Kalibrier-Zertifikat Calibration Certificate

MUSTER

Gegenstand Object	Signal Generator
Hersteller Manufacturer	Rohde&Schwarz Hameg
Typ Type description	SMB 100A
Serien Nr. Serial no.	12345
Inventar Nr. Inventory no.	---
Prüfmittel Nr. Test equipment no.	---
Equipment Nr. Equipment no.	12345678
Standort Location	---
Auftraggeber Customer	Mustermann GmbH DE-12345 Musterhausen
Kunden Nr. Customer ID no.	1234567
Auftrags Nr. Order no.	654321
Datum der Kalibrierung Date of calibration	15.09.2017
Datum der empfohlenen Rekalibrierung Date of the recommended re-calibration	15.09.2018

Hiermit bestätigen wir, dass das durchführende Kalibrierlabor ein Managementsystem nach **ISO 9001:2008**, sowie **ISO/IEC 17025:2005** eingeführt hat. Die Urkunden finden Sie auf www.testotis.de. Die für die Kalibrierung verwendeten Messeinrichtungen werden regelmäßig kalibriert und sind rückführbar auf die nationalen Normale der Physikalisch Technischen Bundesanstalt (PTB) Deutschlands oder auf andere nationale Normale. Wo keine nationalen Normale existieren, entspricht das Messverfahren den derzeit gültigen technischen Regeln und Normen. Die für diesen Vorgang angefertigte Dokumentation kann eingesehen werden. Alle erforderlichen Messdaten sind in diesem Kalibrier-Zertifikat aufgelistet.

Hereby we confirm that the performing calibration labratory is working with a management system according to **ISO 9001:2008** and **ISO/IEC 17025:2005**. Accreditation certificates can be found under www.testotis.de. The measuring installations used for calibration are regularly calibrated and traceable to the national standards of the German Federal Physical Technical Institute (PTB) or other national standards. Should no national standards exist, the measuring procedure corresponds with the technical regulations and norms valid at the time of the measurement. The documents established for this procedure are available for viewing. All the necessary measured data can be found on the following page(s) of this calibration certificate.

Konformitätsaussage Conformity

☒ Messwert(e) innerhalb der zulässigen Abweichung[1]). Measured value(s) within the allowed deviation[1]).

☐ Messwert(e) außerhalb der zulässigen Abweichung[1]). Measured value(s) beyond the allowed deviation[1]).

[1]) Die Messunsicherheit wurde nach GUM mit dem Erweiterungsfaktor k=2 berechnet und enthält die Unsicherheit des Verfahrens sowie die Unsicherheit des Prüflings. Die Konformitätsaussage erfolgte nach DIN EN ISO 14253-1 gemäß der Kalibrieranweisung QSA - TIS 7.5-02.
[1]) The measurement uncertainty was calculated according to the regulations of GUM with the coverage factor k=2 and contains the uncertainty of the measuring procedure and the uncertainty of the measuring system. The statement of conformity was made according to DIN EN ISO 14253-1 according to calibration instruction QSA - TIS 7.5-02.

V 4.52 / DE

Stempel Seal

TESTO INDUSTRIAL SERVICES testo KIRCHZARTEN

Fachverantwortlicher Supervisor

Max Mustermann

Bearbeiter Technician

Martina Musterfrau

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Messeinrichtung Measuring equipment

Referenz Reference	Rückführung Traceability	Rekal. Next cal.	Zertifikat-Nr. Certificate-no.	EQ-Nr. EQ-no.
DMM HEWLETT PACKARD 34401	15070-01-01 2017-06	2018-06	E49176	10523196
Frequency Standard Fluke 910R	GPS locked ---	---	Support Device	10640562
Frequenz Mischer AGILENT DEUTSCHLAND GMBH 11793A	15070-01-01 2016-10	2017-10	E41951	10737001
Measuring Receiver HEWLETT PACKARD 8902A	15070-01-01 2017-05	2018-05	E47112	10952883
Spektrumanalyzer Rohde & Schwarz FSEK30	15070-01-01 2016-12	2017-12	E42853	10971094
Frequenzzähler HP 5335A	GPS locked ---	---	Support device	11105446
NETWORK ANALYZER HEWLETT PACKARD 8510C System	15070-01-01 2017-09	2018-09	E51993	11105533
Synthesized Sweeper Agilent 83650L	GPS locked ---	---	Support device	11105539
Frequenzzähler Agilent 53152A	GPS locked ---	---	Support device	11105563
Signal Generator Rhode & Schwarz SML03	GPS locked ---	---	Support device	11105575
Power Meter AGILENT DEUTSCHLAND GMBH E4417A	15070-01-01 2017-09	2018-09	E52003	11287008
Power Sensor AGILENT DEUTSCHLAND GMBH E9304A	15070-01-01 2017-08	2018-08	E50702	11373066
Type N Economy Calibration Kit AGILENT DEUTSCHLAND GMBH 85054D	15070-01-01 2017-03	2018-03	E45890	11373071
Vector Signal Generator Rohde & Schwarz SMBV100A	15070-01-01 2017-05	2019-05	E47153	11662707
Audio Analyzer HEWLETT PACKARD 8903B	15070-01-01 2017-05	2018-05	E48264	12405746

Referenzzertifikate sind auf www.primasonline.com abrufbar Reference certificates are available at www.primasonline.com

Umgebungsbedingungen Ambient conditions

Temperatur Temperature (23 ± 1) °C
Relative Luftfeuchte Relative Humidity (40 ± 20) %

Messverfahren Measuring procedure

Die Kalibrierung erfolgt nach Herstelleranweisung
The calibration is performed according to the manufacturer's procedure

Prüfprozedur Procedure E:R&S:SMB100A:kiz:HF-MP2:SG:IEEE / Rev.:3

Messergebnisse Measuring results

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Besondere Bemerkungen Special remarks

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Bereich Range	Referenzwert (Normal) Reference value	Messbedingung Measuring condition	Angezeigter Wert UUT Indicated value UUT	zulässige Abweichung allowed deviation	Ausnutzung der Abw. in % Utilization of allowed dev. in %	zul. Messunsicherheit (k=2) Measuring uncertainty (k=2)
Performance Test and Verification						
Her. Rohde&Schwarz						
Typ. SMB100A						
FW 1406.6000k02/100729						
Function						
Keyboard						pass
Display						pass
Internal Selftest						
Selftest was successfully completed.						
Clock-Reference						
Internal Frequency Accuracy						
:by Measuring on Ref. Out						
–						
Reference Nominal 10 MHz (Standard)						
	0.000 Hz	10 MHz	-7.95 Hz	±10 Hz	80%	pass 12 mHz
Input for External Reference						
Laboratory estimated Tolerance						
External Reference = 9.99997 MHz						
	0.9999970000 GHz		0.999996986 GHz	±0.000001 GHz	1%	pass 1.2 Hz
External Reference = 10.00003 MHz						
	1.0000030000 GHz		1.000002985 GHz	±0.000001 GHz	2%	pass 1.2 Hz
Sine Frequency Accuracy (RF Out)						
Bandwidth 9 kHz - 1.1 GHz						
UUT Settings: unmodulated, Level 0 dBm, ALC off						
Nominal 9 kHz						
	8.9999930 kHz	0 dBm	9.000000 kHz	±0.000009 kHz	77%	pass 580 µHz
Nominal 150 kHz						
	149.999883 kHz	0 dBm	150.00000 kHz	±0.00015 kHz	78%	pass 5.8 mHz

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Nominal 300 kHz							
	299.999766 kHz	0 dBm	300.00000 kHz	±0.0003 kHz	78%	pass	5.8 mHz
Nominal 500 kHz							
	499.999611 kHz	0 dBm	500.00000 kHz	±0.0005 kHz	78%	pass	5.8 mHz
Nominal 700 kHz							
	699.999457 kHz	0 dBm	700.00000 kHz	±0.0007 kHz	78%	pass	5.9 mHz
Nominal 1 MHz							
	0.9999992 MHz	0 dBm	1.000000 MHz	±0.000001 MHz	77%	pass	577 mHz
Nominal 3 MHz							
	2.9999977 MHz	0 dBm	3.000000 MHz	±0.000003 MHz	78%	pass	577 mHz
Nominal 5 MHz							
	4.9999961 MHz	0 dBm	5.000000 MHz	±0.000005 MHz	78%	pass	577 mHz
Nominal 7 MHz							
	6.9999946 MHz	0 dBm	7.000000 MHz	±0.000007 MHz	77%	pass	577 mHz
Nominal 10 MHz							
	9.9999923 MHz	0 dBm	10.000000 MHz	±0.00001 MHz	77%	pass	577 mHz
Nominal 30 MHz							
	29.9999768 MHz	0 dBm	30.000000 MHz	±0.00003 MHz	77%	pass	580 mHz
Nominal 50 MHz							
	49.9999612 MHz	0 dBm	50.000000 MHz	±0.00005 MHz	78%	pass	580 mHz
Nominal 70 MHz							
	69.9999457 MHz	0 dBm	70.000000 MHz	±0.00007 MHz	78%	pass	586 mHz
Nominal 100 MHz							
	99.9999220 MHz	0 dBm	100.000000 MHz	±0.0000999 MHz	78%	pass	586 mHz
Nominal 300 MHz							
	299.9997614 MHz	0 dBm	300.000000 MHz	±0.0002999 MHz	80%	pass	814 mHz
Nominal 500 MHz							
	499.9996086 MHz	0 dBm	500.000000 MHz	±0.0004999 MHz	78%	pass	1.7 Hz
Nominal 700 MHz							
	699.9994544 MHz	0 dBm	700.000000 MHz	±0.0006999 MHz	78%	pass	1.4 Hz
Nominal 1.1 GHz							
	1.0999991446 GHz	0 dBm	1.100000000 GHz	±0.0000011 GHz	78%	pass	1.6 Hz
Output Level, Frequency Response (RF)							
Bandwidth 9 kHz - 1.1 GHz							
UUT Settings: unmodulated, Level 0 dBm,ALC auto							
	0.000 dBm	9 kHz	-0.10 dBm	±1 dBm		pass	0.10 dB
	0.000 dBm	1 MHz	-0.14 dBm	±0.5 dBm		pass	0.10 dB
	0.000 dBm	5 MHz	-0.14 dBm	±0.5 dBm		pass	0.10 dB
	0.000 dBm	10 MHz	-0.02 dBm	±0.5 dBm		pass	0.10 dB
	0.000 dBm	20 MHz	-0.07 dBm	±0.5 dBm		pass	0.10 dB
	0.000 dBm	30 MHz	-0.10 dBm	±0.5 dBm		pass	0.10 dB

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	0.000 dBm	40 MHz	-0.09 dBm	±0.5	dBm	pass	0.10	dB
	0.000 dBm	50 MHz	-0.09 dBm	±0.5	dBm	pass	0.10	dB
	0.000 dBm	60 MHz	-0.09 dBm	±0.5	dBm	pass	0.10	dB
	0.000 dBm	70 MHz	-0.09 dBm	±0.5	dBm	pass	0.10	dB
	0.000 dBm	80 MHz	-0.08 dBm	±0.5	dBm	pass	0.10	dB
	0.000 dBm	90 MHz	-0.09 dBm	±0.5	dBm	pass	0.10	dB
	0.000 dBm	100 MHz	-0.11 dBm	±0.5	dBm	pass	0.10	dB
	0.000 dBm	120 MHz	-0.12 dBm	±0.5	dBm	pass	0.10	dB
	0.000 dBm	140 MHz	-0.13 dBm	±0.5	dBm	pass	0.10	dB
	0.000 dBm	160 MHz	-0.13 dBm	±0.5	dBm	pass	0.10	dB
	0.000 dBm	180 MHz	-0.16 dBm	±0.5	dBm	pass	0.10	dB
	0.000 dBm	200 MHz	-0.16 dBm	±0.5	dBm	pass	0.10	dB
	0.000 dBm	220 MHz	-0.17 dBm	±0.5	dBm	pass	0.10	dB
	0.000 dBm	240 MHz	-0.18 dBm	±0.5	dBm	pass	0.10	dB
	0.000 dBm	260 MHz	-0.20 dBm	±0.5	dBm	pass	0.10	dB
	0.000 dBm	280 MHz	-0.19 dBm	±0.5	dBm	pass	0.10	dB
	0.000 dBm	300 MHz	-0.19 dBm	±0.5	dBm	pass	0.10	dB
	0.000 dBm	320 MHz	-0.20 dBm	±0.5	dBm	pass	0.10	dB
	0.000 dBm	340 MHz	-0.20 dBm	±0.5	dBm	pass	0.10	dB
	0.000 dBm	360 MHz	-0.20 dBm	±0.5	dBm	pass	0.10	dB
	0.000 dBm	380 MHz	-0.20 dBm	±0.5	dBm	pass	0.10	dB
	0.000 dBm	400 MHz	-0.20 dBm	±0.5	dBm	pass	0.10	dB
	0.000 dBm	420 MHz	-0.21 dBm	±0.5	dBm	pass	0.10	dB
	0.000 dBm	440 MHz	-0.21 dBm	±0.5	dBm	pass	0.10	dB
	0.000 dBm	460 MHz	-0.22 dBm	±0.5	dBm	pass	0.10	dB
	0.000 dBm	480 MHz	-0.23 dBm	±0.5	dBm	pass	0.10	dB
	0.000 dBm	500 MHz	-0.22 dBm	±0.5	dBm	pass	0.10	dB
	0.000 dBm	520 MHz	-0.24 dBm	±0.5	dBm	pass	0.10	dB
	0.000 dBm	540 MHz	-0.24 dBm	±0.5	dBm	pass	0.10	dB
	0.000 dBm	560 MHz	-0.24 dBm	±0.5	dBm	pass	0.10	dB
	0.000 dBm	580 MHz	-0.25 dBm	±0.5	dBm	pass	0.10	dB
	0.000 dBm	600 MHz	-0.23 dBm	±0.5	dBm	pass	0.10	dB
	0.000 dBm	620 MHz	-0.25 dBm	±0.5	dBm	pass	0.10	dB
	0.000 dBm	640 MHz	-0.23 dBm	±0.5	dBm	pass	0.10	dB
	0.000 dBm	660 MHz	-0.23 dBm	±0.5	dBm	pass	0.10	dB
	0.000 dBm	680 MHz	-0.25 dBm	±0.5	dBm	pass	0.10	dB
	0.000 dBm	700 MHz	-0.23 dBm	±0.5	dBm	pass	0.10	dB
	0.000 dBm	720 MHz	-0.25 dBm	±0.5	dBm	pass	0.10	dB
	0.000 dBm	740 MHz	-0.25 dBm	±0.5	dBm	pass	0.10	dB
	0.000 dBm	760 MHz	-0.24 dBm	±0.5	dBm	pass	0.10	dB
	0.000 dBm	780 MHz	-0.24 dBm	±0.5	dBm	pass	0.10	dB
	0.000 dBm	800 MHz	-0.28 dBm	±0.5	dBm	pass	0.10	dB
	0.000 dBm	820 MHz	-0.24 dBm	±0.5	dBm	pass	0.10	dB
	0.000 dBm	840 MHz	-0.26 dBm	±0.5	dBm	pass	0.10	dB
	0.000 dBm	860 MHz	-0.28 dBm	±0.5	dBm	pass	0.10	dB
	0.000 dBm	880 MHz	-0.27 dBm	±0.5	dBm	pass	0.10	dB
	0.000 dBm	900 MHz	-0.26 dBm	±0.5	dBm	pass	0.10	dB
	0.000 dBm	920 MHz	-0.27 dBm	±0.5	dBm	pass	0.10	dB

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	0.000 dBm	940 MHz	-0.23 dBm	±0.5 dBm		pass	0.10 dB
	0.000 dBm	960 MHz	-0.23 dBm	±0.5 dBm		pass	0.10 dB
	0.000 dBm	980 MHz	-0.25 dBm	±0.5 dBm		pass	0.10 dB
	0.000 dBm	1000 MHz	-0.20 dBm	±0.5 dBm		pass	0.10 dB
	0.000 dBm	1020 MHz	-0.26 dBm	±0.5 dBm		pass	0.10 dB
	0.000 dBm	1040 MHz	-0.26 dBm	±0.5 dBm		pass	0.10 dB
	0.000 dBm	1060 MHz	-0.26 dBm	±0.5 dBm		pass	0.10 dB
	0.000 dBm	1080 MHz	-0.28 dBm	±0.5 dBm		pass	0.10 dB
	0.000 dBm	1100 MHz	-0.16 dBm	±0.5 dBm		pass	0.10 dB
Output Level, Frequency Response (RF)							
Bandwidth 9 kHz - 1.1 GHz							
UUT Settings: unmodulated, Level 0 dBm,ALC off							
	0.000 dBm	9 kHz	-0.12 dBm	±1.25 dBm		pass	0.10 dB
	0.000 dBm	1 MHz	-0.14 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	5 MHz	-0.13 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	10 MHz	-0.01 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	20 MHz	-0.07 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	30 MHz	0.18 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	40 MHz	0.05 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	50 MHz	-0.05 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	60 MHz	0.03 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	70 MHz	0.00 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	80 MHz	0.05 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	90 MHz	0.03 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	100 MHz	-0.01 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	120 MHz	0.01 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	140 MHz	-0.02 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	160 MHz	0.01 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	180 MHz	-0.01 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	200 MHz	-0.07 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	220 MHz	-0.06 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	240 MHz	-0.08 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	260 MHz	-0.10 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	280 MHz	-0.07 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	300 MHz	-0.09 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	320 MHz	-0.11 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	340 MHz	-0.09 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	360 MHz	-0.11 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	380 MHz	-0.13 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	400 MHz	-0.13 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	420 MHz	-0.13 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	440 MHz	-0.16 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	460 MHz	-0.16 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	480 MHz	-0.18 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	500 MHz	-0.14 dBm	±0.75 dBm		pass	0.10 dB

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	0.000 dBm	520 MHz	-0.16 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	540 MHz	-0.17 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	560 MHz	-0.18 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	580 MHz	-0.22 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	600 MHz	-0.19 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	620 MHz	-0.22 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	640 MHz	-0.17 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	660 MHz	-0.16 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	680 MHz	-0.20 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	700 MHz	-0.18 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	720 MHz	-0.18 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	740 MHz	-0.20 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	760 MHz	-0.22 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	780 MHz	-0.21 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	800 MHz	-0.23 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	820 MHz	-0.18 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	840 MHz	-0.22 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	860 MHz	-0.21 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	880 MHz	-0.23 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	900 MHz	-0.18 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	920 MHz	-0.21 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	940 MHz	-0.16 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	960 MHz	-0.17 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	980 MHz	-0.17 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	1000 MHz	-0.16 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	1020 MHz	-0.20 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	1040 MHz	-0.17 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	1060 MHz	-0.22 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	1080 MHz	-0.20 dBm	±0.75 dBm		pass	0.10 dB
	0.000 dBm	1100 MHz	-0.18 dBm	±0.75 dBm		pass	0.10 dB
Specified Level Performance (RF)							
UUT Settings: unmodulated, Carrier 9 kHz							
	5.000 dBm	5 dBm	4.74 dBm	±1 dBm		pass	0.10 dB
	4.000 dBm	4 dBm	3.80 dBm	±1 dBm		pass	0.10 dB
	2.000 dBm	2 dBm	1.86 dBm	±1 dBm		pass	0.10 dB
	-2.000 dBm	-2 dBm	-2.08 dBm	±1 dBm		pass	0.10 dB
	-4.000 dBm	-4 dBm	-4.08 dBm	±1 dBm		pass	0.10 dB
	-6.000 dBm	-6 dBm	-6.06 dBm	±1 dBm		pass	0.10 dB
UUT Settings: unmodulated, Carrier 201 kHz							
	13.000 dBm	13 dBm	12.89 dBm	±0.5 dBm		pass	0.15 dB
	10.000 dBm	10 dBm	9.92 dBm	±0.5 dBm		pass	0.15 dB
	8.000 dBm	8 dBm	7.93 dBm	±0.5 dBm		pass	0.15 dB

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	6.000 dBm	6 dBm	5.89 dBm	±0.5 dBm		pass	0.10 dB
	4.000 dBm	4 dBm	3.90 dBm	±0.5 dBm		pass	0.10 dB
	2.000 dBm	2 dBm	1.87 dBm	±0.5 dBm		pass	0.10 dB
	-2.000 dBm	-2 dBm	-2.11 dBm	±0.5 dBm		pass	0.10 dB
	-4.000 dBm	-4 dBm	-4.13 dBm	±0.5 dBm		pass	0.10 dB
	-6.000 dBm	-6 dBm	-6.12 dBm	±0.5 dBm		pass	0.10 dB
UUT Settings: unmodulated, Carrier 12.5 MHz							
	18.000 dBm	18 dBm	17.95 dBm	±0.5 dBm		pass	0.15 dB
	16.000 dBm	16 dBm	15.99 dBm	±0.5 dBm		pass	0.15 dB
	14.000 dBm	14 dBm	13.87 dBm	±0.5 dBm		pass	0.15 dB
	12.000 dBm	12 dBm	11.89 dBm	±0.5 dBm		pass	0.15 dB
	10.000 dBm	10 dBm	9.92 dBm	±0.5 dBm		pass	0.15 dB
	8.000 dBm	8 dBm	7.88 dBm	±0.5 dBm		pass	0.15 dB
	6.000 dBm	6 dBm	5.89 dBm	±0.5 dBm		pass	0.10 dB
	4.000 dBm	4 dBm	3.88 dBm	±0.5 dBm		pass	0.10 dB
	2.000 dBm	2 dBm	1.89 dBm	±0.5 dBm		pass	0.10 dB
	-2.000 dBm	-2 dBm	-2.14 dBm	±0.5 dBm		pass	0.10 dB
	-4.000 dBm	-4 dBm	-4.13 dBm	±0.5 dBm		pass	0.10 dB
	-6.000 dBm	-6 dBm	-6.13 dBm	±0.5 dBm		pass	0.10 dB
UUT Settings: unmodulated, Carrier 512.5 MHz							
	18.000 dBm	18 dBm	18.05 dBm	±0.5 dBm		pass	0.15 dB
	16.000 dBm	16 dBm	16.08 dBm	±0.5 dBm		pass	0.15 dB
	14.000 dBm	14 dBm	14.11 dBm	±0.5 dBm		pass	0.15 dB
	12.000 dBm	12 dBm	12.06 dBm	±0.5 dBm		pass	0.15 dB
	10.000 dBm	10 dBm	9.86 dBm	±0.5 dBm		pass	0.15 dB
	8.000 dBm	8 dBm	7.90 dBm	±0.5 dBm		pass	0.15 dB
	6.000 dBm	6 dBm	5.93 dBm	±0.5 dBm		pass	0.10 dB
	4.000 dBm	4 dBm	3.81 dBm	±0.5 dBm		pass	0.10 dB
	2.000 dBm	2 dBm	1.85 dBm	±0.5 dBm		pass	0.10 dB
	-2.000 dBm	-2 dBm	-2.19 dBm	±0.5 dBm		pass	0.10 dB
	-4.000 dBm	-4 dBm	-4.17 dBm	±0.5 dBm		pass	0.10 dB
	-6.000 dBm	-6 dBm	-6.22 dBm	±0.5 dBm		pass	0.10 dB
UUT Settings: unmodulated, Carrier 1087.5 MHz							
	18.000 dBm	18 dBm	17.74 dBm	±0.5 dBm		pass	0.15 dB
	16.000 dBm	16 dBm	15.73 dBm	±0.5 dBm		pass	0.15 dB
	14.000 dBm	14 dBm	13.76 dBm	±0.5 dBm		pass	0.15 dB
	12.000 dBm	12 dBm	11.72 dBm	±0.5 dBm		pass	0.15 dB
	10.000 dBm	10 dBm	9.86 dBm	±0.5 dBm		pass	0.15 dB
	8.000 dBm	8 dBm	7.90 dBm	±0.5 dBm		pass	0.15 dB
	6.000 dBm	6 dBm	5.92 dBm	±0.5 dBm		pass	0.10 dB
	4.000 dBm	4 dBm	3.78 dBm	±0.5 dBm		pass	0.10 dB
	2.000 dBm	2 dBm	1.81 dBm	±0.5 dBm		pass	0.10 dB
	-2.000 dBm	-2 dBm	-2.24 dBm	±0.5 dBm		pass	0.10 dB
	-4.000 dBm	-4 dBm	-4.22 dBm	±0.5 dBm		pass	0.10 dB

Bereich Range	Referenzwert (Normal) Reference value	Messbedingung Measuring condition	Angezeigter Wert UUT Indicated value UUT	zulässige Abweichung allowed deviation	Ausnutzung der Abw. in % Utilization of allowed dev. in %	zul.	Messunsicherheit (k=2) Measuring uncertainty (k=2)
	-6.000 dBm	-6 dBm	-6.26 dBm	±0.5 dBm		pass	0.10 dB
RF Attenuator Error							
UUT Settings: Attenuator Mode Auto, unmodulated							
Frequency = 12.5 MHz							
Reference at Level 10 dBm							
	0.000 dB	5 dBm	-0.01 dB	±0.5 dB		pass	0.20 dB
	0.000 dB	0 dBm	0.01 dB	±0.5 dB		pass	0.20 dB
	0.000 dB	-10 dBm	-0.01 dB	±0.5 dB		pass	0.20 dB
	0.000 dB	-20 dBm	-0.05 dB	±0.5 dB		pass	0.20 dB
	0.000 dB	-30 dBm	-0.03 dB	±0.5 dB		pass	0.20 dB
	0.000 dB	-40 dBm	0.02 dB	±0.5 dB		pass	0.20 dB
	0.000 dB	-50 dBm	0.01 dB	±0.5 dB		pass	0.20 dB
	0.000 dB	-60 dBm	0.02 dB	±0.5 dB		pass	0.20 dB
	0.000 dB	-70 dBm	0.02 dB	±0.5 dB		pass	0.30 dB
	0.000 dB	-80 dBm	0.05 dB	±0.5 dB		pass	0.40 dB
	0.000 dB	-90 dBm	0.05 dB	±0.5 dB		pass	0.40 dB
	0.000 dB	-100 dBm	0.00 dB	±0.5 dB		pass	0.50 dB
	0.000 dB	-110 dBm	0.20 dB	±0.5 dB		pass	0.50 dB
Frequency = 512.5 MHz							
Reference at Level 10 dBm							
	0.000 dB	5 dBm	-0.07 dB	±0.5 dB		pass	0.20 dB
	0.000 dB	0 dBm	-0.06 dB	±0.5 dB		pass	0.20 dB
	0.000 dB	-10 dBm	-0.07 dB	±0.5 dB		pass	0.20 dB
	0.000 dB	-20 dBm	-0.06 dB	±0.5 dB		pass	0.20 dB
	0.000 dB	-30 dBm	-0.06 dB	±0.5 dB		pass	0.20 dB
	0.000 dB	-40 dBm	-0.06 dB	±0.5 dB		pass	0.20 dB
	0.000 dB	-50 dBm	-0.05 dB	±0.5 dB		pass	0.20 dB
	0.000 dB	-60 dBm	-0.05 dB	±0.5 dB		pass	0.20 dB
	0.000 dB	-70 dBm	-0.06 dB	±0.5 dB		pass	0.30 dB
	0.000 dB	-80 dBm	-0.03 dB	±0.5 dB		pass	0.40 dB
	0.000 dB	-90 dBm	-0.01 dB	±0.5 dB		pass	0.40 dB
	0.000 dB	-100 dBm	-0.02 dB	±0.5 dB		pass	0.50 dB
	0.000 dB	-110 dBm	0.01 dB	±0.5 dB		pass	0.50 dB
Frequency = 1087.5 MHz							
Reference at Level 10 dBm							
	0.000 dB	5 dBm	0.07 dB	±0.5 dB		pass	0.20 dB
	0.000 dB	0 dBm	-0.02 dB	±0.5 dB		pass	0.20 dB
	0.000 dB	-10 dBm	-0.03 dB	±0.5 dB		pass	0.20 dB
	0.000 dB	-20 dBm	-0.05 dB	±0.5 dB		pass	0.20 dB
	0.000 dB	-30 dBm	-0.14 dB	±0.5 dB		pass	0.20 dB

Bereich Range	Referenzwert (Normal) Reference value	Messbedingung Measuring condition	Angezeigter Wert UUT Indicated value UUT	zulässige Abweichung allowed deviation	Ausnutzung der Abw. in % Utilization of allowed dev. in %	zul.	Messunsicherheit (k=2) Measuring uncertainty (k=2)
	0.000 dB	-40 dBm	-0.04 dB	±0.5 dB		pass	0.20 dB
	0.000 dB	-50 dBm	-0.07 dB	±0.5 dB		pass	0.20 dB
	0.000 dB	-60 dBm	-0.14 dB	±0.5 dB		pass	0.20 dB
	0.000 dB	-70 dBm	-0.04 dB	±0.5 dB		pass	0.30 dB
	0.000 dB	-80 dBm	-0.06 dB	±0.5 dB		pass	0.40 dB
	0.000 dB	-90 dBm	-0.09 dB	±0.5 dB		pass	0.40 dB
	0.000 dB	-100 dBm	-0.10 dB	±0.5 dB		pass	0.50 dB
	0.000 dB	-110 dBm	-0.08 dB	±0.5 dB		pass	0.50 dB
Spectral Purity							
Harmonic Distortion (RF)							
UUT Settings: unmodulated, Level 13 dBm							
Carrier = 1 MHz, 2nd							
	-30.000 dBc	<-30dBc	-42.31 dBc	-170/ +0 dBc		pass	2.0 dB
----------3rd							
	-30.000 dBc	<-30dBc	-64.34 dBc	-170/ +0 dBc		pass	2.0 dB
----------4th							
	-30.000 dBc	<-30dBc	-81.33 dBc	-170/ +0 dBc		pass	2.0 dB
Carrier = 10 MHz, 2nd							
	-30.000 dBc	<-30dBc	-42.43 dBc	-170/ +0 dBc		pass	2.0 dB
----------3rd							
	-30.000 dBc	<-30dBc	-51.58 dBc	-170/ +0 dBc		pass	2.0 dB
----------4th							
	-30.000 dBc	<-30dBc	-83.08 dBc	-170/ +0 dBc		pass	2.0 dB
Carrier = 100 MHz, 2nd							
	-30.000 dBc	<-30dBc	-39.22 dBc	-170/ +0 dBc		pass	2.0 dB
----------3rd							
	-30.000 dBc	<-30dBc	-50.45 dBc	-170/ +0 dBc		pass	2.0 dB
----------4th							
	-30.000 dBc	<-30dBc	-58.00 dBc	-170/ +0 dBc		pass	2.0 dB
Carrier = 200 MHz, 2nd							
	-30.000 dBc	<-30dBc	-39.85 dBc	-170/ +0 dBc		pass	2.0 dB
----------3rd							
	-30.000 dBc	<-30dBc	-54.57 dBc	-170/ +0 dBc		pass	2.0 dB
----------4th							
	-30.000 dBc	<-30dBc	-60.07 dBc	-170/ +0 dBc		pass	2.0 dB

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Bereich Range	Referenzwert (Normal) Reference value	Messbedingung Measuring condition	Angezeigter Wert UUT Indicated value UUT	zulässige Abweichung allowed deviation	Ausnutzung der Abw. in % Utilization of allowed dev. in %	zul.	Messunsicherheit (k=2) Measuring uncertainty (k=2)
Carrier = 300 MHz, 2nd							
	-30.000 dBc	<-30dBc	-41.22 dBc	-170/ +0 dBc		pass	2.0 dB
----------3rd							
	-30.000 dBc	<-30dBc	-57.03 dBc	-170/ +0 dBc		pass	2.0 dB
----------4th							
	-30.000 dBc	<-30dBc	-59.21 dBc	-170/ +0 dBc		pass	2.0 dB
Carrier = 400 MHz, 2nd							
	-30.000 dBc	<-30dBc	-41.34 dBc	-170/ +0 dBc		pass	2.0 dB
----------3rd							
	-30.000 dBc	<-30dBc	-60.67 dBc	-170/ +0 dBc		pass	2.0 dB
----------4th							
	-30.000 dBc	<-30dBc	-65.68 dBc	-170/ +0 dBc		pass	2.0 dB
Carrier = 500 MHz, 2nd							
	-30.000 dBc	<-30dBc	-41.19 dBc	-170/ +0 dBc		pass	2.0 dB
----------3rd							
	-30.000 dBc	<-30dBc	-66.22 dBc	-170/ +0 dBc		pass	2.0 dB
----------4th							
	-30.000 dBc	<-30dBc	-66.87 dBc	-170/ +0 dBc		pass	2.0 dB
Carrier = 600 MHz, 2nd							
	-30.000 dBc	<-30dBc	-41.00 dBc	-170/ +0 dBc		pass	2.0 dB
----------3rd							
	-30.000 dBc	<-30dBc	-65.47 dBc	-170/ +0 dBc		pass	2.0 dB
----------4th							
	-30.000 dBc	<-30dBc	-67.01 dBc	-170/ +0 dBc		pass	2.0 dB
Carrier = 700 MHz, 2nd							
	-30.000 dBc	<-30dBc	-39.81 dBc	-170/ +0 dBc		pass	2.0 dB
----------3rd							
	-30.000 dBc	<-30dBc	-67.99 dBc	-170/ +0 dBc		pass	2.0 dB
----------4th							
	-30.000 dBc	<-30dBc	-67.55 dBc	-170/ +0 dBc		pass	2.0 dB
Carrier = 800 MHz, 2nd							
	-30.000 dBc	<-30dBc	-39.74 dBc	-170/ +0 dBc		pass	2.0 dB
----------3rd							
	-30.000 dBc	<-30dBc	-70.03 dBc	-170/ +0 dBc		pass	2.0 dB
----------4th							
	-30.000 dBc	<-30dBc	-67.88 dBc	-170/ +0 dBc		pass	2.0 dB

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Bereich Range	Referenzwert (Normal) Reference value	Messbedingung Measuring condition	Angezeigter Wert UUT Indicated value UUT	zulässige Abweichung allowed deviation	Ausnutzung der Abw. in % Utilization of allowed dev. in %	zul.	Messunsicherheit (k=2) Measuring uncertainty (k=2)
Carrier = 900 MHz, 2nd							
	-30.000 dBc	<-30dBc	-39.75 dBc	-170/ +0 dBc		pass	2.0 dB
----------3rd							
	-30.000 dBc	<-30dBc	-67.02 dBc	-170/ +0 dBc		pass	2.0 dB
----------4th							
	-30.000 dBc	<-30dBc	-68.71 dBc	-170/ +0 dBc		pass	2.0 dB
Carrier = 1000 MHz, 2nd							
	-30.000 dBc	<-30dBc	-39.10 dBc	-170/ +0 dBc		pass	2.0 dB
----------3rd							
	-30.000 dBc	<-30dBc	-61.27 dBc	-170/ +0 dBc		pass	2.0 dB
----------4th							
	-30.000 dBc	<-30dBc	-67.77 dBc	-170/ +0 dBc		pass	2.0 dB
Carrier = 1100 MHz, 2nd							
	-30.000 dBc	<-30dBc	-38.67 dBc	-170/ +0 dBc		pass	2.0 dB
----------3rd							
	-30.000 dBc	<-30dBc	-56.12 dBc	-170/ +0 dBc		pass	2.0 dB
----------4th							
	-30.000 dBc	<-30dBc	-71.77 dBc	-170/ +0 dBc		pass	2.0 dB
Non-Harmonic Spurious (RF)							
UUT Settings: unmodulated, Level 0 dBm							
Carrier = 13MHz, 9MHz Spur							
Specs <-70dBc							
	-200.000 dBc		-92.24 dBc	-0/ +130 dBc		pass	2.0 dB
Carrier = 13MHz, 22MHz Spur							
Specs <-70dBc							
	-200.000 dBc		-88.68 dBc	-0/ +130 dBc		pass	2.0 dB
Carrier = 17MHz, 15MHz Spur							
Specs <-70dBc							
	-200.000 dBc		-85.29 dBc	-0/ +130 dBc		pass	2.0 dB
Carrier = 21MHz, 100MHz Spur							
Specs <-70dBc							
	-200.000 dBc		-95.35 dBc	-0/ +130 dBc		pass	2.0 dB

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Bereich Range	Referenzwert (Normal) Reference value	Messbedingung Measuring condition	Angezeigter Wert UUT Indicated value UUT	zulässige Abweichung allowed deviation	Ausnutzung der Abw. in % Utilization of allowed dev. in %	zul.	Messunsicherheit (k=2) Measuring uncertainty (k=2)
Carrier = 21MHz, 900MHz Spur							
Specs <-70dBc							
	-200.000 dBc		-92.43 dBc	-0/ +130 dBc		pass	2.0 dB
Carrier = 22MHz, 10MHz Spur							
Specs <-70dBc							
	-200.000 dBc		-87.86 dBc	-0/ +130 dBc		pass	2.0 dB
Carrier = 23.4375MHz, 6.25MHz Spur							
Specs <-70dBc							
	-200.000 dBc		-81.65 dBc	-0/ +130 dBc		pass	2.0 dB
Carrier = 23.4375MHz, 29.6875MHz Spur							
Specs <-70dBc							
	-200.000 dBc		-91.78 dBc	-0/ +130 dBc		pass	2.0 dB
Carrier = 511.2MHz, 511.392MHz Spur							
Specs <-70dBc							
	-200.00 dBc		-96.3 dBc	-0/ +130 dBc		pass	2.0 dB
Carrier = 1050.1MHz, 1050.15714MHz Spur							
Specs <-70dBc							
	-200.00 dBc		-82.7 dBc	-0/ +130 dBc		pass	2.0 dB
Non-systematic Nonharmonic Spurious (RF)							
UUT Settings: unmodulated, Level 0 dBm							
Carrier = 34MHz							
	-200.000 dBc	<-70dBc	-82.26 dBc	-0/ +130 dBc		pass	2.0 dB
Carrier = 65.9MHz							
	-200.000 dBc	<-70dBc	-83.74 dBc	-0/ +130 dBc		pass	2.0 dB
Carrier = 100MHz							
	-200.000 dBc	<-70dBc	-84.74 dBc	-0/ +130 dBc		pass	2.0 dB
Carrier = 143.9MHz							
	-200.000 dBc	<-70dBc	-83.41 dBc	-0/ +130 dBc		pass	2.0 dB
Carrier = 264.8MHz							

Bereich Range	Referenzwert (Normal) Reference value	Messbedingung Measuring condition	Angezeigter Wert UUT Indicated value UUT	zulässige Abweichung allowed deviation		Ausnutzung der Abw. in % Utilization of allowed dev. in %	zul.	Messunsicherheit (k=2) Measuring uncertainty (k=2)	
	-200.000 dBc	<-70dBc	-82.71 dBc	-0/ +130	dBc		pass	2.0	dB
—									
Carrier = 529.9MHz									
	-200.000 dBc	<-70dBc	-81.36 dBc	-0/ +130	dBc		pass	2.0	dB
—									
Carrier = 1059.9MHz									
	-200.000 dBc	<-70dBc	-81.84 dBc	-0/ +130	dBc		pass	2.0	dB
Phase Noise (RF)									
UUT Settings: unmodulated, Level 10 dBm									
—									
Carrier = 1000MHz, 20kHz Sideband									
	-200.00 dBc	<-122dBc	-126.1 dBc	-0/ +78	dBc		pass	1.3	dB
Residual FM (RF)									
—									
Level at 0 dBm									
0.3 kHz - 3 kHz, weighted									
	0.000 Hz	1000 MHz	1.63 Hz	-0/ +4	Hz	41%	pass	500 mHz	
—									
Level at 0 dBm									
0.03 kHz - 15 kHz, weighted									
	0.000 Hz	1000 MHz	8.90 Hz	-0/ +10	Hz	89%	pass	1.0	Hz
Residual AM (RF)									
—									
Level at 8 dBm									
0.03 kHz - 15 kHz, weighted									
	0.0000 %	5 MHz	0.006 %	±0	%	30%	pass	0.0050	%
	0.0000 %	450 MHz	0.006 %	±0	%	30%	pass	0.0050	%
	0.0000 %	1000 MHz	0.006 %	±0	%	30%	pass	0.0050	%
Internal AM Modulation Depth (RF)									
UUT Settings: int. fmod = 1kHz, Level 0 dBm									
Distortion Tolerance at 30% AM < 0,25% (U = 0.12%)									
Distortion Tolerance at 80% AM < 0,5% (U = 0.12%)									

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Bereich Range	Referenzwert (Normal) Reference value	Messbedingung Measuring condition	Angezeigter Wert UUT Indicated value UUT	zulässige Abweichung allowed deviation	Ausnutzung der Abw. in % Utilization of allowed dev. in %	zul.	Messunsicherheit (k=2) Measuring uncertainty (k=2)
Depth = 30%							
	30.000 %	2 MHz	30.02 %	±1 %	2%	pass	0.31 %
AM Distortion @ 30% Modulation = 0.04%						pass	
Depth = 80%							
	80.00 %	2 MHz	80.0 %	±2 %	0%	pass	0.81 %
AM Distortion @ 80% Modulation = 0.03%						pass	
Depth = 30%							
	30.000 %	10 MHz	29.95 %	±1 %	4%	pass	0.31 %
AM Distortion @ 30% Modulation = 0.05%						pass	
Depth = 80%							
	80.00 %	10 MHz	79.9 %	±2 %	6%	pass	0.81 %
AM Distortion @ 80% Modulation = 0.06%						pass	
Distortion Tolerance at 30% AM < 1,5% (U = 0.12%)							
Distortion Tolerance at 80% AM < 3,0% (U = 0.12%)							
Depth = 30%							
	30.000 %	100 MHz	29.86 %	±2 %	6%	pass	0.31 %
AM Distortion @ 30% Modulation = 0.07%						pass	
Depth = 80%							
	80.00 %	100 MHz	79.6 %	±4 %	10%	pass	0.81 %
AM Distortion @ 80% Modulation = 0.2%						pass	
Depth = 30%							
	30.000 %	500 MHz	29.71 %	±2 %	13%	pass	0.31 %
AM Distortion @ 30% Modulation = 0.2%						pass	
Depth = 80%							
	80.00 %	500 MHz	80.0 %	±4 %	0%	pass	0.81 %
AM Distortion @ 80% Modulation = 0.26%						pass	
Depth = 30%							
	30.000 %	800 MHz	29.70 %	±2 %	14%	pass	0.31 %
AM Distortion @ 30% Modulation = 0.18%						pass	
Depth = 80%							
	80.00 %	800 MHz	79.8 %	±4 %	5%	pass	0.81 %
AM Distortion @ 80% Modulation = 0.35%						pass	

Bereich Range	Referenzwert (Normal) Reference value	Messbedingung Measuring condition	Angezeigter Wert UUT Indicated value UUT	zulässige Abweichung allowed deviation	Ausnutzung der Abw. in % Utilization of allowed dev. in %	zul. 	Messunsicherheit (k=2) Measuring uncertainty (k=2)
Depth = 30%							
	30.000 %	1000 MHz	29.66 %	±2 %	16%	pass	0.31 %
AM Distortion @ 30% Modulation = 0.19%						pass	
Depth = 80%							
	80.00 %	1000 MHz	79.8 %	±4 %	5%	pass	0.81 %
AM Distortion @ 80% Modulation = 0.34%						pass	
External AM Frequency Response (RF)							
UUT Settings: Frequency 46.87 MHz, Level 0 dBm							
Extern 1 AM 60%							
	0.000 dB	20 Hz	0.04 dB	±3 dB		pass	0.20 dB
	0.000 dB	100 Hz	0.02 dB	±3 dB		pass	0.20 dB
	0.000 dB	300 Hz	0.02 dB	±3 dB		pass	0.20 dB
	0.000 dB	10 kHz	-0.02 dB	±3 dB		pass	0.20 dB
	0.000 dB	20 kHz	-0.08 dB	±3 dB		pass	0.20 dB
	0.000 dB	30 kHz	-0.02 dB	±3 dB		pass	0.20 dB
	0.000 dB	40 kHz	-0.21 dB	±3 dB		pass	0.20 dB
BW 20 Hz - 40 kHz							
	0.000 dB	BW	0.25 dB	±3 dB		pass	0.25 dB
Incidental PM at 30% AM Test							
UUT Settings: int. fmod = 1kHz, Level 0 dBm							
maximum radian peak < 1.1GHz							
	0.0000 rad	<0.2rad	0.083 rad	±0 rad	42%	pass	0.010 rad
Internal FM Frequency Deviation (RF)							
UUT Settings: int. fmod = 1kHz, Level 0 dBm							
: FM Mode Normal							
Deviation 100kHz							
	100.000 kHz	10 MHz	100.50 kHz	±2 kHz	25%	pass	1.0 kHz
	100.000 kHz	100 MHz	100.60 kHz	±2 kHz	30%	pass	1.0 kHz

Bereich Range	Referenzwert (Normal) Reference value	Messbedingung Measuring condition	Angezeigter Wert UUT Indicated value UUT	zulässige Abweichung allowed deviation	Ausnutzung der Abw. in % Utilization of allowed dev. in %	zul.	Messunsicherheit (k=2) Measuring uncertainty (k=2)
	100.000 kHz	1000 MHz	100.60 kHz	±2 kHz	30%	pass	1.0 kHz
Internal FM Distortion (RF)							
UUT Settings: int. fmod = 2kHz, Level 0 dBm							
: FM Mode Normal, FM 250kHz							
	0.0000 %	10 MHz	0.004 %	±0 %	2%	pass	0.020 %
: FM Mode Normal, FM 400kHz							
	0.0000 %	375.1 MHz	0.005 %	±0 %	3%	pass	0.020 %
	0.0000 %	500 MHz	0.004 %	±0 %	2%	pass	0.020 %
	0.0000 %	625 MHz	0.005 %	±0 %	3%	pass	0.020 %
	0.0000 %	750 MHz	0.005 %	±0 %	3%	pass	0.020 %
: FM Mode Low Noise, FM 400kHz							
	0.0000 %	375.1 MHz	0.005 %	±0 %	3%	pass	0.020 %
	0.0000 %	750 MHz	0.005 %	±0 %	3%	pass	0.020 %
: FM Mode High Deviation, FM 400kHz							
	0.0000 %	375.1 MHz	0.005 %	±0 %	3%	pass	0.020 %
	0.0000 %	750 MHz	0.005 %	±0 %	3%	pass	0.020 %
External FM Frequency Deviation (RF)							
UUT Settings: ext. fmod = 1kHz, Level 0 dBm							
: FM Mode Normal							
Deviation 100kHz							
	100.000 kHz	1000 MHz	100.20 kHz	±3 kHz	7%	pass	1.0 kHz
FM Frequency Response (RF)							
UUT Settings: Frequency 93.75 MHz							
: FM Mode Low Noise, Level 0 dBm							
Extern 40 kHz							
	0.000 dB	0.1 kHz	0.00 dB	±3 dB		pass	0.20 dB
	0.000 dB	0.3 kHz	0.00 dB	±3 dB		pass	0.20 dB
	0.000 dB	10 kHz	0.09 dB	±3 dB		pass	0.20 dB
	0.000 dB	30 kHz	0.30 dB	±3 dB		pass	0.20 dB
	0.000 dB	60 kHz	-0.44 dB	±3 dB		pass	0.20 dB
	0.000 dB	80 kHz	0.96 dB	±3 dB		pass	0.20 dB
	0.000 dB	100 kHz	0.88 dB	±3 dB		pass	0.20 dB

Bereich Range	Referenzwert (Normal) Reference value	Messbedingung Measuring condition	Angezeigter Wert UUT Indicated value UUT	zulässige Abweichung allowed deviation	Ausnutzung der Abw. in % Utilization of allowed dev. in %	zul.	Messunsicherheit (k=2) Measuring uncertainty (k=2)
BW 100 Hz - 100 kHz, AC coupling							
	0.000 dB	BW	1.40 dB	±3 dB		pass	0.25 dB
Incidental AM at 40 kHz FM							
UUT Settings: int. fmod = 1kHz, Level 0 dBm							
0.05 - 20kHz, peak							
	0.0000 %	23.4 MHz	0.035 %	±0 %	18%	pass	0.030 %
	0.0000 %	375 MHz	0.015 %	±0 %	8%	pass	0.030 %
	0.0000 %	500 MHz	0.044 %	±0 %	22%	pass	0.030 %
	0.0000 %	750 MHz	0.021 %	±0 %	11%	pass	0.030 %
	0.0000 %	1100 MHz	0.033 %	±0 %	17%	pass	0.030 %
Internal PhiM Deviation Error (RF)							
UUT Settings: int. fmod = 1kHz, Level 0 dBm							
1 Radians Deviation							
	1.0000 rad	10 MHz	1.004 rad	±0 rad	17%	pass	0.010 rad
	1.0000 rad	100 MHz	1.005 rad	±0 rad	22%	pass	0.010 rad
	1.0000 rad	500 MHz	1.006 rad	±0 rad	26%	pass	0.010 rad
	1.0000 rad	1000 MHz	1.008 rad	±0 rad	35%	pass	0.010 rad
External PhiM Deviation Error (RF)							
UUT Settings: int. fmod = 1kHz, Level 0 dBm							
1 Radians Deviation							
	1.0000 rad	500 MHz	1.002 rad	±0 rad	6%	pass	0.010 rad
Internal PhiM Distortion (RF)							
UUT Settings: int. fmod = 1kHz, Level 0 dBm							
: PhiM Mode Normal							
1 Radians Deviation							
	0.0000 %	10 MHz	0.040 %	±0 %	20%	pass	0.020 %

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Bereich Range	Referenzwert (Normal) Reference value	Messbedingung Measuring condition	Angezeigter Wert UUT Indicated value UUT	zulässige Abweichung allowed deviation	Ausnutzung der Abw. in % Utilization of allowed dev. in %	zul.	Messunsicherheit (k=2) Measuring uncertainty (k=2)
	0.0000 %	375.1 MHz	0.105 %	±0 %	53%	pass	0.020 %
	0.0000 %	500 MHz	0.170 %	±0 %	85%	pass	0.020 %
	0.0000 %	625 MHz	0.175 %	±0 %	88%	pass	0.020 %
—							
2 Radians Deviation							
	0.0000 %	1100 MHz	0.142 %	±0 %	71%	pass	0.020 %
	: PhiM Mode Low Noise						
—							
10 Radians Deviation							
	0.0000 %	375.1 MHz	0.015 %	±0 %	8%	pass	0.020 %
	0.0000 %	750 MHz	0.025 %	±0 %	13%	pass	0.020 %
	: PhiM Mode High Deviation						
—							
10 Radians Deviation							
	0.0000 %	375.1 MHz	0.016 %	±0 %	8%	pass	0.020 %
	0.0000 %	750 MHz	0.026 %	±0 %	13%	pass	0.020 %
Pulse Modulation							
On/Off Ratio							
	200.00 dB	5 MHz	98.8 dB	-120/ +0 dB		pass	1.0 dB
	200.00 dB	150 MHz	96.0 dB	-120/ +0 dB		pass	1.0 dB
	200.00 dB	400 MHz	97.4 dB	-120/ +0 dB		pass	1.0 dB
	200.00 dB	1100 MHz	92.2 dB	-120/ +0 dB		pass	1.0 dB
Internal Modulation Generator (LF)							
Frequency Response							
LF Int Out Voltage							
Level Flatness (relative to 1 Vp at 1 kHz)							
	0.0000 dB	100 Hz	-0.002 dB	±1 dB		pass	0.10 dB
	0.0000 dB	300 Hz	-0.000 dB	±1 dB		pass	0.10 dB
	0.0000 dB	1 kHz	-0.000 dB	±1 dB		pass	0.10 dB
	0.0000 dB	3 kHz	0.000 dB	±1 dB		pass	0.10 dB
	0.0000 dB	10 kHz	-0.000 dB	±1 dB		pass	0.10 dB
	0.0000 dB	30 kHz	0.000 dB	±1 dB		pass	0.10 dB
	0.0000 dB	100 kHz	0.012 dB	±1 dB		pass	0.10 dB

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Bereich Range	Referenzwert (Normal) Reference value	Messbedingung Measuring condition	Angezeigter Wert UUT Indicated value UUT	zulässige Abweichung allowed deviation	Ausnutzung der zul. Abw. in % Utilization of allowed dev. in %		Messunsicherheit (k=2) Measuring uncertainty (k=2)
Amplitude Level (LF)							
LF Int Out Voltage at 1kHz							
Nominal 3 Vp							
	3.0000 V	1 kHz	2.996 V	±0 V	7%	pass	3.3 mV
Nominal 1 Vp							
	1.0000 V	1 kHz	0.998 V	±0 V	7%	pass	833 µV
Nominal 300 mVp							
	300.00 mV	1 kHz	299.6 mV	±4 mV	11%	pass	325 µV
Nominal 100 mVp							
	100.00 mV	1 kHz	99.8 mV	±2 mV	9%	pass	88 µV
Nominal 30 mVp							
	30.000 mV	1 kHz	29.79 mV	±1 mV	16%	pass	39 µV
Nominal 10 mVp							
	10.000 mV	1 kHz	9.87 mV	±1 mV	11%	pass	31 µV
Nominal 3 mVp							
	3.000 mV	1 kHz	2.98 mV	±1 mV	2%	pass	95 µV
Amplitude Frequency Error (LF)							
LF Int Out Frequency							
Nominal 1 kHz							
	1.00000 kHz	1 Vp	1.0000 kHz	±0 kHz	0%	pass	58 mHz
Distortion (LF)							
	0.0089 %	100 Hz	0.000 %	±0 %	9%	pass	0.0050 %
	0.0091 %	300 Hz	0.000 %	±0 %	9%	pass	0.0050 %
	0.0090 %	1 kHz	0.000 %	±0 %	9%	pass	0.0050 %
	0.0090 %	3 kHz	0.000 %	±0 %	9%	pass	0.0050 %
	0.0097 %	10 kHz	0.000 %	±0 %	10%	pass	0.0050 %
	0.0111 %	30 kHz	0.000 %	±0 %	11%	pass	0.0050 %
	0.0449 %	100 kHz	0.000 %	±0 %	45%	pass	0.0050 %

zulässige Abweichung gemäß Herstellerangabe
allowed deviation in accordance with manufacturer

Die dimensionslosen Anteile der Messunsicherheit U sind als relative Messunsicherheiten e bezogen auf den Messwert zu verstehen (U = e * MW).
The non-dimensional fractions of the measuring uncertainty U are relative values e in relation to the indicated value (U = e * i.v.).