

# **Appendix B - DAE & Probe Calibration Certificate**

credited by the Swiss Accredit ne Swiss Accreditation Servi ultilateral Agreement for the	ce is one of the signatories	to the EA	m No.: SCS 0108
lient SGS-TW (Aud	len)	Certificate N	to: DAE4-856_Apr20
CALIBRATION	CERTIFICATE		
Dbject	DAE4 - SD 000 D	04 BM - SN: 856	
Calibration procedure(s)	QA CAL-06.v30 Calibration proces	dure for the data acquisition ele	ctronics (DAE)
Calibration date:	April 23, 2020		
The measurements and the unc	certainties with confidence pro ucted in the closed laboratory	and standards, which realize the physical unobability are given on the following pages a $\gamma$ facility: environment temperature (22 ± 3)	nd are part of the certificate.
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Accreditation No.: SCS 0108

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#### Glossary

DAE data acquisition electronics information used in DASY system to align probe sensor X to the robot Connector angle coordinate system.

### Methods Applied and Interpretation of Parameters

- DC Voltage Measurement: Calibration Factor assessed for use in DASY system by comparison with a calibrated instrument traceable to national standards. The figure given corresponds to the full scale range of the voltmeter in the respective range.
- Connector angle: The angle of the connector is assessed measuring the angle mechanically by a tool inserted. Uncertainty is not required.
- The following parameters as documented in the Appendix contain technical information as a result from the performance test and require no uncertainty.
  - DC Voltage Measurement Linearity: Verification of the Linearity at +10% and -10% of the nominal calibration voltage. Influence of offset voltage is included in this measurement.
  - Common mode sensitivity: Influence of a positive or negative common mode voltage on the differential measurement.
  - Channel separation: Influence of a voltage on the neighbor channels not subject to an input voltage.
  - AD Converter Values with inputs shorted: Values on the internal AD converter ٠ corresponding to zero input voltage
  - Input Offset Measurement. Output voltage and statistical results over a large number of ٠ zero voltage measurements.
  - Input Offset Current: Typical value for information; Maximum channel input offset current, not considering the input resistance.
  - Input resistance: Typical value for information: DAE input resistance at the connector, during internal auto-zeroing and during measurement.
  - Low Battery Alarm Voltage: Typical value for information. Below this voltage, a battery alarm signal is generated.
  - Power consumption: Typical value for information. Supply currents in various operating modes.

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#### **DC Voltage Measurement**

A/D - Converter Hes	olution nominal			
High Range:	1LSB =	6.1µV .	full range =	-100,+300 mV
Low Range:	1LSB =	61nV	lull range =	-1+3mV

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

<b>Calibration Factors</b>	х	Y	Z
High Range	403.380 ± 0.02% (k=2)	404.495 ± 0.02% (k=2)	403.816 ± 0.02% (k=2)
Low Range	3.97758 ± 1.50% (k=2)	3.98914 ± 1,50% (k=2)	3.94307 ± 1.50% (k=2)

#### **Connector Angle**

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	0 ± 1 5

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### Appendix (Additional assessments outside the scope of SCS0108)

#### 1. DC Voltage Linearity

High Range	Reading (µV)	Difference (µV)	Error (%)
Channel X + Input	199992.31	-2.11	-0.00
Channel X + Input	20000.67	-1.62	-0.01
Channel X - Input	-20000.13	0.85	-0.00
Channel Y + Input	199991.79	-2.27	-0.00
Channel Y + Input	19998.81	-3.48	-0.02
Channel Y - Input	-20001.25	-0.35	0.00
Channel Z + Input	199991.81	-2.40	-0.00
Channel Z + Input	19999.55	-2.68	-0.01
Channel Z - Input	-20002.25	-1.05	0.01

Low Range	Reading (µV)	Difference (µV)	Error (%)
Channel X + Input	2002.54	0,95	0,05
Channel X + Input	202.22	0.24	0.12
Channel X - Input	-197,73	0.20	-0.10
Channel Y + Input	2003.16	1.65	0.08
Channel Y + Input	201.59	-0.37	-0.18
Channel Y - Input	-198.84	-0.80	0.40
Channel Z + Input	2002.02	0.51	0,03
Channel Z + Input	200.67	-1.21	-0.60
Channel Z - Input	-199.34	-1.36	0.69

#### 2. Common mode sensitivity

DASY measurement parameters: Auto Zero Time: 3 sec: Measuring time: 3 sec:

	Common mode Input Voltage (mV)	High Range Average Reading (μV)	Low Range Average Reading (µV)
Channel X	200	-14.42	-15.77
1000	- 200	17.98	16.30
Channel Y	200	-2.18	-2.42
	- 200	0.61	0.73
Channel Z	200	11.03	10.60
	- 200	-13.19	-13.39

#### 3. Channel separation

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	Input Voltage (mV)	Channel X (µV)	Channel Y (µV)	Channel Z (µV)
Channel X	200	-	2.68	-3.13
Channel Y	200	7.35	~	3.16
Channel Z	200	8.96	5.12	1.0

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#### 4. AD-Converter Values with inputs shorted

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	High Range (LSB)	Low Range (LSB)
Channel X	16228	16904
Channel Y	15956	16202
Channel Z	15884	16758

#### 5. Input Offset Measurement

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec Input 10MQ

	Average (µV)	min. Offset (µV)	max. Offset (µV)	Std. Deviation (µV)
Channel X	0.87	-0.58	2.15	0.46
Channel Y	0.80	-0.45	3.76	0.65
Channel Z	0.61	-0.84	3.29	0.77

#### 6. Input Offset Current

Nominal Input circuitry offset current on all channels: <25fA

#### 7. Input Resistance (Typical values for information)

	Zeroing (kOhm)	Measuring (MOhm)
Channel X	200	200
Channel Y	200	200
Channel Z	200	200

#### 8. Low Battery Alarm Voltage (Typical values for information)

Typical values	Alarm Level (VDC)	
Supply (+ Vcc)	+7.9	
Supply (- Vcc)	-7.6	

#### 9. Power Consumption (Typical values for information)

Typical values	Switched off (mA)	Stand by (mA)	Transmitting (mA)
Supply (+ Vcc)	+0.01	+6	+14
Supply (- Vcc)	-0.01	-8	-9

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#### Glossary

DAE Connector angle data acquisition electronics information used in DASY system to align probe sensor X to the robot coordinate system.

#### Methods Applied and Interpretation of Parameters

- DC Voltage Measurement: Calibration Factor assessed for use in DASY system by comparison with a calibrated instrument traceable to national standards. The figure given corresponds to the full scale range of the voltmeter in the respective range.
- Connector angle: The angle of the connector is assessed measuring the angle mechanically by a tool inserted. Uncertainty is not required.
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  - Common mode sensitivity. Influence of a positive or negative common mode voltage on . the differential measurement.
  - Channel separation: Influence of a voltage on the neighbor channels not subject to an . input voltage.
  - AD Converter Values with inputs shorted: Values on the internal AD converter × corresponding to zero input voltage
  - Input Offset Measurement. Output voltage and statistical results over a large number of zero voltage measurements.
  - Input Offset Current: Typical value for information; Maximum channel input offset current, not considering the input resistance.
  - Input resistance: Typical value for information; DAE input resistance at the connector, during internal auto-zeroing and during measurement.
  - Low Battery Alarm Voltage: Typical value for information. Below this voltage, a battery ٠ alarm signal is generated.
  - Power consumption: Typical value for information. Supply currents in various operating modes.

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#### **DC Voltage Measurement**

A/D - Converter Resolution nominal

full range = -100...+300 mV full range = -1.....+3mV High Range: 1LSB = 6.1µV, Low Range: 1LSB = 61nV DASY measurement parameters; Auto Zero Time: 3 sec; Measuring time; 3 sec

Calibration Factors	x	Y	Z
High Range	403.373 ± 0.02% (k=2)	403.675±0.02% (k=2)	403,157 ± 0.02% (k=2)
Low Range	3.95195 ± 1.50% (k=2)	3.98791 ± 1.50% (k=2)	3.99627 ± 1.50% (k=2)

#### **Connector Angle**

Connector Angle to be used in DASY system	339.0°±1°

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# Appendix (Additional assessments outside the scope of SCS0108)

#### 1. DC Voltage Linearity

High Range	Reading (µV)	Difference (µV)	Error (%)
Channel X + Input	200038.51	1.81	0.00
Channel X + Input	20007.18	1.22	0.01
Channel X - Input	-20005.20	0,72	-0.00
Channel Y + Input	200036.89	0.39	0.00
Channel Y + Input	20004.92	-0.88	-0.00
Channel Y - Input	-20007.27	-1.25	0.01
Channel Z + Input	200038 49	2.22	0.00
Channel Z + Input	20006.13	0.32	0.00
Channel Z - Input	-20007.34	-1,29	0.01

Low Range	Reading (µV)	Difference (µV)	Error (%)
Channel X + Input	2001.38	-0.01	-0.00
Channel X + Input	201.37	-0.04	-0.02
Channel X - Input	-198.55	-0.02	0.01
Channel Y + Input	2001.32	0.01	0.00
Channel Y + Input	200.36	-0.97	-0.48
Channel Y - Input	-199.71	-1.04	0.52
Channel Z + Input	2001.21	-0.06	-0.00
Channel Z + Input	200.65	-0.64	-0.32
Channel Z - Input	-199.52	-0.85	0.43

#### 2. Common mode sensitivity

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	Common mode Input Voltage (mV)	High Range Average Reading (µV)	Low Range Average Reading (µV)
Channel X	200	5.14	4.45
1000	- 200	-4.22	-5.45
Channel Y	200	-4.29	-4.17
	- 200	2.35	2.01
Channel Z	200	22,38	22.64
	- 200	-24.85	-24.58

#### 3. Channel separation

DASY measurement parameters: Auto Zero Time; 3 sec; Measuring time: 3 sec

	Input Voltage (mV)	Channel X (µV)	Channel Y (µV)	Channel Z (µV)
Channel X	200		4.88	-1.29
Channel Y	200	8.14		6.18
Channel Z	200	8.43	6.05	-

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#### 4. AD-Converter Values with inputs shorted

DASY measurement para	ameters: Auto .	Zero Time: 3	3 sec: N	leasuring time	3 sec
The state of the s		1			

	High Range (LSB)	Low Range (LSB)
Channel X	15663	16348
Channel Y	15906	15692
Channel Z	15844	14523

#### 5. Input Offset Measurement

DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

Input 10MQ

	Average (µV)	min. Offset (µV)	max. Offset (µV)	Std. Deviation (µV)
Channel X	0.78	-0.03	1.45	0,34
Channel Y	-0.66	-2.18	1.28	0,41
Channel Z	-0.43	-1.19	0,51	0.34

#### 6. Input Offset Current

Nominal Input circuitry offset current on all channels: <25fA

#### 7. Input Resistance (Typical values for Information)

	Zeroing (kObm)	Measuring (MOhm)
Channel X	200	200
Channel Y	200	200
Channel Z	200	200

#### 8. Low Battery Alarm Voltage (Typical values for information)

Typical values	Alarm Level (VDC)
Supply (+ Vcc)	+7.9
Supply (- Vcc)	-7.6

#### 9. Power Consumption (Typical values for Information)

Typical values	Switched off (mA) Stand by (mA)		Transmitting (mA)
Supply (+ Vcc)	+0.01	+ô	+14
Supply (- Vcc)	-0.01	-8	-9

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Schmid & Partner Engineering AG Zeughausstrasse 43, 8004 Zur	Dry of		S Schweizerischer Kalibrierdienst C Service suisse d'étalonnage Servizio svizzero di taratura S Swiss Calibration Service
Accredited by the Swiss Accredi The Swiss Accreditation Servi Multilateral Agreement for the	ice is one of the signatorie	s to the EA	ation No.: SCS 0108
Client SGS-TW (Aud			e No: DAE4-877_Mar20
Object		D04 BN - SN: 877	
Calibration procedure(s)	QA CAL-06.v30 Calibration proce	dure for the data acquisition e	lectronics (DAE)
Calibration date:	March 17, 2020		
the measurements and the unce	enainties with confidence pri	onal standards, which realize the physical obability are given on the following pages y facility: environment temperature (22 ± 3	and are part of the certificate.
All calibrations have been condu Calibration Equipment used (M& Primary Standards	TE critical for calibration)	obability are given on the following pages	and are part of the certificate.
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All calibrations have been condu Calibration Equipment used (M& Primary Standards Keithley Multimeter Type 2001 Secondary Standards	TE critical for calibration)  D # SN: 0810278  D #	vtacility are given on the following pages vtacility: environment temperature (22 ± : <u>Cal Date (Certificate No.)</u> 00-Sep-19 (No:25649) Check Date (in house)	and are part of the certificate. 9)°C and humidity < 70%. Scheduled Calibration
All calibrations have been condu Calibration Equipment used (M& Primary Standards Keithley Multimeter Type 2001 Secondary Standards Auto DAC Calibration Unit	TE critical for calibration)  D # SN: 0610278  ID # SN: 0610278  SE UWS 053 AA 1001	vtacility are given on the following pages vtacility: environment temperature (22 ± : <u>Cal Date (Certificate No.)</u> 00-Sep-19 (No:25649) Check Date (in house)	and are part of the certificate, 3)°C and humidity < 70%, Scheduled Calibration Sep-20
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All calibration Equipment used (M& Calibration Equipment used (M& Primary Standards Keithley Multimeter Type 2001 Secondary Standards Auto DAE Calibration Unit Calibrator Box V2.1	Interface with contidence pro- cted in the closed laboratory TE critical for calibration ID # SN: 0810278 ID # SE UWS 053 AA 1001 SE UMS 006 AA 1002 Name	Addity: environment temperature (22 ± 3 (facility: environment temperature (22 ± 3 Cal Date (Certificate No.) 03-Sep-19 (No:25949) Check Date (in house) 09-Jan-20 (in house check) 09-Jan-20 (in house check) Function	and are part of the certificate. 3)°C and humidity < 70%. <u>Scheduled Calibration</u> Sep-20 <u>Scheduled Check</u> In house check: Jan-21 In house check: Jan-21
the measurements and the unce	Interface with contidence pro- cted in the closed laboratory TE critical for calibration ID # SN: 0810278 ID # SE UWS 053 AA 1001 SE UMS 006 AA 1002 Name	Addity: environment temperature (22 ± 3 (facility: environment temperature (22 ± 3 Cal Date (Certificate No.) 03-Sep-19 (No:25949) Check Date (in house) 09-Jan-20 (in house check) 09-Jan-20 (in house check) Function	and are part of the certificate. 3)°C and humidity < 70%. <u>Scheduled Calibration</u> Sep-20 <u>Scheduled Check</u> In house check: Jan-21 In house check: Jan-21

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#### Calibration Laboratory of Schmid & Partner Engineering AG eughausstrasse 43, 8004 Zurich, Switzerland 7.



Service suisse d'étalonnage Servizio svizzero di taratura Swiss Calibration Service

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Accreditation No.: SCS 0108

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#### Glossary DAE

Connector angle

data acquisition electronics information used in DASY system to align probe sensor  ${\rm X}$  to the robot coordinate system.

#### Methods Applied and Interpretation of Parameters

- DC Voltage Measurement: Calibration Factor assessed for use in DASY system by comparison with a calibrated instrument traceable to national standards. The figure given corresponds to the full scale range of the voltmeter in the respective range.
- Connector angle: The angle of the connector is assessed measuring the angle mechanically by a tool inserted. Uncertainty is not required.
- The following parameters as documented in the Appendix contain technical information as a result from the performance test and require no uncertainty
  - DC Voltage Measurement Linearity: Verification of the Linearity at +10% and -10% of . the nominal calibration voltage. Influence of offset voltage is included in this measurement.
  - Common mode sensitivity: Influence of a positive or negative common mode voltage on the differential measurement
  - Channel separation: Influence of a voltage on the neighbor channels not subject to an input voltage
  - AD Converter Values with inputs shorted: Values on the internal AD converter corresponding to zero input voltage
  - Input Offset Measurement: Output voltage and statistical results over a large number of zero voltage measurements
  - Input Offset Current: Typical value for information; Maximum channel input offset current, not considering the input resistance
  - Input resistance: Typical value for information: DAE input resistance at the connector, during internal auto-zeroing and during measurement
  - Low Battery Alarm Voltage: Typical value for information. Below this voltage, a battery alarm signal is generated.
  - Power consumption: Typical value for information. Supply currents in various operating modes.

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#### DC Voltage Measurement

High Range: Low Range:	1LSB = 6.1µV, 1LSB = 61nV,	full range = -100+ full range = -14	
ASY measurement par	rameters: Auto Zero Time: 3	3 sec; Measuring time: 3 se	ic.
			-
Calibration Factors	х	Y	Z
Calibration Factors High Range	X 405.010 ± 0.02% (k=2)	<b>Y</b> 404.578 ± 0.02% (k=2)	Z 405.015 ± 0.02% (k=2)

#### **Connector Angle**

connector Angle to be used in DASY system	324.5 ° ± 1 °
---	---------------

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#### Appendix (Additional assessments outside the scope of SCS0108) 1. DC Voltage Linearity

High Range	Reading (µV)	Difference (µV)	Error (%)
Channel X + Input	199994.99	1.01	0.00
Channel X + Input	20004.59	3.10	0.02
Channel X - Input	-19997.61	4.07	-0.02
Channel Y + Input	199995.27	1.92	0.00
Channel Y + Input	20003.49	2.17	0.01
Channel Y - Input	-20001.56	0.25	-0.00
Channel Z + Input	199996.44	2.69	0.00
Channel Z + Input	20003.98	2.57	0.01
Channel Z - Input	-20002.02	-0.26	0.00
Low Range	Reading (µV)	Difference (µV)	Error (%)
Channel X + Input	2000.98	-0.02	-0.00
Channel X + Input	201.04	-0.39	-0.19
Channel X - Input	-198.61	-0.21	0.11
Channel Y + Input	2001.45	0.50	0.02
Channel Y + Input	200.09	-1.21	-0.60
Channel Y - Input	-199.84	-1.30	0.65
Channel Z + Input	2001.94	0.99	0.05
the second of the second se	199.79	-1.52	-0.76
Channel Z + Input	100110		

2. Common mode sensitivity DASY measurement parameters: Auto Zero Time: 3 sec; Measuring time: 3 sec

	Common mode Input Voltage (mV)	High Range Average Reading (μV)	Low Range Average Reading (µV)
Channel X	200	15.06	13.17
1999 - Carlo Carlo	- 200	-11,97	-13.80
Channel Y	200	-19.28	-19.62
	- 200	18.28	17.70
Channel Z	200	21.01	20.77
	- 200	-22.03	-22.76

#### 3. Channel separation

	Input Voltage (mV)	Channel X (µV)	Channel Y (µV)	Channel Z (µV)
Channel X	200	-	0.57	-2.27
Channel Y	200	7.16	4	2.07
Channel Z	200	9.34	3.85	-

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#### 4. AD-Converter Values with inputs shorted

	High Range (LSB)	Low Range (LSB)
Channel X	16005	16461
Channel Y	15882	17075
Channel Z	15740	17303

#### 5. Input Offset Measurement

DASY measurement parameters: Auto Zero Time; 3 sec; Measuring time; 3 sec Input  $10M\Omega$ 

	Average (µV)	min. Offset (µV)	max. Offset (µV)	Std. Deviation (µV)
Channel X	1.20	-0.28	3.03	0.57
Channel Y	0.18	-1.82	1.39	0.56
Channel Z	0.60	-1.35	2.37	0.80

#### 6. Input Offset Current

minal Input circuitry offset current on all channels: <25fA

	Zeroing (kOhm)	Measuring (MOhm)
Channel X	200	200
Channel Y	200	200
Channel Z	200	200

ypical values	Alarm Level (VDC)
Supply (+ Vcc)	+7.5
Supply (- Vcc)	-7.6

9. Power Consumption (Typical values for information)

Typical values	Switched off (mA)	Stand by (mA)	Transmitting (mA)
Supply (+ Vcc)	+0.01	+6	+14
Supply (- Vcc)	-0.01	-8	-9

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CALIBRATION	CERTIFICATE		
Object	EX3DV4 - SN:366	5	
Calibration procedure(s)		A CAL-14.v6, QA CAL-23.v5, QA lure for dosimetric E-field probes	CAL-25.v7
Calibration date:	August 20, 2020		
This calibration certificate doca	iments the traceability to nation	al standards, which realize the provided one	of messamenees (SD
The measurements and the un All calibrations have been con-	icertainties with confidence pro ducted in the closed laboratory	ral standards, which realize the physical units bability are given on the following pages and facility, environment temperature $(22\pm3)^{\circ}$ C (	are part of the certificate.
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The measurements and the un All calibrations have been com Calibration Equipment used (N Primary Standards Power meter NRP	certainties with confidence pro ducted in the closed (aboratory 1&TE critical for colibration) ID SN: 104778	bability are given on the following pages and facility: environment temperature (22 ± 3)°C : Car Date (Certificate No.) 01-Apr-20 (No. 217-03100/03103)	are part of the certificate. and humidity < 70%. Scheduled Calibration Apr-21
The measurements and the un All calibrations have been con- Calibration Equipment used (k Primary Standards, Power meter NRP Power sensor NRP-291	certainties with confidence pro ducted in the closed laboratory (&TE or/lical for calibration)	Car Date (Certificate No.) (1) Apr-20 (No. 217-03100) (1) Apr-20 (No. 217-03100)	are part of the certificate. and humidity < 70%. Scheduled Calibration Apr-21 Apr-21
The measurements and the un All calibrations have been com Calibration Equipment used (k Primary Standarde, Power meter NRP Power sensor NRP-291 Power sensor NRP-291	Certainties with confidence pro ducted in the closed laboratory (&TE critical for calibration) 10 SN: 104778 SN: 103244	bability are given on the following pages and facility: environment temperature (22 ± 3)°C : Car Date (Certificate No.) 01-Apr-20 (No. 217-03100/03103)	are part of the certificate. and humidity < 70%. Scheduled Calibration Apr-21 Apr-21 Apr-21
The measurements and the un All calibrations have been con- Calibration Equipment used (N Primary Standards Power NRP Power sensor NRP-291 Reference 20 dB Attanuator	Certainties with confidence pro ducted in the closed laboratory (&TE critical for calibration) ID SN: 104778 SN: 103244 SN: 103245	Car Date (Certificate No.) 01-Apr-20 (No. 217-03100/03103) 01-Apr-20 (No. 217-03100/03103) 01-Apr-20 (No. 217-03100/03103) 01-Apr-20 (No. 217-03101)	are part of the certificate. and humidity < 70%. Scheduled Calibration Apr-21 Apr-21
The measurements and the un All calibrations have been con- Calibration Equipment used (N	Certainties with confidence pro ducted in the closed laboratory (&TE critical for calibration) ID SN: 104778 SN: 103244 SN: 103245 SN: CC2552 (20x)	bability are given on the following pages and           facility: environment temperature (22 ± 3)°C ;           Car Date (Certificate No.)           01-Apr-20 (No. 217-03100/03103)           01-Apr-20 (No. 217-03100)           01-Apr-20 (No. 217-03101)           31-Mar-20 (No. 217-03106)	are part of the certificate. and humidity < 70%. Scheduled Calibration Apr-21 Apr-21 Apr-21 Apr-21
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Certificate No: EX3-3665\_Aug20

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  - Swiss Calibration Service

Accreditation No.: SCS 0108

Accredited by the Swiss Accreditation Service (SAS) The Swiss Accreditation Service is one of the signatories to the EA Multilatoral Agreement for the recognition of calibration certificates

#### Glossary

oloadary.	
TSL	tissue simulating liquid
NORMx.y.z	sensitivity in free space
ConvF	sensitivity in TSL / NORMx,y,z
DCP	diade compression point
CF	crest factor (1/duty_cycle) of the RF signal
A, B, C, D	modulation dependent linearization parameters
Polarization ()	o rotation around probe axis
Polarization 3	9 rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e. 8 = 0 is normal to probe axis

Connector Angle

#### Calibration is Performed According to the Following Standards:

- IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement Techniques", June 2013 IEC 62209-1, ", "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-
- b)

information used in DASY system to align probe sensor X to the robot coordinate system

- held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016 IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices C)
- used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)". March 2010 d) KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz)"

#### Methods Applied and Interpretation of Parameters:

- NORMx,y,z: Assessed for E-field polarization 9 = 0 (f ≤ 900 MHz in TEM-cell; f > 1800 MHz; R22 waveguide). NORMx,y,z are only intermediate values, i.e., the uncertainties of NORMx,y,z does not affect the E<sup>2</sup>-field uncertainty inside TSL (see below ConvF)
- NORM(f)x,y,z = NORMx,y,z \* frequency\_response (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- DCPx, y, z DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- PAR: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics.
- Ax, y.z; Bx, y.z; Cx, y.z; Dx, y,z; VRx, y,z; A, B, C, D are numerical linearization parameters assessed based on the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode.
- ConvF and Boundary Effect Parameters: Assessed in flat phantom using E-field (or Temperature Transfer Standard for I ≤ 800 MHz) and inside waveguide using analytical field distributions based on power measurements for 1 > 800 MHz. The same setup are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds. to NORMx.y.z \* ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from ± 50 MHz to ±100 MHz.
- Spherical isotropy (3D deviation from isotropy); in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required.
- Connector Angle: The angle is assessed using the information gained by determining the NORMs (no uncertainty required).

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EX3DV4 - SN:3665

August 20, 2020

# DASY/EASY - Parameters of Probe: EX3DV4 - SN:3665

#### **Basic Calibration Parameters**

	Sensor X	Sensor Y	Sensor Z	Unc (k=2
Norm (uV/(V/m)2)A	0.49	0.56	0.51	± 10.1 %
Norm (µV/(V/m) <sup>2</sup> ) <sup>A</sup> DCP (mV) <sup>9</sup>	102.1	99.6	96.8	

#### Calibration Results for Modulation Response

UID	Communication System Name		A dB	B dBõV	Ċ.	D dB	VR: mV	Max dev.	Unc <sup>E</sup> (k=2)
0	CW	X	0.0	0.0	1.0	0.00	179,2	±2.7%	±4.7 %
		Y	0.0	nα	1.0		188,4		
		Z	0.0	0,0	t.0		182.2		

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

<sup>4</sup> The uncertainties of Norm X, Y Z do not effect the E<sup>2</sup> field uncertainty inside TSL (see Fage 5) <sup>9</sup> Numerical linearization parameter; uncertainty not required. <sup>6</sup> Uncertainty is determined using the max, deviation from linear response applying reclangular distribution and is expressed for the square of (no field value.)

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EX3DV4-SN:3665

August 20, 2020

# DASY/EASY - Parameters of Probe: EX3DV4 - SN:3665

#### Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	-106.3
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	9 mm
Tip Diameter	.2.5 mm
Probe Tip to Sensor X Calibration Point	1 mm
Probe Tip to Sensor Y Calibration Point	1 mm
Probe Tip to Sensor Z Calibration Point	1 mm
Recommanded Measurement Distance from Surface	1.4 mm

Note: Measurement distance from surface can be increased to 3-4 mm for an Area Scan job.

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EX30V4--SN:3665

August 20, 2020

# DASY/EASY - Parameters of Probe: EX3DV4 - SN:3665

r (MHz) <sup>C</sup>	Relative Permittivity	Canductivity (S/m) <sup>F</sup>	ConvF X	ConvF Y	ConvF Z	Alpha <sup>B</sup>	Depth <sup>G</sup> (mm)	Unc (k=2)
750	41.9	D.89	9.78	9.78	9.78	0.44	0.80	± 12.0 %
835	41.5	0.90	9.52	9.52	9.52	0.40	0.90	± 12.0 %
900	41.5	0.97	9.34	9,34	9.34	0.32	1.02	± 12.0.%
1750	40.1	1.37	8.28	8.28	8.28	0:29	0.86	± 12.0 %
1900	40.0	1.40	7.95	7.95	7,95	0.31	0.86	± 12.0 %
2000	40.0	1.40	7.92	7.92	7.92	0.34	0.86	± 12.0 %
2300	39.5	1.67	7.57	7.57	7.57	0.32	0.90	±12.0 %
2450	39.2	1.80	7.35	7.35	7.35	0.28	0.90	= 12.0 %
2600	39.0	1.96	7.21	7.21	7.21	0.40	0.90	≈ 12.0 %
5200	36,0	4.66	5.40	5.40	5.40	0.40	1.80	= 13.1 %
5300	35.9	4.76	5.25	5.25	5.25	0.40	08.1	± 13.1 %
5600	35.5	5.07	4.95	4.95	4.95	0.40	1.80	±13.1 %
5800	35.3	5.27	4.97	4.97	4.97	0.40	1.80	± 13.1 %

#### Calibration Parameter Determined in Head Tissue Simulating Media

<sup>6</sup> Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), each is instructed to ± 50 MHz. The uncertainty is the RSS of the DawY uncertainty at caloration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 30 and 70 MHz for ConvF assessments at 30, 64, 428, 150 and 220 MHz respectively. Which of ConvF assessments at 30, 64, 428, 150 and 220 MHz respectively. Which of ConvF assessments at 30, 64, 428, 150 and 220 MHz respectively. Which of ConvF assessments at 30, 64, 428, 150 and 220 MHz respectively. Which of ConvF assessments at 30, 64, 428, 150 and 220 MHz respectively. Which of ConvF assessments at 30, 64, 428, 150 and 220 MHz respectively. Which of ConvF assessments at 30, 64, 428, 150 and 220 MHz respectively. Which of ConvF assessments at 30, 64, 428, 150 and 220 MHz respectively. Which of ConvF assessments at 30, 64, 428, 150 and 220 MHz respectively. Which of ConvF assessments at 30, 64, 428, 150 and 220 MHz respectively. Which of ConvF assessments at 30, 64, 428, 150 and 250 MHz respectively. The second at 31 Mtz = 9.19 MHz. At News 6 Hz Respectively, validity are here here the 10 at 10 MHz.
At Irequences below 3 GHz, the validity of tissue parameters (is anti o) is instricted to ± 10 MHz.
The uncertainty for indicated target lissue parameters. Is antimicited at ± 5%. The uncertainty is the RSS of the DonvF uncertainty for indicated target lissue parameters. It is instricted to ± 5%. The uncertainty is the RSS of the DonvF uncertainty for indicated target lissue parameters. The maining deviation due to the busineary effect after comparisation is always less. If that 10 m in 10, is introduced by ± 2%. For frequencies between 3-6 GHz et any distance larget than half the prober up distincted in the boundary. 16.31

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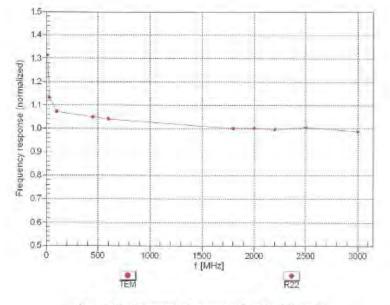


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EX3DV4- SN:3665

August 20, 2020

# Frequency Response of E-Field (TEM-Cell:ifi110 EXX, Waveguide: R22)





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f (886-2) 2298-0488

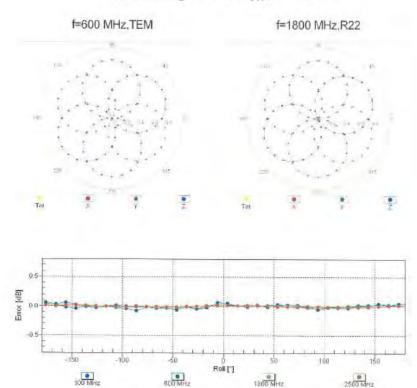
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EX3DV4- SN:3665

August 20, 2020



# Receiving Pattern (\$), 9 = 0°



Certificate No: EX3-3665\_Aug20

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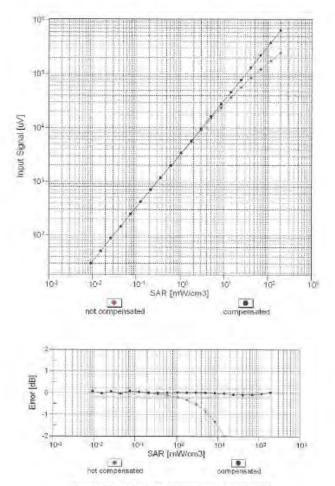


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EX3DV4- SN 3665

August 20, 2020

## Dynamic Range f(SARhead) (TEM cell , feval= 1900 MHz)



Uncertainty of Linearity Assessment: ± 0.6% (k=2)

Cerlificate No: EX3-3665\_Aug20

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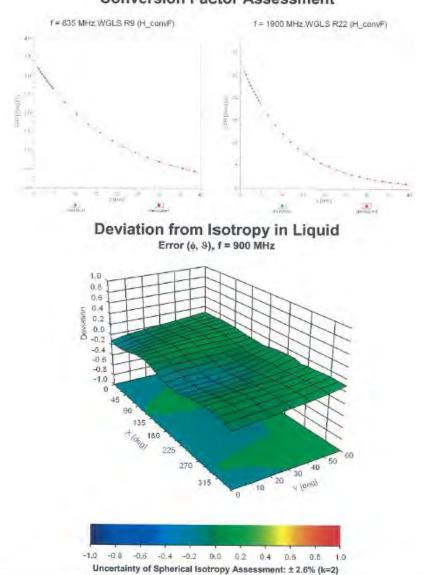
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EX3DV4- SN:3665

August 20, 2020



# **Conversion Factor Assessment**

Certificate No: EX3-3665\_Aug20

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	ice is one of the signatories t	to the EA	editation No.: SCS 0108
ultilateral Agreement for the lient SGS-TW (Auc	recognition of calibration ce		EX3-7466_Feb20
CALIBRATION	CERTIFICATE		
Dbject	EX3DV4 - SN:746	6	
Calibration procedure(s)	QA CAL-25.v7	A CAL-12.v9, QA CAL-14.v5, QA ure for dosimetric E-field probes	CAL-23.v5,
Calibration date:	February 4, 2020		
The measurements and the un	certainties with confidence prol	ial standards, which realize the physical units bability are given on the following pages and a facility: environment temperature $(22 \pm 3)^{\circ}C$ a	are part of the certificate.
The measurements and the un	certainties with confidence prol ducted in the closed laboratory		are part of the certificate.
The measurements and the un All calibrations have been conc Calibration Equipment used (M	certainties with confidence prol ducted in the closed laboratory	bability are given on the following pages and a	are part of the certificate.
The measurements and the un All calibrations have been conc Calibration Equipment used (M Primary Standards	certainties with confidence prol ducted in the closed laboratory I&TE critical for calibration)	bability are given on the following pages and a facility: environment temperature $(22 \pm 3)$ °C a	are part of the certificate. Ind humidity < 70%.
The measurements and the un NI calibrations have been conc Calibration Equipment used (M Primary Standards Power meter NRP	certainties with confidence prol ducted in the closed laboratory I&TE critical for calibration)	bability are given on the following pages and a facility: environment temperature (22 ± 3)°C a Cai Date (Certificate No.)	are part of the certificate. nd humidity < 70%. Scheduled Calibration
The measurements and the un All calibrations have been conc Calibration Equipment used (M Primary Standards Power meter NRP Power sensor NRP-291	certainties with confidence prol ducted in the closed laboratory I&TE critical for calibration)	bability are given on the following pages and a facility: environment temperature (22 ± 3)°C a Cal Date (Certificate No.) 03-Apr-19 (No. 217-02892/02893)	are part of the certificate. nd humidity < 70%. Scheduled Calibration Apr-20
The measurements and the un All calibrations have been conc Calibration Equipment used (M Primary Standards Power meter NRP Power sensor NRP-Z91 Power sensor NRP-Z91	certainties with confidence prof ducted in the closed laboratory I&TE critical for calibration) ID SN: 104778 SN: 103244	bability are given on the following pages and a facility: environment temperature (22 ± 3)°C a Cal Date (Certificate No.) 03-Apr-19 (No. 217-02892)(02893) 03-Apr-19 (No. 217-02892)	are part of the certificate. nd humidity < 70%. Scheduled Calibration Apr-20 Apr-20 Apr-20 Apr-20
The measurements and the un All calibrations have been conc Calibration Equipment used (M Primary Standards Power meter NRP Power sensor NRP-Z91 Power sensor NRP-Z91 Reference 20 dB Attenuator	certainties with confidence prof ducted in the closed laboratory I&TE critical for calibration) ID SN: 104778 SN: 103244 SN: 103245	bability are given on the following pages and a           facility: environment temperature (22 ± 3)°C a           Cai Date (Certificate No.)           03-Apr-19 (No. 217-02892/02893)           03-Apr-19 (No. 217-02892)           03-Apr-19 (No. 217-02892)           03-Apr-19 (No. 217-02892)           03-Apr-19 (No. 217-02892)           03-Apr-19 (No. 217-02894)           24-Dec-19 (No. DAE4-660_Dec19)	are part of the certificate. Ind humidity < 70%. Scheduled Calibration Apr-20 Apr-20 Apr-20 Dec-20
The measurements and the un All calibrations have been cond Calibration Equipment used (M Primary Standards Power sensor NRP-Z91 Power sensor NRP-Z91 Power sensor NRP-Z91 Reference 20 dB Attenuator DAE4.	certainties with confidence prof ducted in the closed laboratory I&TE critical for calibration) ID SN: 104778 SN: 103244 SN: 103245 SN: 55277 (20x)	bability are given on the following pages and a           facility: environment temperature (22 ± 3)°C a           Cal Date (Certificate No.)           03-Apr-19 (No. 217-02892/02893)           03-Apr-19 (No. 217-02892)           04-Apr-19 (No. 217-02894)	are part of the certificate. nd humidity < 70%. Scheduled Calibration Apr-20 Apr-20 Apr-20 Apr-20
The measurements and the un All calibrations have been conc Calibration Equipment used (M Primary Standards Power meter NRP Power sensor NRP-Z91 Power sensor NRP-Z91 Reference 20 dB Attenuator DAE4 Reference Probe ES3DV2	certainties with confidence prof ducted in the closed laboratory I&TE critical for calibration) ID SN: 104778 SN: 103244 SN: 103244 SN: 103245 SN: 58277 (20x) SN: 660	bability are given on the following pages and a           facility: environment temperature (22 ± 3)°C a           Cal Date (Certificate No.)           03-Apr-19 (No. 217-02892/02893)           03-Apr-19 (No. 217-02892)           03-Apr-19 (No. 217-02893)           04-Apr-19 (No. 217-02894)           27-Dec-19 (No. DAE4-660_Dec19)           31-Dec-19 (No. ES3-3013_Dec19)	are part of the certificate. Ind humidity < 70%. Scheduled Calibration Apr-20 Apr-20 Apr-20 Dec-20
The measurements and the un All calibrations have been conc Calibration Equipment used (M Primary Standards Power meter NRP Power sensor NRP-291 Power sensor NRP-291 Reference 20 dB Attenuator DAE4. Reference Probe ES3DV2 Secondary Standards	certainties with confidence prof ducted in the closed laboratory I&TE critical for calibration) ID SN: 104778 SN: 103244 SN: 103245 SN: 103245 SN: 55277 (20x) SN: 660 SN: 3013	bability are given on the following pages and a           facility: environment temperature (22 ± 3)°C a           Cai Date (Certificate No.)           03-Apr-19 (No. 217-02892/02893)           03-Apr-19 (No. 217-02892)           03-Apr-19 (No. 217-02892)           03-Apr-19 (No. 217-02892)           03-Apr-19 (No. 217-02892)           03-Apr-19 (No. 217-02894)           24-Dec-19 (No. DAE4-660_Dec19)	are part of the certificate. Ind humidity < 70%. Scheduled Calibration Apr-20 Apr-20 Apr-20 Apr-20 Dec-20 Dec-20 Dec-20
The measurements and the un All calibrations have been cond Calibration Equipment used (M Primary Standards Power meter NRP Power sensor NRP-291 Power sensor NRP-291 Reference 20 dB Attenuator DAE4 Reference Probe ES3DV2 Secondary Standards Power meter E44198	certainties with confidence prof ducted in the closed laboratory I&TE critical for calibration) ID SN: 104778 SN: 103245 SN: 103245 SN: 55277 (20x) SN: 660 SN: 3013 ID	bability are given on the following pages and a           facility: environment temperature (22 ± 3)°C a           Cal Date (Certificate No.)           03-Apr-19 (No. 217-02892/02893)           03-Apr-19 (No. 217-02892)           03-Apr-19 (No. 217-02893)           04-Apr-19 (No. 217-02894)           27-Dec-19 (No. 217-02894)           27-Dec-19 (No. ES3-3013_Dec19)	are part of the certificate. Ind humidity < 70%. Scheduled Calibration Apr-20 Apr-20 Apr-20 Apr-20 Dec-20 Dec-20 Scheduled Check
The measurements and the un All calibrations have been conc Calibration Equipment used (M Primary Standards Power meter NRP Power sensor NRP-Z91 Power sensor NRP-Z91 Reference 20 dB Attenuator DAE4 Reference Probe ES3DV2	certainties with confidence profession           ducted in the closed laboratory           l&TE critical for calibration)           ID           SN: 104778           SN: 103244           SN: 103244           SN: 103245           SN: 660           SN: 3013           ID           SN: 660           SN: 3013           ID           SN: GB41293874	bability are given on the following pages and a           facility: environment temperature (22 ± 3)°C a           Cal Date (Certificate No.)           03-Apr-19 (No. 217-02892/02893)           03-Apr-19 (No. 217-02892)           03-Apr-19 (No. 217-02893)           04-Apr-19 (No. 217-02894)           27-Dec-19 (No. DAE4-660_Dec19)           31-Dec-19 (No. ES3-3013_Dec19)           Check Date (in house)           06-Apr-18 (No. DAE4-660_De19)	are part of the certificate. Ind humidity < 70%. Scheduled Calibration Apr-20 Apr-20 Apr-20 Dec-20 Dec-20 Dec-20 Scheduled Check In house check: Jun-20
The measurements and the un All calibrations have been cond Calibration Equipment used (M Primary Standards Power meter NRP Power sensor NRP-Z91 Power sensor NRP-Z91 Reference 20 dB Attenuator DAE4 Reference Probe ES3DV2 Secondary Standards Power meter E44198 Power sensor E4412A	certainties with confidence prof ducted in the closed laboratory I&TE critical for calibration) ID SN: 104778 SN: 103244 SN: 103244 SN: 103245 SN: 660 SN: 3013 ID SN: GB41293874 SN: GB41293874 SN: MY41498067	bability are given on the following pages and a           facility: environment temperature (22 ± 3)°C a           Cal Date (Certificate No.)           03-Apr-19 (No. 217-02892/02893)           03-Apr-19 (No. 217-02892)           03-Apr-19 (No. 217-02894)           27-Dec-19 (No. 217-02894)           27-Dec-19 (No. DAE4-660_Dec19)           31-Dec-19 (No. ES3-3013_Dec19)           Check Date (in house)           06-Apr-16 (in house check Jun-18)	are part of the certificate. Ind humidity < 70%. Scheduled Calibration Apr-20 Apr-20 Apr-20 Dec-20 Dec-20 Dec-20 Scheduled Check In house check. Jun-20 In house check. Jun-20
The measurements and the un All calibrations have been conc Calibration Equipment used (M Primary Standards Power meter NRP Power sensor NRP-Z91 Power sensor NRP-Z91 Reference 20 dB Attenuator DAE4 Reference Probe ES3DV2 Secondary Standards Power meter E44198 Power sensor E4412A Power sensor E4412A	certainties with confidence prof ducted in the closed laboratory I&TE critical for calibration) ID SN: 104778 SN: 103244 SN: 103245 SN: 58277 (20x) SN: 660 SN: 3013 ID SN: 661293874 SN: MY41498087 SN: 000110210	bability are given on the following pages and a           facility: environment temperature (22 ± 3)°C a           Cal Date (Certificate No.)           03-Apr-19 (No. 217-02892/02893)           03-Apr-19 (No. 217-02892)           03-Apr-19 (No. 217-02893)           04-Apr-19 (No. 217-02894)           27-Dec-19 (No. 217-02894)           27-Dec-19 (No. 283-3013_Dec19)           Check Date (in house)           06-Apr-16 (in house check Jun-18)           06-Apr-16 (in house check Jun-18)           06-Apr-16 (in house check Jun-18)	are part of the certificate. Ind humidity < 70%. Scheduled Calibration Apr-20 Apr-20 Apr-20 Dec-20 Dec-20 Dec-20 Scheduled Check In house check. Jun-20 In house check. Jun-20
The measurements and the un All calibrations have been conc Calibration Equipment used (M Primary Standards Power meter NRP Power sensor NRP-Z91 Power sensor NRP-Z91 Reference 20 dB Attenuator DAE4 Reference Probe ES3DV2 Secondary Standards Power meter E44198 Power sensor E4412A Power sensor E4412A RF generator HP 8648C	certainties with confidence prof ducted in the closed laboratory I&TE critical for calibration) ID SN: 104778 SN: 103245 SN: 103245 SN: 3013 ID SN: 660 SN: 3013 ID SN: GB41293874 SN: MY41498087 SN: WY41498087 SN: US3642U01700	bability are given on the following pages and a facility: environment temperature (22 ± 3)°C a Cal Date (Certificate No.) 03-Apr-19 (No. 217-02892)02893) 03-Apr-19 (No. 217-02893) 04-Apr-19 (No. 217-02893) 04-Apr-19 (No. 217-02894) 27-Dec-19 (No. DAE4-660, Dec19) 31-Dec-19 (No. ES3-3013_Dec19) - Check Date (in house) 06-Apr-16 (in house check Jun-18) 06-Apr-16 (in house check Jun-18) 06-Apr-16 (in house check Jun-18) 04-Aug-99 (in house check Jun-18)	are part of the certificate. Ind humidity < 70%. Scheduled Calibration Apr-20 Apr-20 Apr-20 Dec-20 Dec-20 Scheduled Check In house check. Jun-20 In house check. Jun-20 In house check. Jun-20 In house check. Jun-20 In house check. Jun-20

Certificate No: EX3-7466\_Feb20

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Calibration Laboratory of Schmid & Partner Engineering AG aughausstrasse 43, 8004 Zurich, Switzerland Zeual



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Swiss Calibration Service

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Glossary:

tissue simulating liquid TSL NORMx,y,z sensitivity in free space sensitivity in TSL / NORMx,y,z diode compression point ConvF DCP CF crest factor (1/duty\_cycle) of the RF signal modulation dependent linearization parameters A, B, C, D Polarization  $\phi$ o rotation around probe axis Polarization 9 9 rotation around an axis that is in the plane normal to probe axis (at measurement center), i.e., 9 = 0 is normal to probe axis information used in DASY system to align probe sensor X to the robot coordinate system

**Connector Angle** 

Calibration is Performed According to the Following Standards: a) IEEE Std 1528-2013, "IEEE Recommended Practice for Determining the Peak Spatial-Averaged Specific Absorption Rate (SAR) in the Human Head from Wireless Communications Devices: Measurement

- b)
- Absorption Refe (SAR) in the Human Head from Wheess Continuincations Devices, weasurement Techniques", June 2013 IEC 62209-1, ", "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from hand-held and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016 IEC 62209-2, "Procedure to determine the Specific Absorption Rate (SAR) for wireless communication devices used in close proximity to the human body (frequency range of 30 MHz to 6 GHz)", March 2010 KDB 865664, "SAR Measurement Requirements for 100 MHz to 6 GHz)" c)
- d)

### Methods Applied and Interpretation of Parameters:

- NORMx,y,z: Assessed for E-field polarization  $\vartheta = 0$  (f  $\le 900$  MHz in TEM-cell; f > 1800 MHz: R22 waveguide). NORMx,y,z are only intermediate values, i.e., the uncertainties of NORMx,y,z does not affect the  $E^2$ -field uncertainty inside TSL (see below ConvF).
- NORM(f)x,y,z = NORMx,y,z \* frequency\_response (see Frequency Response Chart). This linearization is implemented in DASY4 software versions later than 4.2. The uncertainty of the frequency response is included in the stated uncertainty of ConvF.
- DCPx,y,z: DCP are numerical linearization parameters assessed based on the data of power sweep with CW signal (no uncertainty required). DCP does not depend on frequency nor media.
- PAR: PAR is the Peak to Average Ratio that is not calibrated but determined based on the signal characteristics
- Ax, y, z; Bx, y, z; Cx, y, z; Dx, y, z; VRx, y, z: A, B, C, D are numerical linearization parameters assessed based on Ha, J., D., Y.L., DA, Y.L., DA, Y.L., TAN, Z. Y. D. D. Dub information incommentary parameters and the data of power sweep for specific modulation signal. The parameters do not depend on frequency nor media. VR is the maximum calibration range expressed in RMS voltage across the diode. ConvF and Boundary Effect Parameters: Assessed in flat phantom using E-field (or Temperature Transfer).
- Standard for f ≤ 800 MHz) and inside waveguide using analytical field distributions based on power measurements for f > 800 MHz. The same setups are used for assessment of the parameters applied for boundary compensation (alpha, depth) of which typical uncertainty values are given. These parameters are used in DASY4 software to improve probe accuracy close to the boundary. The sensitivity in TSL corresponds to NORMx,y,z \* ConvF whereby the uncertainty corresponds to that given for ConvF. A frequency dependent ConvF is used in DASY version 4.4 and higher which allows extending the validity from ± 50 MHz to ± 100 MHz.
- Spherical isotropy (3D deviation from isotropy): in a field of low gradients realized using a flat phantom exposed by a patch antenna.
- Sensor Offset: The sensor offset corresponds to the offset of virtual measurement center from the probe tip (on probe axis). No tolerance required
- Connector Angle: The angle is assessed using the information gained by determining the NORMx (no uncertainty required).

Certificate No: EX3-7466 Feb20

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#### EX3DV4- SN:7466

February 4, 2020

# DASY/EASY - Parameters of Probe: EX3DV4 - SN:7466

#### **Basic Calibration Parameters**

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm $(\mu V/(V/m)^2)^A$	0.46	0.40	0.62	± 10.1 %
DCP (mV) <sup>B</sup>	100.3	99.6	96.0	

#### **Calibration Results for Modulation Response**

UID	Communication System Name		A dB	B dBõV	c	D dB	WR mV	Max dev.	Max Unc <sup>E</sup> (k=2)
0	CW	X	0.00	0.00	1.00	0.00	178.9	± 3.0 %	±4.7 %
0	GII	Y	0.00	0.00	1.00		164.0	- (*** 3)	
	the second se	Z	0.00	0.00	1.00	1.	157.0		
10352-	Pulse Waveform (200Hz, 10%)	X	20.00	87.13	17.81	10.00	60.0	± 3.8 %	± 9.6 %
AAA	I had the state for the state	Y	1.61	62.02	8.56		60.0		11.11
	a second s	Z	20.00	92.18	20.82		60.0		
10353-	Pulse Waveform (200Hz, 20%)	X	20.00	90.08	17.93	6.99	80.0	±2.3 %	±9.6%
AAA	r also rrenarann (second sero)	Y	1.19	62.90	7.59		80.0		
		Z	20.00	96.30	21.75		80.0		
10354-	Pulse Waveform (200Hz, 40%)	X	20.00	109.66	25.46	3.98	95.0	±1.8 %	± 9.6 %
AAA	It also transcom (Post of Star)	Y	0.40	60.00	4.63		95.0		1.1.1.1
		Z	20.00	109.98	26.87		95.0	1	
10355-	Pulse Waveform (200Hz, 60%)	X	0.41	160.00	78.67	2.22	120.0	± 1.7 %	±9.6 %
AAA	i ales trateienn (ater at sevel	Y	0.03	153.34	21.86		120.0		1
		Z	20.00	152.64	44.34	1.1.1.1.1	120.0	1	
10387-	OPSK Waveform, 1 MHz	X	0.49	60.80	6.99	0.00	150.0	±4.0 %	± 9.6 %
AAA		Y	10.00	70.00	7.00	1000	150.0	1	1.00
		Z	4.54	83.46	18.12	1	150.0		1.000
10388-	QPSK Waveform, 10 MHz	X	3.07	75.71	19.99	0.00	150.0	± 1.8 %	± 9.6 %
AAA	an journ dramma the more	Y	1.93	67.62	15.60	1.1.1.1	150.0		10 A 10 A
19.53		Z	3.18	75.10	19.75	1	150.0		
10396-	64-QAM Waveform, 100 kHz	X	4.05	80.38	24.13	3.01	150.0	± 1.8 %	± 9.6 %
AAA		Y	2.11	67.08	17.78	1	150.0		
1.4.4.1		Z	2.98	72.30	21.02		150.0		
10399-	64-QAM Waveform, 40 MHz	X	3.77	69.45	17.42	0.00	150.0	± 2.2 %	± 9.6 %
AAA		Y	3.28	66.72	15.70		150.0		1.000
		Z	3,83	69.07	17.33		150.0		
10414-	WLAN CCDF, 64-QAM, 40MHz	X	4.89	66.83	16.50	0.00	150.0	±4.2 %	± 9.6 %
AAA	The second state and the second	Y	4.69	66.09	15.91		150.0	10000	1
0.047		Z	5.00	66.30	16.36		150.0		1

Note: For details on UID parameters see Appendix

The reported uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%.

<sup>A</sup> The uncertainties of Norm X,Y,Z do not affect the E<sup>2</sup>-field uncertainty inside TSL (see Pages 5, 6 and 11). <sup>B</sup> Numerical linearization parameter: uncertainty not required. <sup>E</sup> Uncertainty is determined using the max. deviation from linear response applying rectangular distribution and is expressed for the square of the field value.

Certificate No: EX3-7466 Feb20

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#### EX3DV4- SN:7466

February 4, 2020

# DASY/EASY - Parameters of Probe: EX3DV4 - SN:7466

	C1 fF	C2 fF	α V-1	T1 ms.V <sup>-2</sup>	T2 ms.V <sup>-1</sup>	T3 ms	T4 V <sup>-2</sup>	T5 V-1	Т6
X	33.6	251.26	36.12	5.96	0.00	5.06	1.89	0.00	1.01
Y	29.4	228.86	38.26	3.29	0.17	5.04	0.00	0.25	1.01
Z	45.4	352.36	38,52	10.93	0.08	5.10	0.00	0.40	1.01

#### **Other Probe Parameters**

Sensor Arrangement	Triangular
Connector Angle (°)	-4.9
Mechanical Surface Detection Mode	enabled
Optical Surface Detection Mode	disabled
Probe Overall Length	337 mm
Probe Body Diameter	10 mm
Tip Length	9 mm
Tip Diameter	2.5 mm
Probe Tip to Sensor X Calibration Point	1 mm
Probe Tip to Sensor Y Calibration Point	1 mm
Probe Tip to Sensor Z Calibration Point	1 mm
Recommended Measurement Distance from Surface	1.4 mm

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#### EX3DV4-SN:7466

February 4, 2020

f (MHz) <sup>c</sup>	Relative Permittivity <sup>F</sup>	Conductivity (S/m) <sup>F</sup>	Head Tis ConvF X	ConvF Y	ConvF Z	Alpha <sup>G</sup>	Depth <sup>G</sup> (mm)	Unc (k=2)
600	42.7	0.88	10.84	10.84	10.84	0.00	1.00	± 13.3 %
750	41.9	0.89	10.56	10.56	10.56	0.42	0.92	± 12.0 %
835	41.5	0.90	10.32	10.32	10.32	0.20	1.38	± 12.0 %
900	41.5	0.97	10.10	10.10	10.10	0.29	1.09	± 12.0 %
1450	40.5	1.20	9.31	9.31	9.31	0.42	0.80	± 12.0 %
1750	40.1	1.37	8.94	8.94	8.94	0.27	0.89	± 12.0 %
1900	40.0	1.40	8.56	8.56	8.56	0.29	0,86	± 12.0 %
2000	40.0	1.40	8.50	8.50	8.50	0.35	0.86	± 12.0 %
2300	39.5	1.67	8.08	8.08	8.08	0.32	0.90	± 12.0 %
2450	39.2	1.80	7.85	7,85	7.85	0.36	0.90	± 12.0 %
2600	39.0	1.96	7.53	7.53	7.53	0.35	0.92	± 12.0 %
3300	38.2	2.71	7.03	7.03	7.03	0.30	1.30	±13.1 9
3500	37.9	2.91	6,96	6.96	6.96	0.30	1.30	±13.1 9
3700	37.7	3.12	7.00	7.00	7.00	0.30	1.30	± 13.1 %
3900	37.5	3.32	6.73	6.73	6.73	0.40	1.50	± 13.1 9
4100	37.2	3.53	6.57	6.57	6.57	0.40	1.50	± 13.1 9
4200	37.1	3.63	6.30	6,30	6.30	0.35	1.50	± 13.1 9
4400	36.9	3.84	6.27	6.27	6.27	0.40	1.60	± 13.1 %
4600	36.7	4.04	6.24	6.24	6.24	0.45	1.60	± 13.1 9
4800	36.4	4.25	6.18	6.18	6.18	0.40	1.80	± 13.1 %
4950	36.3	4.40	5.97	5.97	5.97	0.40	1.80	± 13.1 9
5200	36.0	4.66	5.60	5.60	5.60	0.40	1.80	± 13.1 4
5300	35.9	4.76	5.45	5.45	5.45	0.40	1.80	± 13.1
5600	35.5	5.07	4.98	4.98	4.98	0.40	1.80	± 13.1
5800	35.3	5.27	5.04	5.04	5.04	0.40	1.80	± 13.1

# DASY/EASY - Parameters of Probe: EX3DV4 - SN:7466

<sup>C</sup> Frequency validly above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10, 25, 40, 50 and 70 MHz for ConvF assessments at 30, 64, 128, 150 and 220 MHz respectively. Validity of ConvF assessed at 6 MHz is 4-9 MHz, and ConvF assessed at 13 MHz is 9-19 MHz. Above 5 GHz frequency validity can be extended to ± 110 MHz. \* A 1f requencies below 30-ftz, the validity of tissue parameters (s and o) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. All frequencies above 3 GHz, the validity of tissue parameters (c and o) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters. \* Alpha/Dept hare determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

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#### EX3DV4-SN:7466

February 4, 2020

DASY/EAS)	<ul> <li>Parameters of</li> </ul>	Probe: EX3	3DV4 - SN:7466
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f (MHz) <sup>C</sup>	Relative Permittivity <sup>F</sup>	Conductivity (S/m) <sup>F</sup>	ConvF X	ConvF Y	ConvF Z	Alpha <sup>G</sup>	Depth <sup>G</sup> (mm)	Unc (k=2)
600	56.1	0.95	10.77	10.77	10.77	0.00	1,00	± 13.3 %
750	55.5	0.96	10.30	10.30	10.30	0.36	0.94	± 12.0 %
835	55.2	0.97	9.96	9.96	9.96	0.27	1.11	±12.0 %
900	55.0	1.05	9.84	9,84	9,84	0.43	0.80	± 12.0 %
1750	53.4	1.49	8.62	8.62	8.62	0.36	0.86	± 12.0 %
1900	53.3	1.52	8.16	8.16	8,16	0.27	1.05	± 12.0 %
2000	53.3	1.52	8.10	8.10	8.10	0.23	1.13	± 12.0 %
2300	52.9	1.81	8.05	8.05	8.05	0.27	1.20	± 12.0 %
2450	52.7	1.95	7.81	7.81	7.81	0.37	0.94	± 12.0 %
2600	52.5	2.16	7.64	7.64	7.64	0.42	0.90	± 12.0 %
3300	51.6	3.08	6.72	6.72	6.72	0.40	1.35	± 13.1 %
3500	51.3	3.31	6.64	6.64	6.64	0.45	1.25	± 13.1 %
3700	51.0	3.55	6.58	6.58	6.58	0.40	1.35	± 13.1 %
3900	51.2	3.78	6.03	6.03	6.03	0.45	1.70	± 13.1 %
4100	50.5	4.01	6.05	6.05	6.05	0.45	1.70	± 13.1 %
4200	50.4	4.13	6.00	6.00	6.00	0.45	1.80	± 13.1 %
4400	50.1	4.37	5.92	5.92	5.92	0.45	1.80	± 13.1 9
4600	49.8	4.60	5.54	5.54	5.54	0.50	1.90	± 13.1 %
4800	49.6	4.83	5.49	5.49	5.49	0.50	1.90	± 13.1 %
4950	49.4	5.01	5.30	5.30	5.30	0.50	1.90	± 13.1 9
5200	49.0	5.30	5.00	5.00	5.00	0.50	1.90	± 13.1 %
5300	48.9	5.42	4.85	4.85	4.85	0.50	1.90	±13.19
5600	48.5	5.77	4.28	4.28	4.28	0.50	1,90	± 13,1 %
5800	48.2	6.00	4.36	4.36	4.36	0.50	1.90	± 13.1 %

<sup>6</sup> Frequency validity above 300 MHz of ± 100 MHz only applies for DASY v4.4 and higher (see Page 2), else it is restricted to ± 50 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band. Frequency validity below 300 MHz is ± 10. 25, 40, 50 and 70 MHz for ConvF assessments at 30, 54, 128, 150 and 220 MHz respectively. Validity of ConvF assesses at 6 MHz is 4.9 MHz, and ConvF assesses at 13 MHz is 9-19 MHz. Above 5 GHz frequency validity compensation formula is applied to measured SAR values. At frequencies below 3 GHz, the validity of tissue parameters (r and e) can be relaxed to ± 10 MHz.
<sup>6</sup> All requencies below 3 GHz, the validity of tissue parameters (r and e) can be relaxed to ± 10 MHz.
<sup>6</sup> All requencies below 3 GHz, the validity of tissue parameters (r and e) can be relaxed to ± 10 MHz.
<sup>7</sup> All frequencies below 3 GHz, the validity of tissue parameters (r and e) can be relaxed to ± 10 MHz.
<sup>8</sup> All requencies below 3 GHz, the validity of tissue parameters (r and e) can be relaxed to ± 50. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters.
<sup>8</sup> Alpha/Depth are determined during cellbration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip clameter from the boundary.

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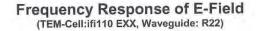
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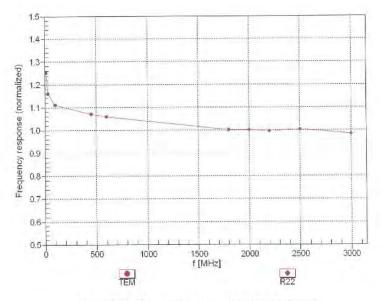


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February 4, 2020





Uncertainty of Frequency Response of E-field: ± 6.3% (k=2)

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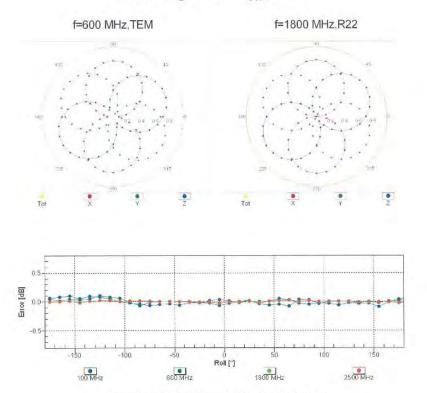
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February 4, 2020



# Receiving Pattern ( $\phi$ ), $\vartheta = 0^{\circ}$

Uncertainty of Axial Isotropy Assessment: ± 0.5% (k=2)

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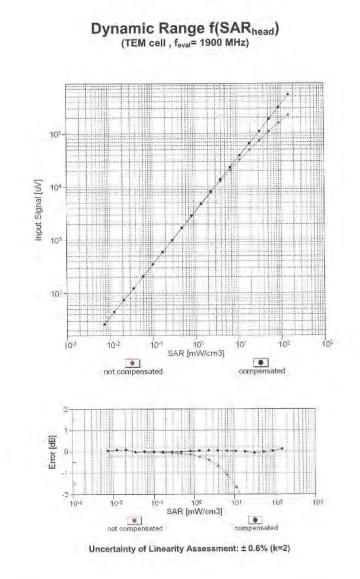
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February 4, 2020

#### **Conversion Factor Assessment** f = 835 MHz.WGLS R9 (H\_convF) f = 1900 MHz WGLS R22 (H convF) 40 35 40 z (mm) = junt interest (Teruszien) ..... . **Deviation from Isotropy in Liquid** Error (\, \,), f = 900 MHz 1.0 0.8 0.6 0.4 Deviation 0.2 0.0 -0.2 -0.4 -0.6 -0.8 -1.0 0 45 90 135 +10091 180 225 50 270 40 30 A [deg] 20 315 10 0 -0.8 -0.6 -0.4 -0.2 0.0 0.2 0.4 0.6 0.8 1.0 -1.0 Uncertainty of Spherical Isotropy Assessment: ± 2.6% (k=2)

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#### EX3DV4-SN:7466

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#### Appendix: Calibration Parameters above 6GHz

f (MHz) <sup>°c</sup>	Relative Permittivity <sup>F</sup>	Conductivity (S/m) <sup>F</sup>	ConvF X	ConvF Y	ConvF.Z	Alpha <sup>G</sup>	Depth <sup>G</sup> (mm)	Unc (k=2)
6500	34.5	6.70	5.75	5.75	5.75	0.14	2.60	± 18,6 %
7000	33.9	6.65	5.95	5.95	5.95	0.18	1.30	± 18.6 %
8000	32.7	7.84	6.22	6.22	6.22	0.40	1.20	± 18.6 %
9000	31.5	9.08	5.72	5.72	5.72	0.50	1.80	± 18.6 %

<sup>c</sup> Calibration procedure for frequencies above 6 GHz is pending accreditation. Frequency validity above 6GHz is ± 700 MHz. The uncertainty is the RSS of the ConvF uncertainty at calibration frequency and the uncertainty for the indicated frequency band.
<sup>r</sup> At frequencies 6-10 GHz. the validity of tissue parameters (s and o) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. The uncertainty is the RSS of the ConvF uncertainty for indicated traget tissue parameters.
<sup>c</sup> Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than ± 1% for frequencies below 3 GHz; below ± 2% for frequencies between 3-6 GHz; and below ± 4% for frequencies between 6-10 GHz at any distance larger than half the probe tip diameter from the boundary.

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#### EX3DV4- SN:7468

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#### Appendix: Modulation Calibration Parameters

UID	Rev	Communication System Name	Group	PAR (dB)	Unc <sup>e</sup> (k=2)
0	1	CW	CW	0.00	±4.7 %
10010	CAA	SAR Validation (Square, 100ms, 10ms)	Test	10.00	±9.69
10011	CAB	UMTS-FDD (WCDMA)	WCDMA	2.91	±9.6%
0012	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps)	WLAN	1.87	±9.6%
10013	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps)	WLAN	9.46	± 9.6 %
10021	DAC	GSM-FDD (TDMA, GMSK)	GSM	9.39	± 9.6 %
10023	DAC	GPRS-FDD (TDMA, GMSK, TN 0)	GSM	9.57	±9.6%
10024	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1)	GSM	6.56	± 9.6 %
10025	DAC	EDGE-FDD (TDMA, 8PSK, TN 0)	GSM	12.62	± 9.6 %
10026	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1)	GSM	9.55	± 9.6 %
10027	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2)	GSM	4.80	± 9.6 %
10028	DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)	GSM	3.55	± 9.6 %
10029	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2)	GSM	7.78	± 9.6 %
10030	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH1)	Bluetooth	5.30	± 9.6 %
10031	CAA	IEEE 802,15.1 Bluetooth (GFSK, DH3)	Bluetooth	1.87	± 9.6 %
0032	CAA	IEEE 802.15.1 Bluetooth (GFSK, DH5)	Bluetooth	1.16	± 9.6 %
10033	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)	Bluetooth	7.74	± 9.6 %
0034	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)	Bluetooth	4.53	± 9.6 %
10035	CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)	Bluetooth	3.83	±9.6 %
10036	CAA	IEEE 802,15.1 Bluetooth (8-DPSK, DH1)	Bluetooth	8.01	± 9.6 %
10037	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH3)	Bluetooth	4.77	± 9.6 %
10038	CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH5)	Bluetooth	4.10	± 9.6 %
10039	CAB	CDMA2000 (1xRTT, RC1)	CDMA2000	4.57	± 9.6 %
10042	CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Halfrate)	AMPS	7,78	± 9.6 %
10044	CAA	IS-91/EIA/TIA-553 FDD (FDMA, FM)	AMPS	0.00	±9.6 %
10048	CAA	DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)	DECT	13.80	±9.6 %
10049	CAA	DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)	DECT	10.79	±9.6 %
0056	CAA	UMTS-TDD (TD-SCDMA, 1.28 Mcps)	TD-SCDMA	11.01	±9.6 %
0058	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)	GSM	6.52	± 9.6 %
0059	CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)	WLAN	2.12	± 9.6 %
10060	CAB	IEEE 802.11b WIFi 2.4 GHz (DSSS, 5.5 Mbps)	WLAN	2.83	± 9.6 %
0061	CAB	IEEE 802.11b WIFI 2.4 GHz (DSSS, 11 Mbps)	WLAN	3.60	± 9.6 %
10062	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)	WLAN	8.68	± 9.6 %
0063	CAC	IEEE 802.11a/h WiFI 5 GHz (OFDM, 9 Mbps)	WLAN	8.63	± 9.6 %
10064	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)	WLAN	9.09	19.6%
10065	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)	WLAN	9.00	± 9.6 %
10066	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)	WLAN	9.38	±9.6 %
0067	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)	WLAN	10.12	± 9.6 %
10068	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)	WLAN	10.24	± 9.6 %
10069	CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)	WLAN	10.56	± 9.6 %
10071	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)	WLAN	9.83	± 9.6 %
0072	CAB	IEEE 802 11g WiFi 2,4 GHz (DSSS/OFDM, 12 Mbps)	WLAN	9.62	± 9.6 %
0073	CAB	IEEE 802.11g WIFi 2.4 GHz (DSSS/OFDM, 18 Mbps)	WLAN	9.94	±9.6 %
0074	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps)	WLAN	10.30	±9.6 %
0075	CAB	IEEE 802,11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps)	WLAN	10.77	±9.6 %
0076	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps)	WLAN	10.94	±9.6%
0077	CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)	WLAN	11.00	±9.6 %
0081	CAB	CDMA2000 (1xRTT, RC3)	CDMA2000	3.97	± 9.6 %
0082	CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4-DQPSK, Fullrate)	AMPS	4.77	± 9.6 %
0090	DAC	GPRS-FDD (TDMA, GMSK, TN 0-4)	GSM	6.56	±9.6 %
0097	CAB	UMTS-FDD (HSDPA)	WCDMA	3.98	±9.6 %
0098	CAB	UMTS-FDD (HSUPA, Subtest 2)	WCDMA	3.98	± 9.6 %
0099	DAC	EDGE-FDD (TDMA, 8PSK, TN 0-4)	GSM	9.55	±9.6 %
0100	CAE	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	LTE-FDD	5.67	±9.6 %
0101	CAE	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	LTE-FDD	6.42	±9.6 %
0102	CAE	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	LTE-FDD	6.60	±9.6 %
0103	CAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	LTE-TDD	9.29	±9.6 %
0104	CAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	LTE-TDD	9.97	± 9.6 %
0105	CAG	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	LTE-TDD	10.01	±9.6%
0108	CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	LTE-FDD	10.01	76

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0109	CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	LTE-FDD	6.43	±9.6 %
0110	CAG	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	LTE-FOD	5.75	±9.6 %
0111	CAG	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	LTE-FDD	6.44	± 9.6 %
0112	CAG	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	LTE-FDD	6.59	±9.6 %
0113	CAG	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	LTE-FDD	6.62	± 9.6 %
0114	CAC	IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)	WLAN	8.10	± 9.6 %
0115	CAC	IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)	WLAN	8.46	±9.6 %
0116	CAC	IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM)	WLAN	8.15	±9.6 %
0117	CAC	IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)	WLAN	8.07	± 9.6 %
0118	CAC	IEEE 802.11n (HT Mixed, 81 Mbps, 16-QAM)	WLAN	8.59	± 9.6 %
0119	CAC	IEEE 802.11n (HT Mixed, 135 Mbps, 64-QAM)	WLAN	8.13	± 9.6 %
0140	CAE	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	LTE-FDD	6.49	± 9.6 %
0141	CAE	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	LTE-FDD	6.53	±9.6 %
0142	CAE	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	LTE-FDD	5.73	± 9.6 %
0143	CAE	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	LTE-FDD	6.35	± 9.6 %
0144	CAE	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	LTE-FDD	6.65	± 9.6 %
0145	CAF	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	LTE-FDD	5.76	± 9.6 %
0146	CAF	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.41	± 9.6 %
0147	CAF	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.72	± 9.6 %
0149	CAE	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	LTE-FDD	6.42	± 9.6 %
0150	CAE	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	LTE-FDD	6.60	± 9.6 %
0151	CAG	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	LTE-TDD	9.28	±9.6%
0152	CAG	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	LTE-TOD	9.92	± 9.6 %
0153	CAG	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	LTE-TDD	10.05	±9.6%
0154	CAG	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	LTE-FDD	5.75	± 9.6 %
0155	CAG	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	LTE-FDD	6.43	± 9.6 %
0156	CAG	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	LTE-FDD	5.79	± 9.6 %
0157	CAG	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	LTE-FDD	6.49	± 9.6 %
	CAG	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	LTE-FDD	6.62	± 9.6 %
0158	CAG	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	LTE-FDD	6.56	±9.6%
0159	CAG	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	LTE-FDD	5.82	±9.6 %
0160		LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	LTE-FDD	6.43	±9.6 %
0161	CAE	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	LTE-FDD	6.58	± 9.6 %
0162	CAE	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	LTE-FDD	5.46	±9.6 %
0166		LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.21	±9.6 %
0167	CAF	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.79	± 9.6 %
0168	CAF	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	LTE-FDD	5.73	±9.6 %
0169		LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	LTE-FDD	6.52	±9.6 %
0170	CAE	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	LTE-FDD	6.49	±9.6 %
0171	AAE	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, OF-GAW)	LTE-TOD	9,21	± 9.6 %
0172	CAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	LTE-TDD	9.48	± 9.6 9
0173	CAG		LTE-TDD	10.25	± 9.6 %
0174	CAG	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	LTE-FDD	5.72	±9.6 9
0175	CAG	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	LTE-FDD	6.52	±9.6 9
0176	CAG	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	LTE-FDD	5.73	± 9.6 9
0177	CAI	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	LTE-FDD	6.52	±9.6 %
0178	CAG	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	LTE-FDD	6.50	± 9.6 %
0179	CAG	LTE-FDD (SC-FDMA, 1 RB, 18 MHz, 64-QAM)	LTE-FDD	6.50	± 9.6 %
0180	CAG	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	LTE-FDD	5.72	± 9.6 9
0181	CAE	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	LTE-FDD	6.52	±9.6
0182	CAE	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)		6.50	±9.6
0183	AAD	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	LTE-FDD	5.73	± 9.6
10184	CAE	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	LTE-FDD		± 9.6 4
10185	GAE	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	LTE-FDD	6.51	±9.6
0186	AAE	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	LTE-FDD	6.50	
0187	CAF	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	LTE-FDD	5.73	± 9.6
10188	CAF	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	LTE-FDD	6.52	±9.6
10189	AAF	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	LTE-FDD	6.50	±9.6 °
10193	CAC	IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)	WLAN	8.09	±9.63
10194	CAC	IEEE 802,11n (HT Greenfield, 39 Mbps, 16-QAM)	WLAN	8.12	± 9.6
10195	CAC	JEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM)	WLAN	8.21	± 9.6 °
10196	CAC	IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)	WLAN	8.10	19.6
10197	CAC	IEEE 802.11n (HT Mixed, 39 Mbps, 16-QAM)	WLAN	8.13	±9.6
10198	CAC	IEEE 802.11n (HT Mixed, 65 Mbps, 64-QAM)	WLAN	8.27	±9,6 °
10219	CAC	IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)	WLAN	8.03	±9.6

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10220	CAC	IEEE 802.11n (HT Mixed, 43.3 Mbps, 16-QAM)	WLAN	8.13	± 9.6 9
10221	CAC	IEEE 802.11n (HT Mixed, 72.2 Mbps, 64-QAM)	WLAN	8.27	± 9.6 9
10222	CAC	IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)	WLAN	8.06	± 9.6 9
10223	CAC	IEEE 802.11n (HT Mixed, 90 Mbps, 16-QAM)	WLAN	8.48	± 9.6 %
10224	CAC	IEEE 802.11n (HT Mixed, 150 Mbps, 64-QAM)	WLAN	8.08	±9.6 %
10225	CAB	UMTS-FDD (HSPA+)	WCDMA	5.97	± 9.6 %
10226	CAB	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.49	±9.6 9
10227	CAB	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	LTE-TDD	10.26	± 9.6 9
10228	CAB	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	LTE-TDD	9.22	± 9.6 %
10229	CAD	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM)	LTE-TDD	9.48	± 9.6 9
10230	CAD	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM)	LTE-TDD	10.25	± 9.6 9
10231	CAD	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	LTE-TDD	9.19	± 9.6 9
10232	CAG	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM)	LTE-TDD	9.48	± 9.6 %
10233	CAG	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM)	LTE-TDD	10.25	± 9.6 %
10234	CAG	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	LTE-TDD	9.21	±9.6 %
10235	CAG	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	LTE-TDD	9.48	± 9.6 9
10236	CAG	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	LTE-TDD	10.25	± 9.6 9
10237	CAG	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	LTE-TDD	9.21	±9.6 %
10238	CAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	LTE-TDD	9.48	±9.6.9
10239	CAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	LTE-TDD	10.25	± 9.6 %
10240	CAF	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	LTE-TDD	9.21	± 9.6 %
10241	CAB	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	LTE-TDD	9.82	± 9.6 %
10242	CAB	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	LTE-TDD	9.86	± 9.6 %
10243	CAB	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	LTE-TDD	9.46	± 9.6 %
10244	CAD	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	LTE-TDD	10.06	±9.6 %
10245	CAD	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	LTE-TDD	10.06	±9.69
10246	CAD	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	LTE-TDD	9.30	±9.6%
10247	CAG	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	LTE-TDD	9.91	±9.69
10248	CAG	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	LTE-TDD	10.09	±9.6 %
10249	CAG	LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	LTE-TDD	9.29	±9.6 %
10250	CAG	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	LTE-TDD	9.81	±9.6 %
10251	CAG	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	LTE-TDD	10.17	±9.6 %
10252	CAG	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	LTE-TDD	9.24	± 9.6 %
10253	CAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	LTE-TDD	9.90	± 9.6 %
10254	CAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	LTE-TDD	10.14	±9.6%
10255	CAF	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	LTE-TDD	9.20	± 9.6 %
10256	CAB	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	LTE-TDD	9,96	± 9.6 %
10257	CAB	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	LTE-TDD	10.08	±9.6 %
10258	CAB	LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	LTE-TDD	9.34	±9.6 %
10259	CAD	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	LTE-TDD	9.98	±9.6%
10260	CAD	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	LTE-TDD	9.97	±9.6 %
10261	CAD	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	LTE-TDD	9.24	±9.6 %
10262	CAG	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	LTE-TDD	9.83	±9.6 %
10263	CAG	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	LTE-TDD	10.16	±9.6 %
10264	CAG	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	LTE-TDD	9.23	± 9.6 %
10265	CAG	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	LTE-TDD	9.92	±9.6 %
10266	CAG	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	LTE-TDD	10.07	± 9.6 %
10267	CAG	LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	LTE-TDD	9.30	± 9.6 %
10268	CAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	LTE-TDD	10.06	± 9.6 %
10269	CAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	LTE-TDD	10.13	± 9.6 %
10270	CAF	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	LTE-TDD	9.58	±9.6 %
10274	CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.10)	WCDMA	4.87	±9.6 %
0275	CAB	UMTS-FDD (HSUPA, Subtest 5, 3GPP Rel8.4)	WCDMA	3.96	± 9.6 %
0277	CAA	PHS (QPSK)	PHS	11.81	± 9.6 %
0278	CAA	PHS (QPSK, BW 884MHz, Rolloff 0.5)	PHS	11.81	±9.6 %
0279	CAA	PHS (QPSK, BW 884MHz, Rolloff 0.38)	PHS	12.18	±9.6 %
10290	AAB	CDMA2000, RC1, SO55, Full Rate	CDMA2000	3.91	±9.6 %
10291	AAB	CDMA2000, RC3, SO55, Full Rate	CDMA2000	3.46	±9.6 %
10292	AAB	CDMA2000, RC3, SO32, Full Rate	CDMA2000	3.39	±9.6 %
10293	AAB	CDMA2000, RC3, SO3, Full Rate	CDMA2000	3.50	±9.6 %
10295	AAB	CDMA2000, RC1, SO3, 1/8th Rate 25 fr.	CDMA2000	12.49	±9.6 %
10297	AAD	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	LTE-FDD	5.81	±9.6 %
10298	AAD	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, QPSK)	LTE-FDD	5.72	±9.6 %
10299	AAD	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM)	LTE-FDD	6.39	± 9.6 %

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# VODVA CNI-746

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10300	AAD	LTE-FDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM)	LTE-FDD	6.60	± 9.6 %
10301	AAA	IEEE 802.16e WIMAX (29:18, 5ms, 10MHz, QPSK, PUSC)	WIMAX	12.03	± 9.6 %
10302	AAA	IEEE 802.16e WIMAX (29:18, 5ms, 10MHz, QPSK, PUSC, 3 CTRL symbols)	WIMAX	12.57	± 9.6 %
10303	AAA	IEEE 802.16e WIMAX (31:15, 5ms, 10MHz, 64QAM, PUSC)	WIMAX	12.52	±9.6 %
10304	AAA	IEEE 802.16e WIMAX (29:18, 5ms, 10MHz, 64QAM, PUSC)	WIMAX	11.86	±9.6 %
10305	AAA	IEEE 802.16e WIMAX (31:15, 10ms, 10MHz, 64QAM, PUSC, 15 symbols)	WIMAX	15.24	±9.6 %
10306	AAA	IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, 64QAM, PUSC, 18	WIMAX	14.67	± 9.6 %
10307	AAA	symbols) IEEE 802.16e WiMAX (29:18, 10ms, 10MHz, QPSK, PUSC, 18 symbols)	WIMAX	14.49	± 9.6 %
10308	AAA	IEEE 802,16e WIMAX (29:18, 10ms, 10MHz, 16QAM, PUSC)	WIMAX	14.46	±9.6 %
10309	AAA	IEEE 802.16e WIMAX (29:18, 10ms, 10MHz, 16QAM, AMC 2x3, 18 symbols)	WIMAX	14.58	±9.6 %
10310	AAA	JEEE 802.16e WIMAX (29:18, 10ms, 10MHz, OPSK, AMC 2x3, 18 symbols)	WIMAX	14.57	±9.6 %
10311	AAD	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, QPSK)	LTE-FDD	6.06	± 9.6 %
10313	AAA	IDEN 1:3	IDEN	10.51	± 9.6 %
10314	AAA	IDEN 1:6	IDEN	13.48	± 9.6 %
10315	AAB	IEEE 802,11b WiFi 2.4 GHz (DSSS, 1 Mbps, 96pc duty cycle)	WLAN	1.71	±9.6 %
10316	AAB	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 96pc duty cycle)	WLAN	8.36	±9.6 %
10317	AAC	IEEE 802.11a WiFi 5 GHz (OFDM, 6 Mbps, 96pc duty cycle)	WLAN	8.36	±9.6%
10352	AAA	Pulse Waveform (200Hz, 10%)	Generic	10.00	± 9.6 %
10353	AAA.	Pulse Waveform (200Hz, 20%)	Generic	6.99	± 9.6 %
10354	AAA	Pulse Waveform (200Hz, 40%)	Generic	3.98	±9.6 %
10355	AAA	Pulse Waveform (200Hz, 60%)	Generic	2.22	±9.6 %
10356	AAA	Pulse Waveform (200Hz, 80%)	Generic	0.97	±9.6 %
10387	AAA	QPSK Waveform, 1 MHz	Generic	5.10	±9.6%
10388	AAA	QPSK Waveform, 10 MHz	Generic	5.22	±9.6%
10396	AAA	64-QAM Waveform, 100 kHz	Generic	6.27	±9.6%
10399	AAA	64-QAM Waveform, 40 MHz	Generic	6.27	± 9.6 %
10400	AAD	IEEE 802,11ac WiFi (20MHz, 64-QAM, 99pc duty cycle)	WLAN	8.37	±9.6 %
10401	AAD	IEEE 802,11ac WiFi (40MHz, 64-QAM, 99pc duty cycle)	WLAN	8.60	±9.6%
10402	AAD	IEEE 802.11ac WIFi (80MHz, 64-QAM, 99pc duty cycle)	WLAN	8.53	± 9.6 %
10403	AAB	CDMA2000 (1xEV-DO, Rev. 0)	CDMA2000	3.76	± 9.6 %
10404	AAB	CDMA2000 (1xEV-DO, Rev. A)	CDMA2000	3.77	± 9.6 %
10406	AAB	CDMA2000, RC3, SO32, SCH0, Full Rate	CDMA2000	5.22	±9,6 %
10410	AAG	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9, Subframe Conf=4)	LTE-TDD	7.82	±9,6 %
10414	AAA	WLAN CCDF, 64-QAM, 40MHz	Generic	8.54	±9.6 %
10415	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 99pc duty cycle)	WLAN	1.54	± 9.6 %
10416	AAA	IEEE 802.11g WiFi 2.4 GHz (ERP-OFDM, 6 Mbps, 99pc duty cycle)	WLAN	8.23	±9.6 %
10417	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 99pc duty cycle)	WLAN	8.23	± 9.6 9
10418	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Long preambule)	WLAN	8.14	± 9.6 9
10419	AAA	IEEE 802 11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 99pc duty cycle, Short preambule)	WLAN	8.19	± 9.6 9
10422	AAB	IEEE 802.11n (HT Greenfield, 7.2 Mbps, BPSK)	WLAN	8.32	±9.6
10423	AAB	JEEE 802.11n (HT Greenfield, 43.3 Mbps, 16-QAM)	WLAN	8.47	± 9.6 °
10424	AAB	IEEE 802.11n (HT Greenfield, 72.2 Mbps, 64-QAM)	WLAN	8,40	± 9.6 °
10425	AAB	IEEE 802.11n (HT Greenfield, 15 Mbps. BPSK)	WLAN	8.41	± 9.6 °
10426	AAB	IEEE 802,11n (HT Greenfield, 90 Mbps, 16-QAM)	WLAN	8.45	±9.6
10427	AAB	IEEE 802.11n (HT Greenfield, 150 Mbps, 64-QAM)	WLAN	8.41	± 9.6
10430	AAD	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1)	LTE-FDD	8.28	±9.6
10431	AAD	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1)	LTE-FDD	8.38	±9.6
10432	AAC	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1)	LTE-FDD	8.34	±9.6
10433	AAC	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1)	LTE-FDD	8.34	±9.6
10434	AAA	W-CDMA (BS Test Model 1, 64 DPCH)	WCDMA	8.60	±9.6
10435	AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	± 9.6
10447	AAD	LTE-FDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.56	±9.6
10448	AAD	LTE-FDD (OFDMA, 10 MHz, E-TM 3.1, Clippin 44%)	LTE-FDD	7.53	± 9.6
10449	AAC	LTE-FDD (OFDMA, 15 MHz, E-TM 3.1, Cliping 44%)	LTE-FDD	7.51	± 9.6
10450	AAC	LTE-FDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	LTE-FDD	7.48	± 9.6

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EX3DV4-	SN:7466	

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10451	AAA	W-CDMA (BS Test Model 1, 64 DPCH, Clipping 44%)	WCDMA	7.59	± 9.6 %
10453	AAD	Validation (Square, 10ms, 1ms)	Test	10.00	± 9.6 %
10456	AAB	IEEE 802.11ac WiFi (160MHz, 64-QAM, 99pc duty cycle)	WLAN	8.63	±9.6%
10457	AAA	UMTS-FDD (DC-HSDPA)	WCDMA	6.62	± 9.6 %
10458	AAA	CDMA2000 (1xEV-DO, Rev. B, 2 carriers)	CDMA2000	6.55	
10459	AAA	CDMA2000 (1xEV-DO, Rev. B, 3 carriers)			±9.6 %
10460	AAA	UMTS-FDD (WCDMA, AMR)	CDMA2000	8.25	±9.6 %
10461		LTE TOD (WODWA, AMK)	WCDMA	2.39	± 9.6 %
	AAB	LTE-TDD (SC-FDMA, 1 RB, 1:4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	±9.6 %
10462	AAB	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.30	±9.6 %
10463	AAB	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.56	±9.63
10464	AAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	±9.6 %
10465	AAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.32	±9.6 %
10466	AAC	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64-QAM, UL	1 22 2 2 2 2 2		
Concerne .	1 ALCON	Subframe=2,3,4,7,8,9)	LTE-TDD	8.57	±9.6 %
10467	AAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	± 9.6 %
10468	AAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.32	±9.6 %
10469	AAF	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.56	± 9.6 %
10470	AAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.82	±9.6 %
10471	AAF	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM, UL	LTE-TDD	8.32	± 9.6 %
10472	AAF	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM, UL	LTE-TDD	8.57	± 9.6.9
10473	AAE	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 1 RB, 15 MHz, QPSK, UL	LTE-TDD	7.82	±9.6 %
10474	AAE	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM, UL	LTE-TDD	8.32	±9.6 %
10475	AAE	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM, UL	LTE-TDD	8.57	±9.6 9
10477	AAF	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM, UL	LTE-TDD	8.32	± 9.6 9
10478	AAF	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM, UL			
	200	Subframe=2,3,4,7,8,9)	LTE-TDD	8.57	±9.6%
10479	AAB	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.74	±9.6 %
10480	AAB	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8,18	±9.6 %
10481	AAB	LTE-TDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.45	±9.6 %
10482	AAC	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TDD	7.71	±9.6 %
10483	AAC	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.39	±9.6 %
10484	AAC	LTE-TDD (SC-FDMA, 50% RB, 3 MHz, 64-QAM, UL	LTE-TDD	8.47	±9.6 %
10485	AAF	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 50% RB, 5 MHz, QPSK, UL	LTE-TDD	7.59	±9.6 %
0486	AAF	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM, UL	LTE-TDD	8.38	±9.6 %
10487	AAF	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM, UL	LTE-TDD	8.60	± 9.6 %
0488	AAF	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 50% RB, 10 MHz, QPSK, UL	LTE-TDD	7.70	±.9.6 %
0489	AAF	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM, UL	LTE-TDD	8.31	± 9.6 %
10490	AAF	Subframe=2,3,4,7,8,9)		1927 A	
0490	MAL	LTE-TDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.54	±9.6 %

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10491	AAE	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, QPSK, UL	LTE-TDD	7.74	± 9.6 %
	1.5.0	Subframe=2.3,4,7,8,9)			1.1
10492	AAE	LTE-TDD (SC-FDMA, 58% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.41	±9.6 %
10493	AAE	LTE-TDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.55	± 9,6 %
10494	AAF	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK, UL	LTE-TDD	7.74	± 9.6 %
10495	AAF	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FOMA, 50% RB, 20 MHz, 16-QAM, UL	LTE-TDD	8.37	± 9.6 %
10496	AAF	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM, UL	LTE-TDD	8.54	± 9.6 %
10497	AAB	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 1,4 MHz, QPSK, UL	LTE-TDD	7.67	± 9.6 %
10498	AAB	Subframe=2.3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM, UL	LTE-TDD	8.40	± 9.6 %
10499	AAB	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM, UL	LTE-TOD	8.68	± 9.6 %
		Subframe=2.3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 3 MHz, QPSK, UL	LTE-TDD	7.67	±9.6 %
10500	AAC	Subframe=2,3,4,7,8,9)			
10501	AAC	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.44	±9.6 %
10502	AAC	LTE-TDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM, UL Subframe=2.3.4.7.8.9)	LTE-TOD	8.52	±9.6 %
10503	AAF	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, QPSK, UL Subframe=2,3,4,7,8,9)	LTE-TOD	7.72	±9.6 %
10504	AAF	LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM, UL	LTE-TDD	8.31	±9.6 %
10505	AAF	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM, UL	LTE-TDD	8.54	± 9.6 %
10506	AAF	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 10 MHz, QPSK, UL	LTE-TDD	7,74	± 9.6 %
10507	AAF	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM, UL	LTE-TOD	8.36	±9.6 %
10508	AAF	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM, UL	LTE-TDD	8.55	±9.6 %
10509	AAE	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 15 MHz, QPSK, UL	LTE-TDD	7.99	± 9.6 %
1011	1.000	Subframe=2,3,4,7,8,9)			
10510	AAE	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.49	±9.6 %
10511	AAE	LTE-TDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM, UL Subframe=2,3,4,7,8,9)	LTE-TDD	8.51	±9.6 %
10512	AAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK, UL Subframe=2,3,4.7,8.9)	LTE-TDD	7.74	± 9.6 %
10513	AAF	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM, UL	LTE-TOD	8.42	± 9.6 %
10514	AAF	Subframe=2,3,4,7,8,9) LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM, UL	LTE-TDD	8.45	± 9.6 %
10515	AAA	Subframe=2.3,4,7,8,9) IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 99pc duty cycle)	WLAN	1.58	± 9.6 %
10515	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps, 99pc duty cycle)	WLAN	1.57	±9.6 %
10517	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 99pc duty cycle)	WLAN	1.58	± 9.6 9
10518	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 99pc duty cycle)	WLAN	8.23	± 9.6 9
		IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 99pc duty cycle)	WLAN	8.39	± 9.6 %
10519	AAB		WLAN	8.12	± 9.6 9
10520	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps, 99pc duty cycle)	WLAN	7.97	19.6
10521	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 99pc duty cycle)			
10522	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps, 99pc duty cycle)	WLAN	8.45	± 9.6 9
10523	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps, 99pc duty cycle)	WLAN	8.08	± 9.6 %
10524	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps, 99pc duty cycle)	WLAN	8.27	±9.6 9
10525	AAB	IEEE 802.11ac WiFi (20MHz, MCS0, 99pc duty cycle)	WLAN	8.36	±9.6 %
10526	AAB	IEEE 802.11ac WiFi (20MHz, MCS1, 99pc duty cycle)	WLAN	8.42	±9.6 °
10527	AAB	IEEE 802,11ac WiFi (20MHz, MCS2, 99pc duty cycle)	WLAN	8.21	±9.6 %
10528	AAB	IEEE 802.11ac WIFI (20MHz, MCS3, 99pc duty cycle)	WLAN	8.36	± 9.6 %
	AAB	IEEE 802.11ac WiFi (20MHz, MCS4, 99pc duty cycle)	WLAN	8.36	± 9.6 9
10529	AAB	IEEE 802.11ac WiFi (20MHz, MCS4, 99pc duty cycle)	WLAN	8.43	±9.6 9
10531 10532	AAB	IEEE 802.11ac WiFi (20MHz, MCS6, 99pc duty cycle)	WLAN	8.29	±9.6 %
	I AAD	TEEL OUZ, THE WIFT ZUWITZ, WORT, SOUGULY WORD	11-191	0.00	± 9.6 9

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10534	AAB	IEEE 802.11ac WiFi (40MHz, MCS0, 99pc duty cycle)	WLAN	8.45	± 9.6 %
10535	AAB	IEEE 802.11ac WiFi (40MHz, MCS1, 99pc duty cycle)	WLAN	8.45	± 9.6 9
10536	AAB	IEEE 802.11ac WiFi (40MHz, MCS2, 99pc duty cycle)	WLAN	8.32	± 9.6 %
10537	AAB	IEEE 802.11ac WiFi (40MHz, MCS3, 99pc duty cycle)	WLAN	8.44	± 9.6 9
10538	AAB	IEEE 802.11ac WiFI (40MHz, MCS4, 99pc duty cycle)	WLAN	8.54	± 9.6 %
10540	AAB	IEEE 802.11ac WiFi (40MHz, MCS6, 99pc duty cycle)	WLAN	8.39	±9.69
10541	AAB	IEEE 802.11ac WiFI (40MHz, MCS7, 99pc duty cycle)	WLAN	8.46	±9.69
10542	AAB	IEEE 802.11ac WiFi (40MHz, MCS8, 99pc duty cycle)	WLAN	8.65	19.69
10543	AAB	IEEE 802.11ac WiFi (40MHz, MCS9, 99pc duty cycle)	WLAN	8.65	±9.6 %
10544	AAB	IEEE 802,11ac WiFi (80MHz, MCS0, 99pc duty cycle)	WLAN	8.47	± 9.6 9
10545	AAB	IEEE 802.11ac WiFi (80MHz, MCS1, 99pc duty cycle)	WLAN	8.55	± 9.6 9
10546	AAB	IEEE 802.11ac WiFi (80MHz, MCS2, 99pc duty cycle)	WLAN	8.35	
10547	AAB	IEEE 802.11ac WiFi (80MHz, MCS3, 99pc duty cycle)	WLAN	8.49	±9.6 %
10548	AAB	IEEE 802.11ac WiFi (80MHz, MCS4, 99pc duty cycle)	WLAN	8.37	± 9.6 %
10550	AAB	IEEE 802.11ac WiFi (80MHz, MCS6, 99pc duty cycle)	WLAN		± 9.6 9
10551	AAB	IEEE 802.11ac WiFi (80MHz, MCS7, 99pc duty cycle)		8,38	± 9.6 %
10552	AAB	IEEE 802.11ac WiFi (80MHz, MCS7, 99pc duty cycle)	WLAN	8.50	± 9.6 %
10553	AAB	IEEE 802 11 ac WIFT (BOMHZ, MCS0, 99pc duty cycle)	WLAN	8.42	± 9.6 %
10554	AAC	IEEE 802.11ac WiFi (80MHz, MCS9, 99pc duty cycle)	WLAN	8.45	± 9.6 %
10555	AAC	IEEE 802.11ac WiFi (160MHz, MCS0, 99pc duty cycle)	WLAN	8.48	±9.6 %
10556	AAC	IEEE 802.11ac WiFi (160MHz, MCS1, 99pc duty cycle)	WLAN	8.47	±9.6 9
0557	AAC	IEEE 802.11ac WiFi (160MHz, MCS2, 99pc duty cycle)	WLAN	8.50	±9.6 9
10558		IEEE 802.11ac WiFi (160MHz, MCS3, 99pc duty cycle)	WLAN	8.52	±9.6 9
	AAC	IEEE 802.11ac WiFi (160MHz, MCS4, 99pc duty cycle)	WLAN	8.61	± 9.6 9
0560	AAC	IEEE 802.11ac WiFi (160MHz, MCS6, 99pc duty cycle)	WLAN	8.73	±9.6 %
0561	AAC	IEEE 802.11ac WiFi (160MHz, MCS7, 99pc duty cycle)	WLAN	8.56	± 9.6 %
10562	AAC	IEEE 802.11ac WiFi (160MHz, MCS8, 99pc duty cycle)	WLAN	8.69	± 9.6 %
10563	AAC	IEEE 802.11ac WiFi (160MHz, MCS9, 99pc duty cycle)	WLAN	8.77	± 9.6 %
10564	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 99pc duty cycle)	WLAN	8.25	±9.6 %
10565	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 99pc duty cycle)	WLAN	8.45	± 9.6 %
10566	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 99pc duty cycle)	WLAN	8.13	±9.6 %
10567	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 99pc duty cycle)	WLAN	8.00	±9.6 %
10568	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 99pc duty cycle)	WLAN	8.37	±9.6 %
0569	AAA	IEEE 802,11g WiFi 2.4 GHz (DSSS-OFDM, 48 Mbps, 99pc duty cycle)	WLAN	8.10	±9.69
0570	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 99pc duty cycle)	WLAN	8.30	±9.6 %
0571	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc duty cycle)	WEAN	1.99	±9.6 9
0572	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1 Mbps, 90pc duty cycle)	WLAN		
0573	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps, 90pc duty cycle)	WLAN	1.99	±9.69
0574	AAA	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps, 90pc duty cycle)	WLAN		±9.6 %
0575	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 6 Mbps, 90pc duty		1.98	± 9,6 %
2.32.40	1997	cycle)	WLAN	8,59	±9.6 %
0576	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 9 Mbps, 90pc duty cycle)	WLAN	8.60	± 9.6 %
0577	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 12 Mbps, 90pc duty cycle)	WLAN	8.70	±9.6 %
0578	AAA	IEEE 802 11g WiFi 2.4 GHz (DSSS-OFDM, 18 Mbps, 90pc duty cycle)	WLAN	8.49	± 9.6 9
0579	AAA	IEEE 802 11g WiFi 2.4 GHz (DSSS-OFDM, 24 Mbps, 90pc duty cycle)	WLAN	8.36	±9.6 %
0580	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 36 Mbps, 90pc duty cycle)	WLAN	8.76	± 9.6 %
0581	AAA	IEEE 802.11g WIFI 2.4 GHz (DSSS-OFDM, 48 Mbps, 90pc duty cycle)	WLAN	8.35	± 9.6 %
0582	AAA	IEEE 802.11g WiFi 2.4 GHz (DSSS-OFDM, 54 Mbps, 90pc duty cycle)	WLAN	8.67	±9.6 %
0583	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps, 90pc duty cycle)	WLAN	8.59	±9.6%
0584	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps, 90pc duty cycle)	WLAN	8.60	±9.69
	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps, 90pc duty cycle)	WLAN	8.70	±9.63
0585					

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#### EX3DV4- SN:7466

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10587	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps, 90pc duty cycle)	WLAN	8.36	±9.6 %
0588	AAB	IEEE 802.11a/h WIFi 5 GHz (OFDM, 36 Mbps, 90pc duty cycle)	WLAN	8.76	±9.6 %
0589	AAB	IEEE 802.11a/h WIFi 5 GHz (OFDM, 48 Mbps, 90pc duty cycle)	WLAN	8.35	± 9.6 %
0590	AAB	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps. 90pc duty cycle)	WLAN	8.67	± 9.6 %
0591	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS0, 90pc duty cycle)	WLAN	8.63	±9.6 %
0592	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS1, 90pc duty cycle)	WLAN	8.79	± 9.6 %
0593	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS2, 90pc duty cycle)	WLAN	8.64	±9.6 %
0594	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS3, 90pc duty cycle)	WLAN	8.74	±9.6 %
0595	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS4, 90pc duty cycle)	WLAN	8.74	± 9.6 %
0596	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS5, 90pc duty cycle)	WLAN	8.71	± 9.6 %
0597	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS6, 90pc duty cycle)	WLAN	8.72	± 9.6 %
0598	AAB	IEEE 802.11n (HT Mixed, 20MHz, MCS7, 90pc duty cycle)	WLAN	8.50	±9.6 %
0599	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS0, 90pc duty cycle)	WLAN	8.79	± 9.6 %
0600	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS1, 90pc duty cycle)	WLAN	8.88	±9.6 %
0601	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS2, 90pc duty cycle)	WLAN	8.82	± 9.6 %
0602	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS3. 90pc duty cycle)	WLAN	8.94	± 9.6 %
0603	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS4, 90pc duty cycle)	WLAN	9.03	± 9.6 %
0604	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS5, 90pc duty cycle)	WLAN	8.76	± 9.6 %
0605	AAB	IEEE 802.11n (HT Mixed, 40MHz, MCS6, 90pc duty cycle)	WLAN	8,97	±9.6 %
0606	AAB	IEEE 802,11n (HT Mixed, 40MHz, MCS7, 90pc duty cycle)	WLAN.	8.82	±9.6 %
0607	AAB	IEEE 802.11ac WiFi (20MHz, MCS0, 90pc duty cycle)	WLAN	8.64	±9.6%
0608	AAB	IEEE 802.11ac WiFi (20MHz, MCS1, 90pc duty cycle)	WLAN	8.77	±9.6 %
0609	AAB	IEEE 802.11ac WiFi (20MHz, MCS2, 90pc duty cycle)	WLAN	8.57	±9.6 %
0609	AAB	IEEE 802.11ac WiFi (20MHz, MCS3, 90pc duty cycle)	WLAN	8.78	± 9.6 %
0611	AAB	IEEE 802.11ac WiFi (20MHz, MCS4, 90pc duty cycle)	WLAN	8.70	±9.6 %
10612	AAB	IEEE 802.11ac WiFi (20MHz, MCS5, 90pc duty cycle)	WLAN	8.77	±9.6 %
10613	AAB	IEEE 802.11ac WiFi (20MHz, MCS6, 90pc duty cycle)	WLAN	8.94	±9.6%
10614	AAB	IEEE 802.11ac WiFi (20MHz, MCS0, 90pc duty cycle)	WLAN	8.59	±9.6%
0615	AAB	IEEE 802.11ac WiFi (20MHz, MCSP, 00pc duty cycle)	WLAN	8.82	±9.63
	AAB	IEEE 802.11ac WiFi (20MHz, MCG0, 90pc duty cycle)	WLAN	8.82	±9.6 %
0616	AAB	IEEE 802.11ac WiFi (40MHz, MCS0, sope duty cycle)	WLAN	8.81	± 9.6 %
10617	AAB	IEEE 802.11ac WiFi (40MHz, MCS1, 30pc duty cycle)	WLAN	8.58	±9.6%
10619	AAB	IEEE 802,11ac WiFi (40MHz, MCS3, 90pc duty cycle)	WLAN	8.86	±9.6 %
10620	AAB	IEEE 802.11ac WiFi (40MHz, MCS3, 30pc duty cycle)	WLAN	8.87	± 9.6 %
	AAB	IEEE 802.11ac WiFi (40MHz, MCS4, 90pc duty cycle)	WLAN	8.77	± 9.6 9
10621	AAB	IEEE 802,11ac WiFi (40MHz, MCS6, 90pc duty cycle)	WLAN	8.68	±9.6 %
10622	AAB	IEEE 802,11ac WiFi (40MHz, MCS7, 90pc duty cycle)	WLAN	8.82	± 9.6 %
10624	AAB	IEEE 802.11ac WiFi (40MHz, MCS8. 90pc duty cycle)	WLAN	8.96	±9.6 %
	AAB	IEEE 802.11ac WiFi (40MHz, MCS9, 90pc duty cycle)	WLAN	8.96	±9.6 %
10625	AAB	IEEE 802.11ac WiFi (80MHz, MCS0, 90pc duty cycle)	WLAN	8.83	± 9.6 %
10626	AAB	IEEE 802.11ac WiFi (80MHz, MCS0, sope duty cycle)	WLAN	8.88	±9.6 %
	AAB	IEEE 802.11ac WiFi (80MHz, MCS1, 90pc duty cycle)	WLAN	8.71	±9.6 %
10628		IEEE 802.11ac WiFi (80MHz, MCS2, 90pc duty cycle)	WLAN	8.85	± 9.6 9
10629	AAB	IEEE 802.11ac WIFI (80MHz, MCS3, sope duty cycle)	WLAN	8.72	± 9.6 %
10630		IEEE 802,11ac WiFI (80MHz, MCS5, 90pc duty cycle)	WLAN	8.81	± 9.6 9
10631	AAB	IEEE 802.11ac WIFI (80MHz, MCS5, sope duty cycle)	WLAN	8.74	± 9.6 9
10632	AAB	IEEE 802.11ac WiFI (80MHz, MCS6, 30pc duty cycle)	WLAN	8.83	± 9.6 9
10633	AAB		WLAN	8.80	± 9.6 9
10634	AAB	IEEE 802.11ac WiFi (80MHz, MCS8, 90pc duty cycle)	WLAN	8.81	± 9.6 °
10635	AAB	IEEE 802.11ac WiFi (80MHz, MCS9, 90pc duty cycle)	WLAN	8.83	± 9.6
10636	AAC	IEEE 802.11ac WiFi (160MHz, MCS0, 90pc duty cycle)	WLAN	8.83	± 9.6
10637	AAC	IEEE 802.11ac WiFi (160MHz, MCS1, 90pc duty cycle)	WLAN	8.86	± 9.6
10638	AAC	IEEE 802.11ac WiFi (160MHz, MCS2, 90pc duty cycle)	WLAN	8.85	± 9.6
10639	AAC	IEEE 802.11ac WiFi (160MHz, MCS3, 90pc duty cycle)		8.85	±9.6
10640	AAC	IEEE 802.11ac WiFi (160MHz, MCS4, 90pc duty cycle)	WLAN	9.06	±9.6
10641	AAC	IEEE 802,11ac WiFi (160MHz, MCS5, 90pc duty cycle)	WLAN	9.06	±9.6
10642	AAC	IEEE 802,11ac WiFi (160MHz, MCS6, 90pc duty cycle)	WLAN		
10643	AAC	IEEE 802.11ac WiFi (160MHz, MCS7, 90pc duty cycle)	WLAN	8.89	±9.6 9
10644	AAC	IEEE 802.11ac WiFi (160MHz, MCS8, 90pc duty cycle)	WLAN	9.05	±9.6
10645	AAC	IEEE 802.11ac WiFi (160MHz, MCS9, 90pc duty cycle)	WLAN	9.11	± 9.6
10646	AAG	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, QPSK, UL Subframe=2,7)	LTE-TDD	11.96	±9.6
10647	AAF	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK, UL Subframe=2.7)	LTE-TDD	11.96	±9.6
10648	AAA	CDMA2000 (1x Advanced)	CDMA2000	3.45	±9.6 °
10652	AAE	LTE-TDD (OFDMA, 5 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	6.91	± 9.6 '
10653	AAE	LTE-TDD (OFDMA, 10 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	7.42	±9.6

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EX3DV	4 - SN	1:7466

February & 2020

10654	AAD	LTE-TDD (OFDMA, 15 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	6.96	±9.6 %
10655	AAE	LTE-TDD (OFDMA, 20 MHz, E-TM 3.1, Clipping 44%)	LTE-TDD	7.21	± 9.6 %
10658	AAA	Pulse Waveform (200Hz, 10%)	Test	10.00	± 9.6 %
10659	AAA	Pulse Waveform (200Hz, 20%)	Test	6.99	± 9.6 %
10660	AAA	Pulse Waveform (200Hz, 40%)	Test	3.98	±9.6%
10661	AAA	Pulse Waveform (200Hz, 60%)	Test	2,22	±9.6%
10662	AAA	Pulse Waveform (200Hz, 80%)	Test	0.97	± 9.6 9
10670	AAA	Bluetooth Low Energy	Bluetooth	2.19	±9.69
10671	AAA	IEEE 802.11ax (20MHz, MCS0, 90pc duty cycle)	WLAN	9.09	±9.69
10672	AAA	IEEE 802.11ax (20MHz, MCS1, 90pc duty cycle)	WLAN	8.57	±9.69
10673	AAA	IEEE 802.11ax (20MHz, MCS2, 90pc duty cycle)	WLAN	8.78	±9.6 %
10674	AAA	IEEE 802.11ax (20MHz, MCS3, 90pc duty cycle)	WLAN	8.74	± 9.6 9
10675	AAA	IEEE 802.11ax (20MHz, MCS4, 90pc duty cycle)	WLAN	8.90	±9.6 %
10676	AAA	IEEE 802.11ax (20MHz, MCS5, 90pc duty cycle)	WLAN	8.77	±9.6 %
10677	AAA	IEEE 802.11ax (20MHz, MCS6, 90pc duty cycle)	WLAN	8.73	± 9.6 %
10678	AAA	IEEE 802.11ax (20MHz, MCS7, 90pc duty cycle)	WLAN	8.78	± 9.6 %
10679	AAA	IEEE 802.11ax (20MHz; MCS8, 90pc duty cycle)	WLAN	8.89	± 9.6 %
10680	AAA	IEEE 802.11ax (20MHz, MCS9, 90pc duty cycle)	WLAN	8.80	± 9.6 %
10681	AAA	IEEE 802.11ax (20MHz, MCS10, 90pc duty cycle)	WLAN	8.62	± 9.6 %
0682	AAA	IEEE 802.11ax (20MHz, MCS11, 90pc duty cycle)	WLAN	8.83	± 9.6 %
0683	AAA	IEEE 802.11ax (20MHz, MCS0, 99pc duty cycle)	WLAN	8.42	± 9.6 %
0684	AAA	IEEE 802.11ax (20MHz, MCS1, 99pc duty cycle)	WLAN	8.26	± 9.6 %
10685	AAA	IEEE 802.11ax (20MHz, MCS2, 99pc duty cycle)	WLAN	8.33	± 9.6 %
0686	AAA	IEEE 802.11ax (20MHz, MCS3, 99pc duty cycle)	WLAN	8.28	± 9.6 %
10687	AAA	IEEE 802.11ax (20MHz, MCS4, 99pc duty cycle)	WLAN	8.45	± 9.6 %
10688	AAA	IEEE 802.11ax (20MHz, MCS5, 99pc duty cycle)	WLAN	8.29	±9.6 %
10689	AAA	IEEE 802.11ax (20MHz, MCS6, 99pc duty cycle)	WLAN	8.55	± 9.6 %
0690	AAA	JEEE 802.11ax (20MHz, MCS7, 99pc duty cycle)	WLAN	8.29	±9.6 %
0691	AAA	IEEE 802.11ax (20MHz, MCS8, 99pc duty cycle)	WLAN	8.25	± 9.6 %
0692	AAA	IEEE 802.11ax (20MHz, MCS9, 99pc duty cycle)	WLAN	8.29	±9.6 %
0693	AAA	IEEE 802.11ax (20MHz, MCS10, 99pc duty cycle)	WLAN	8.25	± 9.6 %
0694	AAA	IEEE 802.11ax (20MHz, MCS11, 99pc duty cycle)	WLAN	8.57	±9.6 %
0695	AAA	IEEE 802.11ax (40MHz, MCS0, 90pc duty cycle)	WLAN	8.78	
0696	AAA	IEEE 802.11ax (40MHz, MCS1, 90pc duty cycle)	WLAN	8.91	±9.6 %
0697	AAA	IEEE 802.11ax (40MHz, MCS2, 90pc duty cycle)	WLAN	8.61	±9.6 %
0698	AAA	IEEE 802.11ax (40MHz, MCS3, 90pc duty cycle)	WLAN	8.89	±9.6 %
0699	AAA	IEEE 802.11ax (40MHz, MCS4, 90pc duty cycle)	WLAN	8.82	
0700	AAA	IEEE 802.11ax (40MHz, MCS5, 90pc duty cycle)	WLAN	8,73	± 9.6 % ± 9.6 %
0701	AAA	IEEE 802.11ax (40MHz, MCS6, 90pc duty cycle)	WLAN	8.86	19.6 %
0702	AAA	IEEE 802.11ax (40MHz, MCS7, 90pc duty cycle)	WLAN	8.70	
0703	AAA	IEEE 802.11ax (40MHz, MCS8, 90pc duty cycle)	WLAN	8.82	±9.6 %
0704	AAA	IEEE 802.11ax (40MHz, MCS9, 90pc duty cycle)			±9.6 %
0705	AAA	IEEE 802.11ax (40MHz, MCS10, 90pc duty cycle)	WLAN	8.56	± 9.6 %
0706	AAA	IEEE 802,11ax (40MHz, MCS11, 90pc duty cycle)	WLAN	8.69	±9.6 %
0707	AAA	IEEE 802.11ax (40MHz, MCS0, 99pc duty cycle)	WLAN	8.66	±9.6 %
0708	AAA	IEEE 802.11ax (40MHz, MCS0, 99pc duty cycle)	WLAN	8.32	±9.6 %
0709	AAA	IEEE 802.11ax (40MHz, MCS1, 99pc duty cycle)	WLAN WLAN	8.55	±9.6 %
0710	AAA	IEEE 802.11ax (40MHz, MCS2, 99pc duty cycle)	WLAN	8.33	±9.6 %
0711	AAA	IEEE 802.11ax (40MHz, MCS3, 99pc duty cycle)		8.29	±9.6 %
0712	AAA	IEEE 802.11ax (40MHz, MCS4, 99pc duty cycle)	WLAN	8.39	±9.6 %
0713	AAA	IEEE 802.11ax (40MHz, MCS5, 99pc duty cycle)	WLAN	8.67	±9.6 %
0714	AAA	IEEE 802.11ax (40MHz, MCS6, 99pc duty cycle) IEEE 802.11ax (40MHz, MCS7, 99pc duty cycle)	WLAN	8.33	±9.6 %
0715	AAA	IEEE 802 11ax (40MHz, MCS2, 99pc duty cycle)	WLAN	8.26	±9.6 %
0716	AAA	IEEE 802.11ax (40MHz, MCS8, 99pc duty cycle)	WLAN	8.45	±9.6 %
0715	AAA	IEEE 802.11ax (40MHz, MCS9, 99pc duty cycle)	WLAN	8.30	±9.6 %
		IEEE 802.11ax (40MHz, MCS10, 99pc duty cycle)	WLAN	8.48	±9.6 %
0718	AAA	IEEE 802,11ax (40MHz, MCS11, 99pc duty cycle)	WLAN	8.24	±9.6 %
0719	AAA	IEEE 802.11ax (80MHz, MCS0, 90pc duty cycle)	WLAN	8.81	±9.6 %
0720	AAA	IEEE 802.11ax (80MHz, MCS1, 90pc duty cycle)	WLAN	8.87	± 9.6 %
0721	AAA	IEEE 802.11ax (80MHz, MCS2, 90pc duty cycle)	WLAN	8.76	±9.6 %
0722	AAA	IEEE 802.11ax (80MHz, MCS3, 90pc duty cycle)	WLAN	8.55	± 9.6 %
0723	AAA	IEEE 802.11ax (80MHz, MCS4, 90pc duty cycle)	WLAN	8.70	±9.6 %
0724	AAA	IEEE 802 11ax (80MHz, MCS5, 90pc duty cycle)	WLAN	8.90	±9.6 %
0725	AAA	IEEE 802.11ax (80MHz, MCS6, 90pc duty cycle)	WLAN	8.74	± 9.6 %
0726	AAA	IEEE 802.11ax (80MHz, MCS7, 90pc duty cycle)	WLAN	8.72	± 9.6 %

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EX3DV4-	SN:7466
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February 4, 2020

10727	AAA	IEEE 802.11ax (80MHz, MCS8, 90pc duty cycle)	WLAN	8.66	±9.6 %
10728	AAA	IEEE 802.11ax (80MHz, MCS9, 90pc duty cycle)	WLAN	8.65	±9.6 %
0729	AAA.	IEEE 802.11ax (80MHz, MCS10, 90pc duty cycle)	WLAN	8.64	±9.6 %
0730	AAA	IEEE 802.11ax (80MHz, MCS11, 90pc duty cycle)	WLAN	8.67	±9.6 %
10731	AAA	IEEE 802.11ax (80MHz, MCS0, 99pc duty cycle)	WLAN	8.42	±9.6 %
10732	AAA	IEEE 802.11ax (80MHz, MCS1, 99pc duty cycle)	WLAN	8.46	± 9.6 %
	AAA	IEEE 802.11ax (80MHz, MCS2, 99pc duty cycle)	WLAN	8.40	±9.6 %
10733		IEEE 802.11ax (80MHz, MCS3, 99pc duly cycle)	WLAN	8.25	± 9.6 %
10734	AAA	IEEE 802.11ax (80MHz, MCS3, 99pc duty cycle)	WLAN	8.33	± 9.6 %
10735	AAA	IEEE 802.11ax (80MHz, MCS5, 99pc duty cycle)	WLAN	8.27	± 9.6 %
10736	AAA		WLAN	8.36	± 9.6 %
10737	AAA	IEEE 802 11ax (80MHz, MCS6, 99pc duty cycle)	WLAN	8.42	± 9.6 %
10738	AAA	IEEE 802.11ax (80MHz, MCS7, 99pc duty cycle)	WLAN	8.29	± 9.6 %
10739	AAA	IEEE 802.11ax (80MHz, MCS8, 99pc duty cycle)	WLAN	8.48	± 9.6 %
10740	AAA	IEEE 802.11ax (80MHz, MCS9, 99pc duty cycle)	WLAN	8.40	± 9.6 %
10741	AAA	IEEE 802.11ax (80MHz, MCS10, 99pc duty cycle)		8.40	± 9.6 %
10742	AAA	IEEE 802.11ax (80MHz, MCS11, 99pc duty cycle)	WLAN		±9.6 %
10743	AAA	IEEE 802.11ax (160MHz, MCS0, 90pc duty cycle)	WLAN	8.94	
10744	AAA	IEEE 802.11ax (160MHz, MCS1, 90pc duty cycle)	WLAN	9.16	± 9.6 %
10745	AAA	IEEE 802.11ax (160MHz, MCS2, 90pc duty cycle)	WLAN	8.93	± 9.6 %
10746	AAA	IEEE 802.11ax (160MHz, MCS3, 90pc duty cycle)	WLAN	9.11	± 9.6 %
10747	AAA	IEEE 802.11ax (160MHz, MCS4, 90pc duty cycle)	WLAN	9.04	±9.6 %
10748	AAA	IEEE 802.11ax (160MHz, MCS5, 90pc duty cycle)	WLAN	8.93	±9.6 %
10749	AAA	IEEE 802.11ax (160MHz, MGS6, 90pc duty cycle)	WLAN	8.90	± 9.6 %
10750	AAA	IEEE 802.11ax (160MHz, MCS7, 90pc duty cycle)	WLAN	8.79	± 9.6 %
10751	AAA	IEEE 802.11ax (160MHz, MCS8, 90pc duty cycle)	WLAN	8.82	± 9.6 %
10752	AAA	IEEE 802,11ax (160MHz, MCS9, 90pc duty cycle)	WLAN	8.81	±.9.6.%
10753	AAA	IEEE 802.11ax (160MHz, MCS10, 90pc duty cycle)	WLAN	9.00	± 9.6 %
10754	AAA	IEEE 802.11ax (160MHz, MCS11, 90pc duty cycle)	WLAN	8,94	± 9.6 %
10755	AAA	IEEE 802.11ax (160MHz, MCS0, 99pc duty cycle)	WLAN	8.64	± 9.6 %
10756	AAA	IEEE 802.11ax (160MHz, MCS1, 99pc duty cycle)	WLAN	8.77	±9.6 %
10757	AAA	IEEE 802.11ax (160MHz, MCS2, 99pc duty cycle)	WLAN	8.77	±9.6 %
10758	AAA	IEEE 802.11ax (160MHz, MCS3, 99pc duty cycle)	WLAN	8,69	±9.6 %
10759	AAA	IEEE 802.11ax (160MHz, MCS4, 99pc duty cycle)	WLAN	8.58	± 9.6 %
10760	AAA	IEEE 802,11ax (160MHz, MCS5, 99pc duty cycle)	WLAN	8.49	± 9.6 %
	AAA	IEEE 802.11ax (160MHz, MCS6, 99pc duty cycle)	WLAN	8.58	± 9.6 %
10761	AAA	IEEE 802.11ax (160MHz, MCS7, 99pc duty cycle)	WLAN	8.49	± 9.6 %
10762		IEEE 802.11ax (160MHz, MCS8, 99pc duty cycle)	WLAN	8.53	±9.6%
10763	AAA		WLAN	8.54	±9.6 %
10764	AAA	IEEE 802.11ax (160MHz, MCS9, 99pc duty cycle)	WLAN	8.54	± 9.6 %
10765	AAA	IEEE 802.11ax (160MHz, MCS10, 99pc duty cycle)	WLAN	8.51	± 9.6 %
10766	AAA	IEEE 802.11ax (160MHz, MCS11, 99pc duty cycle)	5G NR FR1	7.99	± 9.6 %
10767	AAB	5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 15 kHz)	TDD	1.22	00000
10768	AAB	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.01	± 9.6 %
10769	AAB	5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.01	±9.6 %
10770	AAB	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.02	± 9.6 %
10771	AAB	5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.02	± 9.6 %
10772	AAB	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.23	± 9.6 %
10773	AAB	5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1	8.03	± 9.6 %
10774	AAB	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 15 kHz)	TDD 5G NR FR1	8.02	± 9.6 %
10776	AAB	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 15 kHz)	TDD 5G NR FR1	8.30	± 9.6 %
10778	AAB	5G NR (CP-OFDM, 50% RB, 20 MHz, QPSK, 15 kHz)	TDD 5G NR FR1	8.34	± 9.6 9
10780	AAB	5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 15 kHz)	TDD 5G NR FR1	8.38	± 9.6 %
	11.4		5G NR FR1		-
	AAB	5G NR (CP-OFDM, 50% RB, 40 MHz, QPSK, 15 kHz)		8.38	±9.6 %

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10782	AAB	5G NR (CP-OFDM, 50% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1	8.43	± 9.6 %
10783	AAB	5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 15 kHz)	5G NR FR1	8.31	± 9.6 %
10784	AAB	5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 15 kHz)	TDD 5G NR.FR1	8.29	± 9.6 %
10785	AAB	5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 15 kHz)	TDD		10.00
10786	1		5G NR FR1 TDD	8.40	± 9.6 %
	AAB	5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.35	± 9.6 %
10787	AAB	5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.44	± 9.6 %
10788	AAB	5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 15 kHz)	5G NR FR1 TDD	8.39	± 9.6 %
10789	AAB	5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 15 kHz)	5G NR FR1	8.37	± 9.6 %
10790	AAB	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 15 kHz)	5G NR FR1	8.39	± 9.6 %
10791	AAB	5G NR (CP-OFDM, 1 RB, 5 MHz, QPSK, 30 kHz)	TDD 5G NR FR1	7.83	± 9.6 %
10792	AAB	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 30 kHz)	TDD 5G NR FR1	7.92	± 9.6 %
10793	AAB	5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 30 kHz)	TDD 5G NR FR1	7.95	1.000
10794	AAB		TDD	100	±9.6 %
		5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.82	± 9.6 %
10795	AAB	5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.84	±9.6 %
10796	AAB	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	7.82	± 9.6 %
10797	AAB	5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.01	±9.6 %
10798	AAB	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1	7.89	± 9.6 %
10799	AAB	5G NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 30 kHz)	TDD 5G NR FR1	7.93	± 9.6 %
10801	AAB	5G NR (CP-OFDM, 1 RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1	7.89	± 9.6 %
10802	AAB	5G NR (CP-OFDM, 1 RB, 90 MHz, QPSK, 30 kHz)	5G NR FR1	7.87	±9.6 %
10803	AAB	5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)	TDD 5G NR FR1	7.93	±9.6 %
10805	AAB	5G NR (CP-OFDM, 50% RB, 10 MHz, QPSK, 30 kHz)	TDD	1922	
1.51.51.51		a second s	5G NR FR1 TDD	8.34	± 9.6 %
10806	AAB	5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.37	±9.6 %
10809	AAB	5G NR (CP-OFDM, 50% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	±9.6 %
10810	AAB	5G NR (CP-OFDM, 50% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.34	±9.6 %
10812	AAB	5G NR (CP-OFDM, 50% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1	8.35	±9.6 %
10817	AAB	5G NR (CP-OFDM, 100% RB, 5 MHz, QPSK, 30 kHz)	5G NR FR1	8.35	±.9.6 %
10818	AAB	5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 30 kHz)	5G NR FR1	8.34	±9.6 %
10819	AAB	5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 30 kHz)	TDD 5G NR FR1	8.33	± 9.6 %
10820	AAB	5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 30 kHz)	TDD 5G NR FR1	8.30	± 9.6 %
10821	AAB	5G NR (CP-OFDM, 100% RB, 25 MHz, QFSK, 30 KHz)	TDD	1 - 1 - 1 - 1	
120 10			5G NR FR1 TDD	8.41	± 9.6 %
10822	AAB	5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
10823	AAB	5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.36	± 9.6 %

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824	AAB	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.39	±9.6 %
825	AAB	5G NR (CP-OFDM, 100% RB, 60 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
827	AAB	5G NR (CP-OFDM, 100% RB, 80 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.42	± 9.6 %
828	AAB	5G NR (CP-OFDM, 100% RB, 90 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.43	±9.6 %
829	AAB	5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	8.40	± 9.6 %
830	AAB	5G NR (CP-OFDM, 1 RB, 10 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.63	± 9.6 %
831	AAB	5G NR (CP-OFDM, 1 RB, 15 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.73	± 9.6 %
832	AAB	5G NR (CP-OFDM, 1 RB, 20 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.74	±9.6 %
833	AAB	5G NR (CP-OFDM, 1 RB, 25 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.70	± 9.6 %
834	AAB	5G NR (CP-OFDM, 1 RB, 30 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.75	±9.6 %
835	AAB	5G NR (CP-OFDM, 1 RB, 40 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.70	± 9.6 %
836	AAB	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.66	±9.6 %
837	AAB	5G NR (CP-OFDM, 1 RB, 60 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.68	±9.6 %
839	AAB	5G NR (CP-OFDM, 1 RB, 80 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.70	±9.6 %
840	AAB	5G NR (CP-OFDM, 1 RB, 90 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.67	± 9.6 %
841	AAB	5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	7.71	±9.6 %
843	AAB	5G NR (CP-OFDM, 50% RB, 15 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.49	±9.6 %
844	AAB	5G NR (CP-OFDM, 50% RB, 20 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.34	±9.6 %
846	AAB	5G NR (CP-OFDM. 50% RB, 30 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
854	AAB	5G NR (CP-OFDM, 100% RB, 10 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.34	±9.6 %
855	AAB	5G NR (CP-OFDM, 100% RB, 15 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.36	± 9.6 %
0856	AAB	5G NR (CP-OFDM, 100% RB, 20 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.37	± 9.6 %
0857	AAB	5G NR (CP-OFDM, 100% RB, 25 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.35	± 9.6 %
)858	AAB	5G NR (CP-OFDM, 100% RB, 30 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.36	± 9.6 %
0859	AAB	5G NR (CP-OFDM, 100% RB, 40 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.34	± 9.6 %
0860	AAB	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	±9.6 %
0861	AAB	5G NR (CP-OFDM, 100% RB, 60 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.40	±9.6 %
0863	AAB	5G NR (CP-OFDM, 100% RB, 80 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.41	± 9.6 %
0864	AAB	5G NR (CP-OFDM, 100% RB, 90 MHz, QPSK, 60 kHz)	5G NR FR1 TDD	8.37	± 9.6 %
0865	AAB	5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK. 60 kHz)	5G NR FR1 TDD	8.41	±9.6 %
0866	AAB	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.68	±9.6 %
0868	AAB	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, QPSK, 30 kHz)	5G NR FR1 TDD	5.89	±9.6 %
0869	AAC	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, QPSK, 120 kHz)	5G NR FR2 TDD	5.75	±9.6 %

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± 9.6 %	5.86	5G NR FR2	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, QPSK, 120 kHz)	AAG	10870
± 9.6 %	5.75	TDD 5G NR FR2	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, 16QAM, 120 kHz)	AAC	10871
1	12.00	TDD		1.10	10872
± 9.6 %	6.52	5G NR FR2 TDD	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, 16QAM, 120 kHz)	AAC	
±9.6 %	6.61	5G NR FR2 TDD	5G NR (DFT-s-OFDM, 1 RB, 100 MHz, 64QAM, 120 kHz)	AAC	10873
± 9.6 %	6.65	5G NR FR2 TDD	5G NR (DFT-s-OFDM, 100% RB, 100 MHz, 64QAM, 120 kHz)	AAC	10874
± 9,6 %	7.78	5G NR FR2 TDD	5G NR (CP-OFDM, 1 RB, 100 MHz, QPSK, 120 kHz)	AAC	10875
± 9.6 %	8.39	5G NR FR2 TDD	5G NR (CP-OFDM, 100% RB, 100 MHz, QPSK, 120 kHz)	AAC	10876
± 9.6 %	7,95	5G NR FR2 TDD	5G NR (CP-OFDM, 1 RB, 100 MHz, 16QAM, 120 kHz)	AAC	10877
± 9.6 %	8.41	5G NR FR2	5G NR (CP-OFDM, 100% RB, 100 MHz, 16QAM, 120 kHz)	AAC	10878
± 9.6 %	8.12	5G NR FR2 TDD	5G NR (CP-OFDM, 1 RB, 100 MHz, 64QAM, 120 kHz)	AAC	10879
± 9.6 %	8.38	5G NR FR2 TDD	5G NR (CP-OFDM, 100% RB, 100 MHz, 64QAM, 120 kHz)	AAC	10880
± 9.6 %	5.75	5G NR FR2	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, QPSK, 120 kHz)	AAC	10881
± 9.6 %	5.96	5G NR FR2 TDD	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, QPSK, 120 kHz)	AAC	10882
± 9.6 %	6.57	5G NR FR2 TDD	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, 16QAM, 120 kHz)	AAC	10883
±9.6 %	6.53	5G NR FR2 TDD	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, 16QAM, 120 kHz)	AAC	10884
±9.6 %	6.61	5G NR FR2 TDD	5G NR (DFT-s-OFDM, 1 RB, 50 MHz, 64QAM, 120 kHz)	AAC	10885
± 9.6 %	6.65	5G NR FR2 TDD	5G NR (DFT-s-OFDM, 100% RB, 50 MHz, 64QAM, 120 kHz)	AAC	0886
±9.6 %	7.78	5G NR FR2	5G NR (CP-OFDM, 1 RB, 50 MHz, QPSK, 120 kHz)	AAC	0887
± 9.6 %	8.35	5G NR FR2	5G NR (CP-OFDM, 100% RB, 50 MHz, QPSK, 120 kHz)	AAC	8880
±9.6 %	8.02	5G NR FR2 TDD	5G NR (CP-OFDM, 1 RB, 50 MHz, 16QAM, 120 kHz)	AAC	0889
±9.6 %	8.40	5G NR FR2 TDD	5G NR (CP-OFDM, 100% RB, 50 MHz, 16QAM, 120 kHz)	AAC	0890
±9.6 %	8.13	5G NR FR2 TDD	5G NR (CP-OFDM, 1 RB, 50 MHz, 64QAM, 120 kHz)	AAC	0891
±9.6 %	8.41	5G NR FR2 TDD	5G NR (CP-OFDM, 100% RB, 50 MHz, 64QAM, 120 kHz)	AAC	0892

<sup>E</sup> Uncertainty is determined using the max, deviation from linear response applying rectangular distribution and is expressed for the square of the field value

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# - End of report -

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