kHz	-2,00 kHz	10 Hz
-1,5 dB right	2,00 kHz	2,24 kHz	5,00 kHz	10 Hz
-6 dB right	4,00 kHz	4,52 kHz	5,00 kHz	10 Hz
-20 dB right	4,00 kHz	8,27 kHz	10,00 kHz	10 Hz
120 kHz 6dB Filter:				
-20 dB left	-140,0 kHz	-108,2 kHz	-50,0 kHz	100 Hz
-6 dB left	-70,0 kHz	-59,3 kHz	-50,0 kHz	100 Hz
-1,5 dB left	-70,0 kHz	-29,6 kHz	-20,0 kHz	100 Hz
-1,5 dB right	20,0 kHz	29,6 kHz	70,0 kHz	100 Hz
-6 dB right	50,0 kHz	59,3 kHz	70,0 kHz	100 Hz
-20 dB right	50,0 kHz	108,2 kHz	140,0 kHz	100 Hz
1 MHz 6dB Filter:				
-20 dB left	-1,350 MHz	-0,909 MHz	-0,450 MHz	1 kHz
-9 dB left	-1,000 MHz	-0,611 MHz	-0,450 MHz	1 kHz
-6 dB left	-0,550 MHz	-0,495 MHz	-0,375 MHz	1 kHz
-3 dB left	-0,550 MHz	-0,351 MHz	-0,250 MHz	1 kHz
-3 dB right	0,250 MHz	0,356 MHz	0,550 MHz	1 kHz
-6 dB right	0,375 MHz	0,505 MHz	0,550 MHz	1 kHz
-9 dB right	0,450 MHz	0,615 MHz	1,000 MHz	1 kHz
-20 dB right	0,450 MHz	0,918 MHz	1,350 MHz	1 kHz

Test Description			Lower Limit	Result Measured	Upper Limit	Uncertainty
11 IF Bandwidths, Shape Factor						
	100 Hz	(60 dB / 3 dB)	--	4,88	6,00	0,20
	1 kHz		--	4,67	6,00	0,19
	10 kHz		--	5,30	6,00	0,21
	100 kHz		--	4,52	6,00	0,18
	300 kHz		--	9,20	12,00	0,4
	1 MHz		--	8,92	12,00	0,4
	3 MHz		--	5,15	7,00	0,21
	10 MHz		--	3,37	7,00	0,14
	100 Hz	(60 dB / 6 dB)	--	3,78	5,00	0,15
	200 Hz		--	3,35	5,00	0,13
	1 kHz		--	3,24	5,00	0,13
	9 kHz		--	3,23	5,00	0,13
	10 kHz		--	3,39	5,00	0,14
	100 kHz		--	3,16	5,00	0,13
	120 kHz		--	3,16	5,00	0,13
	1 MHz		--	3,19	5,00	0,13
12.1 Noise Display (Presel. off, Preamp. off)						{f}
results are readings on DUT traceable to power and attenuation normalized to 1 HZ RBW						
fin =	20 Hz		--	-114,4 dBm	-90,0 dBm	0,5 dB
	90 Hz		--	-118,0 dBm	-110,0 dBm	0,5 dB
	900 Hz		--	-126,3 dBm	-120,0 dBm	0,5 dB
	9 kHz		--	-139,6 dBm	-130,0 dBm	0,5 dB
	95 kHz		--	-147,9 dBm	-130,0 dBm	0,5 dB
	999 kHz		--	-153,1 dBm	-140,0 dBm	0,5 dB
	9,99 MHz		--	-155,4 dBm	-153,0 dBm	0,5 dB
	19,99 MHz		--	-155,4 dBm	-152,0 dBm	0,5 dB
	49,99 MHz		--	-155,2 dBm	-152,0 dBm	0,5 dB
	99,99 MHz		--	-155,5 dBm	-152,0 dBm	0,5 dB
	199,9 MHz		--	-154,9 dBm	-152,0 dBm	0,5 dB
	499,9 MHz		--	-154,2 dBm	-152,0 dBm	0,5 dB
	999,9 MHz		--	-153,4 dBm	-152,0 dBm	0,5 dB
	1499 MHz		--	-152,3 dBm	-150,0 dBm	0,5 dB
	1999 MHz		--	-151,9 dBm	-150,0 dBm	0,5 dB
	2499 MHz		--	-149,5 dBm	-145,0 dBm	0,5 dB
	2999 MHz		--	-149,6 dBm	-145,0 dBm	0,5 dB
	3599 MHz		--	-147,6 dBm	-145,0 dBm	0,5 dB
	3601 MHz		--	-153,1 dBm	-147,0 dBm	0,5 dB
	6999 MHz		--	-151,9 dBm	-147,0 dBm	0,5 dB
	9999 MHz		--	-151,9 dBm	-147,0 dBm	0,5 dB
	12999 MHz		--	-151,1 dBm	-145,0 dBm	0,5 dB
	17999 MHz		--	-151,0 dBm	-145,0 dBm	0,5 dB
	21999 MHz		--	-149,3 dBm	-142,0 dBm	0,5 dB
	26499 MHz		--	-146,1 dBm	-140,0 dBm	0,5 dB

Test Description	Lower Limit	Result Measured	Upper Limit	Uncertainty
12.2 Noise Display (Presel. on, Preamp. off)				{f}
results are readings on DUT traceable to power and attenuation normalized to 1 HZ RBW				
fin = 90 Hz	--	-124,4 dBm	-110,0 dBm	0,5 dB
900 Hz	--	-139,9 dBm	-120,0 dBm	0,5 dB
9 kHz	--	-145,3 dBm	-130,0 dBm	0,5 dB
95 kHz	--	-151,7 dBm	-130,0 dBm	0,5 dB
999 kHz	--	-156,8 dBm	-140,0 dBm	0,5 dB
9,99 MHz	--	-161,3 dBm	-153,0 dBm	0,5 dB
19,99 MHz	--	-161,3 dBm	-152,0 dBm	0,5 dB
49,99 MHz	--	-161,1 dBm	-152,0 dBm	0,5 dB
99,99 MHz	--	-161,2 dBm	-152,0 dBm	0,5 dB
199,9 MHz	--	-160,5 dBm	-152,0 dBm	0,5 dB
499,9 MHz	--	-160,1 dBm	-152,0 dBm	0,5 dB
999,9 MHz	--	-157,3 dBm	-152,0 dBm	0,5 dB
1499 MHz	--	-157,3 dBm	-152,0 dBm	0,5 dB
1999 MHz	--	-155,9 dBm	-147,0 dBm	0,5 dB
2499 MHz	--	-155,6 dBm	-147,0 dBm	0,5 dB
2999 MHz	--	-155,3 dBm	-147,0 dBm	0,5 dB
3599 MHz	--	-155,2 dBm	-142,0 dBm	0,5 dB
12.3 Noise Display (Presel. on, Preamp. on)				{f}
results are readings on DUT traceable to power and attenuation normalized to 1 HZ RBW				
fin = 900 Hz	--	-148,6 dBm	-130,0 dBm	0,5 dB
9 kHz	--	-156,0 dBm	-140,0 dBm	0,5 dB
95 kHz	--	-156,5 dBm	-140,0 dBm	0,5 dB
999 kHz	--	-159,8 dBm	-150,0 dBm	0,5 dB
9,99 MHz	--	-167,5 dBm	-165,0 dBm	0,5 dB
19,99 MHz	--	-167,8 dBm	-162,0 dBm	0,5 dB
49,99 MHz	--	-167,6 dBm	-162,0 dBm	0,5 dB
99,99 MHz	--	-167,5 dBm	-162,0 dBm	0,5 dB
199,9 MHz	--	-166,8 dBm	-162,0 dBm	0,5 dB
499,9 MHz	--	-166,5 dBm	-162,0 dBm	0,5 dB
999,9 MHz	--	-164,9 dBm	-160,0 dBm	0,5 dB
1499 MHz	--	-164,1 dBm	-160,0 dBm	0,5 dB
1999 MHz	--	-163,1 dBm	-160,0 dBm	0,5 dB
2499 MHz	--	-162,4 dBm	-158,0 dBm	0,5 dB
2999 MHz	--	-161,9 dBm	-158,0 dBm	0,5 dB
3599 MHz	--	-161,6 dBm	-155,0 dBm	0,5 dB

Test Description	Lower Limit	Result Measured	Upper Limit	Uncertainty
12.4 Noise Display (LN Preamp on, only ESU B24)				{f}
results are readings on DUT traceable to power and attenuation normalized to 1 HZ RBW				
fin = 101 kHz	--	-157,5 dBm	-140,0 dBm	0,5 dB
999 kHz	--	-160,8 dBm	-150,0 dBm	0,5 dB
9,99 MHz	--	-168,8 dBm	-163,0 dBm	0,5 dB
19,99 MHz	--	-169,1 dBm	-164,0 dBm	0,5 dB
49,99 MHz	--	-169,4 dBm	-164,0 dBm	0,5 dB
99,99 MHz	--	-169,0 dBm	-164,0 dBm	0,5 dB
199,9 MHz	--	-168,9 dBm	-164,0 dBm	0,5 dB
499,9 MHz	--	-168,3 dBm	-164,0 dBm	0,5 dB
999,9 MHz	--	-168,2 dBm	-164,0 dBm	0,5 dB
1499 MHz	--	-167,7 dBm	-164,0 dBm	0,5 dB
1999 MHz	--	-167,4 dBm	-164,0 dBm	0,5 dB
2499 MHz	--	-166,6 dBm	-163,0 dBm	0,5 dB
2999 MHz	--	-166,3 dBm	-163,0 dBm	0,5 dB
3599 MHz	--	-166,0 dBm	-163,0 dBm	0,5 dB
3601 MHz	--	-168,8 dBm	-165,0 dBm	0,5 dB
6999 MHz	--	-169,2 dBm	-165,0 dBm	0,5 dB
9999 MHz	--	-169,3 dBm	-165,0 dBm	0,5 dB
12999 MHz	--	-168,7 dBm	-165,0 dBm	0,5 dB
17999 MHz	--	-167,4 dBm	-163,0 dBm	0,5 dB
21999 MHz	--	-166,2 dBm	-163,0 dBm	0,5 dB
26499 MHz	--	-164,6 dBm	-160,0 dBm	0,5 dB
13 Level Accuracy				
level deviation of cal. signal				
-30 dBm 128 MHz				
Input1 (Presel. off. Preamp. off)	-0,20 dB	0,05 dB	0,20 dB	0,05 dB
Input1 (Presel. on. Preamp. off)	-0,30 dB	0,08 dB	0,30 dB	0,05 dB
Input1 (Presel. on. Preamp. on)	-0,30 dB	0,08 dB	0,30 dB	0,05 dB
Input1 (LNA on) Opt B24 only	-0,30 dB	0,05 dB	0,30 dB	0,05 dB
Input2 (Presel. off. Preamp. off)	-0,20 dB	0,06 dB	0,20 dB	0,05 dB
Input2 (Presel. on. Preamp. off)	-0,30 dB	0,03 dB	0,30 dB	0,05 dB
Input2 (Presel. on. Preamp. on)	-0,30 dB	0,03 dB	0,30 dB	0,05 dB

Test Description	Lower Limit	Result Measured	Upper Limit	Uncertainty
14.1 Frequency Response (Presel. off, Preamp. off)				
Input1, Att 10 dB, DC-Coup.				
at -10 dBm referred to 128 MHz				
100 kHz	-0,50 dB	0,01 dB	0,50 dB	0,10 dB
1 MHz	-0,50 dB	-0,15 dB	0,50 dB	0,10 dB
10 MHz	-0,30 dB	-0,04 dB	0,30 dB	0,10 dB
50 MHz	-0,30 dB	-0,05 dB	0,30 dB	0,10 dB
100 MHz	-0,30 dB	0,00 dB	0,30 dB	0,10 dB
200 MHz	-0,30 dB	0,02 dB	0,30 dB	0,10 dB
300 MHz	-0,30 dB	-0,03 dB	0,30 dB	0,10 dB
400 MHz	-0,30 dB	-0,01 dB	0,30 dB	0,10 dB
500 MHz	-0,30 dB	0,00 dB	0,30 dB	0,10 dB
600 MHz	-0,30 dB	-0,02 dB	0,30 dB	0,10 dB
700 MHz	-0,30 dB	-0,02 dB	0,30 dB	0,10 dB
800 MHz	-0,30 dB	-0,06 dB	0,30 dB	0,10 dB
900 MHz	-0,30 dB	-0,06 dB	0,30 dB	0,10 dB
1000 MHz	-0,30 dB	-0,10 dB	0,30 dB	0,10 dB
1500 MHz	-0,30 dB	-0,13 dB	0,30 dB	0,11 dB
2000 MHz	-0,50 dB	-0,17 dB	0,50 dB	0,11 dB
2500 MHz	-0,50 dB	-0,21 dB	0,50 dB	0,11 dB
3000 MHz	-0,50 dB	-0,14 dB	0,50 dB	0,12 dB
3599 MHz	-0,50 dB	-0,34 dB	0,50 dB	0,12 dB
14.2 Frequency Response (Presel. off, Preamp. off)				
Input1, Att 10 dB, AC-Coup.				
at -10 dBm referred to 128 MHz				
10 MHz	-0,30 dB	-0,04 dB	0,30 dB	0,10 dB
50 MHz	-0,30 dB	-0,05 dB	0,30 dB	0,10 dB
100 MHz	-0,30 dB	0,00 dB	0,30 dB	0,10 dB
200 MHz	-0,30 dB	0,03 dB	0,30 dB	0,10 dB
300 MHz	-0,30 dB	-0,03 dB	0,30 dB	0,10 dB
400 MHz	-0,30 dB	-0,01 dB	0,30 dB	0,10 dB
500 MHz	-0,30 dB	-0,01 dB	0,30 dB	0,10 dB
600 MHz	-0,30 dB	-0,03 dB	0,30 dB	0,10 dB
700 MHz	-0,30 dB	-0,05 dB	0,30 dB	0,10 dB
800 MHz	-0,30 dB	-0,09 dB	0,30 dB	0,10 dB
900 MHz	-0,30 dB	-0,06 dB	0,30 dB	0,10 dB
1000 MHz	-0,30 dB	-0,11 dB	0,30 dB	0,10 dB
1500 MHz	-0,30 dB	-0,13 dB	0,30 dB	0,11 dB
2000 MHz	-0,50 dB	-0,16 dB	0,50 dB	0,11 dB
2500 MHz	-0,50 dB	-0,20 dB	0,50 dB	0,11 dB
3000 MHz	-0,50 dB	-0,11 dB	0,50 dB	0,12 dB
3599 MHz	-0,50 dB	-0,30 dB	0,50 dB	0,12 dB

Test Description	Lower Limit	Result Measured	Upper Limit	Uncertainty
14.3 Frequency Response (Presel. off, Preamp. off)				
Input1, Att 15 dB, DC-Coup.				
at -10 dBm referred to 128 MHz				
100 kHz	-0,50 dB	0,04 dB	0,50 dB	0,10 dB
1 MHz	-0,50 dB	-0,12 dB	0,50 dB	0,10 dB
10 MHz	-0,30 dB	-0,02 dB	0,30 dB	0,10 dB
50 MHz	-0,30 dB	-0,04 dB	0,30 dB	0,10 dB
100 MHz	-0,30 dB	0,00 dB	0,30 dB	0,10 dB
200 MHz	-0,30 dB	0,04 dB	0,30 dB	0,10 dB
300 MHz	-0,30 dB	-0,02 dB	0,30 dB	0,10 dB
400 MHz	-0,30 dB	0,00 dB	0,30 dB	0,10 dB
500 MHz	-0,30 dB	0,01 dB	0,30 dB	0,10 dB
600 MHz	-0,30 dB	-0,03 dB	0,30 dB	0,10 dB
700 MHz	-0,30 dB	-0,04 dB	0,30 dB	0,10 dB
800 MHz	-0,30 dB	-0,07 dB	0,30 dB	0,10 dB
900 MHz	-0,30 dB	-0,06 dB	0,30 dB	0,10 dB
1000 MHz	-0,30 dB	-0,10 dB	0,30 dB	0,10 dB
1500 MHz	-0,30 dB	-0,13 dB	0,30 dB	0,11 dB
2000 MHz	-0,50 dB	-0,14 dB	0,50 dB	0,11 dB
2500 MHz	-0,50 dB	-0,16 dB	0,50 dB	0,11 dB
3000 MHz	-0,50 dB	-0,12 dB	0,50 dB	0,12 dB
3599 MHz	-0,50 dB	-0,28 dB	0,50 dB	0,12 dB
14.4 Frequency Response (Presel. off, Preamp. off)				
Input1, Att 20 dB, DC-Coup.				
at -10 dBm referred to 128 MHz				
100 kHz	-0,50 dB	0,04 dB	0,50 dB	0,10 dB
1 MHz	-0,50 dB	-0,11 dB	0,50 dB	0,10 dB
10 MHz	-0,30 dB	-0,01 dB	0,30 dB	0,10 dB
50 MHz	-0,30 dB	-0,03 dB	0,30 dB	0,10 dB
100 MHz	-0,30 dB	-0,01 dB	0,30 dB	0,10 dB
200 MHz	-0,30 dB	0,05 dB	0,30 dB	0,10 dB
300 MHz	-0,30 dB	-0,01 dB	0,30 dB	0,10 dB
400 MHz	-0,30 dB	0,00 dB	0,30 dB	0,10 dB
500 MHz	-0,30 dB	0,00 dB	0,30 dB	0,10 dB
600 MHz	-0,30 dB	-0,02 dB	0,30 dB	0,10 dB
700 MHz	-0,30 dB	-0,04 dB	0,30 dB	0,10 dB
800 MHz	-0,30 dB	-0,07 dB	0,30 dB	0,10 dB
900 MHz	-0,30 dB	-0,05 dB	0,30 dB	0,10 dB
1000 MHz	-0,30 dB	-0,10 dB	0,30 dB	0,10 dB
1500 MHz	-0,30 dB	-0,12 dB	0,30 dB	0,11 dB
2000 MHz	-0,50 dB	-0,14 dB	0,50 dB	0,11 dB
2500 MHz	-0,50 dB	-0,17 dB	0,50 dB	0,11 dB
3000 MHz	-0,50 dB	-0,11 dB	0,50 dB	0,12 dB
3599 MHz	-0,50 dB	-0,30 dB	0,50 dB	0,12 dB

Test Description	Lower Limit	Result Measured	Upper Limit	Uncertainty
14.5 Frequency Response (Presel. off, Preamp. off)				
Input1, Att 40 dB, DC-Coup.				
at -10 dBm referred to 128 MHz				
100 kHz	-0,50 dB	0,04 dB	0,50 dB	0,10 dB
1 MHz	-0,50 dB	-0,12 dB	0,50 dB	0,10 dB
10 MHz	-0,30 dB	-0,02 dB	0,30 dB	0,10 dB
50 MHz	-0,30 dB	-0,03 dB	0,30 dB	0,10 dB
100 MHz	-0,30 dB	0,00 dB	0,30 dB	0,10 dB
200 MHz	-0,30 dB	0,05 dB	0,30 dB	0,10 dB
300 MHz	-0,30 dB	-0,01 dB	0,30 dB	0,10 dB
400 MHz	-0,30 dB	0,00 dB	0,30 dB	0,10 dB
500 MHz	-0,30 dB	0,02 dB	0,30 dB	0,10 dB
600 MHz	-0,30 dB	-0,01 dB	0,30 dB	0,10 dB
700 MHz	-0,30 dB	-0,05 dB	0,30 dB	0,10 dB
800 MHz	-0,30 dB	-0,06 dB	0,30 dB	0,10 dB
900 MHz	-0,30 dB	-0,06 dB	0,30 dB	0,10 dB
1000 MHz	-0,30 dB	-0,09 dB	0,30 dB	0,10 dB
1500 MHz	-0,30 dB	-0,12 dB	0,30 dB	0,11 dB
2000 MHz	-0,50 dB	-0,13 dB	0,50 dB	0,11 dB
2500 MHz	-0,50 dB	-0,14 dB	0,50 dB	0,11 dB
3000 MHz	-0,50 dB	-0,06 dB	0,50 dB	0,12 dB
3599 MHz	-0,50 dB	-0,31 dB	0,50 dB	0,12 dB
14.6 Frequency Response (Presel. on, Preamp. off)				
Input1, Att 10 dB, DC-Coup.				
at -10 dBm referred to 128 MHz				
100 kHz	-0,80 dB	-0,02 dB	0,80 dB	0,10 dB
1 MHz	-0,80 dB	-0,17 dB	0,80 dB	0,10 dB
10 MHz	-0,60 dB	-0,07 dB	0,60 dB	0,10 dB
50 MHz	-0,60 dB	-0,07 dB	0,60 dB	0,10 dB
100 MHz	-0,60 dB	0,01 dB	0,60 dB	0,10 dB
200 MHz	-0,60 dB	-0,03 dB	0,60 dB	0,10 dB
300 MHz	-0,60 dB	-0,04 dB	0,60 dB	0,10 dB
400 MHz	-0,60 dB	-0,09 dB	0,60 dB	0,10 dB
500 MHz	-0,60 dB	0,00 dB	0,60 dB	0,10 dB
600 MHz	-0,60 dB	-0,07 dB	0,60 dB	0,10 dB
700 MHz	-0,60 dB	-0,06 dB	0,60 dB	0,10 dB
800 MHz	-0,60 dB	-0,08 dB	0,60 dB	0,10 dB
900 MHz	-0,60 dB	-0,06 dB	0,60 dB	0,10 dB
1000 MHz	-0,60 dB	-0,09 dB	0,60 dB	0,10 dB
1500 MHz	-0,60 dB	-0,14 dB	0,60 dB	0,11 dB
2000 MHz	-0,80 dB	-0,18 dB	0,80 dB	0,11 dB
2500 MHz	-0,80 dB	-0,22 dB	0,80 dB	0,11 dB
3000 MHz	-0,80 dB	-0,18 dB	0,80 dB	0,12 dB
3599 MHz	-0,80 dB	-0,41 dB	0,80 dB	0,12 dB

Test Description	Lower Limit	Result Measured	Upper Limit	Uncertainty
14.7 Frequency Response (Presel. on, Preamp. on)				
Input1, Att 30 dB, DC-Coup.				
at -10 dBm referred to 128 MHz				
100 kHz	-0,80 dB	-0,06 dB	0,80 dB	0,10 dB
1 MHz	-0,80 dB	-0,15 dB	0,80 dB	0,10 dB
10 MHz	-0,60 dB	-0,04 dB	0,60 dB	0,10 dB
50 MHz	-0,60 dB	-0,06 dB	0,60 dB	0,10 dB
100 MHz	-0,60 dB	-0,03 dB	0,60 dB	0,10 dB
200 MHz	-0,60 dB	-0,01 dB	0,60 dB	0,10 dB
300 MHz	-0,60 dB	-0,01 dB	0,60 dB	0,10 dB
400 MHz	-0,60 dB	-0,04 dB	0,60 dB	0,10 dB
500 MHz	-0,60 dB	-0,01 dB	0,60 dB	0,10 dB
600 MHz	-0,60 dB	-0,03 dB	0,60 dB	0,10 dB
700 MHz	-0,60 dB	-0,07 dB	0,60 dB	0,10 dB
800 MHz	-0,60 dB	-0,09 dB	0,60 dB	0,10 dB
900 MHz	-0,60 dB	-0,04 dB	0,60 dB	0,10 dB
1000 MHz	-0,60 dB	-0,07 dB	0,60 dB	0,10 dB
1500 MHz	-0,60 dB	-0,09 dB	0,60 dB	0,11 dB
2000 MHz	-0,80 dB	-0,14 dB	0,80 dB	0,11 dB
2500 MHz	-0,80 dB	-0,24 dB	0,80 dB	0,11 dB
3000 MHz	-0,80 dB	-0,14 dB	0,80 dB	0,12 dB
3599 MHz	-0,80 dB	-0,05 dB	0,80 dB	0,12 dB
14.8 Frequency Response (Presel. off, Preamp. off)				
Input2, Att 10 dB, DC-Coup.				
at -10 dBm referred to 128 MHz				
100 kHz	-0,50 dB	-0,05 dB	0,50 dB	0,10 dB
1 MHz	-0,50 dB	-0,26 dB	0,50 dB	0,10 dB
10 MHz	-0,30 dB	-0,01 dB	0,30 dB	0,10 dB
50 MHz	-0,30 dB	-0,01 dB	0,30 dB	0,10 dB
100 MHz	-0,30 dB	-0,03 dB	0,30 dB	0,10 dB
200 MHz	-0,30 dB	-0,04 dB	0,30 dB	0,10 dB
300 MHz	-0,30 dB	-0,04 dB	0,30 dB	0,10 dB
400 MHz	-0,30 dB	-0,04 dB	0,30 dB	0,10 dB
500 MHz	-0,30 dB	-0,07 dB	0,30 dB	0,10 dB
600 MHz	-0,30 dB	-0,09 dB	0,30 dB	0,10 dB
700 MHz	-0,30 dB	-0,12 dB	0,30 dB	0,10 dB
800 MHz	-0,30 dB	-0,18 dB	0,30 dB	0,10 dB
900 MHz	-0,30 dB	-0,13 dB	0,30 dB	0,10 dB
999 MHz	-0,30 dB	-0,19 dB	0,30 dB	0,10 dB

Test Description	Lower Limit	Result Measured	Upper Limit	Uncertainty
14.9 Frequency Response (Presel. on, Preamp. off)				
Input2, Att 10 dB, DC-Coup.				
at -10 dBm referred to 128 MHz				
100 kHz	-0,80 dB	-0,07 dB	0,80 dB	0,10 dB
1 MHz	-0,80 dB	-0,30 dB	0,80 dB	0,10 dB
10 MHz	-0,60 dB	-0,02 dB	0,60 dB	0,10 dB
50 MHz	-0,60 dB	0,00 dB	0,60 dB	0,10 dB
100 MHz	-0,60 dB	0,03 dB	0,60 dB	0,10 dB
200 MHz	-0,60 dB	-0,09 dB	0,60 dB	0,10 dB
300 MHz	-0,60 dB	0,01 dB	0,60 dB	0,10 dB
400 MHz	-0,60 dB	-0,09 dB	0,60 dB	0,10 dB
500 MHz	-0,60 dB	-0,13 dB	0,60 dB	0,10 dB
600 MHz	-0,60 dB	-0,05 dB	0,60 dB	0,10 dB
700 MHz	-0,60 dB	-0,05 dB	0,60 dB	0,10 dB
800 MHz	-0,60 dB	-0,12 dB	0,60 dB	0,10 dB
900 MHz	-0,60 dB	-0,10 dB	0,60 dB	0,10 dB
999 MHz	-0,60 dB	-0,12 dB	0,60 dB	0,10 dB
14.10 Frequency Response (Presel. on, Preamp. on)				
Input2, Att 30 dB, DC-Coup.				
at -10 dBm referred to 128 MHz				
100 kHz	-0,80 dB	-0,05 dB	0,80 dB	0,10 dB
1 MHz	-0,80 dB	-0,19 dB	0,80 dB	0,10 dB
10 MHz	-0,60 dB	0,01 dB	0,60 dB	0,10 dB
50 MHz	-0,60 dB	-0,04 dB	0,60 dB	0,10 dB
100 MHz	-0,60 dB	-0,01 dB	0,60 dB	0,10 dB
200 MHz	-0,60 dB	-0,09 dB	0,60 dB	0,10 dB
300 MHz	-0,60 dB	-0,04 dB	0,60 dB	0,10 dB
400 MHz	-0,60 dB	-0,10 dB	0,60 dB	0,10 dB
500 MHz	-0,60 dB	-0,07 dB	0,60 dB	0,10 dB
600 MHz	-0,60 dB	-0,11 dB	0,60 dB	0,10 dB
700 MHz	-0,60 dB	-0,18 dB	0,60 dB	0,10 dB
800 MHz	-0,60 dB	-0,19 dB	0,60 dB	0,10 dB
900 MHz	-0,60 dB	-0,13 dB	0,60 dB	0,10 dB
999 MHz	-0,60 dB	-0,20 dB	0,60 dB	0,10 dB

Test Description	Lower Limit	Result Measured	Upper Limit	Uncertainty
14.11 Frequency Response (Freq > 3,6 GHz)				
Input1, Att 10 dB, DC-Coup.				
at -10 dBm referred to 128 MHz				
3610 MHz	-1,50 dB	-0,09 dB	1,50 dB	0,12 dB
4000 MHz	-1,50 dB	-0,12 dB	1,50 dB	0,13 dB
4500 MHz	-1,50 dB	-0,20 dB	1,50 dB	0,13 dB
5000 MHz	-1,50 dB	-0,22 dB	1,50 dB	0,14 dB
5500 MHz	-1,50 dB	0,04 dB	1,50 dB	0,14 dB
6000 MHz	-1,50 dB	-0,15 dB	1,50 dB	0,15 dB
6500 MHz	-1,50 dB	-0,17 dB	1,50 dB	0,15 dB
7000 MHz	-1,50 dB	-0,34 dB	1,50 dB	0,16 dB
7500 MHz	-1,50 dB	-0,44 dB	1,50 dB	0,17 dB
7990 MHz	-1,50 dB	-0,27 dB	1,50 dB	0,17 dB
9000 MHz	-2,00 dB	-0,36 dB	2,00 dB	0,19 dB
10000 MHz	-2,00 dB	-0,34 dB	2,00 dB	0,20 dB
11000 MHz	-2,00 dB	-0,39 dB	2,00 dB	0,22 dB
12000 MHz	-2,00 dB	-0,63 dB	2,00 dB	0,23 dB
13000 MHz	-2,00 dB	-0,53 dB	2,00 dB	0,25 dB
14000 MHz	-2,00 dB	-0,08 dB	2,00 dB	0,27 dB
15000 MHz	-2,00 dB	-0,27 dB	2,00 dB	0,28 dB
16000 MHz	-2,00 dB	-0,49 dB	2,00 dB	0,30 dB
17000 MHz	-2,00 dB	-0,23 dB	2,00 dB	0,3 dB
18000 MHz	-2,00 dB	-0,12 dB	2,00 dB	0,3 dB
19000 MHz	-2,00 dB	-0,21 dB	2,00 dB	0,4 dB
20000 MHz	-2,00 dB	0,06 dB	2,00 dB	0,4 dB
21000 MHz	-2,00 dB	-0,25 dB	2,00 dB	0,4 dB
22000 MHz	-2,00 dB	0,32 dB	2,00 dB	0,4 dB
23000 MHz	-2,00 dB	-0,07 dB	2,00 dB	0,5 dB
24000 MHz	-2,00 dB	0,14 dB	2,00 dB	0,5 dB
25000 MHz	-2,00 dB	0,33 dB	2,00 dB	0,5 dB
26000 MHz	-2,00 dB	0,16 dB	2,00 dB	0,5 dB

Test Description	Lower Limit	Result Measured	Upper Limit	Uncertainty
14.12 Frequency Response (LN Preamp on, only ESU B24)				
Input1, Att 30 dB, DC-Coup.				
at -10 dBm referred to 128 MHz				
100 kHz	-0,80 dB	-0,43 dB	0,80 dB	0,10 dB
1 MHz	-0,80 dB	-0,08 dB	0,80 dB	0,10 dB
10 MHz	-0,80 dB	0,00 dB	0,80 dB	0,10 dB
50 MHz	-0,60 dB	-0,04 dB	0,60 dB	0,10 dB
100 MHz	-0,60 dB	-0,03 dB	0,60 dB	0,10 dB
200 MHz	-0,60 dB	-0,01 dB	0,60 dB	0,10 dB
300 MHz	-0,60 dB	-0,01 dB	0,60 dB	0,10 dB
400 MHz	-0,60 dB	-0,01 dB	0,60 dB	0,10 dB
500 MHz	-0,60 dB	-0,01 dB	0,60 dB	0,10 dB
600 MHz	-0,60 dB	-0,07 dB	0,60 dB	0,10 dB
700 MHz	-0,60 dB	-0,03 dB	0,60 dB	0,10 dB
800 MHz	-0,60 dB	-0,05 dB	0,60 dB	0,10 dB
900 MHz	-0,60 dB	-0,01 dB	0,60 dB	0,10 dB
1000 MHz	-0,60 dB	-0,08 dB	0,60 dB	0,10 dB
1500 MHz	-0,60 dB	-0,14 dB	0,60 dB	0,11 dB
2000 MHz	-0,60 dB	-0,26 dB	0,60 dB	0,11 dB
2500 MHz	-0,60 dB	-0,13 dB	0,60 dB	0,11 dB
3000 MHz	-0,60 dB	-0,09 dB	0,60 dB	0,12 dB
3599 MHz	-0,60 dB	-0,43 dB	0,60 dB	0,12 dB
3610 MHz	-1,50 dB	-0,33 dB	1,50 dB	0,12 dB
4000 MHz	-1,50 dB	-0,30 dB	1,50 dB	0,13 dB
4500 MHz	-1,50 dB	-0,29 dB	1,50 dB	0,13 dB
5000 MHz	-1,50 dB	-0,25 dB	1,50 dB	0,14 dB
5500 MHz	-1,50 dB	-0,13 dB	1,50 dB	0,14 dB
6000 MHz	-1,50 dB	-0,23 dB	1,50 dB	0,15 dB
6500 MHz	-1,50 dB	-0,06 dB	1,50 dB	0,15 dB
7000 MHz	-1,50 dB	-0,39 dB	1,50 dB	0,16 dB
7500 MHz	-1,50 dB	-0,42 dB	1,50 dB	0,17 dB
7990 MHz	-1,50 dB	-0,24 dB	1,50 dB	0,17 dB
9000 MHz	-2,00 dB	-0,37 dB	2,00 dB	0,19 dB
10000 MHz	-2,00 dB	-0,35 dB	2,00 dB	0,20 dB
11000 MHz	-2,00 dB	-0,45 dB	2,00 dB	0,22 dB
12000 MHz	-2,00 dB	-0,83 dB	2,00 dB	0,23 dB
13000 MHz	-2,00 dB	-0,57 dB	2,00 dB	0,25 dB
14000 MHz	-2,00 dB	-0,12 dB	2,00 dB	0,27 dB
15000 MHz	-2,00 dB	-0,27 dB	2,00 dB	0,28 dB
16000 MHz	-2,00 dB	-0,52 dB	2,00 dB	0,30 dB
17000 MHz	-2,00 dB	-0,25 dB	2,00 dB	0,3 dB
18000 MHz	-2,00 dB	-0,25 dB	2,00 dB	0,3 dB
19000 MHz	-2,00 dB	-0,27 dB	2,00 dB	0,4 dB
20000 MHz	-2,00 dB	0,17 dB	2,00 dB	0,4 dB
21000 MHz	-2,00 dB	-0,20 dB	2,00 dB	0,4 dB
22000 MHz	-2,00 dB	0,32 dB	2,00 dB	0,4 dB
23000 MHz	-2,00 dB	-0,16 dB	2,00 dB	0,5 dB
24000 MHz	-2,00 dB	0,02 dB	2,00 dB	0,5 dB
25000 MHz	-2,00 dB	0,07 dB	2,00 dB	0,5 dB
26000 MHz	-2,00 dB	0,06 dB	2,00 dB	0,5 dB

Test Description	Lower Limit	Result Measured	Upper Limit	Uncertainty
15.1 Display Linearity at 500 Hz RBW				
reference point is approx. 1 div (10 dB) below fullscale.				
10 dB	9,90 dB	10,00 dB	10,10 dB	0,02 dB
15 dB	4,90 dB	5,00 dB	5,10 dB	0,02 dB
20 dB	--	0,00 dB	--	reference
25 dB	-5,10 dB	-5,00 dB	-4,90 dB	0,02 dB
30 dB	-10,10 dB	-10,00 dB	-9,90 dB	0,02 dB
35 dB	-15,10 dB	-15,00 dB	-14,90 dB	0,02 dB
40 dB	-20,10 dB	-20,01 dB	-19,90 dB	0,02 dB
45 dB	-25,10 dB	-25,01 dB	-24,90 dB	0,02 dB
50 dB	-30,10 dB	-30,01 dB	-29,90 dB	0,03 dB
55 dB	-35,10 dB	-35,01 dB	-34,90 dB	0,03 dB
60 dB	-40,10 dB	-40,02 dB	-39,90 dB	0,03 dB
65 dB	-45,10 dB	-45,02 dB	-44,90 dB	0,04 dB
70 dB	-50,10 dB	-50,02 dB	-49,90 dB	0,04 dB
75 dB	-55,10 dB	-55,01 dB	-54,90 dB	0,05 dB
80 dB	-60,10 dB	-60,02 dB	-59,90 dB	0,06 dB
85 dB	-65,30 dB	-65,03 dB	-64,70 dB	0,06 dB
90 dB	-70,30 dB	-70,00 dB	-69,70 dB	0,07 dB
95 dB	-75,30 dB	-75,06 dB	-74,70 dB	0,08 dB
100 dB	-80,30 dB	-80,07 dB	-79,70 dB	0,09 dB
15.2 Display Linearity at 300 kHz RBW				
reference point is approx. 1 div (10 dB) below fullscale.				
10 dB	9,80 dB	10,02 dB	10,20 dB	0,02 dB
15 dB	4,80 dB	5,01 dB	5,20 dB	0,02 dB
20 dB	--	0,00 dB	--	reference
25 dB	-5,20 dB	-5,01 dB	-4,80 dB	0,02 dB
30 dB	-10,20 dB	-10,02 dB	-9,80 dB	0,02 dB
35 dB	-15,20 dB	-15,05 dB	-14,80 dB	0,02 dB
40 dB	-20,20 dB	-20,07 dB	-19,80 dB	0,02 dB
45 dB	-25,20 dB	-25,08 dB	-24,80 dB	0,02 dB
50 dB	-30,20 dB	-30,09 dB	-29,80 dB	0,03 dB
55 dB	-35,20 dB	-35,09 dB	-34,80 dB	0,03 dB
60 dB	-40,20 dB	-40,11 dB	-39,80 dB	0,03 dB
65 dB	-45,50 dB	-45,10 dB	-44,50 dB	0,04 dB
70 dB	-50,50 dB	-50,08 dB	-49,50 dB	0,04 dB
75 dB	-55,50 dB	-55,02 dB	-54,50 dB	0,05 dB
80 dB	-60,50 dB	-60,01 dB	-59,50 dB	0,06 dB

Test Description	Lower Limit	Result Measured	Upper Limit	Uncertainty
16 Input-Attenuator Accuracy				
RF = 128 MHz				
0 dB	-10,20 dB	-10,00 dB	-9,80 dB	0,02 dB
5 dB	-5,20 dB	-5,00 dB	-4,80 dB	0,02 dB
10 dB	--	0,00 dB	--	reference
15 dB	4,80 dB	5,00 dB	5,20 dB	0,02 dB
20 dB	9,80 dB	10,01 dB	10,20 dB	0,03 dB
25 dB	14,80 dB	15,00 dB	15,20 dB	0,03 dB
30 dB	19,80 dB	20,00 dB	20,20 dB	0,03 dB
35 dB	24,80 dB	25,00 dB	25,20 dB	0,03 dB
40 dB	29,80 dB	30,01 dB	30,20 dB	0,03 dB
50 dB	39,80 dB	40,01 dB	40,20 dB	0,03 dB
60 dB	49,80 dB	50,02 dB	50,20 dB	0,03 dB
70 dB	59,80 dB	60,02 dB	60,20 dB	0,03 dB
17 IF Gain Switching Accuracy				
RF = 5 MHz				
reference level -10 dBm				
0 dBm	9,85 dB	10,00 dB	10,15 dB	0,02 dB
-10 dBm	--	0,00 dB	--	reference
-11 dBm	-1,15 dB	-1,01 dB	-0,85 dB	0,02 dB
-12 dBm	-2,15 dB	-2,00 dB	-1,85 dB	0,02 dB
-13 dBm	-3,15 dB	-3,01 dB	-2,85 dB	0,02 dB
-14 dBm	-4,15 dB	-4,01 dB	-3,85 dB	0,02 dB
-15 dBm	-5,15 dB	-5,01 dB	-4,85 dB	0,02 dB
-16 dBm	-6,15 dB	-6,01 dB	-5,85 dB	0,02 dB
-17 dBm	-7,15 dB	-7,01 dB	-6,85 dB	0,02 dB
-18 dBm	-8,15 dB	-8,01 dB	-7,85 dB	0,02 dB
-19 dBm	-9,15 dB	-9,02 dB	-8,85 dB	0,02 dB
-20 dBm	-10,15 dB	-10,01 dB	-9,85 dB	0,02 dB
-30 dBm	-20,15 dB	-19,98 dB	-19,85 dB	0,03 dB
-40 dBm	-30,15 dB	-30,00 dB	-29,85 dB	0,03 dB
-50 dBm	-40,15 dB	-40,01 dB	-39,85 dB	0,04 dB

Test Description			Lower Limit	Result Measured	Upper Limit	Uncertainty
18 CISPR 16-1-1 Receiver Mode Accuracy						
18.1 Sinewave Voltage Accuracy (Receiver Mode)						
Band A:						
RBW 200 Hz; Level 97 dBµV						
	Detector	Freq (Hz)				
	PK+	75 k	96,00 dBµV	96,84 dBµV	98,00 dBµV	0,10 dB
	QPK	75 k	96,00 dBµV	96,84 dBµV	98,00 dBµV	0,10 dB
	CAV	75 k	96,00 dBµV	96,95 dBµV	98,00 dBµV	0,10 dB
	CRMS	75 k	96,00 dBµV	96,95 dBµV	98,00 dBµV	0,10 dB
Band B:						
RBW 9 kHz; Level 97 dBµV						
	Detector	Freq (Hz)				
	PK+	15 M	96,00 dBµV	97,01 dBµV	98,00 dBµV	0,10 dB
	QPK	15 M	96,00 dBµV	96,97 dBµV	98,00 dBµV	0,10 dB
	CAV	15 M	96,00 dBµV	97,11 dBµV	98,00 dBµV	0,10 dB
	CRMS	15 M	96,00 dBµV	97,11 dBµV	98,00 dBµV	0,10 dB
18.1 Sinewave Voltage Accuracy (Receiver Mode) (cont)						
Band C/D:						
RBW 120 kHz; Level 97 dBµV						
	Detector	Freq (Hz)				
	PK+	165 M	96,20 dBµV	97,12 dBµV	97,80 dBµV	0,10 dB
	QPK	165 M	96,20 dBµV	97,04 dBµV	97,80 dBµV	0,10 dB
	CAV	165 M	96,20 dBµV	97,24 dBµV	97,80 dBµV	0,10 dB
	CRMS	165 M	96,20 dBµV	97,24 dBµV	97,80 dBµV	0,10 dB
	PK+	650 M	96,20 dBµV	97,00 dBµV	97,80 dBµV	0,10 dB
	QPK	650 M	96,20 dBµV	96,91 dBµV	97,80 dBµV	0,10 dB
	CAV	650 M	96,20 dBµV	97,12 dBµV	97,80 dBµV	0,10 dB
	CRMS	650 M	96,20 dBµV	97,12 dBµV	97,80 dBµV	0,10 dB
Band E:						
RBW 1 MHz; Level 97 dBµV						
	Detector	Freq (Hz)				
	PK+	9500 M	95,20 dBµV	97,11 dBµV	98,80 dBµV	0,10 dB
	CAV	9500 M	95,20 dBµV	96,82 dBµV	98,80 dBµV	0,10 dB
	CRMS	9500 M	95,20 dBµV	96,83 dBµV	98,80 dBµV	0,10 dB

Test Description				Lower Limit	Result Measured	Upper Limit	Uncertainty
18.2 Peak and Quasipeak Detector Amplitude Relationship (Receiver Mode)							
Band A:							
RBW 200 Hz; Level 60 dBµV							
PRF		Detector	Freq (Hz)				
25	Hz	PK+	75 k	64,60 dBµV	65,94 dBµV	67,60 dBµV	0,20 dB
25	Hz	QPK	75 k	58,50 dBµV	59,26 dBµV	61,50 dBµV	0,20 dB
Band B:							
RBW 9 kHz; Level 60 dBµV							
PRF		Detector	Freq (Hz)				
100	Hz	PK+	15 M	65,10 dBµV	66,63 dBµV	68,10 dBµV	0,20 dB
100	Hz	QPK	15 M	58,50 dBµV	59,98 dBµV	61,50 dBµV	0,20 dB
Band C/D:							
RBW 120 kHz; Level 50 dBµV							
PRF		Detector	Freq (Hz)				
100	Hz	PK+	165 M	60,50 dBµV	62,35 dBµV	63,50 dBµV	0,20 dB
100	Hz	QPK	165 M	48,50 dBµV	50,52 dBµV	51,50 dBµV	0,20 dB
100	Hz	PK+	650 M	60,50 dBµV	62,33 dBµV	63,50 dBµV	0,20 dB
100	Hz	QPK	650 M	48,50 dBµV	50,37 dBµV	51,50 dBµV	0,20 dB
Band E:							
RBW 1 MHz; Level 60 dBµV/MHz							
PRF		Detector	Freq (Hz)				
50000	Hz	PK+	9500 M	58,50 dBµV	60,78 dBµV	61,50 dBµV	0,20 dB
18.3 Quasipeak Variation with Repetition Frequency (Receiver Mode)							
Band A: RBW 200 Hz; Level 60 dBµV							
response rel. to 25 Hz:			Freq (Hz)				
25	Hz	QPK	75 k	--	58,98 dBµV	--	reference
100	Hz	QPK	75 k	3,00 dB	3,93 dB	5,00 dB	0,10 dB
60	Hz	QPK	75 k	2,00 dB	2,77 dB	4,00 dB	0,10 dB
10	Hz	QPK	75 k	-5,00 dB	-4,16 dB	-3,00 dB	0,10 dB
5	Hz	QPK	75 k	-9,00 dB	-8,22 dB	-6,00 dB	0,10 dB
2	Hz	QPK	75 k	-15,00 dB	-14,21 dB	-11,00 dB	0,10 dB
1	Hz	QPK	75 k	-19,00 dB	-17,96 dB	-15,00 dB	0,10 dB
single	pulse	QPK	75 k	-21,00 dB	-19,69 dB	-17,00 dB	0,10 dB
Band B: RBW 9 kHz; Level 60 dBµV							
response rel. to 100 Hz:			Freq (Hz)				
100	Hz	QPK	15 M	--	59,93 dBµV	--	reference
20	Hz	QPK	15 M	-7,50 dB	-6,62 dB	-5,50 dB	0,10 dB
10	Hz	QPK	15 M	-11,50 dB	-10,79 dB	-8,50 dB	0,10 dB
2	Hz	QPK	15 M	-22,50 dB	-21,27 dB	-18,50 dB	0,10 dB
1	Hz	QPK	15 M	-24,50 dB	-22,63 dB	-20,50 dB	0,10 dB
single	pulse	QPK	15 M	-25,50 dB	-22,77 dB	-21,50 dB	0,10 dB

Test Description				Lower Limit	Result Measured	Upper Limit	Uncertainty
18.3 Quasipeak Variation with Repetition Frequency (Receiver Mode) (cont)							
Band C/D: RBW 120 kHz; Level 50 dBµV							
response rel. to 100 Hz:		Freq (Hz)					
100 Hz	QPK	165 M		--	50,37 dBµV	--	reference
20 Hz	QPK	165 M		-10,00 dB	-9,65 dB	-8,00 dB	0,10 dB
10 Hz	QPK	165 M		-15,50 dB	-14,73 dB	-12,50 dB	0,10 dB
2 Hz	QPK	165 M		-28,00 dB	-26,53 dB	-24,00 dB	0,10 dB
1 Hz	QPK	165 M		-30,50 dB	-29,13 dB	-26,50 dB	0,10 dB
single pulse	QPK	165 M		-33,50 dB	-29,71 dB	-29,50 dB	0,10 dB
100 Hz	QPK	650 M		--	49,92 dBµV	--	reference
20 Hz	QPK	650 M		-10,00 dB	-9,64 dB	-8,00 dB	0,10 dB
10 Hz	QPK	650 M		-15,50 dB	-14,73 dB	-12,50 dB	0,10 dB
18.3 Quasipeak Variation with Repetition Frequency (Receiver Mode) (cont)							
Band B: RBW = 9 kHz							
response rel. to 100 Hz:		Freq (Hz)					
100 Hz	QPK	15 M		--	60,02 dBµV	--	reference
1000 Hz	QPK	15 M		3,50 dB	3,73 dB	5,50 dB	0,10 dB
Band C/D: RBW 120 kHz							
response rel. to 100 Hz:		Freq (Hz)					
100 Hz	QPK	165 M		--	40,40 dBµV	--	reference
1000 Hz	QPK	165 M		7,00 dB	7,25 dB	9,00 dB	0,10 dB
100 Hz	QPK	650 M		--	40,53 dBµV	--	reference
1000 Hz	QPK	650 M		7,00 dB	7,19 dB	9,00 dB	0,10 dB
18.4 CISPR Average Amplitude Relationship (Receiver Mode)							
Band A: RBW 200 Hz; Level 60 dBµV							
PRF		Detector	Freq (Hz)				
25 Hz		CAV	75 k	46,10 dBµV	47,45 dBµV	49,10 dBµV	0,20 dB
25 Hz		CAV/Ed 3.2	75 k	47,10 dBµV	47,45 dBµV	50,10 dBµV	0,20 dB
Band B: RBW 9 kHz							
PRF		Detector	Freq (Hz)				
500 Hz		CAV	15 M	39,50 dBµV	42,06 dBµV	42,50 dBµV	0,20 dB
500 Hz		CAV/Ed 3.2	15 M	40,50 dBµV	42,06 dBµV	43,50 dBµV	0,20 dB
Band C/D: RBW 120 kHz							
PRF		Detector	Freq (Hz)				
5000 Hz		CAV	165 M	22,50 dBµV	25,28 dBµV	25,50 dBµV	0,20 dB
5000 Hz		CAV/Ed 3.2	165 M	23,50 dBµV	25,28 dBµV	26,50 dBµV	0,20 dB
5000 Hz		CAV	650 M	22,50 dBµV	25,28 dBµV	25,50 dBµV	0,20 dB
5000 Hz		CAV/Ed 3.2	650 M	23,50 dBµV	25,28 dBµV	26,50 dBµV	0,20 dB
Band E: RBW 1000 kHz							
PRF		Detector	Freq (Hz)				
50000 Hz		CAV	9500 M	58,50 dBµV	60,22 dBµV	61,50 dBµV	0,20 dB

Test Description			Lower Limit	Result Measured	Upper Limit	Uncertainty
18.5 CISPR Average Variation with Repetition Frequency (Receiver Mode)						
Band A: RBW 200 Hz; Level 60 dBµV						
response rel. to 25 Hz:		Freq (Hz)				
70 Hz	CAV	75 k	--	55,99 dBµV	--	reference
35 Hz	CAV	75 k	-7,00 dB	-5,93 dB	-3,00 dB	0,10 dB
17,5 Hz	CAV	75 k	-13,00 dB	-11,70 dB	-9,00 dB	0,10 dB
Band B: RBW 9 kHz						
response rel. to 500 Hz:		Freq (Hz)				
3180 Hz	CAV	15 M	--	57,07 dBµV	--	reference
1590 Hz	CAV	15 M	-7,00 dB	-5,90 dB	-3,00 dB	0,10 dB
795 Hz	CAV	15 M	-13,00 dB	-11,74 dB	-9,00 dB	0,10 dB
398 Hz	CAV	15 M	-19,00 dB	-17,28 dB	-15,00 dB	0,10 dB
18.5 CISPR Average Variation with Repetition Frequency (Receiver Mode) (cont)						
Band C/D: RBW 120 kHz						
response rel. to 5000 Hz:		Freq (Hz)				
42400 Hz	CAV	165 M	--	42,70 dBµV	--	reference
21200 Hz	CAV	165 M	-7,00 dB	-5,83 dB	-3,00 dB	0,10 dB
10600 Hz	CAV	165 M	-13,00 dB	-11,46 dB	-9,00 dB	0,10 dB
5300 Hz	CAV	165 M	-19,00 dB	-16,72 dB	-15,00 dB	0,10 dB
2650 Hz	CAV	165 M	-25,00 dB	-21,27 dB	-21,00 dB	0,10 dB
42400 Hz	CAV	650 M	--	42,75 dBµV	--	reference
21200 Hz	CAV	650 M	-7,00 dB	-5,77 dB	-3,00 dB	0,10 dB
10600 Hz	CAV	650 M	-13,00 dB	-11,33 dB	-9,00 dB	0,10 dB
5300 Hz	CAV	650 M	-19,00 dB	-16,50 dB	-15,00 dB	0,10 dB
2650 Hz	CAV	650 M	-25,00 dB	-21,22 dB	-21,00 dB	0,10 dB
Band E: RBW 1000 kHz						
response rel. to 50000 Hz:		Freq (Hz)				
353500 Hz	CAV	9500 M	--	77,04 dBµV	--	reference
176750 Hz	CAV	9500 M	-7,00 dB	-5,99 dB	-3,00 dB	0,10 dB
17675 Hz	CAV	9500 M	-27,00 dB	-25,46 dB	-23,00 dB	0,10 dB

Test Description			Lower Limit	Result Measured	Upper Limit	Uncertainty
18.6 CISPR Average Response to Intermittent Disturbance (Receiver Mode)						
Band A: RBW 200 Hz						
PRF	Detector	Freq (Hz)				
intermitted	CAV/PK+	75 k	-10,00 dB	-9,60 dB	-8,00 dB	0,30 dB
Band B: RBW 9 kHz						
PRF	Detector	Freq (Hz)				
intermitted	CAV/PK+	15 M	-10,00 dB	-9,21 dB	-8,00 dB	0,30 dB
Band C/D: RBW 120 kHz						
PRF	Detector	Freq (Hz)				
intermitted	CAV/PK+	165 M	-10,00 dB	-8,89 dB	-8,00 dB	0,30 dB
intermitted	CAV/PK+	650 M	-10,00 dB	-8,87 dB	-8,00 dB	0,30 dB
Band E: RBW 1000 kHz						
PRF	Detector	Freq (Hz)				
intermitted	CAV/PK+	9500 M	-10,00 dB	-9,03 dB	-8,00 dB	0,30 dB
18.7 RMS Average Amplitude Relationship (Receiver Mode)						
Band A: RBW 200 Hz;Level 144,2 dBµV/MHz						
PRF	Detector	Freq (Hz)				
25 Hz	CRMS	75 k	54,30 dBµV	54,97 dBµV	57,30 dBµV	0,20 dB
Band B: RBW 9 kHz;Level 111,7 dBµV/MHz						
PRF	Detector	Freq (Hz)				
1000 Hz	CRMS	15 M	58,50 dBµV	59,16 dBµV	61,50 dBµV	0,20 dB
Band C/D: RBW 120 kHz;Level 100,4 dBµV/MHz						
PRF	Detector	Freq (Hz)				
1000 Hz	CRMS	165 M	58,50 dBµV	59,04 dBµV	61,50 dBµV	0,20 dB
1000 Hz	CRMS	650 M	58,50 dBµV	59,04 dBµV	61,50 dBµV	0,20 dB
Band E: RBW 1000 kHz;Level 91,5 dBµV/MHz						
PRF	Detector	Freq (Hz)				
1000 Hz	CRMS	9500 M	58,50 dBµV	60,40 dBµV	61,50 dBµV	0,20 dB
18.8 RMS Average Variation with Repetition Frequency (Receiver Mode)						
Band A: RBW 200 Hz; Level 60 dBµV						
response rel. to 25 Hz:		Freq (Hz)				
25 Hz	CRMS	75 k	--	44,36 dBµV	--	reference
100 Hz	CRMS	75 k	5,40 dB	6,05 dB	6,60 dB	0,10 dB
10 Hz	CRMS	75 k	-4,40 dB	-3,94 dB	-3,60 dB	0,10 dB
5 Hz	CRMS	75 k	-9,70 dB	-9,56 dB	-8,30 dB	0,10 dB
Band B: RBW 9 kHz;Level 111,7 dBµV/MHz						
response rel. to 1000 Hz:		Freq (Hz)				
1000 Hz	CRMS	15 M	--	59,16 dBµV	--	reference
316 Hz	CRMS	15 M	-5,50 dB	-5,00 dB	-4,50 dB	0,10 dB
100 Hz	CRMS	15 M	-11,00 dB	-10,00 dB	-9,00 dB	0,10 dB
32 Hz	CRMS	15 M	-16,50 dB	-14,87 dB	-13,50 dB	0,10 dB
25 Hz	CRMS	15 M	-17,60 dB	-16,05 dB	-14,40 dB	0,10 dB
10 Hz	CRMS	15 M	-22,00 dB	-20,00 dB	-18,00 dB	0,10 dB
5 Hz	CRMS	15 M	-27,30 dB	-25,81 dB	-22,70 dB	0,10 dB

Test Description			Lower Limit	Result Measured	Upper Limit	Uncertainty
18.8 RMS Average Variation with Repetition Frequency (Receiver Mode) (cont)						
Band C/D: RBW 120 kHz;Level 100,4 dBµV/MHz						
response rel. to 1000 Hz:		Freq (Hz)				
1000 Hz	CRMS	165 M	--	59,04 dBµV	--	reference
10000 Hz	CRMS	165 M	9,00 dB	9,97 dB	11,00 dB	0,10 dB
316 Hz	CRMS	165 M	-5,50 dB	-5,00 dB	-4,50 dB	0,10 dB
100 Hz	CRMS	165 M	-11,00 dB	-9,99 dB	-9,00 dB	0,10 dB
32 Hz	CRMS	165 M	-22,00 dB	-19,50 dB	-18,00 dB	0,10 dB
1000 Hz	CRMS	650 M	--	59,05 dBµV	--	reference
10000 Hz	CRMS	650 M	9,00 dB	9,98 dB	11,00 dB	0,10 dB
316 Hz	CRMS	650 M	-5,50 dB	-5,00 dB	-4,50 dB	0,10 dB
100 Hz	CRMS	650 M	-11,00 dB	-9,99 dB	-9,00 dB	0,10 dB
32 Hz	CRMS	650 M	-22,00 dB	-19,47 dB	-18,00 dB	0,10 dB
18.8 RMS Average Variation with Repetition Frequency (Receiver Mode) (cont)						
Band E: RBW 1000 kHz;Level 91,5 dBµV/MHz						
response rel. to 1000 Hz:		Freq (Hz)				
1000 Hz	CRMS	9500 M	--	60,38 dBµV	--	reference
10000 Hz	CRMS	9500 M	9,00 dB	10,00 dB	11,00 dB	0,10 dB
316 Hz	CRMS	9500 M	-11,00 dB	-9,51 dB	-9,00 dB	0,10 dB
100 Hz	CRMS	9500 M	--	-18,14 dB	--	0,10 dB
18.9 RMS Average Response to Intermittent Disturbance (Receiver Mode)						
Band A: RBW 200 Hz						
PRF	Detector	Freq (Hz)				
intermitted	CRMS/PK+	75 k	-8,90 dB	-8,26 dB	-6,90 dB	0,30 dB
Band B: RBW 9 kHz						
PRF	Detector	Freq (Hz)				
intermitted	CRMS/PK+	15 M	-8,90 dB	-7,58 dB	-6,90 dB	0,30 dB
Band C/D: RBW 120 kHz						
PRF	Detector	Freq (Hz)				
intermitted	CRMS/PK+	165 M	-10,00 dB	-8,58 dB	-8,00 dB	0,30 dB
intermitted	CRMS/PK+	650 M	-10,00 dB	-8,77 dB	-8,00 dB	0,30 dB
Band E: RBW 1000 kHz						
PRF	Detector	Freq (Hz)				
intermitted	CRMS/PK+	9500 M	-10,00 dB	-8,99 dB	-8,00 dB	0,30 dB

Test Description		Lower Limit	Result Measured	Upper Limit	Uncertainty
19 CISPR 16-1-1 TimeTomain Mode Accuracy (Opt ESU-K53 only)					
19.1 Sinewave Voltage Accuracy (Time Domain Mode)					
Band A:					
RBW 200 Hz; Level 97 dBµV					
Detector	Freq (Hz)				
PK+	75 k	96,00 dBµV	n. i.	98,00 dBµV	0,10 dB
QPK	75 k	96,00 dBµV	n. i.	98,00 dBµV	0,10 dB
CAV	75 k	96,00 dBµV	n. i.	98,00 dBµV	0,10 dB
CRMS	75 k	96,00 dBµV	n. i.	98,00 dBµV	0,10 dB
Band B:					
RBW 9 kHz; Level 97 dBµV					
Detector	Freq (Hz)				
PK+	15 M	96,00 dBµV	n. i.	98,00 dBµV	0,10 dB
QPK	15 M	96,00 dBµV	n. i.	98,00 dBµV	0,10 dB
CAV	15 M	96,00 dBµV	n. i.	98,00 dBµV	0,10 dB
CRMS	15 M	96,00 dBµV	n. i.	98,00 dBµV	0,10 dB
19.1 Sinewave Voltage Accuracy (Time Domain Mode) (cont)					
Band C/D:					
RBW 120 kHz; Level 97 dBµV					
Detector	Freq (Hz)				
PK+	165 M	96,20 dBµV	n. i.	97,80 dBµV	0,10 dB
QPK	165 M	96,20 dBµV	n. i.	97,80 dBµV	0,10 dB
CAV	165 M	96,20 dBµV	n. i.	97,80 dBµV	0,10 dB
CRMS	165 M	96,20 dBµV	n. i.	97,80 dBµV	0,10 dB
PK+	650 M	96,20 dBµV	n. i.	97,80 dBµV	0,10 dB
QPK	650 M	96,20 dBµV	n. i.	97,80 dBµV	0,10 dB
CAV	650 M	96,20 dBµV	n. i.	97,80 dBµV	0,10 dB
CRMS	650 M	96,20 dBµV	n. i.	97,80 dBµV	0,10 dB
Band E:					
RBW 1 MHz; Level 97 dBµV					
Detector	Freq (Hz)				
PK+	9500 M	95,20 dBµV	n. i.	98,80 dBµV	0,10 dB
CAV	9500 M	95,20 dBµV	n. i.	98,80 dBµV	0,10 dB
CRMS	9500 M	95,20 dBµV	n. i.	98,80 dBµV	0,10 dB

Test Description				Lower Limit	Result Measured	Upper Limit	Uncertainty
19.2 Peak and Quasipeak Detector Amplitude Relationship (Time Domain Mode)							
Band A:							
RBW 200 Hz; Level 60 dBµV							
PRF		Detector	Freq (Hz)				
25	Hz	PK+	75 k	64,60 dBµV	n. i.	67,60 dBµV	0,20 dB
25	Hz	QPK	75 k	58,50 dBµV	n. i.	61,50 dBµV	0,20 dB
Band B:							
RBW 9 kHz; Level 60 dBµV							
PRF		Detector	Freq (Hz)				
100	Hz	PK+	15 M	65,10 dBµV	n. i.	68,10 dBµV	0,20 dB
100	Hz	QPK	15 M	58,50 dBµV	n. i.	61,50 dBµV	0,20 dB
Band C/D:							
RBW 120 kHz; Level 50 dBµV							
PRF		Detector	Freq (Hz)				
100	Hz	PK+	165 M	60,50 dBµV	n. i.	63,50 dBµV	0,20 dB
100	Hz	QPK	165 M	48,50 dBµV	n. i.	51,50 dBµV	0,20 dB
100	Hz	PK+	650 M	60,50 dBµV	n. i.	63,50 dBµV	0,20 dB
100	Hz	QPK	650 M	48,50 dBµV	n. i.	51,50 dBµV	0,20 dB
Band E:							
RBW 1 MHz; Level 60 dBµV/MHz							
PRF		Detector	Freq (Hz)				
50000	Hz	PK+	9500 M	58,50 dBµV	n. i.	61,50 dBµV	0,20 dB
19.3 Quasipeak Variation with Repetition Frequency (Time Domain Mode)							
Band A: RBW 200 Hz; Level 60 dBµV							
response rel. to 25 Hz:			Freq (Hz)				
25	Hz	QPK	75 k	--	n. i.	--	reference
100	Hz	QPK	75 k	3,00 dB	n. i.	5,00 dB	0,10 dB
60	Hz	QPK	75 k	2,00 dB	n. i.	4,00 dB	0,10 dB
10	Hz	QPK	75 k	-5,00 dB	n. i.	-3,00 dB	0,10 dB
5	Hz	QPK	75 k	-9,00 dB	n. i.	-6,00 dB	0,10 dB
2	Hz	QPK	75 k	-15,00 dB	n. i.	-11,00 dB	0,10 dB
1	Hz	QPK	75 k	-19,00 dB	n. i.	-15,00 dB	0,10 dB
single	pulse	QPK	75 k	-21,00 dB	n. i.	-17,00 dB	0,10 dB
Band B: RBW 9 kHz; Level 60 dBµV							
response rel. to 100 Hz:			Freq (Hz)				
100	Hz	QPK	15 M	--	n. i.	--	reference
20	Hz	QPK	15 M	-7,50 dB	n. i.	-5,50 dB	0,10 dB
10	Hz	QPK	15 M	-11,50 dB	n. i.	-8,50 dB	0,10 dB
2	Hz	QPK	15 M	-22,50 dB	n. i.	-18,50 dB	0,10 dB
1	Hz	QPK	15 M	-24,50 dB	n. i.	-20,50 dB	0,10 dB
single	pulse	QPK	15 M	-25,50 dB	n. i.	-21,50 dB	0,10 dB

Test Description				Lower Limit	Result Measured	Upper Limit	Uncertainty
19.3 Quasipeak Variation with Repetition Frequency (Time Domain Mode) (cont)							
Band C/D: RBW 120 kHz; Level 50 dBµV							
response rel. to 100 Hz:			Freq (Hz)				
100 Hz		QPK	165 M	--	n. i.	--	reference
20 Hz		QPK	165 M	-10,00 dB	n. i.	-8,00 dB	0,10 dB
10 Hz		QPK	165 M	-15,50 dB	n. i.	-12,50 dB	0,10 dB
2 Hz		QPK	165 M	-28,00 dB	n. i.	-24,00 dB	0,10 dB
1 Hz		QPK	165 M	-30,50 dB	n. i.	-26,50 dB	0,10 dB
single	pulse	QPK	165 M	-33,50 dB	n. i.	-29,50 dB	0,10 dB
100 Hz		QPK	650 M	--	n. i.	--	reference
20 Hz		QPK	650 M	-10,00 dB	n. i.	-8,00 dB	0,10 dB
10 Hz		QPK	650 M	-15,50 dB	n. i.	-12,50 dB	0,10 dB
19.3 Quasipeak Variation with Repetition Frequency (Time Domain Mode) (cont)							
Band B: RBW = 9 kHz							
response rel. to 100 Hz:			Freq (Hz)				
100 Hz		QPK	15 M	--	n. i.	--	reference
1000 Hz		QPK	15 M	3,50 dB	n. i.	5,50 dB	0,10 dB
Band C/D: RBW 120 kHz							
response rel. to 100 Hz:			Freq (Hz)				
100 Hz		QPK	165 M	--	n. i.	--	reference
1000 Hz		QPK	165 M	7,00 dB	n. i.	9,00 dB	0,10 dB
100 Hz		QPK	650 M	--	n. i.	--	reference
1000 Hz		QPK	650 M	7,00 dB	n. i.	9,00 dB	0,10 dB
19.4 CISPR Average Amplitude Relationship (Time Domain Mode)							
Band A: RBW 200 Hz; Level 60 dBµV							
PRF		Detector	Freq (Hz)				
25 Hz		CAV	75 k	46,10 dBµV	n. i.	49,10 dBµV	0,20 dB
25 Hz		CAV/Ed 3.2	75 k	47,10 dBµV	n. i.	50,10 dBµV	0,20 dB
Band B: RBW 9 kHz							
PRF		Detector	Freq (Hz)				
500 Hz		CAV	15 M	39,50 dBµV	n. i.	42,50 dBµV	0,20 dB
500 Hz		CAV/Ed 3.2	15 M	40,50 dBµV	n. i.	43,50 dBµV	0,20 dB
Band C/D: RBW 120 kHz							
PRF		Detector	Freq (Hz)				
5000 Hz		CAV	165 M	22,50 dBµV	n. i.	25,50 dBµV	0,20 dB
5000 Hz		CAV/Ed 3.2	165 M	23,50 dBµV	n. i.	26,50 dBµV	0,20 dB
5000 Hz		CAV	650 M	22,50 dBµV	n. i.	25,50 dBµV	0,20 dB
5000 Hz		CAV/Ed 3.2	650 M	23,50 dBµV	n. i.	26,50 dBµV	0,20 dB
Band E: RBW 1000 kHz							
PRF		Detector	Freq (Hz)				
50000 Hz		CAV	9500 M	58,50 dBµV	n. i.	61,50 dBµV	0,20 dB

Test Description			Lower Limit	Result Measured	Upper Limit	Uncertainty
19.5 CISPR Average Variation with Repetition Frequency (Time Domain Mode)						
Band A: RBW 200 Hz; Level 60 dBµV						
response rel. to 25 Hz:		Freq (Hz)				
70 Hz	CAV	75 k	--	n. i.	--	reference
35 Hz	CAV	75 k	-7,00 dB	n. i.	-3,00 dB	0,10 dB
17,5 Hz	CAV	75 k	-13,00 dB	n. i.	-9,00 dB	0,10 dB
Band B: RBW 9 kHz						
response rel. to 500 Hz:		Freq (Hz)				
3180 Hz	CAV	15 M	--	n. i.	--	reference
1590 Hz	CAV	15 M	-7,00 dB	n. i.	-3,00 dB	0,10 dB
795 Hz	CAV	15 M	-13,00 dB	n. i.	-9,00 dB	0,10 dB
398 Hz	CAV	15 M	-19,00 dB	n. i.	-15,00 dB	0,10 dB
19.5 CISPR Average Variation with Repetition Frequency (Time Domain Mode) (cont)						
Band C/D: RBW 120 kHz						
response rel. to 5000 Hz:		Freq (Hz)				
42400 Hz	CAV	165 M	--	n. i.	--	reference
21200 Hz	CAV	165 M	-7,00 dB	n. i.	-3,00 dB	0,10 dB
10600 Hz	CAV	165 M	-13,00 dB	n. i.	-9,00 dB	0,10 dB
5300 Hz	CAV	165 M	-19,00 dB	n. i.	-15,00 dB	0,10 dB
2650 Hz	CAV	165 M	-25,00 dB	n. i.	-21,00 dB	0,10 dB
42400 Hz	CAV	650 M	--	n. i.	--	reference
21200 Hz	CAV	650 M	-7,00 dB	n. i.	-3,00 dB	0,10 dB
10600 Hz	CAV	650 M	-13,00 dB	n. i.	-9,00 dB	0,10 dB
5300 Hz	CAV	650 M	-19,00 dB	n. i.	-15,00 dB	0,10 dB
2650 Hz	CAV	650 M	-25,00 dB	n. i.	-21,00 dB	0,10 dB
Band E: RBW 1000 kHz						
response rel. to 50000 Hz:		Freq (Hz)				
353500 Hz	CAV	9500 M	--	n. i.	--	reference
176750 Hz	CAV	9500 M	-7,00 dB	n. i.	-3,00 dB	0,10 dB
17675 Hz	CAV	9500 M	-27,00 dB	n. i.	-23,00 dB	0,10 dB

Test Description			Lower Limit	Result Measured	Upper Limit	Uncertainty
19.6 CISPR Average Response to Intermittent Disturbance (Time Domain Mode)						
Band A: RBW 200 Hz						
PRF	Detector	Freq (Hz)				
intermitted	CAV/PK+	75 k	-10,00 dB	n. i.	-8,00 dB	0,30 dB
Band B: RBW 9 kHz						
PRF	Detector	Freq (Hz)				
intermitted	CAV/PK+	15 M	-10,00 dB	n. i.	-8,00 dB	0,30 dB
Band C/D: RBW 120 kHz						
PRF	Detector	Freq (Hz)				
intermitted	CAV/PK+	165 M	-10,00 dB	n. i.	-8,00 dB	0,30 dB
intermitted	CAV/PK+	650 M	-10,00 dB	n. i.	-8,00 dB	0,30 dB
Band E: RBW 1000 kHz						
PRF	Detector	Freq (Hz)				
intermitted	CAV/PK+	9500 M	-10,00 dB	n. i.	-8,00 dB	0,30 dB
19.7 RMS Average Amplitude Relationship (Time Domain Mode)						
Band A: RBW 200 Hz;Level 144,2 dBµV/MHz						
PRF	Detector	Freq (Hz)				
25 Hz	CRMS	75 k	54,30 dBµV	n. i.	57,30 dBµV	0,20 dB
Band B: RBW 9 kHz;Level 111,7 dBµV/MHz						
PRF	Detector	Freq (Hz)				
1000 Hz	CRMS	15 M	58,50 dBµV	n. i.	61,50 dBµV	0,20 dB
Band C/D: RBW 120 kHz;Level 100,4 dBµV/MHz						
PRF	Detector	Freq (Hz)				
1000 Hz	CRMS	165 M	58,50 dBµV	n. i.	61,50 dBµV	0,20 dB
1000 Hz	CRMS	650 M	58,50 dBµV	n. i.	61,50 dBµV	0,20 dB
Band E: RBW 1000 kHz;Level 91,5 dBµV/MHz						
PRF	Detector	Freq (Hz)				
1000 Hz	CRMS	9500 M	58,50 dBµV	n. i.	61,50 dBµV	0,20 dB
19.8 RMS Average Variation with Repetition Frequency (Time Domain Mode)						
Band A: RBW 200 Hz; Level 60 dBµV						
response rel. to 25 Hz:		Freq (Hz)				
25 Hz	CRMS	75 k	--	n. i.	--	reference
100 Hz	CRMS	75 k	5,40 dB	n. i.	6,60 dB	0,10 dB
10 Hz	CRMS	75 k	-4,40 dB	n. i.	-3,60 dB	0,10 dB
5 Hz	CRMS	75 k	-9,70 dB	n. i.	-8,30 dB	0,10 dB
Band B: RBW 9 kHz;Level 111,7 dBµV/MHz						
response rel. to 1000 Hz:		Freq (Hz)				
1000 Hz	CRMS	15 M	--	n. i.	--	reference
316 Hz	CRMS	15 M	-5,50 dB	n. i.	-4,50 dB	0,10 dB
100 Hz	CRMS	15 M	-11,00 dB	n. i.	-9,00 dB	0,10 dB
32 Hz	CRMS	15 M	-16,50 dB	n. i.	-13,50 dB	0,10 dB
25 Hz	CRMS	15 M	-17,60 dB	n. i.	-14,40 dB	0,10 dB
10 Hz	CRMS	15 M	-22,00 dB	n. i.	-18,00 dB	0,10 dB
5 Hz	CRMS	15 M	-27,30 dB	n. i.	-22,70 dB	0,10 dB

Test Description				Lower Limit	Result Measured	Upper Limit	Uncertainty
19.8 RMS Average Variation with Repetition Frequency (Time Domain Mode) (cont)							
Band C/D: RBW 120 kHz;Level 100,4 dBµV/MHz							
response rel. to 1000 Hz:		Freq (Hz)					
1000 Hz	CRMS	165 M		--	n. i.	--	reference
10000 Hz	CRMS	165 M		9,00 dB	n. i.	11,00 dB	0,10 dB
316 Hz	CRMS	165 M		-5,50 dB	n. i.	-4,50 dB	0,10 dB
100 Hz	CRMS	165 M		-11,00 dB	n. i.	-9,00 dB	0,10 dB
32 Hz	CRMS	165 M		-22,00 dB	n. i.	-18,00 dB	0,10 dB
1000 Hz	CRMS	650 M		--	n. i.	--	reference
10000 Hz	CRMS	650 M		9,00 dB	n. i.	11,00 dB	0,10 dB
316 Hz	CRMS	650 M		-5,50 dB	n. i.	-4,50 dB	0,10 dB
100 Hz	CRMS	650 M		-11,00 dB	n. i.	-9,00 dB	0,10 dB
32 Hz	CRMS	650 M		-22,00 dB	n. i.	-18,00 dB	0,10 dB
19.8 RMS Average Variation with Repetition Frequency (Time Domain Mode) (cont)							
Band E: RBW 1000 kHz;Level 91,5 dBµV/MHz							
response rel. to 1000 Hz:		Freq (Hz)					
1000 Hz	CRMS	9500 M		--	n. i.	--	reference
10000 Hz	CRMS	9500 M		9,00 dB	n. i.	11,00 dB	0,10 dB
316 Hz	CRMS	9500 M		-11,00 dB	n. i.	-9,00 dB	0,10 dB
100 Hz	CRMS	9500 M		--	n. i.	--	0,10 dB
19.9 RMS Average Response to Intermittent Disturbance (Time Domain Mode)							
Band A: RBW 200 Hz							
PRF	Detector	Freq (Hz)					
intermitted	CRMS/PK+	75 k		-8,90 dB	n. i.	-6,90 dB	0,30 dB
Band B: RBW 9 kHz							
PRF	Detector	Freq (Hz)					
intermitted	CRMS/PK+	15 M		-8,90 dB	n. i.	-6,90 dB	0,30 dB
Band C/D: RBW 120 kHz							
PRF	Detector	Freq (Hz)					
intermitted	CRMS/PK+	165 M		-10,00 dB	n. i.	-8,00 dB	0,30 dB
intermitted	CRMS/PK+	650 M		-10,00 dB	n. i.	-8,00 dB	0,30 dB
Band E: RBW 1000 kHz							
PRF	Detector	Freq (Hz)					
intermitted	CRMS/PK+	9500 M		-10,00 dB	n. i.	-8,00 dB	0,30 dB
20 Phase Noise							
referred to 1 Hz RBW, calculated from power and attenuation measurements							
100 Hz				--	[1] -113,3 dBc	-98,0 dBc	0,5 dB
1 kHz				--	[1] -127,9 dBc	-116,0 dBc	0,5 dB
10 kHz				--	[1] -130,7 dBc	-128,0 dBc	0,5 dB
100 kHz				--	[1] -130,3 dBc	-128,0 dBc	0,5 dB
1 MHz				--	[1] -144,1 dBc	-140,0 dBc	0,5 dB

Test Description	Lower Limit	Result Measured	Upper Limit	Uncertainty
21.1 Return Loss (Freq <2,0 GHz)				
Input1, Att 10 dB, DC-Coup.				
100 kHz	20,0 dB	46,3 dB	--	4 dB
1 MHz	20,0 dB	50,1 dB	--	5 dB
10 MHz	20,0 dB	37,8 dB	--	1,9 dB
250 MHz	20,0 dB	45,6 dB	--	4 dB
500 MHz	20,0 dB	31,4 dB	--	1,1 dB
750 MHz	20,0 dB	27,4 dB	--	0,8 dB
999 MHz	20,0 dB	26,4 dB	--	0,7 dB
1000 MHz	20,0 dB	26,5 dB	--	0,7 dB
1250 MHz	14,0 dB	28,0 dB	--	0,8 dB
1500 MHz	14,0 dB	33,8 dB	--	1,3 dB
1750 MHz	14,0 dB	36,9 dB	--	1,8 dB
2000 MHz	14,0 dB	28,2 dB	--	0,8 dB
Input1, Att 0 dB, DC-Coup.				
100 kHz	9,5 dB	26,8 dB	--	0,7 dB
1 MHz	9,5 dB	28,8 dB	--	0,9 dB
10 MHz	9,5 dB	19,8 dB	--	0,4 dB
250 MHz	9,5 dB	24,6 dB	--	0,6 dB
500 MHz	9,5 dB	27,2 dB	--	0,7 dB
750 MHz	9,5 dB	25,0 dB	--	0,6 dB
999 MHz	9,5 dB	15,8 dB	--	0,3 dB
1000 MHz	9,5 dB	15,8 dB	--	0,3 dB
Input2, Att 10 dB, DC-Coup.				
100 kHz	20,0 dB	39,8 dB	--	2,3 dB
1 MHz	20,0 dB	40,0 dB	--	2,3 dB
10 MHz	20,0 dB	29,3 dB	--	0,9 dB
250 MHz	20,0 dB	41,7 dB	--	2,7 dB
500 MHz	20,0 dB	36,8 dB	--	1,7 dB
750 MHz	20,0 dB	27,5 dB	--	0,8 dB
999 MHz	20,0 dB	29,6 dB	--	0,9 dB
Input2, Att 0 dB, DC-Coup.				
100 kHz	9,5 dB	26,2 dB	--	0,7 dB
1 MHz	9,5 dB	30,7 dB	--	1,0 dB
10 MHz	9,5 dB	18,4 dB	--	0,4 dB
250 MHz	9,5 dB	24,2 dB	--	0,6 dB
500 MHz	9,5 dB	25,5 dB	--	0,7 dB
750 MHz	9,5 dB	31,1 dB	--	1,0 dB
999 MHz	9,5 dB	16,8 dB	--	0,4 dB

Test Description	Lower Limit	Result Measured	Upper Limit	Uncertainty
21.2 Return Loss (Freq >2,0 GHz)				
Input1, Att 10 dB, DC-Coup.				
2250 MHz	14,0 dB	36,0 dB	--	1,6 dB
2500 MHz	14,0 dB	33,0 dB	--	1,2 dB
2750 MHz	14,0 dB	23,4 dB	--	0,6 dB
3000 MHz	14,0 dB	25,1 dB	--	0,6 dB
3250 MHz	14,0 dB	24,8 dB	--	0,6 dB
3500 MHz	14,0 dB	24,7 dB	--	0,6 dB
4000 MHz	10,5 dB	29,5 dB	--	0,9 dB
6000 MHz	10,5 dB	22,3 dB	--	0,5 dB
7990 MHz	10,5 dB	32,2 dB	--	1,5 dB
10000 MHz	10,5 dB	25,8 dB	--	0,9 dB
12000 MHz	10,5 dB	23,7 dB	--	0,7 dB
14000 MHz	10,5 dB	18,6 dB	--	0,6 dB
16000 MHz	10,5 dB	21,2 dB	--	0,7 dB
18000 MHz	9,5 dB	21,7 dB	--	0,8 dB
20000 MHz	9,5 dB	22,2 dB	--	1,2 dB
22000 MHz	9,5 dB	20,9 dB	--	1,0 dB
24000 MHz	9,5 dB	40,5 dB	--	5 dB
26000 MHz	9,5 dB	18,1 dB	--	0,8 dB
22 Tracking Generator FSU-B9				
22.1 TG - Abs. amplitude accuracy				
at 128 MHz				
(without Option FSU-B12)				
0 dBm	-1,00 dBm	n. i.	1,00 dBm	0,05 dB
-5 dBm	-6,00 dBm	n. i.	-4,00 dBm	0,05 dB
-10 dBm	-11,00 dBm	n. i.	-9,00 dBm	0,05 dB
-15 dBm	-16,00 dBm	n. i.	-14,00 dBm	0,05 dB
-20 dBm	-21,00 dBm	n. i.	-19,00 dBm	0,10 dB
(= Option FSU-B12)				
0 dBm	-1,00 dBm	n. i.	1,00 dBm	0,05 dB
-10 dBm	-11,00 dBm	n. i.	-9,00 dBm	0,05 dB
-20 dBm	-21,00 dBm	n. i.	-19,00 dBm	0,05 dB
-40 dBm	-41,00 dBm	n. i.	-39,00 dBm	0,05 dB

Test Description		Lower Limit	Result Measured	Upper Limit	Uncertainty
22.2 TG - Frequency response					
(without Option FSU-B12)					
source level 0 dBm					
100kHz -3.6GHz	maximum	--	n. i.	3,00 dB	0,16 dB
	minimum	-3,00 dB	n. i.	--	0,16 dB
source level -5 dBm					
100kHz -3.6GHz	maximum	--	n. i.	3,00 dB	0,16 dB
	minimum	-3,00 dB	n. i.	--	0,16 dB
source level -10 dBm					
100kHz -3.6GHz	maximum	--	n. i.	3,00 dB	0,16 dB
	minimum	-3,00 dB	n. i.	--	0,16 dB
source level -15 dBm					
100kHz -3.6GHz	maximum	--	n. i.	3,00 dB	0,16 dB
	minimum	-3,00 dB	n. i.	--	0,16 dB
source level -20 dBm					
100kHz -3.6GHz	maximum	--	n. i.	3,00 dB	0,16 dB
	minimum	-3,00 dB	n. i.	--	0,16 dB
(with Option FSU-B12)					
source level 0 dBm					
100kHz -3.6GHz	maximum	--	n. i.	4,00 dB	0,16 dB
	minimum	-4,00 dB	n. i.	--	0,16 dB
source level -10 dBm					
100kHz -3.6GHz	maximum	--	n. i.	4,00 dB	0,16 dB
	minimum	-4,00 dB	n. i.	--	0,16 dB
source level -20 dBm					
100kHz -3.6GHz	maximum	--	n. i.	4,00 dB	0,16 dB
	minimum	-4,00 dB	n. i.	--	0,16 dB
source level -40 dBm					
100kHz -3.6GHz	maximum	--	n. i.	4,00 dB	0,16 dB
	minimum	-4,00 dB	n. i.	--	0,16 dB
22.3 TG - Dynamic Range					
at 128 MHz					
reference level		-1,00 dBm	n. i.	1,00 dBm	0,20 dB
isolation		--	n. i.	-100 dBc	2 dB
22.4 TG - IQ-Modulator					
modulation +90°					
signal	1001 MHz	-5,0 dBm	n. i.	3,0 dBm	0,5 dB
residual carrier	1000 MHz	--	n. i.	-27,0 dBc	0,5 dB
spur. sideband	999 MHz	--	n. i.	-27,0 dBc	0,5 dB
modulation -90°					
signal	999 MHz	-5,0 dBm	n. i.	3,0 dBm	0,5 dB
residual carrier	1000 MHz	--	n. i.	-27,0 dBc	0,5 dB
spur. sideband	1001 MHz	--	n. i.	-27,0 dBc	0,5 dB
modulation off					
residual carrier	1000 MHz	--	n. i.	-27,0 dBm	0,5 dB

Test Description		Lower Limit	Result Measured	Upper Limit	Uncertainty
22.5 Amplitude Modulation					
carrier level	1000 MHz	-5,0 dBm	n. i.	3,0 dBm	0,5 dB
upper sideband	1001 MHz	-8,0 dBc	n. i.	-4,0 dBc	0,5 dB
lower sideband	999 MHz	-8,0 dBc	n. i.	-4,0 dBc	0,5 dB
22.6 Frequency Modulation					
carrier level	1000 MHz	-5,0 dBm	n. i.	1,0 dBm	0,5 dB
upper sideband	1000.1 MHz	-6,0 dBc	n. i.	-3,0 dBc	0,5 dB
lower sideband	999.9 MHz	-6,0 dBc	n. i.	-3,0 dBc	0,5 dB
23 Click Rate Analyzer Windows application software (acc. table 17)					
23.1 Test 1 (acc. to CISPR16-1-1 (2010) table 17)					
stimulus:	0,11 ms / 1 dB				
Freq:	Result:				
150 kHz	1 click	--	[2] pass	--	{c}
500 kHz	1 click	--	[2] pass	--	{c}
1.4 MHz	1 click	--	[2] pass	--	{c}
30 MHz	1 click	--	[2] pass	--	{c}
23.2 Test 2					
stimulus:	9,5 ms / 1 dB				
Freq:	Result:				
150 kHz	1 click	--	[2] pass	--	{c}
500 kHz	1 click	--	[2] pass	--	{c}
1.4 MHz	1 click	--	[2] pass	--	{c}
30 MHz	1 click	--	[2] pass	--	{c}
23.3 Test 3					
stimulus:	190 ms / 1 dB				
Freq:	Result:				
150 kHz	1 click	--	[2] pass	--	{c}
500 kHz	1 click	--	[2] pass	--	{c}
1.4 MHz	1 click	--	[2] pass	--	{c}
30 MHz	1 click	--	[2] pass	--	{c}
23.4 Test 4					
stimulus:	1333 ms / 1 dB				
Freq:	Result:				
150 kHz	other than click	--	[2] pass	--	{c}
500 kHz	other than click	--	[2] pass	--	{c}
1.4 MHz	other than click	--	[2] pass	--	{c}
30 MHz	other than click	--	[2] pass	--	{c}

Test Description		Lower Limit	Result Measured	Upper Limit	Uncertainty
23.5 Test 5					
stimulus:	210 ms / 1 dB				
Freq:	Result:				
150 kHz	other than click	--	[2] pass	--	{c}
500 kHz	other than click	--	[2] pass	--	{c}
1.4 MHz	other than click	--	[2] pass	--	{c}
30 MHz	other than click	--	[2] pass	--	{c}
23.6 Test 6					
stimulus:	2* 30 ms / 5 dB				
Freq:	Result:				
150 kHz	other than click	--	[2] pass	--	{c}
500 kHz	other than click	--	[2] pass	--	{c}
1.4 MHz	other than click	--	[2] pass	--	{c}
30 MHz	other than click	--	[2] pass	--	{c}
23.7 Test 7					
stimulus:	2* 30 ms / 5 dB				
Freq:	Result:				
150 kHz	1 click	--	[2] pass	--	{c}
500 kHz	1 click	--	[2] pass	--	{c}
1.4 MHz	1 click	--	[2] pass	--	{c}
30 MHz	1 click	--	[2] pass	--	{c}
23.8 Test 8					
stimulus:	2* 30 ms / 5 dB				
Freq:	Result:				
150 kHz	2 click	--	[2] pass	--	{c}
500 kHz	2 click	--	[2] pass	--	{c}
1.4 MHz	2 click	--	[2] pass	--	{c}
30 MHz	2 click	--	[2] pass	--	{c}
23.9 Test 9					
stimulus:	periodicity 10ms / 1 dB				
Freq:	Result:				
150 kHz	other than click	--	[2] pass	--	{c}
500 kHz	other than click	--	[2] pass	--	{c}
1.4 MHz	other than click	--	[2] pass	--	{c}
30 MHz	other than click	--	[2] pass	--	{c}
23.10 Test 10					
stimulus:	30ms/-2,5 dB 30ms/25dB				
Freq:	Result:				
150 kHz	1 click	--	[2] pass	--	{c}
500 kHz	1 click	--	[2] pass	--	{c}
1.4 MHz	1 click	--	[2] pass	--	{c}
30 MHz	1 click	--	[2] pass	--	{c}

Test Description		Lower Limit	Result Measured	Upper Limit	Uncertainty
23.11 Test 11					
stimulus:	190ms/25dB 30ms/-2,5dB				
Freq:	Result:				
150 kHz	2 click	--	[2] pass	--	{c}
500 kHz	2 click	--	[2] pass	--	{c}
1.4 MHz	2 click	--	[2] pass	--	{c}
30 MHz	2 click	--	[2] pass	--	{c}
23.12 Test 12					
stimulus:	190ms/25dB 30ms/-2,5dB				
Freq:	Result:				
150 kHz	1 click	--	[2] pass	--	{c}
500 kHz	1 click	--	[2] pass	--	{c}
1.4 MHz	1 click	--	[2] pass	--	{c}
30 MHz	1 click	--	[2] pass	--	{c}
24 Click Rate Analyzer Windows application software (acc. table F1)					
24.1 Test 1 (acc. to CISPR16-1-1 (2010) table F1)					
stimulus:	0,11 ms / 1 dB				
Freq:	Result:				
150 kHz	1 click <= 10 ms	--	[2] pass	--	{c}
500 kHz	1 click <= 10 ms	--	[2] pass	--	{c}
1.4 MHz	1 click <= 10 ms	--	[2] pass	--	{c}
30 MHz	1 click <= 10 ms	--	[2] pass	--	{c}
24.2 Test 2 (F1)					
stimulus:	9,5 ms / 1 dB				
Freq:	Result:				
150 kHz	1 click <= 10 ms	--	[2] pass	--	{c}
500 kHz	1 click <= 10 ms	--	[2] pass	--	{c}
1.4 MHz	1 click <= 10 ms	--	[2] pass	--	{c}
30 MHz	1 click <= 10 ms	--	[2] pass	--	{c}
24.3 Test 3 (F1)					
stimulus:	10,5 ms / 1 dB				
Freq:	Result:				
150 kHz	1 click >10ms. <= 20 ms	--	[2] pass	--	{c}
500 kHz	1 click >10ms. <= 20 ms	--	[2] pass	--	{c}
1.4 MHz	1 click >10ms. <= 20 ms	--	[2] pass	--	{c}
30 MHz	1 click >10ms. <= 20 ms	--	[2] pass	--	{c}
24.4 Test 4 (F1)					
stimulus:	19 ms / 1 dB				
Freq:	Result:				
150 kHz	1 click >10ms. <= 20 ms	--	[2] pass	--	{c}
500 kHz	1 click >10ms. <= 20 ms	--	[2] pass	--	{c}
1.4 MHz	1 click >10ms. <= 20 ms	--	[2] pass	--	{c}
30 MHz	1 click >10ms. <= 20 ms	--	[2] pass	--	{c}

Test Description	Lower Limit	Result Measured	Upper Limit	Uncertainty
24.5 Test 5 (F1)				
stimulus: 21 ms / 1 dB				
Freq: Result:				
150 kHz 1 click > 20 ms	--	[2] pass	--	{c}
500 kHz 1 click > 20 ms	--	[2] pass	--	{c}
1.4 MHz 1 click > 20 ms	--	[2] pass	--	{c}
30 MHz 1 click > 20 ms	--	[2] pass	--	{c}
24.6 Test 6 (F1)				
stimulus: 190 ms / 1 dB				
Freq: Result:				
150 kHz 1 click > 20 ms	--	[2] pass	--	{c}
500 kHz 1 click > 20 ms	--	[2] pass	--	{c}
1.4 MHz 1 click > 20 ms	--	[2] pass	--	{c}
30 MHz 1 click > 20 ms	--	[2] pass	--	{c}
24.7 Test 7 (F1)				
stimulus: 2* 210 ms / 5 dB				
Freq: Result:				
150 kHz 1 click <= 600 ms	--	[2] pass	--	{c}
500 kHz 1 click <= 600 ms	--	[2] pass	--	{c}
1.4 MHz 1 click <= 600 ms	--	[2] pass	--	{c}
30 MHz 1 click <= 600 ms	--	[2] pass	--	{c}
24.8 Test 8 (F1)				
stimulus: 2* 220 ms / 5 dB				
Freq: Result:				
150 kHz cont. disturbance	--	[2] pass	--	{c}
500 kHz cont. disturbance	--	[2] pass	--	{c}
1.4 MHz cont. disturbance	--	[2] pass	--	{c}
30 MHz cont. disturbance	--	[2] pass	--	{c}
24.9 Test 9 (F1)				
stimulus: 2* 190 ms / 5 dB				
Freq: Result:				
150 kHz 1 click <= 600 ms	--	[2] pass	--	{c}
500 kHz 1 click <= 600 ms	--	[2] pass	--	{c}
1.4 MHz 1 click <= 600 ms	--	[2] pass	--	{c}
30 MHz 1 click <= 600 ms	--	[2] pass	--	{c}
24.10 Test 10 (F1)				
stimulus: 2* 50 ms / 5 dB				
Freq: Result:				
150 kHz 1 click <= 600 ms	--	[2] pass	--	{c}
500 kHz 1 click <= 600 ms	--	[2] pass	--	{c}
1.4 MHz 1 click <= 600 ms	--	[2] pass	--	{c}
30 MHz 1 click <= 600 ms	--	[2] pass	--	{c}

Test Description	Lower Limit	Result Measured	Upper Limit	Uncertainty
24.11 Test 11 (F1)				
stimulus: 15ms/20dB 9* 5ms/20dB				
Freq: Result:				
150 kHz 36 clicks + 4 clicks	--	[2] pass	--	{c}
500 kHz 36 clicks + 4 clicks	--	[2] pass	--	{c}
1.4 MHz 36 clicks + 4 clicks	--	[2] pass	--	{c}
30 MHz 36 clicks + 4 clicks	--	[2] pass	--	{c}
24.12 Test 12 (F1)				
stimulus: 15ms/20dB 9* 5ms/20dB				
Freq: Result:				
150 kHz 35 clicks + 5 clicks	--	[2] pass	--	{c}
500 kHz 35 clicks + 5 clicks	--	[2] pass	--	{c}
1.4 MHz 35 clicks + 5 clicks	--	[2] pass	--	{c}
30 MHz 35 clicks + 5 clicks	--	[2] pass	--	{c}