

1-18G Radiated Emission Test

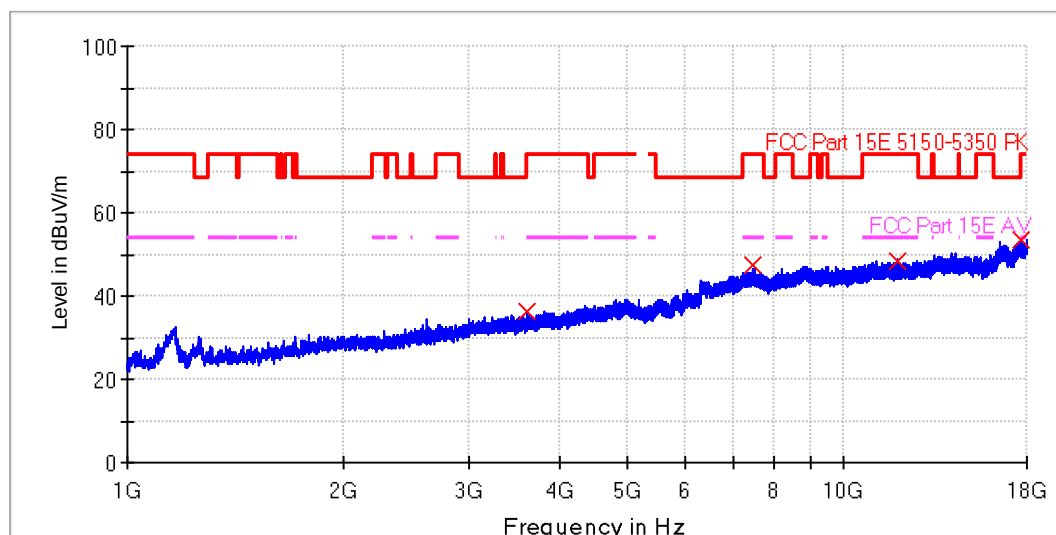
Common Information

EUT: Smart M Gateway
Model: THP23-ZB-X
Client: Zhejiang Lingzhu Technology Co., Ltd
Operating conditions: Power on, 5G Wi-Fi transmitting, 802.11n HT20: 5180M
Operator name: Xu Zheng
Input: AC 120V 60Hz
Sample No: WUX-0877560-006
Test standard: FCC Part 15.407(b)
Comment: Horizontal, Adapter Model: TPA-10D050200UU01

Sweep Setup: FCC_RE_1-18G Sweep 3m_bonn [EMI radiated]

Hardware Setup: FCC part15C Radiated E Field 1GHz-18GHz_3m_BONN
Receiver: [FSV 40]
Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
1 GHz - 6.3 GHz	441.667 kHz	PK+	1 MHz	1 s	0 dB
6.3 GHz - 18 GHz	487.5 kHz	PK+	1 MHz	1 s	0 dB



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)
3613.000000	36.2	190.0	H	205.0	-5.1	37.8	74.0
7475.000000	47.4	200.0	H	198.0	9.1	26.6	74.0
11875.000000	48.5	185.0	H	341.0	14.3	25.5	74.0
17709.500000	53.6	170.0	H	133.0	22.0	20.4	74.0

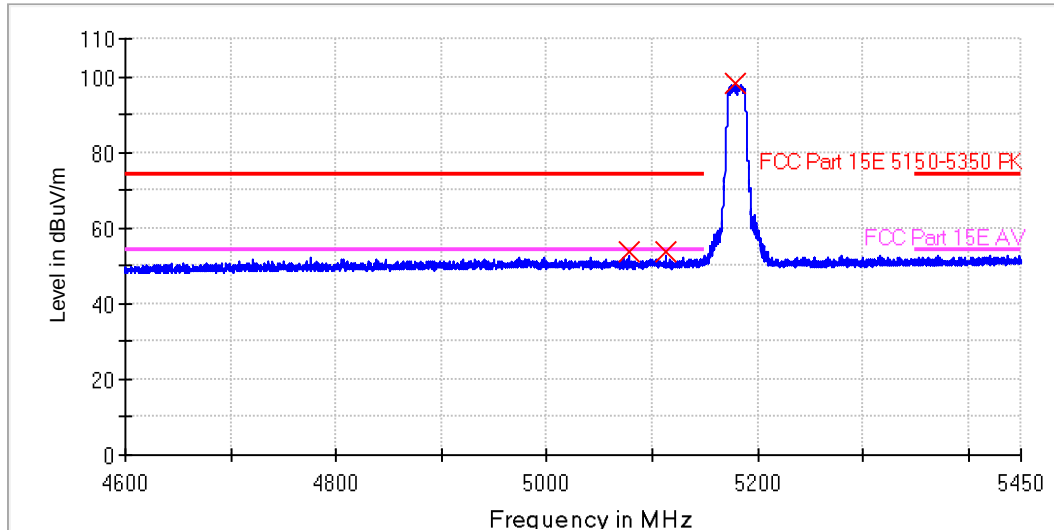
Note: Emission level= Original Receiver Reading + Correct Factor

Correct Factor = Antenna Factor + Cable Loss -Amplifier gain

Sweep Setup: FCC_Band edge-4600-5400 Sweep 3m_agilent [EMI radiated]

Hardware Setup: FCC part15E Radiated E Field 1GHz-18GHz_3m_Agilent
Receiver: [FSV 40]
Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
4.6 GHz - 5.45 GHz	170 kHz	PK+	1 MHz	1 s	0 dB



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)
5077.500000	53.5	185.0	H	148.0	9.4	20.5	74.0
5112.500000	53.7	180.0	H	232.0	9.5	20.3	74.0
5179.000000	98.0	195.0	H	187.0	9.6	---	---

Note: Emission level= Original Receiver Reading + Correct Factor

Correct Factor = Antenna Factor + Cable Loss -Amplifier gain

1-18G Radiated Emission Test

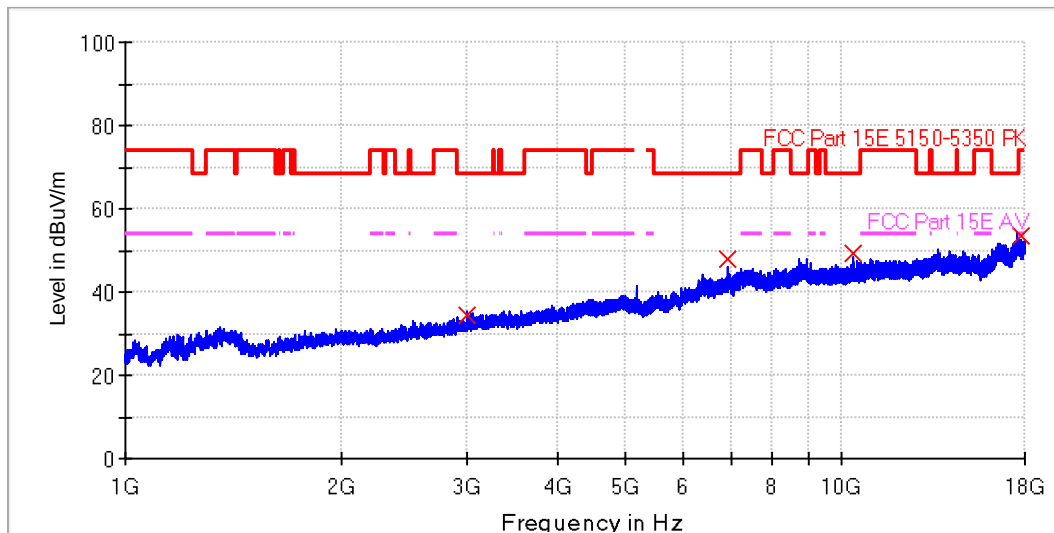
Common Information

EUT: Smart M Gateway
Model: THP23-ZB-X
Client: Zhejiang Lingzhu Technology Co., Ltd
Operating conditions: Power on, 5G Wi-Fi transmitting, 802.11n HT20: 5180M
Operator name: Xu Zheng
Input: AC 120V 60Hz
Sample No: WUX-0877560-006
Test standard: FCC Part 15.407(b)
Comment: Vertical, Adapter Model: TPA-10D050200UU01

Sweep Setup: FCC_RE_1-18G Sweep 3m_bonn [EMI radiated]

Hardware Setup: FCC part15C Radiated E Field 1GHz-18GHz_3m_BONN
Receiver: [FSV 40]
Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
1 GHz - 6.3 GHz	441.667 kHz	PK+	1 MHz	1 s	0 dB
6.3 GHz - 18 GHz	487.5 kHz	PK+	1 MHz	1 s	0 dB



Limit and Margin

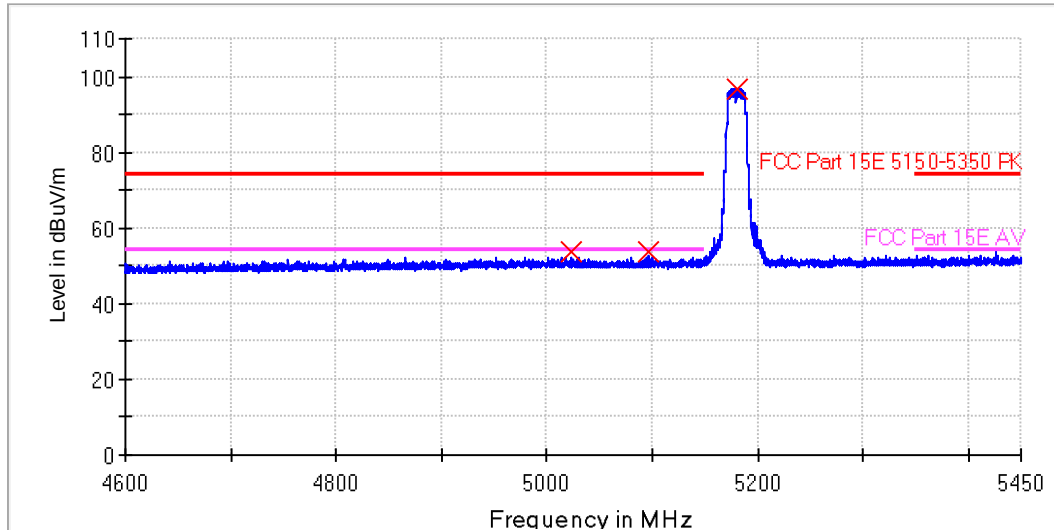
Frequency (MHz)	MaxPeak (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)
3006.500000	34.6	140.0	V	61.0	-6.8	33.6	68.2
6906.500000	47.9	135.0	V	163.0	7.3	20.3	68.2
10357.500000	49.2	150.0	V	191.0	12.4	19.0	68.2
17800.500000	53.5	140.0	V	181.0	22.1	20.5	74.0

Note: Emission level= Original Receiver Reading + Correct Factor
Correct Factor = Antenna Factor + Cable Loss -Amplifier gain

Sweep Setup: FCC_Band edge-4600-5400 Sweep 3m_agilent [EMI radiated]

Hardware Setup: FCC part15E Radiated E Field 1GHz-18GHz_3m_Agilent
Receiver: [FSV 40]
Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
4.6 GHz - 5.45 GHz	170 kHz	PK+	1 MHz	1 s	0 dB



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)
5023.500000	53.6	140.0	V	157.0	9.4	20.4	74.0
5096.500000	53.7	135.0	V	207.0	9.5	20.3	74.0
5181.500000	96.6	145.0	V	45.0	9.6	---	---

Note: Emission level= Original Receiver Reading + Correct Factor

Correct Factor = Antenna Factor + Cable Loss -Amplifier gain

1-18G Radiated Emission Test

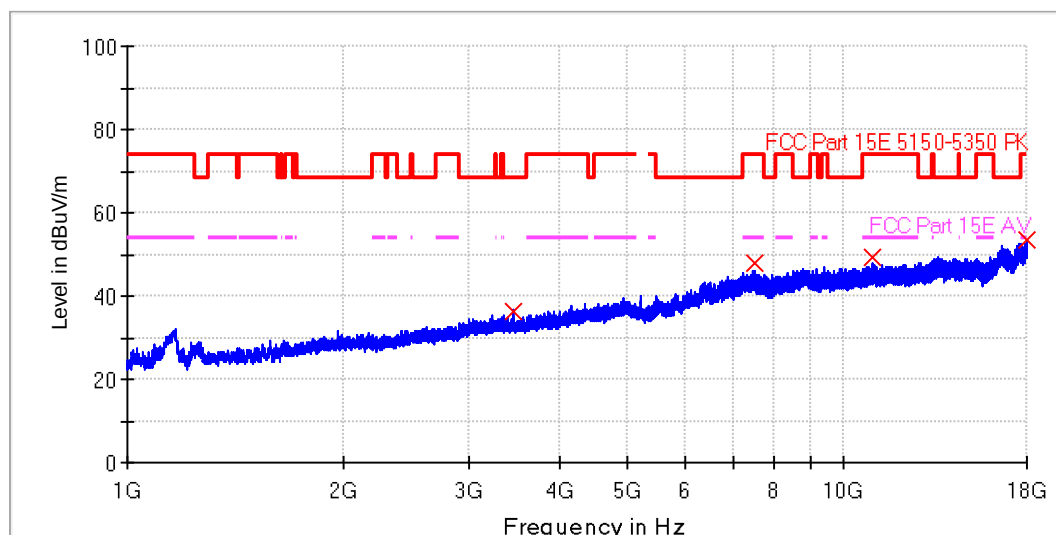
Common Information

EUT: Smart M Gateway
Model: THP23-ZB-X
Client: Zhejiang Lingzhu Technology Co., Ltd
Operating conditions: Power on, 5G Wi-Fi transmitting, 802.11n HT20: 5200M
Operator name: Xu Zheng
Input: AC 120V 60Hz
Sample No: WUX-0877560-006
Test standard: FCC Part 15.407(b)
Comment: Horizontal, Adapter Model: TPA-10D050200UU01

Sweep Setup: FCC_RE_1-18G Sweep 3m_bonn [EMI radiated]

Hardware Setup: FCC part15C Radiated E Field 1GHz-18GHz_3m_BONN
Receiver: [FSV 40]
Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
1 GHz - 6.3 GHz	441.667 kHz	PK+	1 MHz	1 s	0 dB
6.3 GHz - 18 GHz	487.5 kHz	PK+	1 MHz	1 s	0 dB



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)
3460.500000	36.2	165.0	H	91.0	-5.6	32.0	68.2
7493.000000	47.7	175.0	H	183.0	9.3	26.3	74.0
10955.500000	49.1	190.0	H	109.0	13.5	24.9	74.0
17965.000000	53.5	180.0	H	219.0	22.1	20.5	74.0

Note: Emission level= Original Receiver Reading + Correct Factor

Correct Factor = Antenna Factor + Cable Loss -Amplifier gain

1-18G Radiated Emission Test

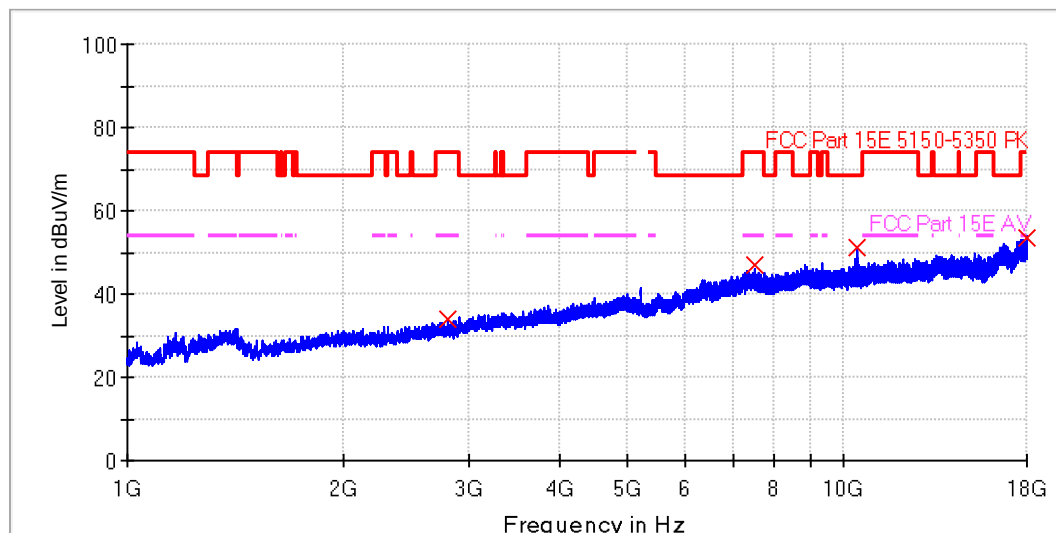
Common Information

EUT: Smart M Gateway
Model: THP23-ZB-X
Client: Zhejiang Lingzhu Technology Co., Ltd
Operating conditions: Power on, 5G Wi-Fi transmitting, 802.11n HT20: 5200M
Operator name: Xu Zheng
Input: AC 120V 60Hz
Sample No: WUX-0877560-006
Test standard: FCC Part 15.407(b)
Comment: Vertical, Adapter Model: TPA-10D050200UU01

Sweep Setup: FCC_RE_1-18G Sweep 3m_bonn [EMI radiated]

Hardware Setup: FCC part15C Radiated E Field 1GHz-18GHz_3m_BONN
Receiver: [FSV 40]
Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamplifier
1 GHz - 6.3 GHz	441.667 kHz	PK+	1 MHz	1 s	0 dB
6.3 GHz - 18 GHz	487.5 kHz	PK+	1 MHz	1 s	0 dB



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)
2794.500000	33.8	130.0	V	158.0	-7.7	40.2	74.0
7516.000000	47.0	145.0	V	262.0	9.4	27.0	74.0
10402.000000	51.1	125.0	V	127.0	12.6	17.1	68.2
17964.500000	53.5	140.0	V	85.0	22.1	20.5	74.0

Note: Emission level= Original Receiver Reading + Correct Factor
Correct Factor = Antenna Factor + Cable Loss - Amplifier gain

1-18G Radiated Emission Test

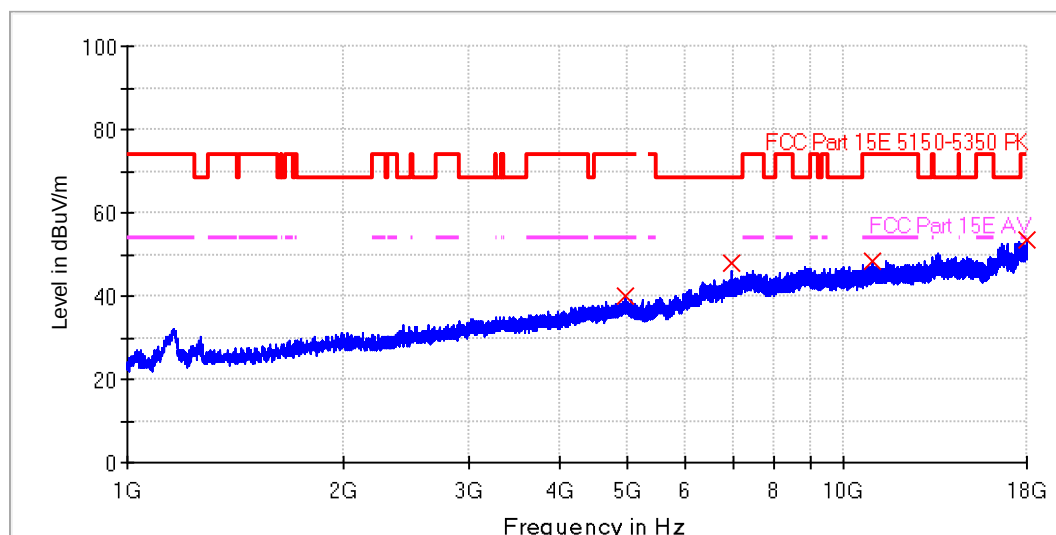
Common Information

EUT: Smart M Gateway
Model: THP23-ZB-X
Client: Zhejiang Lingzhu Technology Co., Ltd
Operating conditions: Power on, 5G Wi-Fi transmitting, 802.11n HT20: 5240M
Operator name: Xu Zheng
Input: AC 120V 60Hz
Sample No: WUX-0877560-006
Test standard: FCC Part 15.407(b)
Comment: Horizontal, Adapter Model: TPA-10D050200UU01

Sweep Setup: FCC_RE_1-18G Sweep 3m_bonn [EMI radiated]

Hardware Setup: FCC part15C Radiated E Field 1GHz-18GHz_3m_BONN
Receiver: [FSV 40]
Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
1 GHz - 6.3 GHz	441.667 kHz	PK+	1 MHz	1 s	0 dB
6.3 GHz - 18 GHz	487.5 kHz	PK+	1 MHz	1 s	0 dB



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)
4946.500000	39.8	185.0	H	107.0	0.1	34.2	74.0
6986.500000	48.1	180.0	H	217.0	7.3	20.1	68.2
10979.000000	48.5	165.0	H	116.0	13.6	25.5	74.0
17976.000000	53.5	190.0	H	274.0	22.1	20.5	74.0

Note: Emission level= Original Receiver Reading + Correct Factor

Correct Factor = Antenna Factor + Cable Loss -Amplifier gain

1-18G Radiated Emission Test

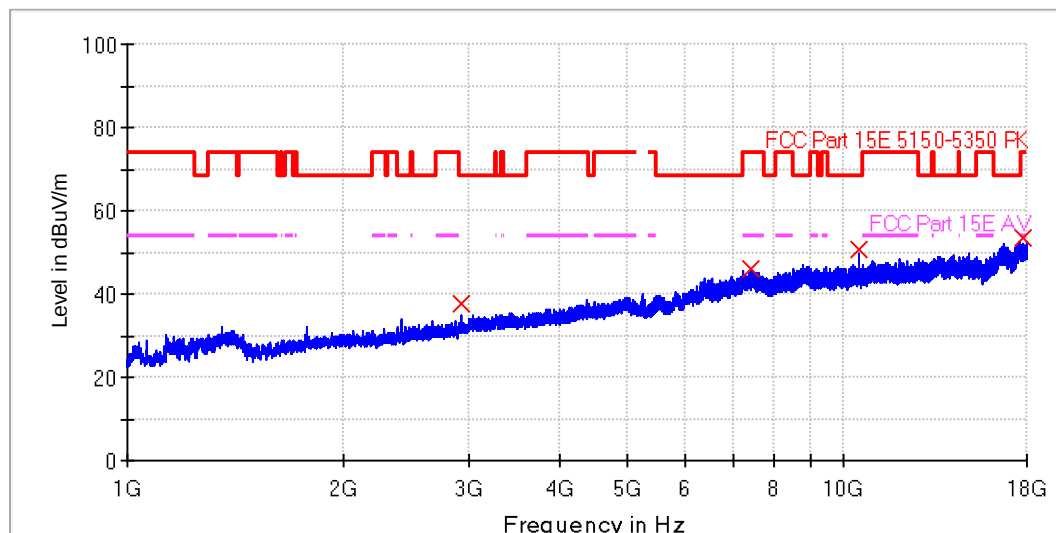
Common Information

EUT: Smart M Gateway
Model: THP23-ZB-X
Client: Zhejiang Lingzhu Technology Co., Ltd
Operating conditions: Power on, 5G Wi-Fi transmitting, 802.11n HT20: 5240M
Operator name: Xu Zheng
Input: AC 120V 60Hz
Sample No: WUX-0877560-006
Test standard: FCC Part 15.407(b)
Comment: Vertical, Adapter Model: TPA-10D050200UU01

Sweep Setup: FCC_RE_1-18G Sweep 3m_bonn [EMI radiated]

Hardware Setup: FCC part15C Radiated E Field 1GHz-18GHz_3m_BONN
Receiver: [FSV 40]
Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamplifier
1 GHz - 6.3 GHz	441.667 kHz	PK+	1 MHz	1 s	0 dB
6.3 GHz - 18 GHz	487.5 kHz	PK+	1 MHz	1 s	0 dB



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)
2916.000000	37.5	125.0	V	310.0	-7.0	30.7	68.2
7399.000000	46.2	150.0	V	48.0	8.7	27.8	74.0
10477.500000	50.8	130.0	V	122.0	12.9	17.4	68.2
17814.500000	53.6	145.0	V	183.0	22.1	20.5	74.0

Note: Emission level= Original Receiver Reading + Correct Factor
Correct Factor = Antenna Factor + Cable Loss - Amplifier gain

1-18G Radiated Emission Test

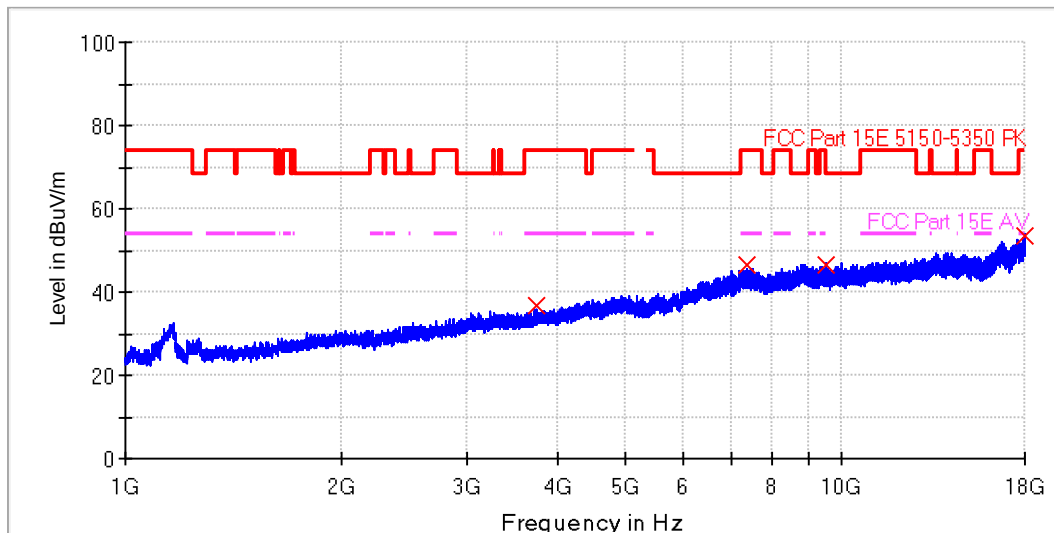
Common Information

EUT: Smart M Gateway
Model: THP23-ZB-X
Client: Zhejiang Lingzhu Technology Co., Ltd
Operating conditions: Power on, 5G Wi-Fi transmitting, 802.11n HT20: 5260M
Operator name: Xu Zheng
Input: AC 120V 60Hz
Sample No: WUX-0877560-006
Test standard: FCC Part 15.407(b)
Comment: Horizontal, Adapter Model: TPA-10D050200UU01

Sweep Setup: FCC_RE_1-18G Sweep 3m_bonn [EMI radiated]

Hardware Setup: FCC part15C Radiated E Field 1GHz-18GHz_3m_BONN
Receiver: [FSV 40]
Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
1 GHz - 6.3 GHz	441.667 kHz	PK+	1 MHz	1 s	0 dB
6.3 GHz - 18 GHz	487.5 kHz	PK+	1 MHz	1 s	0 dB



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)
3740.500000	36.7	180.0	H	222.0	-4.3	37.3	74.0
7366.500000	46.3	175.0	H	171.0	8.6	27.7	74.0
9481.500000	46.4	160.0	H	144.0	11.9	27.6	74.0
17971.000000	53.4	190.0	H	123.0	22.1	20.6	74.0

Note: Emission level= Original Receiver Reading + Correct Factor
Correct Factor = Antenna Factor + Cable Loss -Amplifier gain

1-18G Radiated Emission Test

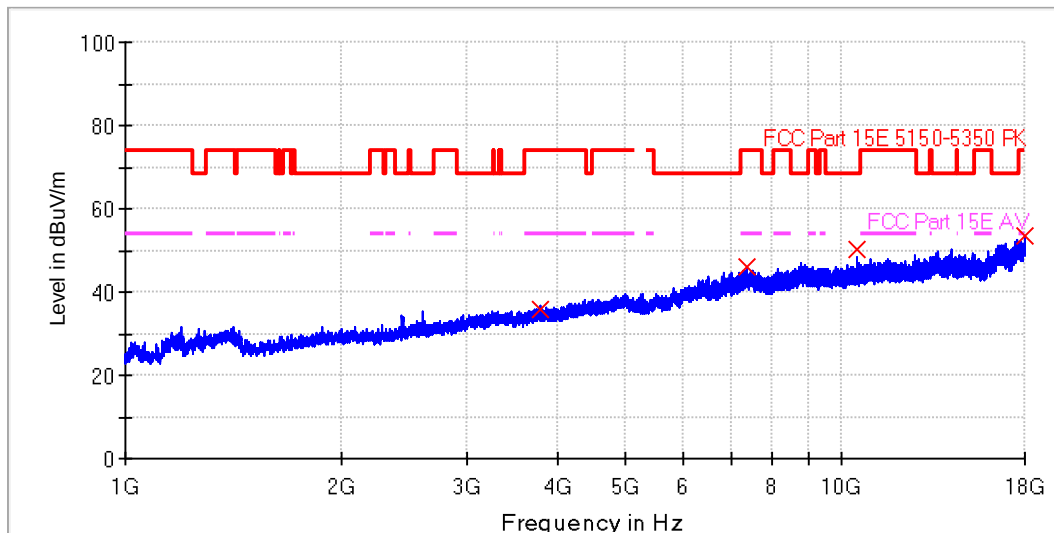
Common Information

EUT: Smart M Gateway
Model: THP23-ZB-X
Client: Zhejiang Lingzhu Technology Co., Ltd
Operating conditions: Power on, 5G Wi-Fi transmitting, 802.11n HT20: 5260M
Operator name: Xu Zheng
Input: AC 120V 60Hz
Sample No: WUX-0877560-006
Test standard: FCC Part 15.407(b)
Comment: Vertical, Adapter Model: TPA-10D050200UU01

Sweep Setup: FCC_RE_1-18G Sweep 3m_bonn [EMI radiated]

Hardware Setup: FCC part15C Radiated E Field 1GHz-18GHz_3m_BONN
Receiver: [FSV 40]
Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamplifier
1 GHz - 6.3 GHz	441.667 kHz	PK+	1 MHz	1 s	0 dB
6.3 GHz - 18 GHz	487.5 kHz	PK+	1 MHz	1 s	0 dB



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)
3789.500000	35.9	125.0	V	123.0	-4.3	38.1	74.0
7363.000000	46.1	145.0	V	177.0	8.6	27.9	74.0
10519.000000	50.0	130.0	V	119.0	13.1	18.2	68.2
17972.500000	53.6	135.0	V	232.0	22.1	20.4	74.0

Note: Emission level= Original Receiver Reading + Correct Factor
Correct Factor = Antenna Factor + Cable Loss - Amplifier gain



1-18G Radiated Emission Test

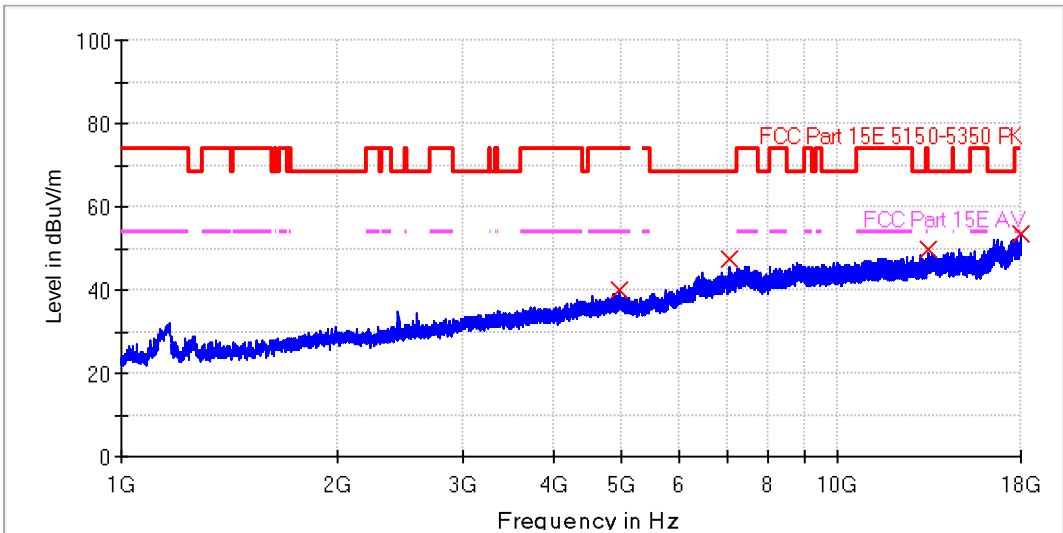
Common Information

EUT:	Smart M Gateway
Model:	THP23-ZB-X
Client:	Zhejiang Lingzhu Technology Co., Ltd
Operating conditions:	Power on, 5G Wi-Fi transmitting, 802.11n HT20: 5300M
Operator name:	Xu Zheng
Input:	AC 120V 60Hz
Sample No:	WUX-0877560-006
Test standard:	FCC Part 15.407(b)
Comment:	Horizontal, Adapter Model: TPA-10D050200UU01

Sweep Setup: FCC_RE_1-18G Sweep 3m_bonn [EMI radiated]

Hardware Setup:	FCC part15C Radiated E Field 1GHz-18GHz_3m_BONN
Receiver:	[FSV 40]
Level Unit:	dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
1 GHz - 6.3 GHz	441.667 kHz	PK+	1 MHz	1 s	0 dB
6.3 GHz - 18 GHz	487.5 kHz	PK+	1 MHz	1 s	0 dB



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)
4943.500000	39.9	175.0	H	144.0	0.1	34.1	74.0
7067.000000	47.4	190.0	H	177.0	7.7	20.8	68.2
13329.000000	49.6	205.0	H	267.0	17.0	24.4	74.0
17960.500000	53.5	185.0	H	74.0	22.1	20.5	74.0

Note: Emission level= Original Receiver Reading + Correct Factor
Correct Factor = Antenna Factor + Cable Loss -Amplifier gain

1-18G Radiated Emission Test

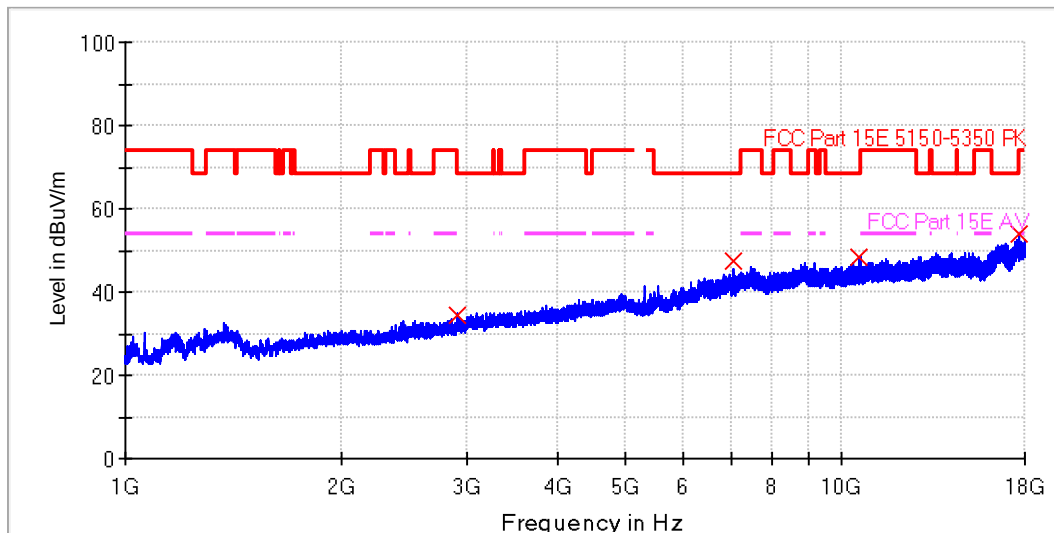
Common Information

EUT: Smart M Gateway
Model: THP23-ZB-X
Client: Zhejiang Lingzhu Technology Co., Ltd
Operating conditions: Power on, 5G Wi-Fi transmitting, 802.11n HT20: 5300M
Operator name: Xu Zheng
Input: AC 120V 60Hz
Sample No: WUX-0877560-006
Test standard: FCC Part 15.407(b)
Comment: Vertical, Adapter Model: TPA-10D050200UU01

Sweep Setup: FCC_RE_1-18G Sweep 3m_bonn [EMI radiated]

Hardware Setup: FCC part15C Radiated E Field 1GHz-18GHz_3m_BONN
Receiver: [FSV 40]
Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamplifier
1 GHz - 6.3 GHz	441.667 kHz	PK+	1 MHz	1 s	0 dB
6.3 GHz - 18 GHz	487.5 kHz	PK+	1 MHz	1 s	0 dB



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)
2906.000000	34.3	120.0	V	157.0	-7.2	33.9	68.2
7066.500000	47.6	140.0	V	203.0	7.7	20.6	68.2
10591.500000	48.5	125.0	V	101.0	13.3	19.7	68.2
17622.000000	53.9	130.0	V	181.0	22.0	14.3	68.2

Note: Emission level= Original Receiver Reading + Correct Factor
Correct Factor = Antenna Factor + Cable Loss - Amplifier gain

1-18G Radiated Emission Test

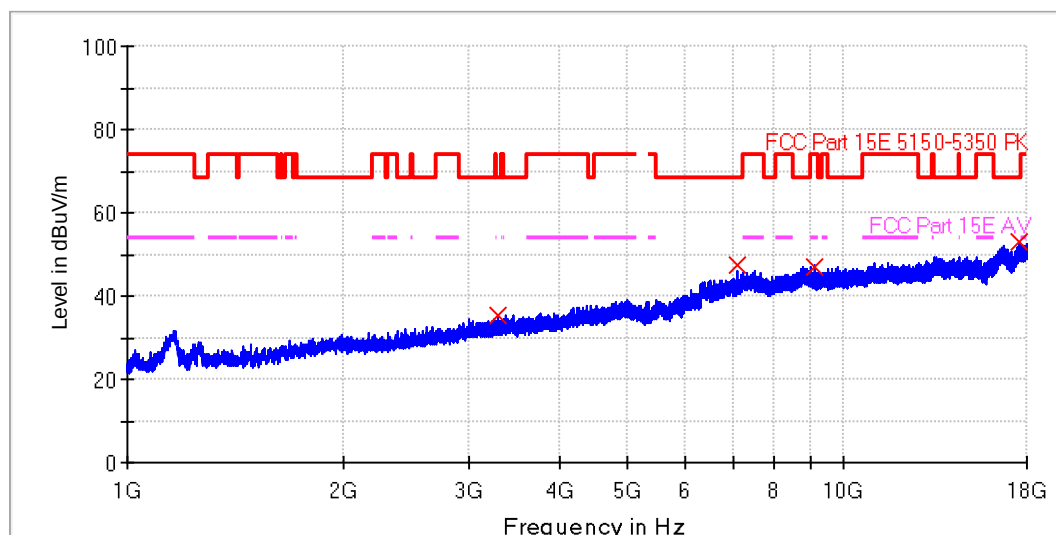
Common Information

EUT: Smart M Gateway
Model: THP23-ZB-X
Client: Zhejiang Lingzhu Technology Co., Ltd
Operating conditions: Power on, 5G Wi-Fi transmitting, 802.11n HT20: 5320M
Operator name: Xu Zheng
Input: AC 120V 60Hz
Sample No: WUX-0877560-006
Test standard: FCC Part 15.407(b)
Comment: Horizontal, Adapter Model: TPA-10D050200UU01

Sweep Setup: FCC_RE_1-18G Sweep 3m_bonn [EMI radiated]

Hardware Setup: FCC part15C Radiated E Field 1GHz-18GHz_3m_BONN
Receiver: [FSV 40]
Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
1 GHz - 6.3 GHz	441.667 kHz	PK+	1 MHz	1 s	0 dB
6.3 GHz - 18 GHz	487.5 kHz	PK+	1 MHz	1 s	0 dB



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)
3288.500000	35.2	190.0	H	147.0	-5.8	33.0	68.2
7093.000000	47.4	200.0	H	136.0	7.8	20.8	68.2
9092.000000	47.0	185.0	H	258.0	11.8	27.0	74.0
17541.500000	53.1	170.0	H	230.0	21.9	15.1	68.2

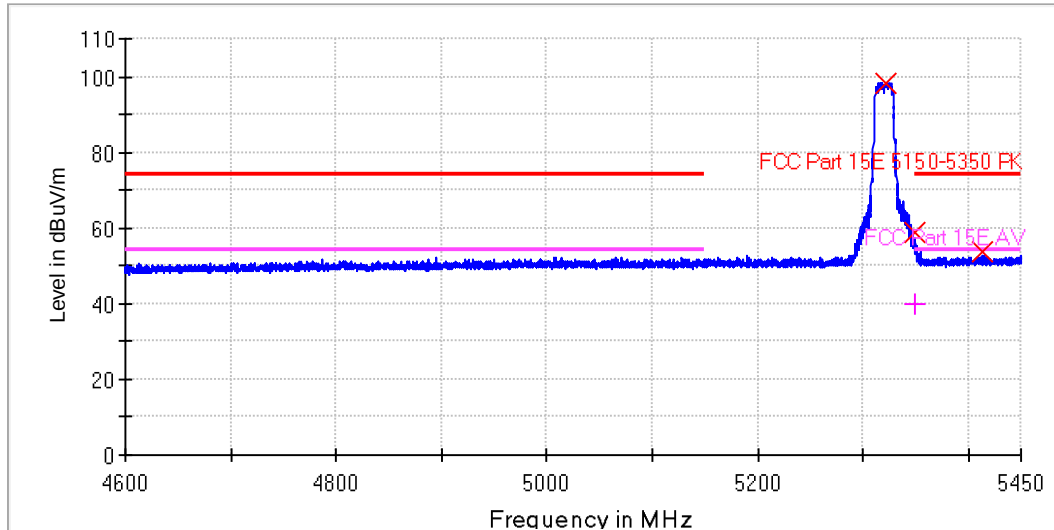
Note: Emission level= Original Receiver Reading + Correct Factor

Correct Factor = Antenna Factor + Cable Loss -Amplifier gain

Sweep Setup: FCC_Band edge-4600-5400 Sweep 3m_agilent [EMI radiated]

Hardware Setup: FCC part15E Radiated E Field 1GHz-18GHz_3m_Agilent
Receiver: [FSV 40]
Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
4.6 GHz - 5.45 GHz	170 kHz	PK+	1 MHz	1 s	0 dB



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Average (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AVG (dB)	Limit - AVG (dBuV/m)
5321.500000	98.3	---	200.0	H	254.0	9.8	---	---	---	---
5350.000000	58.8	40.0	185.0	H	87.0	9.8	15.2	74.0	14.0	54.0
5413.000000	53.6	---	170.0	H	141.0	10.0	20.4	74.0	---	---

Note: Emission level= Original Receiver Reading + Correct Factor

Correct Factor = Antenna Factor + Cable Loss -Amplifier gain

1-18G Radiated Emission Test

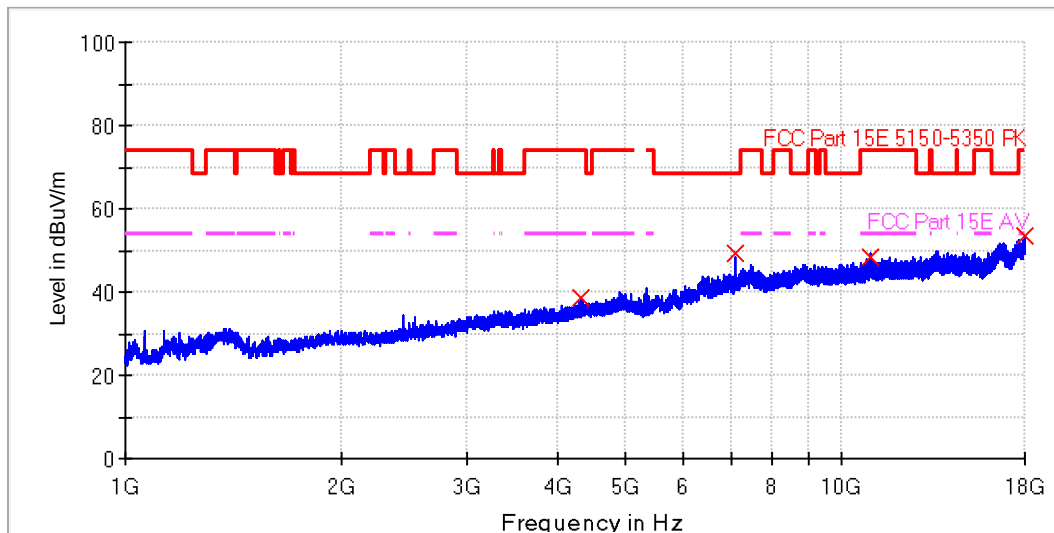
Common Information

EUT: Smart M Gateway
Model: THP23-ZB-X
Client: Zhejiang Lingzhu Technology Co., Ltd
Operating conditions: Power on, 5G Wi-Fi transmitting, 802.11n HT20: 5320M
Operator name: Xu Zheng
Input: AC 120V 60Hz
Sample No: WUX-0877560-006
Test standard: FCC Part 15.407(b)
Comment: Vertical, Adapter Model: TPA-10D050200UU01

Sweep Setup: FCC_RE_1-18G Sweep 3m_bonn [EMI radiated]

Hardware Setup: FCC part15C Radiated E Field 1GHz-18GHz_3m_BONN
Receiver: [FSV 40]
Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
1 GHz - 6.3 GHz	441.667 kHz	PK+	1 MHz	1 s	0 dB
6.3 GHz - 18 GHz	487.5 kHz	PK+	1 MHz	1 s	0 dB



Limit and Margin

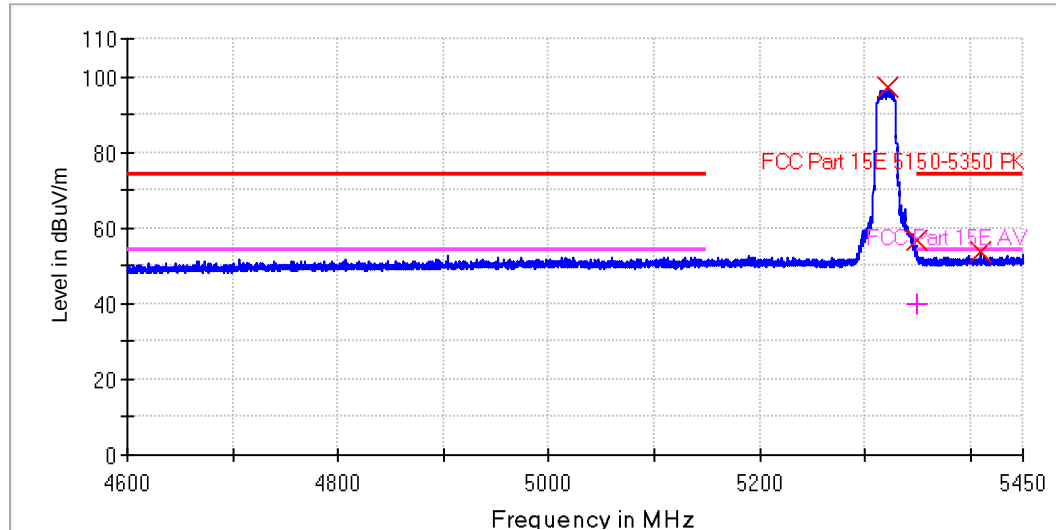
Frequency (MHz)	MaxPeak (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)
4312.000000	38.5	140.0	V	252.0	-2.6	35.6	74.0
7093.000000	49.5	135.0	V	205.0	7.8	18.7	68.2
10931.000000	48.5	125.0	V	129.0	13.5	25.5	74.0
17977.000000	53.3	130.0	V	80.0	22.1	20.7	74.0

Note: Emission level= Original Receiver Reading + Correct Factor
Correct Factor = Antenna Factor + Cable Loss -Amplifier gain

Sweep Setup: FCC_Band edge-4600-5400 Sweep 3m_agilent [EMI radiated]

Hardware Setup: FCC part15E Radiated E Field 1GHz-18GHz_3m_Agilent
Receiver: [FSV 40]
Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
4.6 GHz - 5.45 GHz	170 kHz	PK+	1 MHz	1 s	0 dB



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Average (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - AVG (dB)	Limit - AVG (dBuV/m)
5321.500000	97.0	---	120.0	V	187.0	9.8	---	---	---	---
5350.000000	56.7	39.7	135.0	V	136.0	9.8	17.3	74.0	14.3	54.0
5410.000000	53.8	---	130.0	V	288.0	10.0	20.2	74.0	---	---

Note: Emission level= Original Receiver Reading + Correct Factor

Correct Factor = Antenna Factor + Cable Loss -Amplifier gain

1-18G Radiated Emission Test

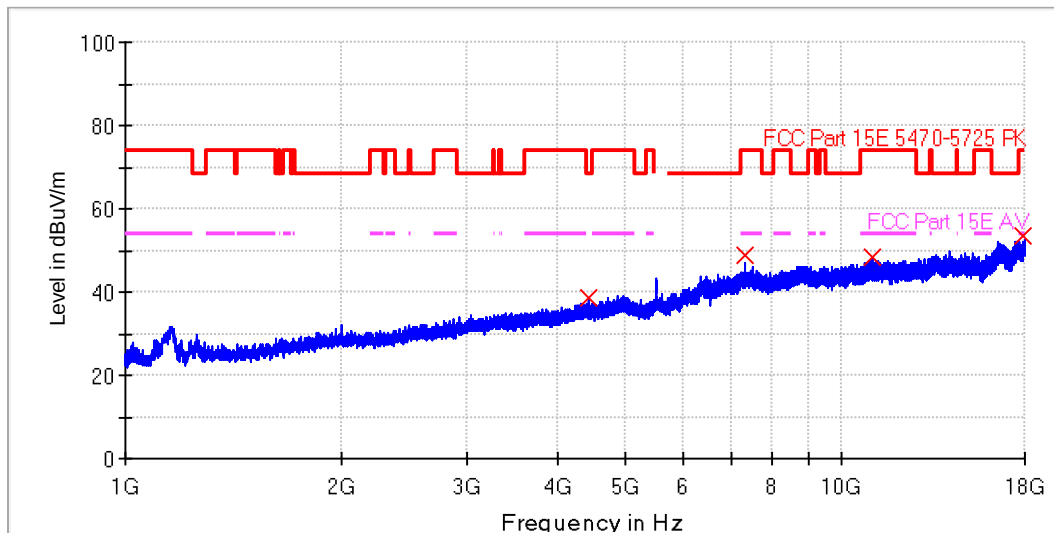
Common Information

EUT: Smart M Gateway
Model: THP23-ZB-X
Client: Zhejiang Lingzhu Technology Co., Ltd
Operating conditions: Power on, 5G Wi-Fi transmitting, 802.11n HT20: 5500M
Operator name: Xu Zheng
Input: AC 120V 60Hz
Sample No: WUX-0877560-006
Test standard: FCC Part 15.407(b)
Comment: Horizontal, Adapter Model: TPA-10D050200UU01

Sweep Setup: FCC_RE_1-18G Sweep 3m_bonn [EMI radiated]

Hardware Setup: FCC part15C Radiated E Field 1GHz-18GHz_3m_BONN
Receiver: [FSV 40]
Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
1 GHz - 6.3 GHz	441.667 kHz	PK+	1 MHz	1 s	0 dB
6.3 GHz - 18 GHz	487.5 kHz	PK+	1 MHz	1 s	0 dB



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)
4443.000000	38.5	185.0	H	300.0	-2.5	29.7	68.2
7333.000000	48.9	170.0	H	133.0	8.7	25.1	74.0
11029.000000	48.2	205.0	H	186.0	13.7	25.8	74.0
17834.500000	53.6	190.0	H	297.0	22.1	20.4	74.0

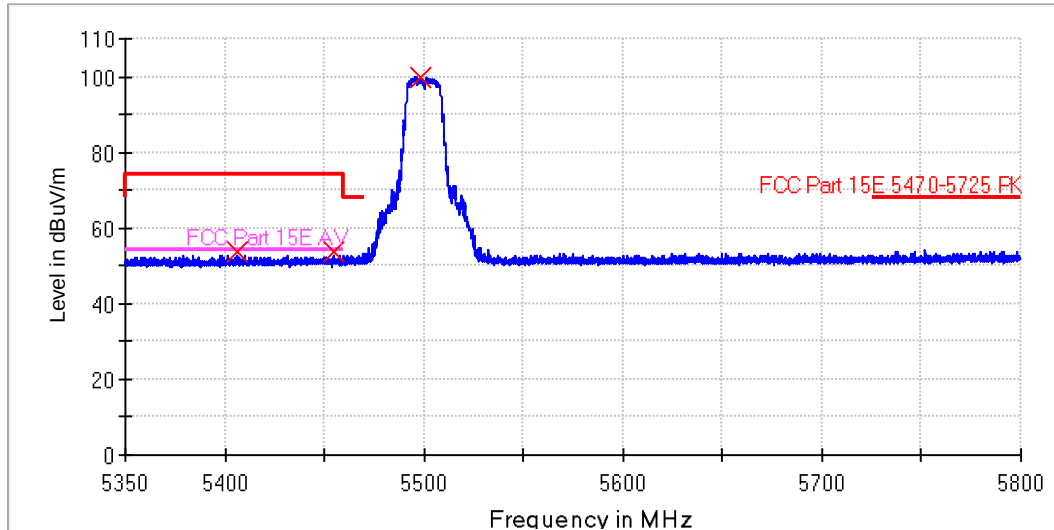
Note: Emission level= Original Receiver Reading + Correct Factor

Correct Factor = Antenna Factor + Cable Loss -Amplifier gain

Sweep Setup: FCC_Band edge-5350-5750 Sweep 3m_agilent [EMI radiated]

Hardware Setup: FCC part15E Radiated E Field 1GHz-18GHz_3m_Agilent
Receiver: [FSV 40]
Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
5.35 GHz - 5.8 GHz	90 kHz	PK+	1 MHz	1 s	0 dB



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)
5406.000000	53.6	185.0	H	137.0	10.0	20.5	74.0
5454.500000	53.8	200.0	H	189.0	10.2	20.2	74.0
5498.000000	99.8	195.0	H	171.0	10.3	---	---

Note: Emission level= Original Receiver Reading + Correct Factor

Correct Factor = Antenna Factor + Cable Loss -Amplifier gain

1-18G Radiated Emission Test

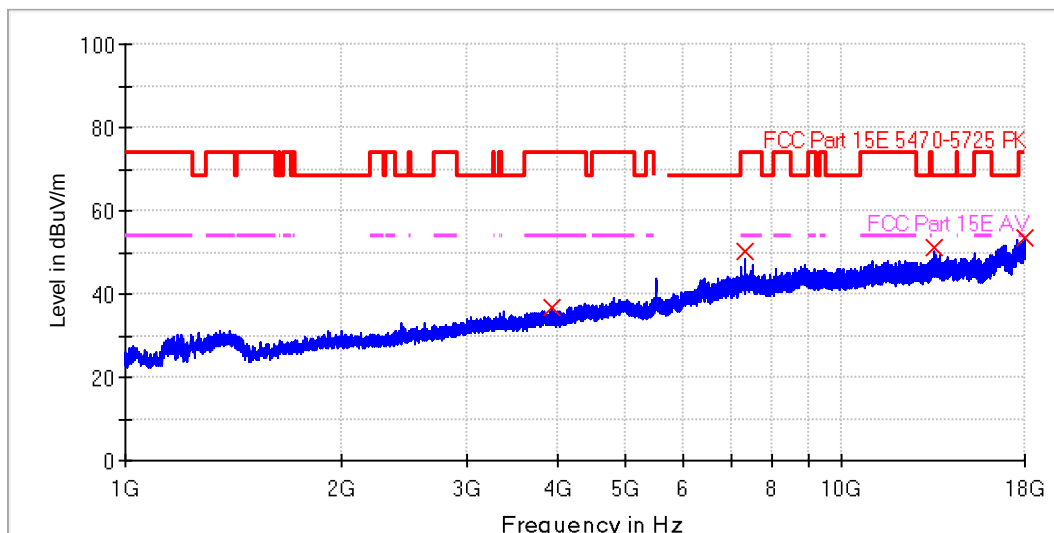
Common Information

EUT: Smart M Gateway
Model: THP23-ZB-X
Client: Zhejiang Lingzhu Technology Co., Ltd
Operating conditions: Power on, 5G Wi-Fi transmitting, 802.11n HT20: 5500M
Operator name: Xu Zheng
Input: AC 120V 60Hz
Sample No: WUX-0877560-006
Test standard: FCC Part 15.407(b)
Comment: Vertical, Adapter Model: TPA-10D050200UU01

Sweep Setup: FCC_RE_1-18G Sweep 3m_bonn [EMI radiated]

Hardware Setup: FCC part15C Radiated E Field 1GHz-18GHz_3m_BONN
Receiver: [FSV 40]
Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamplifier
1 GHz - 6.3 GHz	441.667 kHz	PK+	1 MHz	1 s	0 dB
6.3 GHz - 18 GHz	487.5 kHz	PK+	1 MHz	1 s	0 dB



Limit and Margin

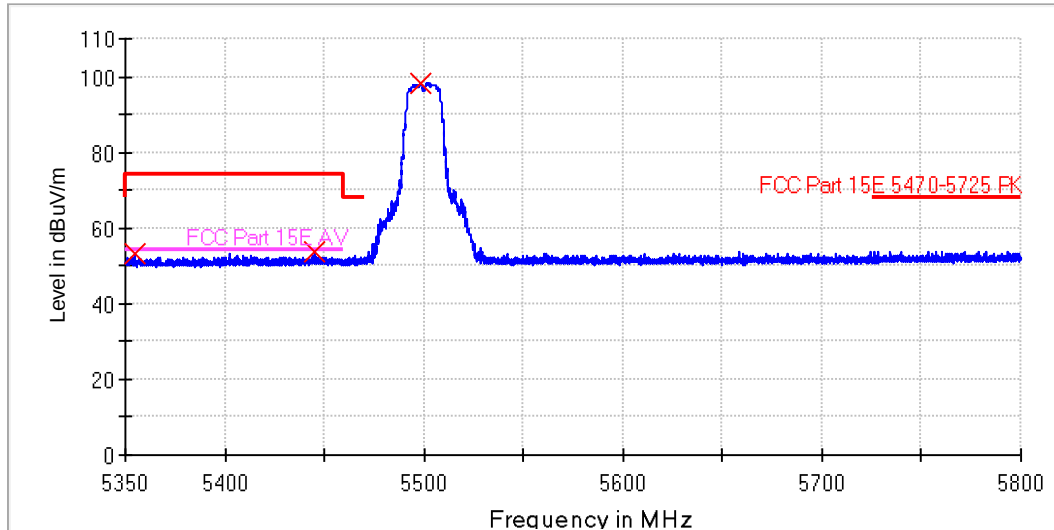
Frequency (MHz)	MaxPeak (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)
3943.500000	36.6	135.0	V	101.0	-3.6	37.4	74.0
7333.000000	50.2	145.0	V	227.0	8.7	23.8	74.0
13488.500000	51.1	120.0	V	170.0	17.2	17.1	68.2
17985.500000	53.6	125.0	V	163.0	22.1	20.4	74.0

Note: Emission level= Original Receiver Reading + Correct Factor
Correct Factor = Antenna Factor + Cable Loss - Amplifier gain

Sweep Setup: FCC_Band edge-5350-5750 Sweep 3m_agilent [EMI radiated]

Hardware Setup: FCC part15E Radiated E Field 1GHz-18GHz_3m_Agilent
Receiver: [FSV 40]
Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
5.35 GHz - 5.8 GHz	90 kHz	PK+	1 MHz	1 s	0 dB



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)
5354.500000	53.3	125.0	V	287.0	9.9	20.7	74.0
5445.500000	53.8	130.0	V	103.0	10.1	20.2	74.0
5498.500000	98.3	115.0	V	202.0	10.3	---	---

Note: Emission level= Original Receiver Reading + Correct Factor

Correct Factor = Antenna Factor + Cable Loss -Amplifier gain

1-18G Radiated Emission Test

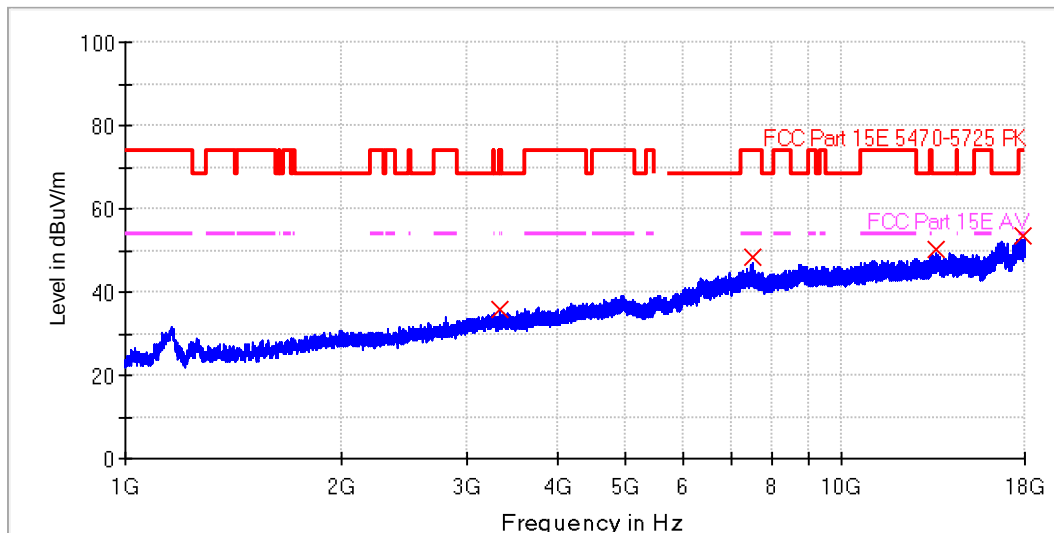
Common Information

EUT: Smart M Gateway
Model: THP23-ZB-X
Client: Zhejiang Lingzhu Technology Co., Ltd
Operating conditions: Power on, 5G Wi-Fi transmitting, 802.11n HT20: 5580M
Operator name: Xu Zheng
Input: AC 120V 60Hz
Sample No: WUX-0877560-006
Test standard: FCC Part 15.407(b)
Comment: Horizontal, Adapter Model: TPA-10D050200UU01

Sweep Setup: FCC_RE_1-18G Sweep 3m_bonn [EMI radiated]

Hardware Setup: FCC part15C Radiated E Field 1GHz-18GHz_3m_BONN
Receiver: [FSV 40]
Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
1 GHz - 6.3 GHz	441.667 kHz	PK+	1 MHz	1 s	0 dB
6.3 GHz - 18 GHz	487.5 kHz	PK+	1 MHz	1 s	0 dB



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)
3335.000000	36.0	175.0	H	193.0	-5.7	38.0	74.0
7499.000000	48.4	190.0	H	128.0	9.3	25.6	74.0
13556.500000	50.1	165.0	H	280.0	17.1	18.1	68.2
17941.500000	53.6	180.0	H	175.0	22.1	20.4	74.0

Note: Emission level= Original Receiver Reading + Correct Factor

Correct Factor = Antenna Factor + Cable Loss - Amplifier gain

1-18G Radiated Emission Test

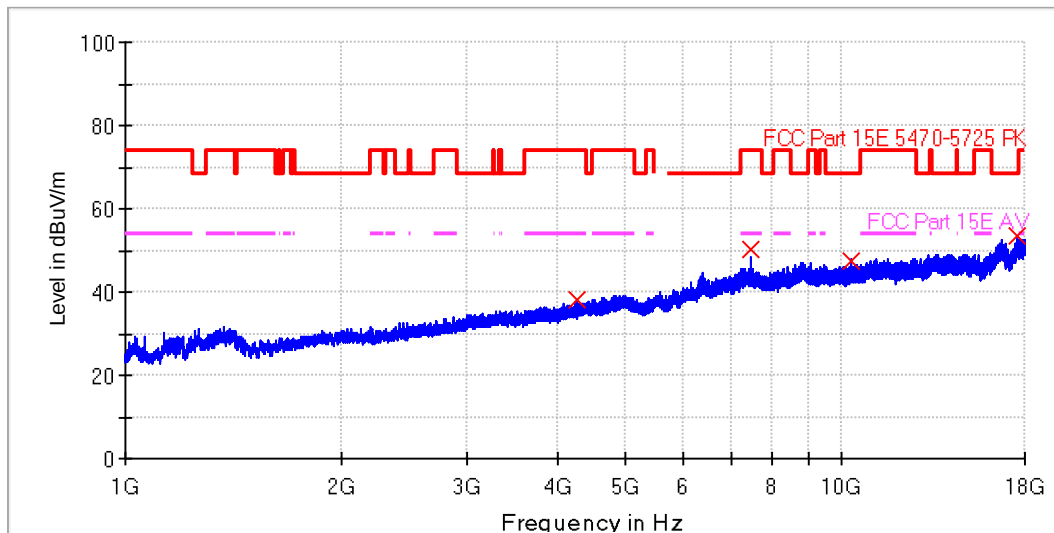
Common Information

EUT: Smart M Gateway
Model: THP23-ZB-X
Client: Zhejiang Lingzhu Technology Co., Ltd
Operating conditions: Power on, 5G Wi-Fi transmitting, 802.11n HT20: 5580M
Operator name: Xu Zheng
Input: AC 120V 60Hz
Sample No: WUX-0877560-006
Test standard: FCC Part 15.407(b)
Comment: Vertical, Adapter Model: TPA-10D050200UU01

Sweep Setup: FCC_RE_1-18G Sweep 3m_bonn [EMI radiated]

Hardware Setup: FCC part15C Radiated E Field 1GHz-18GHz_3m_BONN
Receiver: [FSV 40]
Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
1 GHz - 6.3 GHz	441.667 kHz	PK+	1 MHz	1 s	0 dB
6.3 GHz - 18 GHz	487.5 kHz	PK+	1 MHz	1 s	0 dB



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)
4275.500000	38.1	130.0	V	80.0	-3.1	36.0	74.0
7439.500000	50.0	145.0	V	182.0	8.9	24.0	74.0
10323.500000	47.5	150.0	V	193.0	12.4	20.7	68.2
17603.000000	53.5	140.0	V	101.0	22.0	14.7	68.2

Note: Emission level= Original Receiver Reading + Correct Factor
Correct Factor = Antenna Factor + Cable Loss -Amplifier gain

1-18G Radiated Emission Test

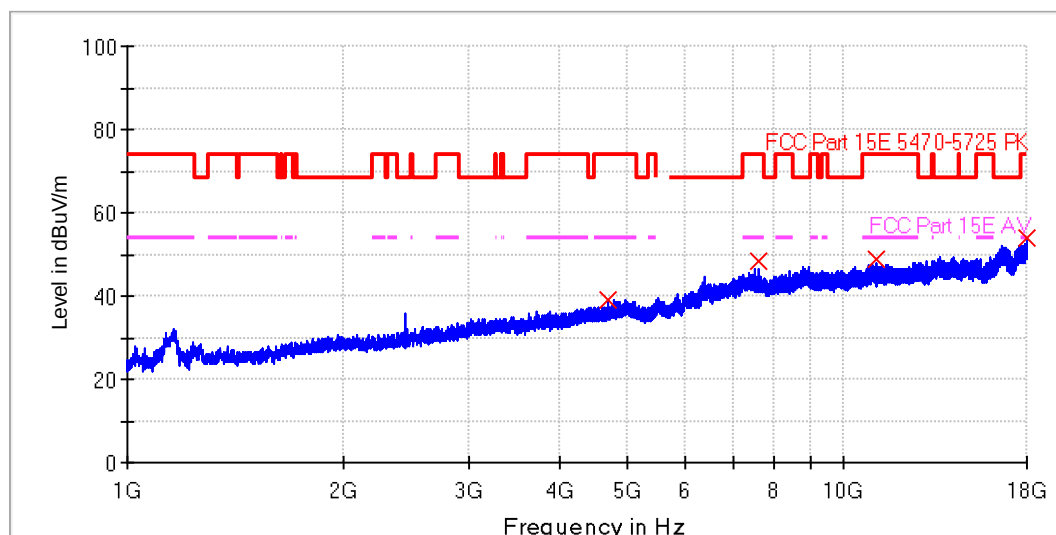
Common Information

EUT: Smart M Gateway
Model: THP23-ZB-X
Client: Zhejiang Lingzhu Technology Co., Ltd
Operating conditions: Power on, 5G Wi-Fi transmitting, 802.11n HT20: 5700M
Operator name: Xu Zheng
Input: AC 120V 60Hz
Sample No: WUX-0877560-006
Test standard: FCC Part 15.407(b)
Comment: Horizontal, Adapter Model: TPA-10D050200UU01

Sweep Setup: FCC_RE_1-18G Sweep 3m_bonn [EMI radiated]

Hardware Setup: FCC part15C Radiated E Field 1GHz-18GHz_3m_BONN
Receiver: [FSV 40]
Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
1 GHz - 6.3 GHz	441.667 kHz	PK+	1 MHz	1 s	0 dB
6.3 GHz - 18 GHz	487.5 kHz	PK+	1 MHz	1 s	0 dB



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)
4693.500000	39.1	200.0	H	110.0	-1.2	34.9	74.0
7599.500000	48.4	195.0	H	159.0	9.3	25.6	74.0
11124.500000	48.8	185.0	H	236.0	13.8	25.2	74.0
17992.500000	53.8	200.0	H	278.0	22.1	20.3	74.0

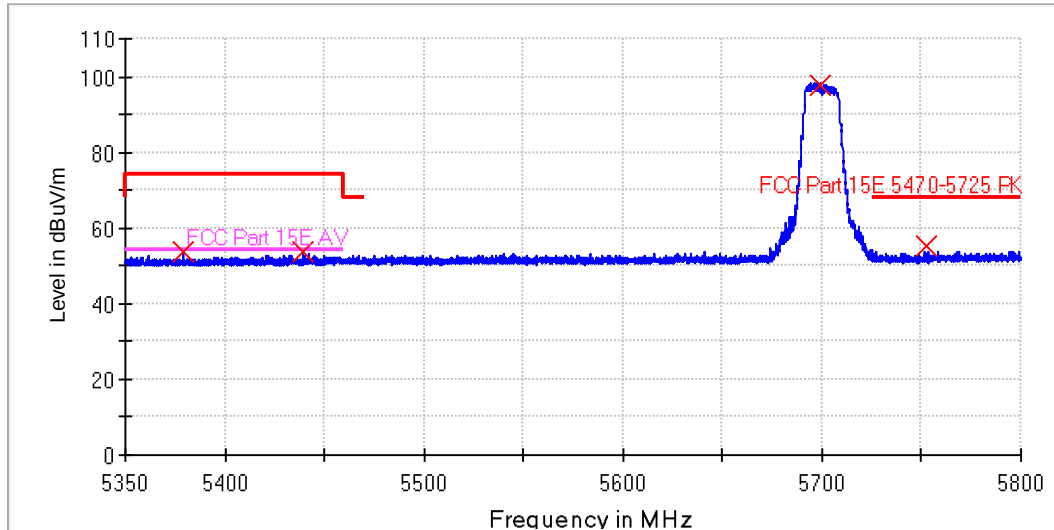
Note: Emission level= Original Receiver Reading + Correct Factor

Correct Factor = Antenna Factor + Cable Loss -Amplifier gain

Sweep Setup: FCC_Band edge-5350-5750 Sweep 3m_agilent [EMI radiated]

Hardware Setup: FCC part15E Radiated E Field 1GHz-18GHz_3m_Agilent
Receiver: [FSV 40]
Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
5.35 GHz - 5.8 GHz	90 kHz	PK+	1 MHz	1 s	0 dB



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)
5379.000000	53.5	185.0	H	141.0	9.9	20.5	74.0
5439.000000	53.5	170.0	H	28.0	10.1	20.5	74.0
5699.000000	97.9	195.0	H	276.0	10.6	---	---
5752.000000	55.1	200.0	H	208.0	10.8	13.1	68.2

Note: Emission level= Original Receiver Reading + Correct Factor
Correct Factor = Antenna Factor + Cable Loss -Amplifier gain

1-18G Radiated Emission Test

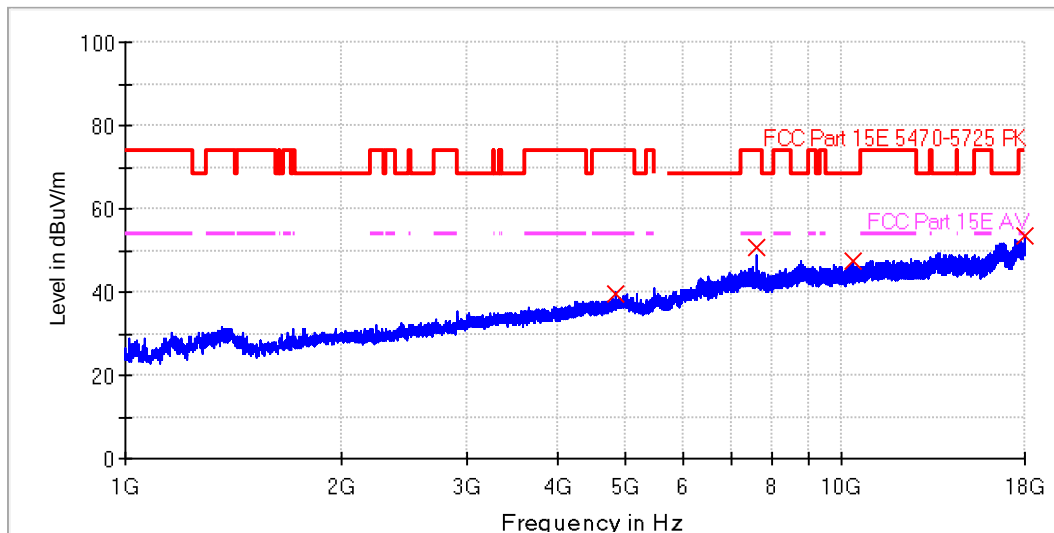
Common Information

EUT: Smart M Gateway
Model: THP23-ZB-X
Client: Zhejiang Lingzhu Technology Co., Ltd
Operating conditions: Power on, 5G Wi-Fi transmitting, 802.11n HT20: 5700M
Operator name: Xu Zheng
Input: AC 120V 60Hz
Sample No: WUX-0877560-006
Test standard: FCC Part 15.407(b)
Comment: Vertical, Adapter Model: TPA-10D050200UU01

Sweep Setup: FCC_RE_1-18G Sweep 3m_bonn [EMI radiated]

Hardware Setup: FCC part15C Radiated E Field 1GHz-18GHz_3m_BONN
Receiver: [FSV 40]
Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
1 GHz - 6.3 GHz	441.667 kHz	PK+	1 MHz	1 s	0 dB
6.3 GHz - 18 GHz	487.5 kHz	PK+	1 MHz	1 s	0 dB



Limit and Margin

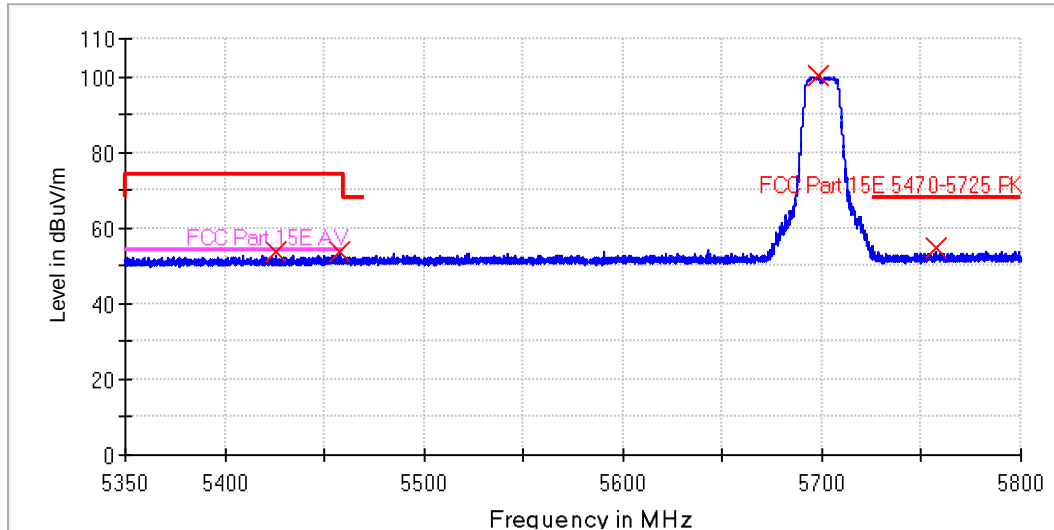
Frequency (MHz)	MaxPeak (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)
4826.000000	39.4	120.0	V	80.0	-0.8	34.6	74.0
7600.000000	50.8	125.0	V	107.0	9.3	23.2	74.0
10339.000000	47.5	140.0	V	254.0	12.4	20.7	68.2
17990.000000	53.5	135.0	V	132.0	22.1	20.5	74.0

Note: Emission level= Original Receiver Reading + Correct Factor
Correct Factor = Antenna Factor + Cable Loss - Amplifier gain

Sweep Setup: FCC_Band edge-5350-5750 Sweep 3m_agilent [EMI radiated]

Hardware Setup: FCC part15E Radiated E Field 1GHz-18GHz_3m_Agilent
Receiver: [FSV 40]
Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
5.35 GHz - 5.8 GHz	90 kHz	PK+	1 MHz	1 s	0 dB



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)
5425.500000	53.7	135.0	V	190.0	10.1	20.3	74.0
5458.000000	53.6	125.0	V	133.0	10.2	20.4	74.0
5698.500000	100.1	140.0	V	293.0	10.6	---	---
5757.500000	54.8	145.0	V	173.0	10.8	13.4	68.2

Note: Emission level= Original Receiver Reading + Correct Factor
Correct Factor = Antenna Factor + Cable Loss -Amplifier gain

1-18G Radiated Emission Test

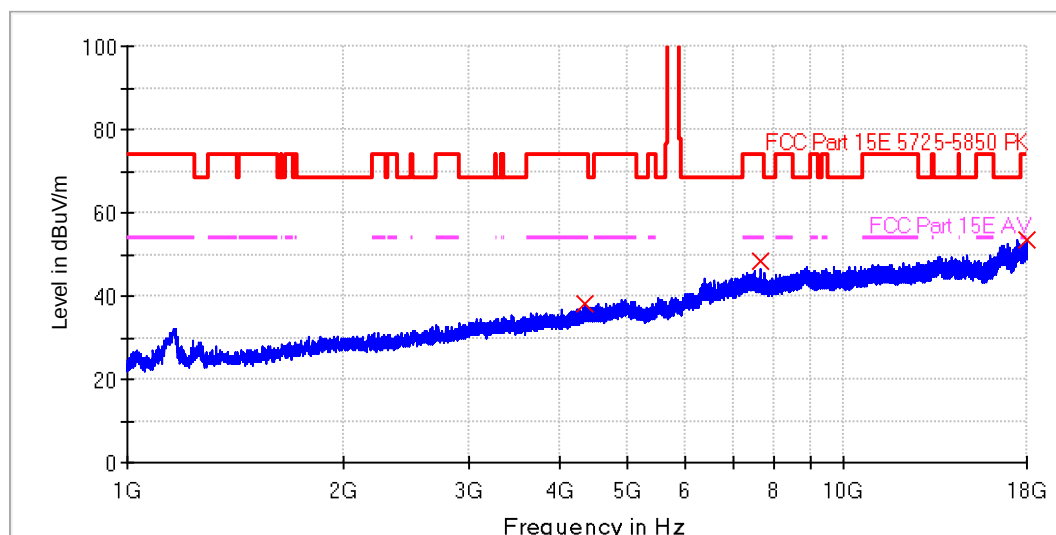
Common Information

EUT: Smart M Gateway
Model: THP23-ZB-X
Client: Zhejiang Lingzhu Technology Co., Ltd
Operating conditions: Power on, 5G Wi-Fi transmitting, 802.11n HT20: 5745M
Operator name: Xu Zheng
Input: AC 120V 60Hz
Sample No: WUX-0877560-006
Test standard: FCC Part 15.407(b)
Comment: Horizontal, Adapter Model: TPA-10D050200UU01

Sweep Setup: FCC_RE_1-18G Sweep 3m_bonn [EMI radiated]

Hardware Setup: FCC part15C Radiated E Field 1GHz-18GHz_3m_BONN
Receiver: [FSV 40]
Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
1 GHz - 6.3 GHz	441.667 kHz	PK+	1 MHz	1 s	0 dB
6.3 GHz - 18 GHz	487.5 kHz	PK+	1 MHz	1 s	0 dB



Limit and Margin

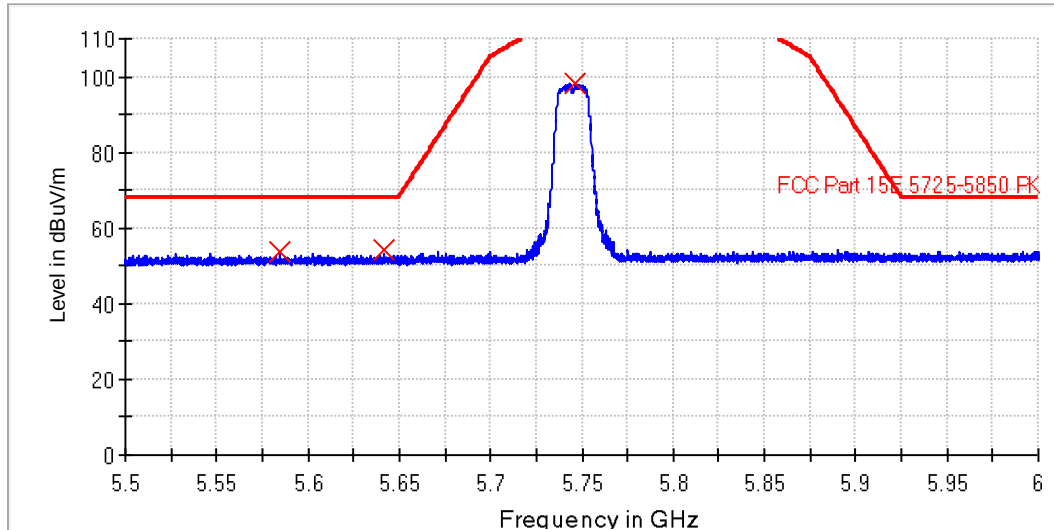
Frequency (MHz)	MaxPeak (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)
4355.500000	38.2	200.0	H	214.0	-2.6	35.8	74.0
7659.500000	48.4	185.0	H	121.0	9.2	25.6	74.0
17948.000000	53.5	175.0	H	242.0	22.1	20.5	74.0

Note: Emission level= Original Receiver Reading + Correct Factor
Correct Factor = Antenna Factor + Cable Loss -Amplifier gain

Sweep Setup: FCC_Band edge-5500-6000 Sweep 3m_agilent [EMI radiated]

Hardware Setup: FCC part15E Radiated E Field 1GHz-18GHz_3m_Agilent
Receiver: [FSV 40]
Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
5.5 GHz - 6 GHz	100 kHz	PK+	1 MHz	1 s	0 dB



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)
5584.500000	53.7	175.0	H	78.0	10.4	14.5	68.2
5641.500000	54.3	190.0	H	200.0	10.5	13.9	68.2
5746.500000	98.0	195.0	H	260.0	10.8	---	---

Note: Emission level= Original Receiver Reading + Correct Factor

Correct Factor = Antenna Factor + Cable Loss -Amplifier gain

1-18G Radiated Emission Test

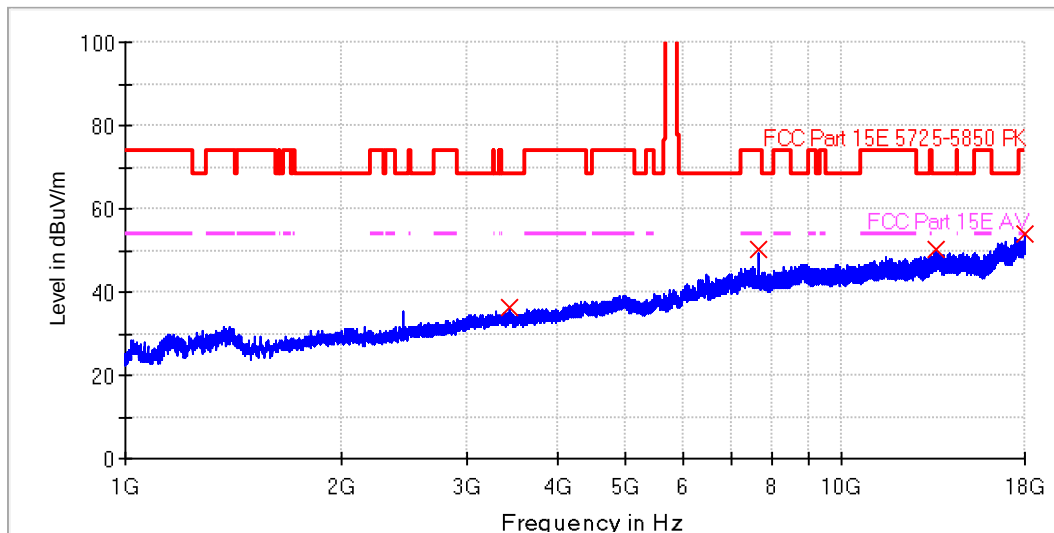
Common Information

EUT: Smart M Gateway
Model: THP23-ZB-X
Client: Zhejiang Lingzhu Technology Co., Ltd
Operating conditions: Power on, 5G Wi-Fi transmitting, 802.11n HT20: 5745M
Operator name: Xu Zheng
Input: AC 120V 60Hz
Sample No: WUX-0877560-006
Test standard: FCC Part 15.407(b)
Comment: Vertical, Adapter Model: TPA-10D050200UU01

Sweep Setup: FCC_RE_1-18G Sweep 3m_bonn [EMI radiated]

Hardware Setup: FCC part15C Radiated E Field 1GHz-18GHz_3m_BONN
Receiver: [FSV 40]
Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
1 GHz - 6.3 GHz	441.667 kHz	PK+	1 MHz	1 s	0 dB
6.3 GHz - 18 GHz	487.5 kHz	PK+	1 MHz	1 s	0 dB



Limit and Margin

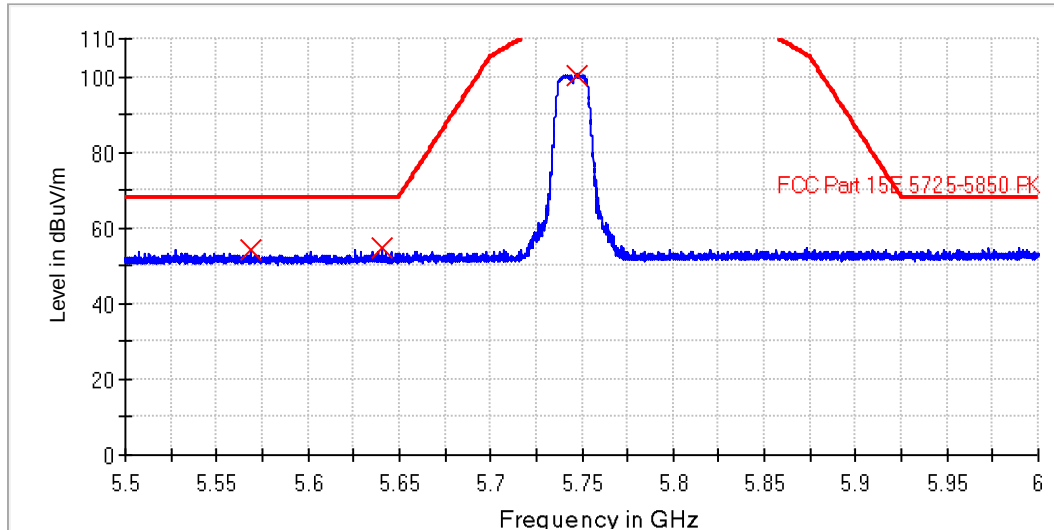
Frequency (MHz)	MaxPeak (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)
3446.000000	36.2	120.0	V	319.0	-5.6	32.0	68.2
7659.500000	50.4	145.0	V	137.0	9.2	23.6	74.0
13520.500000	50.4	135.0	V	129.0	17.2	17.8	68.2
17968.000000	53.7	130.0	V	67.0	22.1	20.3	74.0

Note: Emission level= Original Receiver Reading + Correct Factor
Correct Factor = Antenna Factor + Cable Loss -Amplifier gain

Sweep Setup: FCC_Band edge-5500-6000 Sweep 3m_agilent [EMI radiated]

Hardware Setup: FCC part15E Radiated E Field 1GHz-18GHz_3m_Agilent
Receiver: [FSV 40]
Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
5.5 GHz - 6 GHz	100 kHz	PK+	1 MHz	1 s	0 dB



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)
5568.500000	54.4	130.0	V	223.0	10.4	13.8	68.2
5640.500000	54.5	125.0	V	70.0	10.5	13.7	68.2
5747.000000	100.2	145.0	V	182.0	10.8	---	---

Note: Emission level= Original Receiver Reading + Correct Factor

Correct Factor = Antenna Factor + Cable Loss -Amplifier gain

1-18G Radiated Emission Test

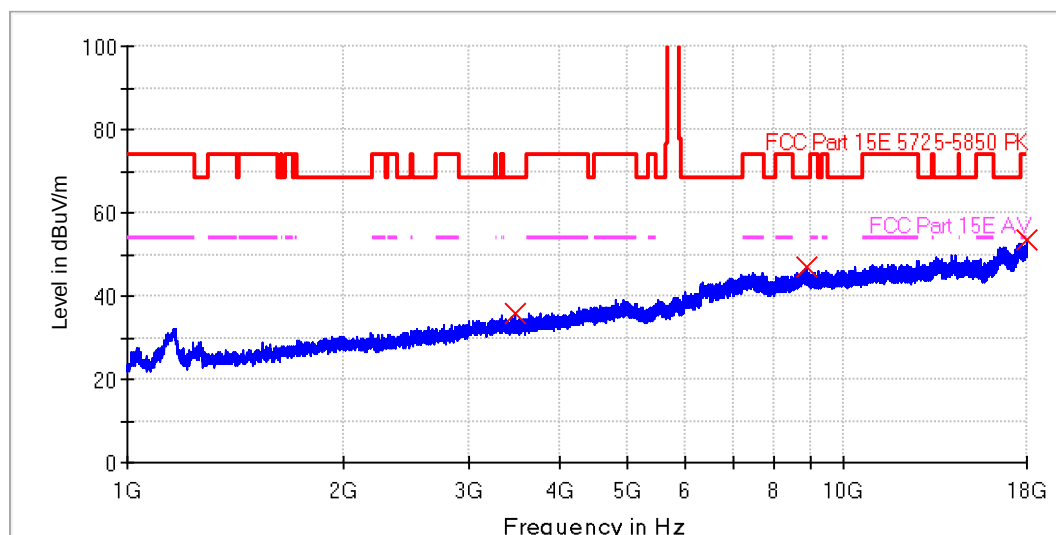
Common Information

EUT: Smart M Gateway
Model: THP23-ZB-X
Client: Zhejiang Lingzhu Technology Co., Ltd
Operating conditions: Power on, 5G Wi-Fi transmitting, 802.11n HT20: 5785M
Operator name: Xu Zheng
Input: AC 120V 60Hz
Sample No: WUX-0877560-006
Test standard: FCC Part 15.407(b)
Comment: Horizontal, Adapter Model: TPA-10D050200UU01

Sweep Setup: FCC_RE_1-18G Sweep 3m_bonn [EMI radiated]

Hardware Setup: FCC part15C Radiated E Field 1GHz-18GHz_3m_BONN
Receiver: [FSV 40]
Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
1 GHz - 6.3 GHz	441.667 kHz	PK+	1 MHz	1 s	0 dB
6.3 GHz - 18 GHz	487.5 kHz	PK+	1 MHz	1 s	0 dB



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)
3468.500000	35.8	180.0	H	120.0	-5.7	32.4	68.2
8860.000000	47.1	195.0	H	174.0	11.9	21.1	68.2
17973.500000	53.3	175.0	H	186.0	22.1	20.7	74.0

Note: Emission level= Original Receiver Reading + Correct Factor
Correct Factor = Antenna Factor + Cable Loss -Amplifier gain

1-18G Radiated Emission Test

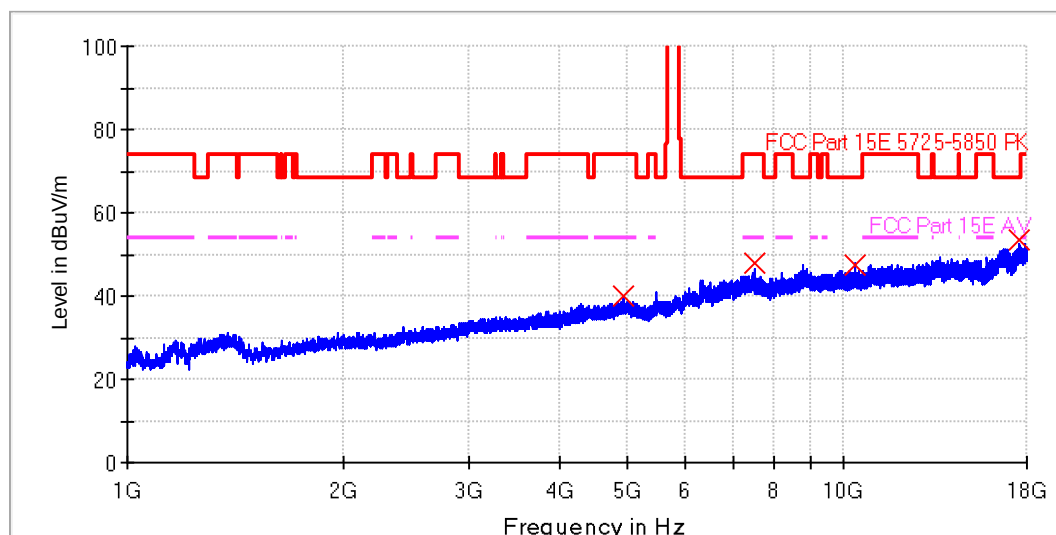
Common Information

EUT: Smart M Gateway
Model: THP23-ZB-X
Client: Zhejiang Lingzhu Technology Co., Ltd
Operating conditions: Power on, 5G Wi-Fi transmitting, 802.11n HT20: 5785M
Operator name: Xu Zheng
Input: AC 120V 60Hz
Sample No: WUX-0877560-006
Test standard: FCC Part 15.407(b)
Comment: Vertical, Adapter Model: TPA-10D050200UU01

Sweep Setup: FCC_RE_1-18G Sweep 3m_bonn [EMI radiated]

Hardware Setup: FCC part15C Radiated E Field 1GHz-18GHz_3m_BONN
Receiver: [FSV 40]
Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
1 GHz - 6.3 GHz	441.667 kHz	PK+	1 MHz	1 s	0 dB
6.3 GHz - 18 GHz	487.5 kHz	PK+	1 MHz	1 s	0 dB



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)
4931.000000	39.8	140.0	V	268.0	0.0	34.2	74.0
7497.000000	48.0	125.0	V	118.0	9.3	26.0	74.0
10336.000000	47.5	145.0	V	244.0	12.4	20.7	68.2
17567.000000	53.4	150.0	V	207.0	21.9	14.8	68.2

Note: Emission level= Original Receiver Reading + Correct Factor
Correct Factor = Antenna Factor + Cable Loss -Amplifier gain

1-18G Radiated Emission Test

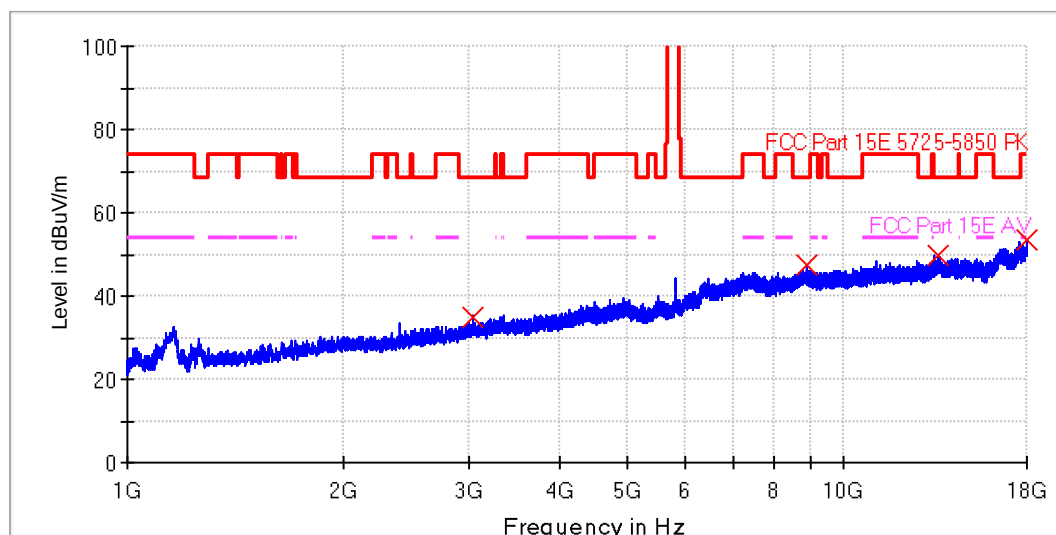
Common Information

EUT: Smart M Gateway
Model: THP23-ZB-X
Client: Zhejiang Lingzhu Technology Co., Ltd
Operating conditions: Power on, 5G Wi-Fi transmitting, 802.11n HT20: 5825M
Operator name: Xu Zheng
Input: AC 120V 60Hz
Sample No: WUX-0877560-006
Test standard: FCC Part 15.407(b)
Comment: Horizontal, Adapter Model: TPA-10D050200UU01

Sweep Setup: FCC_RE_1-18G Sweep 3m_bonn [EMI radiated]

Hardware Setup: FCC part15C Radiated E Field 1GHz-18GHz_3m_BONN
Receiver: [FSV 40]
Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
1 GHz - 6.3 GHz	441.667 kHz	PK+	1 MHz	1 s	0 dB
6.3 GHz - 18 GHz	487.5 kHz	PK+	1 MHz	1 s	0 dB



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)
3030.500000	34.8	180.0	H	288.0	-6.8	33.4	68.2
8875.000000	47.5	200.0	H	150.0	11.9	20.7	68.2
13521.000000	49.9	210.0	H	175.0	17.2	18.3	68.2
17970.000000	53.7	185.0	H	195.0	22.1	20.3	74.0

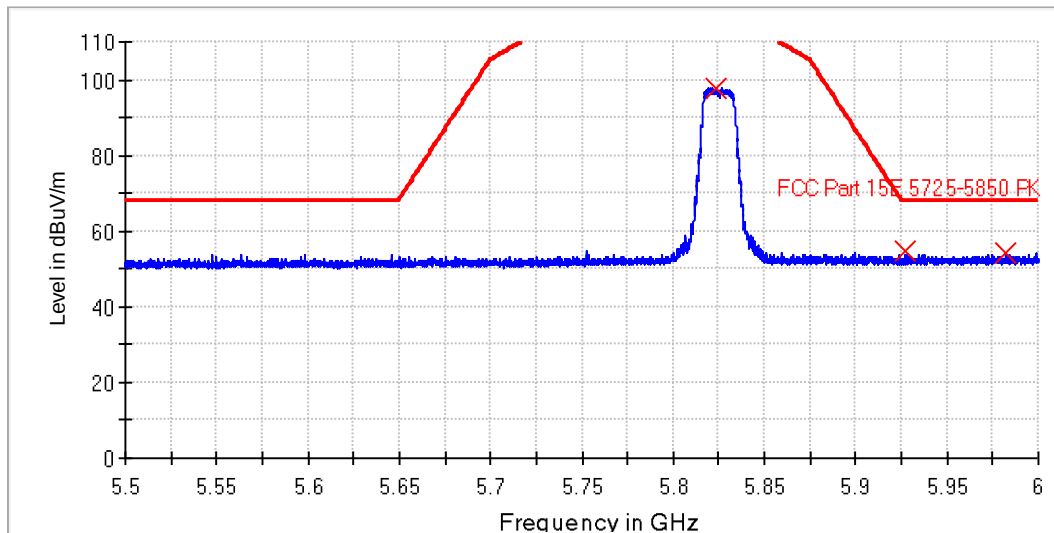
Note: Emission level= Original Receiver Reading + Correct Factor

Correct Factor = Antenna Factor + Cable Loss -Amplifier gain

Sweep Setup: FCC_Band edge-5500-6000 Sweep 3m_agilent [EMI radiated]

Hardware Setup: FCC part15E Radiated E Field 1GHz-18GHz_3m_Agilent
Receiver: [FSV 40]
Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
5.5 GHz - 6 GHz	100 kHz	PK+	1 MHz	1 s	0 dB



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)
5823.000000	97.8	200.0	H	180.0	11.1	---	---
5927.000000	54.6	190.0	H	108.0	11.1	13.6	68.2
5982.500000	54.3	180.0	H	155.0	11.1	13.9	68.2

Note: Emission level= Original Receiver Reading + Correct Factor
Correct Factor = Antenna Factor + Cable Loss -Amplifier gain

1-18G Radiated Emission Test

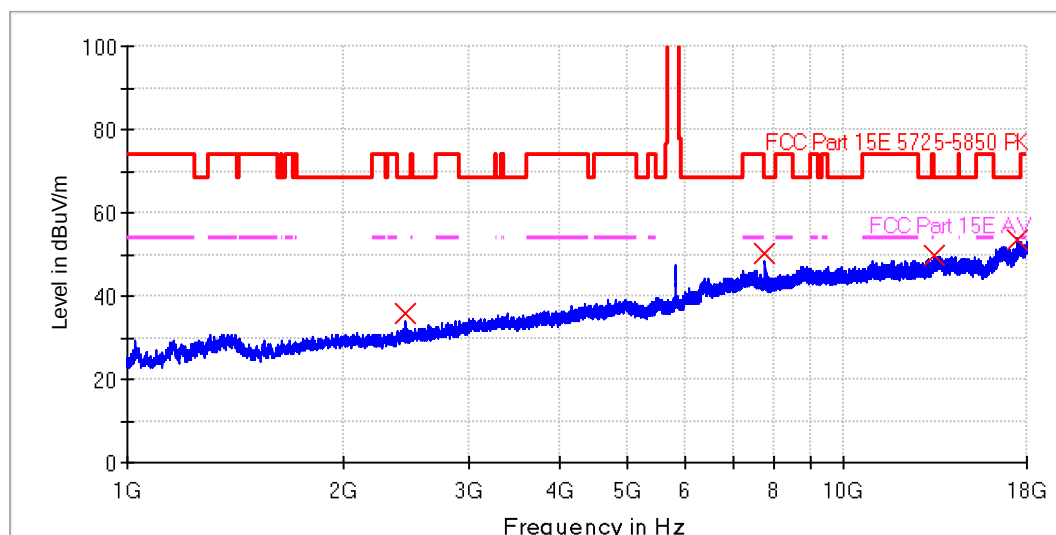
Common Information

EUT: Smart M Gateway
Model: THP23-ZB-X
Client: Zhejiang Lingzhu Technology Co., Ltd
Operating conditions: Power on, 5G Wi-Fi transmitting, 802.11n HT20: 5825M
Operator name: Xu Zheng
Input: AC 120V 60Hz
Sample No: WUX-0877560-006
Test standard: FCC Part 15.407(b)
Comment: Vertical, Adapter Model: TPA-10D050200UU01

Sweep Setup: FCC_RE_1-18G Sweep 3m_bonn [EMI radiated]

Hardware Setup: FCC part15C Radiated E Field 1GHz-18GHz_3m_BONN
Receiver: [FSV 40]
Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamplifier
1 GHz - 6.3 GHz	441.667 kHz	PK+	1 MHz	1 s	0 dB
6.3 GHz - 18 GHz	487.5 kHz	PK+	1 MHz	1 s	0 dB



Limit and Margin

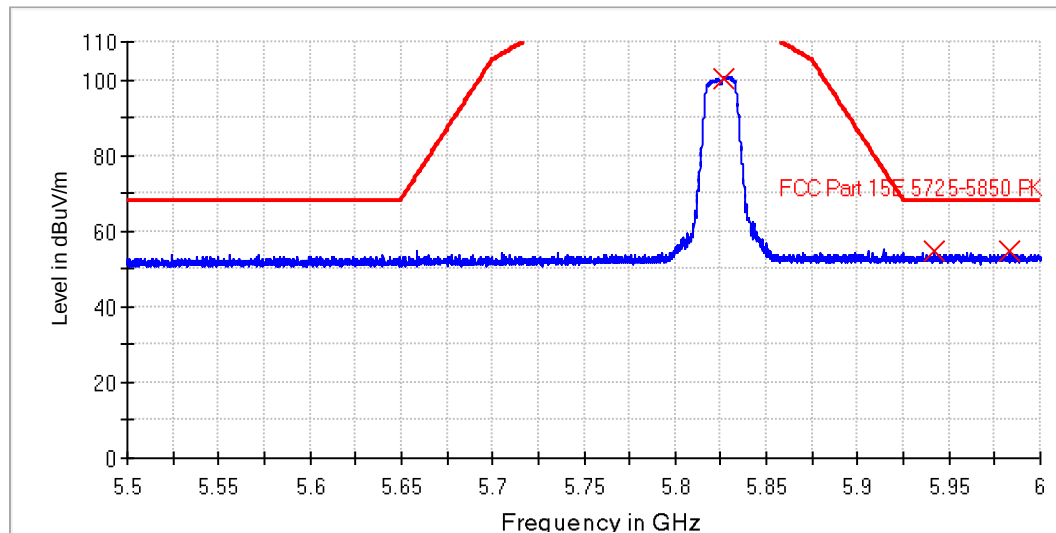
Frequency (MHz)	MaxPeak (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)
2437.500000	36.0	125.0	V	77.0	-9.0	32.2	68.2
7766.500000	50.3	130.0	V	243.0	9.3	17.9	68.2
13398.500000	49.7	135.0	V	90.0	17.3	24.3	74.0
17486.000000	53.7	145.0	V	187.0	21.8	14.5	68.2

Note: Emission level= Original Receiver Reading + Correct Factor
Correct Factor = Antenna Factor + Cable Loss -Amplifier gain

Sweep Setup: FCC_Band edge-5500-6000 Sweep 3m_agilent [EMI radiated]

Hardware Setup: FCC part15E Radiated E Field 1GHz-18GHz_3m_Agilent
Receiver: [FSV 40]
Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
5.5 GHz - 6 GHz	100 kHz	PK+	1 MHz	1 s	0 dB



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)
5826.500000	100.2	125.0	V	201.0	11.2	---	---
5942.000000	54.5	120.0	V	154.0	11.1	13.7	68.2
5983.500000	54.7	140.0	V	105.0	11.1	13.6	68.2

Note: Emission level= Original Receiver Reading + Correct Factor
Correct Factor = Antenna Factor + Cable Loss -Amplifier gain

The worst case of Radiated Emission 18GHz-40GHz:

18-40GHz Radiated Emission

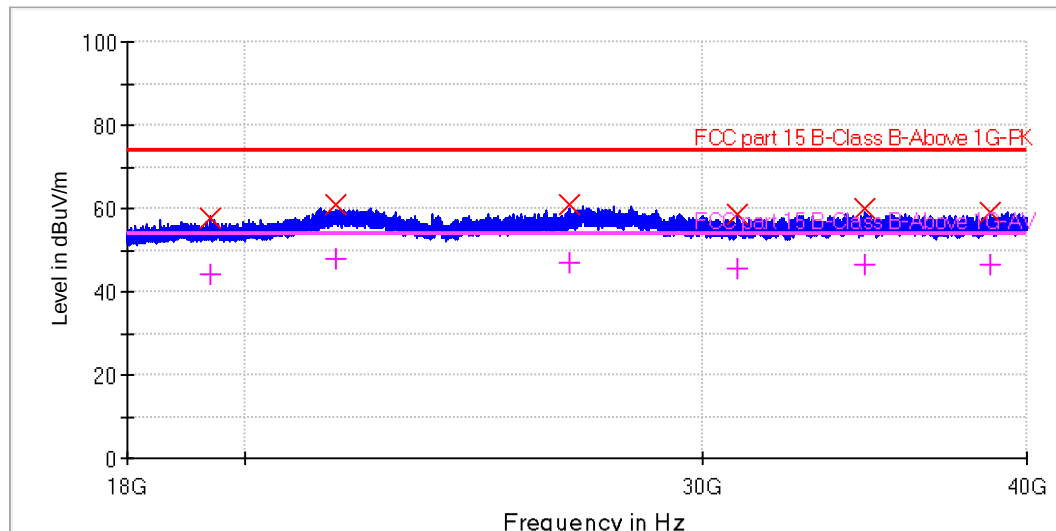
Common Information

EUT: Smart M Gateway
Model: THP23-ZB-X
Client: Zhejiang Lingzhu Technology Co., Ltd
Operating conditions: Power on, 5G Wi-Fi transmitting, 802.11A 5500MHz
Operator name: Xu Zheng
Input: AC 120V 60Hz
Sample No: WUX-0877560-006
Test standard: FCC Part 15.209(a)
Comment: Horizontal, Adapter Model: TPA-10D050200UU01

Sweep Setup: FCC_RE_18-40G_Sweep_3m [EMI radiated]

Hardware Setup: 18-40GHz_3m
Receiver: [FSV 40]
Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
18 GHz - 26 GHz	500 kHz	PK+	1 MHz	1 s	0 dB
26 GHz - 40 GHz	500 kHz	PK+	1 MHz	1 s	0 dB



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Average (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - Average (dB)	Limit - Average (dBuV/m)
19370.000000	57.5	44.4	195.0	H	294.0	14.4	16.5	74.0	9.6	54.0
21653.000000	60.9	47.8	185.0	H	240.0	17.7	13.1	74.0	6.3	54.0
26649.000000	60.7	47.2	170.0	H	227.0	17.1	13.3	74.0	6.8	54.0
30912.000000	58.8	45.5	200.0	H	202.0	15.0	15.2	74.0	8.5	54.0
34651.000000	59.8	46.5	195.0	H	105.0	17.4	14.2	74.0	7.5	54.0
38700.500000	59.3	46.4	205.0	H	43.0	18.0	14.8	74.0	7.6	54.0

Note: Emission level= Original Receiver Reading + Correct Factor
Correct Factor = Antenna Factor + Cable Loss -Amplifier gain

18-40GHz Radiated Emission

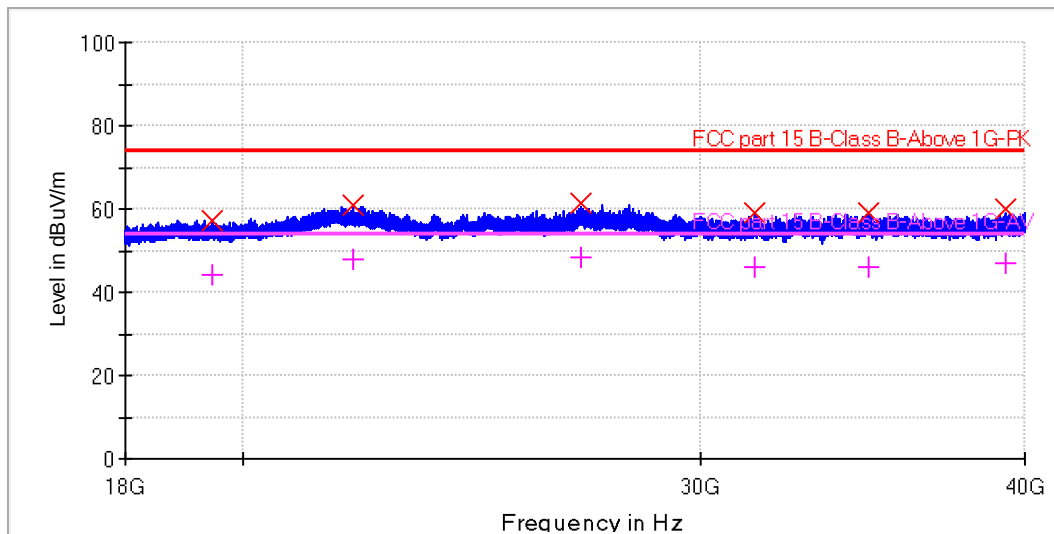
Common Information

EUT: Smart M Gateway
Model: THP23-ZB-X
Client: Zhejiang Lingzhu Technology Co., Ltd
Operating conditions: Power on, 5G Wi-Fi transmitting, 802.11A 5500MHz
Operator name: Xu Zheng
Input: AC 120V 60Hz
Sample No: WUX-0877560-006
Test standard: FCC Part 15.209(a)
Comment: Vertical, Adapter Model: TPA-10D050200UU01

Sweep Setup: FCC_RE_18-40G_Sweep_3m [EMI radiated]

Hardware Setup: 18-40GHz_3m
Receiver: [FSV 40]
Level Unit: dBuV/m

Subrange	Step Size	Detectors	Bandwidth	Sweep Time	Preamp
18 GHz - 26 GHz	500 kHz	PK+	1 MHz	1 s	0 dB
26 GHz - 40 GHz	500 kHz	PK+	1 MHz	1 s	0 dB



Limit and Margin

Frequency (MHz)	MaxPeak (dBuV/m)	Average (dBuV/m)	Height (cm)	Pol	Azimuth (deg)	Corr. (dB/m)	Margin - PK+ (dB)	Limit - PK+ (dBuV/m)	Margin - Average (dB)	Limit - Average (dBuV/m)
19449.000000	57.2	44.4	125.0	V	332.0	14.5	16.8	74.0	9.6	54.0
22032.000000	60.9	47.9	130.0	V	168.0	18.2	13.1	74.0	6.1	54.0
26951.500000	61.3	48.5	140.0	V	184.0	17.8	12.7	74.0	5.5	54.0
31491.500000	58.9	45.8	145.0	V	292.0	15.7	15.1	74.0	8.2	54.0
34802.500000	59.1	45.9	135.0	V	82.0	17.4	14.9	74.0	8.1	54.0
39287.000000	60.1	46.9	125.0	V	137.0	18.3	13.9	74.0	7.1	54.0

Note: Emission level= Original Receiver Reading + Correct Factor
Correct Factor = Antenna Factor + Cable Loss -Amplifier gain

Conducted Spurious Emission Test Method:

According to KBD789033 D02

1. The EUT was placed on 0.8m height table, the RF output of EUT was connected to the test receiver by RF cable. The path loss was compensated to the results for each measurement.
2. For transmitters with operating frequencies in the band 5150-5250 MHz, all emissions outside the band 5150-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p. Any unwanted emissions that fall into the band 5250-5350 MHz shall be attenuated below the channel power by at least 26 dB, when measured using a resolution bandwidth between 1 and 5% of the occupied bandwidth (i.e. 99% bandwidth), above 5250 MHz. The 26 dB bandwidth may fall into the 5250-5350 MHz band; however, if the occupied bandwidth also falls within the 5250-5350 MHz band, the transmission is considered as intentional and the devices shall comply with all requirements in the band 5250-5350 MHz including implementing dynamic frequency selection (DFS) and TPC, on the portion of the emission that resides in the 5250-5350 MHz band.

- a) Set RBW between 1 and 5% of the occupied bandwidth (i.e. 99% bandwidth)
- b) Set VBW > 3 RBW.

Limits:

For transmitters with operating frequencies in the band 5150-5250 MHz, all emissions outside the band 5150-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p. Any unwanted emissions that fall into the band 5250-5350 MHz shall be attenuated below the channel power by at least 26 dB, when measured using a resolution bandwidth between 1 and 5% of the occupied bandwidth (i.e. 99% bandwidth), above 5250 MHz. The 26 dB bandwidth may fall into the 5250-5350 MHz band; however, if the occupied bandwidth also falls within the 5250-5350 MHz band, the transmission is considered as intentional and the devices shall comply with all requirements in the band 5250-5350 MHz including implementing dynamic frequency selection (DFS) and TPC, on the portion of the emission that resides in the 5250-5350 MHz band.

For transmitters operating in the 5.25-5.35 GHz band: All emissions outside the band 5250-5350 MHz shall not exceed -27 dBm/MHz e.i.r.p.

For transmitters operating in the 5.47-5.725 GHz band: All emissions outside of the 5.47-5.725 GHz band shall not exceed -27 dBm/MHz e.i.r.p.

For transmitters operating in the 5.725-5.85 GHz band: shall have e.i.r.p. of unwanted emissions comply with the following:

- a) 27 dBm/MHz at frequencies from the band edges decreasing linearly to 15.6 dBm/MHz at 5 MHz above or below the band edge.
- b) 15.6 dBm/MHz at 5 MHz above or below the band edges decreasing linearly to 10 dBm/MHz at 25 MHz above or below the band edge.
- c) 10 dBm/MHz at 25 MHz above or below the band edges decreasing linearly to -27 dBm/MHz at 75 MHz above or below the band edge. and
- d) -27 dBm/MHz at frequencies more than 75 MHz above or below the band edge.

Test Result: Pass

For test result and graphs please refer to Appendix C

11 Test Equipment List

List of Test Instruments Test Site1

	DESCRIPTION	MANUFACTURER	MODEL NO.	SERIAL NO.	CAL. DATE	CAL. DUE DATE
C	Signal Analyzer	Rohde & Schwarz	FSV40	487/641405	2024-4-8	2025-4-7
	Power Probe	Rohde & Schwarz	NRP-Z81	487/431819	2024-11-23	2025-11-22
	RF Test System	Rohde & Schwarz	TS8997	487/391835	2024-11-23	2025-11-22
	Coaxial Cable	Rohde & Schwarz	RF03	/	2024-7-27	2025-7-26
RE	EMI Test Receiver	Rohde & Schwarz	ESR7	487/632315	2024-4-8	2025-4-7
	EMI Test Receiver	Rohde & Schwarz	ESR7	487/632316	2024-4-8	2025-4-7
	Spectrum analyzer	Rohde & Schwarz	FSV3044	487/642307	2024-4-8	2025-4-7
	Broadband Test Antenna	Schwarzbeck	VULB 9168	487/622345	2024-3-15	2025-3-14
	Horn Antenna	Rohde & Schwarz	3115PB	487/622346	2024-1-9	2025-1-8
					2025-1-8	2026-1-7
	Pre-amplifier	Rohde & Schwarz	SCU-18F	487/402318	2024-4-8	2025-4-7
	Pre-amplifier	BONN	BLMA0118-1M	487/401411	2024-4-8	2025-4-7
	Pre-amplifier	AGILENT	83017A	487/400707	2024-4-10	2025-4-9
	Loop antenna	Rohde & Schwarz	HFH2-Z2	487/621128	2024-11-23	2025-11-22
	DOUBLE-RIDGED WAVEGUIDE HORN WITH PRE-AMPLIFIER (18 GHZ - 40 GHZ)	ETS-Lindgren	3116C-PA	487/622347	2024-8-19	2025-8-18
	3m Semi anechoic chamber	TDK	9.2m×6.2m×6.2m	487/772307	2023-2-24	2026-2-23
	3m Fully anechoic chamber	TDK	9.2m×6.2m×6.2m	487/772304	2023-3-30	2026-3-29
	Coaxial Cable	Rohde & Schwarz	RF02	/	2024-7-27	2025-7-26
CE	EMI Test Receiver	Rohde & Schwarz	ESW8	487/631911	2024-4-8	2025-4-7
	LISN	Rohde & Schwarz	NSLK8127	487/601428	2024-9-2	2025-9-1

Measurement Software Information			
Test Item	Software	Manufacturer	Version
C	MTS 8310	MAXWELL	2.0.0.0
	Power Viewer	Rohde & Schwarz	V 11.0
RE	EMC 32	Rohde & Schwarz	V10.60.20
CE	EMC 32	Rohde & Schwarz	V10.60.20

C - Conducted RF tests

- Conducted peak output power
- 6dB bandwidth and 99% Occupied Bandwidth
- Power spectral density*
- Spurious RF conducted emissions
- Band edge

12 System Measurement Uncertainty

For a 95% confidence level, the measurement expanded uncertainties for defined systems, in accordance with the recommendations of ISO 17025 were:

System Measurement Uncertainty	
Test Items	Extended Uncertainty
Conducted Disturbance at Mains Terminals	150kHz to 30MHz, LISN, 3.07dB
Uncertainty for Radiated Emission in 3m Semi anechoic chamber 9kHz-30MHz	4.38dB
Uncertainty for Radiated Emission in 3m Semi anechoic chamber 30MHz-1000MHz	Horizontal: 4.12dB Vertical: 4.30dB
Uncertainty for Radiated Emission in 3m Fully anechoic chamber 1000MHz-18000MHz	5.04dB
Uncertainty for Radiated Emission 18000MHz-40000MHz	5.42dB
Uncertainty for Conducted RF test	RF Power Conducted: 1.32dB Frequency test involved:1%

Measurement Uncertainty Decision Rule:

Determination of conformity with the specification limits is based on the decision rule according to IEC Guide 115: 2023, clause 4.3.3.

13 Photographs of Test Set-ups

Refer to the < Test Setup photos >.

14 Photographs of EUT

Refer to the < External Photos > & < Internal Photos >.

-----End of Test Report-----