

## **Measurement Conditions**

DASY system configuration, as far as not given on page 1.

DASY Version	DASY8 Module mmWave	V3.2
Phantom	5G Phantom	
Distance Horn Aperture - plane	10 mm	The Later Control
Number of measured planes	2 (10mm, 10mm + λ/4)	
Frequency	10 GHz ± 10 MHz	

## Calibration Parameters, 10 GHz

Circular Averaging

Distance Horn Aperture to	Prad¹ (mW)	Max E-field (V/m)	Uncertainty (k = 2)		er Density PDtot+, psPDmod+)	Uncertainty (k = 2)
Measured Plane		(11 - 2)	0 "	/m <sup>2</sup> )	(14 = 2)	
				1 cm <sup>2</sup>	4 cm <sup>2</sup>	
10 mm	89.1	148	1.27 dB	56.5	53.1	1.28 dB

Distance Horn Aperture to Measured Plane	e to ( <i>mW</i> ) (V/m)	Uncertainty (k = 2)	psPDn+, psPDt	Power Density psPDn+, psPDtot+, psPDmod+ (W/m²)		
				1 cm <sup>2</sup>	4 cm <sup>2</sup>	
10 mm	89.1	148	1.27 dB	56.2, 56.6, 56.7	52.8, 53.1, 53.3	1.28 dB

Square Averaging

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Distance Horn Aperture to Measured Plane	Prad¹ (mW)	Max E-field (V/m)	Uncertainty (k = 2)	Avg (psPDn+, ps	er Density PDtot+, psPDmod+) /m²)	Uncertainty (k = 2)
				1 cm <sup>2</sup>	4 cm <sup>2</sup>	
10 mm	89.1	148	1.27 dB	56.5	53.0	1.28 dB

Distance Horn Aperture to Measured Plane	Prad¹ (mW)	Max E-field (V/m)	Uncertainty (k = 2)	psPDn+, psPDt	Density ot+, psPDmod+ /m²)	Uncertainty (k = 2)
				1 cm <sup>2</sup>	4 cm <sup>2</sup>	
10 mm	89.1	148	1.27 dB	56.2, 56.6, 56.7	52.7, 53.0, 53.2	1.28 dB

**Max Power Density** 

Distance Horn Aperture to Measured Plane	Prad¹ (mW)	Max E-field (V/m)	Uncertainty (k = 2)	Max Power Density Sn, Stot,  Stot  (W/m²)	Uncertainty (k = 2)
10 mm	89.1	148	1.27 dB	57.3, 57.8, 57.9	1.28 dB

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 $<sup>^{\</sup>rm 1}$  Assessed ohmic and mismatch loss plus numerical offset: 0.40 dB

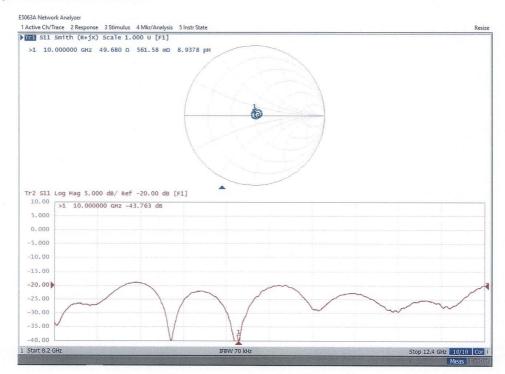


## Appendix (Additional assessments outside the scope of SCS 0108)

## **Antenna Parameters**

Impedance, transformed to feed point	49.7 Ω - 0.6 jΩ
Return Loss	- 43.8 dB

#### **Impedance Measurement Plot**



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Measurement Report for 5G Verification Source 10 GHz, UID 0 -, Channel 10000 (10000.0MHz)

#### **Device under Test Properties**

Name, Manufacturer	Dimensions [mm]	IMEI	DUT Type	
SG Varification Source 10 GHz	100 0 × 100 0 × 172 0	SN: 1019		

#### **Exposure Conditions**

Phantom Section	Position, Test Distance [mm]	Band	Group,	Frequency [MHz], Channel Number	Conversion Factor	
5G -	10.0 mm	Validation band	CW	10000.0,	1.0	
				10000		

#### **Hardware Setup**

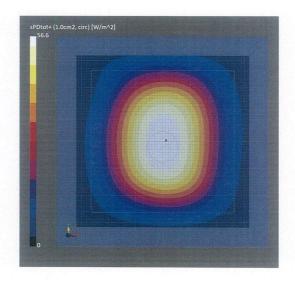
Medium	Probe, Calibration Date	DAE, Calibration Date
Air	EUmmWV3 - SN9374_F1-55GHz,	DAE4ip Sn1602, 2022-06-27
	<b>Medium</b> Air	

#### Scan Setup

	5G Scan
Sensor Surface [mm]	10.0
MAIA	MAIA not used

#### **Measurement Results**

	5G Scan
Date	2023-04-25, 12:50
Avg. Area [cm <sup>2</sup> ]	1.00
Avg. Type	Circular Averaging
psPDn+ [W/m <sup>2</sup> ]	56.2
psPDtot+ [W/m <sup>2</sup> ]	56.6
psPDmod+ [W/m²]	56.7
Max(Sn) [W/m <sup>2</sup> ]	57.3
Max(Stot) [W/m <sup>2</sup> ]	57.8
Max( Stot ) [W/m <sup>2</sup> ]	57.9
E <sub>max</sub> [V/m]	148
Power Drift [dB]	0.07



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# Measurement Report for 5G Verification Source 10 GHz, UID 0 -, Channel 10000 (10000.0MHz)

Davica	under	Toct	Properties

 Name, Manufacturer
 Dimensions [mm]
 IMEI
 DUT Type

 5G Verification Source 10 GHz
 100.0 x 100.0 x 172.0
 SN: 1018

**Exposure Conditions** 

Phantom Section Position, Test Distance [mm] Frequency [MHz], Channel Number Channel Number

5G - 10.0 mm Validation band CW 10000.0, 10000

**Hardware Setup** 

 Phantom
 Medium
 Probe, Calibration Date
 DAE, Calibration Date

 mmWave Phantom - 1002
 Air
 EUmmWV3 - SN9374\_F1-55GHz, 2023-01-03
 DAE4ip Sn1602, 2022-06-27

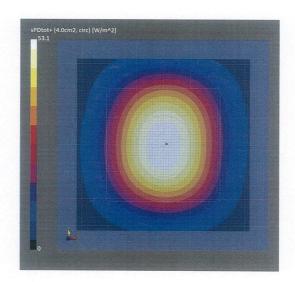
Scan Setup

 Sensor Surface [mm]
 5G Scan

 MAIA
 MAIA not used

#### **Measurement Results**

	5G Scan
Date	2023-04-25, 12:50
Avg. Area [cm <sup>2</sup> ]	4.00
Avg. Type	Circular Averaging
psPDn+ [W/m <sup>2</sup> ]	52.8
psPDtot+ [W/m²]	53.1
psPDmod+ [W/m <sup>2</sup> ]	53.3
Max(Sn) [W/m <sup>2</sup> ]	57.3
Max(Stot) [W/m <sup>2</sup> ]	57.8
Max( Stot ) [W/m <sup>2</sup> ]	57.9
E <sub>max</sub> [V/m]	148
Power Drift [dB]	0.07



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# Measurement Report for 5G Verification Source 10 GHz, UID 0 -, Channel 10000 (10000.0MHz)

#### **Device under Test Properties**

Name, Manufacturer	Dimensions [mm]	IMEI	DUT Type
5G Verification Source 10 GHz	100 0 × 100 0 × 172 0	CNI: 1010	

#### **Exposure Conditions**

Phantom Section	Position, Test Distance [mm]	Band	Group,	Frequency [MHz], Channel Number	Conversion Factor
5G -	10.0 mm	Validation band	CW	10000.0, 10000	1.0

#### **Hardware Setup**

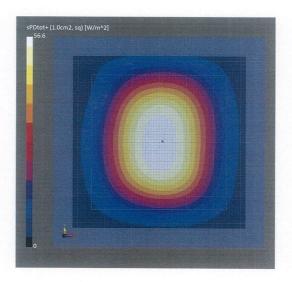
Phantom	Medium	Probe, Calibration Date	DAE, Calibration Date
mmWave Phantom - 1002	Air	EUmmWV3 - SN9374_F1-55GHz, 2023-01-03	DAE4ip Sn1602, 2022-06-27

#### Scan Setup

	5G Scan
Sensor Surface [mm]	10.0
MAIA	MAIA not used

#### Measurement Results

	5G Scan
Date	2023-04-25, 12:50
Avg. Area [cm <sup>2</sup> ]	1.00
Avg. Type	Square Averaging
psPDn+ [W/m <sup>2</sup> ]	56.2
psPDtot+ [W/m²]	56.6
psPDmod+ [W/m <sup>2</sup> ]	56.7
Max(Sn) [W/m <sup>2</sup> ]	57.3
Max(Stot) [W/m <sup>2</sup> ]	57.8
Max( Stot ) [W/m <sup>2</sup> ]	57.9
E <sub>max</sub> [V/m]	148
Power Drift [dB]	0.07



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#### Measurement Report for 5G Verification Source 10 GHz, UID 0 -, Channel 10000 (10000.0MHz)

## **Device under Test Properties**

**Exposure Conditions** 

Phantom Section Position, Test Distance [mm] Section Group, Frequency [MHz], Conversion Factor Channel Number SG - 10.0 mm Validation band CW 10000.0, 100000

**Hardware Setup** 

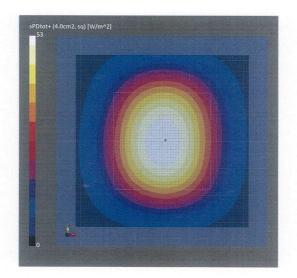
 
 Phantom
 Medium
 Probe, Calibration Date
 DAE, Calibration Date

 mmWave Phantom - 1002
 Air
 EUmmWV3 - SN9374\_F1-55GHz, 2023-01-03
 DAE4ip Sn1602, 2022-06-27

**Measurement Results** 

Scan Setup

5G Scan 2023-04-25, 12:50 4.00 Square Averaging 52.7 psPDn+ [W/m<sup>2</sup>] psPDtot+ [W/m<sup>2</sup>] 53.0 psPDmod+ [W/m²] 53.2 Max(Sn) [W/m<sup>2</sup>] Max(Stot) [W/m<sup>2</sup>] 57.3 57.8 Max(|Stot|) [W/m²] 57.9 E<sub>max</sub> [V/m] Power Drift [dB] 148 0.07



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