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26th March 2018

Telecommunication Certification Body
Element Materials Technology
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Malvern
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To whom it may concern,

Subject – Attestation of Parabolic Antenna Gain FCC ID: QWP-50450I

Cambium Networks confirm that: -

During certification test the PMP/PTP 450I was tested with a 4' 35.3dBi Gain Parabolic antenna to achieve the maximum EIRP permitted while maintaining compliance to the UNII-3 requirements of Part 15.407(b)(4).

Extrapolating to use a 6' 38.4dBi Gain Parabolic antenna and maintain compliance with Part 15.407(b)(4) results in a reduction in conducted transmit power to compensate for the increased gain of the 6' parabolic antenna.

Example: -

4' Parabolic Antenna, Maximum EIRP for compliance with Part 15.407(b)(4): -
 $\text{Conducted Transmit Power} + (\text{Antenna Gain} - \text{Cable Loss}) = \text{EIRP} = 27\text{dBm} + (35.3 - 0.6) \text{ dBm} = 61.7\text{dBm EIRP}$

6' Parabolic Antenna, Maximum EIRP for compliance with Part 15.407(b)(4): -
 $\text{Conducted Transmit Power} + (\text{Antenna Gain} - \text{Cable Loss}) = \text{EIRP}$
 $\text{Conducted Transmit Power} = \text{EIRP} - (\text{Antenna Gain} - \text{Cable Loss}) = 61.7\text{dBm} - (38.4 - 0.6) \text{ dBm} = 23.9 \text{ dBm}$

$4' \text{ Conducted transmit Power} - 6' \text{ Conducted Transmit Power} = 27 - 23.9 = 3.1\text{dBm}$
 $4' \text{ Parabolic Antenna Gain} - 6' \text{ Parabolic Antenna Gain} = 35.3 - 38.4 = -3.1\text{dB}$

For compliance the reduction in Conducted Transmit Power = The increased gain of the 6' parabolic antenna

In summary to maintain product compliance with the larger 6' parabolic antenna the EIRP must be maintained at the level achieved when testing with the 4' parabolic antenna therefore while compliant use with a larger antenna does not increase EIRP, PSD or RF Hazard it reduces Conducted Transmit Power resulting in improved internally generated noise and improves Receiver Sensitivity.

Yours sincerely



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Cambium Networks Ltd