



#### Calibration Laboratory of Schmid & Partner Engineering AG Zeughausstrasse 43, 8004 Zurich, Switzerland



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

Accreditation No.: SCS 0108

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Client DT&C (Dymstec)

Certificate No: EX3-3866\_May18

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Object	EX3DV4 - SN:386	6	
	04 041 04 0	CAL 11.1 04 CAL 02.15 04	041.05.0
Calibration procedure(s)		A CAL-14.v4, QA CAL-23.v5, QA ure for dosimetric E-field probes	GAL-25.V6
Calibration date:	May 31, 2018		
The measurements and the unc	ertainties with confidence prol	al 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.
Calibration Equipment used (MA	TE critical for calibration)		
Primary Standards	ID	Cal Date (Certificate No.)	Scheduled Calibration
Power meter NRP	SN: 104778	04-Apr-18 (No. 217-02672/02673)	Apr-19
Power sensor NRP-Z91	SN: 103244	04-Apr-18 (No. 217-02672)	Apr-19
and the state of t	SN: 103245	04-Apr-18 (No. 217-02673)	Apr-19
Power sensor NRP-Z91			
	SN: S5277 (20x)	04-Apr-18 (No. 217-02682)	Apr-19
Reference 20 dB Attenuator	SN: S5277 (20x) SN: 3013	04-Apr-18 (No. 217-02682) 30-Dec-17 (No. ES3-3013_Dec17)	Apr-19 Dec-18
Reference 20 dB Attenuator Reference Probe ES3DV2			
Reference 20 dB Attenuator Reference Probe ES3DV2 DAE4	SN: 3013 SN: 660	30-Dec-17 (No. ES3-3013_Dec17) 21-Dec-17 (No. DAE4-660_Dec17)	Dec-18 Dec-18
Reference 20 dB Attenuator Reference Probe ES3DV2 DAE4 Secondary Standards	SN: 3013 SN: 660 ID	30-Dec-17 (No. ES3-3013_Dec17) 21-Dec-17 (No. DAE4-660_Dec17) Check Date (in house)	Dec-18 Dec-18 Scheduled Check
Reference 20 dB Attenuator Reference Probe ES3DV2 DAE4 Secondary Standards Power meter E4419B	SN: 3013 SN: 660	30-Dec-17 (No. ES3-3013_Dec17) 21-Dec-17 (No. DAE4-660_Dec17)	Dec-18 Dec-18 Scheduled Check In house check: Jun-18
Reference 20 dB Attenuator Reference Probe ES3DV2 DAE4 Secondary Standards Power meter E4419B Power sensor E4412A	SN: 3013 SN: 660 ID SN: GB41293874	30-Dec-17 (No. ES3-3013_Dec17) 21-Dec-17 (No. DAE4-660_Dec17) Check Date (in house) 06_Apr-16 (in house check Jun-16)	Dec-18 Dec-18 Scheduled Check In house check: Jun-18 In house check: Jun-18
Reference 20 dB Attenuator Reference Probe ES3DV2 DAE4 Secondary Standards Power meter E4419B Power sensor E4412A Power sensor E4412A	SN: 3013 SN: 660 ID SN: GB41293874 SN: MY41498087	30-Dec-17 (No. ES3-3013_Dec17) 21-Dec-17 (No. DAE4-660_Dec17) Check Date (in house) 06_Apr-16 (in house check Jun-16) 08-Apr-16 (in house check Jun-16)	Dec-18 Dec-18 Scheduled Check In house check: Jun-18 In house check: Jun-18 In house check: Jun-18
Reference 20 dB Attenuator Reference Probe ES3DV2 DAE4 Secondary Standards Power meter E4419B Power sensor E4412A Power sensor E4412A RF generator HP 8648C	SN: 3013 SN: 660 ID SN: GB41293874 SN: MY41498087 SN: 000110210	30-Dec-17 (No. ES3-3013_Dec17) 21-Dec-17 (No. DAE4-660_Dec17) Check Date (in house) 06-Apr-16 (in house check Jun-16) 08-Apr-16 (in house check Jun-16) 06-Apr-16 (in house check Jun-16)	Dec-18 Dec-18 Scheduled Check In house check: Jun-18 In house check: Jun-18 In house check: Jun-18 In house check: Jun-18
Power sensor NRP-Z91 Reference 20 dB Attenuator Reference Probe ES3DV2 DAE4 Secondary Standards Power meter E4419B Power sensor E4412A Power sensor E4412A RF generator HP 8648C Network Analyzer HP 8753E	SN: 3013 SN: 660 ID SN: GB41293874 SN: MY41498087 SN: 000110210 SN: US3642U01700	30-Dec-17 (No. ES3-3013_Dec17) 21-Dec-17 (No. DAE4-660_Dec17) Check Date (in house) 06-Apr-16 (in house check Jun-16) 08-Apr-16 (in house check Jun-16) 06-Apr-16 (in house check Jun-16) 04-Aug-99 (in house check Jun-16)	Dec-18 Dec-18
Reference 20 dB Attenuator Reference Probe ES3DV2 DAE4 Secondary Standards Power meter E4419B Power sensor E4412A Power sensor E4412A RF generator HP 8648C Network Analyzer HP 8753E	SN: 3013 SN: 660 ID SN: GB41293874 SN: MY41498087 SN: 000110210 SN: US3642U01700 SN: US37390585	30-Dec-17 (No. ES3-3013_Dec17) 21-Dec-17 (No. DAE4-660_Dec17) Check Date (in house) 06-Apr-16 (in house check Jun-16) 08-Apr-16 (in house check Jun-16) 06-Apr-16 (in house check Jun-16) 04-Aug-99 (in house check Jun-16) 18-Oct-01 (in house check Oct-17)	Dec-18 Dec-18 Scheduled Check In house check: Jun-18 In house check: Jun-18 In house check: Jun-18 In house check: Jun-18 In house check: Jun-18
Reference 20 dB Attenuator Reference Probe ES3DV2 DAE4 Secondary Standards Power meter E4419B Power sensor E4412A Power sensor E4412A RF generator HP 8648C	SN: 3013 SN: 660 ID SN: GB41293874 SN: MY41498087 SN: 000110210 SN: US3642U01700 SN: US37390585 Name	30-Dec-17 (No. ES3-3013_Dec17) 21-Dec-17 (No. DAE4-660_Dec17) Check Date (in house) 06-Apr-16 (in house check Jun-16) 08-Apr-16 (in house check Jun-16) 06-Apr-16 (in house check Jun-16) 04-Aug-99 (in house check Jun-16) 18-Oct-01 (in house check Oct-17) Function	Dec-18 Dec-18 Scheduled Check In house check: Jun-18 In house check: Jun-18 In house check: Jun-18 In house check: Jun-18 In house check: Oct-18

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#### Glossary:

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

#### 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 Techniques", June 2013
- b) IEC 62209-1, ", "Measurement procedure for the assessment of Specific Absorption Rate (SAR) from handheld and body-mounted devices used next to the ear (frequency range of 300 MHz to 6 GHz)", July 2016
- c) 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
- 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 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).

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# Probe EX3DV4

## SN:3866

Manufactured: Calibrated:

February 2, 2012 May 31, 2018

Calibrated for DASY/EASY Systems (Note: non-compatible with DASY2 system!)

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## DASY/EASY - Parameters of Probe: EX3DV4 - SN:3866

#### **Basic Calibration Parameters**

	Sensor X	Sensor Y	Sensor Z	Unc (k=2)
Norm $(\mu V/(V/m)^2)^A$	0.43	0.32	0.35	± 10.1 %
DCP (mV) <sup>B</sup>	98.7	101.4	105.4	

## **Modulation Calibration Parameters**

UID	Communication System Name		A dB	B dBõV	С	D dB	VR mV	Unc <sup>E</sup> (k=2)
0	CW	X	0.0	0.0	1.0	0.00	129.5	±3.3 %
		Y	0.0	0.0	1.0		142.9	
		Z	0.0	0.0	1.0		132.3	

Note: For details on UID parameters see Appendix.

#### Sensor Model Parameters

	C1 fF	C2 fF	α V <sup>-1</sup>	T1 ms.V <sup>-2</sup>	T2 ms.V <sup>-1</sup>	T3 ms	T4 V <sup>-2</sup>	T5 V <sup>-1</sup>	Т6
Х	61.34	450.3	34.79	20.71	0.897	5.071	0.953	0.532	1.007
Y	35.97	270.0	35.93	7.616	0.990	4.996	0.120	0.508	1.005
Z	34.59	248.7	33.42	8.463	0.617	4.987	2.000	0.071	1.005

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 and 6).
<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 extension. field value.

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## DASY/EASY - Parameters of Probe: EX3DV4 - SN:3866

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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)				
750	41.9	0.89	10.16	10.16	10.16	0.49	0.80	± 12.0 %				
835	41.5	0.90	9.62	9.62	9.62	0.39	0.93	± 12.0 %				
900	41.5	0.97	9.40	9.40	9.40	0.40	0.92	± 12.0 %				
1750	40.1	1.37	8.38	8.38	8.38	0.34	0.84	± 12.0 %				
1900	40.0	1.40	8.03	8.03	8.03	0.27	0.87	± 12.0 %				
2300	39.5	1.67	7.86	7.86	7.86	0.30	0.85	± 12.0 %				
2450	39.2	1.80	7.45	7.45	7.45	0.34	0.82	± 12.0 %				
2600	39.0	1.96	7.22	7.22	7.22	0.38	0.85	± 12.0 %				
3500	37.9	2.91	6.89	6.89	6.89	0.20	1.25	± 13.1 %				
5200	36.0	4.66	5.14	5.14	5.14	0.40	1.80	± 13.1 %				
5300	35.9	4.76	4.95	4.95	4.95	0.40	1.80	± 13.1 %				
5500	35.6	4.96	4.61	4.61	4.61	0.40	1.80	± 13.1 %				
5600	35.5	5.07	4.52	4.52	4.52	0.40	1.80	± 13.1 %				
5800	35.3	5.27	4.69	4.69	4.69	0.40	1.80	± 13.1 %				

Calibration Parameter Determined in Head Tissue Simulating Media

<sup>C</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, 64, 128, 150 and 220 MHz respectively. Above 5 GHz frequency validity calibration frequencies below 3 GHz, the validity of tissue parameters (ε and σ) can be relaxed to ± 10% if liquid compensation formula is applied to measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (ε and σ) is restricted to ± 5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters. <sup>G</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 and below ± 2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

diameter from the boundary.

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## DASY/EASY - Parameters of Probe: EX3DV4 - SN:3866

and and an and a strained in body rissue Simulating Media											
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)			
750	55.5	0.96	9.69	9.69	9.69	0.33	0.97	± 12.0 %			
835	55.2	0.97	9.43	9.43	9.43	0.42	0.80	± 12.0 %			
900	55.0	1.05	9.57	9.57	9.57	0.48	0.80	± 12.0 %			
1750	53.4	1.49	7.95	7.95	7.95	0.39	0.80	± 12.0 %			
1900	53.3	1.52	7.68	7.68	7.68	0.30	0.85	± 12.0 %			
2300	52.9	1.81	7.50	7.50	7.50	0.39	0.85	± 12.0 %			
2450	52.7	1.95	7.40	7.40	7.40	0.43	0.90	± 12.0 %			
2600	52.5	2.16	7.28	7.28	7.28	0.25	1.05	± 12.0 %			
3500	51.3	3.31	6.43	6.43	6.43	0.28	1.20	± 13.1 %			
5200	49.0	5.30	4.69	4.69	4.69	0.50	1.90	± 13.1 %			
5300	48.9	5.42	4.50	4.50	4.50	0.50	1.90	± 13.1 %			
5500	48.6	5.65	3.95	3.95	3.95	0.50	1.90	± 13.1 %			
5600	48.5	5.77	3.87	3.87	3.87	0.50	1.90	± 13.1 %			
5800	48.2	6.00	4.16	4.16	4.16	0.50	1.90	± 13.1 %			

### Calibration Parameter Determined in Body Tissue Simulating Media

<sup>c</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, 64, 128, 150 and 220 MHz respectively. Above 5 GHz frequency validity can be extended to ± 110 MHz. <sup>F</sup> At frequencies below 3 GHz, the validity of tissue parameters (ε and σ) can be relaxed to ± 10% if liquid compensation formula is applied to

measured SAR values. At frequencies above 3 GHz, the validity of tissue parameters (s and o) is restricted to ± 5%. The uncertainty is the RSS of

The aburded SAR values. At reductives above 3 GHz, the validity of tissue parameters (s and d) is restricted to  $\pm$  5%. The uncertainty is the RSS of the ConvF uncertainty for indicated target tissue parameters. <sup>6</sup> Alpha/Depth are determined during calibration. SPEAG warrants that the remaining deviation due to the boundary effect after compensation is always less than  $\pm$  1% for frequencies below 3 GHz and below  $\pm$  2% for frequencies between 3-6 GHz at any distance larger than half the probe tip diameter from the boundary.

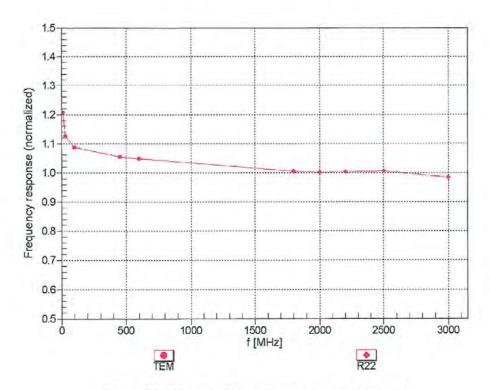
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## Frequency Response of E-Field (TEM-Cell:ifi110 EXX, Waveguide: R22)



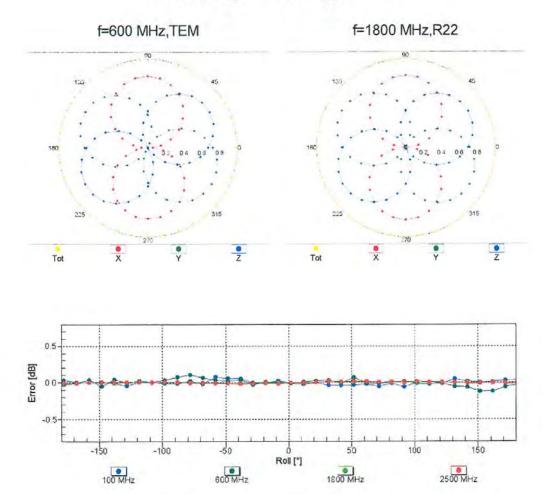
Uncertainty of Frequency Response of E-field: ± 6.3% (k=2)

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

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

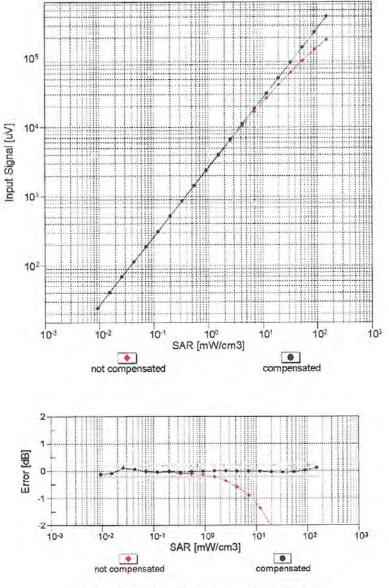
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## Dynamic Range f(SAR<sub>head</sub>) (TEM cell , f<sub>eval</sub>= 1900 MHz)



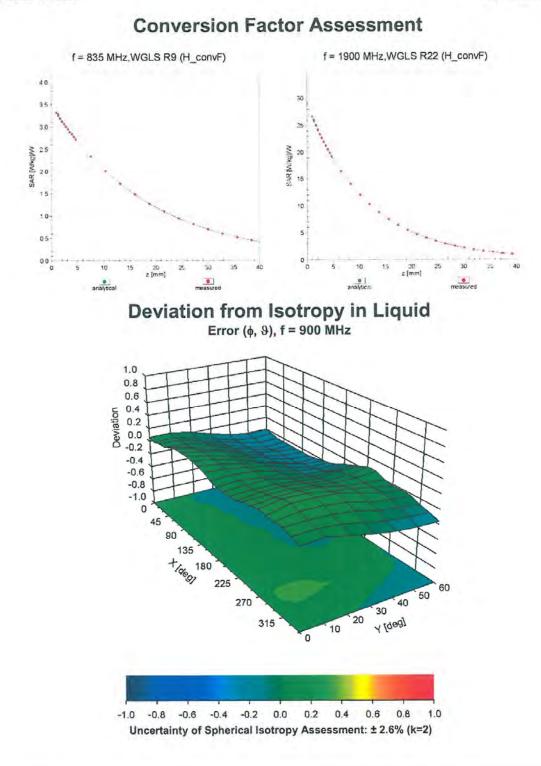
Uncertainty of Linearity Assessment: ± 0.6% (k=2)

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## DASY/EASY - Parameters of Probe: EX3DV4 - SN:3866

## Other Probe Parameters

Sensor Arrangement	Triangular
Connector Angle (°)	61.8
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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## Appendix: Modulation Calibration Parameters

UID	Communication System Name		A dB	B dBõV	С	D dB	VR mV	Max Unc <sup>E</sup> (k=2)
0	CW	X	0.00	0.00	1.00	0.00	129.5	± 3.3 %
		Y	0.00	0.00	1.00		142.9	
10010-	SAR Validation (Square, 100ms, 10ms)	Z	0.00	0.00	1.00	10.00	132.3	
CAA	SAR Validation (Square, Tooms, Toms)	X	4.96	74.03	14.55	10.00	20.0	± 9.6 %
		Y	1.96	62.67	8.25		20.0	
10011		Z	1.98	63.61	8.75		20.0	
10011- CAB	UMTS-FDD (WCDMA)	×	1.46	74.36	19.19	0.00	150.0	± 9.6 %
		Y	0.84	66.93	14.18		150.0	
10012-	IEEE 802.11b WiFi 2.4 GHz (DSSS, 1	Z	1.06	69.91	16.41	0.44	150.0	1000
CAB	Mbps)	X	1.27	66.19	17.07	0.41	150.0	± 9.6 %
		Y	1.01	63.39	14.61		150.0	
10013-		Z	1.12	64.44	15.48	4.40	150.0	1000
CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS- OFDM, 6 Mbps)	X	5.02	66.95	17.37	1.46	150.0	±9.6 %
		Y Z	4.56	66.54 66.83	16.75 16.87		150.0	
10021- DAC	GSM-FDD (TDMA, GMSK)	X	100.00	116.34	28.99	9.39	150.0 50.0	± 9.6 %
0/10		Y	4.35	71.51	13.58		50.0	
		Z	10.49	82.17	17.30		50.0	
10023- DAC	GPRS-FDD (TDMA, GMSK, TN 0)	X	100.00	116.24	28.99	9.57	50.0	± 9.6 %
		Y	4.08	70.51	13.19		50.0	
		Z	7.34	77.92	15.91		50.0	
10024- DAC	GPRS-FDD (TDMA, GMSK, TN 0-1)	X	100.00	114.37	27.13	6.56	60.0	±9.6 %
		Y	2.47	68.27	11.00		60.0	
10005		Z	99.64	104.22	21.52		60.0	
10025- DAC	EDGE-FDD (TDMA, 8PSK, TN 0)	X	7.29	85.63	33.51	12.57	50.0	± 9.6 %
		Y Z	3.34 4.59	62.89 72.89	20.63		50.0	
10026-	EDGE-FDD (TDMA, 8PSK, TN 0-1)				26.66	0.56	50.0	+06%
DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1)	X	19.51	108.37	37.98	9.56	60.0	± 9.6 %
		Y Z	6.99 7.40	84.48 87.18	28.68 30.26		60.0 60.0	
10027- DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2)	X	100.00	114.69	26.54	4.80	80.0	± 9.6 %
Brito		Y	1.47	65.78	9.10		80.0	
		Z	100.00	103.55	20.47		80.0	
10028- DAC	GPRS-FDD (TDMA, GMSK, TN 0-1-2-3)	x	100.00	116.57	26.68	3.55	100.0	±9.6 %
		Y	0.75	62.53	6.91		100.0	
		Z	100.00	103.86	19.98		100.0	
10029- DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2)	X	10.84	94.12	31.96	7.80	80.0	±9.6 %
		Y	4.68	76.74	24.63		80.0	
10000		Z	4.76	77.76	25.40		80.0	
10030- CAA	IEEE 802.15.1 Bluetooth (GFSK, DH1)	X	100.00	113.28	26.21	5.30	70.0	± 9.6 %
		Y	1.50	64.87	8.87		70.0	
10031-	IEEE 802.15.1 Bluetooth (GFSK, DH3)	Z X	14.61 100.00	85.51 120.46	16.17 26.88	1.88	70.0 100.0	± 9.6 %
CAA		Y	0.28	60.00	3.77		100.0	
		Z	100.00	97.01	16.04		100.0	

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10032- CAA	IEEE 802.15.1 Bluetooth (GFSK, DH5)	X	100.00	134.94	31.61	1.17	100.0	± 9.6 %
		Y	2.98	214.36	19.03		100.0	
		Z	100.00	96.12	15.00		100.0	
10033- CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH1)	X	100.00	129.71	35.52	5.30	70.0	± 9.6 %
		Y	3.37	73.07	15.63		70.0	
		Z	5.18	79.83	18.59		70.0	
10034- CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH3)	X	38.25	116.38	31.11	1.88	100.0	± 9.6 %
		Y	1.32	66.13	11.17		100.0	
		Z	2.19	72.52	14.56		100.0	
10035- CAA	IEEE 802.15.1 Bluetooth (PI/4-DQPSK, DH5)	×	10.07	97.58	26.00	1.17	100.0	± 9.6 %
		Y	1.02	64.74	10.26		100.0	
10000		Z	1.68	70.82	13.73		100.0	
10036- CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH1)	X	100.00	130.10	35.71	5.30	70.0	±9.6 %
		Y	3.79	74.73	16.33		70.0	
40007		Z	6.44	82.95	19.72		70.0	
10037- CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH3)	X	33.36	114.28	30.54	1.88	100.0	± 9.6 %
		Y	1.25	65.67	10.94		100.0	
10000		Z	1.95	71.33	14.08		100.0	
10038- CAA	IEEE 802.15.1 Bluetooth (8-DPSK, DH5)	X	11.00	99.37	26.64	1.17	100.0	± 9.6 %
		Y	1.03	65.03	10.52		100.0	
10039-	CDMA2000 (1+BTT BC1)	Z	1.72	71.30	14.06	0.00	100.0	
CAB	CDMA2000 (1xRTT, RC1)	X	4.41	85.41	21.99	0.00	150.0	± 9.6 %
		Y	0.86	64.63	9.97		150.0	
10042-		Z	1.99	74.44	15.11	7.70	150.0	
CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4- DQPSK, Halfrate)	X	100.00	112.07	26.26	7.78	50.0	± 9.6 %
		Y Z	2.24	65.83	9.99		50.0	
10044- CAA	IS-91/EIA/TIA-553 FDD (FDMA, FM)	X	4.60 0.01	73.72 122.05	13.31 4.07	0.00	50.0 150.0	± 9.6 %
Onn		Y	0.35	142.03	0.00		150.0	
		Z	0.02	123.73	10.80		150.0	
10048- CAA	DECT (TDD, TDMA/FDM, GFSK, Full Slot, 24)	X	100.00	117.95	31.07	13.80	25.0	± 9.6 %
		Y	4.50	67.37	13.41		25.0	
		Z	5.19	70.06	14.31		25.0	
10049- CAA	DECT (TDD, TDMA/FDM, GFSK, Double Slot, 12)	X	100.00	116.36	29.33	10.79	40.0	± 9.6 %
		Y	4.23	69.49	13.02		40.0	
		Ζ	5.27	72.87	14.27		40.0	
10056- CAA	UMTS-TDD (TD-SCDMA, 1.28 Mcps)	х	77.81	121.32	33.78	9.03	50.0	± 9.6 %
		Y	6.03	75.76	17.19		50.0	
		Ζ	9.07	82.59	19.86		50.0	
10058- DAC	EDGE-FDD (TDMA, 8PSK, TN 0-1-2-3)	х	7.57	86.51	28.41	6.55	100.0	± 9.6 %
		Y	3.72	73.02	22.40		100.0	
		Ζ	3.78	73.63	22.92		100.0	
10059- CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 2 Mbps)	x	1.41	68.44	18.21	0.61	110.0	± 9.6 %
		Y	1.03	64.26	15.02		110.0	
		Z	1.14	65.37	15.93		110.0	
10060- CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 5.5 Mbps)	x	100.00	140.28	36.98	1.30	110.0	±9.6 %
		Y	5.52	92.10	22.15		110.0	
		Z	23.32	116.45	30.29		110.0	

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10061- CAB	IEEE 802.11b WiFi 2.4 GHz (DSSS, 11 Mbps)	X	32.15	121.96	35.02	2.04	110.0	± 9.6 %
		Y	2.04	75.39	19.12		110.0	
		Z	2.36	78.14	20.85		110.0	
10062- CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 6 Mbps)	X	4.83	66.99	16.83	0.49	100.0	± 9.6 %
		Y	4.37	66.55	16.24		100.0	
		Z	4.43	66.90	16.40		100.0	
10063- CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 9 Mbps)	X	4.85	67.11	16.95	0.72	100.0	± 9.6 %
		Y	4.38	66.62	16.31		100.0	
		Z	4.44	66.97	16.47		100.0	
10064- CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 12 Mbps)	X	5.19	67.41	17.17	0.86	100.0	± 9.6 %
		Y	4.62	66.81	16.50		100.0	
		Z	4.67	67.13	16.63		100.0	
10065- CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 18 Mbps)	X	5.05	67.34	17.29	1.21	100.0	± 9.6 %
		Y	4.49	66.66	16.55		100.0	
		Z	4.54	66.96	16.68		100.0	
10066- CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 24 Mbps)	X	5.08	67.39	17.47	1.46	100.0	± 9.6 %
		Y	4.50	66.65	16.68		100.0	
		Z	4.54	66.92	16.80		100.0	
10067- CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 36 Mbps)	X	5.35	67.39	17.83	2.04	100.0	±9.6 %
		Y	4.79	66.90	17.13		100.0	
		Z	4.82	67.14	17.23		100.0	
10068- CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 48 Mbps)	X	5.44	67.63	18.14	2.55	100.0	± 9.6 %
		Y	4.82	66.81	17.26		100.0	
		Z	4.85	67.03	17.35		100.0	
10069- CAC	IEEE 802.11a/h WiFi 5 GHz (OFDM, 54 Mbps)	X	5.51	67.49	18.27	2.67	100.0	±9.6 %
		Y	4.89	66.85	17.46		100.0	
		Z	4.91	67.04	17.53		100.0	
10071- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 9 Mbps)	X	5.12	67.05	17.68	1.99	100.0	± 9.6 %
		Y	4.66	66.59	17.01		100.0	
		Z	4.70	66.85	17.11		100.0	
10072- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 12 Mbps)	X	5.14	67.52	17.95	2.30	100.0	±9.6 %
		Y	4.62	66.83	17.17		100.0	
		Z	4.65	67.08	17.27		100.0	
10073- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 18 Mbps)	X	5.21	67.69	18.29	2.83	100.0	± 9.6 %
		Y	4.68	67.01	17.47		100.0	
		Z	4.71	67.23	17.56		100.0	
10074- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 24 Mbps)	X	5.18	67.59	18.46	3.30	100.0	±9.6 %
		Y	4.69	66.95	17.60		100.0	
		Z	4.71	67.17	17.70		100.0	
10075- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 36 Mbps)	X	5.26	67.87	18.86	3.82	90.0	±9.6 %
		Y	4.73	66.99	17.83		90.0	
		Z	4.74	67.18	17.92		90.0	
10076- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 48 Mbps)	X	5.23	67.53	18.89	4.15	90.0	±9.6 %
		Y	4.77	66.89	18.00		90.0	
		Z	4.78	67.06	18.08		90.0	
10077- CAB	IEEE 802.11g WiFi 2.4 GHz (DSSS/OFDM, 54 Mbps)	X	5.25	67.58	18.98	4.30	90.0	±9.6 %
CAB		++			10.11			
		Y	4.81	66.98	18.11		90.0	

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10081- CAB	CDMA2000 (1xRTT, RC3)	X	1.61	75.86	18.26	0.00	150.0	± 9.6 %
		Y	0.40	60.59	6.95		150.0	
		Z	0.70	65.91	10.99		150.0	
10082- CAB	IS-54 / IS-136 FDD (TDMA/FDM, PI/4- DQPSK, Fullrate)	X	0.97	60.00	5.20	4.77	80.0	± 9.6 %
		Y	6.26	66.77	5.69		80.0	
		Z	1.47	63.08	5.04		80.0	
10090- DAC	GPRS-FDD (TDMA, GMSK, TN 0-4)	X	100.00	114.42	27.18	6.56	60.0	± 9.6 %
		Y	2.51	68.39	11.07		60.0	
		Z	91.59	103.46	21.38		60.0	
10097- CAB	UMTS-FDD (HSDPA)	X	2.10	70.41	17.58	0.00	150.0	± 9.6 %
		Y	1.66	67.98	15.08		150.0	
		Z	1.92	70.17	16.49		150.0	
10098- CAB	UMTS-FDD (HSUPA, Subtest 2)	X	2.06	70.42	17.57	0.00	150.0	± 9.6 %
		Y	1.62	67.91	15.04		150.0	
		Z	1.88	70.12	16.47		150.0	
10099- DAC	EDGE-FDD (TDMA, 8PSK, TN 0-4)	X	19.63	108.47	38.01	9.56	60.0	± 9.6 %
		Y	7.02	84.55	28.70		60.0	
		Z	7.45	87.29	30.29		60.0	
10100- CAD	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	X	3.76	73.52	18.27	0.00	150.0	± 9.6 %
		Y	2.83	69.91	16.35		150.0	
		Z	3.08	71.35	17.24		150.0	
10101- CAD	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	X	3.49	68.90	16.77	0.00	150.0	± 9.6 %
0/10		Y	2.97	67.19	15.62		150.0	
		Z	3.10	67.97	16.12		150.0	
10102- CAD	LTE-FDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	X	3.59	68.75	16.81	0.00	150.0	± 9.6 %
UNU		Y	3.08	67.24	15.76		150.0	
		Z	3.21	67.97	16.22		150.0	
10103- CAD	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, QPSK)	×	8.41	79.82	22.06	3.98	65.0	± 9.6 %
		Y	4.84	71.96	18.48		65.0	
		Ż	5.42	74.19	19.53		65.0	
10104- CAD	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 16-QAM)	X	7.70	76.73	21.71	3.98	65.0	± 9.6 %
07.10		Y	5.32	71.47	19.01		65.0	
		Z	5.48	72.25	19.42		65.0	
10105- CAD	LTE-TDD (SC-FDMA, 100% RB, 20 MHz, 64-QAM)	X	7.04	74.96	21.27	3.98	65.0	± 9.6 %
		Y	4.70	68.99	18.19		65.0	
		z	5.14	70.85	19.09		65.0	
10108- CAE	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, QPSK)	X	3.28	72.58	18.09	0.00	150.0	±9.6 %
		Y	2.43	69.27	16.18		150.0	
		Ż	2.65	70.70	17.10		150.0	
10109- CAE	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 16-QAM)	X	3.17	68.85	16.81	0.00	150.0	±9.6 %
		Y	2.61	67.16	15.46		150.0	
		Z	2.76	68.08	16.06		150.0	
10110- CAE	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, QPSK)	X	2.68	71.66	17.86	0.00	150.0	± 9.6 %
		Y	1.91	68.41	15.56		150.0	
		z	2.13	70.09	16.68		150.0	
10111- CAE	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 16-QAM)	X	2.94	70.01	17.44	0.00	150.0	± 9.6 %
UNL		Y	2.36	68.46	15.69		150.0	
		Z						
		12	2.60	69.97	16.63		150.0	

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10112- CAE	LTE-FDD (SC-FDMA, 100% RB, 10 MHz, 64-QAM)	X	3.28	68.68	16.79	0.00	150.0	± 9.6 %
		Y	2.74	67.25	15.57		150.0	
		Z	2.89	68.13	16.13		150.0	
10113- CAE	LTE-FDD (SC-FDMA, 100% RB, 5 MHz, 64-QAM)	X	3.09	69.94	17.46	0.00	150.0	± 9.6 %
		Y	2.52	68.70	15.88		150.0	
		Z	2.75	70.13	16.75		150.0	
10114- CAC	IEEE 802.11n (HT Greenfield, 13.5 Mbps, BPSK)	X	5.23	67.48	16.65	0.00	150.0	± 9.6 %
		Y	4.84	67.00	16.28		150.0	
		Z	4.90	67.34	16.43		150.0	
10115- CAC	IEEE 802.11n (HT Greenfield, 81 Mbps, 16-QAM)	X	5.59	67.72	16.77	0.00	150.0	± 9.6 %
		Y	5.08	67.08	16.32		150.0	
		Z	5.13	67.37	16.44		150.0	
10116- CAC	IEEE 802.11n (HT Greenfield, 135 Mbps, 64-QAM)	X	5.36	67.74	16.70	0.00	150.0	± 9.6 %
		Y	4.92	67.20	16.31		150.0	
		Ζ	4.98	67.52	16.45		150.0	
10117- CAC	IEEE 802.11n (HT Mixed, 13.5 Mbps, BPSK)	X	5.24	67.49	16.68	0.00	150.0	± 9.6 %
		Y	4.83	66.95	16.28		150.0	
10115		Z	4.89	67.29	16.43		150.0	
10118- CAC	IEEE 802.11n (HT Mixed, 81 Mbps, 16- QAM)	X	5.66	67.87	16.85	0.00	150.0	±9.6 %
		Y	5.16	67.27	16.43		150.0	
		Ζ	5.20	67.52	16.53		150.0	
10119- CAC	IEEE 802.11n (HT Mixed, 135 Mbps, 64- QAM)	х	5.33	67.68	16.69	0.00	150.0	± 9.6 %
		Y	4.92	67.19	16.31		150.0	
		Z	4.97	67.51	16.46		150.0	
10140- CAD	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 16-QAM)	х	3.64	68.73	16.72	0.00	150.0	± 9.6 %
		Y	3.10	67.23	15.65		150.0	
		Ζ	3.23	67.98	16.12		150.0	
10141- CAD	LTE-FDD (SC-FDMA, 100% RB, 15 MHz, 64-QAM)	х	3.75	68.73	16.84	0.00	150.0	±9.6 %
		Y	3.23	67.43	15.88		150.0	
		Z	3.36	68.16	16.32		150.0	
10142- CAD	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, QPSK)	×	2.50	72.12	17.94	0.00	150.0	± 9.6 %
		Y	1.65	68.10	14.67		150.0	
		Z	1.94	70.53	16.23		150.0	
10143- CAD	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 16-QAM)	х	2.95	71.49	17.71	0.00	150.0	± 9.6 %
		Y	2.12	68.46	14.53		150.0	
		Z	2.52	71.14	16.09		150.0	
10144- CAD	LTE-FDD (SC-FDMA, 100% RB, 3 MHz, 64-QAM)	×	2.62	68.66	15.91	0.00	150.0	± 9.6 %
		Y	1.78	65.25	12.38		150.0	
		Ζ	2.00	66.87	13.49		150.0	
10145- CAE	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, QPSK)	x	2.08	72.58	16.71	0.00	150.0	± 9.6 %
		Y	0.62	60.00	6.54		150.0	
		Z	0.76	61.85	8.27		150.0	
10146- CAE	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 16-QAM)	×	4.74	77.79	17.95	0.00	150.0	±9.6 %
		Y	0.91	59.91	6.14		150.0	
		Z	1.03	60.93	6.75		150.0	
10147- CAE	LTE-FDD (SC-FDMA, 100% RB, 1.4 MHz, 64-QAM)	х	8.02	85.30	20.79	0.00	150.0	±9.6 %
		Y	0.95	60.19	6.39		150.0	
		Z		61.38	7.09			

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10149- CAD	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	X	3.18	68.92	16.86	0.00	150.0	±9.6 %
		Y	2.63	67.24	15.52		150.0	
		Z	2.78	68.16	16.12		150.0	
10150- CAD	LTE-FDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	X	3.29	68.74	16.83	0.00	150.0	± 9.6 %
		Y	2.75	67.32	15.62		150.0	
		Z	2.90	68.21	16.19		150.0	
10151- CAD	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, QPSK)	X	9.25	82.93	23.38	3.98	65.0	± 9.6 %
		Y	5.36	75.32	19.83		65.0	
		Z	5.77	76.93	20.64		65.0	
10152- CAD	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 16-QAM)	X	7.33	77.04	21.65	3.98	65.0	± 9.6 %
		Y	4.81	71.16	18.40		65.0	
		Z	4.98	72.05	18.88		65.0	
10153- CAD	LTE-TDD (SC-FDMA, 50% RB, 20 MHz, 64-QAM)	X	7.72	77.89	22.37	3.98	65.0	± 9.6 %
		Y	5.21	72.44	19.38		65.0	
		Z	5.39	73.30	19.82		65.0	
10154- CAE	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, QPSK)	X	2.79	72.40	18.27	0.00	150.0	± 9.6 %
		Y	1.96	68.90	15.86		150.0	
		Z	2.20	70.63	16.99		150.0	
10155- CAE	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 16-QAM)	X	2.94	70.00	17.44	0.00	150.0	± 9.6 %
		Y	2.37	68.50	15.72		150.0	
		Z	2.60	70.02	16.66		150.0	
10156- CAE	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, QPSK)	X	2.45	73.08	18.25	0.00	150.0	± 9.6 %
		Y	1.44	67.52	13.85		150.0	
		Z	1.79	70.64	15.81		150.0	
10157- CAE	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 16-QAM)	x	2.55	70.02	16.44	0.00	150.0	± 9.6 %
		Y	1.56	65.08	11.79		150.0	
		Z	1.83	67.35	13.31		150.0	
10158- CAE	LTE-FDD (SC-FDMA, 50% RB, 10 MHz, 64-QAM)	X	3.10	70.01	17.51	0.00	150.0	± 9.6 %
		Y	2.53	68.81	15.95		150.0	
		Z	2.76	70.25	16.83		150.0	
10159- CAE	LTE-FDD (SC-FDMA, 50% RB, 5 MHz, 64-QAM)	x	2.72	70.68	16.81	0.00	150.0	± 9.6 %
		Y	1.63	65.40	12.01		150.0	
		Z	1.94	67.86	13.59		150.0	-
10160- CAD	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, QPSK)	×	3.08	70.55	17.46	0.00	150.0	± 9.6 %
		Y	2.48	68.64	16.02		150.0	
		Z	2.64	69.71	16.74		150.0	
10161- CAD	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 16-QAM)	X	3.19	68.68	16.82	0.00	150.0	±9.6 %
		Y	2.64	67.29	15.48		150.0	
		Z	2.80	68.24	16.09		150.0	
10162- CAD	LTE-FDD (SC-FDMA, 50% RB, 15 MHz, 64-QAM)	X	3.29	68.68	16.85	0.00	150.0	±9.6 %
		Y	2.76	67.53	15.64		150.0	
		Z	2.91	68.48	16.24		150.0	
10166- CAE	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, QPSK)	x	4.04	71.00	19.90	3.01	150.0	±9.6 %
		Y	3.16	69.13	18.77		150.0	
		Z	3.39	70.78	19.66		150.0	
						3.01		1000
10167- CAE	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	X	5.36	74.73	20.65	3.01	150.0	± 9.6 %
10167- CAE	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 16-QAM)	X Y	5.36 3.79	71.67	18.97	3.01	150.0	± 9.0 %

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10168- CAE	LTE-FDD (SC-FDMA, 50% RB, 1.4 MHz, 64-QAM)	x	6.03	77.24	22.03	3.01	150.0	± 9.6 %
		Y	4.43	75.05	20.89		150.0	
		Z	5.62	80.10	23.00		150.0	
10169- CAD	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	X	3.82	73.12	20.79	3.01	150.0	± 9.6 %
		Y	2.61	67.68	18.06		150.0	
		Z	2.91	70.50	19.54		150.0	
10170- CAD	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	X	6.54	82.37	24.08	3.01	150.0	± 9.6 %
		Y	3.53	73.51	20.46		150.0	
		Z	5.29	82.18	24.01		150.0	
10171- AAD	LTE-FDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	X	4.84	75.97	20.60	3.01	150.0	± 9.6 %
		Y	2.80	68.67	17.18		150.0	
		Z	3.59	74.12	19.63		150.0	
10172- CAD	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, QPSK)	x	30.51	113.43	34.95	6.02	65.0	± 9.6 %
		Y	3.52	75.21	21.66		65.0	
		Z	4.81	82.95	25.11		65.0	
10173- CAD	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 16-QAM)	x	81.01	124.21	35.55	6.02	65.0	± 9.6 %
		Y	6.10	82.01	22.32		65.0	
		Z	15.21	99.20	28.02		65.0	
10174- CAD	LTE-TDD (SC-FDMA, 1 RB, 20 MHz, 64-QAM)	x	42.22	110.92	31.54	6.02	65.0	± 9.6 %
		Y	3.34	72.20	18.19		65.0	
		Ζ	7.70	87.16	23.71		65.0	
10175- CAE	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	х	3.75	72.64	20.47	3.01	150.0	±9.6 %
		Y	2.57	67.33	17.78		150.0	
		Z	2.86	70.07	19.23		150.0	
10176- CAE	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	х	6.55	82.40	24.09	3.01	150.0	± 9.6 %
		Y	3.54	73.53	20.47		150.0	
		Z	5.31	82.22	24.03		150.0	
10177- CAG	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, QPSK)	х	3.79	72.88	20.60	3.01	150.0	± 9.6 %
		Y	2.59	67.48	17.87		150.0	
		Z	2.89	70.25	19.33		150.0	
10178- CAE	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 16- QAM)	х	6.40	81.92	23.88	3.01	150.0	±9.6 %
		Y	3.51	73.32	20.36		150.0	
		Z	5.22	81.88	23.87		150.0	
10179- CAE	LTE-FDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	х	5.57	78.86	22.14	3.01	150.0	±9.6 %
		Y	3.10	70.80	18.61		150.0	
		Z	4.30	77.75	21.59		150.0	
10180- CAE	LTE-FDD (SC-FDMA, 1 RB, 5 MHz, 64- QAM)	x	4.81	75.81	20.51	3.01	150.0	±9.6 %
		Y	2.79	68.61	17.14		150.0	
		Z	3.58	74.03	19.58		150.0	
10181- CAD	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, QPSK)	х	3.79	72.85	20.59	3.01	150.0	±9.6 %
		Y	2.59	67.46	17.86		150.0	
		Ζ	2.88	70.23	19.32		150.0	
10182- CAD	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	х	6.39	81.89	23.87	3.01	150.0	±9.6 %
		Y	3.50	73.29	20.34		150.0	
		Z	5.21	81.83	23.85		150.0	
10183- AAC	LTE-FDD (SC-FDMA, 1 RB, 15 MHz, 64-QAM)	х	4.80	75.78	20.50	3.01	150.0	± 9.6 %
		Y	2.79	68.59	17.13		150.0	
		Z	3.57	74.00	19.56		150.0	

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10184- CAD	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	x	3.80	72.91	20.62	3.01	150.0	±9.6 %
		Y	2.59	67.50	17.89		150.0	
		Z	2.90	70.28	19.35		150.0	
10185- CAD	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 16- QAM)	X	6.43	81.99	23.91	3.01	150.0	± 9.6 %
		Y	3.52	73.38	20.39		150.0	
		Z	5.25	81.97	23.91		150.0	
10186- AAD	LTE-FDD (SC-FDMA, 1 RB, 3 MHz, 64- QAM)	×	4.82	75.87	20.54	3.01	150.0	± 9.6 %
		Y	2.80	68.65	17.16		150.0	
		Z	3.60	74.09	19.61		150.0	
10187- CAE	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	x	3.81	72.95	20.67	3.01	150.0	±9.6 %
		Y	2.61	67.59	17.98		150.0	
		Z	2.91	70.39	19.45		150.0	
10188- CAE	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	х	6.79	83.15	24.45	3.01	150.0	± 9.6 %
		Y	3.65	74.15	20.83		150.0	
		Z	5.58	83.26	24.51		150.0	
10189- AAE	LTE-FDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	x	4.99	76.54	20.90	3.01	150.0	± 9.6 %
		Y	2.86	69.07	17.45		150.0	
		Ζ	3.73	74.78	20.00		150.0	
10193- CAC	IEEE 802.11n (HT Greenfield, 6.5 Mbps, BPSK)	x	4.67	66.95	16.48	0.00	150.0	± 9.6 %
		Y	4.24	66.64	15.97		150.0	
		Z	4.33	67.09	16.19		150.0	
10194- CAC	IEEE 802.11n (HT Greenfield, 39 Mbps, 16-QAM)	х	4.87	67.32	16.59	0.00	150.0	± 9.6 %
		Y	4.38	66.89	16.11		150.0	
		Z	4.47	67.32	16.32		150.0	
10195- CAC	IEEE 802.11n (HT Greenfield, 65 Mbps, 64-QAM)	Х	4.91	67.33	16.59	0.00	150.0	± 9.6 %
		Y	4.42	66.91	16.13		150.0	
		Z	4.50	67.33	16.33		150.0	
10196- CAC	IEEE 802.11n (HT Mixed, 6.5 Mbps, BPSK)	х	4.69	67.05	16.52	0.00	150.0	± 9.6 %
		Y	4.23	66.65	15.96		150.0	
		Z	4.31	67.09	16.18		150.0	
10197- CAC	IEEE 802.11n (HT Mixed, 39 Mbps, 16- QAM)	х	4.89	67.34	16.60	0.00	150.0	± 9.6 %
		Y	4.39	66.89	16.12		150.0	
		Ζ	4.47	67.32	16.32		150.0	
10198- CAC	IEEE 802.11n (HT Mixed, 65 Mbps, 64- QAM)	X	4.92	67.34	16.60	0.00	150.0	± 9.6 %
		Y	4.41	66.91	16.13		150.0	
		Z	4.49	67.32	16.33		150.0	
10219- CAC	IEEE 802.11n (HT Mixed, 7.2 Mbps, BPSK)	х	4.64	67.08	16.49	0.00	150.0	± 9.6 %
		Y	4.18	66.68	15.93		150.0	
		Z	4.27	67.14	16.16		150.0	
10220- CAC	IEEE 802.11n (HT Mixed, 43.3 Mbps, 16- QAM)	х	4.89	67.33	16.60	0.00	150.0	± 9.6 %
		Y	4.38	66.85	16.10		150.0	
		Z	4.46	67.28	16.31		150.0	
10221- CAC	IEEE 802.11n (HT Mixed, 72.2 Mbps, 64- QAM)	x	4.92	67.27	16.59	0.00	150.0	± 9.6 %
		Y	4.43	66.85	16.12		150.0	
		Ζ	4.51	67.26	16.32		150.0	
10222- CAC	IEEE 802.11n (HT Mixed, 15 Mbps, BPSK)	х	5.22	67.52	16.68	0.00	150.0	± 9.6 %
		Y	4.80	66.93	16.26		150.0	
		Z		67.28				

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10223- CAC	IEEE 802.11n (HT Mixed, 90 Mbps, 16- QAM)	X	5.58	67.78	16.82	0.00	150.0	± 9.6 %
		Y	5.07	67.14	16.38		150.0	
		Z	5.11	67.42	16.49		150.0	
10224- CAC	IEEE 802.11n (HT Mixed, 150 Mbps, 64- QAM)	X	5.27	67.64	16.67	0.00	150.0	± 9.6 %
		Y	4.84	67.05	16.24		150.0	
		Z	4.90	67.40	16.40		150.0	
10225- CAB	UMTS-FDD (HSPA+)	X	2.99	67.00	16.21	0.00	150.0	± 9.6 %
		Y	2.51	66.01	14.64		150.0	
		Z	2.65	66.91	15.22		150.0	
10226- CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 16-QAM)	×	94.43	127.20	36.39	6.02	65.0	± 9.6 %
		Y	6.49	83.12	22.81		65.0	
0007		Z	17.53	101.76	28.87		65.0	
10227- CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, 64-QAM)	×	56.88	116.18	33.01	6.02	65.0	± 9.6 %
		Y	6.10	81.13	21.49		65.0	
0000		Z	15.05	97.36	26.79		65.0	
0228- CAA	LTE-TDD (SC-FDMA, 1 RB, 1.4 MHz, QPSK)	×	50.96	124.04	37.91	6.02	65.0	± 9.6 %
		Y	5.07	82.24	24.43		65.0	
		Z	6.53	88.87	27.26		65.0	
0229- CAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 16- QAM)	X	81.41	124.30	35.58	6.02	65.0	± 9.6 %
		Y	6.15	82.11	22.37		65.0	
		Z	15.40	99.39	28.08		65.0	
0230- CAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, 64- QAM)	X	50.84	114.07	32.38	6.02	65.0	± 9.6 %
		Y	5.76	80.19	21.07		65.0	
		Z	13.24	95.20	26.08		65.0	
0231- CAB	LTE-TDD (SC-FDMA, 1 RB, 3 MHz, QPSK)	X	45.88	121.77	37.23	6.02	65.0	± 9.6 %
		Y	4.86	81.34	24.01		65.0	
0000		Z	6.18	87.70	26.77		65.0	
0232- CAD	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 16- QAM)	X	81.49	124.32	35.58	6.02	65.0	± 9.6 %
		Y	6.14	82.09	22.36		65.0	
0000		Z	15.37	99.37	28.07		65.0	
0233- CAD	LTE-TDD (SC-FDMA, 1 RB, 5 MHz, 64- QAM)	X	50.87	114.09	32.39	6.02	65.0	± 9.6 %
		Y	5.75	80.17	21.07		65.0	
0234- CAD	LTE-TDD (SC-FDMA, 1 RB, 5 MHz,	Z X	13.19 41.40	95.16 119.46	26.07 36.49	6.02	65.0 65.0	± 9.6 %
,AD	QPSK)	Y	4.68	80.55	23.58		65.0	
		Z	5.91	80.55	23.58		65.0	
0235- CAD	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 16-QAM)	X	81.97	124.44	35.62	6.02	65.0	± 9.6 %
		Y	6.14	82.11	22.37		65.0	
		Z	15.40	99.42	28.09		65.0	
0236- CAD	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, 64-QAM)	X	51.73	114.35	32.45	6.02	65.0	±9.6 %
		Y	5.79	80.26	21.09		65.0	
		Z	13.39	95.36	26.12		65.0	
0237- CAD	LTE-TDD (SC-FDMA, 1 RB, 10 MHz, QPSK)	х	46.54	122.08	37.31	6.02	65.0	± 9.6 %
		Y	4.85	81.36	24.02		65.0	
		Z	6.18	87.73	26.78		65.0	
10238- CAD	LTE-TDD (SC-FDMA, 1 RB, 15 MHz, 16-QAM)	X	81.61	124.36	35.59	6.02	65.0	± 9.6 %
		Y	6.12	82.06	22.35		65.0	
		Z	15.32	99.33	28.06		65.0	

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