FCC Connectivity TAS Evaluation Report

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Revision History

Rev.	Date	Revisions	Revised By
V1	2025/7/23	Initial Issue	--
V2	2025/7/24	Removed watermark Fixed Table of Contents Changed “cellular” to “unlicensed” in Section 4.1.5 Updated formatting and note for Table 4-1	Kanaad Sovani
V3	2025/7/24	Fixed DUT Time Averaging Window on Plots	Kanaad Sovani
V4	2025/7/29	Section 4.1.6: Updated Figure 4-6 with appropriate Pmax and updated verbiage of the note	Kanaad Sovani

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1. Test Specifications, Methods/Procedures, and Facilities

The tests documented in this report were performed following the OEM's pre-approval guidance (KDB 388624 D02 Pre-Approval Guidance List v18r06, PWRCNG).

The test sites and measurement facilities used to collect data are located at:

5440 Patrick Henry Drive
SAR/Conducted Labs PHD

2. Introduction

This DUT supports time-averaged SAR (TAS) technology for the connectivity transmitters (i.e. WLAN, BT, 802.15.4, NB UNII). A central manager, referenced as the RF Exposure manager, is responsible for maintaining the rolling time-averaged RF exposure over the applicable regulatory compliance window. This manager allocates a total RF exposure budget and specifies the RF exposure compliance limit to the connectivity radios. The radio controllers manage their transmissions to always maintain their consumption below the regulatory RF exposure limit. They report their consumed RF exposure back to the RF exposure manager. The RF exposure manager uses this feedback to allocate updated budget information throughout the regulatory averaging window. This implementation uses a 30-second time-averaging window.

3. Key TAS Parameters

This section defines the relevant power and RF Exposure parameters related to the cellular TAS mechanism for this DUT.

3.1. On-Body Detection (OBD)/Operating State Summary (OPS)

The table below summarizes the operating states supported by the DUT:

Table 3-1: DUT Supported OBD/OPS

OBD/OPS	Description
0	Head
1	Body/Extremity

3.2. Wi-Fi Power State Descriptions

Table 3-2: Power States and Descriptions

Power State*	Description
1	Cell Off | 802.15.4ab Off
2	Cell Off | 802.15.4ab On
3	Cell On (Power State 2) | 802.15.4ab Off
4	Cell On (Power State 2) | 802.15.4ab On
5	Cell On (Power State 1) | 802.15.4ab Off
6	Cell On (Power State 1) | 802.15.4ab On

*: Power State will be abbreviated to PS in this report

3.3. TAS Parameter Definitions

P_{Max}: The maximum possible instantaneous power
P_{Limit}: The maximum possible time-averaged power
$SAR_{Design\ Limit}$: The maximum spatial peak averaged SAR value inclusive of the total device uncertainty
Pavg(n): The normalized time-averaged conducted power, which should be less than 1 for a passing scenario.

P_{Limit} and P_{Max} values are defined for all antennas, technologies, bands, and OBD/OPS combinations supporting TAS on the DUT. Instantaneous power for the specified antenna/technology/band/OBD/OPS combinations is capped at P_{Max}.

Table 3-3: FCC SAR Characterizations

Transmitter	Technology	Protocol	Bandwidth (MHz)	1-g Averaging Volume																	
				Cell Off + Connectivity PS 1			Cell Off + Connectivity PS 2 + 802.15.4ab			Cell On PS 2 + Connectivity PS 3			Cell On PS 3 + Connectivity PS 4 + 802.15.4ab			Cell On PS 1 + Connectivity PS 5			Cell On PS 1 + Connectivity PS 6 + 802.15.4ab		
				P_{Limit} (dBm)	P_{Max} (dBm)	$SAR_{Design\ Limit}$ (W/kg)	P_{Limit} (dBm)	P_{Max} (dBm)	$SAR_{Design\ Limit}$ (W/kg)	P_{Limit} (dBm)	P_{Max} (dBm)	$SAR_{Design\ Limit}$ (W/kg)	P_{Limit} (dBm)	P_{Max} (dBm)	$SAR_{Design\ Limit}$ (W/kg)	P_{Limit} (dBm)	P_{Max} (dBm)	$SAR_{Design\ Limit}$ (W/kg)	P_{Limit} (dBm)	P_{Max} (dBm)	$SAR_{Design\ Limit}$ (W/kg)
ANT 1	Wi-Fi 2.4 GHz	802.11b	20	22.5	21.0	1.190	22.5	21.0	1.190	22.5	21.0	0.600	18.7	21.0	0.500	17.8	21.0	0.400	16.5	21.0	0.300
ANT 1	Bluetooth 2.4 GHz	BDR	1	23.5	20.0	1.190	23.5	20.0	1.190	23.5	20.0	0.600	19.7	20.0	0.500	18.8	20.0	0.400	17.5	20.0	0.300
ANT 1	Bluetooth 2.4 GHz	EDR2	1	23.5	13.5	1.190	23.5	13.5	1.190	23.5	13.5	0.600	19.7	13.5	0.500	18.8	13.5	0.400	17.5	13.5	0.300
ANT 1	Bluetooth 2.4 GHz	EDR3	1	23.5	13.5	1.190	23.5	13.5	1.190	23.5	13.5	0.600	19.7	13.5	0.500	18.8	13.5	0.400	17.5	13.5	0.300
ANT 1	Bluetooth 2.4 GHz	LE Adv	1	23.5	20.5	1.190	23.5	20.5	1.190	23.5	20.5	0.600	19.7	20.5	0.500	18.8	20.5	0.400	17.5	20.5	0.300
ANT 1	Bluetooth 2.4 GHz	LE 1M	1	23.5	20.5	1.190	23.5	20.5	1.190	23.5	20.5	0.600	19.7	20.5	0.500	18.8	20.5	0.400	17.5	20.5	0.300
ANT 1	Bluetooth 2.4 GHz	LE 2M	2	23.5	20.5	1.190	23.5	20.5	1.190	23.5	20.5	0.600	19.7	20.5	0.500	18.8	20.5	0.400	17.5	20.5	0.300
ANT 1	Bluetooth 2.4 GHz	LELR 2	1	23.5	0.0	1.190	23.5	0.0	1.190	23.5	0.0	0.600	19.7	0.0	0.500	18.8	0.0	0.400	17.5	0.0	0.300
ANT 1	Bluetooth 2.4 GHz	LELR 8	1	23.5	0.0	1.190	23.5	0.0	1.190	23.5	0.0	0.600	19.7	0.0	0.500	18.8	0.0	0.400	17.5	0.0	0.300
ANT 1	Bluetooth 2.4 GHz	HDR 4	2	23.5	13.5	1.190	23.5	13.5	1.190	23.5	13.5	0.600	19.7	13.5	0.500	18.8	13.5	0.400	17.5	13.5	0.300
ANT 1	Bluetooth 2.4 GHz	HDR 8	4	23.5	13.5	1.190	23.5	13.5	1.190	23.5	13.5	0.600	19.7	13.5	0.500	18.8	13.5	0.400	17.5	13.5	0.300
ANT 1	Bluetooth 2.4 GHz	HDRPS 2	2	23.5	13.5	1.190	23.5	13.5	1.190	23.5	13.5	0.600	19.7	13.5	0.500	18.8	13.5	0.400	17.5	13.5	0.300
ANT 1	Bluetooth 2.4 GHz	HDRPM 4	4	23.5	13.5	1.190	23.5	13.5	1.190	23.5	13.5	0.600	19.7	13.5	0.500	18.8	13.5	0.400	17.5	13.5	0.300
ANT 1	Bluetooth 2.4 GHz	HDRPM 6	4	23.5	13.5	1.190	23.5	13.5	1.190	23.5	13.5	0.600	19.7	13.5	0.500	18.8	13.5	0.400	17.5	13.5	0.300
ANT 1	Bluetooth 2.4 GHz	HDRPM 8	4	23.5	13.5	1.190	23.5	13.5	1.190	23.5	13.5	0.600	19.7	13.5	0.500	18.8	13.5	0.400	17.5	13.5	0.300
ANT 1	Bluetooth 2.4 GHz	HDRPM 12	4	23.5	11.5	1.190	23.5	11.5	1.190	23.5	11.5	0.600	19.7	11.5	0.500	18.8	11.5	0.400	17.5	11.5	0.300
ANT 1	Bluetooth 2.4 GHz	HDRPM 16	4	23.5	11.5	1.190	23.5	11.5	1.190	23.5	11.5	0.600	19.7	11.5	0.500	18.8	11.5	0.400	17.5	11.5	0.300
ANT 1	Bluetooth 2.4 GHz	XHDRPS 2	2	23.5	13.5	1.190	23.5	13.5	1.190	23.5	13.5	0.600	19.7	13.5	0.500	18.8	13.5	0.400	17.5	13.5	0.300
ANT 1	Bluetooth 2.4 GHz	XHDRPM 4	4	23.5	13.5	1.190	23.5	13.5	1.190	23.5	13.5	0.600	19.7	13.5	0.500	18.8	13.5	0.400	17.5	13.5	0.300
ANT 1	Bluetooth 2.4 GHz	XHDRPM 6	4	23.5	13.5	1.190	23.5	13.5	1.190	23.5	13.5	0.600	19.7	13.5	0.500	18.8	13.5	0.400	17.5	13.5	0.300
ANT 1	Bluetooth 2.4 GHz	XHDRPM 8	4	23.5	13.5	1.190	23.5	13.5	1.190	23.5	13.5	0.600	19.7	13.5	0.500	18.8	13.5	0.400	17.5	13.5	0.300
ANT 1	Bluetooth 2.4 GHz	XHDRPM 12	4	23.5	11.5	1.190	23.5	11.5	1.190	23.5	11.5	0.600	19.7	11.5	0.500	18.8	11.5	0.400	17.5	11.5	0.300
ANT 1	Bluetooth 2.4 GHz	XHDRPM 16	4	23.5	11.5	1.190	23.5	11.5	1.190	23.5	11.5	0.600	19.7	11.5	0.500	18.8	11.5	0.400	17.5	11.5	0.300
ANT 1	Bluetooth 2.4 GHz	HDT 2	2	23.5	13.5	1.190	23.5	13.5	1.190	23.5	13.5	0.600	19.7	13.5	0.500	18.8	13.5	0.400	17.5	13.5	0.300
ANT 1	Bluetooth 2.4 GHz	HDT 3	2	23.5	13.5	1.190	23.5	13.5	1.190	23.5	13.5	0.600	19.7	13.5	0.500	18.8	13.5	0.400	17.5	13.5	0.300
ANT 1	Bluetooth 2.4 GHz	HDT 4	2	23.5	13.5	1.190	23.5	13.5	1.190	23.5	13.5	0.600	19.7	13.5	0.500	18.8	13.5	0.400	17.5	13.5	0.300
ANT 1	Bluetooth 2.4 GHz	HDT 6	2	23.5	11.5	1.190	23.5	11.5	1.190	23.5	11.5	0.600	19.7	11.5	0.500	18.8	11.5	0.400	17.5	11.5	0.300
ANT 1	Bluetooth 2.4 GHz	HDT 7.5/8	2	23.5	11.5	1.190	23.5	11.5	1.190	23.5	11.5	0.600	19.7	11.5	0.500	18.8	11.5	0.400	17.5	11.5	0.300
ANT 1	Bluetooth 2.4 GHz	BTCSM LE 1M	2	23.5	11.0	1.190	23.5	11.0	1.190	23.5	11.0	0.600	19.7	11.0	0.500	18.8	11.0	0.400	17.5	11.0	0.300
ANT 1	Bluetooth 2.4 GHz	BTCSM LE 2M	2	23.5	11.0	1.190	23.5	11.0	1.190	23.5	11.0	0.600	19.7	11.0	0.500	18.8	11.0	0.400	17.5	11.0	0.300
ANT 1	Bluetooth 2.4 GHz	BTCSM 2	2	23.5	11.0	1.190	23.5	11.0	1.190	23.5	11.0	0.600	19.7	11.0	0.500	18.8	11.0	0.400	17.5	11.0	0.300
ANT 1	802.15.4	N/A	2	20.0	20.0	1.190	20.0	20.0	1.190	23.5	20.0	0.600	16.2	20.0	0.500	15.3	20.0	0.400	14.0	20.0	0.300
ANT 2	Wi-Fi 2.4 GHz	802.11b	20	21.8	21.0	1.190	21.8	21.0	1.190	21.8	21.0	0.600	18.0	21.0	0.500	17.0	21.0	0.400	15.8	21.0	0.300
ANT 2	Bluetooth 2.4 GHz	BDR	1	20.0	20.0	1.190	20.0	20.0	1.190	20.0	20.0	0.600	16.2	20.0	0.500	15.3	20.0	0.400	14.0	20.0	0.300
ANT 2	Bluetooth 2.4 GHz	EDR2	1	20.0	13.0	1.190	20.0	13.0	1.190	20.0	13.0	0.600	16.2	13.0	0.500	15.3	13.0	0.400	14.0	13.0	0.300
ANT 2	Bluetooth 2.4 GHz	EDR3	1	20.0	13.0	1.190	20.0	13.0	1.190	20.0	13.0	0.600	16.2	13.0	0.500	15.3	13.0	0.400	14.0	13.0	0.300
ANT 2	Bluetooth 2.4 GHz	LE Adv	1	20.0	20.0	1.190	20.0	20.0	1.190	20.0	20.0	0.600	16.2	20.0	0.500	15.3	20.0	0.400	14.0	20.0	0.300
ANT 2	Bluetooth 2.4 GHz	LE 1M	1	20.0	20.0	1.190	20.0	20.0	1.190	20.0	20.0	0.600	16.2	20.0	0.500	15.3	20.0	0.400	14.0	20.0	0.300
ANT 2	Bluetooth 2.4 GHz	LE 2M	2	20.0	20.0	1.190	20.0	20.0	1.190	20.0	20.0	0.600	16.2	20.0	0.500	15.3	20.0	0.400	14.0	20.0	0.300
ANT 2	Bluetooth 2.4 GHz	LELR 2	1	20.0	0.0	1.190	20.0	0.0	1.190	20.0	0.0	0.600	16.2	0.0	0.500	15.3	0.0	0.400	14.0	0.0	0.300
ANT 2	Bluetooth 2.4 GHz	LELR 8	1	20.0	0.0	1.190	20.0	0.0	1.190	20.0	0.0	0.600	16.2	0.0	0.500	15.3	0.0	0.400	14.0	0.0	0.300
ANT 2	Bluetooth 2.4 GHz	HDR 4	2	20.0	13.0	1.190	20.0	13.0	1.190	20.0	13.0	0.600	16.2	13.0	0.500	15.3	13.0	0.400	14.0	13.0	0.300
ANT 2	Bluetooth 2.4 GHz	HDR 8	4	20.0	13.0	1.190	20.0	13.0	1.190	20.0	13.0	0.600	16.2	13.0	0.500	15.3	13.0	0.400	14.0	13.0	0.300
ANT 2	Bluetooth 2.4 GHz	HDRPS 2	2	20.0	13.0	1.190	20.0	13.0	1.190	20.0	13.0	0.600	16.2	13.0	0.500	15.3	13.0	0.400	14.0	13.0	0.300
ANT 2	Bluetooth 2.4 GHz	HDRPM 4	4	20.0	13.0	1.190	20.0	13.0	1.190	20.0	13.0	0.600	16.2	13.0	0.500	15.3	13.0	0.400	14.0	13.0	0.300
ANT 2	Bluetooth 2.4 GHz	HDRPM 6	4	20.0	13.0	1.190	20.0	13.0	1.190	20.0	13.0	0.600	16.2	13.0	0.500	15.3	13.0	0.400	14.0	13.0	0.300
ANT 2	Bluetooth 2.4 GHz	HDRPM 8	4	20.0	13.0	1.190	20.0	13.0	1.190	20.0	13.0	0.600	16.2	13.0	0.500	15.3	13.0	0.400	14.0	13.0	0.300
ANT 2	Bluetooth 2.4 GHz	HDRPM 12	4	20.0	11.0	1.190	20.0	11.0	1.190	20.0	11.0	0.600	16.2	11.0	0.500	15.3	11.0	0.400	14.0	11.0	0.300
ANT 2	Bluetooth 2.4 GHz	HDRPM 16	4	20.0	11.0	1.190	20.0	11.0	1.190	20.0	11.0	0.600	16.2	11.0	0.500	15.3	11.0	0.400	14.0	11.0	0.300
ANT 2	Bluetooth 2.4 GHz	XHDRPS 2	2	20.0	13.0	1.190	20.0	13.0	1.190	20.0	13.0	0.600	16.2	13.0	0.500	15.3	13.0	0.400	14.0	13.0	0.300
ANT 2	Bluetooth 2.4 GHz	XHDRPM 4	4	20.0	13.0	1.190	20.0	13.0	1.190	20.0	13.0	0.600	16.2	13.0	0.500	15.3	13.0	0.400	14.0	13.0	0.300
ANT 2	Bluetooth 2.4 GHz	XHDRPM 6	4	20.0	13.0	1.190	20.0	13.0	1.190	20.0	13.0	0.600	16.2	13.0	0.500	15.3	13.0	0.400	14.0	13.0	0.300
ANT 2	Bluetooth 2.4 GHz	XHDRPM 8	4	20.0	13.0	1.190	20.0	13.0	1.190	20.0	13.0	0.600	16.2	13.0	0.500	15.3	13.0	0.400	14.0	13.0	0.300
ANT 2	Bluetooth 2.4 GHz	XHDRPM 12	4	20.0	11.0	1.190	20.0	11.0	1.190	20.0	11.0	0.600	16.2	11.0	0.500	15.3	11.0	0.400	14.0	11.0	0.300
ANT 2	Bluetooth 2.4 GHz	XHDRPM 16	4	20.0	11.0	1.190	20.0	11.0	1.190	20.0	11.0	0.600	16.2	11.0	0.500	15.3	11.0	0.400	14.0	11.0	0.300
ANT 2	Bluetooth 2.4 GHz	HDT 2	2	20.0	13.0	1.190	20.0	13.0	1.190	20.0	13.0	0.600	16.2	13.0	0.500	15.3	13.0	0.400	14.0	13.0	0.300
ANT 2	Bluetooth 2.4 GHz	HDT 3	2	20.0	13.0	1.190	20.0	13.0	1.190	20.0	13.0	0.600	16.2	13.0	0.500	15.3	13.0	0.400	14.0	13.0	0.300
ANT 2	Bluetooth 2.4 GHz	HDT 4	2	20.0	13.0	1.190	20.0	13.0	1.190	20.0	13.0	0.600	16.2	13.0	0.500	15.3	13.0	0.400	14.0	13.0	0.300
ANT 2	Bluetooth 2.4 GHz	HDT 6	2	20.0	11.0	1.190	20.0	11.0	1.190	20.0	11.0	0.600	16.2	11.0	0.500	15.3	11.0	0.400	14.0	11.0	0.300
ANT 2	Bluetooth 2.4 GHz	HDT 7.5/8	2	20.0	11.0	1.190	20.0	11.0	1.190	20.0	11.0	0.600	16.2	11.0	0.500	15.3	11.0	0.400	14.0	11.0	0.300
ANT 2	Bluetooth 2.4 GHz	BTCSM LE 1M	2	20.0	11.0	1.190	20.0	11.0	1.190	20.0	11.0	0.600	16.2	11.0	0.500	15.3	11.0	0.400	14.0	11.0	0.300
ANT 2	Bluetooth 2.4 GHz	BTCSM LE 2M	2	20.0	11.0	1.190	20.0	11.0	1.190	20.0	11.0	0.600	16.2	11.0	0.500	15.3	11.0	0.400	14.0	11.0	0.300
ANT 2	Bluetooth 2.4 GHz	BTCSM 2	2	20.0	11.0	1.190	20.0	11.0	1.190	20.0	11.0	0.600	16.2	11.0	0.500	15.3	11.0	0.400	14.0	11.0	0.300
ANT 2	802.15.4	N/A	2	20.0	20.0	1.190	20.0	20.0	1.190	20.0	20.0	0.600	16.2	20.0	0.500	15.3	20.0	0.400	14.0	20.0	0.300
ANT 5	Wi-Fi 5 GHz	802.11a	20	16.5	19.5	1.190	16.5	19.5	1.190	16.5	19.5	0.600	12.7	19.5	0.500	11.8	19.5	0.400	10.5	19.5	0.300
ANT 5	Wi-Fi 5 GHz	802.11n HT20	20	16.5	19.5	1.190	16.5	19.5	1.190	16.5	19.5	0.600	12.7	19.5	0.500	11.8	19.5	0.400	10.5	19.5	0.300
ANT 5	Wi-Fi 5 GHz	802.11n HT40	40	16.5	19.5	1.190	16.5	19.5	1.190	16.5	19.5	0.600	12.7	19.5	0.500	11.8	19.5	0.400	10.5	19.5	0.300
ANT 5	Wi-Fi 5 GHz	802.11ac VHT80	80	16.5	19.5	1.190	16.5	19.5	1.190	16.5	19.5	0.600	12.7	19.5	0.500	11.8	19.5	0.400	10.5	19.5	0.300
ANT 5	Wi-Fi 5 GHz	802.11ac VHT160	160	16.5	15.7	1.190	16.5	15.7	1.190	16.5	15.7	0.600	12.7	15.7	0.500	11.8	15.7	0.400	10.5	15.7	0.300
ANT 5	Wi-Fi 5 GHz	802.11ax HE20	20	16.5	19.5	1.190	16.5	19.5	1.190	16.5	19.5	0.600	12.7	19.5	0.500	11.8	19.5	0.400	10.5	19.5	0.300
ANT 5	Wi-Fi 5 GHz	802.11ax HE40	40	16.5	19.5	1.190	16.5	19.5	1.190	16.5	19.5	0.600	12.7	19.5	0.500	11.8	19.5	0.400	10.5	19.5	0.300
ANT 5	Wi-Fi 5 GHz	802.11ax HE80	80	16.5	19.5	1.190	16.5	19.5	1.190	16.5	19.5	0.600	12.7	19.5	0.500	11.8	19.5	0.400	10.5	19.5	0.300
ANT 5	Wi-Fi 5 GHz	802.11ax HE160	160	16.5	15.5	1.190	16.5	15.5	1.190	16.5	15.5	0.600	12.7	15.5	0.500	11.8	15.5	0.400	10.5	15.5	0.300
ANT 5	Wi-Fi 5 GHz	802.11be EHT20	20	16.5	19.0	1.190	16.5	19.0	1.190	16.5	19.0	0.600	12.7	19.0	0.500	11.8	19.0	0.400	10.5	19.0	0.300
ANT 5	Wi-Fi 5 GHz	802.11be EHT40	40	16.5	19.0	1.190	16.5	19.0	1.190	16.5	19.0	0.600	12.7	19.0	0.500	11.8	19.0	0.400	10.5	19.0	0.300
ANT 5	Wi-Fi 5 GHz	802.11be EHT80	80	16.5	19.5	1.190	16.5	19.5	1.190	16.5	19.5	0.600	12.7	19.5	0.500	11.8	19.5	0.400	10.5	19.5	0.300
ANT 5	Wi-Fi 5 GHz	802.11be EHT160	160	16.5	13.5	1.190	16.5	13.5	1.190	16.5	13.5	0.600	12.7	13.5	0.500	11.8	13.5	0.400	10.5	13.5	0.300
ANT 5	Wi-Fi 6 GHz	802.11a	20	13.3	19.0	1.190	12.8	19.0	1.190	12.8	19.0	0.600	9.5	19.0	0.500	8.5	19.0	0.400	7.3	19.0	0.300
ANT 5	Wi-Fi 6 GHz	802.11ax HE20	20	13.3	19.0	1.190	12.8	19.0	1.190	12.8	19.0	0.600	9.5	19.0	0.500	8.5	19.0	0.400	7.3	19.0	0.300
ANT 5	Wi-Fi 6 GHz	802.11ax HE40	40	13.3	19.0	1.190	12.8	19.0	1.190	12.8	19.0	0.600	9.5	19.0	0.500	8.5	19.0	0.400	7.3	19.0	0.300
ANT 5	Wi-Fi 6 GHz	802.11ax HE80	80	13.3	19.0	1.190	12.8	19.0	1.190	12.8	19.0	0.600	9.5	19.0	0.500	8.5	19.0	0.400	7.3	19.0	0.300
ANT 5	Wi-Fi 6 GHz	802.11ax HE160	160	13.3	18.5	1.190	12.8	18.5	1.190	12.8	18.5	0.600	9.5	18.5	0.500	8.5	18.5	0.400	7.3	18.5	0.300
ANT 5	Wi-Fi 6 GHz	802.11be EHT20	20	13.3	19.0	1.190	12.8	19.0	1.190	12.8	19.0	0.600	9.5	19.0	0.500	8.5	19.0	0.400	7.3	19.0	0.300
ANT 5	Wi-Fi 6 GHz	802.11be EHT40	40	13.3	19.0	1.190	12.8	19.0	1.190	12.8	19.0	0.600	9.5	19.0	0.500	8.5	19.0	0.400	7.3	19.0	0.300
ANT 5	Wi-Fi 6 GHz	802.11be EHT80	80	13.3	19.0	1.190	12.8	19.0	1.190	12.8	19.0	0.600	9.5	19.0	0.500	8.5	19.0	0.400	7.3	19.0	0.300
ANT 5	Wi-Fi 6 GHz	802.11be EHT160	160	13.3	18.5	1.190	12.8	18.5	1.190	12.8	18.5	0.600	9.5	18.5	0.500	8.5	18.5	0.400	7.3	18.5	0.300

ANT 5	Bluetooth NB U-NII 1	BDR	1	19.3	10.0	1.190	19.3	10.0	1.190	19.3	10.0	0.600	15.5	10.0	0.500	14.5	10.0	0.400	13.3	10.0	0.300
ANT 5	Bluetooth NB U-NII 1	LE Adv	1	19.3	10.3	1.190	19.3	10.3	1.190	19.3	10.3	0.600	15.5	10.3	0.500	14.5	10.3	0.400	13.3	10.3	0.300
ANT 5	Bluetooth NB U-NII 1	LE 1M	1	19.3	10.3	1.190	19.3	10.3	1.190	19.3	10.3	0.600	15.5	10.3	0.500	14.5	10.3	0.400	13.3	10.3	0.300
ANT 5	Bluetooth NB U-NII 1	LE 2M	2	19.3	11.0	1.190	19.3	11.0	1.190	19.3	11.0	0.600	15.5	11.0	0.500	14.5	11.0	0.400	13.3	11.0	0.300
ANT 5	Bluetooth NB U-NII 1	HDR 4	2	19.3	12.3	1.190	19.3	12.3	1.190	19.3	12.3	0.600	15.5	12.3	0.500	14.5	12.3	0.400	13.3	12.3	0.300
ANT 5	Bluetooth NB U-NII 1	HDR 8	4	19.3	14.0	1.190	19.3	14.0	1.190	19.3	14.0	0.600	15.5	14.0	0.500	14.5	14.0	0.400	13.3	14.0	0.300
ANT 5	Bluetooth NB U-NII 1	HDRPS 2	2	19.3	12.3	1.190	19.3	12.3	1.190	19.3	12.3	0.600	15.5	12.3	0.500	14.5	12.3	0.400	13.3	12.3	0.300
ANT 5	Bluetooth NB U-NII 1	HDRPM 4	4	19.3	14.0	1.190	19.3	14.0	1.190	19.3	14.0	0.600	15.5	14.0	0.500	14.5	14.0	0.400	13.3	14.0	0.300
ANT 5	Bluetooth NB U-NII 1	HDRPM 6	4	19.3	14.0	1.190	19.3	14.0	1.190	19.3	14.0	0.600	15.5	14.0	0.500	14.5	14.0	0.400	13.3	14.0	0.300
ANT 5	Bluetooth NB U-NII 1	HDRPM 8	4	19.3	14.0	1.190	19.3	14.0	1.190	19.3	14.0	0.600	15.5	14.0	0.500	14.5	14.0	0.400	13.3	14.0	0.300
ANT 5	Bluetooth NB U-NII 1	HDRPM 12	4	19.3	12.0	1.190	19.3	12.0	1.190	19.3	12.0	0.600	15.5	12.0	0.500	14.5	12.0	0.400	13.3	12.0	0.300
ANT 5	Bluetooth NB U-NII 1	HDRPM 16	4	19.3	12.0	1.190	19.3	12.0	1.190	19.3	12.0	0.600	15.5	12.0	0.500	14.5	12.0	0.400	13.3	12.0	0.300
ANT 5	Bluetooth NB U-NII 1	HDRPL 8	8	19.3	14.0	1.190	19.3	14.0	1.190	19.3	14.0	0.600	15.5	14.0	0.500	14.5	14.0	0.400	13.3	14.0	0.300
ANT 5	Bluetooth NB U-NII 1	HDRPL 12	8	19.3	14.0	1.190	19.3	14.0	1.190	19.3	14.0	0.600	15.5	14.0	0.500	14.5	14.0	0.400	13.3	14.0	0.300
ANT 5	Bluetooth NB U-NII 1	HDRPL 16	8	19.3	14.0	1.190	19.3	14.0	1.190	19.3	14.0	0.600	15.5	14.0	0.500	14.5	14.0	0.400	13.3	14.0	0.300
ANT 5	Bluetooth NB U-NII 1	HDRPL 24	8	19.3	12.0	1.190	19.3	12.0	1.190	19.3	12.0	0.600	15.5	12.0	0.500	14.5	12.0	0.400	13.3	12.0	0.300
ANT 5	Bluetooth NB U-NII 1	HDRPL 32	8	19.3	12.0	1.190	19.3	12.0	1.190	19.3	12.0	0.600	15.5	12.0	0.500	14.5	12.0	0.400	13.3	12.0	0.300
ANT 5	Bluetooth NB U-NII 1	XHDRPS 2	2	19.3	12.3	1.190	19.3	12.3	1.190	19.3	12.3	0.600	15.5	12.3	0.500	14.5	12.3	0.400	13.3	12.3	0.300
ANT 5	Bluetooth NB U-NII 1	XHDRPM 4	4	19.3	14.0	1.190	19.3	14.0	1.190	19.3	14.0	0.600	15.5	14.0	0.500	14.5	14.0	0.400	13.3	14.0	0.300
ANT 5	Bluetooth NB U-NII 1	XHDRPM 6	4	19.3	14.0	1.190	19.3	14.0	1.190	19.3	14.0	0.600	15.5	14.0	0.500	14.5	14.0	0.400	13.3	14.0	0.300
ANT 5	Bluetooth NB U-NII 1	XHDRPM 8	4	19.3	14.0	1.190	19.3	14.0	1.190	19.3	14.0	0.600	15.5	14.0	0.500	14.5	14.0	0.400	13.3	14.0	0.300
ANT 5	Bluetooth NB U-NII 1	XHDRPM 12	4	19.3	12.0	1.190	19.3	12.0	1.190	19.3	12.0	0.600	15.5	12.0	0.500	14.5	12.0	0.400	13.3	12.0	0.300
ANT 5	Bluetooth NB U-NII 1	XHDRPM 16	4	19.3	12.0	1.190	19.3	12.0	1.190	19.3	12.0	0.600	15.5	12.0	0.500	14.5	12.0	0.400	13.3	12.0	0.300
ANT 5	Bluetooth NB U-NII 1	XHDRPL 8	8	19.3	14.0	1.190	19.3	14.0	1.190	19.3	14.0	0.600	15.5	14.0	0.500	14.5	14.0	0.400	13.3	14.0	0.300
ANT 5	Bluetooth NB U-NII 1	XHDRPL 12	8	19.3	14.0	1.190	19.3	14.0	1.190	19.3	14.0	0.600	15.5	14.0	0.500	14.5	14.0	0.400	13.3	14.0	0.300
ANT 5	Bluetooth NB U-NII 1	XHDRPL 16	8	19.3	14.0	1.190	19.3	14.0	1.190	19.3	14.0	0.600	15.5	14.0	0.500	14.5	14.0	0.400	13.3	14.0	0.300
ANT 5	Bluetooth NB U-NII 1	XHDRPL 24	8	19.3	12.0	1.190	19.3	12.0	1.190	19.3	12.0	0.600	15.5	12.0	0.500	14.5	12.0	0.400	13.3	12.0	0.300
ANT 5	Bluetooth NB U-NII 1	XHDRPL 32	8	19.3	12.0	1.190	19.3	12.0	1.190	19.3	12.0	0.600	15.5	12.0	0.500	14.5	12.0	0.400	13.3	12.0	0.300
ANT 5	Bluetooth NB U-NII 3	BDR	1	15.8	19.0	1.190	15.8	19.0	1.190	15.8	19.0	0.600	12.0	19.0	0.500	11.0	19.0	0.400	9.8	19.0	0.300
ANT 5	Bluetooth NB U-NII 3	LE Adv	1	15.8	19.0	1.190	15.8	19.0	1.190	15.8	19.0	0.600	12.0	19.0	0.500	11.0	19.0	0.400	9.8	19.0	0.300
ANT 5	Bluetooth NB U-NII 3	LE 1M	1	15.8	19.0	1.190	15.8	19.0	1.190	15.8	19.0	0.600	12.0	19.0	0.500	11.0	19.0	0.400	9.8	19.0	0.300
ANT 5	Bluetooth NB U-NII 3	LE 2M	2	15.8	19.0	1.190	15.8	19.0	1.190	15.8	19.0	0.600	12.0	19.0	0.500	11.0	19.0	0.400	9.8	19.0	0.300
ANT 5	Bluetooth NB U-NII 3	HDR 4	2	15.8	14.0	1.190	15.8	14.0	1.190	15.8	14.0	0.600	12.0	14.0	0.500	11.0	14.0	0.400	9.8	14.0	0.300
ANT 5	Bluetooth NB U-NII 3	HDR 8	4	15.8	14.0	1.190	15.8	14.0	1.190	15.8	14.0	0.600	12.0	14.0	0.500	11.0	14.0	0.400	9.8	14.0	0.300
ANT 5	Bluetooth NB U-NII 3	HDRPS 2	2	15.8	14.0	1.190	15.8	14.0	1.190	15.8	14.0	0.600	12.0	14.0	0.500	11.0	14.0	0.400	9.8	14.0	0.300
ANT 5	Bluetooth NB U-NII 3	HDRPM 4	4	15.8	14.0	1.190	15.8	14.0	1.190	15.8	14.0	0.600	12.0	14.0	0.500	11.0	14.0	0.400	9.8	14.0	0.300
ANT 5	Bluetooth NB U-NII 3	HDRPM 6	4	15.8	14.0	1.190	15.8	14.0	1.190	15.8	14.0	0.600	12.0	14.0	0.500	11.0	14.0	0.400	9.8	14.0	0.300
ANT 5	Bluetooth NB U-NII 3	HDRPM 8	4	15.8	14.0	1.190	15.8	14.0	1.190	15.8	14.0	0.600	12.0	14.0	0.500	11.0	14.0	0.400	9.8	14.0	0.300
ANT 5	Bluetooth NB U-NII 3	HDRPM 12	4	15.8	12.0	1.190	15.8	12.0	1.190	15.8	12.0	0.600	12.0	12.0	0.500	11.0	12.0	0.400	9.8	12.0	0.300
ANT 5	Bluetooth NB U-NII 3	HDRPM 16	4	15.8	12.0	1.190	15.8	12.0	1.190	15.8	12.0	0.600	12.0	12.0	0.500	11.0	12.0	0.400	9.8	12.0	0.300
ANT 5	Bluetooth NB U-NII 3	HDRPL 8	8	15.8	14.0	1.190	15.8	14.0	1.190	15.8	14.0	0.600	12.0	14.0	0.500	11.0	14.0	0.400	9.8	14.0	0.300
ANT 5	Bluetooth NB U-NII 3	HDRPL 12	8	15.8	14.0	1.190	15.8	14.0	1.190	15.8	14.0	0.600	12.0	14.0	0.500	11.0	14.0	0.400	9.8	14.0	0.300
ANT 5	Bluetooth NB U-NII 3	HDRPL 16	8	15.8	14.0	1.190	15.8	14.0	1.190	15.8	14.0	0.600	12.0	14.0	0.500	11.0	14.0	0.400	9.8	14.0	0.300
ANT 5	Bluetooth NB U-NII 3	HDRPL 24	8	15.8	12.0	1.190	15.8	12.0	1.190	15.8	12.0	0.600	12.0	12.0	0.500	11.0	12.0	0.400	9.8	12.0	0.300
ANT 5	Bluetooth NB U-NII 3	HDRPL 32	8	15.8	12.0	1.190	15.8	12.0	1.190	15.8	12.0	0.600	12.0	12.0	0.500	11.0	12.0	0.400	9.8	12.0	0.300
ANT 5	Bluetooth NB U-NII 3	XHDRPS 2	2	15.8	14.0	1.190	15.8	14.0	1.190	15.8	14.0	0.600	12.0	14.0	0.500	11.0	14.0	0.400	9.8	14.0	0.300
ANT 5	Bluetooth NB U-NII 3	XHDRPM 4	4	15.8	14.0	1.190	15.8	14.0	1.190	15.8	14.0	0.600	12.0	14.0	0.500	11.0	14.0	0.400	9.8	14.0	0.300
ANT 5	Bluetooth NB U-NII 3	XHDRPM 6	4	15.8	14.0	1.190	15.8	14.0	1.190	15.8	14.0	0.600	12.0	14.0	0.500	11.0	14.0	0.400	9.8	14.0	0.300
ANT 5	Bluetooth NB U-NII 3	XHDRPM 8	4	15.8	14.0	1.190	15.8	14.0	1.190	15.8	14.0	0.600	12.0	14.0	0.500	11.0	14.0	0.400	9.8	14.0	0.300
ANT 5	Bluetooth NB U-NII 3	XHDRPM 12	4	15.8	12.0	1.190	15.8	12.0	1.190	15.8	12.0	0.600	12.0	12.0	0.500	11.0	12.0	0.400	9.8	12.0	0.300
ANT 5	Bluetooth NB U-NII 3	XHDRPM 16	4	15.8	12.0	1.190	15.8	12.0	1.190	15.8	12.0	0.600	12.0	12.0	0.500	11.0	12.0	0.400	9.8	12.0	0.300
ANT 5	Bluetooth NB U-NII 3	XHDRPL 8	8	15.8	14.0	1.190	15.8	14.0	1.190	15.8	14.0	0.600	12.0	14.0	0.500	11.0	14.0	0.400	9.8	14.0	0.300
ANT 5	Bluetooth NB U-NII 3	XHDRPL 12	8	15.8	14.0	1.190	15.8	14.0	1.190	15.8	14.0	0.600	12.0	14.0	0.500	11.0	14.0	0.400	9.8	14.0	0.300
ANT 5	Bluetooth NB U-NII 3	XHDRPL 16	8	15.8	14.0	1.190	15.8	14.0	1.190	15.8	14.0	0.600	12.0	14.0	0.500	11.0	14.0	0.400	9.8	14.0	0.300
ANT 5	Bluetooth NB U-NII 3	XHDRPL 24	8	15.8	12.0	1.190	15.8	12.0	1.190	15.8	12.0	0.600	12.0	12.0	0.500	11.0	12.0	0.400	9.8	12.0	0.300
ANT 5	Bluetooth NB U-NII 3	XHDRPL 32	8	15.8	12.0	1.190	15.8	12.0	1.190	15.8	12.0	0.600	12.0	12.0	0.500	11.0	12.0	0.400	9.8	12.0	0.300
ANT 5	Bluetooth NB U-NII 5	BDR	1	12.0	-4.8	1.190	12.0	-4.8	1.190	12.0	-4.8	0.600	8.2	-4.8	0.500	7.3	-4.8	0.400	6.0	-4.8	0.300
ANT 5	Bluetooth NB U-NII 5	LE Adv	1	12.0	-4.3	1.190	12.0	-4.3	1.190	12.0	-4.3	0.600	8.2	-4.3	0.500	7.3	-4.3	0.400	6.0	-4.3	0.300
ANT 5	Bluetooth NB U-NII 5	LE 1M	1	12.0	-4.3	1.190	12.0	-4.3	1.190	12.0	-4.3	0.600	8.2	-4.3	0.500	7.3	-4.3	0.400	6.0	-4.3	0.300
ANT 5	Bluetooth NB U-NII 5	LE 2M	2	12.0	-3.5	1.190	12.0	-3.5	1.190	12.0	-3.5	0.600	8.2	-3.5	0.500	7.3	-3.5	0.400	6.0	-3.5	0.300
ANT 5	Bluetooth NB U-NII 5	HDR 4	2	12.0	-2.5	1.190	12.0	-2.5	1.190	12.0	-2.5	0.600	8.2	-2.5	0.500	7.3	-2.5	0.400	6.0	-2.5	0.300
ANT 5	Bluetooth NB U-NII 5	HDR 8	4	12.0	-0.5	1.190	12.0	-0.5	1.190	12.0	-0.5	0.600	8.2	-0.5	0.500	7.3	-0.5	0.400	6.0	-0.5	0.300
ANT 5	Bluetooth NB U-NII 5	HDRPS 2	2	12.0	-2.5	1.190	12.0	-2.5	1.190	12.0	-2.5	0.600	8.2	-2.5	0.500	7.3	-2.5	0.400	6.0	-2.5	0.300
ANT 5	Bluetooth NB U-NII 5	HDRPM 4	4	12.0	0.5	1.190	12.0	0.5	1.190	12.0	0.5	0.600	8.2	0.5	0.500	7.3	0.5	0.400	6.0	0.5	0.300
ANT 5	Bluetooth NB U-NII 5	HDRPM 6	4	12.0	0.5	1.190	12.0	0.5	1.190	12.0	0.5	0.600	8.2	0.5	0.500	7.3	0.5	0.400	6.0	0.5	0.300
ANT 5	Bluetooth NB U-NII 5	HDRPM 8	4	12.0	0.5	1.190	12.0	0.5	1.190	12.0	0.5	0.600	8.2	0.5	0.500	7.3	0.5	0.400	6.0	0.5	0.300
ANT 5	Bluetooth NB U-NII 5	HDRPM 12	4	12.0	0.5	1.190	12.0	0.5	1.190	12.0	0.5	0.600	8.2	0.5	0.500	7.3	0.5	0.400	6.0	0.5	0.300
ANT 5	Bluetooth NB U-NII 5	HDRPM 16	4	12.0	0.5	1.190	12.0	0.5	1.190	12.0	0.5	0.600	8.2	0.5	0.500	7.3	0.5	0.400	6.0	0.5	0.300
ANT 5	Bluetooth NB U-NII 5	HDRPL 8	8	12.0	3.5	1.190	12.0	3.5	1.190	12.0	3.5	0.600	8.2	3.5	0.500	7.3	3.5	0.400	6.0	3.5	0.300
ANT 5	Bluetooth NB U-NII 5	HDRPL 12	8	12.0	3.5	1.190	12.0	3.5	1.190	12.0	3.5	0.600	8.2	3.5	0.500	7.3	3.5	0.400	6.0	3.5	0.300
ANT 5	Bluetooth NB U-NII 5	HDRPL 16	8	12.0	3.5	1.190	12.0	3.5	1.190	12.0	3.5	0.600	8.2	3.5	0.500	7.3	3.5	0.400	6.0	3.5	0.300
ANT 5	Bluetooth NB U-NII 5	HDRPL 24	8	12.0	3.3	1.190	12.0	3.3	1.190	12.0	3.3	0.600	8.2	3.3	0.500	7.3	3.3	0.400	6.0	3.3	0.300
ANT 5	Bluetooth NB U-NII 5	HDRPL 32	8	12.0	3.3	1.190	12.0	3.3	1.190	12.0	3.3	0.600	8.2	3.3	0.500	7.3	3.3	0.400	6.0	3.3	0.300
ANT 5	Bluetooth NB U-NII 5	XHDRPS 2	2	12.0	-2.5	1.190	12.0	-2.5	1.190	12.0	-2.5	0.600	8.2	-2.5	0.500	7.3	-2.5	0.400	6.0	-2.5	0.300
ANT 5	Bluetooth NB U-NII 5	XHDRPM 4	4	12.0	0.5	1.190	12.0	0.5	1.190	12.0	0.5	0.600	8.2	0.5	0.500	7.3	0.5	0.400	6.0	0.5	0.300
ANT 5	Bluetooth NB U-NII 5	XHDRPM 6	4	12.0	0.5	1.190	12.0	0.5	1.190	12.0	0.5	0.600	8.2	0.5	0.500	7.3	0.5	0.400	6.0	0.5	0.300
ANT 5	Bluetooth NB U-NII 5	XHDRPM 8	4	12.0	0.5	1.190	12.0	0.5	1.190	12.0	0.5	0.600	8.2	0.5	0.500	7.3	0.5	0.400	6.0	0.5	0.300
ANT 5	Bluetooth NB U-NII 5	XHDRPM 12	4	12.0	0.5	1.190	12.0	0.5	1.190	12.0	0.5	0.600	8.2	0.5	0.500	7.3	0.5	0.400	6.0	0.5	0.300
ANT 5	Bluetooth NB U-NII 5	XHDRPM 16	4	12.0	0.5	1.190	12.0	0.5	1.190	12.0	0.5	0.600	8.2	0.5	0.500	7.3	0.5	0.400	6.0	0.5	0.300
ANT 5	Bluetooth NB U-NII 5	XHDRPL 8	8	12.0	3.5	1.190	12.0	3.5	1.190	12.0	3.5	0.600	8.2	3.5	0.500	7.3	3.5	0.400	6.0	3.5	0.300
ANT 5	Bluetooth NB U-NII 5	XHDRPL 12	8	12.0	3.5	1.190	12.0	3.5	1.190	12.0	3.5	0.600	8.2	3.5	0.500	7.3	3.5	0.400	6.0	3.5	0.300
ANT 5	Bluetooth NB U-NII 5	XHDRPL 16	8	12.0	3.5	1.190	12.0	3.5	1.190	12.0	3.5	0.600	8.2	3.5	0.500	7.3	3.5	0.400	6.0	3.5	0.300
ANT 5	Bluetooth NB U-NII 5	XHDRPL 24	8	12.0	3.3	1.190	12.0	3.3	1.190	12.0	3.3	0.600	8.2	3.3	0.500	7.3	3.3	0.400	6.0	3.3	0.300
ANT 5	Bluetooth NB U-NII 5	XHDRPL 32	8	12.0	3.3	1.190	12.0	3.3	1.190	12.0	3.3	0.600	8.2	3.3	0.500	7.3	3.3	0.400	6.0	3.3	0.300

ANT 6	Wi-Fi 5 GHz	802.11a	20	12.5	19.5	1.190	12.5	19.5	1.190	12.5	19.5	0.600	8.7	19.5	0.500	7.8	19.5	0.400	6.5	19.5	0.300
ANT 6	Wi-Fi 5 GHz	802.11n HT20	20	12.5	19.5	1.190	12.5	19.5	1.190	12.5	19.5	0.600	8.7	19.5	0.500	7.8	19.5	0.400	6.5	19.5	0.300
ANT 6	Wi-Fi 5 GHz	802.11n HT40	40	12.5	19.5	1.190	12.5	19.5	1.190	12.5	19.5	0.600	8.7	19.5	0.500	7.8	19.5	0.400	6.5	19.5	0.300
ANT 6	Wi-Fi 5 GHz	802.11ac VHT80	80	12.5	19.5	1.190	12.5	19.5	1.190	12.5	19.5	0.600	8.7	19.5	0.500	7.8	19.5	0.400	6.5	19.5	0.300
ANT 6	Wi-Fi 5 GHz	802.11ac VHT160	160	12.5	15.0	1.190	12.5	15.0	1.190	12.5	15.0	0.600	8.7	15.0	0.500	7.8	15.0	0.400	6.5	15.0	0.300
ANT 6	Wi-Fi 5 GHz	802.11ax HE20	20	12.5	19.5	1.190	12.5	19.5	1.190	12.5	19.5	0.600	8.7	19.5	0.500	7.8	19.5	0.400	6.5	19.5	0.300
ANT 6	Wi-Fi 5 GHz	802.11ax HE40	40	12.5	19.5	1.190	12.5	19.5	1.190	12.5	19.5	0.600	8.7	19.5	0.500	7.8	19.5	0.400	6.5	19.5	0.300
ANT 6	Wi-Fi 5 GHz	802.11ax HE80	80	12.5	19.5	1.190	12.5	19.5	1.190	12.5	19.5	0.600	8.7	19.5	0.500	7.8	19.5	0.400	6.5	19.5	0.300
ANT 6	Wi-Fi 5 GHz	802.11ax HE160	160	12.5	14.7	1.190	12.5	14.7	1.190	12.5	14.7	0.600	8.7	14.7	0.500	7.8	14.7	0.400	6.5	14.7	0.300
ANT 6	Wi-Fi 5 GHz	802.11be EHT20	20	12.5	18.9	1.190	12.5	18.9	1.190	12.5	18.9	0.600	8.7	18.9	0.500	7.8	18.9	0.400	6.5	18.9	0.300
ANT 6	Wi-Fi 5 GHz	802.11be EHT40	40	12.5	18.8	1.190	12.5	18.8	1.190	12.5	18.8	0.600	8.7	18.8	0.500	7.8	18.8	0.400	6.5	18.8	0.300
ANT 6	Wi-Fi 5 GHz	802.11be EHT80	80	12.5	19.5	1.190	12.5	19.5	1.190	12.5	19.5	0.600	8.7	19.5	0.500	7.8	19.5	0.400	6.5	19.5	0.300
ANT 6	Wi-Fi 5 GHz	802.11be EHT160	160	12.5	12.5	1.190	12.5	12.5	1.190	12.5	12.5	0.600	8.7	12.5	0.500	7.8	12.5	0.400	6.5	12.5	0.300
ANT 6	Wi-Fi 6 GHz	802.11a	20	12.5	19.0	1.190	12.5	19.0	1.190	12.0	19.0	0.600	8.7	19.0	0.500	7.8	19.0	0.400	6.5	19.0	0.300
ANT 6	Wi-Fi 6 GHz	802.11ax HE20	20	12.5	19.0	1.190	12.5	19.0	1.190	12.0	19.0	0.600	8.7	19.0	0.500	7.8	19.0	0.400	6.5	19.0	0.300
ANT 6	Wi-Fi 6 GHz	802.11ax HE40	40	12.5	19.0	1.190	12.5	19.0	1.190	12.0	19.0	0.600	8.7	19.0	0.500	7.8	19.0	0.400	6.5	19.0	0.300
ANT 6	Wi-Fi 6 GHz	802.11ax HE80	80	12.5	19.0	1.190	12.5	19.0	1.190	12.0	19.0	0.600	8.7	19.0	0.500	7.8	19.0	0.400	6.5	19.0	0.300
ANT 6	Wi-Fi 6 GHz	802.11ax HE160	160	12.5	18.5	1.190	12.5	18.5	1.190	12.0	18.5	0.600	8.7	18.5	0.500	7.8	18.5	0.400	6.5	18.5	0.300
ANT 6	Wi-Fi 6 GHz	802.11be EHT20	20	12.5	19.0	1.190	12.5	19.0	1.190	12.0	19.0	0.600	8.7	19.0	0.500	7.8	19.0	0.400	6.5	19.0	0.300
ANT 6	Wi-Fi 6 GHz	802.11be EHT40	40	12.5	19.0	1.190	12.5	19.0	1.190	12.0	19.0	0.600	8.7	19.0	0.500	7.8	19.0	0.400	6.5	19.0	0.300
ANT 6	Wi-Fi 6 GHz	802.11be EHT80	80	12.5	19.0	1.190	12.5	19.0	1.190	12.0	19.0	0.600	8.7	19.0	0.500	7.8	19.0	0.400	6.5	19.0	0.300
ANT 6	Wi-Fi 6 GHz	802.11be EHT160	160	12.5	18.5	1.190	12.5	18.5	1.190	12.0	18.5	0.600	8.7	18.5	0.500	7.8	18.5	0.400	6.5	18.5	0.300
ANT 6	Bluetooth NB U-NII 1	BDR	1	12.5	10.0	1.190	12.5	10.0	1.190	12.5	10.0	0.600	8.7	10.0	0.500	7.8	10.0	0.400	6.5	10.0	0.300
ANT 6	Bluetooth NB U-NII 1	LE Adv	1	12.5	10.3	1.190	12.5	10.3	1.190	12.5	10.3	0.600	8.7	10.3	0.500	7.8	10.3	0.400	6.5	10.3	0.300
ANT 6	Bluetooth NB U-NII 1	LE 1M	1	12.5	10.3	1.190	12.5	10.3	1.190	12.5	10.3	0.600	8.7	10.3	0.500	7.8	10.3	0.400	6.5	10.3	0.300
ANT 6	Bluetooth NB U-NII 1	LE 2M	2	12.5	11.0	1.190	12.5	11.0	1.190	12.5	11.0	0.600	8.7	11.0	0.500	7.8	11.0	0.400	6.5	11.0	0.300
ANT 6	Bluetooth NB U-NII 1	HDR 4	2	12.5	12.3	1.190	12.5	12.3	1.190	12.5	12.3	0.600	8.7	12.3	0.500	7.8	12.3	0.400	6.5	12.3	0.300
ANT 6	Bluetooth NB U-NII 1	HDR 8	4	12.5	13.5	1.190	12.5	13.5	1.190	12.5	13.5	0.600	8.7	13.5	0.500	7.8	13.5	0.400	6.5	13.5	0.300
ANT 6	Bluetooth NB U-NII 1	HDRPS 2	2	12.5	12.3	1.190	12.5	12.3	1.190	12.5	12.3	0.600	8.7	12.3	0.500	7.8	12.3	0.400	6.5	12.3	0.300
ANT 6	Bluetooth NB U-NII 1	HDRPM 4	4	12.5	13.5	1.190	12.5	13.5	1.190	12.5	13.5	0.600	8.7	13.5	0.500	7.8	13.5	0.400	6.5	13.5	0.300
ANT 6	Bluetooth NB U-NII 1	HDRPM 6	4	12.5	13.5	1.190	12.5	13.5	1.190	12.5	13.5	0.600	8.7	13.5	0.500	7.8	13.5	0.400	6.5	13.5	0.300
ANT 6	Bluetooth NB U-NII 1	HDRPM 8	4	12.5	13.5	1.190	12.5	13.5	1.190	12.5	13.5	0.600	8.7	13.5	0.500	7.8	13.5	0.400	6.5	13.5	0.300
ANT 6	Bluetooth NB U-NII 1	HDRPM 12	4	12.5	11.5	1.190	12.5	11.5	1.190	12.5	11.5	0.600	8.7	11.5	0.500	7.8	11.5	0.400	6.5	11.5	0.300
ANT 6	Bluetooth NB U-NII 1	HDRPM 16	4	12.5	11.5	1.190	12.5	11.5	1.190	12.5	11.5	0.600	8.7	11.5	0.500	7.8	11.5	0.400	6.5	11.5	0.300
ANT 6	Bluetooth NB U-NII 1	HDRPL 8	8	12.5	13.5	1.190	12.5	13.5	1.190	12.5	13.5	0.600	8.7	13.5	0.500	7.8	13.5	0.400	6.5	13.5	0.300
ANT 6	Bluetooth NB U-NII 1	HDRPL 12	8	12.5	13.5	1.190	12.5	13.5	1.190	12.5	13.5	0.600	8.7	13.5	0.500	7.8	13.5	0.400	6.5	13.5	0.300
ANT 6	Bluetooth NB U-NII 1	HDRPL 16	8	12.5	13.5	1.190	12.5	13.5	1.190	12.5	13.5	0.600	8.7	13.5	0.500	7.8	13.5	0.400	6.5	13.5	0.300
ANT 6	Bluetooth NB U-NII 1	HDRPL 24	8	12.5	11.5	1.190	12.5	11.5	1.190	12.5	11.5	0.600	8.7	11.5	0.500	7.8	11.5	0.400	6.5	11.5	0.300
ANT 6	Bluetooth NB U-NII 1	HDRPL 32	8	12.5	11.5	1.190	12.5	11.5	1.190	12.5	11.5	0.600	8.7	11.5	0.500	7.8	11.5	0.400	6.5	11.5	0.300
ANT 6	Bluetooth NB U-NII 1	XHDRPS 2	2	12.5	12.3	1.190	12.5	12.3	1.190	12.5	12.3	0.600	8.7	12.3	0.500	7.8	12.3	0.400	6.5	12.3	0.300
ANT 6	Bluetooth NB U-NII 1	XHDRPM 4	4	12.5	13.5	1.190	12.5	13.5	1.190	12.5	13.5	0.600	8.7	13.5	0.500	7.8	13.5	0.400	6.5	13.5	0.300
ANT 6	Bluetooth NB U-NII 1	XHDRPM 6	4	12.5	13.5	1.190	12.5	13.5	1.190	12.5	13.5	0.600	8.7	13.5	0.500	7.8	13.5	0.400	6.5	13.5	0.300
ANT 6	Bluetooth NB U-NII 1	XHDRPM 8	4	12.5	13.5	1.190	12.5	13.5	1.190	12.5	13.5	0.600	8.7	13.5	0.500	7.8	13.5	0.400	6.5	13.5	0.300
ANT 6	Bluetooth NB U-NII 1	XHDRPM 12	4	12.5	11.5	1.190	12.5	11.5	1.190	12.5	11.5	0.600	8.7	11.5	0.500	7.8	11.5	0.400	6.5	11.5	0.300
ANT 6	Bluetooth NB U-NII 1	XHDRPM 16	4	12.5	11.5	1.190	12.5	11.5	1.190	12.5	11.5	0.600	8.7	11.5	0.500	7.8	11.5	0.400	6.5	11.5	0.300
ANT 6	Bluetooth NB U-NII 1	XHDRPL 8	8	12.5	13.5	1.190	12.5	13.5	1.190	12.5	13.5	0.600	8.7	13.5	0.500	7.8	13.5	0.400	6.5	13.5	0.300
ANT 6	Bluetooth NB U-NII 1	XHDRPL 12	8	12.5	13.5	1.190	12.5	13.5	1.190	12.5	13.5	0.600	8.7	13.5	0.500	7.8	13.5	0.400	6.5	13.5	0.300
ANT 6	Bluetooth NB U-NII 1	XHDRPL 16	8	12.5	13.5	1.190	12.5	13.5	1.190	12.5	13.5	0.600	8.7	13.5	0.500	7.8	13.5	0.400	6.5	13.5	0.300
ANT 6	Bluetooth NB U-NII 1	XHDRPL 24	8	12.5	11.5	1.190	12.5	11.5	1.190	12.5	11.5	0.600	8.7	11.5	0.500	7.8	11.5	0.400	6.5	11.5	0.300
ANT 6	Bluetooth NB U-NII 1	XHDRPL 32	8	12.5	11.5	1.190	12.5	11.5	1.190	12.5	11.5	0.600	8.7	11.5	0.500	7.8	11.5	0.400	6.5	11.5	0.300
ANT 6	Bluetooth NB U-NII 3	BDR	1	14.0	18.5	1.190	14.0	18.5	1.190	14.0	18.5	0.600	10.2	18.5	0.500	9.3	18.5	0.400	8.0	18.5	0.300
ANT 6	Bluetooth NB U-NII 3	LE Adv	1	14.0	18.5	1.190	14.0	18.5	1.190	14.0	18.5	0.600	10.2	18.5	0.500	9.3	18.5	0.400	8.0	18.5	0.300
ANT 6	Bluetooth NB U-NII 3	LE 1M	1	14.0	18.5	1.190	14.0	18.5	1.190	14.0	18.5	0.600	10.2	18.5	0.500	9.3	18.5	0.400	8.0	18.5	0.300
ANT 6	Bluetooth NB U-NII 3	LE 2M	2	14.0	18.5	1.190	14.0	18.5	1.190	14.0	18.5	0.600	10.2	18.5	0.500	9.3	18.5	0.400	8.0	18.5	0.300
ANT 6	Bluetooth NB U-NII 3	HDR 4	2	14.0	13.5	1.190	14.0	13.5	1.190	14.0	13.5	0.600	10.2	13.5	0.500	9.3	13.5	0.400	8.0	13.5	0.300
ANT 6	Bluetooth NB U-NII 3	HDR 8	4	14.0	14.5	1.190	14.0	14.5	1.190	14.0	14.5	0.600	10.2	14.5	0.500	9.3	14.5	0.400	8.0	14.5	0.300
ANT 6	Bluetooth NB U-NII 3	HDRPS 2	2	14.0	15.5	1.190	14.0	15.5	1.190	14.0	15.5	0.600	10.2	15.5	0.500	9.3	15.5	0.400	8.0	15.5	0.300
ANT 6	Bluetooth NB U-NII 3	HDRPM 4	4	14.0	13.5	1.190	14.0	13.5	1.190	14.0	13.5	0.600	10.2	13.5	0.500	9.3	13.5	0.400	8.0	13.5	0.300
ANT 6	Bluetooth NB U-NII 3	HDRPM 6	4	14.0	13.5	1.190	14.0	13.5	1.190	14.0	13.5	0.600	10.2	13.5	0.500	9.3	13.5	0.400	8.0	13.5	0.300
ANT 6	Bluetooth NB U-NII 3	HDRPM 8	4	14.0	13.5	1.190	14.0	13.5	1.190	14.0	13.5	0.600	10.2	13.5	0.500	9.3	13.5	0.400	8.0	13.5	0.300
ANT 6	Bluetooth NB U-NII 3	HDRPM 12	4	14.0	11.5	1.190	14.0	11.5	1.190	14.0	11.5	0.600	10.2	11.5	0.500	9.3	11.5	0.400	8.0	11.5	0.300
ANT 6	Bluetooth NB U-NII 3	HDRPM 16	4	14.0	11.5	1.190	14.0	11.5	1.190	14.0	11.5	0.600	10.2	11.5	0.500	9.3	11.5	0.400	8.0	11.5	0.300
ANT 6	Bluetooth NB U-NII 3	HDRPL 8	8	14.0	13.5	1.190	14.0	13.5	1.190	14.0	13.5	0.600	10.2	13.5	0.500	9.3	13.5	0.400	8.0	13.5	0.300
ANT 6	Bluetooth NB U-NII 3	HDRPL 12	8	14.0	13.5	1.190	14.0	13.5	1.190	14.0	13.5	0.600	10.2	13.5	0.500	9.3	13.5	0.400	8.0	13.5	0.300
ANT 6	Bluetooth NB U-NII 3	HDRPL 16	8	14.0	13.5	1.190	14.0	13.5	1.190	14.0	13.5	0.600	10.2	13.5	0.500	9.3	13.5	0.400	8.0	13.5	0.300
ANT 6	Bluetooth NB U-NII 3	HDRPL 24	8	14.0	11.5	1.190	14.0	11.5	1.190	14.0	11.5	0.600	10.2	11.5	0.500	9.3	11.5	0.400	8.0	11.5	0.300
ANT 6	Bluetooth NB U-NII 3	HDRPL 32	8	14.0	11.5	1.190	14.0	11.5	1.190	14.0	11.5	0.600	10.2	11.5	0.500	9.3	11.5	0.400	8.0	11.5	0.300
ANT 6	Bluetooth NB U-NII 3	XHDRPS 2	2	14.0	15.5	1.190	14.0	15.5	1.190	14.0	15.5	0.600	10.2	15.5	0.500	9.3	15.5	0.400	8.0	15.5	0.300
ANT 6	Bluetooth NB U-NII 3	XHDRPM 4	4	14.0	13.5	1.190	14.0	13.5	1.190	14.0	13.5	0.600	10.2	13.5	0.500	9.3	13.5	0.400	8.0	13.5	0.300
ANT 6	Bluetooth NB U-NII 3	XHDRPM 6	4	14.0	13.5	1.190	14.0	13.5	1.190	14.0	13.5	0.600	10.2	13.5	0.500	9.3	13.5	0.400	8.0	13.5	0.300
ANT 6	Bluetooth NB U-NII 3	XHDRPM 8	4	14.0	13.5	1.190	14.0	13.5	1.190	14.0	13.5	0.600	10.2	13.5	0.500	9.3	13.5	0.400	8.0	13.5	0.300
ANT 6	Bluetooth NB U-NII 3	XHDRPM 12	4	14.0	11.5	1.190	14.0	11.5	1.190	14.0	11.5	0.600	10.2	11.5	0.500	9.3	11.5	0.400	8.0	11.5	0.300
ANT 6	Bluetooth NB U-NII 3	XHDRPM 16	4	14.0	11.5	1.190	14.0	11.5	1.190	14.0	11.5	0.600	10.2	11.5	0.500	9.3	11.5	0.400	8.0	11.5	0.300
ANT 6	Bluetooth NB U-NII 3	XHDRPL 8	8	14.0	13.5	1.190	14.0	13.5	1.190	14.0	13.5	0.600	10.2	13.5	0.500	9.3	13.5	0.400	8.0	13.5	0.300
ANT 6	Bluetooth NB U-NII 3	XHDRPL 12	8	14.0	13.5	1.190	14.0	13.5	1.190	14.0	13.5	0.600	10.2	13.5	0.500	9.3	13.5	0.400	8.0	13.5	0.300
ANT 6	Bluetooth NB U-NII 3	XHDRPL 16	8	14.0	13.5	1.190	14.0	13.5	1.190	14.0	13.5	0.600	10.2	13.5	0.500	9.3	13.5	0.400	8.0	13.5	0.300
ANT 6	Bluetooth NB U-NII 3	XHDRPL 24	8	14.0	11.5	1.190	14.0	11.5	1.190	14.0	11.5	0.600	10.2	11.5	0.500	9.3	11.5	0.400	8.0	11.5	0.300
ANT 6	Bluetooth NB U-NII 3	XHDRPL 32	8	14.0	11.5	1.190	14.0	11.5	1.190	14.0	11.5	0.600	10.2	11.5	0.500	9.3	11.5	0.400	8.0	11.5	0.300

ANT 6	Bluetooth NB U-NII 5	BDR	1	9.5	-6.8	1.190	9.5	-6.8	1.190	9.5	-6.8	0.600	5.7	-6.8	0.500	4.8	-6.8	0.400	3.5	-6.8	0.300
ANT 6	Bluetooth NB U-NII 5	LE Adv	1	9.5	-6.5	1.190	9.5	-6.5	1.190	9.5	-6.5	0.600	5.7	-6.5	0.500	4.8	-6.5	0.400	3.5	-6.5	0.300
ANT 6	Bluetooth NB U-NII 5	LE 1M	1	9.5	-6.5	1.190	9.5	-6.5	1.190	9.5	-6.5	0.600	5.7	-6.5	0.500	4.8	-6.5	0.400	3.5	-6.5	0.300
ANT 6	Bluetooth NB U-NII 5	LE 2M	2	9.5	-5.5	1.190	9.5	-5.5	1.190	9.5	-5.5	0.600	5.7	-5.5	0.500	4.8	-5.5	0.400	3.5	-5.5	0.300
ANT 6	Bluetooth NB U-NII 5	HDR 4	2	9.5	-4.5	1.190	9.5	-4.5	1.190	9.5	-4.5	0.600	5.7	-4.5	0.500	4.8	-4.5	0.400	3.5	-4.5	0.300
ANT 6	Bluetooth NB U-NII 5	HDR 8	4	9.5	-2.5	1.190	9.5	-2.5	1.190	9.5	-2.5	0.600	5.7	-2.5	0.500	4.8	-2.5	0.400	3.5	-2.5	0.300
ANT 6	Bluetooth NB U-NII 5	HDRPS 2	2	9.5	-4.5	1.190	9.5	-4.5	1.190	9.5	-4.5	0.600	5.7	-4.5	0.500	4.8	-4.5	0.400	3.5	-4.5	0.300
ANT 6	Bluetooth NB U-NII 5	HDRPM 4	4	9.5	-1.5	1.190	9.5	-1.5	1.190	9.5	-1.5	0.600	5.7	-1.5	0.500	4.8	-1.5	0.400	3.5	-1.5	0.300
ANT 6	Bluetooth NB U-NII 5	HDRPM 6	4	9.5	-1.5	1.190	9.5	-1.5	1.190	9.5	-1.5	0.600	5.7	-1.5	0.500	4.8	-1.5	0.400	3.5	-1.5	0.300
ANT 6	Bluetooth NB U-NII 5	HDRPM 8	4	9.5	-1.5	1.190	9.5	-1.5	1.190	9.5	-1.5	0.600	5.7	-1.5	0.500	4.8	-1.5	0.400	3.5	-1.5	0.300
ANT 6	Bluetooth NB U-NII 5	HDRPM 12	4	9.5	-1.5	1.190	9.5	-1.5	1.190	9.5	-1.5	0.600	5.7	-1.5	0.500	4.8	-1.5	0.400	3.5	-1.5	0.300
ANT 6	Bluetooth NB U-NII 5	HDRPM 16	4	9.5	-1.5	1.190	9.5	-1.5	1.190	9.5	-1.5	0.600	5.7	-1.5	0.500	4.8	-1.5	0.400	3.5	-1.5	0.300
ANT 6	Bluetooth NB U-NII 5	HDRPL 8	8	9.5	1.5	1.190	9.5	1.5	1.190	9.5	1.5	0.600	5.7	1.5	0.500	4.8	1.5	0.400	3.5	1.5	0.300
ANT 6	Bluetooth NB U-NII 5	HDRPL 12	8	9.5	1.5	1.190	9.5	1.5	1.190	9.5	1.5	0.600	5.7	1.5	0.500	4.8	1.5	0.400	3.5	1.5	0.300
ANT 6	Bluetooth NB U-NII 5	HDRPL 16	8	9.5	1.5	1.190	9.5	1.5	1.190	9.5	1.5	0.600	5.7	1.5	0.500	4.8	1.5	0.400	3.5	1.5	0.300
ANT 6	Bluetooth NB U-NII 5	HDRPL 24	8	9.5	1.0	1.190	9.5	1.0	1.190	9.5	1.0	0.600	5.7	1.0	0.500	4.8	1.0	0.400	3.5	1.0	0.300
ANT 6	Bluetooth NB U-NII 5	HDRPL 32	8	9.5	1.0	1.190	9.5	1.0	1.190	9.5	1.0	0.600	5.7	1.0	0.500	4.8	1.0	0.400	3.5	1.0	0.300
ANT 6	Bluetooth NB U-NII 5	XHDRPS 2	2	9.5	-4.5	1.190	9.5	-4.5	1.190	9.5	-4.5	0.600	5.7	-4.5	0.500	4.8	-4.5	0.400	3.5	-4.5	0.300
ANT 6	Bluetooth NB U-NII 5	XHDRPM 4	4	9.5	-1.5	1.190	9.5	-1.5	1.190	9.5	-1.5	0.600	5.7	-1.5	0.500	4.8	-1.5	0.400	3.5	-1.5	0.300
ANT 6	Bluetooth NB U-NII 5	XHDRPM 6	4	9.5	-1.5	1.190	9.5	-1.5	1.190	9.5	-1.5	0.600	5.7	-1.5	0.500	4.8	-1.5	0.400	3.5	-1.5	0.300
ANT 6	Bluetooth NB U-NII 5	XHDRPM 8	4	9.5	-1.5	1.190	9.5	-1.5	1.190	9.5	-1.5	0.600	5.7	-1.5	0.500	4.8	-1.5	0.400	3.5	-1.5	0.300
ANT 6	Bluetooth NB U-NII 5	XHDRPM 12	4	9.5	-1.5	1.190	9.5	-1.5	1.190	9.5	-1.5	0.600	5.7	-1.5	0.500	4.8	-1.5	0.400	3.5	-1.5	0.300
ANT 6	Bluetooth NB U-NII 5	XHDRPM 16	4	9.5	-1.5	1.190	9.5	-1.5	1.190	9.5	-1.5	0.600	5.7	-1.5	0.500	4.8	-1.5	0.400	3.5	-1.5	0.300
ANT 6	Bluetooth NB U-NII 5	XHDRPL 8	8	9.5	1.5	1.190	9.5	1.5	1.190	9.5	1.5	0.600	5.7	1.5	0.500	4.8	1.5	0.400	3.5	1.5	0.300
ANT 6	Bluetooth NB U-NII 5	XHDRPL 12	8	9.5	1.5	1.190	9.5	1.5	1.190	9.5	1.5	0.600	5.7	1.5	0.500	4.8	1.5	0.400	3.5	1.5	0.300
ANT 6	Bluetooth NB U-NII 5	XHDRPL 16	8	9.5	1.5	1.190	9.5	1.5	1.190	9.5	1.5	0.600	5.7	1.5	0.500	4.8	1.5	0.400	3.5	1.5	0.300
ANT 6	Bluetooth NB U-NII 5	XHDRPL 24	8	9.5	1.0	1.190	9.5	1.0	1.190	9.5	1.0	0.600	5.7	1.0	0.500	4.8	1.0	0.400	3.5	1.0	0.300
ANT 6	Bluetooth NB U-NII 5	XHDRPL 32	8	9.5	1.0	1.190	9.5	1.0	1.190	9.5	1.0	0.600	5.7	1.0	0.500	4.8	1.0	0.400	3.5	1.0	0.300
ANT 6	802.15.4ab	N/A	2.5	13.5	20.5	0.100	13.5	20.5	0.100	13.5	20.5	0.100	13.5	20.5	0.100	13.5	20.5	0.100	13.5	20.5	0.100

4. TAS Validation

4.1. Conducted

4.1.1. Test Sequences

The TAS algorithm shall be validated with different expected power levels to manage the link budget.

Conducted power measurements will be used to validate the test cases. Configurations where P_{Limit} is 2-4dB below P_{Max} will be selected for assessment. Configurations where P_{Limit} is greater than P_{Max} will be excluded from testing as there will be no TAS activity in this condition.

4.1.2. Technology Switch

Requested power measurements shall be performed to validate the TAS algorithm when the DUT switches between technologies with different P_{Limit} values. Maximum power for the specific technology shall be requested from the DUT throughout the test. The change in technology shall occur once the TAS algorithm has reached steady state for the first band/technology, then the test transitions to transmitting on both technologies simultaneously once the TAS algorithm has reached steady state for the second technology. This test may be referenced for validation of simultaneous compliance.

4.1.3. Change in Device State

Requested power measurements shall be performed to validate the TAS algorithm when the DUT changes between operating states with different P_{Limit} values, e.g., when sensors or other mechanisms are used to change operating states. Maximum power shall be requested from the DUT throughout the test. The change in operating state shall occur once the TAS algorithm has reached steady state for the first operating state, and the test shall conclude once the algorithm has reached steady state for the second operating state.

4.1.4. Change in Antenna / Band

Requested power measurements shall be performed to validate the TAS algorithm when the DUT switches between different antennas and/or bands with differing P_{Limit} values, e.g., when sensors, DUT commands, and other mechanisms are used to switch between the DUT's different transmitting antennas or bands. Maximum power shall be requested from the device from the DUT throughout the test. The DUT's change in antenna or band shall take place once the TAS algorithm has reached a steady state under the first transmitting antenna/band; then, after the switch, the test will conclude once the TAS algorithm has reached a steady state under the second transmitting antenna/band.

4.1.5. Test Case Validation

Validation plots are included for the applicable test cases for this DUT. These plots serve to validate the operation of this cellular TAS algorithm by ensuring that the measured power averaged over the applicable regulatory limit, Pavg(n), is always maintained below the defined P_{Limit}.

Requested power measurements, P_{Meas}, are used to validate all TAS test cases. In test cases where P_{Limit} remains constant, the equation, *Equation 1*, below is used to calculate the rolling time-averaged power for the n^{th} time step, Pavg(n).

Equation 1: Rolling Time-averaged Power (Constant P_{Limit})

$$Pavg(n) = \frac{1}{M}\sum_{m=0}^{M-1} Pmeas[n-m]$$

Where *M* is the total number of reporting periods per time-averaging window and *m* is the index of the time-averaging window. The TAS algorithm is validated when Pavg(n) is maintained less than or equal to P_{Limit}.

In test cases where P_{Limit} is not constant, the equation, *Equation 2*, below is used to calculate the normalized rolling time-averaged power,Pavg(n).

Equation 2: Rolling Time-averaged Power (P_{Limit} not Constant)

$$Pavg(n) = \frac{1}{M}\sum_{m=0}^{M-1} \frac{Pmeas[n-m]}{Plimit[n-m]}$$

Where *M* is the total number of reporting periods per time-averaging window and *m* is the index of the time-averaging window. The TAS algorithm is validated when Pavg(n) is maintained less than or equal to 1.

The test cases are summarized in the table below.

Table 4-1: Applicable Test Cases for FCC TAS Validation

Test Case	Sequence	Tech	Band	Antenna	OBD/OPS	Details
1 – Technology Switch	Cell Off Wifi PS1 -> Cell Off BT PS1 -> Cell Off Wi-Fi PS2	WiFi	5 GHz	6	1 - Body	802.11a PRV
		BT	2.4 GHz	2	1 - Body	HDR4
2 – Change in Device State	Power State 3 -> Power State 1	WiFi	5 GHz	6	1 - Body	802.11a
	Power State 3 -> Power State 4	WiFi	5 GHz	2	1 - Body	802.11b PRV
	Power State 5 -> Power State 6	BT	2.4 GHz	2	1 - Body	HDR4 PRV
3 – Change in Antenna / Band	WiFi 2.4 GHz -> WiFi 6 GHz	WiFi	2.4 GHz	2	1 - Body	802.11b
			6 GHz	6	1 - Body	802.11ax
	Wi-Fi 2.4GHz -> Wi-Fi 2.4GHz + 5 GHz	WiFi	2.4 GHz	2	1 - Body	802.11b
			5 GHz	6	1- Body	802.11a

NOTE: Testing was performed using a Preliminary Power Table to demonstrate TAS functionality

The following figures outline the test setup for the applicable test cases:

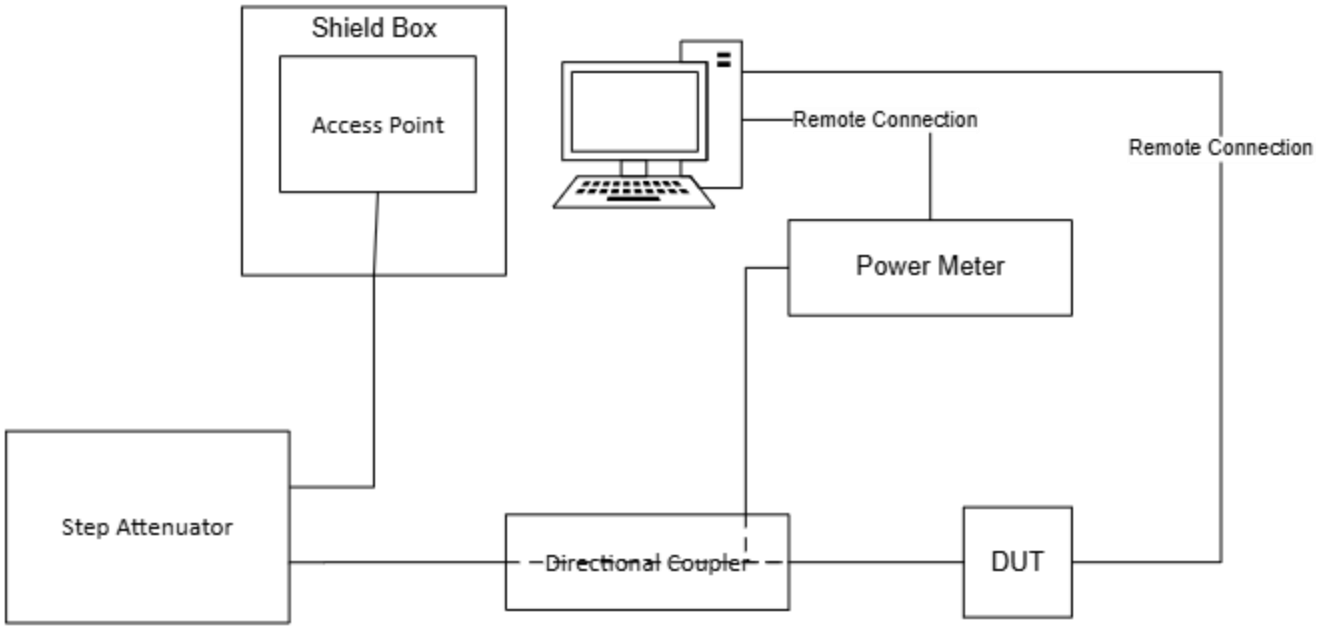


Figure 4-1: Wi-Fi Power State Switch

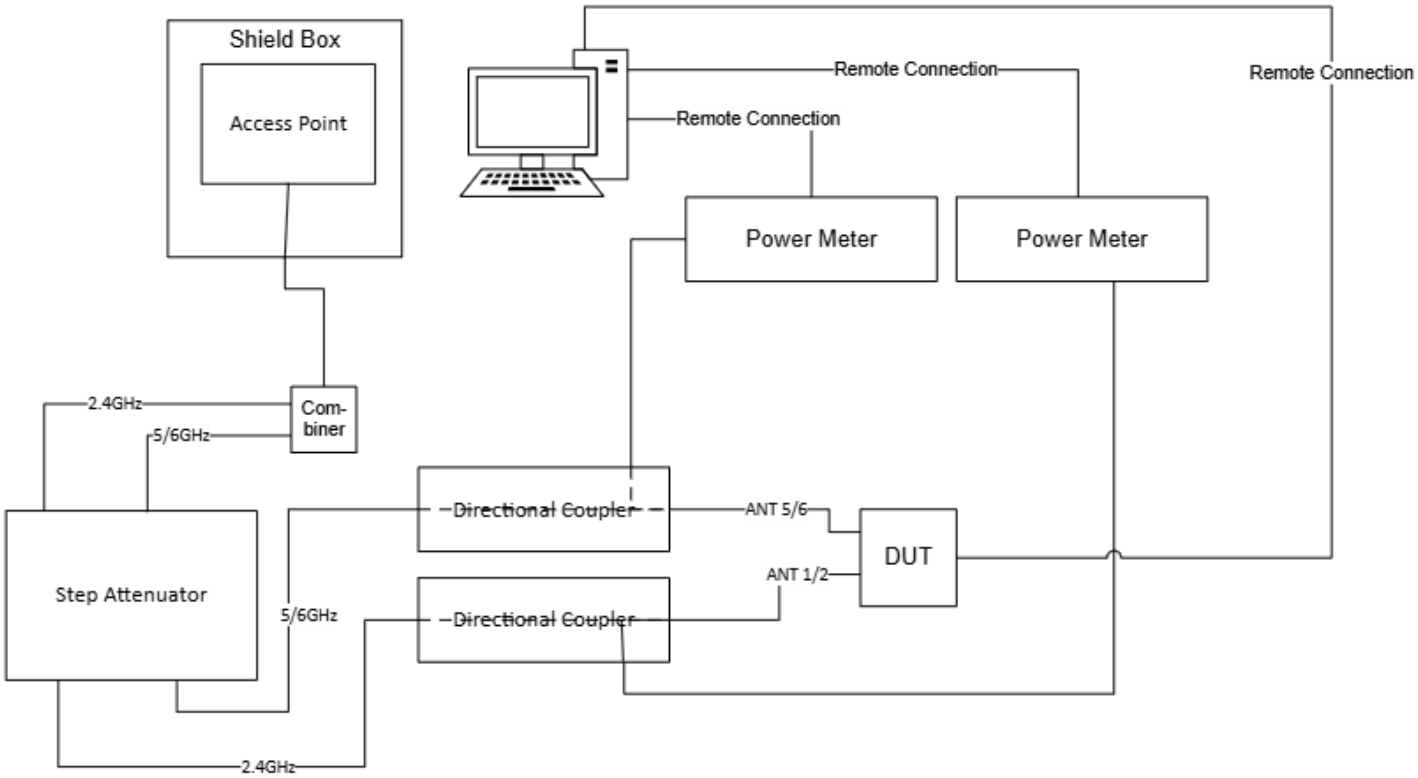


Figure 4-2: Wi-Fi 2.4GHz to 6GHz Band Switching

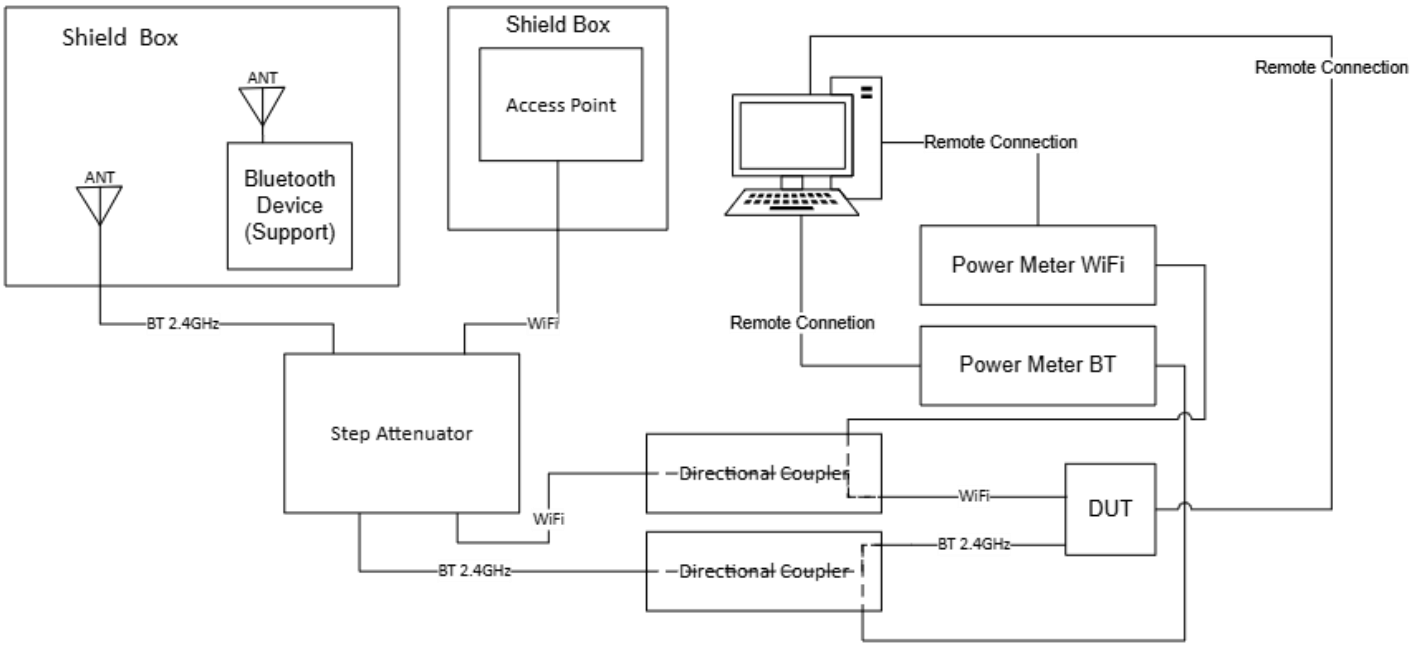


Figure 4-3: Tech Switch

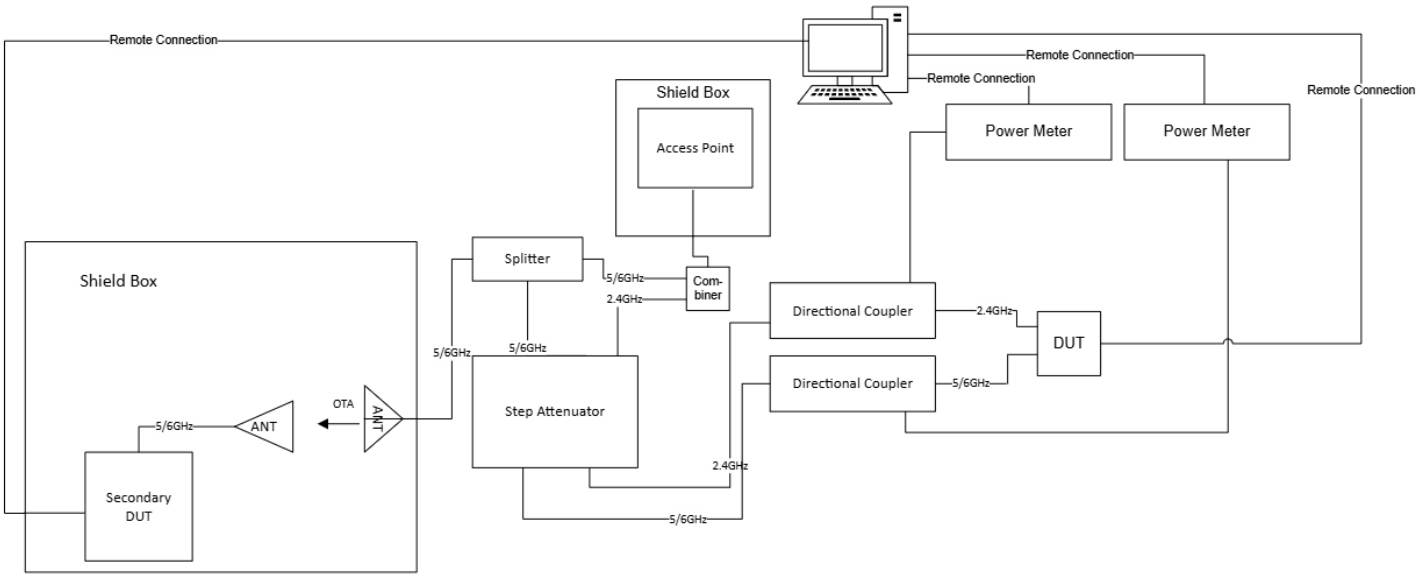


Figure 4-4: Wi-Fi 2.4GHz to Wi-Fi 2.4GHz + 5 GHz

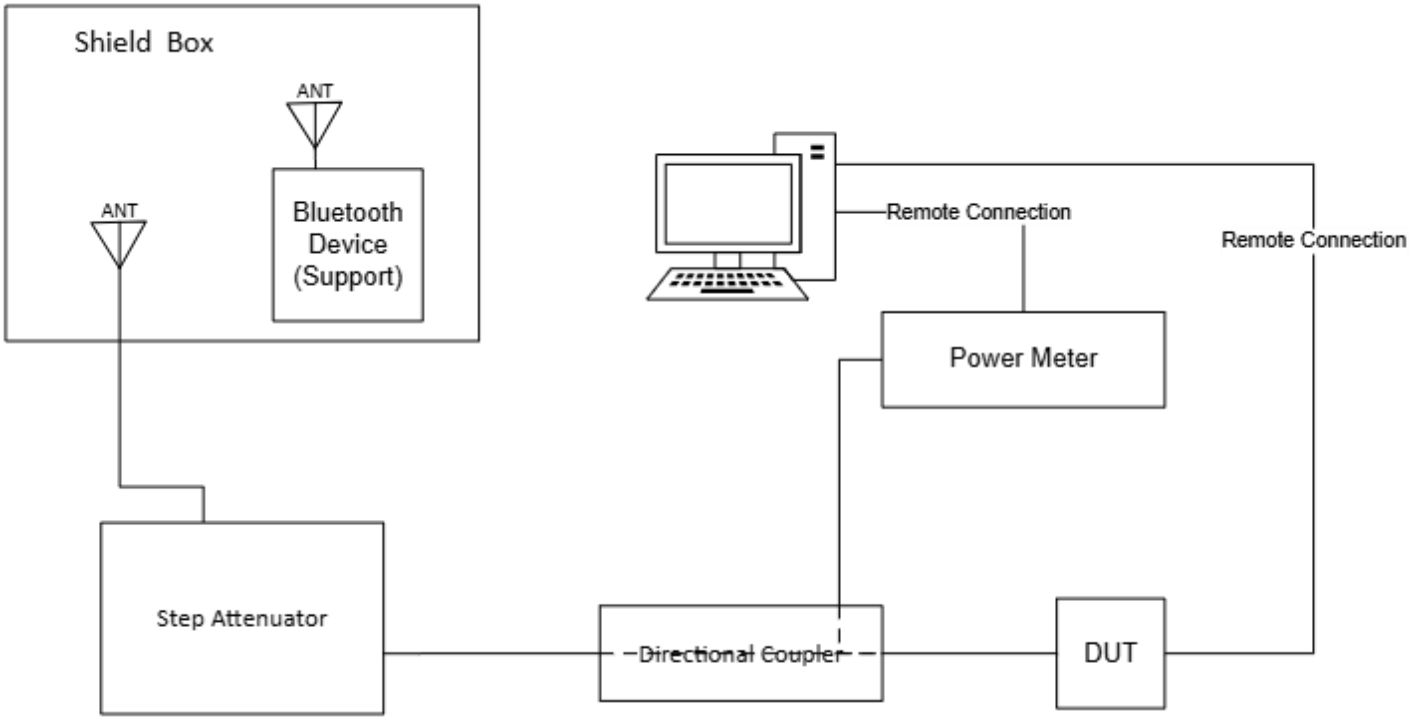
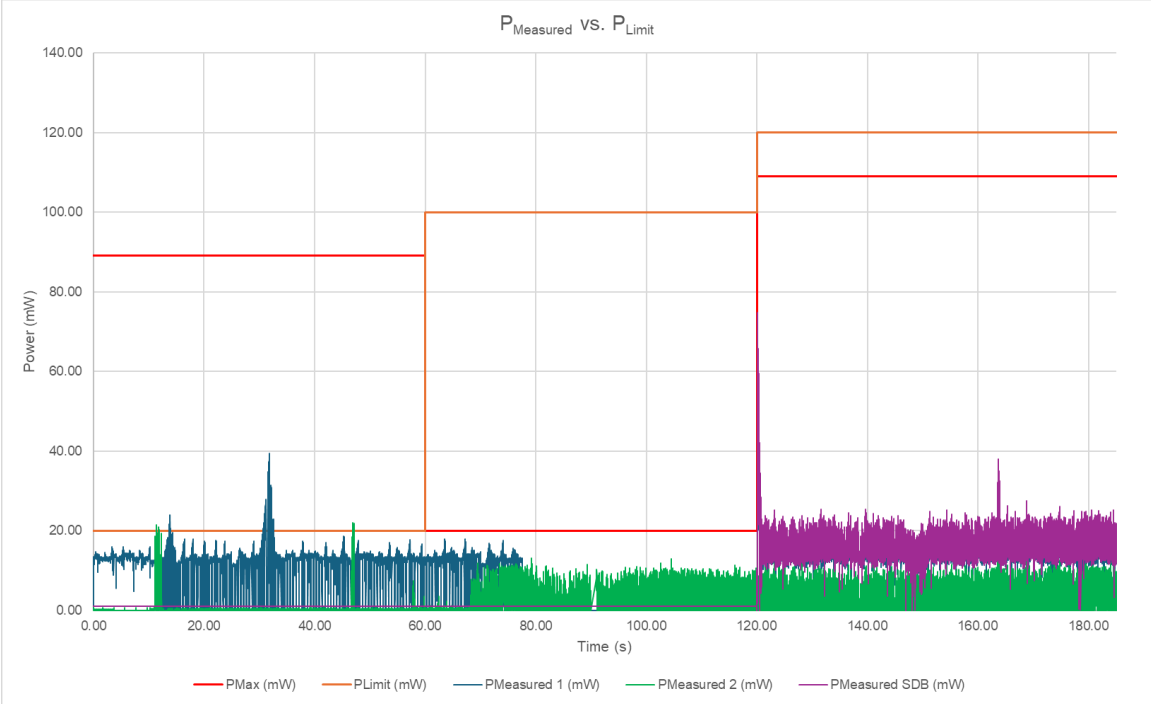


Figure 4-5: BT Power State Switch

4.1.6. Technology Switch



*: Between 163s and 164s there is a change modulation for an acknowledgement packet to maintain the Bluetooth link. The defined Pmax is not applicable for this acknowledgement packet.

Figure 4-6: Change in Technology and Band Plot

	dBm	mW
Frequency: Wi-Fi 5.6GHz Ch120 Antenna: TxChain1 $PLim_1$	12.50	17.78
Frequency: 5.6GHz Ch120 Antenna: TxChain1 $Pmax_1$	19.50	89.13
Frequency: BT 2.4GHz Antenna: TxChain1 $Plim_2$	20.00	100.00
Frequency: BT 2.4GHz Antenna: TxChain1 $Pmax_2$	13.00	19.95
Simultaneous $Plim_3$	20.71	117.78
Simultaneous $Pmax_3$	20.38	109.08

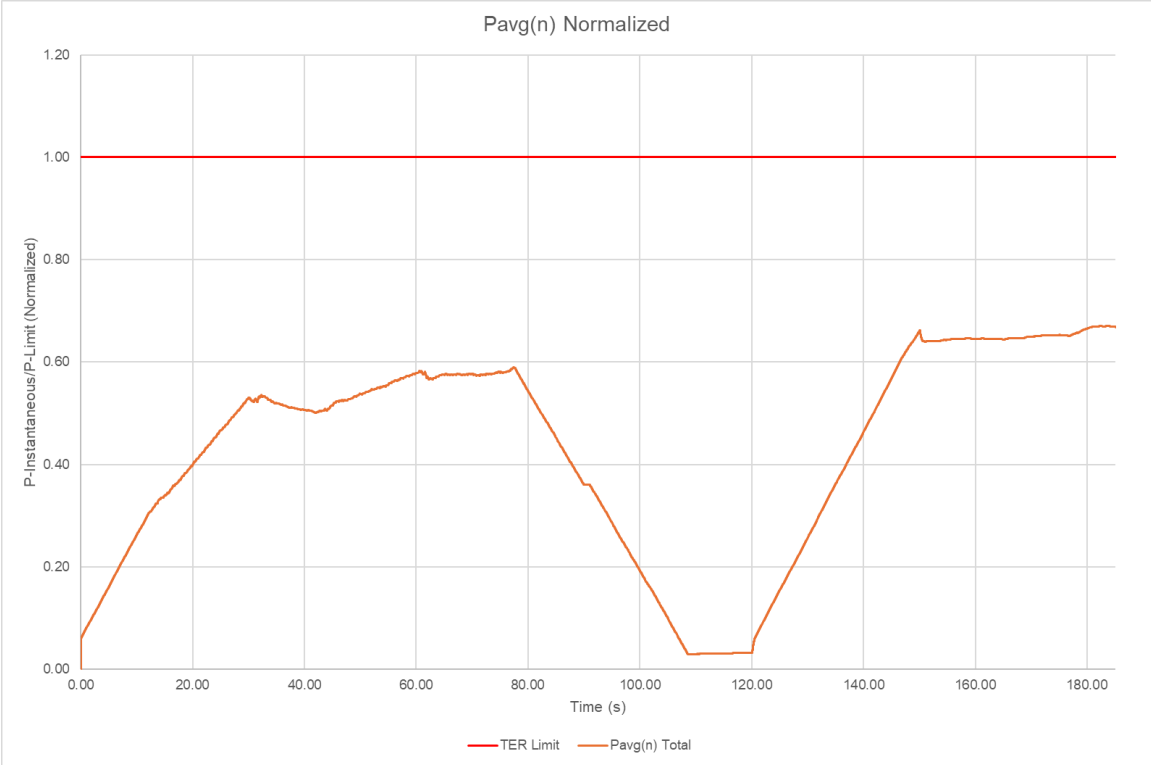


Figure 4-7: Change in Technology and Band Validation

	Validation
Pavg(n) ≤ 1	0.67 ≤ 1

Pavg(n) was calculated using the 30 second time-averaging duration.

4.1.7. Change In Device State

4.1.7.1. Power State 3 to Power State 1

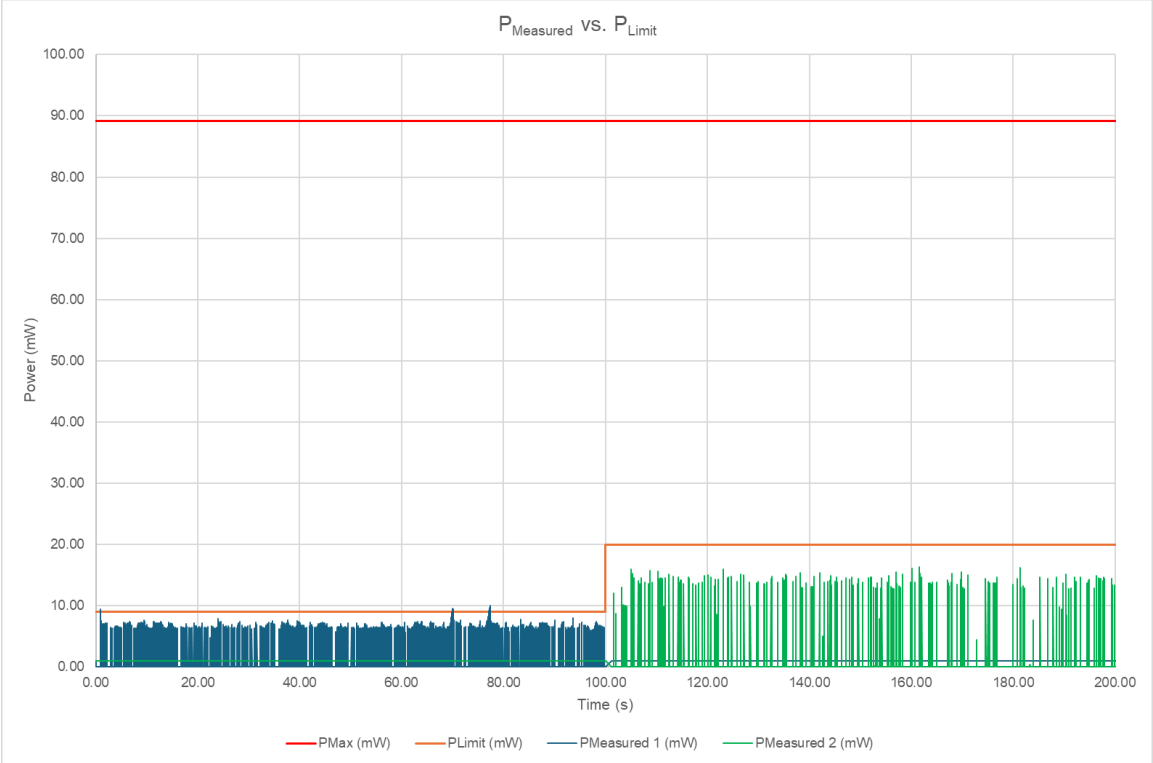


Figure 4-8: Power State 3 to Power State 1 Sequence

Frequency: 5.6GHz TxChain1	dBm	mW
Power State 3 $Plim_1$	9.53	8.96
Power State 1 $Plim_2$	12.50	17.78
Pmax	19.50	89.13

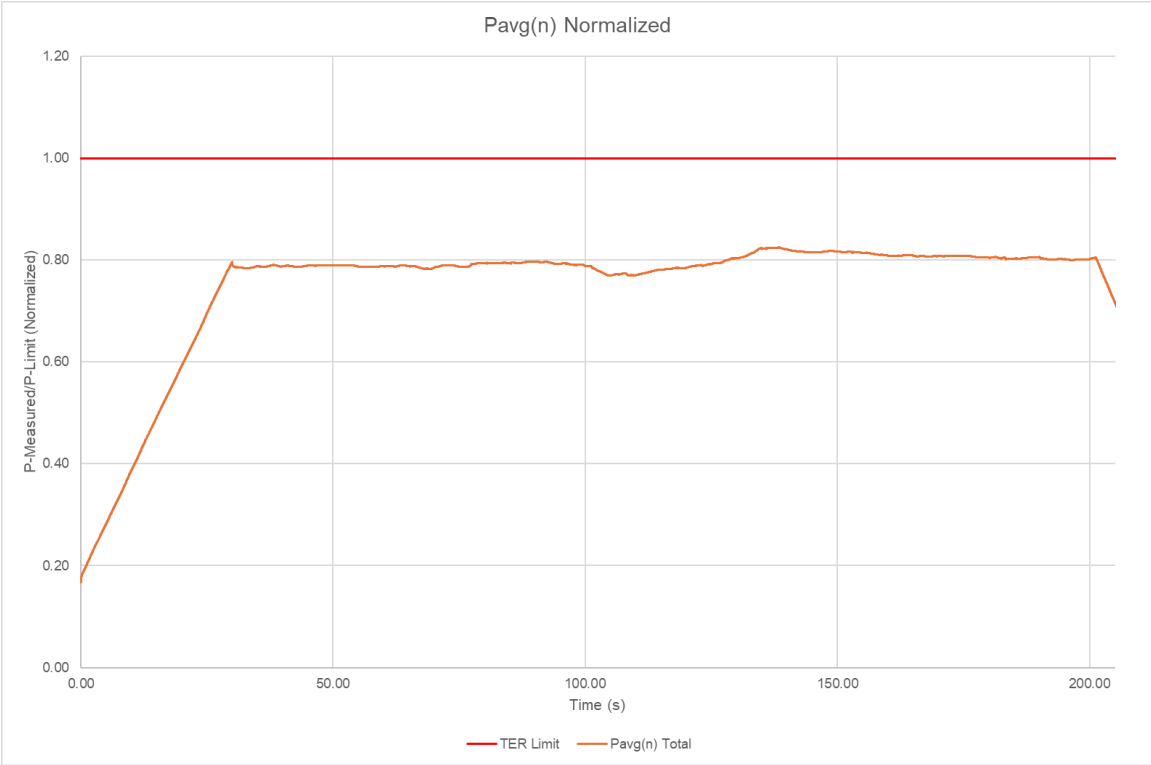


Figure 4-9: Wi-Fi Power State 3 to Power State 1 Validation

	Validation
Pavg(n) ≤ 1	0.82 ≤ 1

Pavg(n) was calculated using the 30 second time-averaging duration.

4.1.7.2. Power State 3 to Power State 4

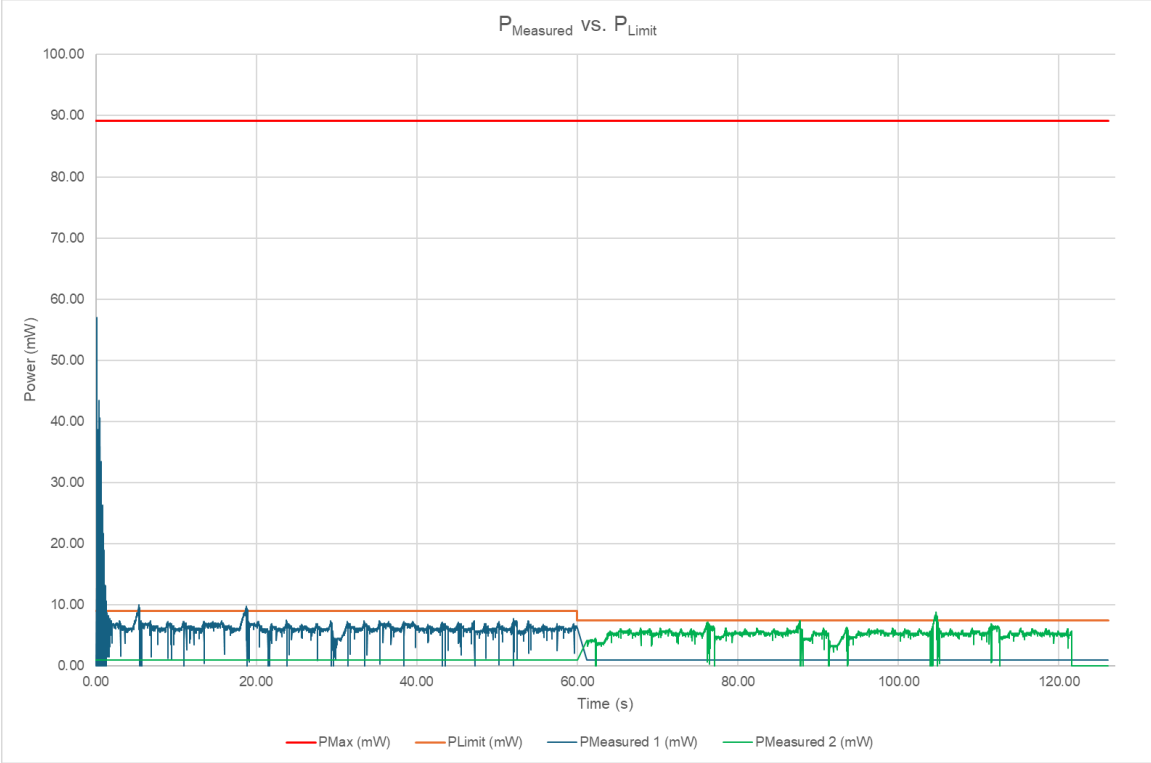


Figure 4-10: Wi-Fi Power State 3 to Power State 4 Plot

Frequency: 5GHz Ch120 Antenna: TxChain1	dBm	mW
Power State 3 $Plim_1$	9.52	8.96
Power State 4 $Plim_2$	8.73	7.47
Pmax	19.50	89.13

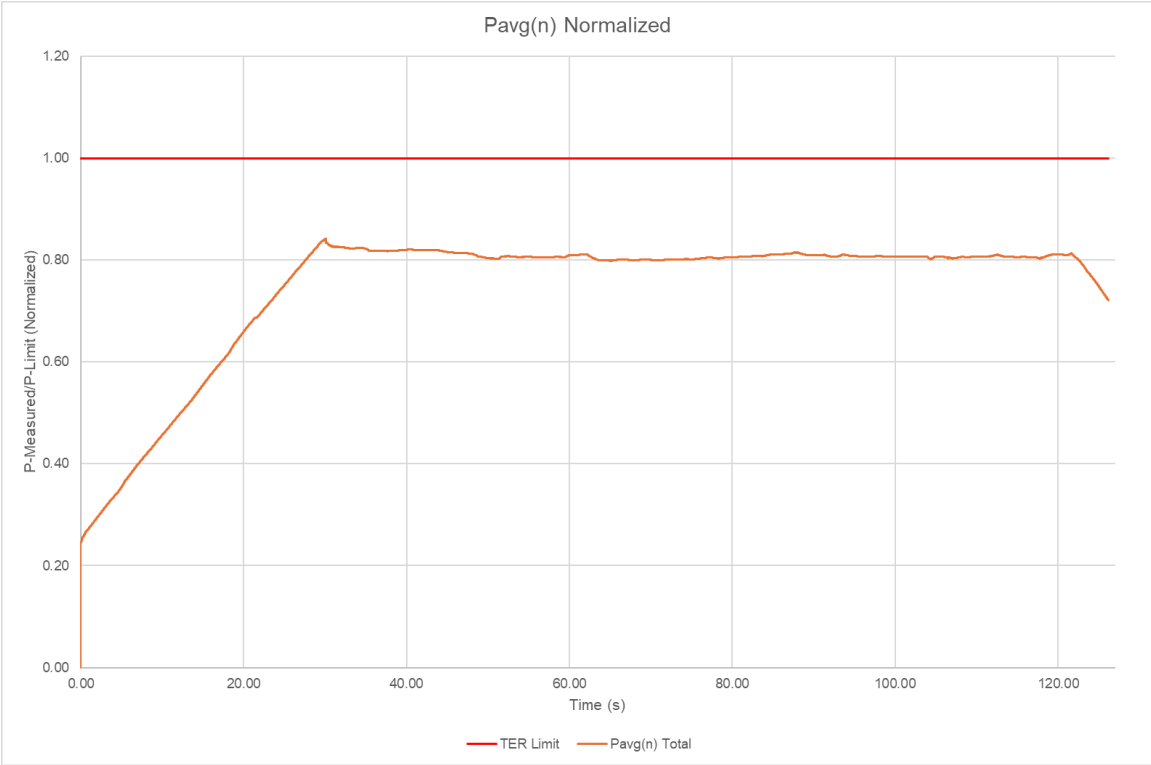


Figure 4-11: Wi-Fi Power State 3 to Power State 4 Validation

	Validation
Pavg(n) ≤ 1	0.84 ≤ 1

Pavg(n) was calculated using the 30 second time-averaging duration.

4.1.7.3. Power State 5 to Power State 6

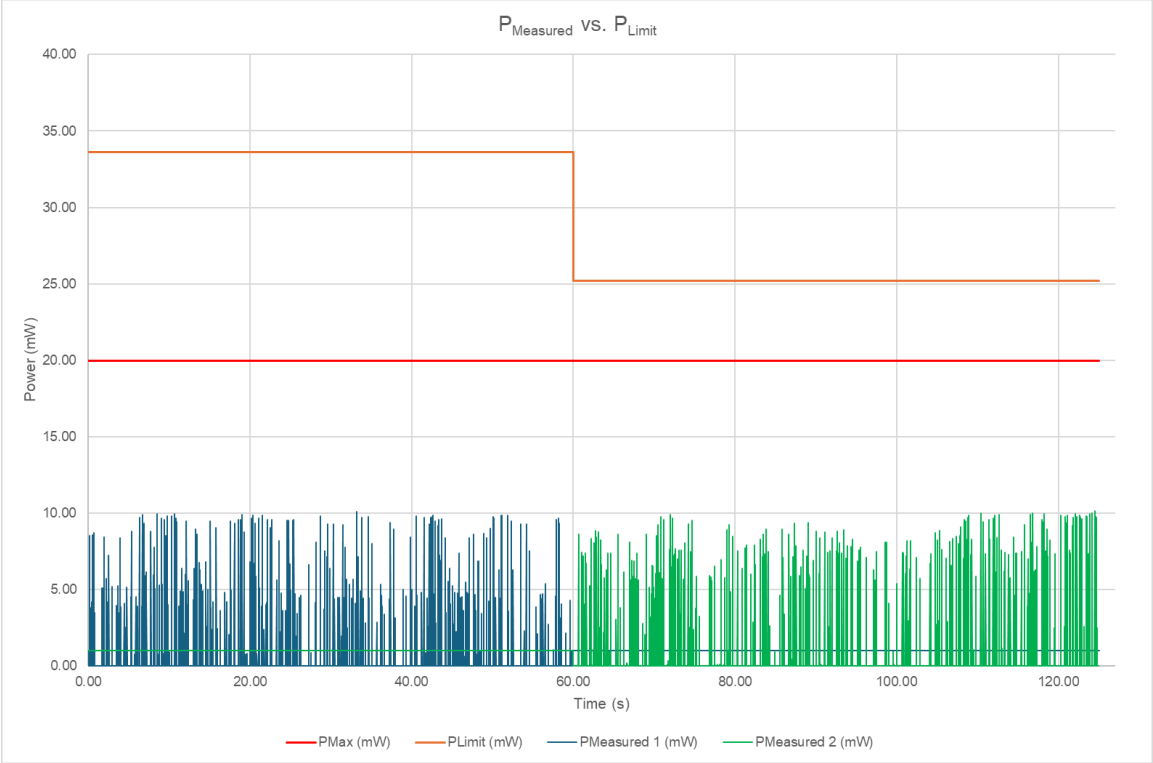
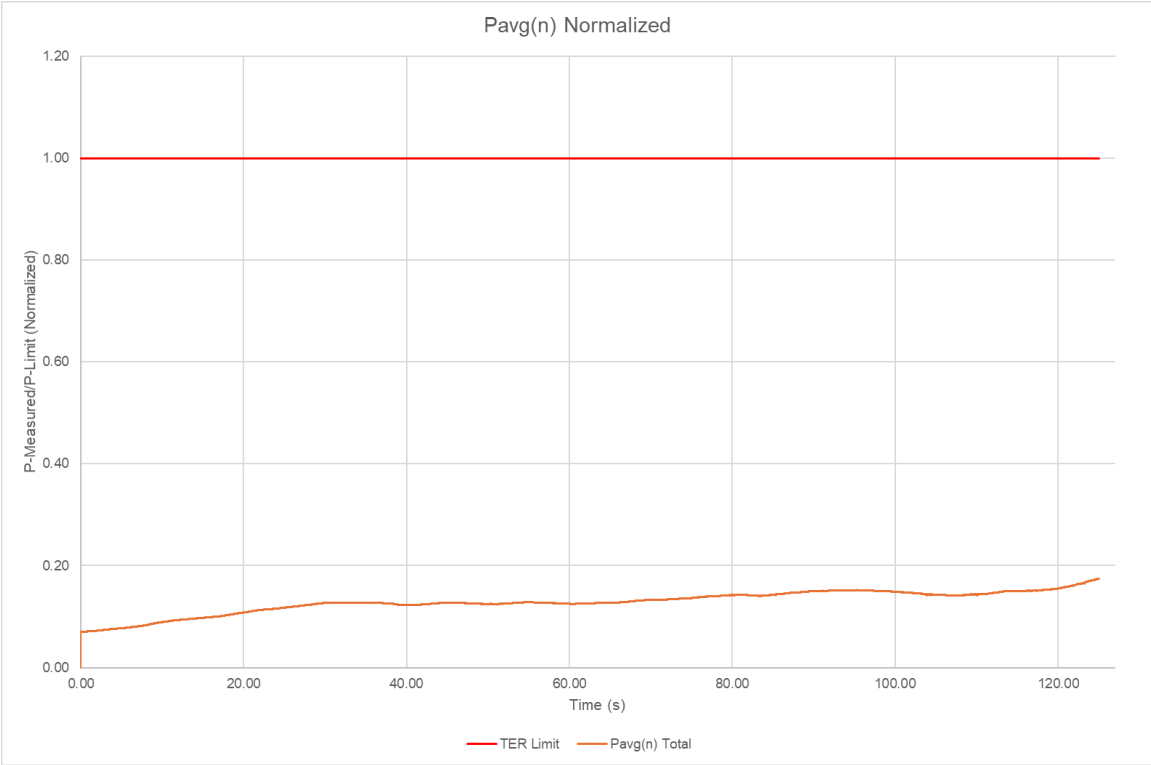


Figure 4-12: BT Power State 5 to Power State 6 Plot

Frequency: BT 2.4GHz HDR Antenna: TxChain1	dBm	mW
Power State 5 $Plim_1$	15.26	33.61
Power State 6 $Plim_2$	14.02	25.21
Pmax	13.00	19.95



Note: Despite the very low Pavg(n), during the test, the retransmission rate was high. This is REG capped, hence there is no TAS behavior observed.

Figure 4-13: BT Power State 5 to Power State 6 Validation

	Validation
Pavg(n) ≤ 1	0.17 ≤ 1

Pavg(n) was calculated using the 30 second time-averaging duration.

4.1.8. Change in Antenna/Band

4.1.8.1. Wi-Fi 2.4 GHz to 6 GHz

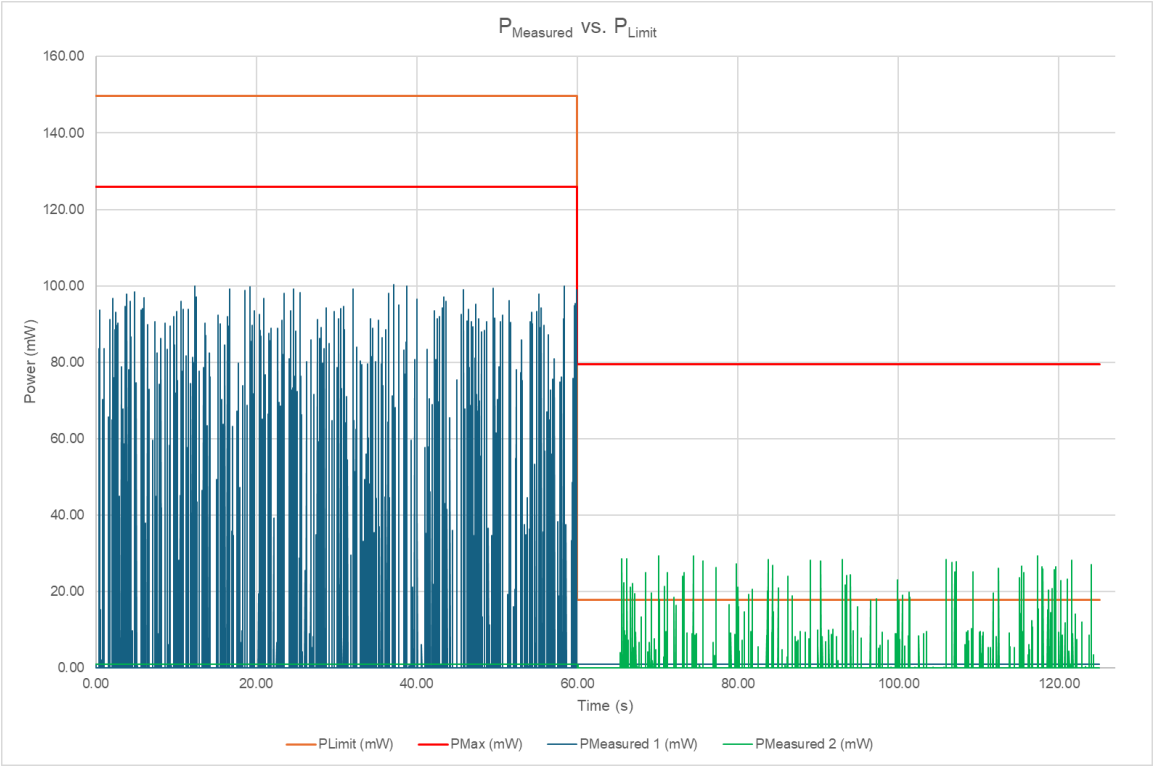


Figure 4-14: 2.4 GHz to 6 GHz Plot

	dBm	mW
Frequency: 2.4GHz Ch6 Antenna: TxChain1 $Plim_1$	21.75	149.62
Frequency: 2.4GHz Ch6 Antenna: TxChain1 $Pmax_1$	21	125.89
Frequency: 6.1GHz Ch33 Antenna: TxChain1 $Plim_2$	12.50	17.79
Frequency: 6.1GHz Ch33 Antenna: TxChain1 $Pmax_2$	19.00	79.43

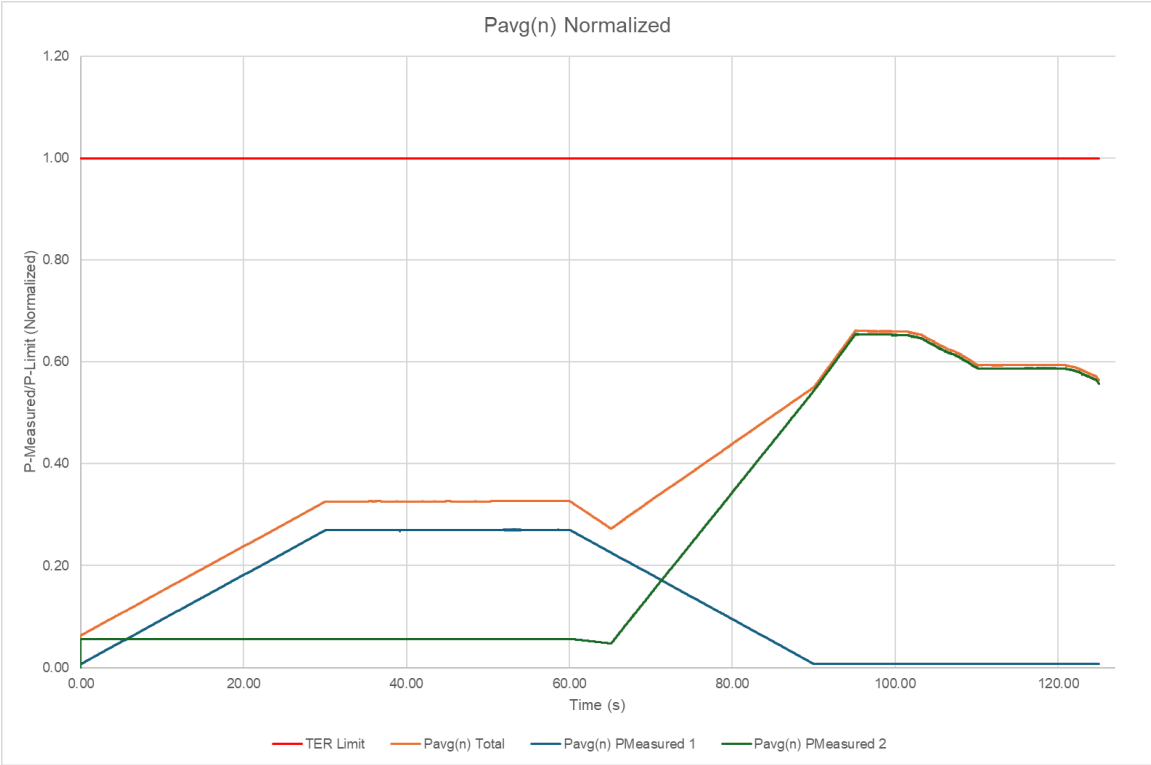


Figure 4-15: 2.4 GHz to 6 GHz Switch Validation

	Validation
Pavg(n) ≤ 1	0.66 ≤ 1

Pavg(n) was calculated using the 30 second time-averaging duration.

4.1.8.2. Wi-Fi 2.4GHz -> Wi-Fi 2.4GHz + 5 GHz

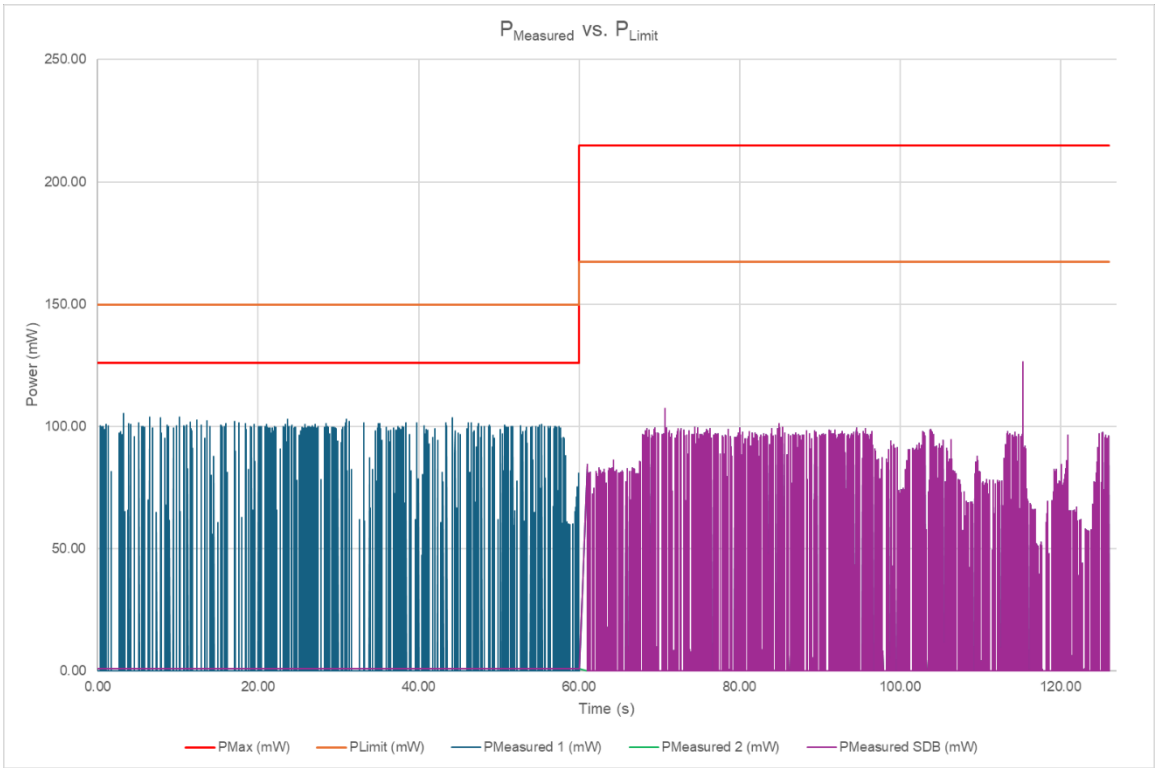


Figure 4-16: Wi-Fi 2.4GHz -> Wi-Fi 2.4GHz + 5 GHz

	dBm	mW
Frequency: 2.4GHz Ch6 Antenna: TxChain1 $Plim_1$	21.75	149.62
Frequency: 2.4GHz Ch6 Antenna: TxChain1 $Pmax_1$	21	125.89
Frequency: 5.6GHz Ch120 Antenna: TxChain1 Plim	12.50	17.78
Frequency: 5.6GHz Ch120 Antenna: TxChain1 Pmax	19.50	89.13
SDB $Plim_2$	22.24	167.40
SDB $Pmax_2$	23.32	215.02

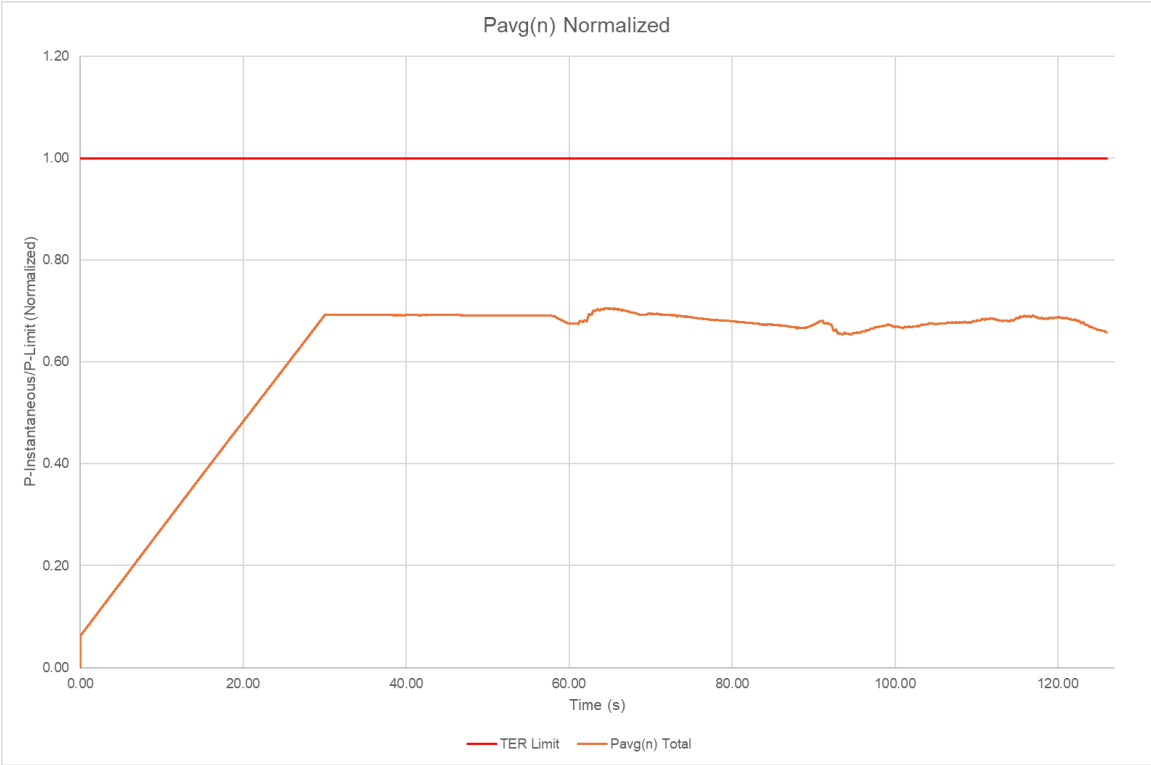


Figure 4-17: Wi-Fi 2.4GHz -> Wi-Fi 2.4GHz + 5 GHz Validation

	Validation
Pavg(n) ≤ 1	0.71 ≤ 1

Pavg(n) was calculated using the 30 second time-averaging duration.

5. Conclusion

The data presented in this report serves to validate this TAS algorithm for the connectivity transmitters. As demonstrated, the power limiting enforcement is effective and the total normalized time-averaged requested power/RF exposure does not exceed 1 nor does Pavg(n) exceed P_{Limit}.

Appendices

Appendix A: Test Setup Photos

Appendix B: SAR Measurement System & Test Equipment

B.1. Test Equipment

The measuring equipment used to perform the tests documented in this report has been calibrated in accordance with the manufacturers' recommendations and is traceable to recognized national standards.

Test Equipment

Name of Equipment	Manufacturer	Type/Model	Serial No.	Cal. Due Date
Power Sensor	R&S	NRP8S	107587	5/5/2027
Power Sensor	R&S	NRP8S	108121	5/5/2027
Power Sensor	R&S	NRP8S	109115	2/28/2026
Power Sensor	R&S	NRP8S	105244	5/5/2027
Vector Network Analyzer	R&S	ZNLE6	171920	2/28/2026
OSM Calibration Kit	R&S	ZN-Z151	101507	2/21/2026
Bi-Directional Coupler	Mini-Circuits	ZUDC10-83-S+	N/A	N/A
Bi-Directional Coupler	Mini-Circuits	ZUDC10-83-S+	N/A	N/A
Programmable Step Attenuator	API Technologies - Weinschel	8321 Series	11548001	N/A
Power Splitter	Mini-Circuits	ZFSC-2-10G	SF191300443	N/A
Power Splitter	Mini-Circuits	ZN2PD-9G-S	SF689400614	N/A
Access Point – Wi-Fi Router	TP-Link	Archer BE800	Y24B045000598	N/A

END OF REPORT