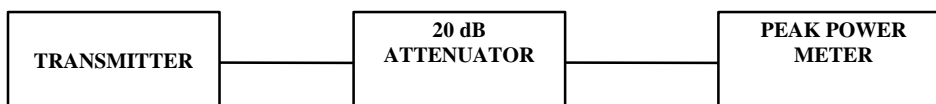


5.7.3. Test Arrangement



5.7.4. Test Equipment List

Test Instruments	Manufacturer	Model No.	Serial No.	Frequency Range
Spectrum Analyzer/ EMI Receiver	Hewlett Packard	HP 8593EM	3412A00103	9 kHz – 26.5 GHz
Peak Power Meter & Peak Power Sensor	Hewlett Packard	8900 8481A	2131A00124 2551A01965	0.1-18 GHz 50 Ohms Input
Microwave Amplifier	Hewlett Packard	HP 83017A		1 GHz to 26.5 GHz
Horn Antenna	EMCO	3155	9701-5061	1 GHz – 18 GHz
Horn Antenna	EMCO	3155	9911-5955	1 GHz – 18 GHz

5.7.5. Test Data

5.7.5.1. Test Antenna #1: StarLink (Slot 1)

EIRP MEASUREMENTS - CALCULATION METHOD

Duty cycle: 28%

Duty Cycle X = $10 \cdot \log(0.28) = -5.5$ dB. (Please refers to plots in Exhibit 8 Section 8.3 of this test report.)

Transmitter Channel	Frequency (MHz)	Antenna Gain G (dBi)	(wideband) Peak Power P @ Antenna Port (dBm)	(wideband) Average EIRP (P+G+X) (dBm)	Limit (dBm)
Lowest	2412	1.9	13.6	10.0	30
Middle	2437	1.9	11.8	8.2	30
Highest	2462	1.9	12.3	8.7	30

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EIRP MEASUREMENTS – SUBSTITUTION METOD

- Wideband Measuring BW = 11 MHz
- Duty Cycle: X = -5.5 dB
- EUT's Antenna Gain = 1.9 dBi

Frequency (MHz)	E-Field E1 in 1 MHz BW @ 3m (dBμV/m)	Antenna Polarization (V/H)	Power from Signal GEN. + Cable Loss (S) (dBm)/MHz	Substitution Antenna Gain G (dBi)	(Wideband) Measured Peak EIRP = S+G+10log(BW) (dBm)	(Wideband) Average EIRP= Peak EIRP+X (dBm)
2412	103.8	V	-4.9	8.2	13.7	8.2
2412	110.3	H	-1.7	8.2	16.9	11.4
2437	107.2	V	-2.3	8.2	16.3	10.8
2437	104.2	H	-3.8	8.2	14.8	9.3
2462	101.7	V	-4.1	8.2	14.5	9.0
2462	106.9	H	-1.5	8.2	17.1	11.6

RF EXOPSURE LIMIT

Transmitter Channel	Frequency (MHz)	Antenna Gain G (dBi)	(wideband) Peak EIRP (dBm)	Power Density Limit (mW/cm ²)	Safety Distance Limit (*) (cm)
Lowest	2412	1.9	16.9	1.0	1.2
Middle	2437	1.9	16.3	1.0	1.1
Highest	2462	1.9	17.1	1.0	1.3

5.7.5.2. Test Antenna #2: StarLink (Slot 2)

EIRP MEASUREMENTS - CALCULATION METHOD

Duty cycle: 28%

Duty Cycle X = $10 \cdot \log(0.28) = -5.5 \text{ dB}$. (Please refers to plots in Exhibit 8 Section 8.3 of this test report.)

Transmitter Channel	Frequency (MHz)	Antenna Gain G (dBi)	(wideband) Peak Power P @ Antenna Port (dBm)	(wideband) Average EIRP (P+G+X) (dBm)	Limit (dBm)
Lowest	2412	1.9	13.6	10.0	30
Middle	2437	1.9	11.8	8.2	30
Highest	2462	1.9	12.3	8.7	30

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EIRP MEASUREMENTS – SUBSTITUTION METOD

- Wideband Measuring BW = 11 MHz
- Duty Cycle: X = -5.5 dB
- EUT's Antenna Gain = 1.9 dBi

Frequency (MHz)	E-Field E1 in 1 MHz BW @ 3m (dBμV/m)	Antenna Polarization (V/H)	Power from Signal GEN. + Cable Loss (S) (dBm)/MHz	Substitution Antenna Gain G (dBi)	(Wideband) Measured Peak EIRP = S+G+10log(BW) (dBm)	(Wideband) Average EIRP = Peak EIRP+X (dBm)
2412	104.4	V	-4.6	8.2	14.0	8.5
2412	111.2	H	-1.2	8.2	17.4	11.9
2437	106.1	V	-2.9	8.2	15.7	10.2
2437	102.8	H	-4.5	8.2	14.1	8.6
2462	102.3	V	-3.8	8.2	14.8	9.3
2462	106.3	H	-1.8	8.2	16.8	11.3

RF EXPOSURE LIMIT

Transmitter Channel	Frequency (MHz)	Antenna Gain G (dBi)	(wideband) Peak EIRP (dBm)	Power Density Limit (mW/cm ²)	Safety Distance Limit (*) (cm)
Lowest	2412	1.9	17.4	1.0	1.2
Middle	2437	1.9	15.7	1.0	1.1
Highest	2462	1.9	16.8	1.0	1.2

Note:

* RF EXPOSURE DISTANCE LIMITS: $r = (PG/4\pi S)^{1/2} = (EIRP/4\pi S)^{1/2}$

For mobile or base transmitters, the minimum RF safety distance of 20 cm from the transmitting antenna to the body of a user shall be maintained. The user's manual shall contain the RF exposure warning as follows:

RF EXPOSURE FOR ACCESSIBLE ANTENNA



WARNING: For compliance with the RF exposure requirements regulated by the FCC (Federal Communications Commission), the separation distance of more than 20 cm shall be maintained between the transmitter, and any part of the user's body.

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