Unit B2 Linhay Business Park
Eastern Road
Ashburton
Devon
TQ13 7UP
United Kingdom

1st March 2017

Telecommunication Certification Body
UL VS Ltd
Unit 3 Horizon
Wade Road
Kingsland Business Park
Basingstoke
Hampshire
RG24 8AH
United Kingdom

Subject: FCC Class III Permissive change for FCC ID: QWP-50650

Applicant: Cambium Networks Ltd

Dear Examiner,

Regarding FCC ID: QWP-50650, we attest that we are applying under 15.407(b)(4)(ii) and that this device meets the requirements of Part 15.247(d). The emissions limits comply with Part 15.247(d) for all the antenna types supported by the product. We acknowledge that for the antenna types approved for use in this application that Cambium Networks cannot market, sell or import them after 2nd March 2018 without further approvals.

Antenna types supported: - Dual Polarized Plate Antenna, Parabolic Dish Antenna, Sectorized Antenna and OMNI Antenna.

A list of approved antennas is given in the PTP 650 User Guide, extract attached.

Sincerely yours,

Donald W Reid

Donald W Reid
CEng MIET
Principal Regulatory Engineer
Cambium Networks Ltd

Manufacturer	Antenna type	Nominal gain (dBi)	Parabolic dish	Cambium part number
MTI	2-foot Dual-Pol, MT-486013/N	28.5	Y	
MTI	2-foot Single-Pol, MT-466009/N	28.5	Y	
Gabriel	2-foot Standard Dual QuickFire Parabolic, QFD2-52-N	28.4	Y	
Gabriel	2-foot Standard Dual QuickFire Parabolic, QFD2-52-N-RK	28.4	Y	
Gabriel	2-foot High Performance QuickFire Parabolic, HQF2-52-N	28.2	Y	
Gabriel	2-foot High Performance Dual QuickFire Parabolic, HQFD2-52-N	28.1	Y	
Radio Waves	2-foot Dual-Pol Parabolic, SPD2-5.2	28.1	Y	RDH4503B
RFS	2-foot Parabolic, SPF2-52AN	27.9	Y	
Stella Doradus	2-foot Single-Pol, 56 PSD61	27	Y	
MARS	MA-WS54-50R Flat Plate (Dual-Pol)	23	N	Integrated
MTI	15 inch Dual-Pol Flat Panel, MT-485025/NVH	23	N	
Andrew	1.25-foot Flat Panel Dual, UBXP375-4-1	21	N	
Andrew	1-foot Flat Panel Single, UBP300-4-1	21	N	
MARS	Small Form Factor Flat Plate Antenna MA-EM56-DP19CM.	19	N	Integrated
Laird	60 Sectorized (Dual-Pol)	17	N	
Laird	90 Sectorized (Dual-Pol)	17	N	
KPPA	OMNI (Dual-Pol)	13	N	

Table 25 Antennas permitted for deployment in USA/Canada – 5.8 GHz

Manufacturer	Antenna type	Nominal gain (dBi)	Parabolic dish	Cambium part number
Gabriel	6-foot Standard Dual QuickFire Parabolic, QFD6-52-N	37.7	Y	
Gabriel	6-foot Standard QuickFire Parabolic, QF6-52-N	37.7	Y	
Radio Waves	6-foot Dual-Pol Parabolic, HPD6-5.2NS	37.7	Y	RDH4511B
Radio Waves	6-foot Parabolic, SP6-2/5	37.7	Y	
Radio Waves	6-foot Parabolic, SP6-5.2	37.7	Y	

Manufacturer	Antenna type	Nominal gain (dBi)	Parabolic dish	Cambium part number
Andrew	6-foot Dual-Pol Parabolic, PX6F-52	37.6	Y	
Andrew	6-foot Parabolic, P6F-52	37.6	Y	RDH4525A
Radio Waves	6-foot Dual-Pol Parabolic, SPD6-5.2	37.5	Y	RDH4506B
Gabriel	6-foot High Performance QuickFire Parabolic, HQF6-52-N	37.4	Y	
RFS	6-foot HP Parabolic, SDF6-52AN	37.4	Y	
RFS	6-foot Parabolic, SPF6-52AN	37.4	Y	
Gabriel	6-foot High Performance Dual QuickFire Parabolic, HQFD6-52-N	37.3	Y	
Andrew	4-foot Dual-Pol Parabolic, PX4F-52	34.9	Y	RDG4453B
Andrew	4-foot Parabolic, P4F-52	34.9	Y	RDH4524A
Gabriel	4-foot Standard QuickFire Parabolic, QF4-52-N	34.8	Y	
Gabriel	4-foot Standard QuickFire Parabolic, QF4-52-N-RK	34.8	Y	
Radio Waves	4-foot Parabolic, SP4-5.2	34.8	Y	
Gabriel	4-foot Standard Dual QuickFire Parabolic, QFD4-52-N	34.7	Y	
Gabriel	4-foot Standard Dual QuickFire Parabolic, QFD4-52-N-RK	34.7	Y	
Radio Waves	4-foot Dual-Pol Parabolic, HPD4-5.2NS	34.7	Y	RDH4510B
Radio Waves	4-foot Parabolic, SP4-2/5	34.6	Y	
Gabriel	4-foot High Performance QuickFire Parabolic, HQF4-52-N	34.4	Y	
Radio Waves	4-foot Dual-Pol Parabolic, SPD4-5.2	34.4	Y	RDH4505B
Gabriel	4-foot High Performance Dual QuickFire Parabolic, HQFD4-52-N	34.3	Y	
RFS	4-foot HP Parabolic, SDF4-52AN	33.9	Y	
RFS	4-foot Parabolic, SPF4-52AN	33.9	Y	
Andrew	3-foot Dual-Pol Parabolic, PX3F-52	33.4	Y	
Andrew	3-foot Parabolic, P3F-52	33.4	Y	
Stella Doradus	4-foot Single-Pol, 56 PSD113	32.4	Y	
Radio Waves	3-foot Dual-Pol Parabolic, HPD3-5.2NS	32.3	Y	RDH4509B
Radio Waves	3-foot Parabolic, SP3-2/5	31.4	Y	

Manufacturer	Antenna type	Nominal gain (dBi)	Parabolic dish	Cambium part number
Radio Waves	3-foot Parabolic, SP3-5.2	31.4	Y	RDH4513B
Gabriel	2.5-foot Standard QuickFire Parabolic, QF2.5-52-N	31.2	Y	
Gabriel	2.5-foot Standard Dual QuickFire Parabolic, QFD2.5-52-N	31.1	Y	
Radio Waves	3-foot Dual-Pol Parabolic, SPD3-5.2	31.1	Y	RDH4504B
Andrew	2-foot Dual-Pol Parabolic, PX2F-52	29.4	Y	
Andrew	2-foot Parabolic, P2F-52	29.4	Y	
MTI	3-foot Single-Pol, MT-487000/N	29	Y	
Radio Waves	2-foot Parabolic, SP2-5.2	29	Y	
Radio Waves	2-foot Dual-Pol Parabolic, HPD2-5.2NS	28.8	Y	RDH4508B
Gabriel	2-foot Standard QuickFire Parabolic, QF2-52-N	28.5	Y	
Gabriel	2-foot Standard QuickFire Parabolic, QF2-52-N-RK	28.5	Y	
MTI	2-foot Dual-Pol, MT-486013/N	28.5	Y	
MTI	2-foot Single-Pol, MT-466009/N	28.5	Y	
Gabriel	2-foot Standard Dual QuickFire Parabolic, QFD2-52-N	28.4	Y	
Gabriel	2-foot Standard Dual QuickFire Parabolic, QFD2-52-N-RK	28.4	Y	
Radio Waves	2-foot Parabolic, SP2-2/5	28.3	Y	
Gabriel	2-foot High Performance QuickFire Parabolic, HQF2-52-N	28.2	Y	
Gabriel	2-foot High Performance Dual QuickFire Parabolic, HQFD2-52-N	28.1	Y	
Radio Waves	2-foot Dual-Pol Parabolic, SPD2-5.2	28.1	Y	RDH4503B
RFS	RFS 2-foot Parabolic, SPF2-52AN	27.9	Y	
Stella Doradus	2-foot Single-Pol, 56 PSD61	27	Y	
MARS	MA-WS54-50R Flat Plate (Dual-Pol)	23	N	Integrated
MTI	15 inch Dual-Pol Flat Panel, MT-485025/NVH	23	N	
RFS	1-foot Flat Panel, MA0528-23AN	23	N	
Andrew	1.25-foot Flat Panel Dual, UBXP375-4-1	21	N	

Manufacturer	Antenna type	Nominal gain (dBi)	Parabolic dish	Cambium part number
Andrew	1-foot Flat Panel Single, UBP300-4-1	21	N	
MARS	Small Form Factor Flat Plate Antenna MA-EM56-DP19CM.	19	N	Integrated
Laird	60 Sectorized (Dual-Pol)	17	N	
Laird	90 Sectorized (Dual-Pol)	17	N	
KPPA	OMNI Dual-Pol)	13	N	