

Speedcast Communications Inc.
Modification of Very Small Aperture Terminal (VSAT) Blanket License

Technical Appendix

- I. Radiation Hazard Analyses
- II. Ku-band & Ka-band Off-Axis EIRP Spectral
Density Plots

I. Radiation Hazard Analyses

Ku-band Radiation Hazard Study

Intellian v240M (Ku-band)

This study analyzes the non-ionizing radiation levels for the Intellian v240M antenna while operating in the Ku-band. This report is developed in accordance with the prediction methods contained in OET Bulletin No. 65, Evaluating Compliance with FCC Guidelines for Human Exposure to Radio Frequency Electromagnetic Fields, Edition 97-01.

Bulletin No. 65 specifies that there are two separate tiers of exposure limits that are depending on the area of exposure and/or the status of the individuals who are subject to the exposure -- the General Population/ Uncontrolled Environment and the Controlled Environment, where the general population cannot access.

The maximum level of non-ionizing radiation to which individuals may be exposed is limited to a power density level of 5 milliwatts per square centimeter (5 mW/cm^2) averaged over any 6 minute period in a controlled environment, and the maximum level of non-ionizing radiation to which the general public is exposed is limited to a power density level of 1 milliwatt per square centimeter (1 mW/cm^2) averaged over any 30 minute period in a uncontrolled environment.

In the normal range of transmit powers for satellite antennas, the power densities at or around the antenna surface are expected to exceed safe levels. The purpose of this study is to determine the power flux density levels for the earth station under study as compared with the MPE limits. This comparison is done in each of the following regions:

1. Far-field region
2. Near-field region
3. Transition region
4. The region between the feed and the antenna surface
5. The main reflector region
6. The region between the antenna edge and the ground

Input Parameters

The following input parameters were used in the calculations:

<u>Parameters:</u>	<u>Value</u>	<u>Unit</u>	<u>Symbol</u>
<i>Antenna Diameter</i>	2.4	m	<i>D</i>
<i>Antenna Transmit Gain</i>	49	dBi	<i>G</i>
<i>Transmit Frequency</i>	14125	MHz	<i>f</i>
<i>Antenna Feed Flange diameter</i>	15	cm	<i>d</i>
<i>Power Input to the Antenna</i>	222	W	<i>P</i>

Calculated Parameters:

The following values were calculated using the above input parameters and the corresponding formulas:

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Symbol</u>	<u>Formula</u>
<i>Antenna Surface Area</i>	4.524	m ²	<i>A</i>	$\pi D^2/4$
<i>Area of Antenna Flange</i>	176.715	cm ²	<i>a</i>	$\pi d^2/4$
<i>Antenna Efficiency</i>	0.63		η	$G\lambda^2/(\pi^2 D^2)$
<i>Gain Factor</i>	79432.82		<i>g</i>	$10^{G/10}$
<i>Wavelength</i>	0.0212	m	λ	$300/f$

Behavior of EM Fields as a Function of Distance

The behavior of the characteristics of EM fields varies depending on the distance from the radiating antenna. These characteristics are analyzed in three primary regions: the near-field region, the far-field region and the transition region. Of interest also are the region between the antenna main reflector and the subreflector, the region of the main reflector area and the region between the main reflector and ground.

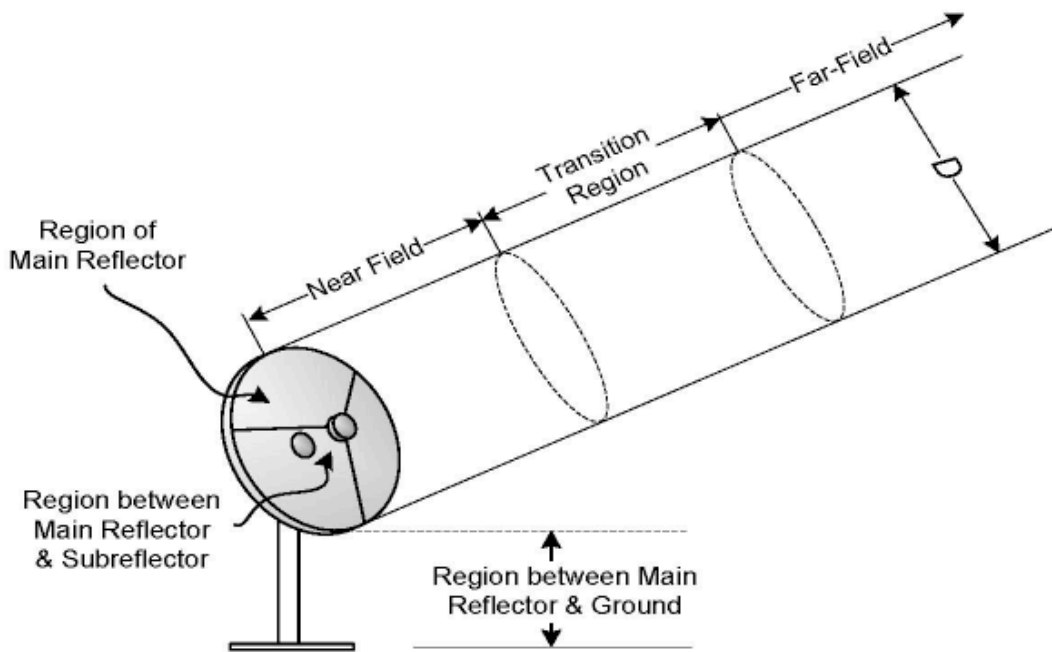


Figure 1. EM Fields as a Function of Distance

For parabolic aperture antennas with circular cross sections, such as the antenna under study, the near-field, farfield and transition region distances are calculated as follows:

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Formula</u>
<i>Near-Field Distance</i>	67.8	m	$R_{nf} = D^2/(4\lambda)$
<i>Distance to Far-Field</i>	162.72	m	$R_{ff} = 0.60D^2/(\lambda)$
<i>Distance of Transition Region</i>	67.8	m	$R_t = R_{nf}$

The distance in the transition region is between the near and far fields. Thus, $R_{nf} \leq R_t \leq R_{ff}$. However, the power density in the transition region will not exceed the power density in the near-field. Therefore, for purposes of the present analysis, the distance of the transition region can equate the distance to the near-field.

Power Flux Density Calculations

The power flux density is considered to be at a maximum through the entire length of the near-field. This region is contained within a cylindrical volume with a diameter, D , equal to the diameter of the antenna. In the transition region and the far-field, the power density decreases inversely with the square of the distance. The following equations are used to calculate power density in these regions.

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Symbol</u>	<u>Formula</u>
<i>Power Density in the Near-Field</i>	12.354	mW/cm ²	S_{nf}	$16.0 \eta P / (\pi D^2)$
<i>Power Density in the Far-Field</i>	5.292	mW/cm ²	S_{ff}	$GP / (4\pi R_{ff}^2)$
<i>Power Density in the Transition Region</i>	12.354	mW/cm ²	S_t	$S_{nf} R_{nf} / (R_t)$

The region between the main reflector and the subreflector is confined within a conical shape defined by the feed assembly. The most common feed assemblies are waveguide flanges. This energy is determined as follows:

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Symbol</u>	<u>Formula</u>
<i>Power Density at the Feed Flange</i>	5017.6	mW/cm ²	S_{fa}	$4P / a$

The power density in the main reflector is determined similarly to the power density at the feed flange; except that the area of the reflector is used.

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Symbol</u>	<u>Formula</u>
<i>Power Density at Main Reflector</i>	19.6	mW/cm ²	$S_{surface}$	$4P / A$

The power density between the reflector and ground, assuming uniform illumination of the reflector surface, is calculated as follows:

<u>Parameter</u>	<u>Value</u>	<u>Unit</u>	<u>Symbol</u>	<u>Formula</u>
<i>Power Density b/w Reflector and Ground</i>	4.9	mW/cm ²	S_g	P / A

The below table summarizes the calculated power flux density values for each region. In a controlled environment, the only regions that exceed FCC limitations are shown below. These regions are only accessible by trained technicians who, as a matter of procedure, turn off transmit power before performing any work in these areas.

<u>Power Density</u>	<u>Value</u>	<u>Unit</u>	<u>Controlled Environment</u>
<i>Far Field Calculation</i>	5.292	mW/cm ²	Exceeds Limits
<i>Near Field Calculation</i>	12.354	mW/cm ²	Exceeds Limits
<i>Transition Region</i>	12.354	mW/cm ²	Exceeds Limits
<i>Region b/w feed iris and reflector</i>	5017.6	mW/cm ²	Exceeds Limits
<i>Main Reflector Region</i>	19.6	mW/cm ²	Exceeds Limits
<i>Region b/w Main Reflector & Ground</i>	4.9	mW/cm ²	Satisfies FCC MPE

In conclusion, the results show that the antenna, in a controlled environment, and under the proper mitigation procedures, meets the guidelines specified in 47 C.F.R. § 1.1310.

Analysis of Non-Ionizing Radiation for Intellian V240MT 2.4-Meter Earth Station System (Ku-Band)

This report analyzes the non-ionizing radiation levels for a 2.4-meter earth station system. The analysis and calculations performed in this report comply with the methods described in the FCC Office of Engineering and Technology Bulletin, No. 65 first published in 1985 and revised in 1997 in Edition 97-01. The radiation safety limits used in the analysis are in conformance with the FCC R&O 96-326. Bulletin No. 65 and the FCC R&O specifies that there are two separate tiers of exposure limits that are dependent on the situation in which the exposure takes place and/or the status of the individuals who are subject to the exposure. The Maximum Permissible Exposure (MPE) limits for persons in a General Population/Uncontrolled environment are shown in Table 1. The General Population/Uncontrolled MPE is a function of transmit frequency and is for an exposure period of thirty minutes or less. The MPE limits for persons in an Occupational/Controlled environment are shown in Table 2. The Occupational MPE is a function of transmit frequency and is for an exposure period of six minutes or less. The purpose of the analysis described in this report is to determine the power flux density levels of the earth station in the far-field, near-field, transition region, between the subreflector or feed and main reflector surface, at the main reflector surface, and between the antenna edge and the ground and to compare these levels to the specified MPEs.

Table 1. Limits for General Population/Uncontrolled Exposure (MPE)

Frequency Range (MHz)	Power Density (mW/cm ²)
30-300	0.2
300-1500	Frequency (MHz)*(0.8/1200)
1500-100,000	1.0

Table 2. Limits for Occupational/Controlled Exposure (MPE)

Frequency Range (MHz)	Power Density (mW/cm ²)
30-300	1.0
300-1500	Frequency (MHz)*(4.0/1200)
1500-100,000	5.0

Table 3. Formulas and Parameters Used for Determining Power Flux Densities

Parameter	Symbol	Formula	Value	Units
Antenna Diameter	D	Input	2.40	m
Antenna Surface Area	A _{surface}	$\pi D^2/4$	4.524	m ²
Subreflector Diameter	D _{sr}	Input	15.00	cm
Area of Subreflector	A _{sr}	$\pi D_{sr}^2/4$	176.715	cm ²
Frequency	F	Input	14,125	MHz
Wavelength	λ	300 / F	0.021239	m
Transmit Power	P	Input	77.6	W
Antenna Gain (dBi)	G _{es}	Input	47.4	dBi
Antenna Gain (factor)	G	10 ^{^(Ges/10)}	54,954.087	n/a
Pi	π	Constant	3.1415927	n/a
Antenna Efficiency	η	$G\lambda^2/(\pi^2 D^2)$	0.44	n/a

1. Far Field Distance Calculation

The distance to the beginning of the far field can be determined from the following equation:

$$\begin{aligned} \text{Distance to the Far Field Region, } R_{ff} &= 0.60 D^2 / \lambda & (1) \\ &= 162.720 \text{ m} \end{aligned}$$

The maximum main beam power density in the far field can be determined from the following equation:

$$\begin{aligned} \text{On-Axis Power Density in the Far Field, } S_{ff} &= G P / (4 \pi R_{ff}^2) & (2) \\ &= 12.817 \text{ W/m}^2 \\ &= 1.282 \text{ mW/cm}^2 \end{aligned}$$

2. Near Field Calculation

Power flux density is considered to be at a maximum value throughout the entire length of the defined Near Field region. The region is contained within a cylindrical volume having the same diameter as the antenna. Past the boundary of the Near Field region, the power density from the antenna decreases linearly with respect to increasing distance.

The distance to the end of the Near Field can be determined from the following equation:

$$\begin{aligned} \text{Extent of the Near Field, } R_{nf} &= D^2 / (4 \lambda) & (3) \\ &= 67.80 \text{ m} \end{aligned}$$

The maximum power density in the Near Field can be determined from the following equation:

$$\begin{aligned} \text{Near Field Power Density, } S_{nf} &= 16.0 \eta P / (\pi D^2) & (4) \\ &= 29.919 \text{ W/m}^2 \\ &= 2.992 \text{ mW/cm}^2 \end{aligned}$$

3. Transition Region Calculation

The Transition region is located between the Near and Far Field regions. The power density begins to decrease linearly with increasing distance in the Transition region. While the power density decreases inversely with distance in the Transition region, the power density decreases inversely with the square of the distance in the Far Field region. The maximum power density in the Transition region will not exceed that calculated for the Near Field region. The power density calculated in Section 1 is the highest power density the antenna can produce in any of the regions away from the antenna. The power density at a distance R_t can be determined from the following equation:

$$\begin{aligned} \text{Transition Region Power Density, } S_t &= S_{nf} R_{nf} / R_t & (5) \\ &= 2.992 \text{ mW/cm}^2 \text{ when } R_t = R_{nf} \end{aligned}$$

4. Region between the Main Reflector and the Subreflector

Transmissions from the feed assembly are directed toward the subreflector surface, and are reflected back toward the main reflector. The most common feed assemblies are waveguide flanges, horns or subreflectors. The energy between the subreflector and the reflector surfaces can be calculated by determining the power density at the subreflector surface. This can be determined from the following equation:

$$\begin{aligned} \text{Power Density at the Subreflector, } S_{sr} &= 4000 P / A_{sr} & (6) \\ &= 1756.505 \text{ mW/cm}^2 \end{aligned}$$

5. Main Reflector Region

The power density in the main reflector is determined in the same manner as the power density at the subreflector. The area is now the area of the main reflector aperture and can be determined from the following equation:

$$\begin{aligned} \text{Power Density at the Main Reflector Surface } S_{\text{surface}} &= 4 P / A_{\text{surface}} & (7) \\ &= 68.613 \text{ W/m}^2 \\ &= 6.681 \text{ mW/cm}^2 \end{aligned}$$

6. Region between the Main Reflector and the Ground

Assuming uniform illumination of the reflector surface, the power density between the antenna and the ground can be determined from the following equation:

$$\begin{aligned} \text{Power Density between Reflector and Ground, } S_g &= P / A_{\text{surface}} & (8) \\ &= 17.153 \text{ W/m}^2 \\ &= 1.715 \text{ mW/cm}^2 \end{aligned}$$

7. Summary of Calculations

**Table 4. Summary of Expected Radiation Levels for Uncontrolled Environment
Calculated Maximum
Radiation Power Density Level (mW/cm²)**

Region	Distance	Value	Unit	Power Density Symbol	Value	Unit	Hazard Assessment
1. Far Field	R _{ff}	162.7	m	S _{ff}	1.282	mW/m ²	Exceeds Limits
2. Near Field	R _{nf}	67.8	m	S _{nf}	2.992	mW/m ²	Exceeds Limits
3. Transition Region	R _{nf} < R _t < R _{ff}			S _t	2.992	mW/m ²	Exceeds Limits
4. Between Main Reflector and Subreflector				S _{sr}	1756.505	mW/m ²	Exceeds Limits
5. Main Reflector				S _{surface}	6.861	mW/m ²	Exceeds Limits
6. Between Main Reflector and Ground				S _g	1.715	mW/m ²	Exceeds Limits

Table 5. Summary of Expected Radiation Levels for Controlled Environment
Calculated Maximum
Radiation Power Density Level (mW/cm²)

Region	Distance	Value	Unit	Power Density Symbol	Value	Unit	Hazard Assessment
1. Far Field	R _{ff}	162.7	m	S _{ff}	1.282	mW/m ²	Satisfies FCC MPE
2. Near Field	R _{nf}	67.8	m	S _{nf}	2.992	mW/m ²	Satisfies FCC MPE
3. Transition Region	R _{nf} < R _t < R _{ff}			S _t	2.992	mW/m ²	Satisfies FCC MPE
4. Between Main Reflector and Subreflector				S _{sr}	1756.505	mW/m ²	Exceeds Limits
5. Main Reflector				S _{surface}	6.861	mW/m ²	Exceeds Limits
6. Between Main Reflector and Ground				S _g	1.715	mW/m ²	Satisfies FCC MPE

It is the applicant's responsibility to ensure that the public and operational personnel are not exposed to harmful levels of radiation.

8. Conclusions

Based on the above analysis it is concluded that the FCC RF Guidelines have been exceeded in the specified region(s) of Tables 4 and 5 and have been met in the specified regions under the Controlled Environment as indicated in Table 5. The applicant proposes to comply with the Maximum Permissible Exposure (MPE) limits of 1 mW/cm² for the Uncontrolled areas and the MPE limits of 5 mW/cm² for the Controlled areas by restricting access to the antenna and posting warning signs. Access to the antenna will be restricted to the public. Only personnel with knowledge of the radiation hazards associated with the antennas at this facility will have access to those regions that exceed the MPE levels. The antenna transmitter will be turned off during maintenance in order to comply with the MPE limit of 5 mW/cm² at the Reflector Surface.

Analysis of Non-Ionizing Radiation for Intellian V240MT 2.4-Meter Earth Station System (Ka-Band)

This report analyzes the non-ionizing radiation levels for a 2.4-meter earth station system. The analysis and calculations performed in this report comply with the methods described in the FCC Office of Engineering and Technology Bulletin, No. 65 first published in 1985 and revised in 1997 in Edition 97-01. The radiation safety limits used in the analysis are in conformance with the FCC R&O 96-326. Bulletin No. 65 and the FCC R&O specifies that there are two separate tiers of exposure limits that are dependent on the situation in which the exposure takes place and/or the status of the individuals who are subject to the exposure. The Maximum Permissible Exposure (MPE) limits for persons in a General Population/Uncontrolled environment are shown in Table 1. The General Population/Uncontrolled MPE is a function of transmit frequency and is for an exposure period of thirty minutes or less. The MPE limits for persons in an Occupational/Controlled environment are shown in Table 2. The Occupational MPE is a function of transmit frequency and is for an exposure period of six minutes or less. The purpose of the analysis described in this report is to determine the power flux density levels of the earth station in the far-field, near-field, transition region, between the subreflector or feed and main reflector surface, at the main reflector surface, and between the antenna edge and the ground and to compare these levels to the specified MPEs.

Table 1. Limits for General Population/Uncontrolled Exposure (MPE)

Frequency Range (MHz)	Power Density (mW/cm ²)
30-300	0.2
300-1500	Frequency (MHz)*(0.8/1200)
1500-100,000	1.0

Table 2. Limits for Occupational/Controlled Exposure (MPE)

Frequency Range (MHz)	Power Density (mW/cm ²)
30-300	1.0
300-1500	Frequency (MHz)*(4.0/1200)
1500-100,000	5.0

Table 3. Formulas and Parameters Used for Determining Power Flux Densities

Parameter	Symbol	Formula	Value	Units
Antenna Diameter	D	Input	2.40	m
Antenna Surface Area	A _{surface}	$\pi D^2/4$	4.524	m ²
Subreflector Diameter	D _{sr}	Input	17.80	cm
Area of Subreflector	A _{sr}	$\pi D_{sr}^2/4$	248.846	cm ²
Frequency	F	Input	29,875	MHz
Wavelength	λ	300 / F	0.010042	m
Transmit Power	P	Input	31.6	W
Antenna Gain (dBi)	Ges	Input	50.7	dBi
Antenna Gain (factor)	G	$10^{(Ges/10)}$	117,489.755	n/a
Pi	π	Constant	3.1415927	n/a
Antenna Efficiency	η	$G\lambda^2/(\pi^2 D^2)$	0.2084	n/a

1. Far Field Distance Calculation

The distance to the beginning of the far field can be determined from the following equation:

$$\begin{aligned} \text{Distance to the Far Field Region, } R_{ff} &= 0.60 D^2 / \lambda & (1) \\ &= 344.160 \text{ m} \end{aligned}$$

The maximum main beam power density in the far field can be determined from the following equation:

$$\begin{aligned} \text{On-Axis Power Density in the Far Field, } S_{ff} &= G P / (4 \pi R_{ff}^2) & (2) \\ &= 2.494 \text{ W/m}^2 \\ &= 0.249 \text{ mW/cm}^2 \end{aligned}$$

2. Near Field Calculation

Power flux density is considered to be at a maximum value throughout the entire length of the defined Near Field region. The region is contained within a cylindrical volume having the same diameter as the antenna. Past the boundary of the Near Field region, the power density from the antenna decreases linearly with respect to increasing distance.

The distance to the end of the Near Field can be determined from the following equation:

$$\begin{aligned} \text{Extent of the Near Field, } R_{nf} &= D^2 / (4 \lambda) & (3) \\ &= 143.40 \text{ m} \end{aligned}$$

The maximum power density in the Near Field can be determined from the following equation:

$$\begin{aligned} \text{Near Field Power Density, } S_{nf} &= 16.0 \eta P / (\pi D^2) & (4) \\ &= 5.823 \text{ W/m}^2 \\ &= 0.582 \text{ mW/cm}^2 \end{aligned}$$

3. Transition Region Calculation

The Transition region is located between the Near and Far Field regions. The power density begins to decrease linearly with increasing distance in the Transition region. While the power density decreases inversely with distance in the Transition region, the power density decreases inversely with the square of the distance in the Far Field region. The maximum power density in the Transition region will not exceed that calculated for the Near Field region. The power density calculated in Section 1 is the highest power density the antenna can produce in any of the regions away from the antenna. The power density at a distance R_t can be determined from the following equation:

$$\begin{aligned} \text{Transition Region Power Density, } S_t &= S_{nf} R_{nf} / R_t & (5) \\ &= 0.582 \text{ mW/cm}^2 \text{ when } R_t = R_{nf} \end{aligned}$$

4. Region between the Main Reflector and the Subreflector

Transmissions from the feed assembly are directed toward the subreflector surface, and are reflected back toward the main reflector. The most common feed assemblies are waveguide flanges, horns or subreflectors. The energy between the subreflector and the reflector surfaces can be calculated by determining the power density at the subreflector surface. This can be determined from the following equation:

$$\begin{aligned} \text{Power Density at the Subreflector, } S_{sr} &= 4000 P / A_{sr} & (6) \\ &= 507.946 \text{ mW/cm}^2 \end{aligned}$$

5. Main Reflector Region

The power density in the main reflector is determined in the same manner as the power density at the subreflector. The area is now the area of the main reflector aperture and can be determined from the following equation:

$$\begin{aligned} \text{Power Density at the Main Reflector Surface } S_{\text{surface}} &= 4 P / A_{\text{surface}} & (7) \\ &= 27.941 \text{ W/m}^2 \\ &= 2.794 \text{ mW/cm}^2 \end{aligned}$$

6. Region between the Main Reflector and the Ground

Assuming uniform illumination of the reflector surface, the power density between the antenna and the ground can be determined from the following equation:

$$\begin{aligned} \text{Power Density between Reflector and Ground, } S_g &= P / A_{\text{surface}} & (8) \\ &= 6.985 \text{ W/m}^2 \\ &= 0.699 \text{ mW/cm}^2 \end{aligned}$$

7. Summary of Calculations

**Table 4. Summary of Expected Radiation Levels for Uncontrolled Environment
Calculated Maximum
Radiation Power Density Level (mW/cm²)**

Region	Distance	Value	Unit	Power Density Symbol	Value	Unit	Hazard Assessment
1. Far Field	R _{ff}	162.7	m	S _{ff}	0.249	mW/m ²	Satisfies FCC MPE
2. Near Field	R _{nf}	67.8	m	S _{nf}	0.582	mW/m ²	Satisfies FCC MPE
3. Transition Region	R _{nf} < R _t < R _{ff}			S _t	0.582	mW/m ²	Satisfies FCC MPE
4. Between Main Reflector and Subreflector				S _{sr}	507.946	mW/m ²	Exceeds Limits
5. Main Reflector				S _{surface}	2.794	mW/m ²	Exceeds Limits
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3. Transition Region	R _{nf} < R _t < R _{ff}			S _t	0.582	mW/m ²	Satisfies FCC MPE
4. Between Main Reflector and Subreflector				S _{sr}	507.946	mW/m ²	Exceeds Limits
5. Main Reflector				S _{surface}	2.794	mW/m ²	Satisfies FCC MPE
6. Between Main Reflector and Ground				S _g	0.699	mW/m ²	Satisfies FCC MPE

It is the applicant's responsibility to ensure that the public and operational personnel are not exposed to harmful levels of radiation.

8. Conclusions

Based on the above analysis it is concluded that the FCC RF Guidelines have been exceeded in the specified region(s) of Tables 4 and 5 and have been met in the specified regions under the Controlled Environment as indicated in Table 5. The applicant proposes to comply with the Maximum Permissible Exposure (MPE) limits of 1 mW/cm² for the Uncontrolled areas and the MPE limits of 5 mW/cm² for the Controlled areas by restricting access to the antenna and posting warning signs. Access to the antenna will be restricted to the public. Only personnel with knowledge of the radiation hazards associated with the antennas at this facility will have access to those regions that exceed the MPE levels. The antenna transmitter will be turned off during maintenance in order to comply with the MPE limit of 5 mW/cm² at the Reflector Surface.

Final

Ku band EIRP Spectral Density

Model Name: Intellian v240MT

Test Date: June 30, 2017

Prepared by

RF Engineering Department
Intellian Technologies, Inc.

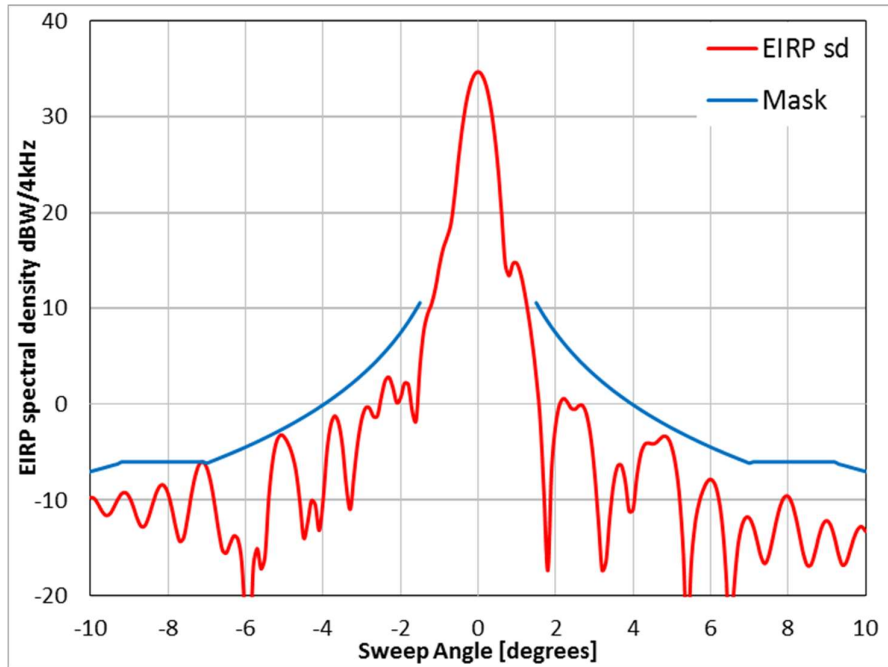
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1. EIRP Spectral Density of v240MT Ku-band

1.1. Azimuth Pattern for Co-pol, Narrow Angle (-10° ~ 10°)



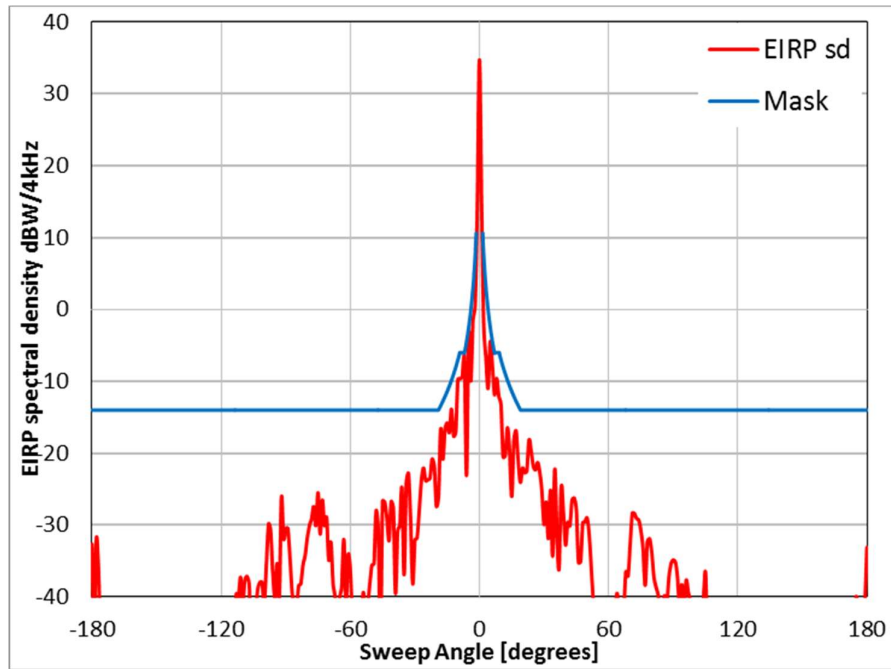
-13.7 dBW/ 4kHz Input power spectral density @ f=14.25 GHz & 0.7 dB Radome loss

- **FCC EIRP spectral density regulation**

15-25log(θ)	dBW/4kHz	for	$1.5^\circ \leq \theta \leq 7.0^\circ$
-6	dBW/4kHz	for	$7.0^\circ < \theta \leq 9.2^\circ$
18-25log(θ)	dBW/4kHz	for	$9.2^\circ < \theta \leq 19.1^\circ$
-14	dBW/4kHz	for	$19.1^\circ < \theta \leq 180^\circ$

The v240MT's Ku band Radiation pattern meets the FCC EIRP spectral density mask when the input powers spectral density is @ -13.7 dBW/ 4kHz

1.2. Azimuth Pattern for Co-pol, Wide Angle (-180°~180°)



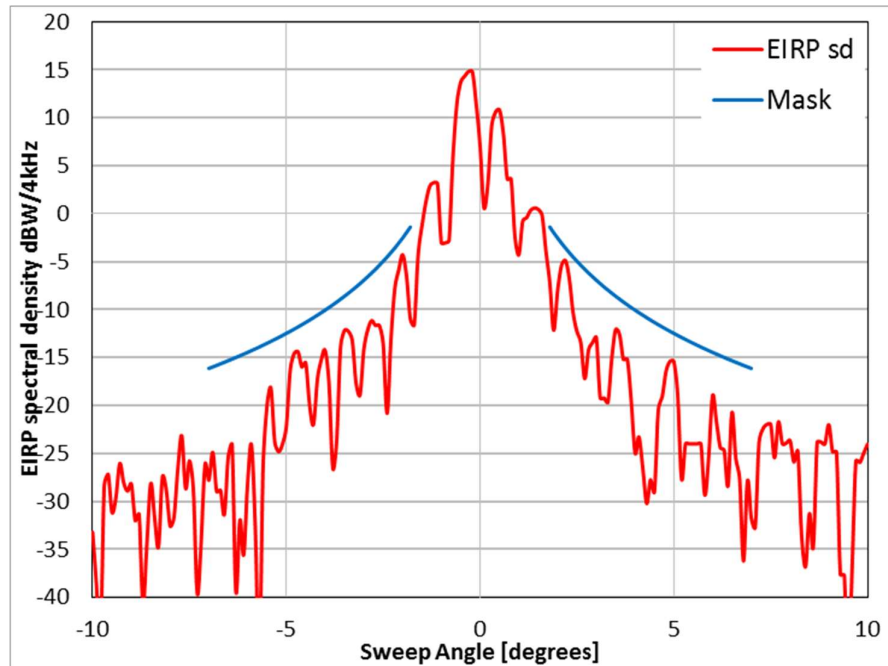
-13.7 dBW/ 4kHz Input power spectral density @ f=14.25 GHz & 0.7 dB Radome loss

▪ **FCC EIRP spectral density regulation**

15-25log(θ)	dBW/4kHz	for	$1.5^\circ \leq \theta \leq 7.0^\circ$
-6	dBW/4kHz	for	$7.0^\circ < \theta \leq 9.2^\circ$
18-25log(θ)	dBW/4kHz	for	$9.2^\circ < \theta \leq 19.1^\circ$
-14	dBW/4kHz	for	$19.1^\circ < \theta \leq 180^\circ$

The v240MT's Ku band Radiation pattern meets the FCC EIRP spectral density mask when the input powers spectral density is @ -13.7 dBW/ 4kHz

1.3. Azimuth Pattern for Cross-pol, Narrow angle (-10°~10°)



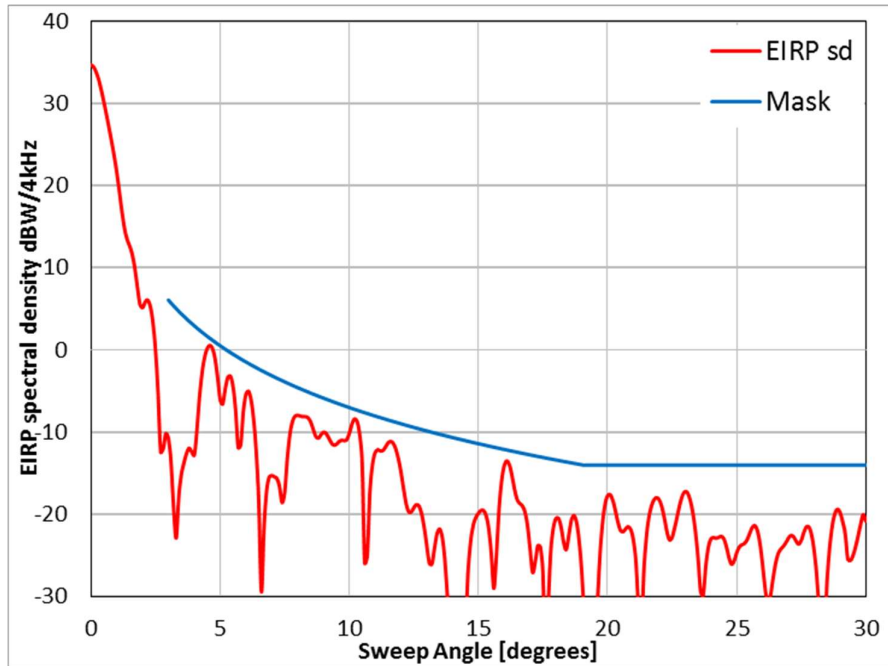
-13.7 dBW/ 4kHz Input power spectral density @ f=14.25 GHz & 0.7 dB Radome loss

- **FCC EIRP spectral density regulation**

$5-25\log(\theta)$	dBW/4kHz	for	$1.8^\circ \leq \theta \leq 7.0^\circ$
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The v240MT's Ku band Radiation pattern meets the FCC EIRP spectral density mask when the input powers spectral density is @ -13.7 dBW/ 4kHz

1.4. Elevation Pattern for Co-pol, Narrow Angle (0°~30°)



-13.7 dBW/ 4kHz Input power spectral density @ f=14.25 GHz & 0.7 dB Radome loss

▪ **FCC EIRP spectral density regulation**

18-25log(θ)	dBW/4kHz	for	3.0° ≤ θ ≤ 19.1°
-14	dBW/4kHz	for	19.1° < θ ≤ 180°

The v240MT's Ku band Radiation pattern meets the FCC EIRP spectral density mask when the input powers spectral density is @ -13.7 dBW/ 4kHz

2. EIRP Spectral Density Data

2.1. Azimuth Pattern for Co-pol (-10°~10°)

14.25 GHz @ -13.7 dBW/4kHz			14.25 GHz @ -13.7 dBW/4kHz		
Angle (Degree)	EIRP sd (dBW/4kHz)	Mask (dBW/4kHz)	Angle (Degree)	EIRP sd (dBW/4kHz)	Mask (dBW/4kHz)
-10.000	-9.699	-7.000	-5.000	-3.413	-2.474
-9.900	-9.843	-6.891	-4.900	-4.125	-2.255
-9.800	-10.470	-6.781	-4.800	-5.204	-2.031
-9.700	-11.196	-6.669	-4.700	-6.988	-1.802
-9.600	-11.591	-6.557	-4.600	-10.156	-1.569
-9.500	-11.414	-6.443	-4.500	-13.943	-1.330
-9.400	-10.751	-6.328	-4.400	-12.359	-1.086
-9.300	-9.930	-6.212	-4.300	-10.056	-0.837
-9.200	-9.324	-6.000	-4.200	-10.518	-0.581
-9.100	-9.200	-6.000	-4.100	-13.158	-0.320
-9.000	-9.670	-6.000	-4.000	-9.959	-0.051
-8.900	-10.669	-6.000	-3.900	-4.889	0.223
-8.800	-11.878	-6.000	-3.800	-2.109	0.505
-8.700	-12.708	-6.000	-3.700	-1.205	0.795
-8.600	-12.654	-6.000	-3.600	-1.936	1.092
-8.500	-11.736	-6.000	-3.500	-4.351	1.398
-8.400	-10.402	-6.000	-3.400	-8.515	1.713
-8.300	-9.181	-6.000	-3.300	-10.950	2.037
-8.200	-8.474	-6.000	-3.200	-7.306	2.371
-8.100	-8.498	-6.000	-3.100	-3.794	2.716
-8.000	-9.335	-6.000	-3.000	-1.489	3.072
-7.900	-10.922	-6.000	-2.900	-0.353	3.440
-7.800	-12.895	-6.000	-2.800	-0.410	3.821
-7.700	-14.296	-6.000	-2.700	-1.279	4.216
-7.600	-13.927	-6.000	-2.600	-1.218	4.626
-7.500	-11.902	-6.000	-2.500	0.704	5.051
-7.400	-9.457	-6.000	-2.400	2.439	5.495
-7.300	-7.473	-6.000	-2.300	2.836	5.957
-7.200	-6.288	-6.000	-2.200	1.767	6.439
-7.100	-6.000	-6.000	-2.100	0.184	6.945
-7.000	-6.627	-6.127	-2.000	0.680	7.474
-6.900	-8.143	-5.971	-1.900	2.190	8.031
-6.800	-10.433	-5.813	-1.800	2.072	8.618
-6.700	-13.105	-5.652	-1.700	-0.684	9.239
-6.600	-15.184	-5.489	-1.600	-1.716	9.897
-6.500	-15.516	-5.323	-1.500	3.980	10.598
-6.400	-14.534	-5.154	-1.400	7.687	
-6.300	-13.713	-4.984	-1.300	9.455	
-6.200	-14.066	-4.810	-1.200	10.480	
-6.100	-16.451	-4.633	-1.100	12.134	
-6.000	-23.090	-4.454	-1.000	14.413	
-5.900	-27.028	-4.271	-0.900	16.268	
-5.800	-16.860	-4.086	-0.800	17.426	
-5.700	-15.051	-3.897	-0.700	18.882	
-5.600	-17.162	-3.705	-0.600	21.955	
-5.500	-15.900	-3.509	-0.500	25.763	
-5.400	-9.696	-3.310	-0.400	29.083	
-5.300	-5.839	-3.107	-0.300	31.607	
-5.200	-3.872	-2.900	-0.200	33.349	
-5.100	-3.205	-2.689	-0.100	34.367	

14.25 GHz @ -13.7 dBW/4kHz			14.25 GHz @ -13.7 dBW/4kHz		
Angle (Degree)	EIRP sd (dBW/4kHz)	Mask (dBW/4kHz)	Angle (Degree)	EIRP sd (dBW/4kHz)	Mask (dBW/4kHz)
0.000	34.703		5.000	-4.487	-2.474
0.100	34.370		5.100	-6.404	-2.689
0.200	33.350		5.200	-9.732	-2.900
0.300	31.589		5.300	-15.739	-3.107
0.400	28.974		5.400	-25.575	-3.310
0.500	25.306		5.500	-16.826	-3.509
0.600	20.303		5.600	-12.510	-3.705
0.700	14.626		5.700	-10.348	-3.897
0.800	13.425		5.800	-9.019	-4.086
0.900	14.678		5.900	-8.152	-4.271
1.000	14.709		6.000	-7.812	-4.454
1.100	13.587		6.100	-8.220	-4.633
1.200	11.685		6.200	-9.637	-4.810
1.300	9.260		6.300	-12.464	-4.984
1.400	6.387		6.400	-17.640	-5.154
1.500	2.945	10.598	6.500	-25.500	-5.323
1.600	-1.493	9.897	6.600	-19.519	-5.489
1.700	-9.047	9.239	6.700	-15.010	-5.652
1.800	-17.334	8.618	6.800	-12.795	-5.813
1.900	-6.714	8.031	6.900	-11.849	-5.971
2.000	-2.225	7.474	7.000	-11.859	-6.127
2.100	-0.066	6.945	7.100	-12.711	-6.000
2.200	0.604	6.439	7.200	-14.230	-6.000
2.300	0.266	5.957	7.300	-15.878	-6.000
2.400	-0.390	5.495	7.400	-16.607	-6.000
2.500	-0.515	5.051	7.500	-15.823	-6.000
2.600	-0.153	4.626	7.600	-14.073	-6.000
2.700	-0.139	4.216	7.700	-12.145	-6.000
2.800	-1.062	3.821	7.800	-10.586	-6.000
2.900	-3.210	3.440	7.900	-9.695	-6.000
3.000	-6.787	3.072	8.000	-9.597	-6.000
3.100	-11.889	2.716	8.100	-10.316	-6.000
3.200	-17.272	2.371	8.200	-11.782	-6.000
3.300	-16.444	2.037	8.300	-13.743	-6.000
3.400	-11.731	1.713	8.400	-15.654	-6.000
3.500	-8.233	1.398	8.500	-16.808	-6.000
3.600	-6.455	1.092	8.600	-16.693	-6.000
3.700	-6.376	0.795	8.700	-15.381	-6.000
3.800	-8.076	0.505	8.800	-13.721	-6.000
3.900	-11.151	0.223	8.900	-12.524	-6.000
4.000	-10.980	-0.051	9.000	-12.134	-6.000
4.100	-7.496	-0.320	9.100	-12.625	-6.000
4.200	-5.173	-0.581	9.200	-13.905	-6.000
4.300	-4.183	-0.837	9.300	-15.591	-6.212
4.400	-4.032	-1.086	9.400	-16.752	-6.328
4.500	-4.133	-1.330	9.500	-16.506	-6.443
4.600	-3.984	-1.569	9.600	-15.278	-6.557
4.700	-3.579	-1.802	9.700	-13.954	-6.669
4.800	-3.309	-2.031	9.800	-13.031	-6.781
4.900	-3.534	-2.255	9.900	-12.754	-6.891
			10.000	-13.247	-7.000

2.2. Azimuth Pattern for Co-pol (-180°~180°)

14.25 GHz @ -13.7 dBW/4kHz			14.25 GHz @ -13.7 dBW/4kHz		
Angle (Degree)	EIRP sd (dBW/4kHz)	Mask (dBW/4kHz)	Angle (Degree)	EIRP sd (dBW/4kHz)	Mask (dBW/4kHz)
-180.000	-32.664	-14.000	-129.000	-58.812	-14.000
-179.000	-45.616	-14.000	-128.000	-59.267	-14.000
-178.000	-31.959	-14.000	-127.000	-61.479	-14.000
-177.000	-36.124	-14.000	-126.000	-57.582	-14.000
-176.000	-45.864	-14.000	-125.000	-56.741	-14.000
-175.000	-50.061	-14.000	-124.000	-52.410	-14.000
-174.000	-56.206	-14.000	-123.000	-48.495	-14.000
-173.000	-54.553	-14.000	-122.000	-58.115	-14.000
-172.000	-46.838	-14.000	-121.000	-53.758	-14.000
-171.000	-45.654	-14.000	-120.000	-50.354	-14.000
-170.000	-45.948	-14.000	-119.000	-50.250	-14.000
-169.000	-43.048	-14.000	-118.000	-57.851	-14.000
-168.000	-44.617	-14.000	-117.000	-54.316	-14.000
-167.000	-51.380	-14.000	-116.000	-55.728	-14.000
-166.000	-52.573	-14.000	-115.000	-47.607	-14.000
-165.000	-52.574	-14.000	-114.000	-44.685	-14.000
-164.000	-59.169	-14.000	-113.000	-39.569	-14.000
-163.000	-62.778	-14.000	-112.000	-40.051	-14.000
-162.000	-65.051	-14.000	-111.000	-37.255	-14.000
-161.000	-54.705	-14.000	-110.000	-40.825	-14.000
-160.000	-57.573	-14.000	-109.000	-37.663	-14.000
-159.000	-59.320	-14.000	-108.000	-37.133	-14.000
-158.000	-54.843	-14.000	-107.000	-38.206	-14.000
-157.000	-54.629	-14.000	-106.000	-45.527	-14.000
-156.000	-61.826	-14.000	-105.000	-42.754	-14.000
-155.000	-60.431	-14.000	-104.000	-41.674	-14.000
-154.000	-57.714	-14.000	-103.000	-38.903	-14.000
-153.000	-53.426	-14.000	-102.000	-37.969	-14.000
-152.000	-59.788	-14.000	-101.000	-37.966	-14.000
-151.000	-55.341	-14.000	-100.000	-40.994	-14.000
-150.000	-61.850	-14.000	-99.000	-35.519	-14.000
-149.000	-53.141	-14.000	-98.000	-29.848	-14.000
-148.000	-56.313	-14.000	-97.000	-30.807	-14.000
-147.000	-54.116	-14.000	-96.000	-36.744	-14.000
-146.000	-51.374	-14.000	-95.000	-40.014	-14.000
-145.000	-65.342	-14.000	-94.000	-35.354	-14.000
-144.000	-64.379	-14.000	-93.000	-40.218	-14.000
-143.000	-55.950	-14.000	-92.000	-26.152	-14.000
-142.000	-62.002	-14.000	-91.000	-31.853	-14.000
-141.000	-57.549	-14.000	-90.000	-30.459	-14.000
-140.000	-68.575	-14.000	-89.000	-30.471	-14.000
-139.000	-61.158	-14.000	-88.000	-34.817	-14.000
-138.000	-56.650	-14.000	-87.000	-39.526	-14.000
-137.000	-54.063	-14.000	-86.000	-40.938	-14.000
-136.000	-64.535	-14.000	-85.000	-41.544	-14.000
-135.000	-52.295	-14.000	-84.000	-38.435	-14.000
-134.000	-57.649	-14.000	-83.000	-38.180	-14.000
-133.000	-63.095	-14.000	-82.000	-35.568	-14.000
-132.000	-55.094	-14.000	-81.000	-34.196	-14.000
-131.000	-59.692	-14.000	-80.000	-31.793	-14.000
-130.000	-76.889	-14.000	-79.000	-30.056	-14.000

14.25 GHz @ -13.7 dBW/4kHz			14.25 GHz @ -13.7 dBW/4kHz		
Angle (Degree)	EIRP sd (dBW/4kHz)	Mask (dBW/4kHz)	Angle (Degree)	EIRP sd (dBW/4kHz)	Mask (dBW/4kHz)
-78.000	-29.144	-14.000	-27.000	-23.835	-14.000
-77.000	-27.433	-14.000	-26.000	-22.054	-14.000
-76.000	-30.061	-14.000	-25.000	-23.843	-14.000
-75.000	-25.503	-14.000	-24.000	-23.685	-14.000
-74.000	-31.252	-14.000	-23.000	-23.479	-14.000
-73.000	-26.521	-14.000	-22.000	-20.809	-14.000
-72.000	-30.080	-14.000	-21.000	-21.805	-14.000
-71.000	-28.947	-14.000	-20.000	-27.392	-14.000
-70.000	-34.865	-14.000	-19.000	-26.010	-13.969
-69.000	-32.400	-14.000	-18.000	-16.646	-13.382
-68.000	-38.178	-14.000	-17.000	-20.832	-12.761
-67.000	-40.396	-14.000	-16.000	-16.648	-12.103
-66.000	-47.957	-14.000	-15.000	-15.778	-11.402
-65.000	-40.375	-14.000	-14.000	-17.116	-10.653
-64.000	-38.568	-14.000	-13.000	-13.880	-9.849
-63.000	-32.005	-14.000	-12.000	-17.652	-8.980
-62.000	-41.157	-14.000	-11.000	-17.015	-8.035
-61.000	-34.080	-14.000	-10.000	-9.699	-7.000
-60.000	-36.190	-14.000	-9.000	-9.670	-6.000
-59.000	-43.476	-14.000	-8.000	-9.335	-6.000
-58.000	-50.083	-14.000	-7.000	-6.627	-6.127
-57.000	-48.727	-14.000	-6.000	-23.090	-4.454
-56.000	-53.692	-14.000	-5.000	-3.413	-2.474
-55.000	-44.832	-14.000	-4.000	-9.959	-0.051
-54.000	-39.403	-14.000	-3.000	-1.489	3.072
-53.000	-42.588	-14.000	-2.000	0.680	7.474
-52.000	-41.293	-14.000	-1.000	14.413	
-51.000	-38.293	-14.000	0.000	34.703	
-50.000	-35.581	-14.000	1.000	14.709	
-49.000	-35.345	-14.000	2.000	-2.225	7.474
-48.000	-27.971	-14.000	3.000	-6.787	3.072
-47.000	-30.635	-14.000	4.000	-10.980	-0.051
-46.000	-45.424	-14.000	5.000	-4.487	-2.474
-45.000	-26.611	-14.000	6.000	-7.812	-4.454
-44.000	-26.809	-14.000	7.000	-11.859	-6.127
-43.000	-29.131	-14.000	8.000	-9.597	-6.000
-42.000	-32.147	-14.000	9.000	-12.134	-6.000
-41.000	-26.707	-14.000	10.000	-13.247	-7.000
-40.000	-27.603	-14.000	11.000	-20.529	-8.035
-39.000	-39.518	-14.000	12.000	-20.349	-8.980
-38.000	-30.803	-14.000	13.000	-16.448	-9.849
-37.000	-30.038	-14.000	14.000	-19.809	-10.653
-36.000	-24.850	-14.000	15.000	-26.020	-11.402
-35.000	-36.894	-14.000	16.000	-18.109	-12.103
-34.000	-24.099	-14.000	17.000	-16.863	-12.761
-33.000	-22.797	-14.000	18.000	-21.163	-13.382
-32.000	-29.121	-14.000	19.000	-24.063	-13.969
-31.000	-38.168	-14.000	20.000	-22.081	-14.000
-30.000	-32.121	-14.000	21.000	-22.726	-14.000
-29.000	-31.786	-14.000	22.000	-22.464	-14.000
-28.000	-28.117	-14.000	23.000	-18.162	-14.000

14.25 GHz @ -13.7 dBW/4kHz			14.25 GHz @ -13.7 dBW/4kHz		
Angle (Degree)	EIRP sd (dBW/4kHz)	Mask (dBW/4kHz)	Angle (Degree)	EIRP sd (dBW/4kHz)	Mask (dBW/4kHz)
24.000	-19.654	-14.000	75.000	-30.836	-14.000
25.000	-21.800	-14.000	76.000	-33.317	-14.000
26.000	-22.328	-14.000	77.000	-38.388	-14.000
27.000	-21.301	-14.000	78.000	-32.311	-14.000
28.000	-22.623	-14.000	79.000	-31.888	-14.000
29.000	-25.336	-14.000	80.000	-33.684	-14.000
30.000	-29.940	-14.000	81.000	-37.148	-14.000
31.000	-26.819	-14.000	82.000	-38.610	-14.000
32.000	-31.868	-14.000	83.000	-39.678	-14.000
33.000	-25.161	-14.000	84.000	-41.772	-14.000
34.000	-34.317	-14.000	85.000	-41.012	-14.000
35.000	-22.208	-14.000	86.000	-39.786	-14.000
36.000	-31.399	-14.000	87.000	-40.926	-14.000
37.000	-36.016	-14.000	88.000	-37.290	-14.000
38.000	-24.703	-14.000	89.000	-35.364	-14.000
39.000	-28.317	-14.000	90.000	-34.851	-14.000
40.000	-32.788	-14.000	91.000	-35.133	-14.000
41.000	-29.610	-14.000	92.000	-37.253	-14.000
42.000	-30.092	-14.000	93.000	-41.693	-14.000
43.000	-26.572	-14.000	94.000	-38.272	-14.000
44.000	-26.222	-14.000	95.000	-41.999	-14.000
45.000	-27.857	-14.000	96.000	-37.703	-14.000
46.000	-35.212	-14.000	97.000	-39.295	-14.000
47.000	-35.091	-14.000	98.000	-40.999	-14.000
48.000	-29.694	-14.000	99.000	-46.570	-14.000
49.000	-29.554	-14.000	100.000	-44.412	-14.000
50.000	-29.022	-14.000	101.000	-45.217	-14.000
51.000	-31.552	-14.000	102.000	-42.509	-14.000
52.000	-36.292	-14.000	103.000	-40.934	-14.000
53.000	-41.283	-14.000	104.000	-40.352	-14.000
54.000	-44.869	-14.000	105.000	-36.556	-14.000
55.000	-40.797	-14.000	106.000	-45.934	-14.000
56.000	-41.804	-14.000	107.000	-41.790	-14.000
57.000	-44.608	-14.000	108.000	-51.672	-14.000
58.000	-58.353	-14.000	109.000	-59.943	-14.000
59.000	-58.657	-14.000	110.000	-54.153	-14.000
60.000	-50.098	-14.000	111.000	-49.506	-14.000
61.000	-48.456	-14.000	112.000	-48.128	-14.000
62.000	-48.128	-14.000	113.000	-49.115	-14.000
63.000	-42.034	-14.000	114.000	-50.568	-14.000
64.000	-39.529	-14.000	115.000	-63.648	-14.000
65.000	-44.309	-14.000	116.000	-58.578	-14.000
66.000	-44.154	-14.000	117.000	-54.095	-14.000
67.000	-42.227	-14.000	118.000	-56.891	-14.000
68.000	-36.514	-14.000	119.000	-56.084	-14.000
69.000	-37.120	-14.000	120.000	-62.616	-14.000
70.000	-32.664	-14.000	121.000	-53.651	-14.000
71.000	-28.347	-14.000	122.000	-59.926	-14.000
72.000	-28.383	-14.000	123.000	-54.044	-14.000
73.000	-29.091	-14.000	124.000	-67.298	-14.000
74.000	-29.314	-14.000	125.000	-55.470	-14.000

14.25 GHz @ -13.7 dBW/4kHz		
Angle (Degree)	EIRP sd (dBW/4kHz)	Mask (dBW/4kHz)
126.000	-65.227	-14.000
127.000	-57.026	-14.000
128.000	-61.334	-14.000
129.000	-62.313	-14.000
130.000	-67.863	-14.000
131.000	-52.246	-14.000
132.000	-58.714	-14.000
133.000	-53.120	-14.000
134.000	-55.583	-14.000
135.000	-52.703	-14.000
136.000	-48.842	-14.000
137.000	-56.619	-14.000
138.000	-48.975	-14.000
139.000	-48.423	-14.000
140.000	-57.188	-14.000
141.000	-55.687	-14.000
142.000	-52.636	-14.000
143.000	-49.328	-14.000
144.000	-46.980	-14.000
145.000	-55.839	-14.000
146.000	-61.016	-14.000
147.000	-54.235	-14.000
148.000	-52.709	-14.000
149.000	-54.684	-14.000
150.000	-49.647	-14.000
151.000	-55.087	-14.000
152.000	-60.683	-14.000
153.000	-60.293	-14.000
154.000	-60.175	-14.000
155.000	-50.475	-14.000
156.000	-51.806	-14.000
157.000	-55.650	-14.000
158.000	-53.523	-14.000
159.000	-49.134	-14.000
160.000	-62.020	-14.000
161.000	-56.888	-14.000
162.000	-48.455	-14.000
163.000	-61.790	-14.000
164.000	-61.515	-14.000
165.000	-48.682	-14.000
166.000	-48.459	-14.000
167.000	-61.615	-14.000
168.000	-55.354	-14.000
169.000	-53.219	-14.000
170.000	-53.562	-14.000
171.000	-46.448	-14.000
172.000	-42.738	-14.000
173.000	-49.462	-14.000
174.000	-46.910	-14.000
175.000	-39.967	-14.000
176.000	-43.987	-14.000
177.000	-46.187	-14.000
178.000	-42.722	-14.000
179.000	-41.221	-14.000
180.000	-33.097	-14.000

2.3. Azimuth Pattern for Cross-pol (-10°~10°)

14.25 GHz @ -13.7 dBW/4kHz			14.25 GHz @ -13.7 dBW/4kHz		
Angle (Degree)	EIRP sd (dBW/4kHz)	Mask (dBW/4kHz)	Angle (Degree)	EIRP sd (dBW/4kHz)	Mask (dBW/4kHz)
-10.000	-33.225		-5.000	-22.183	-12.474
-9.900	-38.778		-4.900	-16.265	-12.255
-9.800	-44.559		-4.800	-14.6	-12.031
-9.700	-28.335		-4.700	-14.395	-11.802
-9.600	-27.175		-4.600	-15.984	-11.569
-9.500	-31.143		-4.500	-15.557	-11.330
-9.400	-29.635		-4.400	-19.981	-11.086
-9.300	-26.065		-4.300	-21.981	-10.837
-9.200	-28.010		-4.200	-17.309	-10.581
-9.100	-28.921		-4.100	-15.266	-10.320
-9.000	-28.205		-4.000	-14.261	-10.051
-8.900	-32.024		-3.900	-17.632	-9.777
-8.800	-31.360		-3.800	-26.553	-9.495
-8.700	-40.666		-3.700	-23.546	-9.205
-8.600	-34.436		-3.600	-13.885	-8.908
-8.500	-28.144		-3.500	-12.165	-8.602
-8.400	-31.749		-3.400	-12.253	-8.287
-8.300	-34.730		-3.300	-13.189	-7.963
-8.200	-27.483		-3.200	-17.699	-7.629
-8.100	-28.789		-3.100	-18.92	-7.284
-8.000	-32.565		-3.000	-14.145	-6.928
-7.900	-31.677		-2.900	-12.117	-6.560
-7.800	-26.540		-2.800	-11.152	-6.179
-7.700	-23.160		-2.700	-11.657	-5.784
-7.600	-28.666		-2.600	-11.657	-5.374
-7.500	-25.777		-2.500	-13.572	-4.949
-7.400	-28.694		-2.400	-20.809	-4.505
-7.300	-39.608		-2.300	-13.14	-4.043
-7.200	-34.332		-2.200	-7.732	-3.561
-7.100	-26.170		-2.100	-5.883	-3.055
-7.000	-27.797	-16.127	-2.000	-4.27	-2.526
-6.900	-24.896	-15.971	-1.900	-6.426	-1.969
-6.800	-28.962	-15.813	-1.800	-10.975	-1.382
-6.700	-28.852	-15.652	-1.700	-11.583	
-6.600	-31.355	-15.489	-1.600	-4.398	
-6.500	-25.383	-15.323	-1.500	-1.249	
-6.400	-24.137	-15.154	-1.400	1.191	
-6.300	-39.448	-14.984	-1.300	2.862	
-6.200	-31.975	-14.810	-1.200	3.242	
-6.100	-35.559	-14.633	-1.100	3.169	
-6.000	-28.059	-14.454	-1.000	-3.025	
-5.900	-24.131	-14.271	-0.900	-3.025	
-5.800	-32.935	-14.086	-0.800	-2.771	
-5.700	-47.072	-13.897	-0.700	5.922	
-5.600	-26.540	-13.705	-0.600	11.452	
-5.500	-20.027	-13.509	-0.500	13.719	
-5.400	-18.156	-13.310	-0.400	14.347	
-5.300	-23.806	-13.107	-0.300	14.832	
-5.200	-24.818	-12.900	-0.200	14.832	
-5.100	-24.014	-12.689	-0.100	11.453	

14.25 GHz @ -13.7 dBW/4kHz			14.25 GHz @ -13.7 dBW/4kHz		
Angle (Degree)	EIRP sd (dBW/4kHz)	Mask (dBW/4kHz)	Angle (Degree)	EIRP sd (dBW/4kHz)	Mask (dBW/4kHz)
0.000	7.023		5.000	-15.401	-12.474
0.100	0.643		5.100	-18.942	-12.689
0.200	3.119		5.200	-27.669	-12.900
0.300	9.216		5.300	-24.005	-13.107
0.400	10.614		5.400	-24.005	-13.310
0.500	10.837		5.500	-24.005	-13.509
0.600	8.413		5.600	-24.005	-13.705
0.700	3.628		5.700	-24.005	-13.897
0.800	3.628		5.800	-29.342	-14.086
0.900	-2.447		5.900	-25.38	-14.271
1.000	-4.295		6.000	-18.98	-14.454
1.100	-0.769		6.100	-21.682	-14.633
1.200	-0.412		6.200	-24.4	-14.810
1.300	0.349		6.300	-24.675	-14.984
1.400	0.588		6.400	-28.382	-15.154
1.500	0.464		6.500	-20.739	-15.323
1.600	-0.157		6.600	-25.504	-15.489
1.700	-3.907		6.700	-27.745	-15.652
1.800	-7.265	-1.382	6.800	-36.219	-15.813
1.900	-12.15	-1.969	6.900	-27.863	-15.971
2.000	-8.019	-2.526	7.000	-31.735	-16.127
2.100	-5.424	-3.055	7.100	-32.702	
2.200	-4.863	-3.561	7.200	-23.817	
2.300	-6.7	-4.043	7.300	-22.431	
2.400	-10.292	-4.505	7.400	-21.977	
2.500	-12.287	-4.949	7.500	-21.958	
2.600	-13.457	-5.374	7.600	-25.445	
2.700	-17.19	-5.784	7.700	-21.714	
2.800	-14.197	-6.179	7.800	-23.987	
2.900	-13.449	-6.560	7.900	-23.926	
3.000	-12.913	-6.928	8.000	-23.664	
3.100	-19.216	-7.284	8.100	-25.892	
3.200	-19.216	-7.629	8.200	-24.808	
3.300	-19.642	-7.963	8.300	-33.7	
3.400	-15.013	-8.287	8.400	-36.827	
3.500	-12.074	-8.602	8.500	-31.281	
3.600	-12.61	-8.908	8.600	-34.751	
3.700	-15.19	-9.205	8.700	-23.82	
3.800	-15.19	-9.495	8.800	-23.82	
3.900	-19.471	-9.777	8.900	-23.992	
4.000	-24.947	-10.051	9.000	-22.002	
4.100	-23.288	-10.320	9.100	-24.856	
4.200	-26.576	-10.581	9.200	-24.856	
4.300	-30.214	-10.837	9.300	-37.619	
4.400	-27.756	-11.086	9.400	-37.689	
4.500	-28.96	-11.330	9.500	-48.483	
4.600	-20.471	-11.569	9.600	-37.292	
4.700	-19.091	-11.802	9.700	-25.786	
4.800	-16.427	-12.031	9.800	-25.942	
4.900	-15.401	-12.255	9.900	-24.99	
			10.000	-24.038	

2.4. Elevation Pattern for Co-pol (0°~30°)

14.25 GHz @ -13.7 dBW/4kHz			14.25 GHz @ -13.7 dBW/4kHz		
Angle (Degree)	EIRP sd (dBW/4kHz)	Mask (dBW/4kHz)	Angle (Degree)	EIRP sd (dBW/4kHz)	Mask (dBW/4kHz)
0.000	34.703		5.000	-5.999	0.526
0.100	34.465		5.100	-6.587	0.311
0.200	33.843		5.200	-4.717	0.100
0.300	32.885		5.300	-3.325	-0.107
0.400	31.645		5.400	-3.186	-0.310
0.500	30.200		5.500	-4.422	-0.509
0.600	28.639		5.600	-7.327	-0.705
0.700	27.033		5.700	-11.871	-0.897
0.800	25.383		5.800	-11.505	-1.086
0.900	23.610		5.900	-7.505	-1.271
1.000	21.596		6.000	-5.403	-1.454
1.100	19.292		6.100	-5.024	-1.633
1.200	16.855		6.200	-6.083	-1.810
1.300	14.769		6.300	-8.508	-1.984
1.400	13.474		6.400	-12.435	-2.154
1.500	12.648		6.500	-18.655	-2.323
1.600	11.602		6.600	-29.432	-2.489
1.700	9.917		6.700	-21.731	-2.652
1.800	7.603		6.800	-17.153	-2.813
1.900	5.519		6.900	-15.507	-2.971
2.000	5.147		7.000	-15.275	-3.127
2.100	5.834		7.100	-15.438	-3.281
2.200	6.066		7.200	-15.646	-3.433
2.300	5.297		7.300	-16.629	-3.583
2.400	3.340		7.400	-18.574	-3.731
2.500	-0.055		7.500	-17.397	-3.877
2.600	-5.417		7.600	-13.290	-4.020
2.700	-12.423		7.700	-10.337	-4.162
2.800	-11.998		7.800	-8.729	-4.302
2.900	-10.169		7.900	-8.061	-4.441
3.000	-10.796	6.072	8.000	-7.945	-4.577
3.100	-13.623	5.716	8.100	-8.039	-4.712
3.200	-19.158	5.371	8.200	-8.105	-4.845
3.300	-22.897	5.037	8.300	-8.114	-4.977
3.400	-17.923	4.713	8.400	-8.238	-5.107
3.500	-15.163	4.398	8.500	-8.704	-5.235
3.600	-13.734	4.092	8.600	-9.577	-5.362
3.700	-12.596	3.795	8.700	-10.489	-5.488
3.800	-11.954	3.505	8.800	-10.741	-5.612
3.900	-12.384	3.223	8.900	-10.338	-5.735
4.000	-12.797	2.949	9.000	-10.007	-5.856
4.100	-9.856	2.680	9.100	-10.145	-5.976
4.200	-5.822	2.419	9.200	-10.675	-6.095
4.300	-2.844	2.163	9.300	-11.273	-6.212
4.400	-0.926	1.914	9.400	-11.584	-6.328
4.500	0.170	1.670	9.500	-11.482	-6.443
4.600	0.562	1.431	9.600	-11.172	-6.557
4.700	0.223	1.198	9.700	-10.985	-6.669
4.800	-0.991	0.969	9.800	-11.026	-6.781
4.900	-3.226	0.745	9.900	-10.927	-6.891

14.25 GHz @ -13.7 dBW/4kHz			14.25 GHz @ -13.7 dBW/4kHz		
Angle (Degree)	EIRP sd (dBW/4kHz)	Mask (dBW/4kHz)	Angle (Degree)	EIRP sd (dBW/4kHz)	Mask (dBW/4kHz)
10.000	-10.178	-7.000	15.000	-19.877	-11.402
10.100	-9.076	-7.108	15.100	-19.536	-11.474
10.200	-8.399	-7.215	15.200	-19.542	-11.546
10.300	-8.652	-7.321	15.300	-20.175	-11.617
10.400	-10.186	-7.426	15.400	-21.755	-11.688
10.500	-13.686	-7.530	15.500	-24.844	-11.758
10.600	-25.902	-7.633	15.600	-29.021	-11.828
10.700	-24.997	-7.735	15.700	-24.837	-11.897
10.800	-17.323	-7.836	15.800	-19.327	-11.966
10.900	-13.972	-7.936	15.900	-15.929	-12.035
11.000	-12.509	-8.035	16.000	-14.086	-12.103
11.100	-12.150	-8.133	16.100	-13.497	-12.171
11.200	-12.278	-8.230	16.200	-13.978	-12.238
11.300	-12.246	-8.327	16.300	-15.296	-12.305
11.400	-11.815	-8.423	16.400	-16.959	-12.371
11.500	-11.323	-8.517	16.500	-18.190	-12.437
11.600	-11.123	-8.611	16.600	-18.672	-12.503
11.700	-11.348	-8.705	16.700	-18.961	-12.568
11.800	-12.028	-8.797	16.800	-19.699	-12.633
11.900	-13.190	-8.889	16.900	-21.340	-12.697
12.000	-14.834	-8.980	17.000	-24.209	-12.761
12.100	-16.813	-9.070	17.100	-27.066	-12.825
12.200	-18.657	-9.159	17.200	-25.793	-12.888
12.300	-19.695	-9.248	17.300	-23.826	-12.951
12.400	-19.712	-9.336	17.400	-23.989	-13.014
12.500	-19.201	-9.423	17.500	-27.220	-13.076
12.600	-18.817	-9.509	17.600	-38.983	-13.138
12.700	-18.992	-9.595	17.700	-31.472	-13.199
12.800	-19.902	-9.680	17.800	-24.585	-13.261
12.900	-21.554	-9.765	17.900	-21.704	-13.321
13.000	-23.798	-9.849	18.000	-20.513	-13.382
13.100	-25.938	-9.932	18.100	-20.482	-13.442
13.200	-26.070	-10.014	18.200	-21.524	-13.502
13.300	-24.113	-10.096	18.300	-23.400	-13.561
13.400	-22.342	-10.178	18.400	-24.287	-13.620
13.500	-21.793	-10.258	18.500	-22.558	-13.679
13.600	-22.772	-10.338	18.600	-20.718	-13.738
13.700	-25.487	-10.418	18.700	-20.142	-13.796
13.800	-29.971	-10.497	18.800	-20.983	-13.854
13.900	-33.686	-10.575	18.900	-23.244	-13.912
14.000	-32.717	-10.653	19.000	-27.021	-13.969
14.100	-31.273	-10.730	19.100	-32.553	-14.026
14.200	-30.959	-10.807	19.200	-39.116	-14.000
14.300	-32.769	-10.883	19.300	-40.339	-14.000
14.400	-41.778	-10.959	19.400	-41.301	-14.000
14.500	-34.564	-11.034	19.500	-43.806	-14.000
14.600	-27.117	-11.109	19.600	-32.120	-14.000
14.700	-23.315	-11.183	19.700	-25.328	-14.000
14.800	-21.355	-11.257	19.800	-21.247	-14.000
14.900	-20.405	-11.330	19.900	-18.857	-14.000

14.25 GHz @ -13.7 dBW/4kHz			14.25 GHz @ -13.7 dBW/4kHz		
Angle (Degree)	EIRP sd (dBW/4kHz)	Mask (dBW/4kHz)	Angle (Degree)	EIRP sd (dBW/4kHz)	Mask (dBW/4kHz)
20.000	-17.725	-14.000	25.000	-24.671	-14.000
20.100	-17.598	-14.000	25.100	-23.983	-14.000
20.200	-18.273	-14.000	25.200	-23.709	-14.000
20.300	-19.511	-14.000	25.300	-23.546	-14.000
20.400	-20.934	-14.000	25.400	-23.114	-14.000
20.500	-21.952	-14.000	25.500	-22.354	-14.000
20.600	-22.130	-14.000	25.600	-21.620	-14.000
20.700	-21.764	-14.000	25.700	-21.375	-14.000
20.800	-21.516	-14.000	25.800	-21.958	-14.000
20.900	-21.862	-14.000	25.900	-23.547	-14.000
21.000	-23.134	-14.000	26.000	-26.096	-14.000
21.100	-25.854	-14.000	26.100	-29.015	-14.000
21.200	-31.568	-14.000	26.200	-30.734	-14.000
21.300	-36.380	-14.000	26.300	-30.028	-14.000
21.400	-27.405	-14.000	26.400	-27.972	-14.000
21.500	-22.885	-14.000	26.500	-26.063	-14.000
21.600	-20.395	-14.000	26.600	-24.851	-14.000
21.700	-18.977	-14.000	26.700	-24.263	-14.000
21.800	-18.226	-14.000	26.800	-23.929	-14.000
21.900	-17.980	-14.000	26.900	-23.475	-14.000
22.000	-18.236	-14.000	27.000	-22.908	-14.000
22.100	-19.066	-14.000	27.100	-22.569	-14.000
22.200	-20.471	-14.000	27.200	-22.719	-14.000
22.300	-22.128	-14.000	27.300	-23.266	-14.000
22.400	-23.129	-14.000	27.400	-23.626	-14.000
22.500	-22.804	-14.000	27.500	-23.168	-14.000
22.600	-21.632	-14.000	27.600	-22.202	-14.000
22.700	-20.188	-14.000	27.700	-21.515	-14.000
22.800	-18.786	-14.000	27.800	-21.563	-14.000
22.900	-17.721	-14.000	27.900	-22.522	-14.000
23.000	-17.222	-14.000	28.000	-24.482	-14.000
23.100	-17.401	-14.000	28.100	-27.599	-14.000
23.200	-18.271	-14.000	28.200	-32.538	-14.000
23.300	-19.798	-14.000	28.300	-41.835	-14.000
23.400	-22.019	-14.000	28.400	-35.014	-14.000
23.500	-25.189	-14.000	28.500	-28.095	-14.000
23.600	-29.303	-14.000	28.600	-24.017	-14.000
23.700	-29.908	-14.000	28.700	-21.415	-14.000
23.800	-26.435	-14.000	28.800	-19.916	-14.000
23.900	-24.051	-14.000	28.900	-19.391	-14.000
24.000	-23.012	-14.000	29.000	-19.759	-14.000
24.100	-22.829	-14.000	29.100	-20.872	-14.000
24.200	-22.912	-14.000	29.200	-22.344	-14.000
24.300	-22.817	-14.000	29.300	-25.447	-14.000
24.400	-22.682	-14.000	29.400	-25.632	-14.000
24.500	-22.967	-14.000	29.500	-25.052	-14.000
24.600	-23.910	-14.000	29.600	-23.995	-14.000
24.700	-25.262	-14.000	29.700	-22.621	-14.000
24.800	-26.088	-14.000	29.800	-21.190	-14.000
24.900	-25.649	-14.000	29.900	-20.043	-14.000
			30.000	-20.852	-14.000

Final

Ka band EIRP Spectral Density

Model Name: Intellian v240MT

Test Date: June 30, 2017

Prepared by

RF Engineering Department
Intellian Technologies, Inc.

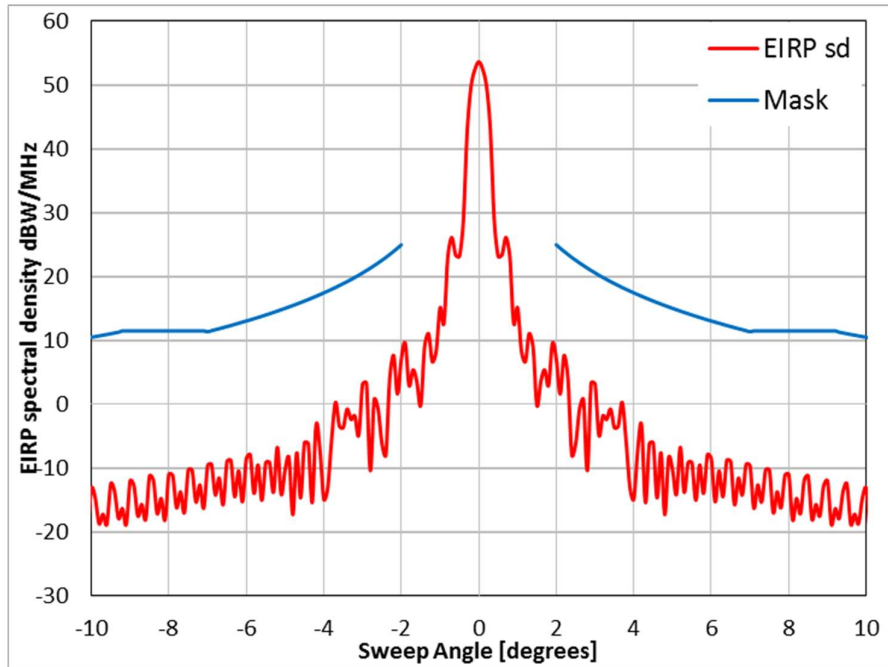
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1. EIRP Spectral Density of v240MT Ka-band 27.5 GHz

1.1. Azimuth Pattern for Co-pol, Narrow Angle (-10° ~ 10°)



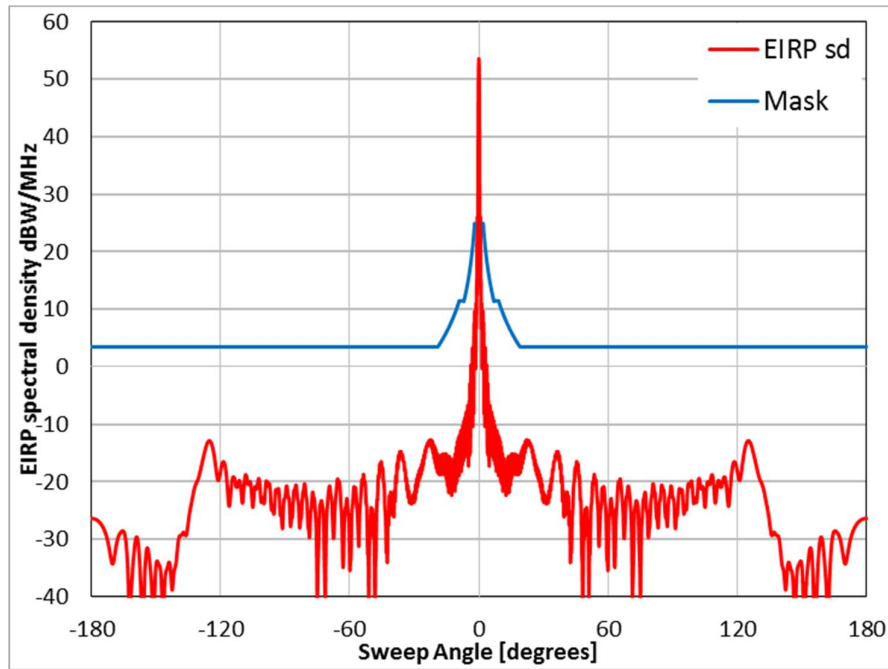
0 dBW/ MHz Input power spectral density @ f=27.5 GHz & 1.0 dB Radome loss

- **FCC EIRP spectral density regulation**

32.5-25log(θ)	dBW/MHz	for	2.0° ≤ θ ≤ 7.0°
11.5	dBW/MHz	for	7.0° < θ ≤ 9.2°
35.5-25log(θ)	dBW/MHz	for	9.2° < θ ≤ 19.1°
3.5	dBW/MHz	for	19.1° < θ ≤ 180°

The v240MT's Ka band(27.5 GHz) Radiation pattern meets the FCC EIRP spectral density mask when the input powers spectral density is @ 0 dBW/ MHz

1.2. Azimuth Pattern for Co-pol, Wide Angle (-180°~180°)



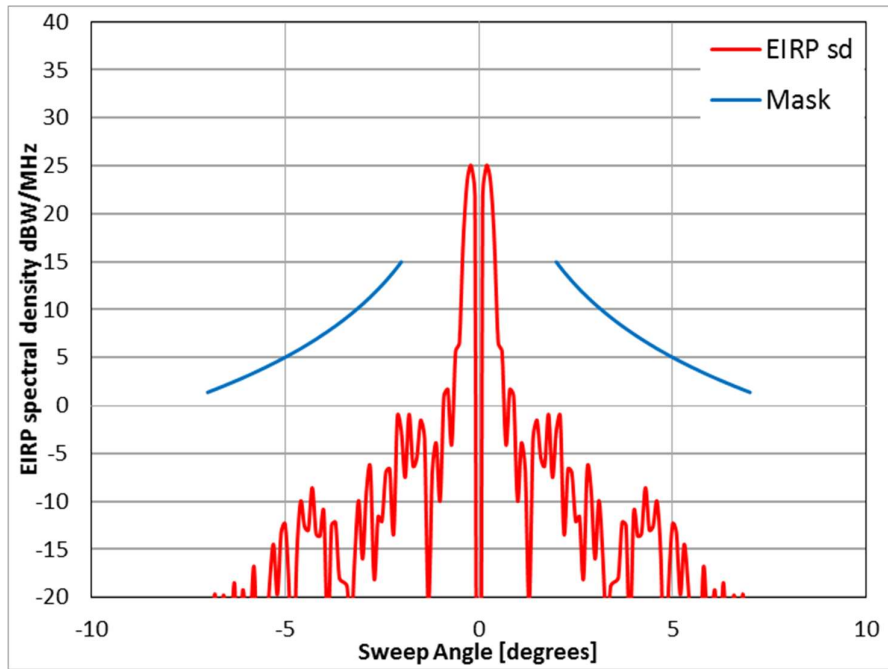
0 dBW/ MHz Input power spectral density @ f=27.5 GHz & 1.0 dB Radome loss

▪ **FCC EIRP spectral density regulation**

32.5-25log(θ)	dBW/MHz	for	$2.0^\circ \leq \theta \leq 7.0^\circ$
11.5	dBW/MHz	for	$7.0^\circ < \theta \leq 9.2^\circ$
35.5-25log(θ)	dBW/MHz	for	$9.2^\circ < \theta \leq 19.1^\circ$
3.5	dBW/MHz	for	$19.1^\circ < \theta \leq 180^\circ$

The v240MT's Ka band(27.5 GHz) Radiation pattern meets the FCC EIRP spectral density mask when the input powers spectral density is @ 0 dBW/ MHz

1.3. Azimuth Pattern for Cross-pol, Narrow angle (-10°~10°)



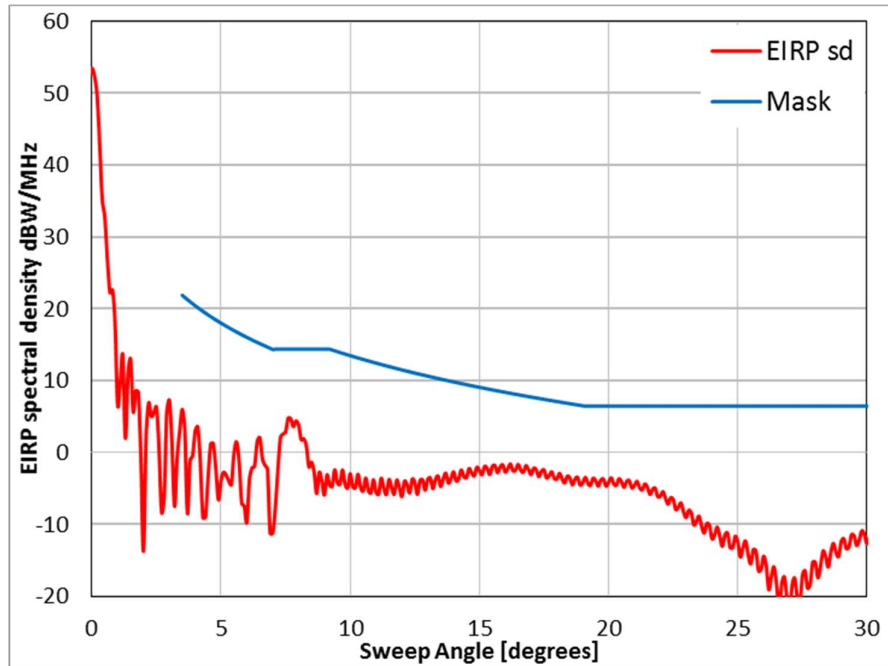
0 dBW/ MHz Input power spectral density @ f=27.5 GHz & 1.0 dB Radome loss

▪ **FCC EIRP spectral density regulation**

$22.5 - 25 \log(\theta)$ dBW/MHz for $2.0^\circ \leq \theta \leq 7.0^\circ$
--

The v240MT's Ka band(27.5 GHz) Radiation pattern meets the FCC EIRP spectral density mask when the input powers spectral density is @ 0 dBW/ MHz

1.4. Elevation Pattern for Co-pol, Narrow Angle (0°~30°)



0 dBW/ MHz Input power spectral density @ f=27.5 GHz & 1.0 dB Radome loss

▪ **FCC EIRP spectral density regulation**

$35.5-25\log(\theta)$	dBW/MHz	for	$3.5^\circ \leq \theta \leq 7.0^\circ$
14.4	dBW/MHz	for	$7.0^\circ < \theta \leq 9.2^\circ$
$38.5-25\log(\theta)$	dBW/MHz	for	$9.2^\circ < \theta \leq 19.1^\circ$
6.5	dBW/MHz	for	$19.1^\circ < \theta \leq 180^\circ$

The v240MT's Ka band(27.5 GHz) Radiation pattern meets the FCC EIRP spectral density mask when the input powers spectral density is @ 0 dBW/ MHz

2. EIRP Spectral Density Data

2.1. Azimuth Pattern for Co-pol (-10°~10°)

27.5 GHz @ 0 dBW/MHz			27.5 GHz @ 0 dBW/MHz		
Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)	Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)
-10.000	-13.151	10.500	-5.000	-10.260	15.026
-9.900	-14.673	10.609	-4.900	-8.380	15.245
-9.800	-18.677	10.719	-4.800	-17.240	15.469
-9.700	-17.185	10.831	-4.700	-7.575	15.698
-9.600	-18.739	10.943	-4.600	-14.629	15.931
-9.500	-12.465	11.057	-4.500	-6.022	16.170
-9.400	-13.645	11.172	-4.400	-6.214	16.414
-9.300	-17.870	11.288	-4.300	-15.351	16.663
-9.200	-16.292	11.500	-4.200	-3.240	16.919
-9.100	-18.790	11.500	-4.100	-7.197	17.180
-9.000	-11.991	11.500	-4.000	-14.847	17.449
-8.900	-12.766	11.500	-3.900	-13.063	17.723
-8.800	-17.471	11.500	-3.800	-5.646	18.005
-8.700	-15.661	11.500	-3.700	0.306	18.295
-8.600	-18.007	11.500	-3.600	-3.357	18.592
-8.500	-11.230	11.500	-3.500	-3.646	18.898
-8.400	-11.858	11.500	-3.400	-0.759	19.213
-8.300	-17.096	11.500	-3.300	-2.349	19.537
-8.200	-14.731	11.500	-3.200	-1.819	19.871
-8.100	-18.097	11.500	-3.100	-4.853	20.216
-8.000	-10.950	11.500	-3.000	3.196	20.572
-7.900	-11.121	11.500	-2.900	3.367	20.940
-7.800	-16.173	11.500	-2.800	-10.357	21.321
-7.700	-13.700	11.500	-2.700	0.715	21.716
-7.600	-16.954	11.500	-2.600	-0.751	22.126
-7.500	-10.278	11.500	-2.500	-6.144	22.551
-7.400	-10.299	11.500	-2.400	-7.897	22.995
-7.300	-15.286	11.500	-2.300	4.012	23.457
-7.200	-12.614	11.500	-2.200	7.647	23.939
-7.100	-16.237	11.500	-2.100	1.637	24.445
-7.000	-9.613	11.373	-2.000	7.065	24.974
-6.900	-9.377	11.529	-1.900	9.564	
-6.800	-14.176	11.687	-1.800	2.965	
-6.700	-11.538	11.848	-1.700	5.395	
-6.600	-15.701	12.011	-1.600	3.566	
-6.500	-8.969	12.177	-1.500	-0.160	
-6.400	-8.753	12.346	-1.400	8.988	
-6.300	-14.430	12.516	-1.300	11.081	
-6.200	-10.431	12.690	-1.200	6.660	
-6.100	-15.238	12.867	-1.100	8.357	
-6.000	-8.513	13.046	-1.000	15.114	
-5.900	-7.886	13.229	-0.900	12.709	
-5.800	-13.937	13.414	-0.800	23.147	
-5.700	-9.484	13.603	-0.700	26.110	
-5.600	-14.990	13.795	-0.600	23.408	
-5.500	-9.161	13.991	-0.500	23.169	
-5.400	-9.129	14.190	-0.400	28.714	
-5.300	-13.754	14.393	-0.300	42.618	
-5.200	-6.734	14.600	-0.200	49.741	
-5.100	-14.087	14.811	-0.100	52.434	

27.5 GHz @ 0 dBW/MHz			27.5 GHz @ 0 dBW/MHz		
Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)	Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)
0.000	53.497		5.000	-10.260	15.026
0.100	52.434		5.100	-14.087	14.811
0.200	49.741		5.200	-6.734	14.600
0.300	42.618		5.300	-13.754	14.393
0.400	28.714		5.400	-9.129	14.190
0.500	23.169		5.500	-9.161	13.991
0.600	23.408		5.600	-14.990	13.795
0.700	26.110		5.700	-9.484	13.603
0.800	23.147		5.800	-13.937	13.414
0.900	12.709		5.900	-7.886	13.229
1.000	15.114		6.000	-8.513	13.046
1.100	8.357		6.100	-15.239	12.867
1.200	6.660		6.200	-10.431	12.690
1.300	11.081		6.300	-14.431	12.516
1.400	8.988		6.400	-8.753	12.346
1.500	-0.160		6.500	-8.970	12.177
1.600	3.565		6.600	-15.702	12.011
1.700	5.395		6.700	-11.538	11.848
1.800	2.965		6.800	-14.176	11.687
1.900	9.564		6.900	-9.377	11.529
2.000	7.065	24.974	7.000	-9.614	11.373
2.100	1.637	24.445	7.100	-16.238	11.500
2.200	7.647	23.939	7.200	-12.614	11.500
2.300	4.012	23.457	7.300	-15.286	11.500
2.400	-7.897	22.995	7.400	-10.299	11.500
2.500	-6.144	22.551	7.500	-10.278	11.500
2.600	-0.751	22.126	7.600	-16.954	11.500
2.700	0.715	21.716	7.700	-13.699	11.500
2.800	-10.356	21.321	7.800	-16.172	11.500
2.900	3.367	20.940	7.900	-11.121	11.500
3.000	3.196	20.572	8.000	-10.950	11.500
3.100	-4.853	20.216	8.100	-18.096	11.500
3.200	-1.819	19.871	8.200	-14.730	11.500
3.300	-2.349	19.537	8.300	-17.095	11.500
3.400	-0.759	19.213	8.400	-11.858	11.500
3.500	-3.646	18.898	8.500	-11.230	11.500
3.600	-3.357	18.592	8.600	-18.007	11.500
3.700	0.306	18.295	8.700	-15.660	11.500
3.800	-5.646	18.005	8.800	-17.470	11.500
3.900	-13.064	17.723	8.900	-12.766	11.500
4.000	-14.848	17.449	9.000	-11.991	11.500
4.100	-7.196	17.180	9.100	-18.790	11.500
4.200	-3.240	16.919	9.200	-16.292	11.500
4.300	-15.350	16.663	9.300	-17.870	11.288
4.400	-6.215	16.414	9.400	-13.646	11.172
4.500	-6.022	16.170	9.500	-12.465	11.057
4.600	-14.630	15.931	9.600	-18.739	10.943
4.700	-7.575	15.698	9.700	-17.185	10.831
4.800	-17.241	15.469	9.800	-18.678	10.719
4.900	-8.381	15.245	9.900	-14.673	10.609
			10.000	-13.151	10.500

2.2. Azimuth Pattern for Co-pol (-180°~180°)

27.5 GHz @ 0 dBW/MHz			27.5 GHz @ 0 dBW/MHz		
Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)	Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)
-180.000	-26.346	3.500	-129.000	-17.459	3.500
-179.000	-26.377	3.500	-128.000	-15.794	3.500
-178.000	-26.506	3.500	-127.000	-14.256	3.500
-177.000	-26.728	3.500	-126.000	-13.152	3.500
-176.000	-27.090	3.500	-125.000	-12.858	3.500
-175.000	-27.601	3.500	-124.000	-13.548	3.500
-174.000	-28.324	3.500	-123.000	-15.309	3.500
-173.000	-29.390	3.500	-122.000	-18.030	3.500
-172.000	-30.982	3.500	-121.000	-19.742	3.500
-171.000	-33.118	3.500	-120.000	-18.156	3.500
-170.000	-34.220	3.500	-119.000	-16.615	3.500
-169.000	-32.414	3.500	-118.000	-17.000	3.500
-168.000	-30.268	3.500	-117.000	-20.022	3.500
-167.000	-29.151	3.500	-116.000	-24.222	3.500
-166.000	-28.639	3.500	-115.000	-20.968	3.500
-165.000	-28.598	3.500	-114.000	-19.121	3.500
-164.000	-30.199	3.500	-113.000	-20.423	3.500
-163.000	-35.678	3.500	-112.000	-20.504	3.500
-162.000	-44.122	3.500	-111.000	-19.952	3.500
-161.000	-36.212	3.500	-110.000	-23.367	3.500
-160.000	-31.616	3.500	-109.000	-20.407	3.500
-159.000	-29.576	3.500	-108.000	-18.926	3.500
-158.000	-31.583	3.500	-107.000	-20.465	3.500
-157.000	-38.438	3.500	-106.000	-20.270	3.500
-156.000	-53.450	3.500	-105.000	-24.381	3.500
-155.000	-34.908	3.500	-104.000	-20.887	3.500
-154.000	-31.459	3.500	-103.000	-20.938	3.500
-153.000	-33.630	3.500	-102.000	-19.666	3.500
-152.000	-38.085	3.500	-101.000	-23.567	3.500
-151.000	-49.831	3.500	-100.000	-23.437	3.500
-150.000	-34.741	3.500	-99.000	-20.402	3.500
-149.000	-34.050	3.500	-98.000	-20.758	3.500
-148.000	-34.954	3.500	-97.000	-21.002	3.500
-147.000	-43.551	3.500	-96.000	-24.589	3.500
-146.000	-38.321	3.500	-95.000	-24.919	3.500
-145.000	-35.307	3.500	-94.000	-21.528	3.500
-144.000	-33.999	3.500	-93.000	-21.241	3.500
-143.000	-36.526	3.500	-92.000	-25.875	3.500
-142.000	-37.247	3.500	-91.000	-26.696	3.500
-141.000	-34.742	3.500	-90.000	-22.699	3.500
-140.000	-31.632	3.500	-89.000	-21.258	3.500
-139.000	-29.398	3.500	-88.000	-23.773	3.500
-138.000	-29.211	3.500	-87.000	-26.283	3.500
-137.000	-28.789	3.500	-86.000	-21.847	3.500
-136.000	-29.320	3.500	-85.000	-20.557	3.500
-135.000	-27.085	3.500	-84.000	-23.257	3.500
-134.000	-24.649	3.500	-83.000	-27.214	3.500
-133.000	-22.721	3.500	-82.000	-22.768	3.500
-132.000	-20.975	3.500	-81.000	-20.350	3.500
-131.000	-20.000	3.500	-80.000	-23.040	3.500
-130.000	-19.022	3.500	-79.000	-28.456	3.500

27.5 GHz @ 0 dBW/MHz			27.5 GHz @ 0 dBW/MHz		
Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)	Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)
-78.000	-25.043	3.500	-27.000	-18.406	3.500
-77.000	-22.048	3.500	-26.000	-16.401	3.500
-76.000	-25.087	3.500	-25.000	-14.448	3.500
-75.000	-40.924	3.500	-24.000	-13.550	3.500
-74.000	-25.234	3.500	-23.000	-13.363	3.500
-73.000	-23.365	3.500	-22.000	-13.333	3.500
-72.000	-28.867	3.500	-21.000	-13.563	3.500
-71.000	-30.770	3.500	-20.000	-14.384	3.500
-70.000	-22.323	3.500	-19.000	-15.491	3.531
-69.000	-21.612	3.500	-18.000	-16.484	4.118
-68.000	-26.060	3.500	-17.000	-17.111	4.739
-67.000	-25.665	3.500	-16.000	-17.846	5.397
-66.000	-20.612	3.500	-15.000	-19.259	6.098
-65.000	-19.983	3.500	-14.000	-20.934	6.847
-64.000	-24.437	3.500	-13.000	-19.824	7.651
-63.000	-34.650	3.500	-12.000	-16.676	8.520
-62.000	-24.568	3.500	-11.000	-15.233	9.465
-61.000	-24.365	3.500	-10.000	-13.151	10.500
-60.000	-34.773	3.500	-9.000	-11.991	11.500
-59.000	-25.476	3.500	-8.000	-10.950	11.500
-58.000	-20.819	3.500	-7.000	-9.613	11.373
-57.000	-22.520	3.500	-6.000	-8.513	13.046
-56.000	-29.434	3.500	-5.000	-10.260	15.026
-55.000	-23.339	3.500	-4.000	-14.847	17.449
-54.000	-19.822	3.500	-3.000	3.196	20.572
-53.000	-20.155	3.500	-2.000	7.065	24.974
-52.000	-25.302	3.500	-1.000	15.114	
-51.000	-36.708	3.500	0.000	53.497	
-50.000	-24.446	3.500	1.000	15.114	
-49.000	-29.145	3.500	2.000	7.065	24.974
-48.000	-33.878	3.500	3.000	3.196	20.572
-47.000	-22.229	3.500	4.000	-14.848	17.449
-46.000	-16.842	3.500	5.000	-10.260	15.026
-45.000	-17.883	3.500	6.000	-8.513	13.046
-44.000	-20.759	3.500	7.000	-9.614	11.373
-43.000	-32.269	3.500	8.000	-10.950	11.500
-42.000	-27.429	3.500	9.000	-11.991	11.500
-41.000	-21.738	3.500	10.000	-13.151	10.500
-40.000	-25.712	3.500	11.000	-15.233	9.465
-39.000	-22.585	3.500	12.000	-16.676	8.520
-38.000	-16.882	3.500	13.000	-19.824	7.651
-37.000	-15.899	3.500	14.000	-20.934	6.847
-36.000	-15.091	3.500	15.000	-19.259	6.098
-35.000	-16.436	3.500	16.000	-17.846	5.397
-34.000	-19.603	3.500	17.000	-17.111	4.739
-33.000	-20.973	3.500	18.000	-16.484	4.118
-32.000	-22.506	3.500	19.000	-15.491	3.531
-31.000	-22.521	3.500	20.000	-14.384	3.500
-30.000	-22.360	3.500	21.000	-13.563	3.500
-29.000	-21.549	3.500	22.000	-13.333	3.500
-28.000	-19.901	3.500	23.000	-13.363	3.500

27.5 GHz @ 0 dBW/MHz			27.5 GHz @ 0 dBW/MHz		
Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)	Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)
24.000	-13.550	3.500	75.000	-40.924	3.500
25.000	-14.448	3.500	76.000	-25.086	3.500
26.000	-16.401	3.500	77.000	-22.048	3.500
27.000	-18.406	3.500	78.000	-25.043	3.500
28.000	-19.901	3.500	79.000	-28.456	3.500
29.000	-21.549	3.500	80.000	-23.040	3.500
30.000	-22.360	3.500	81.000	-20.350	3.500
31.000	-22.521	3.500	82.000	-22.768	3.500
32.000	-22.506	3.500	83.000	-27.214	3.500
33.000	-20.972	3.500	84.000	-23.257	3.500
34.000	-19.602	3.500	85.000	-20.557	3.500
35.000	-16.436	3.500	86.000	-21.847	3.500
36.000	-15.091	3.500	87.000	-26.283	3.500
37.000	-15.899	3.500	88.000	-23.774	3.500
38.000	-16.882	3.500	89.000	-21.258	3.500
39.000	-22.585	3.500	90.000	-22.699	3.500
40.000	-25.713	3.500	91.000	-26.696	3.500
41.000	-21.737	3.500	92.000	-25.875	3.500
42.000	-27.428	3.500	93.000	-21.241	3.500
43.000	-32.269	3.500	94.000	-21.528	3.500
44.000	-20.759	3.500	95.000	-24.919	3.500
45.000	-17.883	3.500	96.000	-24.589	3.500
46.000	-16.841	3.500	97.000	-21.002	3.500
47.000	-22.230	3.500	98.000	-20.758	3.500
48.000	-33.878	3.500	99.000	-20.402	3.500
49.000	-29.144	3.500	100.000	-23.437	3.500
50.000	-24.446	3.500	101.000	-23.567	3.500
51.000	-36.708	3.500	102.000	-19.666	3.500
52.000	-25.302	3.500	103.000	-20.938	3.500
53.000	-20.155	3.500	104.000	-20.887	3.500
54.000	-19.822	3.500	105.000	-24.381	3.500
55.000	-23.339	3.500	106.000	-20.270	3.500
56.000	-29.434	3.500	107.000	-20.465	3.500
57.000	-22.520	3.500	108.000	-18.926	3.500
58.000	-20.819	3.500	109.000	-20.407	3.500
59.000	-25.476	3.500	110.000	-23.367	3.500
60.000	-34.773	3.500	111.000	-19.952	3.500
61.000	-24.364	3.500	112.000	-20.504	3.500
62.000	-24.568	3.500	113.000	-20.423	3.500
63.000	-34.650	3.500	114.000	-19.121	3.500
64.000	-24.437	3.500	115.000	-20.968	3.500
65.000	-19.983	3.500	116.000	-24.222	3.500
66.000	-20.612	3.500	117.000	-20.022	3.500
67.000	-25.666	3.500	118.000	-17.001	3.500
68.000	-26.060	3.500	119.000	-16.615	3.500
69.000	-21.612	3.500	120.000	-18.156	3.500
70.000	-22.323	3.500	121.000	-19.742	3.500
71.000	-30.770	3.500	122.000	-18.030	3.500
72.000	-28.867	3.500	123.000	-15.309	3.500
73.000	-23.366	3.500	124.000	-13.548	3.500
74.000	-25.234	3.500	125.000	-12.858	3.500

27.5 GHz @ 0 dBW/MHz		
Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)
126.000	-13.152	3.500
127.000	-14.256	3.500
128.000	-15.794	3.500
129.000	-17.459	3.500
130.000	-19.023	3.500
131.000	-20.000	3.500
132.000	-20.975	3.500
133.000	-22.721	3.500
134.000	-24.649	3.500
135.000	-27.084	3.500
136.000	-29.320	3.500
137.000	-28.789	3.500
138.000	-29.211	3.500
139.000	-29.398	3.500
140.000	-31.632	3.500
141.000	-34.743	3.500
142.000	-37.248	3.500
143.000	-36.526	3.500
144.000	-34.000	3.500
145.000	-35.306	3.500
146.000	-38.323	3.500
147.000	-43.553	3.500
148.000	-34.953	3.500
149.000	-34.050	3.500
150.000	-34.740	3.500
151.000	-49.826	3.500
152.000	-38.082	3.500
153.000	-33.630	3.500
154.000	-31.459	3.500
155.000	-34.907	3.500
156.000	-53.453	3.500
157.000	-38.438	3.500
158.000	-31.583	3.500
159.000	-29.575	3.500
160.000	-31.616	3.500
161.000	-36.211	3.500
162.000	-44.126	3.500
163.000	-35.677	3.500
164.000	-30.199	3.500
165.000	-28.598	3.500
166.000	-28.638	3.500
167.000	-29.151	3.500
168.000	-30.269	3.500
169.000	-32.414	3.500
170.000	-34.221	3.500
171.000	-33.119	3.500
172.000	-30.982	3.500
173.000	-29.390	3.500
174.000	-28.324	3.500
175.000	-27.601	3.500
176.000	-27.090	3.500
177.000	-26.728	3.500
178.000	-26.506	3.500
179.000	-26.377	3.500
180.000	-26.346	3.500

2.3. Azimuth Pattern for Cross-pol (-10°~10°)

27.5 GHz @ 0 dBW/MHz			27.5 GHz @ 0 dBW/MHz		
Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)	Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)
-10.000	-28.544		-5.000	-12.362	5.026
-9.900	-26.380		-4.900	-18.888	5.245
-9.800	-25.979		-4.800	-31.063	5.469
-9.700	-32.951		-4.700	-16.027	5.698
-9.600	-23.586		-4.600	-10.026	5.931
-9.500	-28.642		-4.500	-12.591	6.170
-9.400	-27.140		-4.400	-12.974	6.414
-9.300	-25.735		-4.300	-8.579	6.663
-9.200	-33.884		-4.200	-13.373	6.919
-9.100	-22.708		-4.100	-13.623	7.180
-9.000	-27.458		-4.000	-11.108	7.449
-8.900	-27.810		-3.900	-24.154	7.723
-8.800	-25.030		-3.800	-12.517	8.005
-8.700	-37.029		-3.700	-12.157	8.295
-8.600	-22.369		-3.600	-17.976	8.592
-8.500	-26.944		-3.500	-18.415	8.898
-8.400	-27.406		-3.400	-18.866	9.213
-8.300	-23.762		-3.300	-23.527	9.537
-8.200	-40.740		-3.200	-15.740	9.871
-8.100	-21.834		-3.100	-9.933	10.216
-8.000	-25.847		-3.000	-15.995	10.572
-7.900	-27.207		-2.900	-8.906	10.940
-7.800	-22.618		-2.800	-6.488	11.321
-7.700	-43.274		-2.700	-18.097	11.716
-7.600	-21.552		-2.600	-11.602	12.126
-7.500	-25.317		-2.500	-12.084	12.551
-7.400	-26.214		-2.400	-6.992	12.995
-7.300	-21.382		-2.300	-6.634	13.457
-7.200	-40.730		-2.200	-13.411	13.939
-7.100	-20.918		-2.100	-1.118	14.445
-7.000	-24.382	1.373	-2.000	-2.657	14.974
-6.900	-25.247	1.529	-1.900	-7.484	
-6.800	-20.120	1.687	-1.800	-0.920	
-6.700	-38.542	1.848	-1.700	-6.266	
-6.600	-20.121	2.011	-1.600	-5.480	
-6.500	-23.186	2.177	-1.500	-1.517	
-6.400	-24.340	2.346	-1.400	-3.453	
-6.300	-18.743	2.516	-1.300	-20.787	
-6.200	-34.060	2.690	-1.200	-6.822	
-6.100	-19.536	2.867	-1.100	-3.886	
-6.000	-22.320	3.046	-1.000	-9.930	
-5.900	-22.780	3.229	-0.900	0.961	
-5.800	-16.843	3.414	-0.800	1.669	
-5.700	-27.527	3.603	-0.700	-4.083	
-5.600	-20.949	3.795	-0.600	5.593	
-5.500	-24.238	3.991	-0.500	6.599	
-5.400	-18.668	4.190	-0.400	17.306	
-5.300	-14.495	4.393	-0.300	23.409	
-5.200	-19.736	4.600	-0.200	25.055	
-5.100	-13.239	4.811	-0.100	21.864	

27.5 GHz @ 0 dBW/MHz			27.5 GHz @ 0 dBW/MHz		
Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)	Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)
0.000	-110.917		5.000	-12.362	5.026
0.100	21.864		5.100	-13.239	4.811
0.200	25.055		5.200	-19.736	4.600
0.300	23.409		5.300	-14.495	4.393
0.400	17.306		5.400	-18.668	4.190
0.500	6.599		5.500	-24.238	3.991
0.600	5.593		5.600	-20.949	3.795
0.700	-4.083		5.700	-27.528	3.603
0.800	1.669		5.800	-16.843	3.414
0.900	0.961		5.900	-22.780	3.229
1.000	-9.930		6.000	-22.320	3.046
1.100	-3.886		6.100	-19.536	2.867
1.200	-6.822		6.200	-34.060	2.690
1.300	-20.787		6.300	-18.743	2.516
1.400	-3.452		6.400	-24.340	2.346
1.500	-1.517		6.500	-23.185	2.177
1.600	-5.480		6.600	-20.121	2.011
1.700	-6.266		6.700	-38.544	1.848
1.800	-0.920		6.800	-20.120	1.687
1.900	-7.484		6.900	-25.247	1.529
2.000	-2.657	14.974	7.000	-24.382	1.373
2.100	-1.118	14.445	7.100	-20.918	
2.200	-13.410	13.939	7.200	-40.735	
2.300	-6.634	13.457	7.300	-21.382	
2.400	-6.992	12.995	7.400	-26.214	
2.500	-12.084	12.551	7.500	-25.317	
2.600	-11.602	12.126	7.600	-21.552	
2.700	-18.096	11.716	7.700	-43.275	
2.800	-6.488	11.321	7.800	-22.618	
2.900	-8.906	10.940	7.900	-27.207	
3.000	-15.995	10.572	8.000	-25.847	
3.100	-9.933	10.216	8.100	-21.834	
3.200	-15.740	9.871	8.200	-40.740	
3.300	-23.528	9.537	8.300	-23.762	
3.400	-18.866	9.213	8.400	-27.406	
3.500	-18.415	8.898	8.500	-26.945	
3.600	-17.976	8.592	8.600	-22.369	
3.700	-12.157	8.295	8.700	-37.030	
3.800	-12.518	8.005	8.800	-25.030	
3.900	-24.154	7.723	8.900	-27.811	
4.000	-11.108	7.449	9.000	-27.458	
4.100	-13.623	7.180	9.100	-22.708	
4.200	-13.373	6.919	9.200	-33.884	
4.300	-8.579	6.663	9.300	-25.734	
4.400	-12.974	6.414	9.400	-27.140	
4.500	-12.591	6.170	9.500	-28.641	
4.600	-10.026	5.931	9.600	-23.586	
4.700	-16.027	5.698	9.700	-32.951	
4.800	-31.063	5.469	9.800	-25.979	
4.900	-18.888	5.245	9.900	-26.380	
			10.000	-28.544	

2.4. Elevation Pattern for Co-pol (0°~30°)

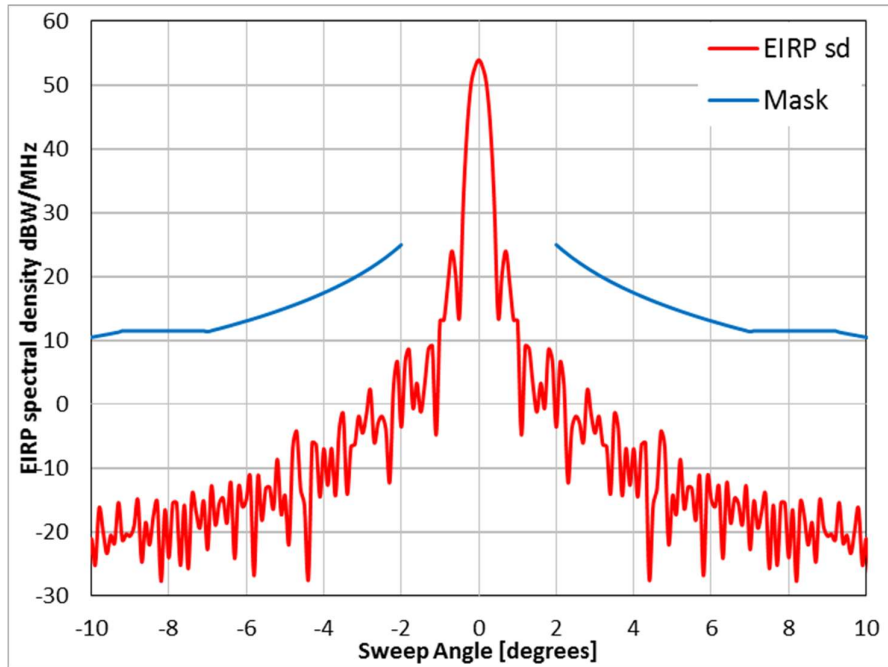
27.5 GHz @ 0 dBW/MHz			27.5 GHz @ 0 dBW/MHz		
Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)	Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)
0.000	53.497		5.000	-3.855	18.026
0.100	52.434		5.100	-2.734	17.811
0.200	49.872		5.200	-3.149	17.600
0.300	43.281		5.300	-3.933	17.393
0.400	35.382		5.400	-4.440	17.190
0.500	32.827		5.500	-0.189	16.991
0.600	27.025		5.600	1.511	16.795
0.700	22.264		5.700	-1.337	16.603
0.800	22.645		5.800	-7.020	16.414
0.900	17.938		5.900	-7.393	16.229
1.000	6.665		6.000	-9.684	16.046
1.100	9.839		6.100	-3.711	15.867
1.200	13.518		6.200	-2.128	15.690
1.300	1.968		6.300	-1.856	15.516
1.400	11.115		6.400	1.538	15.346
1.500	13.042		6.500	2.095	15.177
1.600	5.711		6.600	-0.768	15.011
1.700	8.630		6.700	-1.743	14.848
1.800	8.361		6.800	-2.368	14.687
1.900	-0.628		6.900	-11.194	14.529
2.000	-13.703		7.000	-11.221	14.373
2.100	2.236		7.100	-7.722	14.400
2.200	6.929		7.200	-2.393	14.400
2.300	5.058		7.300	2.093	14.400
2.400	5.602		7.400	2.605	14.400
2.500	6.348		7.500	2.911	14.400
2.600	0.626		7.600	4.804	14.400
2.700	-8.321		7.700	4.701	14.400
2.800	-6.262		7.800	3.629	14.400
2.900	5.562		7.900	4.417	14.400
3.000	7.334		8.000	3.918	14.400
3.100	1.511		8.100	1.814	14.400
3.200	-7.460		8.200	1.926	14.400
3.300	-0.819		8.300	1.025	14.400
3.400	2.973		8.400	-1.965	14.400
3.500	6.012	21.898	8.500	-1.316	14.400
3.600	3.054	21.592	8.600	-2.593	14.400
3.700	-8.452	21.295	8.700	-5.668	14.400
3.800	-1.157	21.005	8.800	-2.754	14.400
3.900	-0.444	20.723	8.900	-3.953	14.400
4.000	2.971	20.449	9.000	-5.906	14.400
4.100	3.570	20.180	9.100	-3.076	14.400
4.200	-1.414	19.919	9.200	-4.452	14.400
4.300	-9.032	19.663	9.300	-4.688	14.288
4.400	-8.924	19.414	9.400	-2.388	14.172
4.500	-3.461	19.170	9.500	-4.147	14.057
4.600	1.186	18.931	9.600	-4.398	13.943
4.700	1.267	18.698	9.700	-2.414	13.831
4.800	-2.313	18.469	9.800	-4.409	13.719
4.900	-6.563	18.245	9.900	-4.914	13.609

27.5 GHz @ 0 dBW/MHz			27.5 GHz @ 0 dBW/MHz		
Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)	Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)
10.000	-2.940	13.500	15.000	-2.476	9.098
10.100	-4.761	13.392	15.100	-3.077	9.026
10.200	-4.874	13.285	15.200	-1.927	8.954
10.300	-2.996	13.179	15.300	-2.171	8.883
10.400	-4.838	13.074	15.400	-3.040	8.812
10.500	-5.344	12.970	15.500	-1.919	8.742
10.600	-3.528	12.867	15.600	-1.778	8.672
10.700	-5.242	12.765	15.700	-2.776	8.603
10.800	-5.596	12.664	15.800	-2.019	8.534
10.900	-3.772	12.564	15.900	-1.669	8.465
11.000	-5.507	12.465	16.000	-2.697	8.397
11.100	-5.763	12.367	16.100	-2.205	8.329
11.200	-3.564	12.270	16.200	-1.578	8.262
11.300	-4.941	12.173	16.300	-2.512	8.195
11.400	-5.807	12.077	16.400	-2.406	8.129
11.500	-3.744	11.983	16.500	-1.626	8.063
11.600	-4.810	11.889	16.600	-2.428	7.997
11.700	-5.781	11.795	16.700	-2.719	7.932
11.800	-3.821	11.703	16.800	-1.805	7.867
11.900	-4.798	11.611	16.900	-2.351	7.803
12.000	-6.098	11.520	17.000	-3.048	7.739
12.100	-3.984	11.430	17.100	-2.165	7.675
12.200	-4.500	11.341	17.200	-2.385	7.612
12.300	-5.600	11.252	17.300	-3.335	7.549
12.400	-3.673	11.164	17.400	-2.577	7.486
12.500	-4.147	11.077	17.500	-2.412	7.424
12.600	-5.787	10.991	17.600	-3.528	7.362
12.700	-3.858	10.905	17.700	-3.192	7.301
12.800	-3.775	10.820	17.800	-2.657	7.239
12.900	-5.225	10.735	17.900	-3.609	7.179
13.000	-3.717	10.651	18.000	-3.662	7.118
13.100	-3.499	10.568	18.100	-2.870	7.058
13.200	-5.003	10.486	18.200	-3.615	6.998
13.300	-3.723	10.404	18.300	-4.219	6.939
13.400	-3.254	10.322	18.400	-3.265	6.880
13.500	-4.700	10.242	18.500	-3.514	6.821
13.600	-3.614	10.162	18.600	-4.466	6.762
13.700	-2.850	10.082	18.700	-3.686	6.704
13.800	-4.222	10.003	18.800	-3.436	6.646
13.900	-3.607	9.925	18.900	-4.504	6.588
14.000	-2.672	9.847	19.000	-4.176	6.531
14.100	-3.934	9.770	19.100	-3.442	6.474
14.200	-3.637	9.693	19.200	-4.254	6.500
14.300	-2.411	9.617	19.300	-4.508	6.500
14.400	-3.346	9.541	19.400	-3.545	6.500
14.500	-3.461	9.466	19.500	-3.917	6.500
14.600	-2.209	9.391	19.600	-4.657	6.500
14.700	-2.844	9.317	19.700	-3.796	6.500
14.800	-3.210	9.243	19.800	-3.684	6.500
14.900	-2.028	9.170	19.900	-4.645	6.500

27.5 GHz @ 0 dBW/MHz			27.5 GHz @ 0 dBW/MHz		
Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)	Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)
20.000	-4.126	6.500	25.000	-12.423	6.500
20.100	-3.495	6.500	25.100	-14.514	6.500
20.200	-4.355	6.500	25.200	-13.200	6.500
20.300	-4.535	6.500	25.300	-12.292	6.500
20.400	-3.633	6.500	25.400	-14.179	6.500
20.500	-4.072	6.500	25.500	-15.464	6.500
20.600	-4.808	6.500	25.600	-13.488	6.500
20.700	-3.975	6.500	25.700	-13.647	6.500
20.800	-3.892	6.500	25.800	-16.441	6.500
20.900	-4.920	6.500	25.900	-16.226	6.500
21.000	-4.566	6.500	26.000	-14.404	6.500
21.100	-3.982	6.500	26.100	-15.752	6.500
21.200	-4.856	6.500	26.200	-19.044	6.500
21.300	-5.195	6.500	26.300	-17.185	6.500
21.400	-4.359	6.500	26.400	-15.896	6.500
21.500	-4.807	6.500	26.500	-18.339	6.500
21.600	-5.796	6.500	26.600	-21.540	6.500
21.700	-5.122	6.500	26.700	-18.270	6.500
21.800	-4.942	6.500	26.800	-17.286	6.500
21.900	-6.099	6.500	26.900	-20.218	6.500
22.000	-6.084	6.500	27.000	-22.626	6.500
22.100	-5.425	6.500	27.100	-18.478	6.500
22.200	-6.318	6.500	27.200	-17.422	6.500
22.300	-7.143	6.500	27.300	-20.122	6.500
22.400	-6.275	6.500	27.400	-21.071	6.500
22.500	-6.487	6.500	27.500	-17.122	6.500
22.600	-7.910	6.500	27.600	-16.394	6.500
22.700	-7.583	6.500	27.700	-18.861	6.500
22.800	-6.994	6.500	27.800	-18.330	6.500
22.900	-8.226	6.500	27.900	-15.253	6.500
23.000	-9.037	6.500	28.000	-15.263	6.500
23.100	-7.996	6.500	28.100	-17.398	6.500
23.200	-8.373	6.500	28.200	-15.824	6.500
23.300	-10.038	6.500	28.300	-13.712	6.500
23.400	-9.529	6.500	28.400	-14.446	6.500
23.500	-8.819	6.500	28.500	-15.911	6.500
23.600	-10.204	6.500	28.600	-13.867	6.500
23.700	-11.172	6.500	28.700	-12.638	6.500
23.800	-9.848	6.500	28.800	-13.865	6.500
23.900	-10.061	6.500	28.900	-14.439	6.500
24.000	-11.951	6.500	29.000	-12.419	6.500
24.100	-11.477	6.500	29.100	-11.940	6.500
24.200	-10.357	6.500	29.200	-13.359	6.500
24.300	-11.588	6.500	29.300	-13.136	6.500
24.400	-13.010	6.500	29.400	-11.423	6.500
24.500	-11.458	6.500	29.500	-11.536	6.500
24.600	-11.174	6.500	29.600	-12.909	6.500
24.700	-13.153	6.500	29.700	-12.169	6.500
24.800	-13.235	6.500	29.800	-10.852	6.500
24.900	-11.623	6.500	29.900	-11.413	6.500
			30.000	-12.649	6.500

3. EIRP Spectral Density of v240MT Ka-band 28.75 GHz

3.1. Azimuth Pattern for Co-pol, Narrow Angle (-10° ~ 10°)



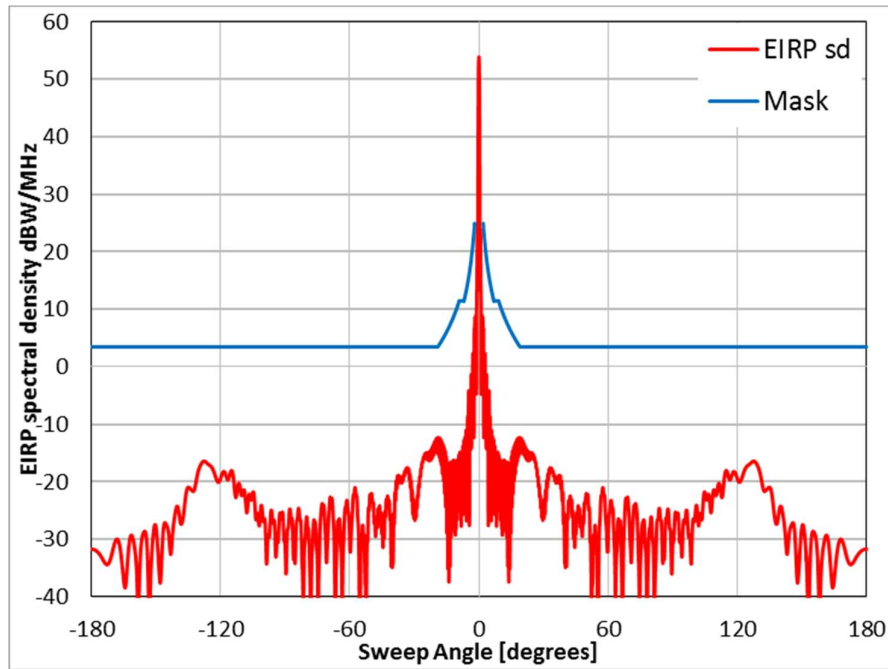
0 dBW/ MHz Input power spectral density @ f=28.75 GHz & 1.0 dB Radome loss

- **FCC EIRP spectral density regulation**

$32.5-25\log(\theta)$	dBW/MHz	for	$2.0^\circ \leq \theta \leq 7.0^\circ$
11.5	dBW/MHz	for	$7.0^\circ < \theta \leq 9.2^\circ$
$35.5-25\log(\theta)$	dBW/MHz	for	$9.2^\circ < \theta \leq 19.1^\circ$
3.5	dBW/MHz	for	$19.1^\circ < \theta \leq 180^\circ$

The v240MT's Ka band(28.75 GHz) Radiation pattern meets the FCC EIRP spectral density mask when the input powers spectral density is @ 0 dBW/ MHz

3.2. Azimuth Pattern for Co-pol, Wide Angle (-180°~180°)



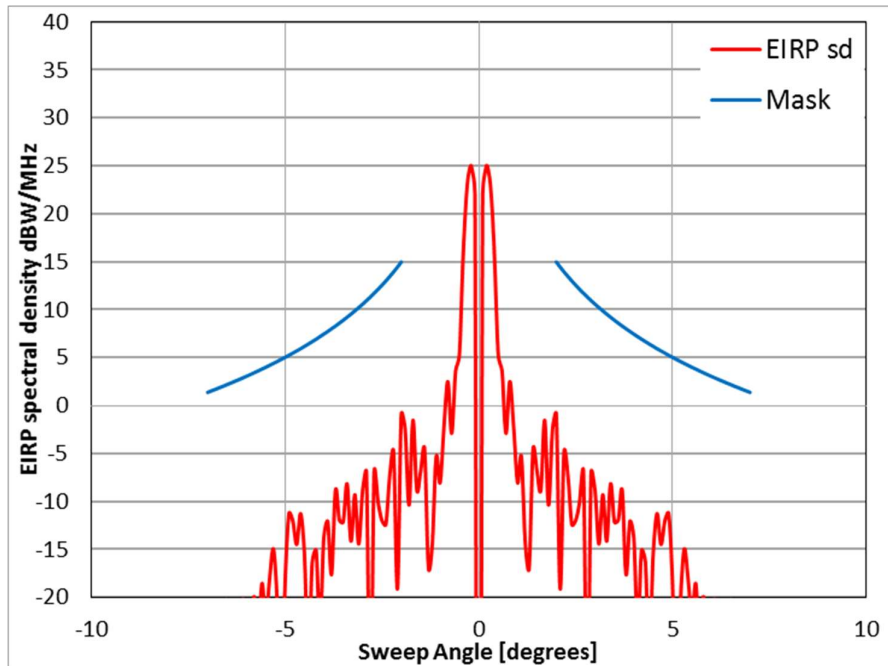
0 dBW/ MHz Input power spectral density @ f=28.75 GHz & 1.0 dB Radome loss

- **FCC EIRP spectral density regulation**

32.5-25log(θ)	dBW/MHz	for	2.0° ≤ θ ≤ 7.0°
11.5	dBW/MHz	for	7.0° < θ ≤ 9.2°
35.5-25log(θ)	dBW/MHz	for	9.2° < θ ≤ 19.1°
3.5	dBW/MHz	for	19.1° < θ ≤ 180°

The v240MT's Ka band(28.75 GHz) Radiation pattern meets the FCC EIRP spectral density mask when the input powers spectral density is @ 0 dBW/ MHz

3.3. Azimuth Pattern for Cross-pol, Narrow angle (-10°~10°)



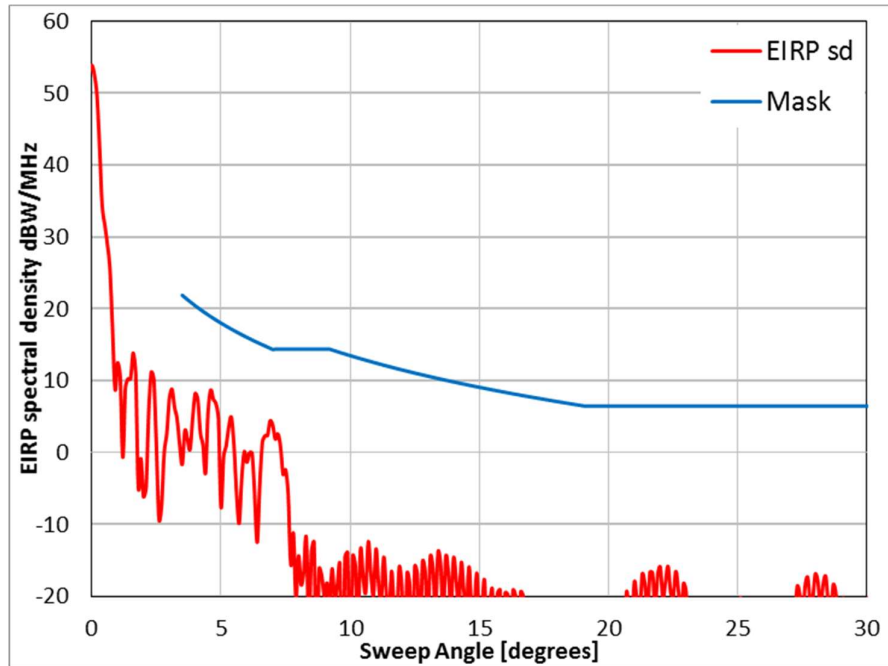
0 dBW/ MHz Input power spectral density @ f=28.75 GHz & 1.0 dB Radome loss

- FCC EIRP spectral density regulation

$22.5 - 25 \log(\theta)$	dBW/MHz	for	$2.0^\circ \leq \theta \leq 7.0^\circ$
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The v240MT's Ka band(28.75 GHz) Radiation pattern meets the FCC EIRP spectral density mask when the input powers spectral density is @ 0 dBW/ MHz

3.4. Elevation Pattern for Co-pol, Narrow Angle (0°~30°)



0 dBW/ MHz Input power spectral density @ f=28.75 GHz & 1.0 dB Radome loss

- **FCC EIRP spectral density regulation**

$35.5-25\log(\theta)$	dBW/MHz	for	$3.5^\circ \leq \theta \leq 7.0^\circ$
14.4	dBW/MHz	for	$7.0^\circ < \theta \leq 9.2^\circ$
$38.5-25\log(\theta)$	dBW/MHz	for	$9.2^\circ < \theta \leq 19.1^\circ$
6.5	dBW/MHz	for	$19.1^\circ < \theta \leq 180^\circ$

The v240MT's Ka band(28.75 GHz) Radiation pattern meets the FCC EIRP spectral density mask when the input powers spectral density is @ 0 dBW/ MHz

4. EIRP Spectral Density Data

4.1. Azimuth Pattern for Co-pol (-10°~10°)

28.75 GHz @ 0 dBW/MHz			28.75 GHz @ 0 dBW/MHz		
Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)	Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)
-10.000	-21.048	10.500	-5.000	-14.282	15.026
-9.900	-25.124	10.609	-4.900	-21.867	15.245
-9.800	-16.249	10.719	-4.800	-6.666	15.469
-9.700	-19.762	10.831	-4.700	-4.230	15.698
-9.600	-23.343	10.943	-4.600	-13.193	15.931
-9.500	-20.462	11.057	-4.500	-15.828	16.170
-9.400	-21.728	11.172	-4.400	-27.396	16.414
-9.300	-15.370	11.288	-4.300	-6.018	16.663
-9.200	-21.222	11.500	-4.200	-6.296	16.919
-9.100	-20.306	11.500	-4.100	-14.478	17.180
-9.000	-20.599	11.500	-4.000	-6.968	17.449
-8.900	-19.141	11.500	-3.900	-12.646	17.723
-8.800	-14.936	11.500	-3.800	-6.903	18.005
-8.700	-24.654	11.500	-3.700	-14.289	18.295
-8.600	-18.505	11.500	-3.600	-3.836	18.592
-8.500	-22.002	11.500	-3.500	-1.517	18.898
-8.400	-17.517	11.500	-3.400	-13.991	19.213
-8.300	-15.288	11.500	-3.300	-6.621	19.537
-8.200	-27.689	11.500	-3.200	-6.307	19.871
-8.100	-16.523	11.500	-3.100	-1.882	20.216
-8.000	-23.992	11.500	-3.000	-4.497	20.572
-7.900	-15.493	11.500	-2.900	-1.573	20.940
-7.800	-15.413	11.500	-2.800	2.266	21.321
-7.700	-25.175	11.500	-2.700	-5.917	21.716
-7.600	-15.792	11.500	-2.600	-2.894	22.126
-7.500	-25.708	11.500	-2.500	-1.877	22.551
-7.400	-14.088	11.500	-2.400	-3.843	22.995
-7.300	-16.781	11.500	-2.300	-12.192	23.457
-7.200	-19.367	11.500	-2.200	2.907	23.939
-7.100	-15.119	11.500	-2.100	6.631	24.445
-7.000	-22.719	11.373	-2.000	-3.544	24.974
-6.900	-12.777	11.529	-1.900	6.741	
-6.800	-18.875	11.687	-1.800	8.533	
-6.700	-15.525	11.848	-1.700	-0.571	
-6.600	-14.709	12.011	-1.600	3.300	
-6.500	-18.596	12.177	-1.500	-1.182	
-6.400	-12.261	12.346	-1.400	2.935	
-6.300	-24.115	12.516	-1.300	8.679	
-6.200	-12.927	12.690	-1.200	9.129	
-6.100	-16.012	12.867	-1.100	-4.741	
-6.000	-14.892	13.046	-1.000	13.106	
-5.900	-11.398	13.229	-0.900	13.160	
-5.800	-26.785	13.414	-0.800	18.723	
-5.700	-11.225	13.603	-0.700	23.955	
-5.600	-18.141	13.795	-0.600	20.386	
-5.500	-13.190	13.991	-0.500	13.629	
-5.400	-12.962	14.190	-0.400	31.568	
-5.300	-16.334	14.393	-0.300	43.206	
-5.200	-8.616	14.600	-0.200	50.049	
-5.100	-17.163	14.811	-0.100	52.729	

28.75 GHz @ 0 dBW/MHz			28.75 GHz @ 0 dBW/MHz		
Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)	Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)
0.000	53.897		5.000	-14.281	15.026
0.100	52.729		5.100	-17.163	14.811
0.200	50.049		5.200	-8.616	14.600
0.300	43.206		5.300	-16.334	14.393
0.400	31.568		5.400	-12.962	14.190
0.500	13.630		5.500	-13.190	13.991
0.600	20.386		5.600	-18.140	13.795
0.700	23.955		5.700	-11.224	13.603
0.800	18.723		5.800	-26.784	13.414
0.900	13.160		5.900	-11.399	13.229
1.000	13.106		6.000	-14.894	13.046
1.100	-4.742		6.100	-16.011	12.867
1.200	9.129		6.200	-12.928	12.690
1.300	8.679		6.300	-24.112	12.516
1.400	2.935		6.400	-12.261	12.346
1.500	-1.182		6.500	-18.595	12.177
1.600	3.300		6.600	-14.709	12.011
1.700	-0.571		6.700	-15.525	11.848
1.800	8.533		6.800	-18.876	11.687
1.900	6.741		6.900	-12.777	11.529
2.000	-3.545	24.974	7.000	-22.720	11.373
2.100	6.631	24.445	7.100	-15.118	11.500
2.200	2.907	23.939	7.200	-19.367	11.500
2.300	-12.192	23.457	7.300	-16.781	11.500
2.400	-3.842	22.995	7.400	-14.088	11.500
2.500	-1.876	22.551	7.500	-25.709	11.500
2.600	-2.894	22.126	7.600	-15.793	11.500
2.700	-5.918	21.716	7.700	-25.176	11.500
2.800	2.266	21.321	7.800	-15.413	11.500
2.900	-1.573	20.940	7.900	-15.493	11.500
3.000	-4.497	20.572	8.000	-23.992	11.500
3.100	-1.882	20.216	8.100	-16.523	11.500
3.200	-6.307	19.871	8.200	-27.691	11.500
3.300	-6.621	19.537	8.300	-15.289	11.500
3.400	-13.991	19.213	8.400	-17.517	11.500
3.500	-1.517	18.898	8.500	-22.001	11.500
3.600	-3.837	18.592	8.600	-18.505	11.500
3.700	-14.288	18.295	8.700	-24.654	11.500
3.800	-6.903	18.005	8.800	-14.936	11.500
3.900	-12.646	17.723	8.900	-19.141	11.500
4.000	-6.968	17.449	9.000	-20.600	11.500
4.100	-14.478	17.180	9.100	-20.306	11.500
4.200	-6.295	16.919	9.200	-21.223	11.500
4.300	-6.017	16.663	9.300	-15.370	11.288
4.400	-27.402	16.414	9.400	-21.730	11.172
4.500	-15.826	16.170	9.500	-20.462	11.057
4.600	-13.193	15.931	9.600	-23.343	10.943
4.700	-4.231	15.698	9.700	-19.762	10.831
4.800	-6.666	15.469	9.800	-16.249	10.719
4.900	-21.866	15.245	9.900	-25.123	10.609
			10.000	-21.048	10.500

4.2. Azimuth Pattern for Co-pol (-180°~180°)

28.75 GHz @ 0 dBW/MHz			28.75 GHz @ 0 dBW/MHz		
Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)	Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)
-180.000	-31.689	3.500	-129.000	-16.884	3.500
-179.000	-31.732	3.500	-128.000	-16.431	3.500
-178.000	-31.901	3.500	-127.000	-16.496	3.500
-177.000	-32.203	3.500	-126.000	-16.839	3.500
-176.000	-32.654	3.500	-125.000	-17.106	3.500
-175.000	-33.256	3.500	-124.000	-17.495	3.500
-174.000	-33.913	3.500	-123.000	-18.334	3.500
-173.000	-34.335	3.500	-122.000	-19.452	3.500
-172.000	-34.188	3.500	-121.000	-20.054	3.500
-171.000	-33.271	3.500	-120.000	-19.422	3.500
-170.000	-31.821	3.500	-119.000	-18.396	3.500
-169.000	-30.480	3.500	-118.000	-18.366	3.500
-168.000	-29.961	3.500	-117.000	-19.431	3.500
-167.000	-30.796	3.500	-116.000	-19.205	3.500
-166.000	-33.321	3.500	-115.000	-18.037	3.500
-165.000	-36.994	3.500	-114.000	-19.324	3.500
-164.000	-37.860	3.500	-113.000	-22.643	3.500
-163.000	-33.034	3.500	-112.000	-20.820	3.500
-162.000	-29.754	3.500	-111.000	-20.786	3.500
-161.000	-29.481	3.500	-110.000	-22.350	3.500
-160.000	-31.201	3.500	-109.000	-21.436	3.500
-159.000	-35.201	3.500	-108.000	-24.958	3.500
-158.000	-41.486	3.500	-107.000	-22.706	3.500
-157.000	-31.559	3.500	-106.000	-22.923	3.500
-156.000	-29.073	3.500	-105.000	-21.893	3.500
-155.000	-28.648	3.500	-104.000	-24.461	3.500
-154.000	-32.173	3.500	-103.000	-25.594	3.500
-153.000	-49.847	3.500	-102.000	-27.630	3.500
-152.000	-32.920	3.500	-101.000	-24.051	3.500
-151.000	-28.333	3.500	-100.000	-26.896	3.500
-150.000	-27.871	3.500	-99.000	-29.478	3.500
-149.000	-32.633	3.500	-98.000	-29.528	3.500
-148.000	-37.560	3.500	-97.000	-27.547	3.500
-147.000	-30.759	3.500	-96.000	-26.046	3.500
-146.000	-27.174	3.500	-95.000	-26.835	3.500
-145.000	-27.618	3.500	-94.000	-31.271	3.500
-144.000	-29.358	3.500	-93.000	-28.967	3.500
-143.000	-32.429	3.500	-92.000	-26.218	3.500
-142.000	-27.993	3.500	-91.000	-26.045	3.500
-141.000	-25.331	3.500	-90.000	-31.004	3.500
-140.000	-24.242	3.500	-89.000	-28.792	3.500
-139.000	-26.193	3.500	-88.000	-25.129	3.500
-138.000	-27.258	3.500	-87.000	-26.288	3.500
-137.000	-25.100	3.500	-86.000	-33.509	3.500
-136.000	-22.039	3.500	-85.000	-29.306	3.500
-135.000	-20.943	3.500	-84.000	-25.145	3.500
-134.000	-21.190	3.500	-83.000	-26.627	3.500
-133.000	-21.584	3.500	-82.000	-34.986	3.500
-132.000	-21.165	3.500	-81.000	-31.288	3.500
-131.000	-19.232	3.500	-80.000	-26.068	3.500
-130.000	-17.729	3.500	-79.000	-29.003	3.500

28.75 GHz @ 0 dBW/MHz			28.75 GHz @ 0 dBW/MHz		
Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)	Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)
-78.000	-45.320	3.500	-27.000	-17.905	3.500
-77.000	-28.935	3.500	-26.000	-16.387	3.500
-76.000	-27.059	3.500	-25.000	-15.852	3.500
-75.000	-34.259	3.500	-24.000	-15.776	3.500
-74.000	-31.540	3.500	-23.000	-15.672	3.500
-73.000	-24.146	3.500	-22.000	-15.106	3.500
-72.000	-24.126	3.500	-21.000	-14.193	3.500
-71.000	-31.776	3.500	-20.000	-13.402	3.500
-70.000	-27.969	3.500	-19.000	-13.169	3.531
-69.000	-22.639	3.500	-18.000	-13.690	4.118
-68.000	-23.916	3.500	-17.000	-14.979	4.739
-67.000	-34.113	3.500	-16.000	-16.953	5.397
-66.000	-31.233	3.500	-15.000	-20.507	6.098
-65.000	-26.839	3.500	-14.000	-26.272	6.847
-64.000	-32.006	3.500	-13.000	-29.557	7.651
-63.000	-31.510	3.500	-12.000	-27.044	8.520
-62.000	-24.445	3.500	-11.000	-22.361	9.465
-61.000	-24.335	3.500	-10.000	-21.048	10.500
-60.000	-30.484	3.500	-9.000	-20.599	11.500
-59.000	-26.974	3.500	-8.000	-23.992	11.500
-58.000	-22.212	3.500	-7.000	-22.719	11.373
-57.000	-22.337	3.500	-6.000	-14.892	13.046
-56.000	-27.827	3.500	-5.000	-14.282	15.026
-55.000	-39.770	3.500	-4.000	-6.968	17.449
-54.000	-27.549	3.500	-3.000	-4.497	20.572
-53.000	-32.838	3.500	-2.000	-3.544	24.974
-52.000	-31.792	3.500	-1.000	13.106	
-51.000	-24.883	3.500	0.000	53.897	
-50.000	-22.157	3.500	1.000	13.106	
-49.000	-23.720	3.500	2.000	-3.545	24.974
-48.000	-29.457	3.500	3.000	-4.497	20.572
-47.000	-27.007	3.500	4.000	-6.968	17.449
-46.000	-24.937	3.500	5.000	-14.281	15.026
-45.000	-28.289	3.500	6.000	-14.894	13.046
-44.000	-29.788	3.500	7.000	-22.720	11.373
-43.000	-23.050	3.500	8.000	-23.992	11.500
-42.000	-23.541	3.500	9.000	-20.600	11.500
-41.000	-25.854	3.500	10.000	-21.048	10.500
-40.000	-34.239	3.500	11.000	-22.359	9.465
-39.000	-21.935	3.500	12.000	-27.046	8.520
-38.000	-20.428	3.500	13.000	-29.552	7.651
-37.000	-19.922	3.500	14.000	-26.271	6.847
-36.000	-19.553	3.500	15.000	-20.506	6.098
-35.000	-18.783	3.500	16.000	-16.953	5.397
-34.000	-18.166	3.500	17.000	-14.979	4.739
-33.000	-18.010	3.500	18.000	-13.690	4.118
-32.000	-18.707	3.500	19.000	-13.170	3.531
-31.000	-21.418	3.500	20.000	-13.403	3.500
-30.000	-24.690	3.500	21.000	-14.193	3.500
-29.000	-24.388	3.500	22.000	-15.106	3.500
-28.000	-20.556	3.500	23.000	-15.672	3.500

28.75 GHz @ 0 dBW/MHz			28.75 GHz @ 0 dBW/MHz		
Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)	Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)
24.000	-15.775	3.500	75.000	-34.258	3.500
25.000	-15.852	3.500	76.000	-27.059	3.500
26.000	-16.387	3.500	77.000	-28.935	3.500
27.000	-17.904	3.500	78.000	-45.323	3.500
28.000	-20.556	3.500	79.000	-29.003	3.500
29.000	-24.388	3.500	80.000	-26.068	3.500
30.000	-24.690	3.500	81.000	-31.289	3.500
31.000	-21.417	3.500	82.000	-34.984	3.500
32.000	-18.706	3.500	83.000	-26.627	3.500
33.000	-18.009	3.500	84.000	-25.146	3.500
34.000	-18.166	3.500	85.000	-29.306	3.500
35.000	-18.782	3.500	86.000	-33.510	3.500
36.000	-19.553	3.500	87.000	-26.288	3.500
37.000	-19.923	3.500	88.000	-25.129	3.500
38.000	-20.428	3.500	89.000	-28.791	3.500
39.000	-21.934	3.500	90.000	-31.004	3.500
40.000	-34.240	3.500	91.000	-26.045	3.500
41.000	-25.854	3.500	92.000	-26.217	3.500
42.000	-23.541	3.500	93.000	-28.967	3.500
43.000	-23.051	3.500	94.000	-31.270	3.500
44.000	-29.788	3.500	95.000	-26.835	3.500
45.000	-28.289	3.500	96.000	-26.046	3.500
46.000	-24.936	3.500	97.000	-27.547	3.500
47.000	-27.007	3.500	98.000	-29.528	3.500
48.000	-29.458	3.500	99.000	-29.478	3.500
49.000	-23.720	3.500	100.000	-26.895	3.500
50.000	-22.158	3.500	101.000	-24.051	3.500
51.000	-24.883	3.500	102.000	-27.631	3.500
52.000	-31.791	3.500	103.000	-25.593	3.500
53.000	-32.837	3.500	104.000	-24.461	3.500
54.000	-27.549	3.500	105.000	-21.893	3.500
55.000	-39.770	3.500	106.000	-22.923	3.500
56.000	-27.826	3.500	107.000	-22.706	3.500
57.000	-22.337	3.500	108.000	-24.958	3.500
58.000	-22.213	3.500	109.000	-21.436	3.500
59.000	-26.974	3.500	110.000	-22.350	3.500
60.000	-30.485	3.500	111.000	-20.785	3.500
61.000	-24.335	3.500	112.000	-20.820	3.500
62.000	-24.445	3.500	113.000	-22.643	3.500
63.000	-31.510	3.500	114.000	-19.324	3.500
64.000	-32.006	3.500	115.000	-18.037	3.500
65.000	-26.840	3.500	116.000	-19.206	3.500
66.000	-31.234	3.500	117.000	-19.430	3.500
67.000	-34.114	3.500	118.000	-18.365	3.500
68.000	-23.916	3.500	119.000	-18.397	3.500
69.000	-22.638	3.500	120.000	-19.422	3.500
70.000	-27.969	3.500	121.000	-20.055	3.500
71.000	-31.777	3.500	122.000	-19.453	3.500
72.000	-24.126	3.500	123.000	-18.333	3.500
73.000	-24.146	3.500	124.000	-17.496	3.500
74.000	-31.539	3.500	125.000	-17.106	3.500

28.75 GHz @ 0 dBW/MHz		
Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)
126.000	-16.839	3.500
127.000	-16.496	3.500
128.000	-16.431	3.500
129.000	-16.884	3.500
130.000	-17.729	3.500
131.000	-19.232	3.500
132.000	-21.165	3.500
133.000	-21.584	3.500
134.000	-21.190	3.500
135.000	-20.943	3.500
136.000	-22.039	3.500
137.000	-25.100	3.500
138.000	-27.258	3.500
139.000	-26.193	3.500
140.000	-24.240	3.500
141.000	-25.330	3.500
142.000	-27.994	3.500
143.000	-32.430	3.500
144.000	-29.359	3.500
145.000	-27.619	3.500
146.000	-27.174	3.500
147.000	-30.760	3.500
148.000	-37.559	3.500
149.000	-32.635	3.500
150.000	-27.871	3.500
151.000	-28.334	3.500
152.000	-32.919	3.500
153.000	-49.837	3.500
154.000	-32.172	3.500
155.000	-28.648	3.500
156.000	-29.072	3.500
157.000	-31.558	3.500
158.000	-41.487	3.500
159.000	-35.200	3.500
160.000	-31.201	3.500
161.000	-29.481	3.500
162.000	-29.752	3.500
163.000	-33.033	3.500
164.000	-37.858	3.500
165.000	-36.995	3.500
166.000	-33.320	3.500
167.000	-30.795	3.500
168.000	-29.962	3.500
169.000	-30.479	3.500
170.000	-31.822	3.500
171.000	-33.272	3.500
172.000	-34.190	3.500
173.000	-34.335	3.500
174.000	-33.915	3.500
175.000	-33.255	3.500
176.000	-32.656	3.500
177.000	-32.202	3.500
178.000	-31.902	3.500
179.000	-31.731	3.500
180.000	-31.689	3.500

4.3. Azimuth Pattern for Cross-pol (-10°~10°)

28.75 GHz @ 0 dBW/MHz			28.75 GHz @ 0 dBW/MHz		
Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)	Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)
-10.000	-26.206		-5.000	-18.647	5.026
-9.900	-22.133		-4.900	-11.262	5.245
-9.800	-27.351		-4.800	-12.064	5.469
-9.700	-34.650		-4.700	-14.483	5.698
-9.600	-34.251		-4.600	-11.277	5.931
-9.500	-24.297		-4.500	-15.496	6.170
-9.400	-21.762		-4.400	-26.699	6.414
-9.300	-29.015		-4.300	-16.377	6.663
-9.200	-30.834		-4.200	-15.129	6.919
-9.100	-31.912		-4.100	-23.147	7.180
-9.000	-22.902		-4.000	-13.789	7.449
-8.900	-21.994		-3.900	-12.085	7.723
-8.800	-31.269		-3.800	-17.622	8.005
-8.700	-27.874		-3.700	-8.845	8.295
-8.600	-30.381		-3.600	-11.935	8.592
-8.500	-22.085		-3.500	-12.145	8.898
-8.400	-22.898		-3.400	-8.163	9.213
-8.300	-32.157		-3.300	-14.154	9.537
-8.200	-26.503		-3.200	-9.307	9.871
-8.100	-28.797		-3.100	-14.446	10.216
-8.000	-21.117		-3.000	-8.922	10.572
-7.900	-23.942		-2.900	-6.988	10.940
-7.800	-29.065		-2.800	-32.918	11.321
-7.700	-25.620		-2.700	-6.928	11.716
-7.600	-27.037		-2.600	-10.103	12.126
-7.500	-20.732		-2.500	-11.993	12.551
-7.400	-26.270		-2.400	-12.420	12.995
-7.300	-25.912		-2.300	-7.371	13.457
-7.200	-25.727		-2.200	-4.887	13.939
-7.100	-24.736		-2.100	-19.116	14.445
-7.000	-20.457	1.373	-2.000	-0.937	14.974
-6.900	-29.910	1.529	-1.900	-2.568	
-6.800	-23.287	1.687	-1.800	-10.388	
-6.700	-26.581	1.848	-1.700	-1.545	
-6.600	-22.513	2.011	-1.600	-8.821	
-6.500	-20.476	2.177	-1.500	-6.801	
-6.400	-31.658	2.346	-1.400	-4.542	
-6.300	-21.447	2.516	-1.300	-16.938	
-6.200	-28.225	2.690	-1.200	-14.435	
-6.100	-20.307	2.867	-1.100	-5.362	
-6.000	-20.849	3.046	-1.000	-8.042	
-5.900	-27.266	3.229	-0.900	-2.287	
-5.800	-19.946	3.414	-0.800	2.504	
-5.700	-25.629	3.603	-0.700	-2.900	
-5.600	-18.609	3.795	-0.600	3.591	
-5.500	-22.171	3.991	-0.500	5.343	
-5.400	-18.087	4.190	-0.400	16.032	
-5.300	-15.007	4.393	-0.300	22.954	
-5.200	-21.006	4.600	-0.200	25.042	
-5.100	-33.792	4.811	-0.100	22.079	

28.75 GHz @ 0 dBW/MHz			28.75 GHz @ 0 dBW/MHz		
Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)	Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)
0.000	-115.149		5.000	-18.647	5.026
0.100	22.079		5.100	-33.792	4.811
0.200	25.042		5.200	-21.006	4.600
0.300	22.954		5.300	-15.007	4.393
0.400	16.032		5.400	-18.087	4.190
0.500	5.343		5.500	-22.170	3.991
0.600	3.591		5.600	-18.609	3.795
0.700	-2.900		5.700	-25.630	3.603
0.800	2.504		5.800	-19.946	3.414
0.900	-2.287		5.900	-27.266	3.229
1.000	-8.042		6.000	-20.849	3.046
1.100	-5.362		6.100	-20.307	2.867
1.200	-14.435		6.200	-28.226	2.690
1.300	-16.938		6.300	-21.447	2.516
1.400	-4.541		6.400	-31.658	2.346
1.500	-6.801		6.500	-20.476	2.177
1.600	-8.821		6.600	-22.513	2.011
1.700	-1.546		6.700	-26.582	1.848
1.800	-10.388		6.800	-23.287	1.687
1.900	-2.568		6.900	-29.911	1.529
2.000	-0.937	14.974	7.000	-20.458	1.373
2.100	-19.116	14.445	7.100	-24.736	
2.200	-4.887	13.939	7.200	-25.727	
2.300	-7.371	13.457	7.300	-25.912	
2.400	-12.420	12.995	7.400	-26.270	
2.500	-11.993	12.551	7.500	-20.732	
2.600	-10.103	12.126	7.600	-27.038	
2.700	-6.928	11.716	7.700	-25.620	
2.800	-32.919	11.321	7.800	-29.065	
2.900	-6.988	10.940	7.900	-23.942	
3.000	-8.922	10.572	8.000	-21.117	
3.100	-14.446	10.216	8.100	-28.797	
3.200	-9.307	9.871	8.200	-26.503	
3.300	-14.154	9.537	8.300	-32.156	
3.400	-8.163	9.213	8.400	-22.897	
3.500	-12.145	8.898	8.500	-22.085	
3.600	-11.935	8.592	8.600	-30.381	
3.700	-8.845	8.295	8.700	-27.875	
3.800	-17.623	8.005	8.800	-31.270	
3.900	-12.085	7.723	8.900	-21.994	
4.000	-13.789	7.449	9.000	-22.902	
4.100	-23.147	7.180	9.100	-31.913	
4.200	-15.129	6.919	9.200	-30.833	
4.300	-16.377	6.663	9.300	-29.016	
4.400	-26.698	6.414	9.400	-21.762	
4.500	-15.496	6.170	9.500	-24.297	
4.600	-11.277	5.931	9.600	-34.248	
4.700	-14.483	5.698	9.700	-34.648	
4.800	-12.064	5.469	9.800	-27.351	
4.900	-11.262	5.245	9.900	-22.133	
			10.000	-26.206	

4.4. Elevation Pattern for Co-pol (0°~30°)

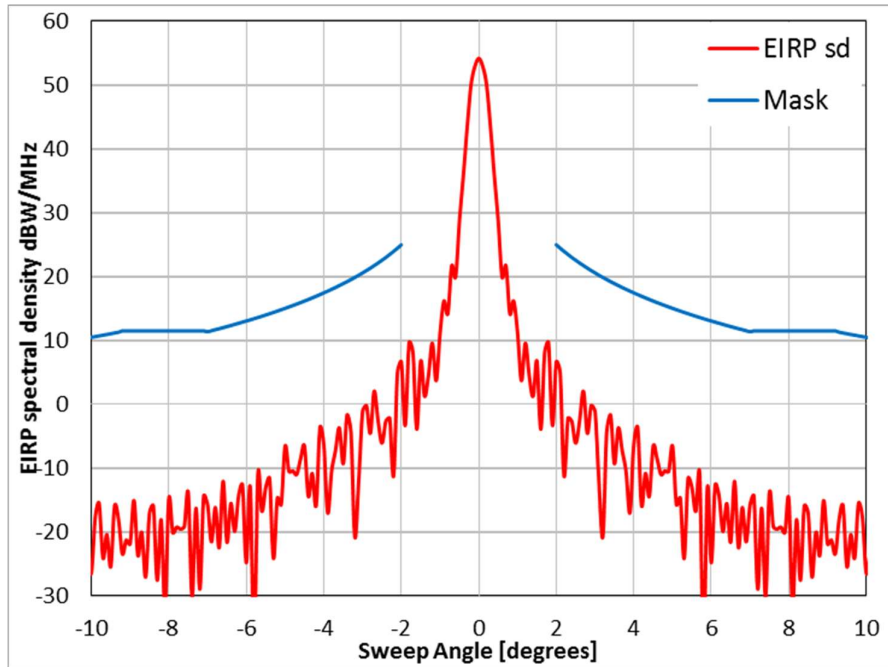
28.75 GHz @ 0 dBW/MHz			28.75 GHz @ 0 dBW/MHz		
Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)	Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)
0.000	53.897		5.000	-7.591	18.026
0.100	52.551		5.100	-0.594	17.811
0.200	49.595		5.200	0.976	17.600
0.300	42.557		5.300	3.597	17.393
0.400	34.294		5.400	4.914	17.190
0.500	31.725		5.500	1.038	16.991
0.600	29.011		5.600	-5.594	16.795
0.700	25.516		5.700	-9.843	16.603
0.800	17.407		5.800	-3.638	16.414
0.900	8.776		5.900	0.137	16.229
1.000	12.498		6.000	-1.340	16.046
1.100	10.491		6.100	0.003	15.867
1.200	-0.630		6.200	-0.035	15.690
1.300	9.060		6.300	-5.688	15.516
1.400	10.281		6.400	-12.470	15.346
1.500	10.269		6.500	-4.513	15.177
1.600	13.857		6.600	1.434	15.011
1.700	10.870		6.700	2.351	14.848
1.800	-4.823		6.800	2.406	14.687
1.900	-0.834		6.900	4.437	14.529
2.000	-6.131		7.000	3.854	14.373
2.100	-4.852		7.100	1.902	14.400
2.200	5.472		7.200	2.607	14.400
2.300	11.206		7.300	0.895	14.400
2.400	10.160		7.400	-3.009	14.400
2.500	0.901		7.500	-2.386	14.400
2.600	-9.295		7.600	-5.802	14.400
2.700	-7.263		7.700	-15.584	14.400
2.800	-0.009		7.800	-11.218	14.400
2.900	2.640		7.900	-20.122	14.400
3.000	7.516		8.000	-14.343	14.400
3.100	8.838		8.100	-18.376	14.400
3.200	6.351		8.200	-16.586	14.400
3.300	4.675		8.300	-11.817	14.400
3.400	1.050		8.400	-24.094	14.400
3.500	-1.624	21.898	8.500	-13.735	14.400
3.600	3.041	21.592	8.600	-12.484	14.400
3.700	1.877	21.295	8.700	-30.408	14.400
3.800	0.451	21.005	8.800	-16.127	14.400
3.900	4.728	20.723	8.900	-17.171	14.400
4.000	8.224	20.449	9.000	-19.959	14.400
4.100	7.391	20.180	9.100	-18.112	14.400
4.200	2.739	19.919	9.200	-21.026	14.400
4.300	1.106	19.663	9.300	-16.156	14.288
4.400	-2.822	19.414	9.400	-20.410	14.172
4.500	5.774	19.170	9.500	-18.393	14.057
4.600	8.694	18.931	9.600	-15.576	13.943
4.700	7.451	18.698	9.700	-38.794	13.831
4.800	6.844	18.469	9.800	-14.509	13.719
4.900	4.713	18.245	9.900	-13.904	13.609

28.75 GHz @ 0 dBW/MHz			28.75 GHz @ 0 dBW/MHz		
Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)	Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)
10.000	-33.555	13.500	15.000	-24.014	9.098
10.100	-14.377	13.392	15.100	-21.485	9.026
10.200	-15.688	13.285	15.200	-17.826	8.954
10.300	-23.610	13.179	15.300	-28.577	8.883
10.400	-13.408	13.074	15.400	-21.144	8.812
10.500	-17.334	12.970	15.500	-19.082	8.742
10.600	-19.409	12.867	15.600	-36.760	8.672
10.700	-12.388	12.765	15.700	-19.628	8.603
10.800	-16.877	12.664	15.800	-19.126	8.534
10.900	-19.832	12.564	15.900	-40.706	8.465
11.000	-13.370	12.465	16.000	-19.499	8.397
11.100	-18.487	12.367	16.100	-19.787	8.329
11.200	-20.602	12.270	16.200	-36.235	8.262
11.300	-14.530	12.173	16.300	-19.179	8.195
11.400	-19.763	12.077	16.400	-20.019	8.129
11.500	-23.625	11.983	16.500	-36.474	8.063
11.600	-16.511	11.889	16.600	-19.362	7.997
11.700	-21.874	11.795	16.700	-20.128	7.932
11.800	-23.316	11.703	16.800	-42.477	7.867
11.900	-15.853	11.611	16.900	-20.735	7.803
12.000	-18.647	11.520	17.000	-21.363	7.739
12.100	-30.182	11.430	17.100	-49.552	7.675
12.200	-16.810	11.341	17.200	-21.505	7.612
12.300	-18.385	11.252	17.300	-21.524	7.549
12.400	-29.184	11.164	17.400	-34.618	7.486
12.500	-15.844	11.077	17.500	-23.910	7.424
12.600	-17.040	10.991	17.600	-22.498	7.362
12.700	-26.461	10.905	17.700	-29.392	7.301
12.800	-15.147	10.820	17.800	-27.351	7.239
12.900	-16.474	10.735	17.900	-23.367	7.179
13.000	-24.327	10.651	18.000	-25.353	7.118
13.100	-14.440	10.568	18.100	-30.655	7.058
13.200	-15.962	10.486	18.200	-24.249	6.998
13.300	-21.600	10.404	18.300	-23.330	6.939
13.400	-13.766	10.322	18.400	-32.651	6.880
13.500	-15.619	10.242	18.500	-25.144	6.821
13.600	-22.674	10.162	18.600	-22.018	6.762
13.700	-14.463	10.082	18.700	-30.411	6.704
13.800	-16.692	10.003	18.800	-25.645	6.646
13.900	-21.751	9.925	18.900	-20.994	6.588
14.000	-14.657	9.847	19.000	-27.410	6.531
14.100	-17.690	9.770	19.100	-26.673	6.474
14.200	-21.698	9.693	19.200	-20.660	6.500
14.300	-15.273	9.617	19.300	-25.784	6.500
14.400	-19.415	9.541	19.400	-28.433	6.500
14.500	-21.433	9.466	19.500	-21.099	6.500
14.600	-15.880	9.391	19.600	-25.894	6.500
14.700	-21.840	9.317	19.700	-28.769	6.500
14.800	-22.039	9.243	19.800	-21.292	6.500
14.900	-16.758	9.170	19.900	-26.172	6.500

28.75 GHz @ 0 dBW/MHz			28.75 GHz @ 0 dBW/MHz		
Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)	Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)
20.000	-28.620	6.500	25.000	-25.676	6.500
20.100	-21.475	6.500	25.100	-20.228	6.500
20.200	-27.238	6.500	25.200	-22.535	6.500
20.300	-26.588	6.500	25.300	-29.994	6.500
20.400	-20.441	6.500	25.400	-21.559	6.500
20.500	-25.873	6.500	25.500	-21.057	6.500
20.600	-25.400	6.500	25.600	-28.975	6.500
20.700	-19.284	6.500	25.700	-25.817	6.500
20.800	-23.280	6.500	25.800	-21.723	6.500
20.900	-23.760	6.500	25.900	-25.181	6.500
21.000	-17.934	6.500	26.000	-41.462	6.500
21.100	-20.612	6.500	26.100	-25.422	6.500
21.200	-22.948	6.500	26.200	-24.090	6.500
21.300	-16.938	6.500	26.300	-28.754	6.500
21.400	-18.234	6.500	26.400	-41.672	6.500
21.500	-22.152	6.500	26.500	-26.313	6.500
21.600	-16.623	6.500	26.600	-23.392	6.500
21.700	-16.742	6.500	26.700	-26.725	6.500
21.800	-21.307	6.500	26.800	-33.019	6.500
21.900	-16.934	6.500	26.900	-22.154	6.500
22.000	-15.908	6.500	27.000	-20.729	6.500
22.100	-20.313	6.500	27.100	-25.611	6.500
22.200	-18.028	6.500	27.200	-23.110	6.500
22.300	-15.824	6.500	27.300	-18.594	6.500
22.400	-19.505	6.500	27.400	-19.818	6.500
22.500	-20.023	6.500	27.500	-23.423	6.500
22.600	-16.511	6.500	27.600	-18.651	6.500
22.700	-19.096	6.500	27.700	-17.284	6.500
22.800	-23.212	6.500	27.800	-20.504	6.500
22.900	-18.185	6.500	27.900	-20.257	6.500
23.000	-19.383	6.500	28.000	-16.878	6.500
23.100	-27.589	6.500	28.100	-17.952	6.500
23.200	-21.182	6.500	28.200	-21.612	6.500
23.300	-20.581	6.500	28.300	-18.371	6.500
23.400	-30.356	6.500	28.400	-17.174	6.500
23.500	-26.329	6.500	28.500	-20.680	6.500
23.600	-23.240	6.500	28.600	-21.778	6.500
23.700	-29.857	6.500	28.700	-18.306	6.500
23.800	-30.364	6.500	28.800	-19.745	6.500
23.900	-27.504	6.500	28.900	-25.783	6.500
24.000	-30.818	6.500	29.000	-21.584	6.500
24.100	-26.114	6.500	29.100	-20.418	6.500
24.200	-27.651	6.500	29.200	-26.562	6.500
24.300	-37.209	6.500	29.300	-27.132	6.500
24.400	-23.604	6.500	29.400	-22.267	6.500
24.500	-23.364	6.500	29.500	-26.234	6.500
24.600	-35.604	6.500	29.600	-31.734	6.500
24.700	-23.493	6.500	29.700	-22.645	6.500
24.800	-20.850	6.500	29.800	-23.807	6.500
24.900	-26.506	6.500	29.900	-30.703	6.500
			30.000	-21.705	6.500

5. EIRP Spectral Density of v240MT Ka-band 30.0 GHz

5.1. Azimuth Pattern for Co-pol, Narrow Angle (-10° ~ 10°)



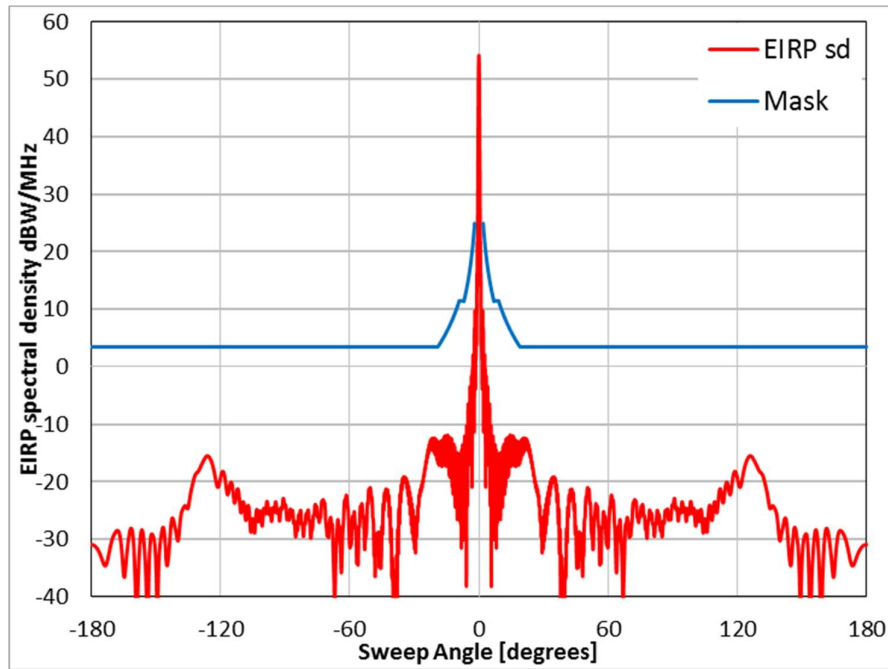
0 dBW/ MHz Input power spectral density @ f=30.0 GHz & 1.0 dB Radome loss

- **FCC EIRP spectral density regulation**

$32.5-25\log(\theta)$	dBW/MHz	for	$2.0^\circ \leq \theta \leq 7.0^\circ$
11.5	dBW/MHz	for	$7.0^\circ < \theta \leq 9.2^\circ$
$35.5-25\log(\theta)$	dBW/MHz	for	$9.2^\circ < \theta \leq 19.1^\circ$
3.5	dBW/MHz	for	$19.1^\circ < \theta \leq 180^\circ$

The v240MT's Ka band(30.0 GHz) Radiation pattern meets the FCC EIRP spectral density mask when the input powers spectral density is @ 0 dBW/ MHz

5.2. Azimuth Pattern for Co-pol, Wide Angle (-180°~180°)



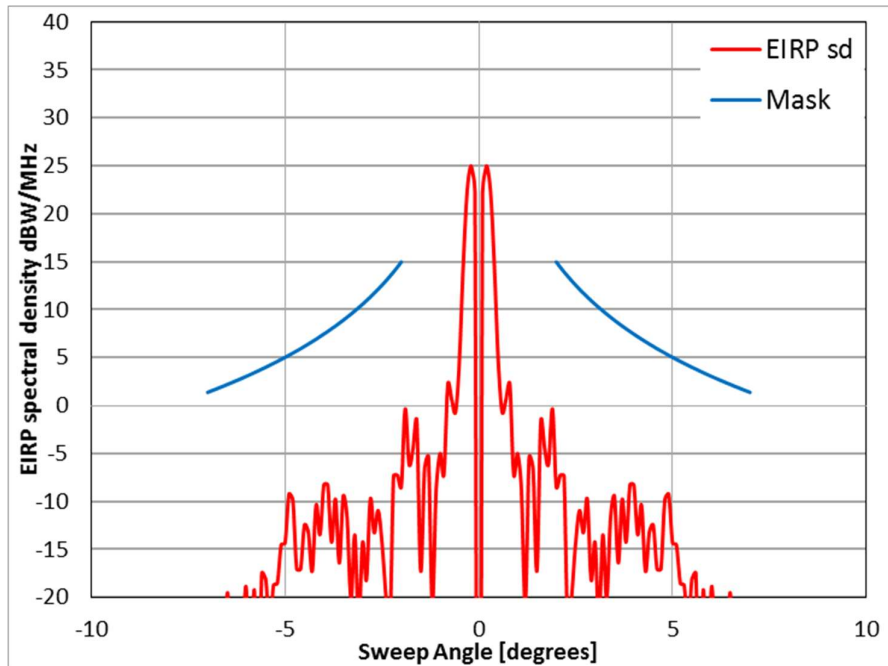
0 dBW/ MHz Input power spectral density @ f=30.0 GHz & 1.0 dB Radome loss

▪ FCC EIRP spectral density regulation

$32.5-25\log(\theta)$	dBW/MHz	for	$2.0^\circ \leq \theta \leq 7.0^\circ$
11.5	dBW/MHz	for	$7.0^\circ < \theta \leq 9.2^\circ$
$35.5-25\log(\theta)$	dBW/MHz	for	$9.2^\circ < \theta \leq 19.1^\circ$
3.5	dBW/MHz	for	$19.1^\circ < \theta \leq 180^\circ$

The v240MT's Ka band(30.0 GHz) Radiation pattern meets the FCC EIRP spectral density mask when the input powers spectral density is @ 0 dBW/ MHz

5.3. Azimuth Pattern for Cross-pol, Narrow angle (-10°~10°)



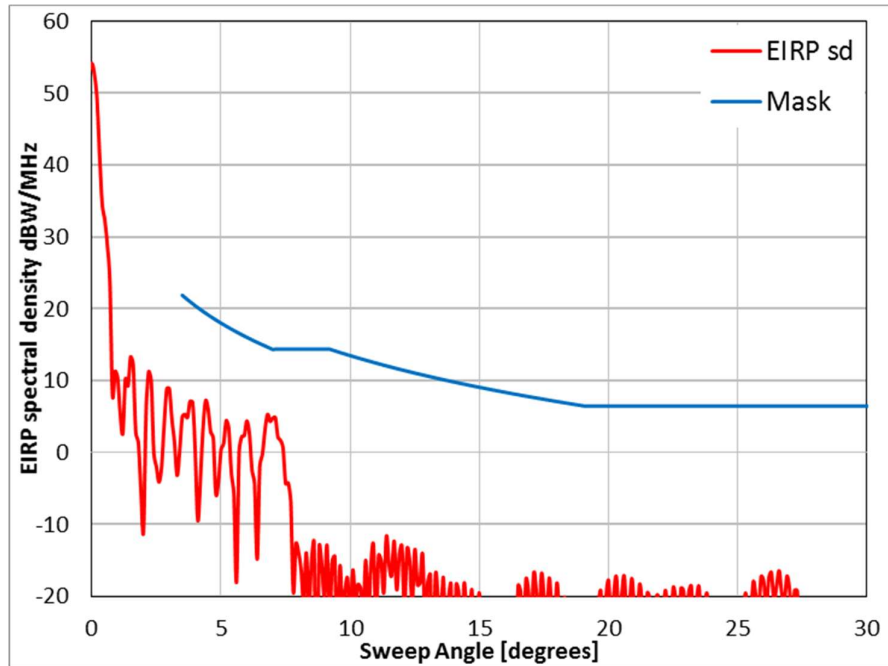
0 dBW/ MHz Input power spectral density @ f=30.0 GHz & 1.0 dB Radome loss

▪ **FCC EIRP spectral density regulation**

$22.5 - 25 \log(\theta) \quad \text{dBW/MHz} \quad \text{for} \quad 2.0^\circ \leq \theta \leq 7.0^\circ$

The v240MT's Ka band(30.0 GHz) Radiation pattern meets the FCC EIRP spectral density mask when the input powers spectral density is @ 0 dBW/ MHz

5.4. Elevation Pattern for Co-pol, Narrow Angle (0°~30°)



0 dBW/ MHz Input power spectral density @ f=30.0 GHz & 1.0 dB Radome loss

▪ **FCC EIRP spectral density regulation**

$35.5-25\log(\theta)$	dBW/MHz	for	$3.5^\circ \leq \theta \leq 7.0^\circ$
14.4	dBW/MHz	for	$7.0^\circ < \theta \leq 9.2^\circ$
$38.5-25\log(\theta)$	dBW/MHz	for	$9.2^\circ < \theta \leq 19.1^\circ$
6.5	dBW/MHz	for	$19.1^\circ < \theta \leq 180^\circ$

The v240MT's Ka band(30.0 GHz) Radiation pattern meets the FCC EIRP spectral density mask when the input powers spectral density is @ 0 dBW/ MHz

6. EIRP Spectral Density Data

6.1. Azimuth Pattern for Co-pol (-10°~10°)

30 GHz @ 0 dBW/MHz			30 GHz @ 0 dBW/MHz		
Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)	Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)
-10.000	-26.381	10.500	-5.000	-6.541	15.026
-9.900	-17.624	10.609	-4.900	-10.490	15.245
-9.800	-15.484	10.719	-4.800	-10.418	15.469
-9.700	-24.053	10.831	-4.700	-10.962	15.698
-9.600	-20.368	10.943	-4.600	-8.500	15.931
-9.500	-25.396	11.057	-4.500	-6.554	16.170
-9.400	-15.917	11.172	-4.400	-14.398	16.414
-9.300	-18.012	11.288	-4.300	-10.803	16.663
-9.200	-23.407	11.500	-4.200	-15.828	16.919
-9.100	-21.225	11.500	-4.100	-3.646	17.180
-9.000	-21.824	11.500	-4.000	-6.317	17.449
-8.900	-15.040	11.500	-3.900	-16.967	17.723
-8.800	-23.633	11.500	-3.800	-10.528	18.005
-8.700	-20.016	11.500	-3.700	-7.244	18.295
-8.600	-27.030	11.500	-3.600	-3.692	18.592
-8.500	-17.033	11.500	-3.500	-9.283	18.898
-8.400	-15.916	11.500	-3.400	-1.655	19.213
-8.300	-27.524	11.500	-3.300	-4.429	19.537
-8.200	-18.059	11.500	-3.200	-20.756	19.871
-8.100	-31.473	11.500	-3.100	-12.017	20.216
-8.000	-14.773	11.500	-3.000	-1.114	20.572
-7.900	-20.043	11.500	-2.900	-0.179	20.940
-7.800	-19.206	11.500	-2.800	-4.523	21.321
-7.700	-19.509	11.500	-2.700	2.058	21.716
-7.600	-19.109	11.500	-2.600	-2.624	22.126
-7.500	-13.866	11.500	-2.500	-6.066	22.551
-7.400	-30.103	11.500	-2.400	-2.661	22.995
-7.300	-16.261	11.500	-2.300	-2.200	23.457
-7.200	-28.921	11.500	-2.200	-11.209	23.939
-7.100	-14.363	11.500	-2.100	4.936	24.445
-7.000	-15.726	11.373	-2.000	6.660	24.974
-6.900	-21.501	11.529	-1.900	-3.309	
-6.800	-16.156	11.687	-1.800	9.605	
-6.700	-22.417	11.848	-1.700	8.099	
-6.600	-12.045	12.011	-1.600	-3.881	
-6.500	-21.562	12.177	-1.500	6.772	
-6.400	-15.512	12.346	-1.400	1.253	
-6.300	-19.873	12.516	-1.300	4.551	
-6.200	-14.323	12.690	-1.200	9.570	
-6.100	-12.652	12.867	-1.100	3.704	
-6.000	-24.762	13.046	-1.000	11.177	
-5.900	-12.959	13.229	-0.900	16.156	
-5.800	-38.143	13.414	-0.800	14.229	
-5.700	-10.835	13.603	-0.700	21.678	
-5.600	-16.731	13.795	-0.600	19.931	
-5.500	-13.001	13.991	-0.500	28.694	
-5.400	-11.598	14.190	-0.400	35.812	
-5.300	-24.130	14.393	-0.300	43.392	
-5.200	-14.660	14.600	-0.200	50.035	
-5.100	-15.685	14.811	-0.100	52.907	

30 GHz @ 0 dBW/MHz			30 GHz @ 0 dBW/MHz		
Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)	Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)
0.000	54.156		5.000	-6.541	15.026
0.100	52.907		5.100	-15.686	14.811
0.200	50.035		5.200	-14.660	14.600
0.300	43.392		5.300	-24.131	14.393
0.400	35.812		5.400	-11.597	14.190
0.500	28.694		5.500	-13.001	13.991
0.600	19.931		5.600	-16.732	13.795
0.700	21.677		5.700	-10.836	13.603
0.800	14.229		5.800	-38.165	13.414
0.900	16.156		5.900	-12.958	13.229
1.000	11.177		6.000	-24.758	13.046
1.100	3.704		6.100	-12.653	12.867
1.200	9.570		6.200	-14.322	12.690
1.300	4.551		6.300	-19.874	12.516
1.400	1.253		6.400	-15.513	12.346
1.500	6.772		6.500	-21.561	12.177
1.600	-3.881		6.600	-12.045	12.011
1.700	8.099		6.700	-22.416	11.848
1.800	9.605		6.800	-16.157	11.687
1.900	-3.309		6.900	-21.502	11.529
2.000	6.659	24.974	7.000	-15.725	11.373
2.100	4.936	24.445	7.100	-14.363	11.500
2.200	-11.208	23.939	7.200	-28.923	11.500
2.300	-2.200	23.457	7.300	-16.261	11.500
2.400	-2.660	22.995	7.400	-30.105	11.500
2.500	-6.065	22.551	7.500	-13.867	11.500
2.600	-2.623	22.126	7.600	-19.110	11.500
2.700	2.057	21.716	7.700	-19.509	11.500
2.800	-4.523	21.321	7.800	-19.206	11.500
2.900	-0.178	20.940	7.900	-20.044	11.500
3.000	-1.114	20.572	8.000	-14.773	11.500
3.100	-12.015	20.216	8.100	-31.476	11.500
3.200	-20.757	19.871	8.200	-18.059	11.500
3.300	-4.429	19.537	8.300	-27.526	11.500
3.400	-1.655	19.213	8.400	-15.917	11.500
3.500	-9.283	18.898	8.500	-17.034	11.500
3.600	-3.691	18.592	8.600	-27.029	11.500
3.700	-7.244	18.295	8.700	-20.016	11.500
3.800	-10.528	18.005	8.800	-23.634	11.500
3.900	-16.969	17.723	8.900	-15.040	11.500
4.000	-6.317	17.449	9.000	-21.825	11.500
4.100	-3.645	17.180	9.100	-21.224	11.500
4.200	-15.826	16.919	9.200	-23.405	11.500
4.300	-10.804	16.663	9.300	-18.013	11.288
4.400	-14.397	16.414	9.400	-15.918	11.172
4.500	-6.555	16.170	9.500	-25.397	11.057
4.600	-8.501	15.931	9.600	-20.367	10.943
4.700	-10.961	15.698	9.700	-24.054	10.831
4.800	-10.418	15.469	9.800	-15.483	10.719
4.900	-10.490	15.245	9.900	-17.624	10.609
			10.000	-26.384	10.500

6.2. Azimuth Pattern for Co-pol (-180°~180°)

30 GHz @ 0 dBW/MHz			30 GHz @ 0 dBW/MHz		
Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)	Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)
-180.000	-30.891	3.500	-129.000	-17.143	3.500
-179.000	-30.990	3.500	-128.000	-16.395	3.500
-178.000	-31.250	3.500	-127.000	-15.742	3.500
-177.000	-31.764	3.500	-126.000	-15.468	3.500
-176.000	-32.497	3.500	-125.000	-15.818	3.500
-175.000	-33.517	3.500	-124.000	-16.698	3.500
-174.000	-34.442	3.500	-123.000	-18.131	3.500
-173.000	-34.320	3.500	-122.000	-20.088	3.500
-172.000	-32.802	3.500	-121.000	-20.849	3.500
-171.000	-30.979	3.500	-120.000	-19.259	3.500
-170.000	-29.675	3.500	-119.000	-18.179	3.500
-169.000	-28.871	3.500	-118.000	-19.197	3.500
-168.000	-28.465	3.500	-117.000	-21.857	3.500
-167.000	-28.934	3.500	-116.000	-21.275	3.500
-166.000	-31.423	3.500	-115.000	-20.085	3.500
-165.000	-36.034	3.500	-114.000	-22.299	3.500
-164.000	-34.548	3.500	-113.000	-23.073	3.500
-163.000	-30.823	3.500	-112.000	-21.204	3.500
-162.000	-28.430	3.500	-111.000	-23.993	3.500
-161.000	-28.543	3.500	-110.000	-24.362	3.500
-160.000	-33.233	3.500	-109.000	-24.191	3.500
-159.000	-46.908	3.500	-108.000	-26.315	3.500
-158.000	-34.560	3.500	-107.000	-24.181	3.500
-157.000	-28.968	3.500	-106.000	-28.675	3.500
-156.000	-29.003	3.500	-105.000	-26.415	3.500
-155.000	-33.559	3.500	-104.000	-28.354	3.500
-154.000	-51.737	3.500	-103.000	-24.890	3.500
-153.000	-32.789	3.500	-102.000	-26.261	3.500
-152.000	-29.081	3.500	-101.000	-26.556	3.500
-151.000	-29.836	3.500	-100.000	-24.832	3.500
-150.000	-34.241	3.500	-99.000	-25.200	3.500
-149.000	-38.095	3.500	-98.000	-24.302	3.500
-148.000	-30.570	3.500	-97.000	-24.620	3.500
-147.000	-28.160	3.500	-96.000	-25.757	3.500
-146.000	-29.268	3.500	-95.000	-25.228	3.500
-145.000	-34.360	3.500	-94.000	-24.475	3.500
-144.000	-32.335	3.500	-93.000	-25.153	3.500
-143.000	-27.475	3.500	-92.000	-24.544	3.500
-142.000	-26.452	3.500	-91.000	-23.167	3.500
-141.000	-28.158	3.500	-90.000	-24.168	3.500
-140.000	-30.072	3.500	-89.000	-26.488	3.500
-139.000	-27.920	3.500	-88.000	-26.286	3.500
-138.000	-25.168	3.500	-87.000	-25.642	3.500
-137.000	-24.354	3.500	-86.000	-27.211	3.500
-136.000	-24.327	3.500	-85.000	-29.337	3.500
-135.000	-24.401	3.500	-84.000	-27.053	3.500
-134.000	-22.206	3.500	-83.000	-25.152	3.500
-133.000	-20.437	3.500	-82.000	-27.354	3.500
-132.000	-19.039	3.500	-81.000	-27.207	3.500
-131.000	-18.405	3.500	-80.000	-25.667	3.500
-130.000	-17.958	3.500	-79.000	-26.021	3.500

30 GHz @ 0 dBW/MHz			30 GHz @ 0 dBW/MHz		
Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)	Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)
-78.000	-29.761	3.500	-27.000	-21.458	3.500
-77.000	-26.176	3.500	-26.000	-19.914	3.500
-76.000	-23.897	3.500	-25.000	-17.653	3.500
-75.000	-25.865	3.500	-24.000	-15.435	3.500
-74.000	-26.747	3.500	-23.000	-13.938	3.500
-73.000	-23.445	3.500	-22.000	-13.431	3.500
-72.000	-23.495	3.500	-21.000	-13.976	3.500
-71.000	-27.428	3.500	-20.000	-15.339	3.500
-70.000	-29.446	3.500	-19.000	-16.735	3.531
-69.000	-26.224	3.500	-18.000	-16.958	4.118
-68.000	-27.754	3.500	-17.000	-15.647	4.739
-67.000	-43.001	3.500	-16.000	-13.633	5.397
-66.000	-29.870	3.500	-15.000	-12.010	6.098
-65.000	-27.849	3.500	-14.000	-12.173	6.847
-64.000	-35.130	3.500	-13.000	-13.956	7.651
-63.000	-27.483	3.500	-12.000	-19.058	8.520
-62.000	-23.178	3.500	-11.000	-24.187	9.465
-61.000	-24.295	3.500	-10.000	-26.381	10.500
-60.000	-31.286	3.500	-9.000	-21.824	11.500
-59.000	-28.948	3.500	-8.000	-14.773	11.500
-58.000	-25.443	3.500	-7.000	-15.726	11.373
-57.000	-29.157	3.500	-6.000	-24.762	13.046
-56.000	-32.077	3.500	-5.000	-6.541	15.026
-55.000	-24.229	3.500	-4.000	-6.317	17.449
-54.000	-25.217	3.500	-3.000	-1.114	20.572
-53.000	-31.755	3.500	-2.000	6.660	24.974
-52.000	-25.961	3.500	-1.000	11.177	
-51.000	-21.421	3.500	0.000	54.156	
-50.000	-22.492	3.500	1.000	11.177	
-49.000	-26.852	3.500	2.000	6.659	24.974
-48.000	-33.270	3.500	3.000	-1.114	20.572
-47.000	-30.040	3.500	4.000	-6.317	17.449
-46.000	-31.217	3.500	5.000	-6.541	15.026
-45.000	-27.690	3.500	6.000	-24.758	13.046
-44.000	-23.291	3.500	7.000	-15.725	11.373
-43.000	-21.436	3.500	8.000	-14.773	11.500
-42.000	-22.795	3.500	9.000	-21.825	11.500
-41.000	-30.535	3.500	10.000	-26.384	10.500
-40.000	-37.161	3.500	11.000	-24.188	9.465
-39.000	-46.656	3.500	12.000	-19.057	8.520
-38.000	-44.089	3.500	13.000	-13.955	7.651
-37.000	-26.047	3.500	14.000	-12.173	6.847
-36.000	-20.457	3.500	15.000	-12.010	6.098
-35.000	-19.182	3.500	16.000	-13.633	5.397
-34.000	-20.169	3.500	17.000	-15.646	4.739
-33.000	-21.859	3.500	18.000	-16.958	4.118
-32.000	-23.677	3.500	19.000	-16.735	3.531
-31.000	-25.620	3.500	20.000	-15.339	3.500
-30.000	-27.371	3.500	21.000	-13.976	3.500
-29.000	-28.899	3.500	22.000	-13.431	3.500
-28.000	-24.289	3.500	23.000	-13.938	3.500

30 GHz @ 0 dBW/MHz			30 GHz @ 0 dBW/MHz		
Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)	Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)
24.000	-15.434	3.500	75.000	-25.865	3.500
25.000	-17.653	3.500	76.000	-23.897	3.500
26.000	-19.915	3.500	77.000	-26.176	3.500
27.000	-21.458	3.500	78.000	-29.761	3.500
28.000	-24.289	3.500	79.000	-26.021	3.500
29.000	-28.899	3.500	80.000	-25.667	3.500
30.000	-27.370	3.500	81.000	-27.207	3.500
31.000	-25.620	3.500	82.000	-27.355	3.500
32.000	-23.677	3.500	83.000	-25.152	3.500
33.000	-21.860	3.500	84.000	-27.053	3.500
34.000	-20.169	3.500	85.000	-29.337	3.500
35.000	-19.182	3.500	86.000	-27.210	3.500
36.000	-20.457	3.500	87.000	-25.642	3.500
37.000	-26.047	3.500	88.000	-26.286	3.500
38.000	-44.085	3.500	89.000	-26.488	3.500
39.000	-46.655	3.500	90.000	-24.168	3.500
40.000	-37.163	3.500	91.000	-23.166	3.500
41.000	-30.534	3.500	92.000	-24.544	3.500
42.000	-22.795	3.500	93.000	-25.154	3.500
43.000	-21.435	3.500	94.000	-24.475	3.500
44.000	-23.291	3.500	95.000	-25.227	3.500
45.000	-27.689	3.500	96.000	-25.758	3.500
46.000	-31.217	3.500	97.000	-24.620	3.500
47.000	-30.040	3.500	98.000	-24.303	3.500
48.000	-33.269	3.500	99.000	-25.200	3.500
49.000	-26.851	3.500	100.000	-24.832	3.500
50.000	-22.492	3.500	101.000	-26.555	3.500
51.000	-21.421	3.500	102.000	-26.260	3.500
52.000	-25.961	3.500	103.000	-24.890	3.500
53.000	-31.755	3.500	104.000	-28.354	3.500
54.000	-25.216	3.500	105.000	-26.416	3.500
55.000	-24.229	3.500	106.000	-28.674	3.500
56.000	-32.077	3.500	107.000	-24.180	3.500
57.000	-29.157	3.500	108.000	-26.314	3.500
58.000	-25.443	3.500	109.000	-24.190	3.500
59.000	-28.948	3.500	110.000	-24.361	3.500
60.000	-31.286	3.500	111.000	-23.993	3.500
61.000	-24.295	3.500	112.000	-21.204	3.500
62.000	-23.178	3.500	113.000	-23.073	3.500
63.000	-27.483	3.500	114.000	-22.299	3.500
64.000	-35.130	3.500	115.000	-20.084	3.500
65.000	-27.849	3.500	116.000	-21.274	3.500
66.000	-29.870	3.500	117.000	-21.857	3.500
67.000	-43.000	3.500	118.000	-19.196	3.500
68.000	-27.754	3.500	119.000	-18.180	3.500
69.000	-26.224	3.500	120.000	-19.259	3.500
70.000	-29.446	3.500	121.000	-20.848	3.500
71.000	-27.428	3.500	122.000	-20.089	3.500
72.000	-23.495	3.500	123.000	-18.131	3.500
73.000	-23.445	3.500	124.000	-16.698	3.500
74.000	-26.747	3.500	125.000	-15.818	3.500

30 GHz @ 0 dBW/MHz		
Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)
126.000	-15.468	3.500
127.000	-15.742	3.500
128.000	-16.395	3.500
129.000	-17.143	3.500
130.000	-17.958	3.500
131.000	-18.405	3.500
132.000	-19.040	3.500
133.000	-20.437	3.500
134.000	-22.206	3.500
135.000	-24.401	3.500
136.000	-24.326	3.500
137.000	-24.353	3.500
138.000	-25.167	3.500
139.000	-27.920	3.500
140.000	-30.072	3.500
141.000	-28.157	3.500
142.000	-26.452	3.500
143.000	-27.476	3.500
144.000	-32.337	3.500
145.000	-34.361	3.500
146.000	-29.266	3.500
147.000	-28.159	3.500
148.000	-30.569	3.500
149.000	-38.098	3.500
150.000	-34.244	3.500
151.000	-29.836	3.500
152.000	-29.080	3.500
153.000	-32.787	3.500
154.000	-51.725	3.500
155.000	-33.559	3.500
156.000	-29.002	3.500
157.000	-28.968	3.500
158.000	-34.560	3.500
159.000	-46.905	3.500
160.000	-33.233	3.500
161.000	-28.542	3.500
162.000	-28.432	3.500
163.000	-30.824	3.500
164.000	-34.548	3.500
165.000	-36.034	3.500
166.000	-31.424	3.500
167.000	-28.933	3.500
168.000	-28.465	3.500
169.000	-28.871	3.500
170.000	-29.676	3.500
171.000	-30.980	3.500
172.000	-32.802	3.500
173.000	-34.318	3.500
174.000	-34.445	3.500
175.000	-33.516	3.500
176.000	-32.498	3.500
177.000	-31.764	3.500
178.000	-31.251	3.500
179.000	-30.991	3.500
180.000	-30.891	3.500

6.3. Azimuth Pattern for Cross-pol (-10°~10°)

30 GHz @ 0 dBW/MHz			30 GHz @ 0 dBW/MHz		
Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)	Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)
-10.000	-31.009		-5.000	-14.339	5.026
-9.900	-29.977		-4.900	-9.240	5.245
-9.800	-29.466		-4.800	-9.883	5.469
-9.700	-23.820		-4.700	-17.049	5.698
-9.600	-37.139		-4.600	-17.061	5.931
-9.500	-27.885		-4.500	-12.489	6.170
-9.400	-39.253		-4.400	-13.241	6.414
-9.300	-24.904		-4.300	-17.298	6.663
-9.200	-25.289		-4.200	-10.394	6.919
-9.100	-34.823		-4.100	-13.471	7.180
-9.000	-26.515		-4.000	-8.290	7.449
-8.900	-36.357		-3.900	-8.296	7.723
-8.800	-22.721		-3.800	-14.255	8.005
-8.700	-29.210		-3.700	-9.770	8.295
-8.600	-27.600		-3.600	-16.421	8.592
-8.500	-29.446		-3.500	-9.468	8.898
-8.400	-26.449		-3.400	-11.674	9.213
-8.300	-22.699		-3.300	-20.132	9.537
-8.200	-40.777		-3.200	-13.511	9.871
-8.100	-24.334		-3.100	-22.792	10.216
-8.000	-39.989		-3.000	-14.301	10.572
-7.900	-22.545		-2.900	-18.190	10.940
-7.800	-25.140		-2.800	-9.772	11.321
-7.700	-27.357		-2.700	-13.268	11.716
-7.600	-24.006		-2.600	-10.965	12.126
-7.500	-31.205		-2.500	-14.247	12.551
-7.400	-21.147		-2.400	-19.771	12.995
-7.300	-32.801		-2.300	-24.295	13.457
-7.200	-22.726		-2.200	-7.331	13.939
-7.100	-27.830		-2.100	-7.275	14.445
-7.000	-23.275	1.373	-2.000	-8.470	14.974
-6.900	-21.940	1.529	-1.900	-0.357	
-6.800	-29.415	1.687	-1.800	-6.094	
-6.700	-20.967	1.848	-1.700	-4.526	
-6.600	-43.860	2.011	-1.600	-1.684	
-6.500	-20.113	2.177	-1.500	-17.259	
-6.400	-26.342	2.346	-1.400	-6.633	
-6.300	-21.992	2.516	-1.300	-5.402	
-6.200	-22.472	2.690	-1.200	-20.642	
-6.100	-24.832	2.867	-1.100	-8.788	
-6.000	-19.210	3.046	-1.000	-5.010	
-5.900	-36.610	3.229	-0.900	-7.176	
-5.800	-19.233	3.414	-0.800	2.227	
-5.700	-33.362	3.603	-0.700	0.623	
-5.600	-17.497	3.795	-0.600	-0.651	
-5.500	-18.141	3.991	-0.500	4.767	
-5.400	-23.151	4.190	-0.400	14.811	
-5.300	-18.755	4.393	-0.300	22.446	
-5.200	-18.542	4.600	-0.200	25.000	
-5.100	-14.522	4.811	-0.100	22.284	

30 GHz @ 0 dBW/MHz			30 GHz @ 0 dBW/MHz		
Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)	Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)
0.000	-100.545		5.000	-14.339	5.026
0.100	22.284		5.100	-14.522	4.811
0.200	25.000		5.200	-18.542	4.600
0.300	22.446		5.300	-18.755	4.393
0.400	14.811		5.400	-23.151	4.190
0.500	4.767		5.500	-18.141	3.991
0.600	-0.651		5.600	-17.497	3.795
0.700	0.623		5.700	-33.362	3.603
0.800	2.227		5.800	-19.233	3.414
0.900	-7.176		5.900	-36.613	3.229
1.000	-5.010		6.000	-19.210	3.046
1.100	-8.788		6.100	-24.832	2.867
1.200	-20.642		6.200	-22.472	2.690
1.300	-5.402		6.300	-21.991	2.516
1.400	-6.632		6.400	-26.343	2.346
1.500	-17.259		6.500	-20.113	2.177
1.600	-1.684		6.600	-43.861	2.011
1.700	-4.526		6.700	-20.967	1.848
1.800	-6.094		6.800	-29.415	1.687
1.900	-0.357		6.900	-21.940	1.529
2.000	-8.470	14.974	7.000	-23.275	1.373
2.100	-7.276	14.445	7.100	-27.830	
2.200	-7.331	13.939	7.200	-22.726	
2.300	-24.295	13.457	7.300	-32.802	
2.400	-19.770	12.995	7.400	-21.147	
2.500	-14.247	12.551	7.500	-31.204	
2.600	-10.965	12.126	7.600	-24.006	
2.700	-13.269	11.716	7.700	-27.357	
2.800	-9.772	11.321	7.800	-25.140	
2.900	-18.190	10.940	7.900	-22.545	
3.000	-14.301	10.572	8.000	-39.989	
3.100	-22.792	10.216	8.100	-24.334	
3.200	-13.511	9.871	8.200	-40.777	
3.300	-20.131	9.537	8.300	-22.699	
3.400	-11.674	9.213	8.400	-26.449	
3.500	-9.468	8.898	8.500	-29.445	
3.600	-16.420	8.592	8.600	-27.600	
3.700	-9.769	8.295	8.700	-29.210	
3.800	-14.255	8.005	8.800	-22.720	
3.900	-8.296	7.723	8.900	-36.355	
4.000	-8.290	7.449	9.000	-26.515	
4.100	-13.471	7.180	9.100	-34.822	
4.200	-10.394	6.919	9.200	-25.289	
4.300	-17.298	6.663	9.300	-24.905	
4.400	-13.241	6.414	9.400	-39.254	
4.500	-12.489	6.170	9.500	-27.885	
4.600	-17.061	5.931	9.600	-37.138	
4.700	-17.049	5.698	9.700	-23.820	
4.800	-9.883	5.469	9.800	-29.466	
4.900	-9.239	5.245	9.900	-29.977	
			10.000	-31.009	

6.4. Elevation Pattern for Co-pol (0°~30°)

30 GHz @ 0 dBW/MHz			30 GHz @ 0 dBW/MHz		
Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)	Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)
0.000	54.156		5.000	0.389	18.026
0.100	52.617		5.100	1.272	17.811
0.200	49.194		5.200	4.458	17.600
0.300	41.492		5.300	3.409	17.393
0.400	34.621		5.400	-2.880	17.190
0.500	32.409		5.500	-5.993	16.991
0.600	28.887		5.600	-18.008	16.795
0.700	23.601		5.700	0.159	16.603
0.800	7.958		5.800	2.225	16.414
0.900	11.306		5.900	2.365	16.229
1.000	10.416		6.000	4.413	16.046
1.100	5.317		6.100	2.563	15.867
1.200	2.715		6.200	-2.493	15.690
1.300	10.260		6.300	-4.344	15.516
1.400	9.282		6.400	-14.815	15.346
1.500	13.335		6.500	-1.958	15.177
1.600	12.298		6.600	-0.256	15.011
1.700	2.828		6.700	3.123	14.848
1.800	1.426		6.800	5.327	14.687
1.900	-5.145		6.900	4.362	14.529
2.000	-11.006		7.000	4.791	14.373
2.100	5.691		7.100	4.895	14.400
2.200	11.280		7.200	2.201	14.400
2.300	9.911		7.300	1.739	14.400
2.400	-0.093		7.400	0.658	14.400
2.500	-1.963		7.500	-4.304	14.400
2.600	-4.095		7.600	-4.195	14.400
2.700	-1.917		7.700	-6.843	14.400
2.800	3.992		7.800	-19.430	14.400
2.900	8.880		7.900	-12.689	14.400
3.000	8.901		8.000	-13.857	14.400
3.100	4.575		8.100	-16.369	14.400
3.200	1.390		8.200	-20.764	14.400
3.300	-3.160		8.300	-13.924	14.400
3.400	0.348		8.400	-21.647	14.400
3.500	4.985	21.898	8.500	-15.138	14.400
3.600	5.330	21.592	8.600	-12.497	14.400
3.700	4.917	21.295	8.700	-38.604	14.400
3.800	7.142	21.005	8.800	-13.067	14.400
3.900	7.011	20.723	8.900	-15.677	14.400
4.000	0.483	20.449	9.000	-19.910	14.400
4.100	-9.397	20.180	9.100	-12.872	14.400
4.200	-3.909	19.919	9.200	-23.975	14.400
4.300	3.123	19.663	9.300	-15.126	14.288
4.400	7.211	19.414	9.400	-14.459	14.172
4.500	6.073	19.170	9.500	-28.831	14.057
4.600	2.865	18.931	9.600	-15.810	13.943
4.700	2.006	18.698	9.700	-22.245	13.831
4.800	-5.739	18.469	9.800	-19.075	13.719
4.900	-4.011	18.245	9.900	-17.545	13.609

30 GHz @ 0 dBW/MHz			30 GHz @ 0 dBW/MHz		
Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)	Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)
10.000	-24.648	13.500	15.000	-19.542	9.098
10.100	-16.367	13.392	15.100	-26.832	9.026
10.200	-20.982	13.285	15.200	-24.460	8.954
10.300	-18.297	13.179	15.300	-21.593	8.883
10.400	-18.923	13.074	15.400	-27.026	8.812
10.500	-23.597	12.970	15.500	-25.777	8.742
10.600	-14.971	12.867	15.600	-22.029	8.672
10.700	-23.449	12.765	15.700	-23.649	8.603
10.800	-15.611	12.664	15.800	-29.932	8.534
10.900	-12.812	12.564	15.900	-21.885	8.465
11.000	-23.593	12.465	16.000	-21.931	8.397
11.100	-14.289	12.367	16.100	-44.264	8.329
11.200	-15.089	12.270	16.200	-20.478	8.262
11.300	-19.487	12.173	16.300	-20.792	8.195
11.400	-11.617	12.077	16.400	-35.055	8.129
11.500	-15.507	11.983	16.500	-18.506	8.063
11.600	-17.116	11.889	16.600	-19.442	7.997
11.700	-12.308	11.795	16.700	-28.658	7.932
11.800	-19.091	11.703	16.800	-17.655	7.867
11.900	-14.184	11.611	16.900	-19.382	7.803
12.000	-12.994	11.520	17.000	-25.387	7.739
12.100	-21.357	11.430	17.100	-16.824	7.675
12.200	-13.347	11.341	17.200	-19.203	7.612
12.300	-15.098	11.252	17.300	-24.281	7.549
12.400	-20.922	11.164	17.400	-16.881	7.486
12.500	-13.461	11.077	17.500	-19.940	7.424
12.600	-18.389	10.991	17.600	-24.019	7.362
12.700	-18.107	10.905	17.700	-17.450	7.301
12.800	-14.115	10.820	17.800	-21.645	7.239
12.900	-23.768	10.735	17.900	-24.349	7.179
13.000	-18.079	10.651	18.000	-18.104	7.118
13.100	-16.973	10.568	18.100	-23.130	7.058
13.200	-33.180	10.486	18.200	-26.822	6.998
13.300	-17.001	10.404	18.300	-20.138	6.939
13.400	-20.170	10.322	18.400	-26.185	6.880
13.500	-24.666	10.242	18.500	-27.895	6.821
13.600	-17.332	10.162	18.600	-22.865	6.762
13.700	-26.241	10.082	18.700	-27.815	6.704
13.800	-20.524	10.003	18.800	-26.223	6.646
13.900	-18.365	9.925	18.900	-27.391	6.588
14.000	-38.801	9.847	19.000	-26.450	6.531
14.100	-18.369	9.770	19.100	-23.492	6.474
14.200	-19.487	9.693	19.200	-34.960	6.500
14.300	-32.071	9.617	19.300	-23.339	6.500
14.400	-18.444	9.541	19.400	-20.729	6.500
14.500	-22.299	9.466	19.500	-31.833	6.500
14.600	-25.992	9.391	19.600	-21.591	6.500
14.700	-19.026	9.317	19.700	-19.218	6.500
14.800	-26.347	9.243	19.800	-27.291	6.500
14.900	-23.612	9.170	19.900	-19.998	6.500

30 GHz @ 0 dBW/MHz			30 GHz @ 0 dBW/MHz		
Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)	Angle (Degree)	EIRP sd (dBW/MHz)	Mask (dBW/MHz)
20.000	-17.818	6.500	25.000	-21.853	6.500
20.100	-24.606	6.500	25.100	-28.891	6.500
20.200	-19.776	6.500	25.200	-23.704	6.500
20.300	-17.254	6.500	25.300	-19.517	6.500
20.400	-23.037	6.500	25.400	-23.485	6.500
20.500	-20.074	6.500	25.500	-22.716	6.500
20.600	-17.109	6.500	25.600	-17.939	6.500
20.700	-22.210	6.500	25.700	-19.991	6.500
20.800	-21.325	6.500	25.800	-22.206	6.500
20.900	-17.501	6.500	25.900	-17.246	6.500
21.000	-21.768	6.500	26.000	-17.811	6.500
21.100	-23.581	6.500	26.100	-21.591	6.500
21.200	-18.310	6.500	26.200	-17.450	6.500
21.300	-21.292	6.500	26.300	-16.658	6.500
21.400	-27.188	6.500	26.400	-20.587	6.500
21.500	-19.505	6.500	26.500	-18.565	6.500
21.600	-20.576	6.500	26.600	-16.423	6.500
21.700	-30.699	6.500	26.700	-19.531	6.500
21.800	-21.185	6.500	26.800	-20.665	6.500
21.900	-19.815	6.500	26.900	-17.177	6.500
22.000	-27.333	6.500	27.000	-18.942	6.500
22.100	-23.161	6.500	27.100	-23.556	6.500
22.200	-19.151	6.500	27.200	-19.153	6.500
22.300	-23.289	6.500	27.300	-19.216	6.500
22.400	-25.067	6.500	27.400	-25.939	6.500
22.500	-18.792	6.500	27.500	-23.030	6.500
22.600	-20.720	6.500	27.600	-20.767	6.500
22.700	-26.111	6.500	27.700	-26.487	6.500
22.800	-18.864	6.500	27.800	-31.101	6.500
22.900	-19.229	6.500	27.900	-24.227	6.500
23.000	-25.908	6.500	28.000	-27.453	6.500
23.100	-19.479	6.500	28.100	-34.637	6.500
23.200	-18.563	6.500	28.200	-29.070	6.500
23.300	-25.154	6.500	28.300	-32.278	6.500
23.400	-20.801	6.500	28.400	-27.767	6.500
23.500	-18.657	6.500	28.500	-25.988	6.500
23.600	-24.685	6.500	28.600	-37.212	6.500
23.700	-23.081	6.500	28.700	-26.837	6.500
23.800	-19.523	6.500	28.800	-22.321	6.500
23.900	-24.907	6.500	28.900	-25.883	6.500
24.000	-26.603	6.500	29.000	-29.094	6.500
24.100	-21.181	6.500	29.100	-21.375	6.500
24.200	-26.246	6.500	29.200	-21.569	6.500
24.300	-30.409	6.500	29.300	-28.398	6.500
24.400	-23.222	6.500	29.400	-23.082	6.500
24.500	-29.231	6.500	29.500	-20.317	6.500
24.600	-29.040	6.500	29.600	-23.979	6.500
24.700	-23.805	6.500	29.700	-28.255	6.500
24.800	-33.188	6.500	29.800	-21.800	6.500
24.900	-25.748	6.500	29.900	-22.039	6.500
			30.000	-29.983	6.500