# RF Exposure Report

## (Part 0: SAR and PD Characterization Evaluation)

| | |
|---|---|
| **FCC ID** | **: A4RGU0NP** |
| **Equipment** | **: Phone** |
| **Model Name** | **: GU0NP, GM66V** |
| **Applicant** | **: Google LLC<br>1600 Amphitheatre Parkway,<br>Mountain View, CA, 94043 USA** |
| **Standard** | **: FCC 47 CFR Part 2 (2.1093)** |

**We, SPORTON INTERNATIONAL INC., would like to declare that the tested sample has been evaluated in accordance with the test procedures and has been in compliance with the applicable technical standards.**

**The test results in this report apply exclusively to the tested model / sample. Without written approval of SPORTON INTERNATIONAL INC., the test report shall not be reproduced except in full.**

**Approved by: Cona Huang / Deputy Manager**

***Sporton International Inc. EMC & Wireless Communications Laboratory***
*No.52, Huaya 1st Rd., Guishan Dist., Taoyuan City 333, Taiwan*

# Table of Contents

**1. Introduction ..... 4**
**2. SAR Characterization ..... 5**
2.1 SAR design target and uncertainty ..... 5
2.2 SAR Characterization – Power Table ..... 9
**3. Power Density Characterization ..... 13**
3.1 Exposure scenarios for power density evaluation ..... 13
3.2 PD Characterization Process ..... 14
3.3 Beam code settings ..... 15
3.4 PD_design_target determination ..... 18
3.5 Exposure positions for PD evaluation ..... 19
3.6 Simulation and modeling validation ..... 20
3.7 Simulated Plimit to associate with design target ..... 21
3.8 Worst-case housing influence determination ..... 21
3.9 PD characterization table ..... 29
**4. PD Test Setup ..... 34**
4.1 PD Test – System Setup ..... 34
4.2 EUmmWave Probe / E-Field 5G Probe ..... 35
4.3 Data Acquisition Electronics (DAE) ..... 36
4.4 Scan configuration ..... 36
4.5 System Verification Source ..... 36
4.6 Power Density System Verification ..... 37
4.7 System Verification Results ..... 37
**5. Uncertainty Assessment ..... 38**

# History of this test report

| Report No. | Version | Description | Issued Date |
|---|---|---|---|
| FA4N0920A | 01 | Initial issue of report | May 21, 2025 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

# 1. Introduction

The FCC RF exposure limit is based on time-averaged RF exposure. Both SAR and PD regulatory specifications are defined over certain measurement duration allowing for time-averaging. The Samsung S.LSI proprietary Spatial Time Average SAR (S-TAS) with Non-Terrestrial Networks algorithm has been designed to meet the compliance limits over the required duration, while still allowing dynamic control of transmit power for meeting system performance.

This report shows SAR and power density characterization of sub6GHz and mmWave. The characterization is achieved by determination of Plimit. In the case of sub6GHz, power is measured by antenna connection port power and EIRP is measured for mmWave. Plimit is the power level that corresponds to the exposure design target. Design target is defined as SAR_design target for sub6GHz and PD design target respectively.

Because EIRP can vary according to beam code setting in mmWave, EIRP measured using bore-sight code at bore-sight direction is defined as Tx EIRP in this report. And same amount of antenna input power setting is used for other beams as well as bore-sight beam.

The compliance test under static transmission and simultaneous transmission are performed and summarized in Part 1 report. The validation of TAS algorithm under the dynamic transmission scenarios are reported in Part 2. Terminologies for this report are listed up in the table below.

| | |
|---|---|
| Pmax | Maximum Tx power that can be transmitted physically from RFIC for a given RAT |
| SAR_FCC_limit | SAR limit specified by FCC 1.6 W/kg averaged over 1-gram, for head and body exposure |
| SAR_target | Target SAR level used in TAS algorithm. This SAR value should be less than FCC limit and should be determined after accounting for all uncertainties and other design considerations. |
| PD_FCC_limit | PD limit specified by FCC, 10 W/m2 averaged over 4 cm2 |
| PD_target | Target PD level used in TAS algorithm. This PD value should be less than the FCC limit and should be determined accounting for all uncertainties and other design considerations. |
| Plimit | The time-averaged RF power that corresponds to SAR_target or PD_target. |
| SAR characterization | Characterization of SAR value for all sub6GHz technologies |
| PD characterization | Characterization of PD value for mmWave technology |

# 2. SAR Characterization

SAR characterization must be performed to cover all radio configurations and usage scenarios that the wireless device supports for operating at 6 GHz or below. It will then be used as input for S.LSI TAS feature to control and manage RF exposure for f < 6 GHz.

## 2.1 SAR design target and uncertainty

The power table index 5 and 6 will be designed to meet both 1g and 10 SAR design target

Accounting for total uncertainty, SAR_design_target should meet the following condition:

$$SAR\_design\_target < SAR_{regulatory\_limit} \times 10^{\frac{-total\ uncertainty}{10}}$$

| Wireless band | Ant | Duty cycle | Close Mode | | | | | | | Open Mode | | | | | | | Power Tolerance (dBm) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | Head | | Hotspot | Body-worn | | Extremity | | Head | | Hotspot | Body-worn | | Extremity | | |
| | | | Index 2 | Index 3 | Index 4 | Index 5 | Index 6 | Index 5 | Index 6 | Index 7 | Index 8 | Index 9 | Index 10 | Index 11 | Index 10 | Index 11 | |
| | | | 1g SAR design target (W/Kg) | | | | | 10g SAR design target (W/Kg) | | 1g SAR design target (W/Kg) | | | | | 10g SAR design target (W/Kg) | | |
| GSM850 GPRS 1TX | 0 | 12.50% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| GSM850 GPRS 2TX | 0 | 25.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| GSM850 GPRS 3TX | 0 | 37.50% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| GSM850 GPRS 4TX | 0 | 50.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| GSM850 EDGE 1TX | 0 | 12.50% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| GSM850 EDGE 2TX | 0 | 25.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| GSM850 EDGE 3TX | 0 | 37.50% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| GSM850 EDGE 4TX | 0 | 50.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| GSM850 GPRS 1TX | 1 | 12.50% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| GSM850 GPRS 2TX | 1 | 25.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| GSM850 GPRS 3TX | 1 | 37.50% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| GSM850 GPRS 4TX | 1 | 50.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| GSM850 EDGE 1TX | 1 | 12.50% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| GSM850 EDGE 2TX | 1 | 25.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| GSM850 EDGE 3TX | 1 | 37.50% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| GSM850 EDGE 4TX | 1 | 50.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| GSM1900 GPRS 1TX | 2 | 12.50% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| GSM1900 GPRS 2TX | 2 | 25.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| GSM1900 GPRS 3TX | 2 | 37.50% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| GSM1900 GPRS 4TX | 2 | 50.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| GSM1900 EDGE 1TX | 2 | 12.50% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| GSM1900 EDGE 2TX | 2 | 25.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| GSM1900 EDGE 3TX | 2 | 37.50% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| GSM1900 EDGE 4TX | 2 | 50.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| GSM1900 GPRS 1TX | 1 | 12.50% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 1.98 | 1.68 | 1 |
| GSM1900 GPRS 2TX | 1 | 25.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 1.98 | 1.68 | 1 |
| GSM1900 GPRS 3TX | 1 | 37.50% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 1.98 | 1.68 | 1 |
| GSM1900 GPRS 4TX | 1 | 50.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 1.98 | 1.68 | 1 |
| GSM1900 EDGE 1TX | 1 | 12.50% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 1.98 | 1.68 | 1 |
| GSM1900 EDGE 2TX | 1 | 25.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 1.98 | 1.68 | 1 |
| GSM1900 EDGE 3TX | 1 | 37.50% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 1.98 | 1.68 | 1 |
| GSM1900 EDGE 4TX | 1 | 50.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 1.98 | 1.68 | 1 |
| WCDMA B2 | 2 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 1.98 | 1.68 | 1 |
| WCDMA B2 | 1 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 1.98 | 1.68 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 1.98 | 1.68 | 1 |
| WCDMA B4 | 2 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| WCDMA B4 | 1 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| WCDMA B5 | 0 | 100.00% | 0.85 | 0.72 | 0.72 | 0.85 | 0.72 | 2.80 | 2.38 | 0.85 | 0.72 | 0.72 | 0.85 | 0.72 | 2.80 | 2.38 | 0.7 |
| WCDMA B5 | 1 | 100.00% | 0.85 | 0.72 | 0.72 | 0.85 | 0.72 | 2.80 | 2.38 | 0.85 | 0.72 | 0.72 | 0.85 | 0.72 | 2.80 | 2.38 | 0.7 |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LTE B2 | 2 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| LTE B2 | 1 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 1.98 | 1.68 | 1 |
| LTE B2 | 0 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| LTE B2 | 5 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| LTE B4 | 2 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| LTE B4 | 1 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| LTE B4 | 0 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| LTE B4 | 5 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| LTE B5 | 0 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| LTE B5 | 1 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| LTE B7 | 2 | 100.00% | 0.81 | 0.69 | 0.69 | 0.81 | 0.69 | 2.68 | 2.27 | 0.81 | 0.69 | 0.69 | 0.81 | 0.69 | 2.68 | 2.27 | 0.9 |
| LTE B7 | 1 | 100.00% | 0.81 | 0.69 | 0.69 | 0.81 | 0.69 | 2.68 | 2.27 | 0.81 | 0.69 | 0.69 | 0.81 | 0.69 | 2.68 | 2.27 | 0.9 |
| LTE B12 | 0 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| LTE B12 | 1 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| LTE B13 | 0 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| LTE B13 | 1 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| LTE B14 | 0 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| LTE B14 | 1 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| LTE B17 | 0 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| LTE B17 | 1 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| LTE B25 | 2 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| LTE B25 | 1 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 1.98 | 1.68 | 1 |
| LTE B25 | 0 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| LTE B25 | 5 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| LTE B26 | 0 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| LTE B26 | 1 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| LTE B30 | 2 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| LTE B30 | 1 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| LTE B38(PC3) | 2 | 63.30% | 0.81 | 0.69 | 0.69 | 0.81 | 0.69 | 2.68 | 2.27 | 0.81 | 0.69 | 0.69 | 0.81 | 0.69 | 2.68 | 2.27 | 0.9 |
| LTE B38(PC2) | 2 | 43.30% | 0.81 | 0.69 | 0.69 | 0.81 | 0.69 | 2.68 | 2.27 | 0.81 | 0.69 | 0.69 | 0.81 | 0.69 | 2.68 | 2.27 | 0.9 |
| LTE B38(PC3) | 1 | 63.30% | 0.81 | 0.69 | 0.69 | 0.81 | 0.69 | 2.68 | 2.27 | 0.81 | 0.69 | 0.69 | 0.81 | 0.69 | 2.68 | 2.27 | 0.9 |
| LTE B38(PC2) | 1 | 43.30% | 0.81 | 0.69 | 0.69 | 0.81 | 0.69 | 2.68 | 2.27 | 0.81 | 0.69 | 0.69 | 0.81 | 0.69 | 2.68 | 2.27 | 0.9 |
| LTE B38(PC3) | 0 | 63.30% | 0.81 | 0.69 | 0.69 | 0.81 | 0.69 | 2.68 | 2.27 | 0.81 | 0.69 | 0.69 | 0.81 | 0.69 | 2.68 | 2.27 | 0.9 |
| LTE B38(PC2) | 0 | 43.30% | 0.81 | 0.69 | 0.69 | 0.81 | 0.69 | 2.68 | 2.27 | 0.81 | 0.69 | 0.69 | 0.81 | 0.69 | 2.68 | 2.27 | 0.9 |
| LTE B38(PC3) | 5 | 63.30% | 0.81 | 0.69 | 0.69 | 0.81 | 0.69 | 2.68 | 2.27 | 0.81 | 0.69 | 0.69 | 0.81 | 0.69 | 2.68 | 2.27 | 0.9 |
| LTE B38(PC2) | 5 | 43.30% | 0.81 | 0.69 | 0.69 | 0.81 | 0.69 | 2.68 | 2.27 | 0.81 | 0.69 | 0.69 | 0.81 | 0.69 | 2.68 | 2.27 | 0.9 |
| LTE B41(PC3) | 2 | 63.30% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| LTE B41(PC2) | 2 | 43.30% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| LTE B41(PC3) | 1 | 63.30% | 0.81 | 0.69 | 0.69 | 0.81 | 0.69 | 2.68 | 2.27 | 0.81 | 0.69 | 0.69 | 0.81 | 0.69 | 2.68 | 2.27 | 0.9 |
| LTE B41(PC2) | 1 | 43.30% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| LTE B41(PC3) | 0 | 63.30% | 0.81 | 0.69 | 0.69 | 0.81 | 0.69 | 2.68 | 2.27 | 0.81 | 0.69 | 0.69 | 0.81 | 0.69 | 2.68 | 2.27 | 0.9 |
| LTE B41(PC2) | 0 | 43.30% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| LTE B41(PC3) | 5 | 63.30% | 0.81 | 0.69 | 0.69 | 0.81 | 0.69 | 2.68 | 2.27 | 0.81 | 0.69 | 0.69 | 0.81 | 0.69 | 2.68 | 2.27 | 0.9 |
| LTE B41(PC2) | 5 | 43.30% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| LTE B48(PC3) | 6 | 63.30% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| LTE B48(PC3) | 1 | 63.30% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| LTE B48(PC3) | 2 | 63.30% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| LTE B48(PC3) | 5 | 63.30% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| LTE B66 | 2 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| LTE B66 | 1 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| LTE B66 | 0 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| LTE B66 | 5 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| LTE B71 | 0 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| LTE B71 | 1 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n2 | 2 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n2 | 1 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FR1 n2 | 0 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n2 | 5 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n5 | 0 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n5 | 1 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n7 | 2 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n7 | 1 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n12 | 0 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n12 | 1 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n14 | 0 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n14 | 1 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n25 | 2 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n25 | 1 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n25 | 0 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n25 | 5 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n26 | 0 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n26 | 1 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n30 | 2 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n30 | 1 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n38(PC3) | 2 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 1.98 | 1.68 | 1 |
| FR1 n38(PC3) | 1 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n38(PC3) | 0 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n38(PC3) | 5 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n41(PC3) | 2 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 1.98 | 1.68 | 1 |
| FR1 n41(PC3) | 1 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n41(PC3) | 0 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n41(PC3) | 5 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n41(PC2) | 2 | 50.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 1.98 | 1.68 | 1 |
| FR1 n41(PC2) | 1 | 50.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n41(PC2) | 0 | 50.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n41(PC2) | 5 | 50.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n41(PC1.5) | 2 | 25.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 1.98 | 1.68 | 1 |
| FR1 n41(PC1.5) | 1 | 25.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n41(PC1.5) | 0 | 25.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n41(PC1.5) | 5 | 25.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n48(PC3) | 6 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n48(PC3) | 1 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 1.98 | 1.68 | 1 |
| FR1 n48(PC3) | 2 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n48(PC3) | 5 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n66 | 2 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n66 | 1 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n66 | 0 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n66 | 5 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n70 | 2 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n70 | 1 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n71 | 0 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n71 | 1 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n77(PC3) | 6 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n77(PC2) | 6 | 50.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n77(PC1.5) | 6 | 25.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n77(PC3) | 1 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n77(PC2) | 1 | 50.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n77(PC1.5) | 1 | 25.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n77(PC3) | 2 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n77(PC2) | 2 | 50.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n77(PC1.5) | 2 | 25.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n77(PC3) | 5 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |

| | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FR1 n77(PC2) | 5 | 50.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n77(PC1.5) | 5 | 25.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n78(PC3) | 6 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n78(PC2) | 6 | 50.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n78(PC1.5) | 6 | 25.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n78(PC3) | 1 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n78(PC2) | 1 | 50.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n78(PC1.5) | 1 | 25.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n78(PC3) | 2 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n78(PC2) | 2 | 50.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n78(PC1.5) | 2 | 25.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n78(PC3) | 5 | 100.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n78(PC2) | 5 | 50.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| FR1 n78(PC1.5) | 5 | 25.00% | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 0.79 | 0.67 | 0.67 | 0.79 | 0.67 | 2.62 | 2.22 | 1 |
| NTN B23 | 1 | 83.00% | | | | 0.79 | | 1.98 | | | | | 0.79 | | 1.98 | | 1 |
| NTN B255 | 4 | 83.00% | | | | 0.79 | | 1.98 | | | | | 0.79 | | 1.98 | | 1 |

## 2.2 SAR Characterization – Power Table

1. The Plimit values are defined based on the SAR design targets.
2. GSM does not support time-averaging for dynamically varying power. Instead, transmit power remains fixed at a reduced static level under different exposure conditions to ensure RF exposure compliance. The Plimit values listed for GSM represent burst average power and do not consider the transmission duty cycle.
3. For UMTS, LTE, FR1, and NTN, the Plimit values shown in the table represent time-averaged transmit power, which does take the TX duty cycle into account.
4. The maximum target power (Pmax) is configured in the EUT's NV settings to cap the transmit power. For TDD schemes, this value is converted to peak power in the NV configuration.

### <$P_{limit}$ for supported technologies and bands ($P_{limit}$ corresponding to SAR design target)>

| Wireless band (No Accounting duty cycle) | Antenna | Duty cycle | Maximum Power condition | Close Mode | | | | | | Open Mode | | | | Pmax |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Head | | Hotspot | Body-worn / Extremity | | | Head | Hotspot | Body-worn / Extremity | | |
| | | | | Standalone | Simultaneous | Simultaneous | Standalone | Simultaneous | | Standalone Simultaneous | Simultaneous | Standalone | Simultaneous | |
| | | | Index 1 | Index 2 | Index 3 | Index 4 | Index 5 | Index 6 | | Index 7/8 | Index 9 | Index 10 | Index 11 | |
| | | | P-limit | | | | | | | P-limit | | | | |
| | | | Burst average power (dBm) | | | | | | | Burst average power (dBm) | | | | |
| GSM850 GPRS 1TX | 0 | 12.50% | 32.5 | 39.6 | 38.9 | 33.2 | 33.9 | 33.2 | | 39.2 | 35.4 | 36.1 | 35.4 | 32.5 |
| GSM850 GPRS 2TX | 0 | 25.00% | 31.5 | 36.6 | 35.9 | 30.2 | 30.9 | 30.2 | | 36.2 | 32.4 | 33.1 | 32.4 | 31.5 |
| GSM850 GPRS 3TX | 0 | 37.50% | 30.5 | 34.8 | 34.1 | 28.4 | 29.1 | 28.4 | | 34.4 | 30.6 | 31.3 | 30.6 | 30.5 |
| GSM850 GPRS 4TX | 0 | 50.00% | 29.5 | 33.6 | 32.9 | 27.2 | 27.9 | 27.2 | | 33.2 | 29.4 | 30.1 | 29.4 | 29.5 |
| GSM850 EDGE 1TX | 0 | 12.50% | 26.5 | 39.6 | 38.9 | 33.2 | 33.9 | 33.2 | | 39.2 | 35.4 | 36.1 | 35.4 | 26.5 |
| GSM850 EDGE 2TX | 0 | 25.00% | 25.5 | 36.6 | 35.9 | 30.2 | 30.9 | 30.2 | | 36.2 | 32.4 | 33.1 | 32.4 | 25.5 |
| GSM850 EDGE 3TX | 0 | 37.50% | 24.5 | 34.8 | 34.1 | 28.4 | 29.1 | 28.4 | | 34.4 | 30.6 | 31.3 | 30.6 | 24.5 |
| GSM850 EDGE 4TX | 0 | 50.00% | 23.5 | 33.6 | 32.9 | 27.2 | 27.9 | 27.2 | | 33.2 | 29.4 | 30.1 | 29.4 | 23.5 |
| GSM850 GPRS 1TX | 1 | 12.50% | 32.5 | 31.7 | 31.0 | 35.8 | 36.5 | 35.8 | | 31.0 | 35.4 | 36.1 | 35.4 | 32.5 |
| GSM850 GPRS 2TX | 1 | 25.00% | 31.5 | 28.7 | 28.0 | 32.8 | 33.5 | 32.8 | | 28.0 | 32.4 | 33.1 | 32.4 | 31.5 |
| GSM850 GPRS 3TX | 1 | 37.50% | 30.5 | 26.9 | 26.2 | 31.0 | 31.7 | 31.0 | | 26.2 | 30.6 | 31.3 | 30.6 | 30.5 |
| GSM850 GPRS 4TX | 1 | 50.00% | 29.5 | 25.7 | 25.0 | 29.8 | 30.5 | 29.8 | | 25.0 | 29.4 | 30.1 | 29.4 | 29.5 |
| GSM850 EDGE 1TX | 1 | 12.50% | 26.5 | 31.7 | 31.0 | 35.8 | 36.5 | 35.8 | | 31.0 | 35.4 | 36.1 | 35.4 | 26.5 |
| GSM850 EDGE 2TX | 1 | 25.00% | 25.5 | 28.7 | 28.0 | 32.8 | 33.5 | 32.8 | | 28.0 | 32.4 | 33.1 | 32.4 | 25.5 |
| GSM850 EDGE 3TX | 1 | 37.50% | 24.5 | 26.9 | 26.2 | 31.0 | 31.7 | 31.0 | | 26.2 | 30.6 | 31.3 | 30.6 | 24.5 |
| GSM850 EDGE 4TX | 1 | 50.00% | 23.5 | 25.7 | 25.0 | 29.8 | 30.5 | 29.8 | | 25.0 | 29.4 | 30.1 | 29.4 | 23.5 |
| GSM1900 GPRS 1TX | 2 | 12.50% | 29.5 | 40.3 | 39.6 | 25.9 | 26.6 | 25.9 | | 42.7 | 25.3 | 26.2 | 25.5 | 29.5 |
| GSM1900 GPRS 2TX | 2 | 25.00% | 28.0 | 37.3 | 36.6 | 22.9 | 23.6 | 22.9 | | 39.7 | 22.3 | 23.2 | 22.5 | 28.0 |
| GSM1900 GPRS 3TX | 2 | 37.50% | 27.5 | 35.5 | 34.8 | 21.1 | 21.8 | 21.1 | | 37.9 | 20.5 | 21.4 | 20.7 | 27.5 |
| GSM1900 GPRS 4TX | 2 | 50.00% | 26.5 | 34.3 | 33.6 | 19.9 | 20.6 | 19.9 | | 36.7 | 19.3 | 20.2 | 19.5 | 26.5 |
| GSM1900 EDGE 1TX | 2 | 12.50% | 25.5 | 40.3 | 39.6 | 25.9 | 26.6 | 25.9 | | 42.7 | 25.3 | 26.2 | 25.5 | 25.5 |
| GSM1900 EDGE 2TX | 2 | 25.00% | 24.5 | 37.3 | 36.6 | 22.9 | 23.6 | 22.9 | | 39.7 | 22.3 | 23.2 | 22.5 | 24.5 |
| GSM1900 EDGE 3TX | 2 | 37.50% | 23.5 | 35.5 | 34.8 | 21.1 | 21.8 | 21.1 | | 37.9 | 20.5 | 21.4 | 20.7 | 23.5 |
| GSM1900 EDGE 4TX | 2 | 50.00% | 22.5 | 34.3 | 33.6 | 19.9 | 20.6 | 19.9 | | 36.7 | 19.3 | 20.2 | 19.5 | 22.5 |
| GSM1900 GPRS 1TX | 1 | 12.50% | 29.5 | 31.3 | 30.6 | 36.8 | 37.6 | 36.9 | | 25.7 | 28.2 | 30.5 | 29.8 | 29.5 |
| GSM1900 GPRS 2TX | 1 | 25.00% | 28.0 | 28.3 | 27.6 | 33.8 | 34.6 | 33.9 | | 22.7 | 25.2 | 27.5 | 26.8 | 28.0 |
| GSM1900 GPRS 3TX | 1 | 37.50% | 27.5 | 26.5 | 25.8 | 32.0 | 32.8 | 32.1 | | 20.9 | 23.4 | 25.7 | 25.0 | 27.5 |
| GSM1900 GPRS 4TX | 1 | 50.00% | 26.5 | 25.3 | 24.6 | 30.8 | 31.6 | 30.9 | | 19.7 | 22.2 | 24.5 | 23.8 | 26.5 |
| GSM1900 EDGE 1TX | 1 | 12.50% | 25.5 | 31.3 | 30.6 | 36.8 | 37.6 | 36.9 | | 25.7 | 28.2 | 30.5 | 29.8 | 25.5 |
| GSM1900 EDGE 2TX | 1 | 25.00% | 24.5 | 28.3 | 27.6 | 33.8 | 34.6 | 33.9 | | 22.7 | 25.2 | 27.5 | 26.8 | 24.5 |
| GSM1900 EDGE 3TX | 1 | 37.50% | 23.5 | 26.5 | 25.8 | 32.0 | 32.8 | 32.1 | | 20.9 | 23.4 | 25.7 | 25.0 | 23.5 |
| GSM1900 EDGE 4TX | 1 | 50.00% | 22.5 | 25.3 | 24.6 | 30.8 | 31.6 | 30.9 | | 19.7 | 22.2 | 24.5 | 23.8 | 22.5 |

| Wireless technology/ band (Accounting duty cycle) | Antenna | Duty cycle | Maximum Power condition | Close Mode | | | | | | Open Mode | | | | PMax |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | Head | | Hotspot | Body-worn / Extremity | | | Head | Hotspot | Body-worn / Extremity | | |
| | | | | Standalone | Simultaneous | Simultaneous | Standalone | Simultaneous | | Standalone Simultaneous | Simultaneous | Standalone | Simultaneous | |
| | | | Index 1 | Index 2 | Index 3 | Index 4 | Index 5 | Index 6 | | Index 7/8 | Index 9 | Index 10 | Index 11 | |
| | | | P-limit | | | | | | | P-limit | | | | |
| | | | Burst average power (dBm) | | | | | | | Burst average power (dBm) | | | | |
| WCDMA B2 | 2 | 100.00% | 24.0 | 31.3 | 30.6 | 17.5 | 18.7 | 18.0 | | 30.7 | 16.3 | 17.9 | 17.2 | 24.0 |
| WCDMA B2 | 1 | 100.00% | 24.0 | 21.4 | 20.7 | 21.2 | 22.8 | 22.1 | | 15.8 | 19.1 | 21.4 | 20.7 | 24.0 |
| WCDMA B4 | 2 | 100.00% | 24.0 | 31.5 | 30.8 | 17.5 | 18.2 | 17.5 | | 29.7 | 18.5 | 19.3 | 18.6 | 24.0 |
| WCDMA B4 | 1 | 100.00% | 24.0 | 21.7 | 21.0 | 27.9 | 28.8 | 28.1 | | 18.7 | 23.8 | 24.5 | 23.8 | 24.0 |
| WCDMA B5 | 0 | 100.00% | 24.3 | 30.3 | 29.6 | 25.5 | 26.2 | 25.5 | | 29.3 | 26.1 | 26.8 | 26.1 | 24.3 |
| WCDMA B5 | 1 | 100.00% | 24.3 | 21.0 | 20.3 | 25.7 | 26.4 | 25.7 | | 22.0 | 26.4 | 27.1 | 26.4 | 24.3 |
| LTE B2 | 2 | 100.00% | 24.0 | 31.4 | 30.7 | 17.1 | 18.6 | 17.9 | | 32.4 | 16.5 | 17.4 | 16.7 | 24.0 |
| LTE B2 | 1 | 100.00% | 24.0 | 21.2 | 20.5 | 22.6 | 23.3 | 22.6 | | 15.5 | 18.8 | 21.0 | 20.3 | 24.0 |
| LTE B2 | 0 | 100.00% | 24.0 | 30.6 | 29.9 | 18.6 | 19.3 | 18.6 | | 26.4 | 18.9 | 19.6 | 18.9 | 24.0 |
| LTE B2 | 5 | 100.00% | 24.0 | 27.1 | 26.4 | 25.7 | 26.4 | 25.7 | | 23.1 | 22.9 | 23.6 | 22.9 | 24.0 |
| LTE B4 | 2 | 100.00% | 24.0 | 31.7 | 31.0 | 17.4 | 18.1 | 17.4 | | 29.6 | 17.9 | 18.9 | 18.2 | 24.0 |
| LTE B4 | 1 | 100.00% | 24.0 | 20.7 | 20.0 | 27.6 | 28.3 | 27.6 | | 18.2 | 23.6 | 24.3 | 23.6 | 24.0 |
| LTE B4 | 0 | 100.00% | 24.0 | 31.5 | 30.8 | 19.8 | 20.5 | 19.8 | | 27.7 | 18.2 | 18.9 | 18.2 | 24.0 |
| LTE B4 | 5 | 100.00% | 24.0 | 24.6 | 23.9 | 26.9 | 27.6 | 26.9 | | 24.6 | 21.8 | 22.5 | 21.8 | 24.0 |
| LTE B5 | 0 | 100.00% | 24.3 | 30.2 | 29.5 | 26.6 | 27.3 | 26.6 | | 28.9 | 26.6 | 27.3 | 26.6 | 24.3 |
| LTE B5 | 1 | 100.00% | 24.3 | 23.0 | 22.3 | 25.5 | 26.2 | 25.5 | | 22.8 | 26.6 | 27.3 | 26.6 | 24.3 |
| LTE B7 | 2 | 100.00% | 24.1 | 33.3 | 32.6 | 16.9 | 17.6 | 16.9 | | 34.6 | 18.0 | 19.3 | 18.6 | 24.1 |
| LTE B7 | 1 | 100.00% | 24.1 | 23.8 | 23.1 | 22.4 | 23.1 | 22.4 | | 16.8 | 20.4 | 21.7 | 21.0 | 24.1 |
| LTE B12 | 0 | 100.00% | 24.3 | 30.0 | 29.3 | 26.4 | 27.6 | 26.9 | | 31.0 | 26.3 | 27.0 | 26.3 | 24.3 |
| LTE B12 | 1 | 100.00% | 24.3 | 22.7 | 22.0 | 25.6 | 26.3 | 25.6 | | 24.4 | 26.3 | 27.0 | 26.3 | 24.3 |
| LTE B13 | 0 | 100.00% | 24.3 | 29.7 | 29.0 | 26.0 | 27.5 | 26.8 | | 29.0 | 24.1 | 24.8 | 24.1 | 24.3 |
| LTE B13 | 1 | 100.00% | 24.3 | 23.2 | 22.5 | 26.2 | 26.9 | 26.2 | | 22.7 | 27.4 | 28.1 | 27.4 | 24.3 |
| LTE B14 | 0 | 100.00% | 24.3 | 29.5 | 28.8 | 26.2 | 27.6 | 26.9 | | 29.1 | 25.4 | 26.1 | 25.4 | 24.3 |
| LTE B14 | 1 | 100.00% | 24.3 | 23.2 | 22.5 | 26.6 | 27.3 | 26.6 | | 23.3 | 27.7 | 28.4 | 27.7 | 24.3 |
| LTE B17 | 0 | 100.00% | 24.3 | 30.0 | 29.3 | 26.4 | 27.6 | 26.9 | | 31.0 | 26.3 | 27.0 | 26.3 | 24.3 |
| LTE B17 | 1 | 100.00% | 24.3 | 22.7 | 22.0 | 25.6 | 26.3 | 25.6 | | 24.4 | 26.3 | 27.0 | 26.3 | 24.3 |
| LTE B25 | 2 | 100.00% | 24.0 | 31.4 | 30.7 | 17.1 | 18.6 | 17.9 | | 32.4 | 16.5 | 17.4 | 16.7 | 24.0 |
| LTE B25 | 1 | 100.00% | 24.0 | 21.2 | 20.5 | 22.6 | 23.3 | 22.6 | | 15.5 | 18.8 | 21.0 | 20.3 | 24.0 |
| LTE B25 | 0 | 100.00% | 24.0 | 30.6 | 29.9 | 18.6 | 19.3 | 18.6 | | 26.4 | 18.9 | 19.6 | 18.9 | 24.0 |
| LTE B25 | 5 | 100.00% | 24.0 | 27.1 | 26.4 | 25.7 | 26.4 | 25.7 | | 23.1 | 22.9 | 23.6 | 22.9 | 24.0 |
| LTE B26 | 0 | 100.00% | 24.3 | 30.2 | 29.5 | 26.6 | 27.3 | 26.6 | | 28.9 | 26.6 | 27.3 | 26.6 | 24.3 |
| LTE B26 | 1 | 100.00% | 24.3 | 23.0 | 22.3 | 25.5 | 26.2 | 25.5 | | 22.8 | 26.6 | 27.3 | 26.6 | 24.3 |
| LTE B30 | 2 | 100.00% | 23.7 | 31.3 | 30.6 | 17.0 | 17.7 | 17.0 | | 37.3 | 17.8 | 19.1 | 18.4 | 23.7 |
| LTE B30 | 1 | 100.00% | 23.7 | 23.4 | 22.7 | 25.2 | 25.9 | 25.2 | | 17.1 | 22.1 | 22.8 | 22.1 | 23.7 |
| LTE B38(PC3) | 2 | 63.30% | 22.1 | 31.5 | 30.8 | 16.7 | 18.0 | 17.3 | | 33.1 | 17.0 | 17.8 | 17.1 | 22.1 |
| LTE B38(PC3) | 1 | 63.30% | 22.1 | 21.3 | 20.6 | 22.5 | 23.2 | 22.5 | | 16.9 | 21.5 | 22.2 | 21.5 | 22.1 |
| LTE B38(PC3) | 0 | 63.30% | 22.1 | 31.5 | 30.8 | 21.0 | 21.7 | 21.0 | | 28.2 | 20.9 | 21.9 | 21.2 | 22.1 |
| LTE B38(PC3) | 5 | 63.30% | 22.1 | 22.0 | 21.3 | 23.7 | 24.4 | 23.7 | | 23.8 | 22.6 | 23.3 | 22.6 | 22.1 |
| LTE B38(PC2) | 2 | 43.30% | 22.4 | 31.5 | 30.8 | 16.7 | 18.0 | 17.3 | | 33.1 | 17.0 | 17.8 | 17.1 | 22.4 |
| LTE B38(PC2) | 1 | 43.30% | 22.4 | 21.3 | 20.6 | 22.5 | 23.2 | 22.5 | | 16.9 | 21.5 | 22.2 | 21.5 | 22.4 |
| LTE B38(PC2) | 0 | 43.30% | 22.4 | 31.5 | 30.8 | 21.0 | 21.7 | 21.0 | | 28.2 | 20.9 | 21.9 | 21.2 | 22.4 |
| LTE B38(PC2) | 5 | 43.30% | 22.4 | 22.0 | 21.3 | 23.7 | 24.4 | 23.7 | | 23.8 | 22.6 | 23.3 | 22.6 | 22.4 |
| LTE B41(PC3) | 2 | 63.30% | 22.0 | 31.5 | 30.8 | 16.7 | 18.0 | 17.3 | | 33.1 | 17.0 | 17.8 | 17.1 | 22.0 |
| LTE B41(PC3) | 1 | 63.30% | 22.1 | 21.3 | 20.6 | 22.5 | 23.2 | 22.5 | | 16.9 | 21.5 | 22.2 | 21.5 | 22.1 |
| LTE B41(PC3) | 0 | 63.30% | 22.1 | 31.5 | 30.8 | 21.0 | 21.7 | 21.0 | | 28.2 | 20.9 | 21.9 | 21.2 | 22.1 |
| LTE B41(PC3) | 5 | 63.30% | 22.1 | 22.0 | 21.3 | 23.7 | 24.4 | 23.7 | | 23.8 | 22.6 | 23.3 | 22.6 | 22.1 |
| LTE B41(PC2) | 2 | 43.30% | 22.4 | 31.5 | 30.8 | 16.7 | 18.0 | 17.3 | | 33.1 | 17.0 | 17.8 | 17.1 | 22.4 |
| LTE B41(PC2) | 1 | 43.30% | 22.4 | 21.3 | 20.6 | 22.5 | 23.2 | 22.5 | | 16.9 | 21.5 | 22.2 | 21.5 | 22.4 |
| LTE B41(PC2) | 0 | 43.30% | 22.4 | 31.5 | 30.8 | 21.0 | 21.7 | 21.0 | | 28.2 | 20.9 | 21.9 | 21.2 | 22.4 |
| LTE B41(PC2) | 5 | 43.30% | 22.4 | 22.0 | 21.3 | 23.7 | 24.4 | 23.7 | | 23.8 | 22.6 | 23.3 | 22.6 | 22.4 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| LTE B48(PC3) | 6 | 63.30% | 21.5 | 32.0 | 31.3 | 21.4 | 22.1 | 21.4 | 28.1 | 19.5 | 20.2 | 19.5 | 21.5 |
| LTE B48(PC3) | 1 | 63.30% | 20.7 | 15.2 | 14.5 | 21.2 | 21.9 | 21.2 | 15.1 | 20.5 | 22.0 | 21.3 | 20.7 |
| LTE B48(PC3) | 2 | 63.30% | 21.2 | 36.2 | 35.5 | 19.0 | 19.7 | 19.0 | 32.3 | 17.9 | 19.4 | 18.7 | 21.2 |
| LTE B48(PC3) | 5 | 63.30% | 21.2 | 25.5 | 24.8 | 21.6 | 22.3 | 21.6 | 21.4 | 19.7 | 20.4 | 19.7 | 21.2 |
| LTE B66 | 2 | 100.00% | 24.0 | 31.7 | 31.0 | 17.4 | 18.1 | 17.4 | 29.6 | 17.9 | 18.9 | 18.2 | 24.0 |
| LTE B66 | 1 | 100.00% | 24.0 | 20.7 | 20.0 | 27.6 | 28.3 | 27.6 | 18.2 | 23.6 | 24.3 | 23.6 | 24.0 |
| LTE B66 | 0 | 100.00% | 24.0 | 31.5 | 30.8 | 19.8 | 20.5 | 19.8 | 27.7 | 18.2 | 18.9 | 18.2 | 24.0 |
| LTE B66 | 5 | 100.00% | 24.0 | 24.6 | 23.9 | 26.9 | 27.6 | 26.9 | 24.6 | 21.8 | 22.5 | 21.8 | 24.0 |
| LTE B71 | 0 | 100.00% | 24.3 | 29.7 | 29.0 | 26.5 | 27.8 | 27.1 | 30.9 | 26.1 | 26.8 | 26.1 | 24.3 |
| LTE B71 | 1 | 100.00% | 24.3 | 27.8 | 27.1 | 26.5 | 27.2 | 26.5 | 24.2 | 27.0 | 27.7 | 27.0 | 24.3 |
| FR1 n2 | 2 | 100.00% | 24.0 | 31.3 | 30.6 | 17.4 | 18.2 | 17.5 | 31.1 | 17.1 | 17.9 | 17.2 | 24.0 |
| FR1 n2 | 1 | 100.00% | 24.0 | 22.1 | 21.4 | 23.3 | 24.0 | 23.3 | 16.2 | 20.5 | 21.9 | 21.2 | 24.0 |
| FR1 n2 | 0 | 100.00% | 24.0 | 30.7 | 30.0 | 19.0 | 19.7 | 19.0 | 26.7 | 18.7 | 19.4 | 18.7 | 24.0 |
| FR1 n2 | 5 | 100.00% | 24.0 | 28.2 | 27.5 | 23.7 | 24.4 | 23.7 | 22.7 | 22.6 | 23.3 | 22.6 | 24.0 |
| FR1 n5 | 0 | 100.00% | 24.3 | 29.6 | 28.9 | 26.1 | 26.8 | 26.1 | 28.5 | 26.1 | 26.8 | 26.1 | 24.3 |
| FR1 n5 | 1 | 100.00% | 24.3 | 22.0 | 21.3 | 24.8 | 25.5 | 24.8 | 22.8 | 26.2 | 26.9 | 26.2 | 24.3 |
| FR1 n7 | 2 | 100.00% | 24.1 | 34.2 | 33.5 | 17.1 | 18.1 | 17.4 | 35.8 | 18.5 | 19.2 | 18.5 | 24.1 |
| FR1 n7 | 1 | 100.00% | 24.1 | 22.7 | 22.0 | 21.9 | 22.6 | 21.9 | 16.0 | 20.0 | 21.5 | 20.8 | 24.1 |
| FR1 n12 | 0 | 100.00% | 24.3 | 31.4 | 30.7 | 26.8 | 27.7 | 27.0 | 30.9 | 25.6 | 26.3 | 25.6 | 24.3 |
| FR1 n12 | 1 | 100.00% | 24.3 | 22.7 | 22.0 | 24.6 | 25.3 | 24.6 | 25.3 | 26.1 | 26.8 | 26.1 | 24.3 |
| FR1 n14 | 0 | 100.00% | 24.3 | 29.5 | 28.8 | 26.3 | 27.3 | 26.6 | 28.8 | 24.0 | 24.7 | 24.0 | 24.3 |
| FR1 n14 | 1 | 100.00% | 24.3 | 25.9 | 25.2 | 26.2 | 26.9 | 26.2 | 23.7 | 27.6 | 28.3 | 27.6 | 24.3 |
| FR1 n25 | 2 | 100.00% | 24.0 | 31.3 | 30.6 | 17.4 | 18.2 | 17.5 | 31.1 | 17.1 | 17.9 | 17.2 | 24.0 |
| FR1 n25 | 1 | 100.00% | 24.0 | 22.1 | 21.4 | 23.3 | 24.0 | 23.3 | 16.2 | 20.5 | 21.9 | 21.2 | 24.0 |
| FR1 n25 | 0 | 100.00% | 24.0 | 30.7 | 30.0 | 19.0 | 19.7 | 19.0 | 26.7 | 18.7 | 19.4 | 18.7 | 24.0 |
| FR1 n25 | 5 | 100.00% | 24.0 | 28.2 | 27.5 | 23.7 | 24.4 | 23.7 | 22.7 | 22.6 | 23.3 | 22.6 | 24.0 |
| FR1 n26 | 0 | 100.00% | 24.3 | 29.6 | 28.9 | 26.1 | 26.8 | 26.1 | 28.5 | 26.1 | 26.8 | 26.1 | 24.3 |
| FR1 n26 | 1 | 100.00% | 24.3 | 22.0 | 21.3 | 24.8 | 25.5 | 24.8 | 22.8 | 26.2 | 26.9 | 26.2 | 24.3 |
| FR1 n30 | 2 | 100.00% | 23.7 | 31.8 | 31.1 | 17.1 | 17.8 | 17.1 | 35.6 | 17.8 | 19.0 | 18.3 | 23.7 |
| FR1 n30 | 1 | 100.00% | 23.7 | 23.4 | 22.7 | 23.8 | 24.5 | 23.8 | 17.1 | 21.7 | 22.4 | 21.7 | 23.7 |
| FR1 n38(PC3) | 2 | 100.00% | 24.1 | 31.8 | 31.1 | 16.3 | 17.7 | 17.0 | 35.0 | 16.7 | 18.2 | 17.5 | 24.1 |
| FR1 n38(PC3) | 1 | 100.00% | 24.1 | 20.9 | 20.2 | 21.9 | 22.6 | 21.9 | 16.8 | 21.0 | 22.3 | 21.6 | 24.1 |
| FR1 n38(PC3) | 0 | 100.00% | 24.1 | 26.6 | 25.9 | 21.6 | 22.7 | 22.0 | 28.4 | 21.4 | 22.1 | 21.4 | 24.1 |
| FR1 n38(PC3) | 5 | 100.00% | 24.1 | 23.7 | 23.0 | 24.5 | 25.2 | 24.5 | 25.1 | 22.6 | 23.3 | 22.6 | 24.1 |
| FR1 n41(PC3) | 2 | 100.00% | 24.0 | 31.8 | 31.1 | 16.3 | 17.7 | 17.0 | 35.0 | 16.7 | 18.2 | 17.5 | 24.0 |
| FR1 n41(PC3) | 1 | 100.00% | 24.0 | 20.9 | 20.2 | 21.9 | 22.6 | 21.9 | 16.8 | 21.0 | 22.3 | 21.6 | 24.0 |
| FR1 n41(PC3) | 0 | 100.00% | 24.0 | 26.6 | 25.9 | 21.6 | 22.7 | 22.0 | 28.4 | 21.4 | 22.1 | 21.4 | 24.0 |
| FR1 n41(PC3) | 5 | 100.00% | 24.0 | 23.7 | 23.0 | 24.5 | 25.2 | 24.5 | 25.1 | 22.6 | 23.3 | 22.6 | 24.0 |
| FR1 n41(PC2) | 2 | 50.00% | 23.0 | 31.8 | 31.1 | 16.3 | 17.7 | 17.0 | 35.0 | 16.7 | 18.2 | 17.5 | 23.0 |
| FR1 n41(PC2) | 1 | 50.00% | 23.0 | 20.9 | 20.2 | 21.9 | 22.6 | 21.9 | 16.8 | 21.0 | 22.3 | 21.6 | 23.0 |
| FR1 n41(PC2) | 0 | 50.00% | 23.0 | 26.6 | 25.9 | 21.6 | 22.7 | 22.0 | 28.4 | 21.4 | 22.1 | 21.4 | 23.0 |
| FR1 n41(PC2) | 5 | 50.00% | 23.0 | 23.7 | 23.0 | 24.5 | 25.2 | 24.5 | 25.1 | 22.6 | 23.3 | 22.6 | 23.0 |
| FR1 n41_ULMIMO(PC1.5) | 2 | 25.00% | 20.0 | 31.8 | 31.1 | 16.3 | 17.7 | 17.0 | 35.0 | 16.7 | 18.2 | 17.5 | 20.0 |
| FR1 n41_ULMIMO(PC1.5) | 1 | 25.00% | 20.0 | 20.9 | 20.2 | 21.9 | 22.6 | 21.9 | 16.8 | 21.0 | 22.3 | 21.6 | 20.0 |
| FR1 n41_ULMIMO(PC1.5) | 0 | 25.00% | 20.0 | 26.6 | 25.9 | 21.6 | 22.7 | 22.0 | 28.4 | 21.4 | 22.1 | 21.4 | 20.0 |
| FR1 n41_ULMIMO(PC1.5) | 5 | 25.00% | 20.0 | 23.7 | 23.0 | 24.5 | 25.2 | 24.5 | 25.1 | 22.6 | 23.3 | 22.6 | 20.0 |
| FR1 n48_ULMIMO(PC3) | 6 | 100.00% | 23.5 | 32.3 | 31.6 | 20.7 | 21.4 | 20.7 | 27.8 | 19.5 | 20.2 | 19.5 | 23.5 |
| FR1 n48_ULMIMO(PC3) | 1 | 100.00% | 22.5 | 15.7 | 15.0 | 21.2 | 21.9 | 21.2 | 15.2 | 20.5 | 22.1 | 21.4 | 22.5 |
| FR1 n48_ULMIMO(PC3) | 2 | 100.00% | 23.5 | 33.7 | 33.0 | 19.5 | 20.2 | 19.5 | 32.3 | 18.8 | 20.2 | 19.5 | 23.5 |
| FR1 n48_ULMIMO(PC3) | 5 | 100.00% | 23.5 | 25.2 | 24.5 | 24.5 | 25.2 | 24.5 | 21.1 | 20.4 | 21.1 | 20.4 | 23.5 |
| FR1 n66 | 2 | 100.00% | 24.0 | 32.1 | 31.4 | 17.8 | 18.5 | 17.8 | 30.1 | 18.2 | 18.9 | 18.2 | 24.0 |
| FR1 n66 | 1 | 100.00% | 24.0 | 20.3 | 19.6 | 25.8 | 27.3 | 26.6 | 20.8 | 25.3 | 26.0 | 25.3 | 24.0 |
| FR1 n66 | 0 | 100.00% | 24.0 | 29.5 | 28.8 | 19.8 | 20.5 | 19.8 | 27.8 | 18.0 | 18.7 | 18.0 | 24.0 |
| FR1 n66 | 5 | 100.00% | 24.0 | 27.6 | 26.9 | 30.1 | 30.8 | 30.1 | 26.2 | 22.8 | 23.5 | 22.8 | 24.0 |
| FR1 n70 | 2 | 100.00% | 23.7 | 32.7 | 32.0 | 17.8 | 18.5 | 17.8 | 30.6 | 19.0 | 19.7 | 19.0 | 23.7 |
| FR1 n70 | 1 | 100.00% | 23.7 | 22.1 | 21.4 | 27.4 | 28.1 | 27.4 | 20.8 | 23.2 | 23.9 | 23.2 | 23.7 |

| | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FR1 n71 | 0 | 100.00% | 24.3 | 32.1 | 31.4 | 25.7 | 27.2 | 26.5 | 30.8 | 26.2 | 26.9 | 26.2 | 24.3 |
| FR1 n71 | 1 | 100.00% | 24.3 | 27.6 | 26.9 | 26.0 | 26.7 | 26.0 | 24.2 | 26.4 | 27.1 | 26.4 | 24.3 |
| FR1 n77(PC3) | 6 | 100.00% | 24.0 | 24.9 | 24.2 | 20.6 | 21.3 | 20.6 | 26.6 | 19.2 | 19.9 | 19.2 | 24.0 |
| FR1 n77(PC3) | 1 | 100.00% | 23.0 | 15.7 | 15.0 | 20.5 | 21.2 | 20.5 | 13.7 | 19.8 | 21.1 | 20.4 | 23.0 |
| FR1 n77(PC3) | 2 | 100.00% | 24.0 | 34.0 | 33.3 | 19.2 | 19.9 | 19.2 | 29.6 | 19.1 | 19.8 | 19.1 | 24.0 |
| FR1 n77(PC3) | 5 | 100.00% | 24.0 | 23.7 | 23.0 | 23.8 | 24.5 | 23.8 | 20.0 | 20.8 | 21.5 | 20.8 | 24.0 |
| FR1 n77(PC2) | 6 | 50.00% | 23.0 | 24.9 | 24.2 | 20.6 | 21.3 | 20.6 | 26.6 | 19.2 | 19.9 | 19.2 | 23.0 |
| FR1 n77(PC2) | 1 | 50.00% | 22.0 | 15.7 | 15.0 | 20.5 | 21.2 | 20.5 | 13.7 | 19.8 | 21.1 | 20.4 | 22.0 |
| FR1 n77(PC2) | 2 | 50.00% | 23.0 | 34.0 | 33.3 | 19.2 | 19.9 | 19.2 | 29.6 | 19.1 | 19.8 | 19.1 | 23.0 |
| FR1 n77(PC2) | 5 | 50.00% | 23.0 | 23.7 | 23.0 | 23.8 | 24.5 | 23.8 | 20.0 | 20.8 | 21.5 | 20.8 | 23.0 |
| FR1 n77_ULMIMO(PC1.5) | 6 | 25.00% | 20.0 | 24.9 | 24.2 | 20.6 | 21.3 | 20.6 | 26.6 | 19.2 | 19.9 | 19.2 | 20.0 |
| FR1 n77_ULMIMO(PC1.5) | 1 | 25.00% | 19.0 | 15.7 | 15.0 | 20.5 | 21.2 | 20.5 | 13.7 | 19.8 | 21.1 | 20.4 | 19.0 |
| FR1 n77_ULMIMO(PC1.5) | 2 | 25.00% | 20.0 | 34.0 | 33.3 | 19.2 | 19.9 | 19.2 | 29.6 | 19.1 | 19.8 | 19.1 | 20.0 |
| FR1 n77_ULMIMO(PC1.5) | 5 | 25.00% | 20.0 | 23.7 | 23.0 | 23.8 | 24.5 | 23.8 | 20.0 | 20.8 | 21.5 | 20.8 | 20.0 |
| FR1 n78(PC3) | 6 | 100.00% | 24.0 | 24.9 | 24.2 | 20.6 | 21.3 | 20.6 | 26.6 | 19.2 | 19.9 | 19.2 | 24.0 |
| FR1 n78(PC3) | 1 | 100.00% | 23.0 | 15.7 | 15.0 | 20.5 | 21.2 | 20.5 | 13.7 | 19.8 | 21.1 | 20.4 | 23.0 |
| FR1 n78(PC3) | 2 | 100.00% | 24.0 | 34.0 | 33.3 | 19.2 | 19.9 | 19.2 | 29.6 | 19.1 | 19.8 | 19.1 | 24.0 |
| FR1 n78(PC3) | 5 | 100.00% | 24.0 | 23.7 | 23.0 | 23.8 | 24.5 | 23.8 | 20.0 | 20.8 | 21.5 | 20.8 | 24.0 |
| FR1 n78(PC2) | 6 | 50.00% | 23.0 | 24.9 | 24.2 | 20.6 | 21.3 | 20.6 | 26.6 | 19.2 | 19.9 | 19.2 | 23.0 |
| FR1 n78(PC2) | 1 | 50.00% | 22.0 | 15.7 | 15.0 | 20.5 | 21.2 | 20.5 | 13.7 | 19.8 | 21.1 | 20.4 | 22.0 |
| FR1 n78(PC2) | 2 | 50.00% | 23.0 | 34.0 | 33.3 | 19.2 | 19.9 | 19.2 | 29.6 | 19.1 | 19.8 | 19.1 | 23.0 |
| FR1 n78(PC2) | 5 | 50.00% | 23.0 | 23.7 | 23.0 | 23.8 | 24.5 | 23.8 | 20.0 | 20.8 | 21.5 | 20.8 | 23.0 |
| FR1 n78_ULMIMO(PC1.5) | 6 | 25.00% | 20.0 | 24.9 | 24.2 | 20.6 | 21.3 | 20.6 | 26.6 | 19.2 | 19.9 | 19.2 | 20.0 |
| FR1 n78_ULMIMO(PC1.5) | 1 | 25.00% | 19.0 | 15.7 | 15.0 | 20.5 | 21.2 | 20.5 | 13.7 | 19.8 | 21.1 | 20.4 | 19.0 |
| FR1 n78_ULMIMO(PC1.5) | 2 | 25.00% | 20.0 | 34.0 | 33.3 | 19.2 | 19.9 | 19.2 | 29.6 | 19.1 | 19.8 | 19.1 | 20.0 |
| FR1 n78_ULMIMO(PC1.5) | 5 | 25.00% | 20.0 | 23.7 | 23.0 | 23.8 | 24.5 | 23.8 | 20.0 | 20.8 | 21.5 | 20.8 | 20.0 |
| NTN B23 | 1 | 83.00% | 22.9 | | | | 23.0 | | | | 21.3 | | 22.9 |
| NTN B255 | 4 | 83.00% | 22.7 | | | | 23.2 | | | | 20.6 | | 22.7 |

# 3. Power Density Characterization

The device with 5G mmWave NR typically supports multiple beams and incorporates several mmWave antenna arrays placed at different locations to ensure optimal coverage in real-world scenarios. A combination of electromagnetic (EM) simulation and a limited number of power density (PD) measurements is used to characterize PD for compliance purposes.

## 3.1 Exposure scenarios for power density evaluation

At frequency above 6GHz, power density is required to be assessed for all module and antenna configurations. The device had one antenna module on back-side of the terminal. The module has 2 patch 1x4 antenna arrays that using horizontal and vertical polarization respectively. Each polarity is denoted as H-pol and V-pol. The module has 7 beams for H-pol and V-pol respectively. And DUT use same beam index for H-pol and Vpol to support 2x2 MIMO. Therefore, total 21 beams should be assessed. (7 beams for each of SISO (H, V) and 7 beams for MIMO (H+V)).

Below procedure flow suggests PD characterization process. To validate simulation modeling, simulation results and measured PD at the certain given reference power (bore-sight Tx EIRP) are used. Antenna input power can be calculated as well if EIRP is given because array gain and antenna gain are known. Since the housing influence correlation can vary from surface to surface, the most underestimated surface should be used. The worst case housing effect is calculated by below equation.

$$\text{Correlation}_{min} = \text{Simulation PD @ ref.power} - \text{measured PD @ ref.power}$$

## 3.2 PD Characterization Process

The following steps outlines the PD char process.

1. Simulation modeling and validation
   - Correlate the simulated PD results and measured PD of beam code book for validation
2. Uncertainty consideration
   - Total device uncertainty is accounted considering worst case device to device power variation
3. Determine PD design target
   - To meet regulatory limit, PD design target is calculated accounting uncertainty budget
4. Calculate the worst case housing influence
   - Calculate below equation to estimate the worst case housing influence at given EIRP

     Correlation $_{min}$= Simulation PD @ ref.power – measured PD @ ref.power
5. PD characterization
   - Simulation results can be exploited to determine target EIRP level (and input power accordingly) after accounting for the housing influence

## 3.3 Beam code settings

All the beams that the DUT can support are listed up in the table below.

| Band | mmWave module | Pol | Beam ID |
|---|---|---|---|
| n258 | B | H | 0 |
| n258 | B | H | 1 |
| n258 | B | H | 2 |
| n258 | B | H | 3 |
| n258 | B | H | 4 |
| n258 | B | H | 5 |
| n258 | B | H | 6 |
| n258 | B | V | 0 |
| n258 | B | V | 1 |
| n258 | B | V | 2 |
| n258 | B | V | 3 |
| n258 | B | V | 4 |
| n258 | B | V | 5 |
| n258 | B | V | 6 |
| n258 | B | H+V | 0 |
| n258 | B | H+V | 1 |
| n258 | B | H+V | 2 |
| n258 | B | H+V | 3 |
| n258 | B | H+V | 4 |
| n258 | B | H+V | 5 |
| n258 | B | H+V | 6 |

| Band | mmWave module | Pol | Beam ID |
|---|---|---|---|
| n260 | B | H | 0 |
| n260 | B | H | 1 |
| n260 | B | H | 2 |
| n260 | B | H | 3 |
| n260 | B | H | 4 |
| n260 | B | H | 5 |
| n260 | B | H | 6 |
| n260 | B | V | 0 |
| n260 | B | V | 1 |
| n260 | B | V | 2 |
| n260 | B | V | 3 |
| n260 | B | V | 4 |
| n260 | B | V | 5 |
| n260 | B | V | 6 |
| n260 | B | H+V | 0 |
| n260 | B | H+V | 1 |
| n260 | B | H+V | 2 |
| n260 | B | H+V | 3 |
| n260 | B | H+V | 4 |
| n260 | B | H+V | 5 |
| n260 | B | H+V | 6 |

| Band | mmWave module | Pol | Beam ID |
|---|---|---|---|
| n261 | B | H | 0 |
| n261 | B | H | 1 |
| n261 | B | H | 2 |
| n261 | B | H | 3 |
| n261 | B | H | 4 |
| n261 | B | H | 5 |
| n261 | B | H | 6 |
| n261 | B | V | 0 |
| n261 | B | V | 1 |
| n261 | B | V | 2 |
| n261 | B | V | 3 |
| n261 | B | V | 4 |
| n261 | B | V | 5 |
| n261 | B | V | 6 |
| n261 | B | H+V | 0 |
| n261 | B | H+V | 1 |
| n261 | B | H+V | 2 |
| n261 | B | H+V | 3 |
| n261 | B | H+V | 4 |
| n261 | B | H+V | 5 |
| n261 | B | H+V | 6 |

## 3.4 PD_design_target determination

Accounting for total uncertainty, PD_design_target should meet the criteria:

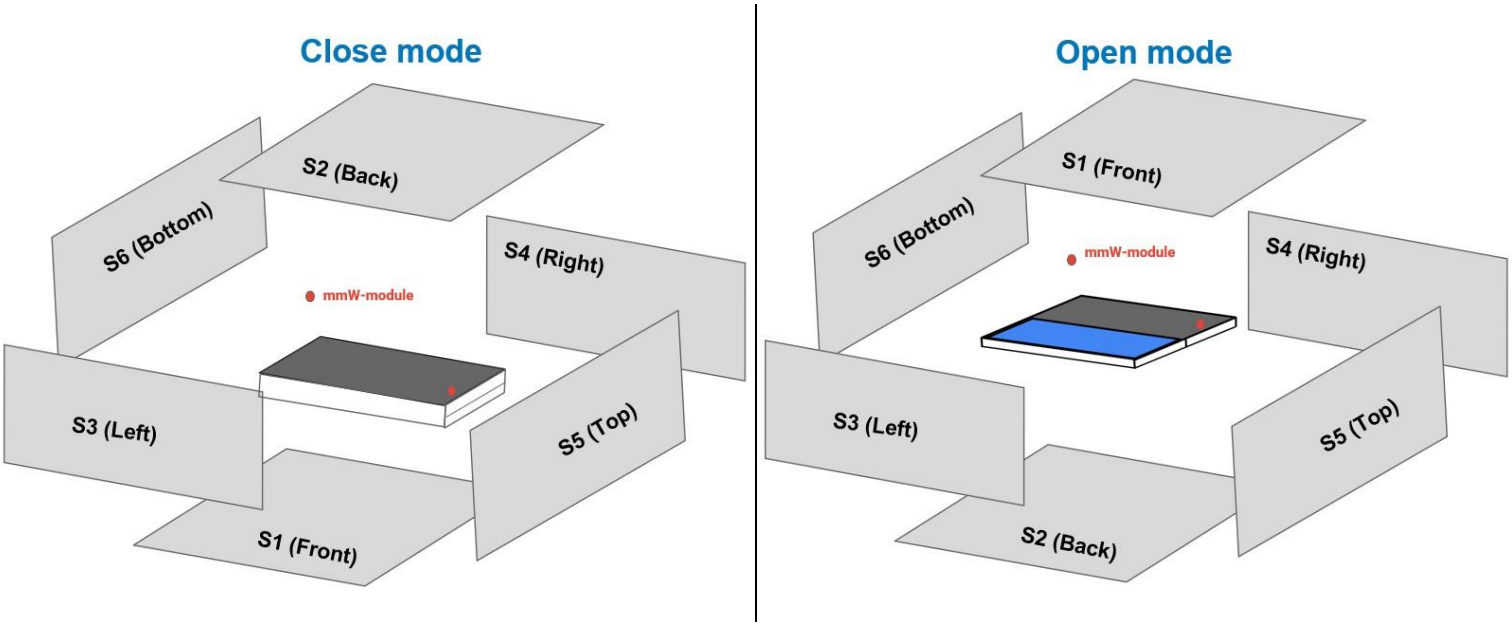
$$PD\_design\_target < PD_{regulatory\_limit} \times 10^{\frac{-totaluncertainty}{10}}$$

For this EUT, the PD design target and the uncertainty value are listed below

| n258/n260/n261 | PD design target | Antenna Module | W/m$^2$ |
|---|---|---|---|
| | | Plane B sub-module, | 4.42 |

| Item | Uncertainty dB (k=2) |
|---|---|
| Total uncertainty | 2.3 |
| TXAGC | 1 |

## 3.5 Exposure positions for PD evaluation




Evaluation positions

| Close Mode | | | | | | | |
|---|---|---|---|---|---|---|---|
| Band | Antenna Module | S1 (Front) | S2 (Back) | S3 (Left) | S4 (Right) | S5 (Top) | S6 (Bottom) |
| n258/260/261 | Plane B sub-module | ✗ | v | ✗ | ✗ | ✗ | ✗ |

| Open Mode | | | | | | | |
|---|---|---|---|---|---|---|---|
| Band | Antenna Module | S1 (Front) | S2 (Back) | S3 (Left) | S4 (Right) | S5 (Top) | S6 (Bottom) |
| n258/260/261 | Plane B sub-module | v | ✗ | ✗ | ✗ | ✗ | ✗ |

Remark:

1. The exposure positions selection is for worst-case housing influence determination. Details are illustrated in the PD simulation report.

## 3.6 Simulation and modeling validation

Power density simulations of all beams and surfaces were performed by the manufacturer. Details of these simulations and modeling validation can be found in the Power Density Simulation Report. Following Table includes a summary of the validation results to support worst-case housing influence quantification in power density characterization for this model with a reference power level 17 dBm for each FR2 band, PD measurements are conducted for signal beam and beam pairs per antenna type and per antenna module on worst-surface(s). PD measurements are performed at mid channel of each mmW band and with CW modulation.
PD value will be used to determine worst-case housing influence for conservative assessment.

The correlation number, after taking the TXAGC uncertainty into consideration, will be used to adjust correct the housing influence effect of the PD simulated data, as described in section 3.4

### Close Mode

| Antenna Module | Polarization | | Band | Frequency (GHz) | Device Configure | Exposure Surface | Input Power (dBm) | Test Separation (mm) | Modulation | 4cm^2 PD (W/m^2) | | Correlation Sim-Meas. (dB) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | H | V | | | | | | | | Meas. | Sim. | |
| Plane B sub-module | 6 | - | n258 | 24.75 | Close | Back (S2)_Visor | 17 | 2mm | CW | 5.28 | 4.44 | -0.75 |
| Plane B sub-module | - | 3 | n258 | 24.75 | Close | Back (S2)_Visor | 17 | 2mm | CW | 3.84 | 4.22 | 0.41 |
| Plane B sub-module | 4 | 4 | n258 | 24.75 | Close | Back (S2)_Visor | 17 | 2mm | CW | 12.8 | 11.01 | -0.65 |
| Plane B sub-module | 4 | - | n260 | 38.50 | Close | Back (S2)_Visor | 17 | 2mm | CW | 3.26 | 3.97 | 0.86 |
| Plane B sub-module | - | 5 | n260 | 38.50 | Close | Back (S2)_Visor | 17 | 2mm | CW | 2.3 | 3.72 | 2.09 |
| Plane B sub-module | 3 | 3 | n260 | 38.50 | Close | Back (S2)_Visor | 17 | 2mm | CW | 7.71 | 8.94 | 0.64 |
| Plane B sub-module | 5 | - | n261 | 27.925 | Close | Back (S2)_Visor | 17 | 2mm | CW | 7.25 | 4.22 | -2.35 |
| Plane B sub-module | - | 3 | n261 | 27.925 | Close | Back (S2)_Visor | 17 | 2mm | CW | 5.8 | 4.19 | -1.41 |
| Plane B sub-module | 5 | 5 | n261 | 27.925 | Close | Back (S2)_Visor | 17 | 2mm | CW | 12.3 | 9.07 | -1.32 |

### Open Mode

| Antenna Module | Polarization | | Band | Frequency (GHz) | Device Configure | Exposure Surface | Input Power (dBm) | Test Separation (mm) | Modulation | 4cm^2 PD (W/m^2) | | Correlation Sim-Meas. (dB) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | H | V | | | | | | | | Meas. | Sim. | |
| Plane B sub-module | 6 | - | n258 | 24.75 | Open | Front (S1)_Visor | 17 | 2mm | CW | 5.46 | 4.49 | -0.85 |
| Plane B sub-module | - | 3 | n258 | 24.75 | Open | Front (S1)_Visor | 17 | 2mm | CW | 7.52 | 4.37 | -2.36 |
| Plane B sub-module | 4 | 4 | n258 | 24.75 | Open | Front (S1)_Visor | 17 | 2mm | CW | 14 | 11 | -1.05 |
| Plane B sub-module | 5 | - | n260 | 38.50 | Open | Front (S1)_Visor | 17 | 2mm | CW | 3.25 | 3.97 | 0.87 |
| Plane B sub-module | - | 5 | n260 | 38.50 | Open | Front (S1)_Visor | 17 | 2mm | CW | 1.94 | 3.67 | 2.77 |
| Plane B sub-module | 3 | 3 | n260 | 38.50 | Open | Front (S1)_Visor | 17 | 2mm | CW | 7.24 | 9.01 | 0.95 |
| Plane B sub-module | 5 | - | n261 | 27.925 | Open | Front (S1)_Visor | 17 | 2mm | CW | 7.32 | 3.91 | -2.72 |
| Plane B sub-module | - | 3 | n261 | 27.925 | Open | Front (S1)_Visor | 17 | 2mm | CW | 5.57 | 3.88 | -1.57 |
| Plane B sub-module | 5 | 5 | n261 | 27.925 | Open | Front (S1)_Visor | 17 | 2mm | CW | 11.8 | 8.36 | -1.50 |

## 3.7 Simulated Plimit to associate with design target

Perform simulation at low, mid and high channel for each mmW band supported, at a given EIRP power level (18 dBm for this product)

1. Obtain $PD_{surface}$ value (the worst PD among all identified surfaces of the device) at all three channels for all beams (1~M) specified in beam code settings.

2. According to the PD design target, determine the required worst scaling factors from the worst simulated PD values for low/middle/high channels and for all beams, to determine the worst-case scaling factor at all three channels and beams by:

$$s(f) = \frac{PD\ design\ target}{Max\ Sim\ PD}$$

Note: This scaling factor applies to the reference power at each antenna port

3. Determine the sim.power limit, for each beam by:

$$sim.\ power_{limit}.\ dBm = 10 * log(s(f)) + sim.reference.power$$

## 3.8 Worst-case housing influence determination

Referring to the PD simulation report for PD simulation data for all beams . Since at mmwave frequencies, the property of the material which surrounds the antenna cannot be accurately assigned for simulation, so the housing factor needs to be identified to correct the simulation data. The worst-case housing influence is determined per antenna module and per antenna type.
For this DUT, the procedure to determine worst-case housing influence, denoted as $\mathrm{Correlation}_{\mathrm{min}}$:

1. Based on PD simulation, determine one or more worst-surface(s) that contains all the highest 4cm$^2$-averaged PD for each of the beams, per antenna module and per antenna type in the mid channel of each band.
2. For identified worst surface(s) per antenna module and per antenna type group,
   a. Firstly determine difference between measurement and simulation for the identified worst surface(s) in Step 1 as described in section 3.6, and then follow the procedures described in Section 3.9 to derive *Plimit* corresponding to *PD_design_target* for all the beams
   b. Then for other surface(s) near-by the mmW module,
      i. From the simulation report, identify the worst beam for each surface.
      ii. Measure 4cm$^2$-averaged PD at *Plimit* for the identified at each non-selected surface
      iii. Demonstrate all measured 4cm$^2$-averaged PD values are below *PD_design_target*.
3. If any of the above surface(s) in Step (2.b.iii) have measured 4cm$^2$-averaged PD ≥ *PD_design_target*, then those surfaces must be included in the $\mathbf{correlation}_{min}$ determination, and follow the procedures in Section 3.6 and 3.9 to re-evaluate *Plimit*

Comparing a simulated 4cm$^2$-avgeraged PD and measured 4cm$^2$-avgeraged PD for the above identified surfaces, the worst errors introduced when using the estimated material property in the simulation per module and per antenna type (worst out of both polarizations) is highlighted in bolded numbers in section 3.6. Thus, the worst-case housing influence, denoted as $\mathbf{Correlation}_{min}$ (= minimum of (sim.PD – meas.PD) for the same antenna type of each module), is determined as:

$\mathbf{Correlation}_{min}$ represents the worst case where RF exposure is underestimated the most by simulation upon using the estimated material property for glass/plastics of the housing. For conservative assessment, the $\mathbf{Correlation}_{min}$ is used as the worst case correction and applied to each corresponding beam group to determine power limits for compliance. To ensure that condition described in Step (2.b.iii) is met, apply the correct Plimit to derive the PD simulated results for all beams, and select the worst beams for each of non-selected applicable surface(s).
The PD test results for non-selected surfaces are less than PD_design_target, and meets condition in Step (2.b.iii), the test results are illustrated in Part 1 PD report.

## Close Mode

| Band | Antenna Module | Device Configure | Polarization | *Correlation* $_{min}$ (dB) |
|---|---|---|---|---|
| n258 | Plane B sub-module | Close | H | -0.75 |
| n258 | Plane B sub-module | Close | V | 0.41 |
| n258 | Plane B sub-module | Close | H+V | -0.65 |

| Band | Antenna Module | Device Configure | Polarization | *Correlation* $_{min}$ (dB) |
|---|---|---|---|---|
| n260 | Plane B sub-module | Close | H | 0.86 |
| n260 | Plane B sub-module | Close | V | 2.09 |
| n260 | Plane B sub-module | Close | H+V | 0.64 |

| Band | Antenna Module | Device Configure | Polarization | *Correlation* $_{min}$ (dB) |
|---|---|---|---|---|
| n261 | Plane B sub-module | Close | H | -2.34 |
| n261 | Plane B sub-module | Close | V | -1.41 |
| n261 | Plane B sub-module | Close | H+V | -1.32 |

## Open Mode

| Band | Antenna Module | Device Configure | Polarization | *Correlation* $_{min}$ (dB) |
|---|---|---|---|---|
| n258 | Plane B sub-module | Open | H | -0.85 |
| n258 | Plane B sub-module | Open | V | -2.36 |
| n258 | Plane B sub-module | Open | H+V | -1.05 |

| Band | Antenna Module | Device Configure | Polarization | *Correlation* $_{min}$ (dB) |
|---|---|---|---|---|
| n260 | Plane B sub-module | Open | H | 0.87 |
| n260 | Plane B sub-module | Open | V | 2.77 |
| n260 | Plane B sub-module | Open | H+V | 0.95 |

| Band | Antenna Module | Device Configure | Polarization | *Correlation* $_{min}$ (dB) |
|---|---|---|---|---|
| n261 | Plane B sub-module | Open | H | -2.72 |
| n261 | Plane B sub-module | Open | V | -1.57 |
| n261 | Plane B sub-module | Open | H+V | -1.50 |

## Simulated 4cm2-averaged PD at Plimit

### n258_Close Mode

| Simulated 4cm 2 SAPD (W/m 2) corresponding to PD_design_target | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Close | | Low Channel | | | | | | Mid Channel | | | | | | High Channel | | | | | |
| Pol | Beam ID | S1 2mm | S2 2mm | S2 2mm Visor | S3 2mm | S4 2mm | S5 2mm | S1 2mm | S2 2mm | S2 2mm Visor | S3 2mm | S4 2mm | S5 2mm | S1 2mm | S2 2mm | S2 2mm Visor | S3 2mm | S4 2mm | S5 2mm |
| H | 0 | 0.13 | 2.15 | 0.85 | 0.06 | 0.05 | 0.61 | 0.10 | 2.64 | 1.24 | 0.07 | 0.09 | 0.73 | 0.26 | 2.88 | 1.02 | 0.06 | 0.05 | 0.81 |
| H | 1 | 0.08 | 2.64 | 0.99 | 0.05 | 0.07 | 0.56 | 0.14 | 2.36 | 1.10 | 0.04 | 0.10 | 0.44 | 0.20 | 3.45 | 1.23 | 0.05 | 0.12 | 0.76 |
| H | 2 | 0.15 | 2.21 | 1.13 | 0.02 | 0.08 | 0.45 | 0.28 | 3.38 | 1.59 | 0.02 | 0.19 | 0.72 | 0.23 | 4.20 | 1.73 | 0.03 | 0.09 | 0.90 |
| H | 3 | 0.12 | 2.43 | 1.00 | 0.02 | 0.06 | 0.45 | 0.24 | 3.56 | 1.49 | 0.02 | 0.11 | 0.74 | 0.13 | 4.42 | 1.98 | 0.02 | 0.17 | 1.01 |
| H | 4 | 0.07 | 3.01 | 1.51 | 0.02 | 0.23 | 0.48 | 0.17 | 3.31 | 1.66 | 0.02 | 0.22 | 0.58 | 0.15 | 4.04 | 1.92 | 0.02 | 0.30 | 0.79 |
| H | 5 | 0.06 | 3.01 | 1.26 | 0.03 | 0.21 | 0.53 | 0.14 | 3.60 | 1.51 | 0.03 | 0.23 | 0.61 | 0.16 | 4.23 | 1.80 | 0.04 | 0.21 | 1.06 |
| H | 6 | 0.16 | 2.14 | 0.86 | 0.04 | 0.30 | 0.38 | 0.14 | 3.96 | 1.87 | 0.05 | 0.67 | 0.59 | 0.23 | 4.13 | 1.79 | 0.05 | 0.62 | 0.63 |
| V | 0 | 0.05 | 2.10 | 0.78 | 0.05 | 0.24 | 0.39 | 0.10 | 2.96 | 1.03 | 0.02 | 0.35 | 0.48 | 0.20 | 2.14 | 0.83 | 0.06 | 0.17 | 0.35 |
| V | 1 | 0.06 | 1.85 | 0.97 | 0.02 | 0.10 | 0.35 | 0.11 | 2.87 | 1.47 | 0.04 | 0.15 | 0.47 | 0.13 | 3.13 | 1.52 | 0.04 | 0.12 | 0.53 |
| V | 2 | 0.06 | 2.65 | 0.86 | 0.02 | 0.11 | 0.60 | 0.15 | 4.00 | 1.49 | 0.02 | 0.15 | 0.82 | 0.18 | 4.42 | 1.68 | 0.02 | 0.10 | 1.08 |
| V | 3 | 0.08 | 2.24 | 0.84 | 0.03 | 0.06 | 0.47 | 0.17 | 3.88 | 1.76 | 0.02 | 0.04 | 0.88 | 0.12 | 4.22 | 1.94 | 0.02 | 0.05 | 0.97 |
| V | 4 | 0.13 | 1.75 | 0.97 | 0.02 | 0.14 | 0.42 | 0.15 | 3.45 | 1.63 | 0.02 | 0.27 | 0.67 | 0.17 | 4.36 | 1.84 | 0.02 | 0.17 | 0.97 |
| V | 5 | 0.10 | 1.49 | 0.99 | 0.02 | 0.19 | 0.42 | 0.18 | 2.47 | 1.30 | 0.02 | 0.25 | 0.44 | 0.20 | 3.25 | 1.71 | 0.02 | 0.30 | 0.63 |
| V | 6 | 0.11 | 2.31 | 0.73 | 0.07 | 0.36 | 0.45 | 0.07 | 3.34 | 1.03 | 0.03 | 0.43 | 0.61 | 0.20 | 2.11 | 0.69 | 0.05 | 0.25 | 0.42 |
| H+V | 0 | 0.15 | 2.06 | 0.68 | 0.06 | 0.18 | 0.42 | 0.12 | 3.15 | 1.22 | 0.06 | 0.32 | 0.62 | 0.30 | 3.12 | 1.23 | 0.08 | 0.17 | 0.75 |
| H+V | 1 | 0.10 | 2.85 | 1.00 | 0.04 | 0.11 | 0.56 | 0.15 | 2.93 | 1.28 | 0.05 | 0.18 | 0.44 | 0.20 | 3.46 | 1.49 | 0.05 | 0.14 | 0.78 |
| H+V | 2 | 0.14 | 3.47 | 1.38 | 0.03 | 0.09 | 0.77 | 0.34 | 4.22 | 1.78 | 0.02 | 0.23 | 1.01 | 0.34 | 4.23 | 1.72 | 0.02 | 0.10 | 0.99 |
| H+V | 3 | 0.11 | 2.76 | 1.25 | 0.03 | 0.06 | 0.64 | 0.32 | 3.81 | 1.68 | 0.03 | 0.12 | 0.90 | 0.21 | 4.01 | 1.87 | 0.02 | 0.17 | 1.13 |
| H+V | 4 | 0.13 | 2.88 | 1.33 | 0.03 | 0.24 | 0.54 | 0.25 | 4.42 | 2.13 | 0.02 | 0.30 | 0.79 | 0.25 | 4.36 | 2.13 | 0.02 | 0.29 | 1.07 |
| H+V | 5 | 0.10 | 2.86 | 1.50 | 0.03 | 0.24 | 0.47 | 0.24 | 3.35 | 1.93 | 0.04 | 0.29 | 0.57 | 0.26 | 4.23 | 2.07 | 0.05 | 0.34 | 0.82 |
| H+V | 6 | 0.15 | 3.08 | 1.09 | 0.07 | 0.50 | 0.61 | 0.19 | 3.88 | 1.90 | 0.05 | 0.87 | 1.02 | 0.34 | 4.30 | 1.43 | 0.08 | 0.66 | 0.79 |

| Simulated 4cm 2 SAPD (W/m 2) corresponding to PD_design_target | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Close | | Low Channel | | | | | Mid Channel | | | | | High Channel | | | | |
| Pol | Beam ID | S1 10mm | S2 10mm | S3 10mm | S4 10mm | S5 10mm | S1 10mm | S2 10mm | S3 10mm | S4 10mm | S5 10mm | S1 10mm | S2 10mm | S3 10mm | S4 10mm | S5 10mm |
| H | 0 | 0.05 | 0.52 | 0.05 | 0.04 | 0.27 | 0.06 | 0.70 | 0.06 | 0.05 | 0.28 | 0.11 | 0.57 | 0.05 | 0.04 | 0.42 |
| H | 1 | 0.06 | 0.61 | 0.03 | 0.06 | 0.26 | 0.07 | 0.72 | 0.03 | 0.06 | 0.18 | 0.12 | 0.78 | 0.05 | 0.07 | 0.28 |
| H | 2 | 0.09 | 0.81 | 0.01 | 0.06 | 0.20 | 0.14 | 1.09 | 0.01 | 0.12 | 0.35 | 0.15 | 1.19 | 0.01 | 0.06 | 0.46 |
| H | 3 | 0.05 | 0.74 | 0.01 | 0.03 | 0.21 | 0.14 | 1.05 | 0.01 | 0.07 | 0.36 | 0.09 | 1.35 | 0.01 | 0.09 | 0.47 |
| H | 4 | 0.04 | 0.96 | 0.02 | 0.14 | 0.20 | 0.08 | 1.10 | 0.01 | 0.12 | 0.23 | 0.10 | 1.30 | 0.01 | 0.13 | 0.30 |
| H | 5 | 0.04 | 0.82 | 0.02 | 0.15 | 0.22 | 0.08 | 0.92 | 0.02 | 0.14 | 0.28 | 0.10 | 1.15 | 0.02 | 0.13 | 0.48 |
| H | 6 | 0.05 | 0.49 | 0.02 | 0.20 | 0.10 | 0.07 | 1.18 | 0.04 | 0.46 | 0.13 | 0.08 | 1.06 | 0.02 | 0.41 | 0.16 |
| V | 0 | 0.03 | 0.42 | 0.02 | 0.15 | 0.10 | 0.03 | 0.56 | 0.02 | 0.22 | 0.15 | 0.08 | 0.52 | 0.04 | 0.12 | 0.14 |
| V | 1 | 0.03 | 0.68 | 0.01 | 0.07 | 0.13 | 0.05 | 1.07 | 0.02 | 0.10 | 0.15 | 0.06 | 1.11 | 0.03 | 0.07 | 0.21 |
| V | 2 | 0.04 | 0.59 | 0.01 | 0.07 | 0.28 | 0.07 | 1.12 | 0.02 | 0.09 | 0.29 | 0.11 | 1.24 | 0.02 | 0.05 | 0.46 |
| V | 3 | 0.04 | 0.64 | 0.01 | 0.04 | 0.19 | 0.09 | 1.40 | 0.01 | 0.03 | 0.35 | 0.08 | 1.49 | 0.01 | 0.03 | 0.42 |
| V | 4 | 0.07 | 0.68 | 0.01 | 0.07 | 0.18 | 0.09 | 1.14 | 0.01 | 0.17 | 0.27 | 0.11 | 1.34 | 0.01 | 0.12 | 0.45 |
| V | 5 | 0.05 | 0.64 | 0.01 | 0.10 | 0.18 | 0.11 | 0.84 | 0.01 | 0.14 | 0.16 | 0.11 | 1.09 | 0.01 | 0.15 | 0.25 |
| V | 6 | 0.05 | 0.40 | 0.03 | 0.23 | 0.12 | 0.03 | 0.52 | 0.01 | 0.26 | 0.18 | 0.12 | 0.36 | 0.04 | 0.17 | 0.14 |
| H+V | 0 | 0.06 | 0.39 | 0.04 | 0.12 | 0.19 | 0.06 | 0.69 | 0.04 | 0.19 | 0.23 | 0.13 | 0.70 | 0.05 | 0.12 | 0.34 |
| H+V | 1 | 0.05 | 0.68 | 0.03 | 0.07 | 0.27 | 0.08 | 0.88 | 0.03 | 0.11 | 0.17 | 0.13 | 0.96 | 0.05 | 0.08 | 0.30 |
| H+V | 2 | 0.09 | 1.00 | 0.02 | 0.06 | 0.33 | 0.15 | 1.30 | 0.02 | 0.16 | 0.43 | 0.22 | 1.22 | 0.01 | 0.07 | 0.46 |
| H+V | 3 | 0.05 | 0.99 | 0.01 | 0.04 | 0.29 | 0.20 | 1.31 | 0.02 | 0.08 | 0.41 | 0.15 | 1.46 | 0.02 | 0.08 | 0.55 |
| H+V | 4 | 0.08 | 0.94 | 0.02 | 0.13 | 0.23 | 0.15 | 1.53 | 0.01 | 0.18 | 0.32 | 0.17 | 1.51 | 0.02 | 0.13 | 0.43 |
| H+V | 5 | 0.06 | 0.99 | 0.02 | 0.15 | 0.21 | 0.14 | 1.23 | 0.02 | 0.16 | 0.24 | 0.16 | 1.32 | 0.02 | 0.17 | 0.36 |
| H+V | 6 | 0.08 | 0.60 | 0.04 | 0.32 | 0.16 | 0.07 | 1.05 | 0.03 | 0.57 | 0.26 | 0.12 | 0.74 | 0.06 | 0.45 | 0.21 |

## n258_Open Mode

| Simulated 4cm 2 SAPD (W/m 2) corresponding to PD_design_target | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Open | | Low Channel | | | | | Mid Channel | | | | | High Channel | | | | |
| Pol | Beam ID | S2_2mm | S1_2mm (EUT) | S1_2mm | S3_2mm | S5_2mm | S2_2mm | S1_2mm (EUT) | S1_2mm | S3_2mm | S5_2mm | S2_2mm | S1_2mm (EUT) | S1_2mm | S3_2mm | S5_2mm |
| H | 0 | 0.18 | 2.09 | 0.82 | 0.06 | 0.62 | 0.14 | 2.45 | 1.17 | 0.08 | 0.65 | 0.27 | 2.86 | 1.02 | 0.07 | 0.80 |
| H | 1 | 0.12 | 2.58 | 0.96 | 0.04 | 0.57 | 0.16 | 2.24 | 1.04 | 0.05 | 0.40 | 0.23 | 3.32 | 1.18 | 0.05 | 0.72 |
| H | 2 | 0.20 | 2.17 | 1.11 | 0.02 | 0.45 | 0.29 | 3.41 | 1.58 | 0.02 | 0.71 | 0.27 | 4.13 | 1.68 | 0.02 | 0.91 |
| H | 3 | 0.21 | 2.33 | 0.95 | 0.02 | 0.43 | 0.35 | 3.50 | 1.48 | 0.01 | 0.74 | 0.15 | 4.25 | 1.90 | 0.02 | 0.98 |
| H | 4 | 0.15 | 2.91 | 1.43 | 0.02 | 0.48 | 0.25 | 3.17 | 1.57 | 0.01 | 0.55 | 0.17 | 3.87 | 1.85 | 0.01 | 0.77 |
| H | 5 | 0.11 | 2.91 | 1.20 | 0.02 | 0.53 | 0.18 | 3.46 | 1.44 | 0.02 | 0.62 | 0.20 | 4.42 | 1.71 | 0.04 | 1.01 |
| H | 6 | 0.30 | 2.10 | 0.83 | 0.02 | 0.35 | 0.14 | 3.86 | 1.80 | 0.03 | 0.59 | 0.23 | 4.06 | 1.72 | 0.03 | 0.60 |
| V | 0 | 0.12 | 1.98 | 0.75 | 0.05 | 0.37 | 0.13 | 3.04 | 1.01 | 0.02 | 0.48 | 0.28 | 2.06 | 0.79 | 0.04 | 0.34 |
| V | 1 | 0.18 | 1.75 | 0.94 | 0.02 | 0.34 | 0.16 | 2.88 | 1.46 | 0.02 | 0.47 | 0.14 | 3.10 | 1.49 | 0.02 | 0.54 |
| V | 2 | 0.11 | 2.49 | 0.81 | 0.01 | 0.56 | 0.14 | 3.97 | 1.50 | 0.02 | 0.81 | 0.20 | 4.42 | 1.66 | 0.02 | 1.07 |
| V | 3 | 0.09 | 2.07 | 0.81 | 0.02 | 0.45 | 0.21 | 3.83 | 1.75 | 0.02 | 0.91 | 0.14 | 4.14 | 1.90 | 0.02 | 0.95 |
| V | 4 | 0.16 | 1.77 | 0.97 | 0.01 | 0.41 | 0.21 | 3.39 | 1.62 | 0.01 | 0.67 | 0.22 | 4.30 | 1.82 | 0.02 | 0.99 |
| V | 5 | 0.13 | 1.43 | 0.98 | 0.02 | 0.41 | 0.22 | 2.45 | 1.30 | 0.02 | 0.43 | 0.29 | 3.15 | 1.69 | 0.02 | 0.64 |
| V | 6 | 0.18 | 2.13 | 0.71 | 0.06 | 0.40 | 0.09 | 3.34 | 1.00 | 0.02 | 0.58 | 0.25 | 2.07 | 0.71 | 0.02 | 0.44 |
| H+V | 0 | 0.24 | 2.09 | 0.71 | 0.06 | 0.44 | 0.15 | 3.29 | 1.23 | 0.06 | 0.61 | 0.40 | 3.20 | 1.24 | 0.05 | 0.76 |
| H+V | 1 | 0.21 | 2.86 | 1.02 | 0.04 | 0.60 | 0.15 | 3.02 | 1.31 | 0.03 | 0.44 | 0.26 | 3.53 | 1.51 | 0.05 | 0.80 |
| H+V | 2 | 0.21 | 3.50 | 1.42 | 0.02 | 0.78 | 0.35 | 4.30 | 1.81 | 0.02 | 1.00 | 0.39 | 4.13 | 1.73 | 0.02 | 1.02 |
| H+V | 3 | 0.22 | 2.81 | 1.26 | 0.03 | 0.65 | 0.46 | 3.87 | 1.69 | 0.02 | 0.95 | 0.25 | 4.15 | 1.88 | 0.02 | 1.18 |
| H+V | 4 | 0.18 | 2.99 | 1.33 | 0.02 | 0.56 | 0.37 | 4.42 | 2.14 | 0.02 | 0.80 | 0.30 | 4.26 | 2.14 | 0.02 | 1.13 |
| H+V | 5 | 0.15 | 2.92 | 1.53 | 0.04 | 0.50 | 0.32 | 3.38 | 1.95 | 0.03 | 0.59 | 0.37 | 4.25 | 2.09 | 0.05 | 0.88 |
| H+V | 6 | 0.25 | 3.06 | 1.09 | 0.06 | 0.57 | 0.17 | 4.10 | 1.97 | 0.03 | 1.05 | 0.39 | 4.23 | 1.48 | 0.04 | 0.81 |

| Simulated 4cm 2 SAPD (W/m 2) corresponding to PD_design_target | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Open | | Low Channel | | | | Mid Channel | | | | High Channel | | | |
| Pol | Beam ID | S2_10mm | S1_10mm | S3_10mm | S5_10mm | S2_10mm | S1_10mm | S3_10mm | S5_10mm | S2_10mm | S1_10mm | S3_10mm | S5_10mm |
| H | 0 | 0.06 | 0.51 | 0.05 | 0.27 | 0.07 | 0.65 | 0.06 | 0.26 | 0.11 | 0.57 | 0.05 | 0.40 |
| H | 1 | 0.05 | 0.60 | 0.03 | 0.27 | 0.07 | 0.68 | 0.02 | 0.17 | 0.11 | 0.74 | 0.04 | 0.27 |
| H | 2 | 0.09 | 0.80 | 0.01 | 0.20 | 0.11 | 1.08 | 0.01 | 0.34 | 0.10 | 1.16 | 0.01 | 0.45 |
| H | 3 | 0.07 | 0.70 | 0.01 | 0.20 | 0.12 | 1.04 | 0.01 | 0.35 | 0.06 | 1.30 | 0.01 | 0.45 |
| H | 4 | 0.04 | 0.92 | 0.02 | 0.19 | 0.07 | 1.03 | 0.01 | 0.22 | 0.06 | 1.26 | 0.01 | 0.31 |
| H | 5 | 0.03 | 0.77 | 0.02 | 0.23 | 0.07 | 0.87 | 0.01 | 0.29 | 0.08 | 1.09 | 0.02 | 0.49 |
| H | 6 | 0.08 | 0.46 | 0.01 | 0.09 | 0.06 | 1.12 | 0.02 | 0.14 | 0.06 | 1.00 | 0.02 | 0.16 |
| V | 0 | 0.05 | 0.41 | 0.02 | 0.11 | 0.03 | 0.55 | 0.02 | 0.15 | 0.06 | 0.51 | 0.02 | 0.14 |
| V | 1 | 0.04 | 0.65 | 0.01 | 0.13 | 0.06 | 1.06 | 0.01 | 0.15 | 0.05 | 1.11 | 0.02 | 0.21 |
| V | 2 | 0.04 | 0.55 | 0.01 | 0.27 | 0.05 | 1.12 | 0.02 | 0.30 | 0.07 | 1.23 | 0.01 | 0.45 |
| V | 3 | 0.03 | 0.62 | 0.01 | 0.18 | 0.08 | 1.40 | 0.01 | 0.36 | 0.05 | 1.46 | 0.01 | 0.41 |
| V | 4 | 0.07 | 0.68 | 0.01 | 0.16 | 0.08 | 1.15 | 0.01 | 0.27 | 0.08 | 1.33 | 0.01 | 0.47 |
| V | 5 | 0.04 | 0.64 | 0.01 | 0.19 | 0.09 | 0.83 | 0.01 | 0.15 | 0.11 | 1.09 | 0.01 | 0.26 |
| V | 6 | 0.05 | 0.37 | 0.03 | 0.11 | 0.04 | 0.51 | 0.01 | 0.18 | 0.10 | 0.39 | 0.02 | 0.13 |
| H+V | 0 | 0.08 | 0.41 | 0.04 | 0.19 | 0.07 | 0.69 | 0.04 | 0.23 | 0.10 | 0.70 | 0.04 | 0.35 |
| H+V | 1 | 0.06 | 0.71 | 0.03 | 0.28 | 0.06 | 0.91 | 0.03 | 0.18 | 0.10 | 0.99 | 0.04 | 0.31 |
| H+V | 2 | 0.09 | 1.02 | 0.02 | 0.33 | 0.13 | 1.31 | 0.02 | 0.43 | 0.15 | 1.24 | 0.01 | 0.48 |
| H+V | 3 | 0.08 | 1.01 | 0.01 | 0.29 | 0.17 | 1.31 | 0.02 | 0.43 | 0.10 | 1.47 | 0.02 | 0.56 |
| H+V | 4 | 0.07 | 0.94 | 0.02 | 0.24 | 0.13 | 1.54 | 0.01 | 0.32 | 0.12 | 1.51 | 0.01 | 0.47 |
| H+V | 5 | 0.06 | 1.01 | 0.02 | 0.23 | 0.12 | 1.23 | 0.02 | 0.27 | 0.13 | 1.35 | 0.02 | 0.43 |
| H+V | 6 | 0.09 | 0.58 | 0.03 | 0.15 | 0.08 | 1.07 | 0.02 | 0.29 | 0.09 | 0.75 | 0.03 | 0.22 |

## n260_Close Mode

| Simulated 4cm 2 SAPD (W/m 2) corresponding to PD_design_target | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Close | | Low Channel | | | | | | Mid Channel | | | | | | High Channel | | | | | |
| Pol | Beam ID | S1 2mm | S2 2mm | S2 2mm Visor | S3 2mm | S4 2mm | S5 2mm | S1 2mm | S2 2mm | S2 2mm Visor | S3 2mm | S4 2mm | S5 2mm | S1 2mm | S2 2mm | S2 2mm Visor | S3 2mm | S4 2mm | S5 2mm |
| H | 0 | 0.06 | 3.69 | 1.13 | 0.05 | 0.32 | 0.70 | 0.08 | 4.30 | 1.59 | 0.05 | 0.42 | 0.85 | 0.11 | 3.29 | 1.35 | 0.04 | 0.32 | 0.66 |
| H | 1 | 0.06 | 3.34 | 1.15 | 0.02 | 0.35 | 0.77 | 0.09 | 2.80 | 1.29 | 0.02 | 0.45 | 0.76 | 0.07 | 2.46 | 1.09 | 0.02 | 0.26 | 0.70 |
| H | 2 | 0.10 | 3.83 | 1.15 | 0.04 | 0.34 | 0.71 | 0.10 | 3.01 | 1.16 | 0.03 | 0.21 | 0.66 | 0.11 | 3.02 | 1.12 | 0.04 | 0.26 | 0.61 |
| H | 3 | 0.06 | 2.79 | 1.25 | 0.02 | 0.10 | 0.90 | 0.13 | 2.31 | 1.27 | 0.02 | 0.25 | 0.68 | 0.09 | 2.30 | 1.19 | 0.02 | 0.23 | 0.56 |
| H | 4 | 0.10 | 3.11 | 1.53 | 0.02 | 0.13 | 0.98 | 0.06 | 2.58 | 1.61 | 0.02 | 0.19 | 0.79 | 0.13 | 2.59 | 1.56 | 0.03 | 0.20 | 0.69 |
| H | 5 | 0.08 | 3.63 | 1.32 | 0.03 | 0.23 | 0.87 | 0.10 | 4.01 | 1.58 | 0.04 | 0.39 | 1.02 | 0.12 | 3.62 | 1.38 | 0.03 | 0.37 | 0.86 |
| H | 6 | 0.06 | 3.90 | 1.07 | 0.05 | 0.29 | 0.67 | 0.09 | 4.42 | 1.53 | 0.06 | 0.41 | 0.92 | 0.11 | 3.55 | 1.30 | 0.05 | 0.35 | 0.74 |
| V | 0 | 0.15 | 3.15 | 1.16 | 0.03 | 0.22 | 0.67 | 0.14 | 3.52 | 1.31 | 0.03 | 0.30 | 0.74 | 0.18 | 2.81 | 1.24 | 0.03 | 0.32 | 0.72 |
| V | 1 | 0.07 | 3.51 | 1.31 | 0.03 | 0.20 | 0.92 | 0.12 | 3.11 | 1.61 | 0.05 | 0.21 | 0.85 | 0.11 | 3.19 | 1.58 | 0.04 | 0.19 | 1.02 |
| V | 2 | 0.09 | 3.59 | 1.57 | 0.05 | 0.20 | 0.87 | 0.09 | 3.17 | 1.56 | 0.05 | 0.17 | 0.75 | 0.13 | 2.98 | 1.85 | 0.03 | 0.25 | 0.79 |
| V | 3 | 0.07 | 3.04 | 1.44 | 0.02 | 0.10 | 1.04 | 0.12 | 3.27 | 1.63 | 0.02 | 0.10 | 1.19 | 0.11 | 3.17 | 1.70 | 0.02 | 0.13 | 1.15 |
| V | 4 | 0.08 | 4.35 | 1.47 | 0.03 | 0.14 | 0.80 | 0.10 | 4.42 | 1.69 | 0.04 | 0.27 | 0.89 | 0.07 | 3.98 | 2.06 | 0.02 | 0.27 | 0.95 |
| V | 5 | 0.12 | 4.35 | 1.54 | 0.02 | 0.32 | 0.68 | 0.10 | 4.29 | 1.83 | 0.04 | 0.43 | 0.82 | 0.14 | 3.49 | 1.67 | 0.06 | 0.24 | 0.88 |
| V | 6 | 0.11 | 3.23 | 1.02 | 0.04 | 0.29 | 0.71 | 0.11 | 3.85 | 1.14 | 0.06 | 0.46 | 0.84 | 0.07 | 3.62 | 1.62 | 0.04 | 0.53 | 0.95 |
| H+V | 0 | 0.10 | 3.39 | 1.16 | 0.05 | 0.33 | 0.72 | 0.14 | 4.27 | 1.61 | 0.07 | 0.50 | 1.10 | 0.17 | 3.42 | 1.60 | 0.05 | 0.41 | 0.99 |
| H+V | 1 | 0.07 | 4.42 | 1.52 | 0.04 | 0.28 | 1.13 | 0.14 | 3.42 | 1.60 | 0.04 | 0.41 | 0.96 | 0.10 | 3.00 | 1.33 | 0.04 | 0.26 | 0.99 |
| H+V | 2 | 0.12 | 3.61 | 1.40 | 0.04 | 0.29 | 0.74 | 0.12 | 3.31 | 1.40 | 0.06 | 0.23 | 0.72 | 0.14 | 3.07 | 1.57 | 0.05 | 0.30 | 0.76 |
| H+V | 3 | 0.07 | 3.47 | 1.41 | 0.02 | 0.13 | 1.14 | 0.19 | 3.38 | 1.96 | 0.03 | 0.25 | 1.19 | 0.12 | 2.99 | 1.49 | 0.03 | 0.23 | 0.88 |
| H+V | 4 | 0.11 | 3.59 | 1.61 | 0.03 | 0.14 | 0.96 | 0.11 | 3.45 | 1.81 | 0.03 | 0.23 | 0.98 | 0.12 | 3.54 | 1.94 | 0.03 | 0.21 | 0.91 |
| H+V | 5 | 0.11 | 3.67 | 1.54 | 0.04 | 0.38 | 1.05 | 0.13 | 4.28 | 1.84 | 0.05 | 0.55 | 1.14 | 0.16 | 3.66 | 1.75 | 0.07 | 0.40 | 1.07 |
| H+V | 6 | 0.11 | 3.83 | 1.18 | 0.07 | 0.37 | 0.71 | 0.11 | 4.15 | 1.67 | 0.10 | 0.61 | 1.21 | 0.11 | 4.24 | 1.84 | 0.08 | 0.55 | 1.25 |

| Simulated 4cm 2 SAPD (W/m 2) corresponding to PD_design_target | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Close | | Low Channel | | | | | | Mid Channel | | | | | | High Channel | | | | | |
| Pol | Beam ID | S1 10mm | S2 10mm | S3 10mm | S4 10mm | S5 10mm | S1 10mm | S2 10mm | S3 10mm | S4 10mm | S5 10mm | S1 10mm | S2 10mm | S3 10mm | S4 10mm | S5 10mm | | | |
| H | 0 | 0.03 | 0.60 | 0.04 | 0.21 | 0.27 | 0.04 | 0.94 | 0.03 | 0.26 | 0.37 | 0.05 | 0.83 | 0.03 | 0.21 | 0.31 | | | |
| H | 1 | 0.04 | 0.75 | 0.02 | 0.21 | 0.36 | 0.06 | 0.76 | 0.01 | 0.27 | 0.34 | 0.04 | 0.73 | 0.02 | 0.15 | 0.33 | | | |
| H | 2 | 0.04 | 0.73 | 0.03 | 0.23 | 0.31 | 0.06 | 0.77 | 0.02 | 0.14 | 0.28 | 0.06 | 0.58 | 0.02 | 0.16 | 0.25 | | | |
| H | 3 | 0.03 | 0.94 | 0.01 | 0.06 | 0.45 | 0.07 | 0.74 | 0.01 | 0.14 | 0.31 | 0.05 | 0.75 | 0.01 | 0.14 | 0.19 | | | |
| H | 4 | 0.07 | 1.06 | 0.01 | 0.05 | 0.47 | 0.04 | 1.07 | 0.02 | 0.09 | 0.38 | 0.06 | 1.03 | 0.02 | 0.08 | 0.28 | | | |
| H | 5 | 0.05 | 0.72 | 0.02 | 0.14 | 0.40 | 0.06 | 1.00 | 0.03 | 0.19 | 0.40 | 0.07 | 0.98 | 0.02 | 0.17 | 0.40 | | | |
| H | 6 | 0.03 | 0.54 | 0.04 | 0.19 | 0.26 | 0.04 | 0.87 | 0.03 | 0.26 | 0.39 | 0.05 | 0.77 | 0.03 | 0.19 | 0.35 | | | |
| V | 0 | 0.08 | 0.57 | 0.02 | 0.13 | 0.29 | 0.07 | 0.66 | 0.01 | 0.20 | 0.25 | 0.10 | 0.59 | 0.02 | 0.20 | 0.27 | | | |
| V | 1 | 0.03 | 0.87 | 0.03 | 0.08 | 0.44 | 0.04 | 1.05 | 0.04 | 0.14 | 0.42 | 0.05 | 0.99 | 0.03 | 0.09 | 0.39 | | | |
| V | 2 | 0.05 | 1.04 | 0.04 | 0.12 | 0.42 | 0.04 | 1.06 | 0.03 | 0.11 | 0.36 | 0.07 | 1.30 | 0.03 | 0.08 | 0.37 | | | |
| V | 3 | 0.03 | 0.98 | 0.01 | 0.06 | 0.52 | 0.06 | 1.20 | 0.01 | 0.06 | 0.66 | 0.07 | 1.11 | 0.02 | 0.08 | 0.54 | | | |
| V | 4 | 0.05 | 1.11 | 0.03 | 0.09 | 0.32 | 0.06 | 1.15 | 0.02 | 0.19 | 0.34 | 0.03 | 1.36 | 0.01 | 0.19 | 0.32 | | | |
| V | 5 | 0.06 | 1.03 | 0.02 | 0.18 | 0.29 | 0.05 | 1.26 | 0.04 | 0.27 | 0.33 | 0.07 | 1.03 | 0.05 | 0.12 | 0.36 | | | |
| V | 6 | 0.06 | 0.62 | 0.03 | 0.18 | 0.27 | 0.05 | 0.70 | 0.04 | 0.31 | 0.36 | 0.04 | 0.86 | 0.02 | 0.35 | 0.37 | | | |
| H+V | 0 | 0.06 | 0.64 | 0.04 | 0.21 | 0.30 | 0.08 | 0.98 | 0.04 | 0.32 | 0.42 | 0.09 | 0.91 | 0.04 | 0.26 | 0.47 | | | |
| H+V | 1 | 0.04 | 1.03 | 0.04 | 0.17 | 0.56 | 0.07 | 0.88 | 0.04 | 0.28 | 0.45 | 0.05 | 0.86 | 0.03 | 0.17 | 0.43 | | | |
| H+V | 2 | 0.05 | 0.81 | 0.04 | 0.17 | 0.30 | 0.07 | 0.91 | 0.04 | 0.14 | 0.29 | 0.08 | 1.00 | 0.03 | 0.15 | 0.28 | | | |
| H+V | 3 | 0.04 | 1.08 | 0.02 | 0.09 | 0.54 | 0.11 | 1.08 | 0.02 | 0.14 | 0.67 | 0.08 | 1.02 | 0.02 | 0.14 | 0.36 | | | |
| H+V | 4 | 0.06 | 1.23 | 0.03 | 0.08 | 0.44 | 0.06 | 1.24 | 0.02 | 0.16 | 0.47 | 0.06 | 1.32 | 0.02 | 0.14 | 0.32 | | | |
| H+V | 5 | 0.07 | 0.93 | 0.03 | 0.23 | 0.45 | 0.08 | 1.32 | 0.04 | 0.29 | 0.46 | 0.08 | 1.14 | 0.05 | 0.19 | 0.53 | | | |
| H+V | 6 | 0.06 | 0.73 | 0.05 | 0.23 | 0.28 | 0.05 | 1.05 | 0.06 | 0.40 | 0.44 | 0.05 | 1.07 | 0.04 | 0.35 | 0.52 | | | |

## n260_Open Mode

| Simulated 4cm 2 SAPD (W/m 2) corresponding to PD_design_target | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Open | | Low Channel | | | | | Mid Channel | | | | | High Channel | | | | |
| Pol | Beam ID | S2_2mm | S1_2mm (EUT) | S1_2mm | S3_2mm | S5_2mm | S2_2mm | S1_2mm (EUT) | S1_2mm | S3_2mm | S5_2mm | S2_2mm | S1_2mm (EUT) | S1_2mm | S3_2mm | S5_2mm |
| H | 0 | 0.11 | 4.00 | 1.21 | 0.05 | 0.76 | 0.17 | 4.19 | 1.73 | 0.06 | 0.94 | 0.22 | 3.22 | 1.50 | 0.05 | 0.70 |
| H | 1 | 0.15 | 3.47 | 1.19 | 0.02 | 0.82 | 0.21 | 3.03 | 1.41 | 0.02 | 0.83 | 0.19 | 2.84 | 1.25 | 0.02 | 0.83 |
| H | 2 | 0.23 | 4.00 | 1.22 | 0.04 | 0.74 | 0.24 | 3.37 | 1.29 | 0.04 | 0.73 | 0.29 | 3.39 | 1.25 | 0.05 | 0.69 |
| H | 3 | 0.15 | 3.07 | 1.40 | 0.02 | 1.02 | 0.29 | 2.40 | 1.39 | 0.02 | 0.75 | 0.25 | 2.53 | 1.30 | 0.02 | 0.61 |
| H | 4 | 0.20 | 3.60 | 1.71 | 0.03 | 1.13 | 0.14 | 2.71 | 1.75 | 0.03 | 0.85 | 0.25 | 2.90 | 1.72 | 0.04 | 0.76 |
| H | 5 | 0.17 | 3.97 | 1.48 | 0.04 | 0.96 | 0.21 | 4.42 | 1.77 | 0.05 | 1.16 | 0.25 | 3.87 | 1.52 | 0.04 | 0.92 |
| H | 6 | 0.12 | 3.75 | 1.17 | 0.06 | 0.73 | 0.22 | 4.30 | 1.66 | 0.07 | 0.99 | 0.22 | 3.50 | 1.42 | 0.06 | 0.79 |
| V | 0 | 0.29 | 2.93 | 1.11 | 0.03 | 0.65 | 0.36 | 3.37 | 1.28 | 0.03 | 0.76 | 0.32 | 2.61 | 1.24 | 0.02 | 0.68 |
| V | 1 | 0.20 | 3.55 | 1.28 | 0.03 | 0.93 | 0.25 | 2.94 | 1.60 | 0.06 | 0.82 | 0.26 | 3.17 | 1.57 | 0.05 | 0.98 |
| V | 2 | 0.19 | 3.61 | 1.56 | 0.05 | 0.86 | 0.17 | 3.23 | 1.57 | 0.05 | 0.75 | 0.18 | 2.89 | 1.87 | 0.04 | 0.75 |
| V | 3 | 0.14 | 3.07 | 1.44 | 0.03 | 1.04 | 0.28 | 3.03 | 1.62 | 0.02 | 1.15 | 0.20 | 3.09 | 1.69 | 0.02 | 1.13 |
| V | 4 | 0.18 | 4.19 | 1.45 | 0.03 | 0.79 | 0.21 | 4.42 | 1.67 | 0.05 | 0.86 | 0.17 | 4.05 | 2.00 | 0.03 | 0.92 |
| V | 5 | 0.23 | 4.07 | 1.47 | 0.03 | 0.61 | 0.35 | 4.01 | 1.79 | 0.05 | 0.79 | 0.26 | 3.49 | 1.66 | 0.06 | 0.84 |
| V | 6 | 0.27 | 3.10 | 1.05 | 0.04 | 0.72 | 0.25 | 3.91 | 1.11 | 0.06 | 0.84 | 0.19 | 3.65 | 1.60 | 0.05 | 0.91 |
| H+V | 0 | 0.22 | 3.46 | 1.19 | 0.05 | 0.74 | 0.29 | 4.33 | 1.65 | 0.07 | 1.18 | 0.37 | 3.34 | 1.65 | 0.05 | 1.00 |
| H+V | 1 | 0.21 | 4.42 | 1.52 | 0.05 | 1.17 | 0.27 | 3.47 | 1.66 | 0.05 | 0.97 | 0.28 | 3.08 | 1.42 | 0.04 | 1.05 |
| H+V | 2 | 0.31 | 3.58 | 1.44 | 0.05 | 0.74 | 0.26 | 3.42 | 1.49 | 0.07 | 0.74 | 0.26 | 3.16 | 1.68 | 0.06 | 0.79 |
| H+V | 3 | 0.16 | 3.61 | 1.47 | 0.02 | 1.20 | 0.43 | 3.49 | 2.04 | 0.03 | 1.21 | 0.28 | 2.99 | 1.54 | 0.03 | 0.90 |
| H+V | 4 | 0.20 | 3.75 | 1.71 | 0.04 | 1.03 | 0.20 | 3.38 | 1.85 | 0.04 | 0.97 | 0.27 | 3.62 | 2.04 | 0.04 | 0.94 |
| H+V | 5 | 0.20 | 3.67 | 1.58 | 0.04 | 1.06 | 0.26 | 4.42 | 1.92 | 0.06 | 1.22 | 0.33 | 3.77 | 1.80 | 0.07 | 1.07 |
| H+V | 6 | 0.24 | 3.98 | 1.21 | 0.07 | 0.73 | 0.24 | 4.35 | 1.68 | 0.11 | 1.20 | 0.20 | 4.40 | 1.90 | 0.09 | 1.27 |

| Simulated 4cm 2 SAPD (W/m 2) corresponding to PD_design_target | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Open | | Low Channel | | | | Mid Channel | | | | High Channel | | | |
| Pol | Beam ID | S2_10mm | S1_10mm | S3_10mm | S5_10mm | S2_10mm | S1_10mm | S3_10mm | S5_10mm | S2_10mm | S1_10mm | S3_10mm | S5_10mm |
| H | 0 | 0.05 | 0.64 | 0.04 | 0.29 | 0.07 | 1.02 | 0.04 | 0.40 | 0.11 | 0.91 | 0.04 | 0.34 |
| H | 1 | 0.06 | 0.79 | 0.01 | 0.36 | 0.09 | 0.82 | 0.01 | 0.38 | 0.08 | 0.85 | 0.01 | 0.40 |
| H | 2 | 0.05 | 0.77 | 0.03 | 0.32 | 0.08 | 0.86 | 0.04 | 0.30 | 0.10 | 0.66 | 0.03 | 0.31 |
| H | 3 | 0.05 | 1.05 | 0.01 | 0.50 | 0.13 | 0.82 | 0.01 | 0.34 | 0.10 | 0.82 | 0.01 | 0.21 |
| H | 4 | 0.09 | 1.19 | 0.02 | 0.56 | 0.06 | 1.18 | 0.02 | 0.41 | 0.10 | 1.14 | 0.03 | 0.31 |
| H | 5 | 0.07 | 0.79 | 0.03 | 0.43 | 0.08 | 1.17 | 0.04 | 0.47 | 0.10 | 1.04 | 0.03 | 0.44 |
| H | 6 | 0.05 | 0.58 | 0.04 | 0.28 | 0.08 | 0.95 | 0.04 | 0.41 | 0.08 | 0.84 | 0.03 | 0.36 |
| V | 0 | 0.11 | 0.54 | 0.02 | 0.28 | 0.14 | 0.65 | 0.01 | 0.25 | 0.15 | 0.61 | 0.01 | 0.26 |
| V | 1 | 0.08 | 0.83 | 0.03 | 0.45 | 0.09 | 1.05 | 0.04 | 0.39 | 0.09 | 0.96 | 0.04 | 0.38 |
| V | 2 | 0.09 | 1.04 | 0.04 | 0.42 | 0.07 | 1.07 | 0.04 | 0.36 | 0.09 | 1.33 | 0.03 | 0.34 |
| V | 3 | 0.07 | 0.99 | 0.02 | 0.55 | 0.10 | 1.16 | 0.01 | 0.62 | 0.10 | 1.12 | 0.01 | 0.53 |
| V | 4 | 0.07 | 1.11 | 0.03 | 0.32 | 0.08 | 1.12 | 0.02 | 0.34 | 0.09 | 1.33 | 0.01 | 0.33 |
| V | 5 | 0.10 | 0.99 | 0.02 | 0.27 | 0.15 | 1.22 | 0.04 | 0.32 | 0.09 | 1.02 | 0.04 | 0.34 |
| V | 6 | 0.10 | 0.62 | 0.04 | 0.28 | 0.09 | 0.67 | 0.04 | 0.35 | 0.10 | 0.84 | 0.02 | 0.35 |
| H+V | 0 | 0.11 | 0.64 | 0.04 | 0.30 | 0.12 | 1.01 | 0.04 | 0.46 | 0.15 | 0.93 | 0.04 | 0.47 |
| H+V | 1 | 0.08 | 1.03 | 0.03 | 0.55 | 0.13 | 0.91 | 0.04 | 0.44 | 0.11 | 0.92 | 0.03 | 0.48 |
| H+V | 2 | 0.08 | 0.83 | 0.04 | 0.29 | 0.10 | 0.98 | 0.05 | 0.29 | 0.11 | 1.06 | 0.03 | 0.32 |
| H+V | 3 | 0.07 | 1.13 | 0.01 | 0.59 | 0.17 | 1.08 | 0.02 | 0.66 | 0.13 | 1.05 | 0.02 | 0.39 |
| H+V | 4 | 0.09 | 1.31 | 0.03 | 0.49 | 0.10 | 1.26 | 0.02 | 0.48 | 0.10 | 1.37 | 0.02 | 0.35 |
| H+V | 5 | 0.10 | 0.97 | 0.03 | 0.45 | 0.12 | 1.39 | 0.04 | 0.50 | 0.14 | 1.13 | 0.05 | 0.52 |
| H+V | 6 | 0.10 | 0.74 | 0.06 | 0.30 | 0.11 | 1.03 | 0.06 | 0.42 | 0.10 | 1.11 | 0.04 | 0.52 |

## n261_Close Mode

| Simulated 4cm 2 SAPD (W/m 2) corresponding to PD_design_target | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Close | | Low Channel | | | | | | Mid Channel | | | | | | High Channel | | | | | |
| Pol | Beam ID | S1 2mm | S2 2mm | S2 2mm Visor | S3 2mm | S4 2mm | S5 2mm | S1 2mm | S2 2mm | S2 2mm Visor | S3 2mm | S4 2mm | S5 2mm | S1 2mm | S2 2mm | S2 2mm Visor | S3 2mm | S4 2mm | S5 2mm |
| H | 0 | 0.30 | 2.55 | 0.84 | 0.05 | 0.14 | 0.66 | 0.22 | 2.48 | 0.85 | 0.04 | 0.11 | 0.65 | 0.19 | 2.77 | 0.97 | 0.04 | 0.08 | 0.75 |
| H | 1 | 0.30 | 4.15 | 1.52 | 0.03 | 0.12 | 0.85 | 0.27 | 4.24 | 1.60 | 0.03 | 0.12 | 0.92 | 0.21 | 4.42 | 1.64 | 0.02 | 0.09 | 0.96 |
| H | 2 | 0.22 | 2.25 | 1.31 | 0.03 | 0.13 | 0.40 | 0.18 | 2.29 | 1.31 | 0.04 | 0.14 | 0.47 | 0.15 | 2.63 | 1.44 | 0.04 | 0.11 | 0.54 |
| H | 3 | 0.15 | 3.15 | 1.47 | 0.02 | 0.15 | 0.58 | 0.14 | 3.00 | 1.56 | 0.02 | 0.14 | 0.57 | 0.14 | 3.15 | 1.59 | 0.02 | 0.11 | 0.57 |
| H | 4 | 0.13 | 3.64 | 1.57 | 0.03 | 0.18 | 0.78 | 0.14 | 3.74 | 1.65 | 0.02 | 0.18 | 0.80 | 0.11 | 3.96 | 1.68 | 0.02 | 0.16 | 0.77 |
| H | 5 | 0.17 | 3.70 | 1.71 | 0.02 | 0.31 | 0.71 | 0.16 | 4.20 | 1.87 | 0.01 | 0.30 | 0.82 | 0.12 | 4.09 | 1.91 | 0.01 | 0.28 | 0.88 |
| H | 6 | 0.14 | 3.68 | 1.51 | 0.03 | 0.50 | 0.56 | 0.14 | 3.33 | 1.54 | 0.02 | 0.50 | 0.51 | 0.13 | 3.10 | 1.46 | 0.01 | 0.49 | 0.46 |
| V | 0 | 0.12 | 3.34 | 1.23 | 0.03 | 0.14 | 0.63 | 0.13 | 3.32 | 1.30 | 0.03 | 0.13 | 0.65 | 0.18 | 3.18 | 1.29 | 0.03 | 0.12 | 0.67 |
| V | 1 | 0.09 | 2.96 | 1.01 | 0.04 | 0.12 | 0.60 | 0.09 | 3.07 | 1.05 | 0.04 | 0.10 | 0.62 | 0.13 | 3.06 | 1.05 | 0.03 | 0.09 | 0.64 |
| V | 2 | 0.17 | 4.42 | 1.59 | 0.02 | 0.08 | 1.03 | 0.10 | 4.13 | 1.69 | 0.02 | 0.09 | 1.03 | 0.07 | 4.05 | 1.67 | 0.02 | 0.10 | 0.93 |
| V | 3 | 0.17 | 4.32 | 2.06 | 0.02 | 0.11 | 1.07 | 0.13 | 4.18 | 2.08 | 0.02 | 0.11 | 1.05 | 0.08 | 4.06 | 2.04 | 0.02 | 0.12 | 1.02 |
| V | 4 | 0.12 | 3.49 | 1.63 | 0.02 | 0.29 | 0.72 | 0.13 | 3.94 | 1.76 | 0.02 | 0.29 | 0.85 | 0.11 | 4.31 | 1.74 | 0.02 | 0.27 | 0.97 |
| V | 5 | 0.14 | 4.09 | 1.59 | 0.01 | 0.19 | 0.90 | 0.17 | 3.95 | 1.55 | 0.01 | 0.16 | 0.94 | 0.12 | 4.12 | 1.55 | 0.01 | 0.14 | 1.00 |
| V | 6 | 0.26 | 2.71 | 1.12 | 0.05 | 0.22 | 0.57 | 0.23 | 2.92 | 1.26 | 0.05 | 0.28 | 0.62 | 0.16 | 3.06 | 1.25 | 0.03 | 0.25 | 0.62 |
| H+V | 0 | 0.21 | 3.49 | 1.14 | 0.05 | 0.16 | 0.81 | 0.18 | 3.44 | 1.17 | 0.04 | 0.11 | 0.82 | 0.22 | 3.47 | 1.21 | 0.04 | 0.09 | 0.91 |
| H+V | 1 | 0.21 | 4.08 | 1.23 | 0.04 | 0.13 | 0.88 | 0.20 | 4.16 | 1.31 | 0.03 | 0.13 | 0.99 | 0.18 | 4.36 | 1.44 | 0.03 | 0.11 | 1.07 |
| H+V | 2 | 0.30 | 3.78 | 1.52 | 0.03 | 0.09 | 0.83 | 0.20 | 3.61 | 1.49 | 0.03 | 0.14 | 0.88 | 0.15 | 3.66 | 1.58 | 0.05 | 0.15 | 0.87 |
| H+V | 3 | 0.24 | 3.41 | 1.58 | 0.02 | 0.13 | 0.79 | 0.20 | 3.48 | 1.65 | 0.02 | 0.12 | 0.77 | 0.16 | 3.59 | 1.72 | 0.02 | 0.12 | 0.76 |
| H+V | 4 | 0.20 | 4.04 | 1.62 | 0.03 | 0.30 | 0.71 | 0.20 | 4.07 | 1.63 | 0.02 | 0.29 | 0.76 | 0.16 | 3.93 | 1.62 | 0.02 | 0.25 | 0.78 |
| H+V | 5 | 0.22 | 4.33 | 1.81 | 0.03 | 0.31 | 0.91 | 0.24 | 4.40 | 1.81 | 0.02 | 0.27 | 0.99 | 0.19 | 4.42 | 1.85 | 0.02 | 0.24 | 1.02 |
| H+V | 6 | 0.29 | 4.10 | 1.54 | 0.06 | 0.47 | 0.67 | 0.26 | 4.08 | 1.63 | 0.05 | 0.43 | 0.65 | 0.22 | 4.21 | 1.62 | 0.03 | 0.44 | 0.67 |

| Simulated 4cm 2 SAPD (W/m 2) corresponding to PD_design_target | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Close | | Low Channel | | | | | | Mid Channel | | | | | | High Channel | | | | | |
| Pol | Beam ID | S1 10mm | S2 10mm | S3 10mm | S4 10mm | S5 10mm | S1 10mm | S2 10mm | S3 10mm | S4 10mm | S5 10mm | S1 10mm | S2 10mm | S3 10mm | S4 10mm | S5 10mm | | | |
| H | 0 | 0.12 | 0.47 | 0.04 | 0.09 | 0.33 | 0.11 | 0.47 | 0.03 | 0.08 | 0.30 | 0.09 | 0.57 | 0.04 | 0.05 | 0.32 | | | |
| H | 1 | 0.20 | 0.97 | 0.02 | 0.08 | 0.35 | 0.17 | 1.03 | 0.02 | 0.08 | 0.39 | 0.13 | 1.08 | 0.02 | 0.06 | 0.42 | | | |
| H | 2 | 0.11 | 0.83 | 0.04 | 0.10 | 0.16 | 0.10 | 0.81 | 0.03 | 0.09 | 0.20 | 0.08 | 0.88 | 0.03 | 0.08 | 0.24 | | | |
| H | 3 | 0.09 | 1.02 | 0.02 | 0.10 | 0.27 | 0.08 | 1.09 | 0.01 | 0.10 | 0.25 | 0.08 | 1.13 | 0.01 | 0.07 | 0.21 | | | |
| H | 4 | 0.08 | 1.05 | 0.02 | 0.11 | 0.34 | 0.09 | 1.11 | 0.02 | 0.10 | 0.34 | 0.08 | 1.16 | 0.01 | 0.09 | 0.34 | | | |
| H | 5 | 0.11 | 1.15 | 0.01 | 0.15 | 0.26 | 0.11 | 1.23 | 0.00 | 0.13 | 0.31 | 0.09 | 1.25 | 0.01 | 0.12 | 0.36 | | | |
| H | 6 | 0.08 | 0.83 | 0.01 | 0.33 | 0.21 | 0.08 | 0.88 | 0.01 | 0.32 | 0.23 | 0.08 | 0.85 | 0.01 | 0.31 | 0.18 | | | |
| V | 0 | 0.07 | 0.81 | 0.02 | 0.07 | 0.21 | 0.07 | 0.85 | 0.02 | 0.07 | 0.20 | 0.10 | 0.88 | 0.02 | 0.06 | 0.21 | | | |
| V | 1 | 0.05 | 0.68 | 0.02 | 0.09 | 0.24 | 0.05 | 0.70 | 0.02 | 0.06 | 0.25 | 0.05 | 0.74 | 0.02 | 0.05 | 0.25 | | | |
| V | 2 | 0.07 | 1.19 | 0.01 | 0.05 | 0.45 | 0.05 | 1.27 | 0.02 | 0.06 | 0.46 | 0.04 | 1.26 | 0.01 | 0.07 | 0.40 | | | |
| V | 3 | 0.10 | 1.55 | 0.01 | 0.07 | 0.47 | 0.08 | 1.57 | 0.01 | 0.07 | 0.48 | 0.05 | 1.57 | 0.01 | 0.08 | 0.50 | | | |
| V | 4 | 0.07 | 1.05 | 0.01 | 0.18 | 0.28 | 0.06 | 1.13 | 0.01 | 0.17 | 0.32 | 0.06 | 1.15 | 0.01 | 0.16 | 0.37 | | | |
| V | 5 | 0.08 | 1.10 | 0.01 | 0.12 | 0.40 | 0.10 | 1.07 | 0.01 | 0.10 | 0.42 | 0.08 | 1.08 | 0.01 | 0.09 | 0.43 | | | |
| V | 6 | 0.13 | 0.68 | 0.03 | 0.15 | 0.20 | 0.13 | 0.73 | 0.03 | 0.19 | 0.18 | 0.09 | 0.73 | 0.02 | 0.18 | 0.18 | | | |
| H+V | 0 | 0.09 | 0.72 | 0.03 | 0.10 | 0.33 | 0.09 | 0.73 | 0.03 | 0.07 | 0.36 | 0.10 | 0.78 | 0.03 | 0.06 | 0.40 | | | |
| H+V | 1 | 0.14 | 0.82 | 0.03 | 0.08 | 0.38 | 0.12 | 0.89 | 0.02 | 0.09 | 0.43 | 0.10 | 0.99 | 0.03 | 0.07 | 0.44 | | | |
| H+V | 2 | 0.15 | 1.02 | 0.03 | 0.07 | 0.35 | 0.10 | 1.01 | 0.02 | 0.10 | 0.38 | 0.09 | 1.08 | 0.02 | 0.12 | 0.37 | | | |
| H+V | 3 | 0.15 | 1.21 | 0.02 | 0.08 | 0.37 | 0.13 | 1.26 | 0.01 | 0.08 | 0.35 | 0.10 | 1.32 | 0.01 | 0.08 | 0.33 | | | |
| H+V | 4 | 0.12 | 1.13 | 0.02 | 0.14 | 0.28 | 0.13 | 1.14 | 0.02 | 0.14 | 0.31 | 0.10 | 1.14 | 0.01 | 0.13 | 0.33 | | | |
| H+V | 5 | 0.15 | 1.23 | 0.02 | 0.14 | 0.35 | 0.17 | 1.22 | 0.01 | 0.11 | 0.38 | 0.13 | 1.24 | 0.01 | 0.11 | 0.41 | | | |
| H+V | 6 | 0.16 | 0.89 | 0.04 | 0.31 | 0.21 | 0.15 | 0.93 | 0.03 | 0.27 | 0.20 | 0.12 | 0.94 | 0.02 | 0.27 | 0.18 | | | |

## n261_Open Mode

| Simulated 4cm 2 SAPD (W/m 2) corresponding to PD_design_target | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Open | | Low Channel | | | | | Mid Channel | | | | | High Channel | | | | |
| Pol | Beam ID | S2_2mm | S1_2mm (EUT) | S1_2mm | S3_2mm | S5_2mm | S2_2mm | S1_2mm (EUT) | S1_2mm | S3_2mm | S5_2mm | S2_2mm | S1_2mm (EUT) | S1_2mm | S3_2mm | S5_2mm |
| H | 0 | 0.31 | 2.54 | 0.84 | 0.06 | 0.66 | 0.24 | 2.40 | 0.82 | 0.05 | 0.63 | 0.23 | 2.60 | 0.91 | 0.04 | 0.68 |
| H | 1 | 0.37 | 4.15 | 1.51 | 0.02 | 0.85 | 0.30 | 4.25 | 1.55 | 0.03 | 0.91 | 0.22 | 4.31 | 1.59 | 0.02 | 0.94 |
| H | 2 | 0.25 | 2.25 | 1.31 | 0.03 | 0.41 | 0.20 | 2.24 | 1.28 | 0.04 | 0.47 | 0.19 | 2.58 | 1.40 | 0.04 | 0.55 |
| H | 3 | 0.18 | 3.14 | 1.46 | 0.01 | 0.60 | 0.16 | 2.94 | 1.53 | 0.02 | 0.59 | 0.15 | 3.01 | 1.53 | 0.02 | 0.56 |
| H | 4 | 0.15 | 3.57 | 1.55 | 0.02 | 0.77 | 0.17 | 3.64 | 1.61 | 0.02 | 0.78 | 0.13 | 3.79 | 1.62 | 0.02 | 0.74 |
| H | 5 | 0.21 | 3.63 | 1.67 | 0.02 | 0.71 | 0.19 | 4.15 | 1.82 | 0.01 | 0.81 | 0.15 | 4.42 | 1.86 | 0.01 | 0.85 |
| H | 6 | 0.15 | 3.67 | 1.45 | 0.01 | 0.56 | 0.15 | 3.29 | 1.47 | 0.01 | 0.53 | 0.16 | 3.08 | 1.39 | 0.01 | 0.47 |
| V | 0 | 0.22 | 3.40 | 1.26 | 0.01 | 0.67 | 0.22 | 3.34 | 1.33 | 0.02 | 0.67 | 0.30 | 3.23 | 1.33 | 0.03 | 0.70 |
| V | 1 | 0.11 | 2.99 | 1.02 | 0.03 | 0.62 | 0.12 | 2.99 | 1.04 | 0.03 | 0.62 | 0.20 | 3.02 | 1.06 | 0.03 | 0.65 |
| V | 2 | 0.22 | 4.42 | 1.60 | 0.03 | 1.04 | 0.14 | 4.18 | 1.69 | 0.03 | 1.04 | 0.11 | 4.02 | 1.68 | 0.03 | 0.93 |
| V | 3 | 0.20 | 4.40 | 2.10 | 0.02 | 1.09 | 0.17 | 4.21 | 2.10 | 0.02 | 1.05 | 0.10 | 4.04 | 2.04 | 0.02 | 1.02 |
| V | 4 | 0.21 | 3.50 | 1.64 | 0.02 | 0.75 | 0.16 | 3.97 | 1.77 | 0.02 | 0.88 | 0.16 | 4.33 | 1.76 | 0.02 | 0.98 |
| V | 5 | 0.17 | 4.21 | 1.63 | 0.02 | 0.95 | 0.19 | 4.03 | 1.58 | 0.01 | 0.97 | 0.17 | 4.17 | 1.59 | 0.02 | 1.02 |
| V | 6 | 0.34 | 2.66 | 1.11 | 0.04 | 0.56 | 0.32 | 2.88 | 1.23 | 0.04 | 0.62 | 0.23 | 3.10 | 1.26 | 0.03 | 0.62 |
| H+V | 0 | 0.23 | 3.48 | 1.13 | 0.05 | 0.81 | 0.22 | 3.32 | 1.13 | 0.04 | 0.79 | 0.27 | 3.30 | 1.16 | 0.04 | 0.86 |
| H+V | 1 | 0.26 | 4.03 | 1.22 | 0.04 | 0.87 | 0.20 | 4.04 | 1.24 | 0.03 | 0.94 | 0.21 | 4.14 | 1.38 | 0.03 | 1.02 |
| H+V | 2 | 0.33 | 3.56 | 1.45 | 0.03 | 0.78 | 0.23 | 3.46 | 1.44 | 0.04 | 0.85 | 0.18 | 3.45 | 1.50 | 0.04 | 0.83 |
| H+V | 3 | 0.29 | 3.29 | 1.56 | 0.01 | 0.80 | 0.25 | 3.32 | 1.60 | 0.02 | 0.76 | 0.18 | 3.39 | 1.64 | 0.02 | 0.73 |
| H+V | 4 | 0.25 | 3.79 | 1.53 | 0.02 | 0.66 | 0.24 | 3.86 | 1.54 | 0.02 | 0.72 | 0.18 | 3.76 | 1.54 | 0.02 | 0.75 |
| H+V | 5 | 0.25 | 4.23 | 1.73 | 0.03 | 0.93 | 0.27 | 4.24 | 1.73 | 0.01 | 0.96 | 0.23 | 4.42 | 1.76 | 0.01 | 1.00 |
| H+V | 6 | 0.32 | 3.93 | 1.48 | 0.04 | 0.63 | 0.30 | 3.91 | 1.51 | 0.04 | 0.64 | 0.25 | 4.07 | 1.52 | 0.03 | 0.65 |

| Simulated 4cm 2 SAPD (W/m 2) corresponding to PD_design_target | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Open | | Low Channel | | | | Mid Channel | | | | High Channel | | | |
| Pol | Beam ID | S2_10mm | S1_10mm | S3_10mm | S5_10mm | S2_10mm | S1_10mm | S3_10mm | S5_10mm | S2_10mm | S1_10mm | S3_10mm | S5_10mm |
| H | 0 | 0.12 | 0.47 | 0.04 | 0.32 | 0.10 | 0.44 | 0.03 | 0.29 | 0.09 | 0.53 | 0.03 | 0.30 |
| H | 1 | 0.14 | 0.97 | 0.02 | 0.34 | 0.12 | 1.02 | 0.01 | 0.38 | 0.09 | 1.04 | 0.02 | 0.39 |
| H | 2 | 0.09 | 0.84 | 0.03 | 0.17 | 0.07 | 0.82 | 0.03 | 0.20 | 0.07 | 0.86 | 0.03 | 0.25 |
| H | 3 | 0.07 | 1.02 | 0.02 | 0.26 | 0.07 | 1.08 | 0.01 | 0.27 | 0.06 | 1.08 | 0.01 | 0.22 |
| H | 4 | 0.06 | 1.04 | 0.01 | 0.34 | 0.07 | 1.09 | 0.01 | 0.35 | 0.06 | 1.11 | 0.01 | 0.33 |
| H | 5 | 0.08 | 1.13 | 0.01 | 0.28 | 0.07 | 1.20 | 0.00 | 0.32 | 0.07 | 1.21 | 0.01 | 0.36 |
| H | 6 | 0.06 | 0.78 | 0.01 | 0.22 | 0.07 | 0.84 | 0.01 | 0.26 | 0.07 | 0.81 | 0.01 | 0.20 |
| V | 0 | 0.08 | 0.84 | 0.01 | 0.22 | 0.09 | 0.87 | 0.02 | 0.22 | 0.11 | 0.91 | 0.02 | 0.23 |
| V | 1 | 0.04 | 0.69 | 0.03 | 0.24 | 0.05 | 0.70 | 0.03 | 0.25 | 0.05 | 0.75 | 0.02 | 0.27 |
| V | 2 | 0.06 | 1.18 | 0.02 | 0.45 | 0.04 | 1.28 | 0.02 | 0.47 | 0.04 | 1.26 | 0.02 | 0.41 |
| V | 3 | 0.07 | 1.58 | 0.01 | 0.49 | 0.06 | 1.58 | 0.02 | 0.50 | 0.04 | 1.57 | 0.01 | 0.50 |
| V | 4 | 0.07 | 1.08 | 0.02 | 0.28 | 0.04 | 1.15 | 0.02 | 0.34 | 0.05 | 1.16 | 0.01 | 0.37 |
| V | 5 | 0.06 | 1.12 | 0.01 | 0.42 | 0.07 | 1.09 | 0.01 | 0.43 | 0.06 | 1.11 | 0.01 | 0.45 |
| V | 6 | 0.09 | 0.68 | 0.03 | 0.18 | 0.10 | 0.72 | 0.02 | 0.19 | 0.07 | 0.73 | 0.03 | 0.18 |
| H+V | 0 | 0.08 | 0.71 | 0.03 | 0.31 | 0.09 | 0.70 | 0.03 | 0.34 | 0.10 | 0.74 | 0.03 | 0.38 |
| H+V | 1 | 0.10 | 0.80 | 0.03 | 0.36 | 0.08 | 0.85 | 0.02 | 0.41 | 0.08 | 0.94 | 0.02 | 0.42 |
| H+V | 2 | 0.11 | 0.98 | 0.04 | 0.33 | 0.08 | 0.98 | 0.03 | 0.37 | 0.06 | 1.04 | 0.02 | 0.36 |
| H+V | 3 | 0.10 | 1.19 | 0.01 | 0.37 | 0.09 | 1.21 | 0.01 | 0.36 | 0.07 | 1.25 | 0.01 | 0.33 |
| H+V | 4 | 0.09 | 1.07 | 0.01 | 0.26 | 0.08 | 1.08 | 0.01 | 0.31 | 0.07 | 1.08 | 0.01 | 0.32 |
| H+V | 5 | 0.10 | 1.17 | 0.02 | 0.36 | 0.10 | 1.17 | 0.01 | 0.37 | 0.09 | 1.17 | 0.01 | 0.40 |
| H+V | 6 | 0.10 | 0.86 | 0.03 | 0.19 | 0.10 | 0.87 | 0.02 | 0.20 | 0.08 | 0.87 | 0.02 | 0.17 |

## 3.9 PD characterization table

Since PD_design_target derivation in Section 3.4 already accounted for power control closed loop power control error, we can allow for this uncertainty in $\text{correlation}\ (\min)$ calculation before applying it for reference power level adjustment, i.e., Correlation (min)= 0 if | Correlation (min) | ≤ 1dB, Correlation (min)= Correlation (min) − 1, if Correlation (min) > 1dB and Correlation (min) = Correlation (min) + 1, if Correlation (min) < −1dB

Once PD characterization is completed, for each plane and frequency band in device design we expect to have the target EIRP levels that correspond to the PD_design_target. Plimit table will be entered via NV setting to enable the TAS algorithm Feature. PD tested at Plimit is illustrated in Part 1 report to demonstrate compliance.

In dual-polarization beam operation, the Plimit value is associated with to each of single polarization beam

The Plimit is derived and listed in the table below

### Close Mode

| Band | Antenna Module | Device Configure | Polarization | correction (dB) | TxAGC Uncertainty (dB) | FR 2 Plimit (dBm) | Input power limit(dBm) | Close & Open mode minimum Implemented Input power limit (dBm) |
|---|---|---|---|---|---|---|---|---|
| n258 | Plane B | Close Mode | H | **-0.75** | 1 | 17 +10* log(PD design target /Max sim PD) | 13.25 | 9.83 |
| | | | V | **0.41** | 1 | 17 +10* log(PD design target /Max sim PD) | 13.19 | 9.83 |
| | | | H+V | **-0.65** | 1 | 17 +10* log(PD design target /Max sim PD) | 9.86 | 9.83 |

| Band | Antenna Module | Device Configure | Polarization | correction (dB) | TxAGC Uncertainty (dB) | FR 2 Plimit (dBm) | Input power limit(dBm) | Close & Open mode minimum Implemented Input power limit (dBm) |
|---|---|---|---|---|---|---|---|---|
| n260 | Plane B | Close Mode | H | **0.86** | 1 | 17 +10* log(PD design target /Max sim PD) | 13.07 | 10.40 |
| | | | V | **2.09** | 1 | 17 +10* log(PD design target /Max sim PD)+1.09 | 15.01 | 10.40 |
| | | | H+V | **0.64** | 1 | 17 +10* log(PD design target /Max sim PD) | 10.40 | 10.40 |

| Band | Antenna Module | Device Configure | Polarization | correction (dB) | TxAGC Uncertainty (dB) | FR 2 Plimit (dBm) | Input power limit(dBm) | Close & Open mode minimum Implemented Input power limit (dBm) |
|---|---|---|---|---|---|---|---|---|
| n261 | Plane B | Close Mode | H | **-2.35** | 1 | 17 +10* log(PD design target /Max sim PD)-1.35 | 12.10 | 9.65 |
| | | | V | **-1.41** | 1 | 17 +10* log(PD design target /Max sim PD)-0.41 | 13.56 | 9.65 |
| | | | H+V | **-1.32** | 1 | 17 +10* log(PD design target /Max sim PD)-0.32 | 9.68 | 9.65 |

## Open Mode

| Band | Antenna Module | Device Configure | Polarization | correction (dB) | TxAGC Uncertainty (dB) | FR 2 Plimit (dBm) | Input power limit(dBm) | Close & Open mode minimum Implemented Input power limit (dBm) |
|---|---|---|---|---|---|---|---|---|
| n258 | Plane B | Open Mode | H | **-0.85** | 1 | 17 +10* log(PD design target /Max sim PD) | 13.04 | 9.83 |
| | | | V | **-2.36** | 1 | 17 +10* log(PD design target /Max sim PD)-1.36 | 11.67 | 9.83 |
| | | | H+V | **-1.05** | 1 | 17 +10* log(PD design target /Max sim PD)-0.05 | 9.83 | 9.83 |

| Band | Antenna Module | Device Configure | Polarization | correction (dB) | TxAGC Uncertainty (dB) | FR 2 Plimit (dBm) | Input power limit(dBm) | Close & Open mode minimum Implemented Input power limit (dBm) |
|---|---|---|---|---|---|---|---|---|
| n260 | Plane B | Open Mode | H | **0.87** | 1 | 17 +10* log(PD design target /Max sim PD) | 13.50 | 10.40 |
| | | | V | **2.77** | 1 | 17 +10* log(PD design target /Max sim PD)+1.77 | 15.65 | 10.40 |
| | | | H+V | **0.95** | 1 | 17 +10* log(PD design target /Max sim PD) | 10.55 | 10.40 |

| Band | Antenna Module | Device Configure | Polarization | correction (dB) | TxAGC Uncertainty (dB) | FR 2 Plimit (dBm) | Input power limit(dBm) | Close & Open mode minimum Implemented Input power limit (dBm) |
|---|---|---|---|---|---|---|---|---|
| n261 | Plane B | Open Mode | H | **-2.72** | 1 | 17 +10* log(PD design target /Max sim PD)-1.72 | 11.95 | 9.65 |
| | | | V | **-1.57** | 1 | 17 +10* log(PD design target /Max sim PD)-0.57 | 13.76 | 9.65 |
| | | | H+V | **-1.50** | 1 | 17 +10* log(PD design target /Max sim PD)-0.5 | 9.65 | 9.65 |

| Band | mmWave module | Pol | Beam ID | Input power limit (dBm) |
|---|---|---|---|---|
| n258 | B | H | 0 | 9.83 |
| n258 | B | H | 1 | 9.83 |
| n258 | B | H | 2 | 9.83 |
| n258 | B | H | 3 | 9.83 |
| n258 | B | H | 4 | 9.83 |
| n258 | B | H | 5 | 9.83 |
| n258 | B | H | 6 | 9.83 |
| n258 | B | V | 0 | 9.83 |
| n258 | B | V | 1 | 9.83 |
| n258 | B | V | 2 | 9.83 |
| n258 | B | V | 3 | 9.83 |
| n258 | B | V | 4 | 9.83 |
| n258 | B | V | 5 | 9.83 |
| n258 | B | V | 6 | 9.83 |
| n258 | B | H+V | 0 | 9.83 |
| n258 | B | H+V | 1 | 9.83 |
| n258 | B | H+V | 2 | 9.83 |
| n258 | B | H+V | 3 | 9.83 |
| n258 | B | H+V | 4 | 9.83 |
| n258 | B | H+V | 5 | 9.83 |
| n258 | B | H+V | 6 | 9.83 |

| Band | mmWave module | Pol | Beam ID | Input power limit (dBm) |
|---|---|---|---|---|
| n260 | B | H | 0 | 10.40 |
| n260 | B | H | 1 | 10.40 |
| n260 | B | H | 2 | 10.40 |
| n260 | B | H | 3 | 10.40 |
| n260 | B | H | 4 | 10.40 |
| n260 | B | H | 5 | 10.40 |
| n260 | B | H | 6 | 10.40 |
| n260 | B | V | 0 | 10.40 |
| n260 | B | V | 1 | 10.40 |
| n260 | B | V | 2 | 10.40 |
| n260 | B | V | 3 | 10.40 |
| n260 | B | V | 4 | 10.40 |
| n260 | B | V | 5 | 10.40 |
| n260 | B | V | 6 | 10.40 |
| n260 | B | H+V | 0 | 10.40 |
| n260 | B | H+V | 1 | 10.40 |
| n260 | B | H+V | 2 | 10.40 |
| n260 | B | H+V | 3 | 10.40 |
| n260 | B | H+V | 4 | 10.40 |
| n260 | B | H+V | 5 | 10.40 |
| n260 | B | H+V | 6 | 10.40 |

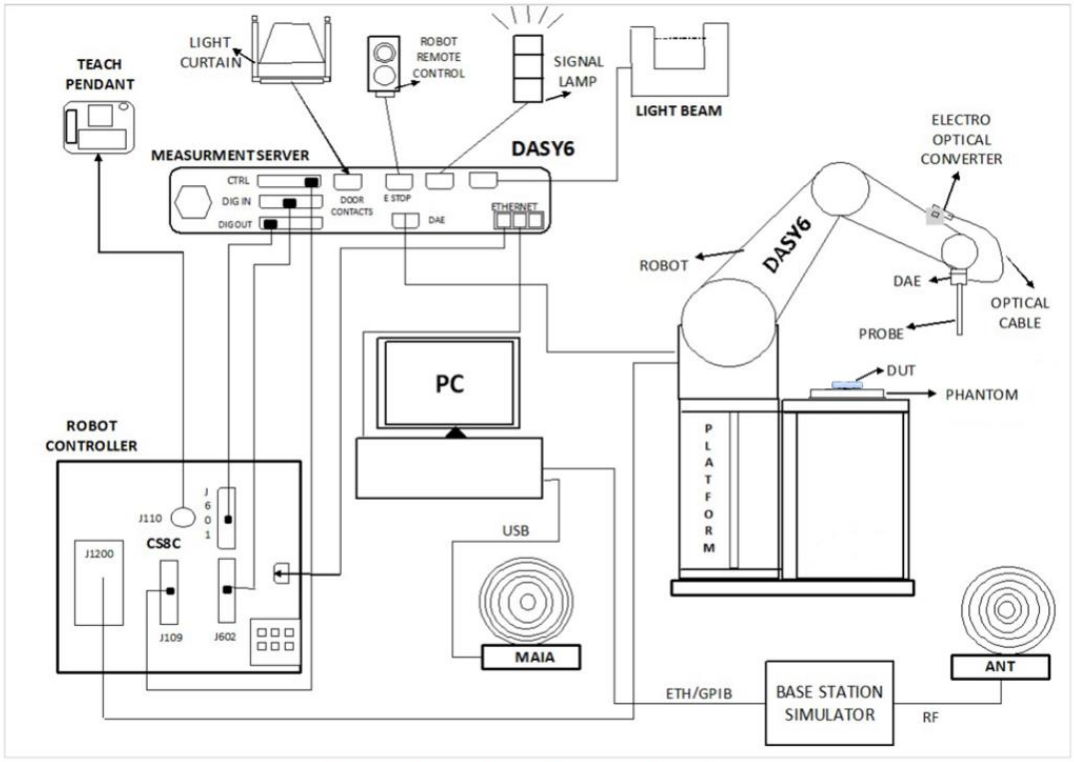
| Band | mmWave module | Pol | Beam ID | Input power limit (dBm) |
|---|---|---|---|---|
| n261 | B | H | 0 | 9.65 |
| n261 | B | H | 1 | 9.65 |
| n261 | B | H | 2 | 9.65 |
| n261 | B | H | 3 | 9.65 |
| n261 | B | H | 4 | 9.65 |
| n261 | B | H | 5 | 9.65 |
| n261 | B | H | 6 | 9.65 |
| n261 | B | V | 0 | 9.65 |
| n261 | B | V | 1 | 9.65 |
| n261 | B | V | 2 | 9.65 |
| n261 | B | V | 3 | 9.65 |
| n261 | B | V | 4 | 9.65 |
| n261 | B | V | 5 | 9.65 |
| n261 | B | V | 6 | 9.65 |
| n261 | B | H+V | 0 | 9.65 |
| n261 | B | H+V | 1 | 9.65 |
| n261 | B | H+V | 2 | 9.65 |
| n261 | B | H+V | 3 | 9.65 |
| n261 | B | H+V | 4 | 9.65 |
| n261 | B | H+V | 5 | 9.65 |
| n261 | B | H+V | 6 | 9.65 |

# 4. PD Test Setup

## 4.1 PD Test – System Setup

The system to be used for the near field power density measurement

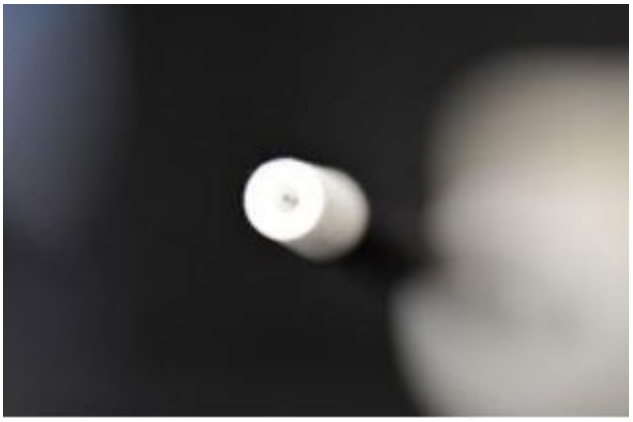
- SPEAG DASY6 system
  - SPEAG cDASY6 5G module software
  - EUmmWVx probe
- 5G Phantom cover

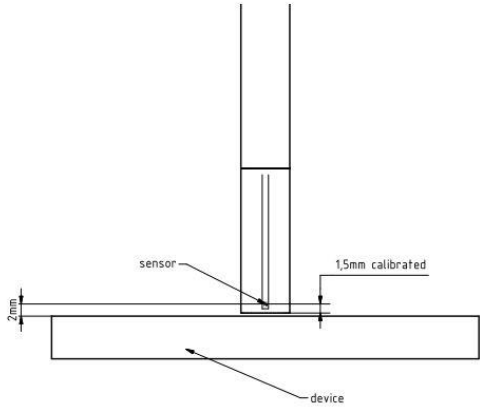


## 4.2 EUmmWave Probe / E-Field 5G Probe

The probe design allows measurements at distances as small as 2 mm from the sensors to the surface of the device under test (DUT). The typical sensor to probe tip distance is 1.5 mm.

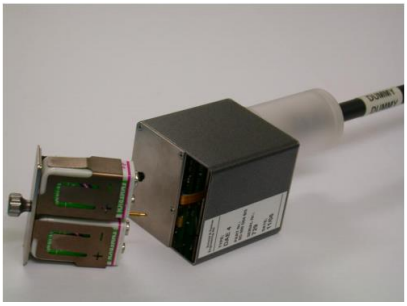
| | |
|---|---|
| **Frequency** | 750 MHz – 110 GHz |
| **Probe Overall Length** | 320 mm |
| **Probe Body Diameter** | 8.0 mm |
| **Tip Length** | 23.0 mm |
| **Tip Diameter** | 8.0 mm |
| **Probe's two dipoles length** | 0.9 mm – Diode loaded |
| **Dynamic Range** | < 20 V/m - 10000 V/m with PRE-10 (min < 50 V/m - 3000 V/m) |
| **Position Precision** | < 0.2 mm |
| **Distance between diode sensors and probe's tip** | 1.5 mm |
| **Minimum Mechanical separation between probe tip and a Surface** | 0.5 mm |
| **Applications** | E-field measurements of 5G devices and other mm-wave transmitters operating above 10GHz in < 2 mm distance from device (free-space)<br>Power density, H-field and far-field analysis using total field reconstruction. |
| **Compatibility** | cDASY6 + 5G-Module SW1.0 and higher |





## 4.3 Data Acquisition Electronics (DAE)

The data acquisition electronics (DAE) consists of a highly sensitive electrometer-grade preamplifier with auto-zeroing, a channel and gain-switching multiplexer, a fast 16 bit AD-converter and a command decoder and control logic unit. Transmission to the measurement server is accomplished through an optical downlink for data and status information as well as an optical uplink for commands and the clock.
The input impedance of the DAE is 200 MOhm; the inputs are symmetrical and floating. Common mode rejection is above 80 dB.



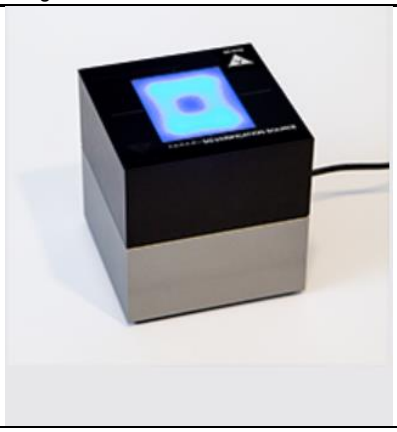
## 4.4 Scan configuration

Fine-resolution scans on 2 different planes are performed to reconstruct the E- and H-fields as well as the power density; the z-distance between the 2 planes is set to λ/4.
The (x, y) grid step is also setλ/4, the grid extent is set to sufficiently large to identify the field pattern and the peak.

## 4.5 System Verification Source

The System Verification sources at 30 GHz and above comprise horn-antennas and very stable signal generators.

| | |
|---|---|
| **Model** | Ka-band horn antenna |
| **Calibrated frequency:** | 30 GHz at 10mm from the case surface |
| **Frequency accuracy** | ± 100 MHz |
| **E-field polarization** | linear |
| **Harmonics** | -20 dBc |
| **Total radiated power** | 14 dBm |
| **Power stability** | 0.05 dB |
| **Power consumption** | 5 W |
| **Size** | 00 x 100 x 100 mm |
| **Weight** | 1 kg |

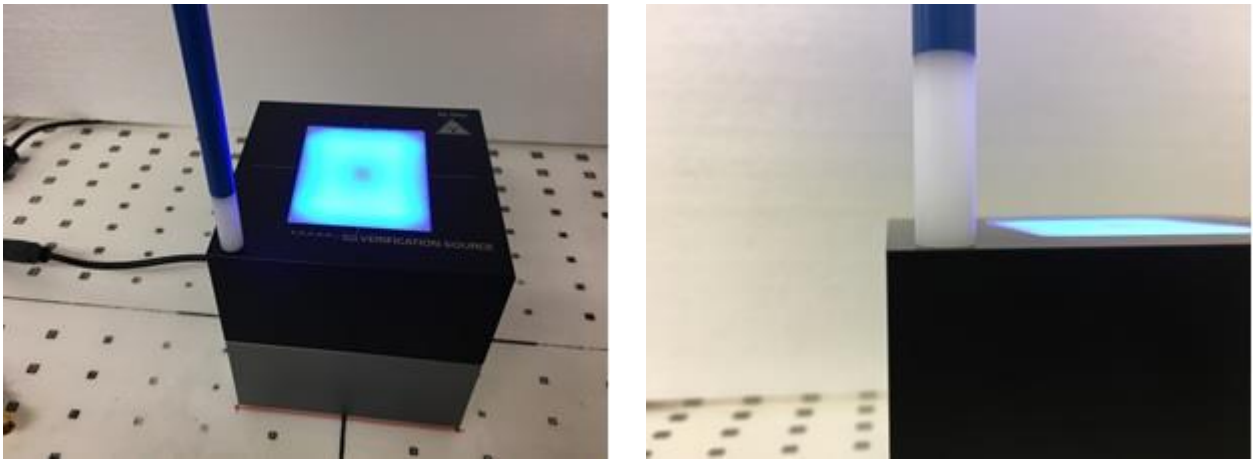


## 4.6 Power Density System Verification

The system performance check verifies that the system operates within its specifications.
The EUT is replaced by a calibrated source, the same spatial resolution, measurement region and the test separation used in the calibration was applied to system check. Through visual inspection into the measured power density distribution, both spatially (shape) and numerically (level) have no noticeable difference. The measured results should be within 0.66B of the calibrated targets.

| **Frequency [GHz]** | Grid step | Grid extent X/Y [mm] | Measurement points |
|---|---|---|---|
| 10 | $0.25\ (\frac{\lambda}{4})$ | 120/120 | $16 \times 16$ |
| 30 | $0.25\ (\frac{\lambda}{4})$ | 60/60 | $24 \times 24$ |
| 60 | $0.25\ (\frac{\lambda}{4})$ | 32.5/32.5 | $26 \times 26$ |
| 90 | $0.25\ (\frac{\lambda}{4})$ | 30/30 | $36 \times 36$ |

**Settings for measurement of verification sources**



**Verification Setup photo**

## 4.7 System Verification Results

| Frequency (GHz) | 5G Verification Source | Probe S/N | DAE S/N | Distance (mm) | Measured 4 cm^2 (W/m^2) | Targeted 4 cm^2 (W/m^2) | Deviation (dB) | Test Site | Date |
|---|---|---|---|---|---|---|---|---|---|
| 30G | 30GHz_1009 | 9424 | 1326 | 5.55 | 31.9 | 30.6 | 0.18 | SAR01 | 2025/1/20 |
| 30G | 30GHz_1009 | 9424 | 1326 | 5.55 | 32.2 | 30.6 | 0.22 | SAR01 | 2025/2/10 |

# 5. Uncertainty Assessment

The budget is valid for evaluation distances > λ/2π. For specific tests and configurations, the Uncertainty could be considerably smaller.

| Preliminary Module mmWave Uncertainty Budget<br>Evaluation Distances to the Antennas > λ / 2π | | | | | | |
|---|---|---|---|---|---|---|
| **Error Description** | **Uncertainty Value (± dB)** | **Probability** | **Divisor** | **(Ci)** | **Standard Uncertainty (±dB)** | **(Vi) Veff** |
| Measurement System | | | | | | |
| Probe Calibration | 0.49 | N | 1 | 1 | 0.49 | ∞ |
| Hemispherical Isotropy | 0.50 | R | 1.732 | 1 | 0.29 | ∞ |
| Linearity | 0.20 | R | 1.732 | 0 | 0.12 | ∞ |
| System Detection Limits | 0.04 | R | 1.732 | 1 | 0.02 | ∞ |
| Modulation Response | 0.40 | R | 1.732 | 1 | 0.23 | ∞ |
| Readout Electronics | 0.03 | N | 1 | 1 | 0.03 | ∞ |
| Response Time | 0.00 | R | 1.732 | 1 | 0.00 | ∞ |
| Integration Time | 0.00 | R | 1.732 | 1 | 0.00 | ∞ |
| RF Ambient Noise | 0.2 | R | 1.732 | 1 | 0.12 | ∞ |
| RF Ambient Reflections | 0.21 | R | 1.732 | 1 | 0.12 | ∞ |
| Probe Positioner | 0.04 | R | 1.732 | 1 | 0.02 | ∞ |
| Probe Positioning | 0.30 | R | 1.732 | 1 | 0.17 | ∞ |
| Savg Reconstruction | 0.60 | R | 1.732 | 1 | 0.35 | ∞ |
| Test Sample Related | | | | | | |
| Power Drift | 0.2 | R | 1.732 | 1 | 0.12 | ∞ |
| Input Power | 0 | N | 1 | 0 | 0.00 | ∞ |
| Combined Std. Uncertainty | | | | | 0.76 dB | ∞ |
| Coverage Factor for 95 % | | | | | K=2 | |
| Expanded STD Uncertainty | | | | | 1.52 dB | |