Client:	Ubiquiti Networks	Job Number:	J86147
Model:	UniFi Pro	T-Log Number:	T86160
		Account Manager:	Susan Pelzl
Contact:	Jennifer Sanchez		
Standard:	FCC 15.247/EN 300 328	Class:	N/A

Maximum Permissible Exposure

Test Specific Details

Objective: The objective of this test session is to perform final qualification testing of the EUT with respect to the specification listed above.

Date of Test: 3/16/2012

Test Engineer: Mark Hill

General Test Configuration

Calculation uses the free space transmission formula:

$$S = (PG)/(4 \pi d^2)$$

Where: S is power density (W/m^2), P is output power (W), G is antenna gain relative to isotropic, d is separation distance from the transmitting antenna (m).

Summary of Results

Device complies with Power Density requirements at 20cm separation:	Yes/No
If not, required separation distance (in cm):	

Modifications Made During Testing

No modifications were made to the EUT during testing

Deviations From The Standard

No deviations were made from the requirements of the standard.

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Use: General
Antenna: 2.4 GHz - 4dBi/chain, effective gain of 8.8dBi
5 GHz - 4dBi/chain, effective gain of 7.0dBi

Single Transmission Calculation

Freq. MHz	EUT Power dBm	EUT Power mW*	Cable Loss dB	Ant Gain dBi	Power at Ant dBm	EIRP mW	Power Density (S) at 20 cm mW/cm^2	MPE Limit at 20 cm mW/cm^2
802.11b								
2412	16.8	47.9	0	8.8	16.8	363.08	0.072	1.000
2437	18.0	63.1	0	8.8	18.0	478.63	0.095	1.000
2462	17.7	58.9	0	8.8	17.7	446.68	0.089	1.000
802.11g								
2412	16.0	39.8	0	8.8	16.0	302.00	0.060	1.000
2437	17.1	51.3	0	8.8	17.1	389.05	0.077	1.000
2462	17.2	52.5	0	8.8	17.2	398.11	0.079	1.000
802.11n20								
2412	18.2	66.1	0	8.8	18.2	501.19	0.100	1.000
2437	18.5	70.8	0	8.8	18.5	537.03	0.107	1.000
2462	17.5	56.2	0	8.8	17.5	426.58	0.085	1.000
802.11n40								
2422	11.3	13.5	0	8.8	11.3	102.33	0.020	1.000
2437	11.6	14.5	0	8.8	11.6	109.65	0.022	1.000
2452	11.7	14.8	0	8.8	11.7	112.20	0.022	1.000

Freq. MHz	EUT Power dBm	EUT Power mW*	Cable Loss dB	Ant Gain dBi	Power at Ant dBm	EIRP mW	Power Density (S) at 20 cm mW/cm^2	MPE Limit at 20 cm mW/cm^2
802.11a								
5745	20.2	104.7	0	7	20.2	524.81	0.104	1.000
5785	25.0	316.2	0	7	25.0	1584.89	0.315	1.000
5825	23.7	234.4	0	7	23.7	1174.90	0.234	1.000
802.11n20								
5745	19.8	95.5	0	7	19.8	478.63	0.095	1.000
5785	24.7	295.1	0	7	24.7	1479.11	0.294	1.000
5825	23.7	234.4	0	7	23.7	1174.90	0.234	1.000
802.11n40								
5755	15.1	32.4	0	7	15.1	162.18	0.032	1.000
5795	25.0	316.2	0	7	25.0	1584.89	0.315	1.000

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EMC Test Data

Client:	Ubiquiti Networks	Job Number:	J86147
Model:	UniFi Pro	T-Log Number:	T86160
		Account Manager:	Susan Pelzl
Contact:	Jennifer Sanchez		
Standard:	FCC 15.247/EN 300 328	Class:	N/A

Freq. MHz	EUT Power dBm	EUT Power mW*	Cable Loss dB	Ant Gain dBi	Power at Ant dBm	EIRP mW	Power Density (S) at 20 cm mW/cm^2	MPE Limit at 20 cm mW/cm^2
802.11a								
5180	15.0	31.6	0	7	15.0	158.49	0.032	1.000
5200	15.2	33.1	0	7	15.2	165.96	0.033	1.000
5240	15.1	32.4	0	7	15.1	162.18	0.032	1.000
802.11n20								
5180	14.9	30.9	0	7	14.9	154.88	0.031	1.000
5200	15.1	32.4	0	7	15.1	162.18	0.032	1.000
5240	15.1	32.4	0	7	15.1	162.18	0.032	1.000
802.11n40								
5190	15.3	33.9	0	7	15.3	169.82	0.034	1.000

Multiple Transmission Calculation - Worse case calcuation of one 2.4GHz transmission and one 5.8GHz DTS transmission

Band	Mode	Output Power Peak	Output Power Average	Antenna gain (Max)	EIRP dBm	EIRP W	Channels Available	Channels Used	Total EIRP W	Total EIRP dBm
2400 - 2483.5	OFDM	-	18.5	8.8	27.3	0.537	11	1	0.537	27.30
2401 - 2483.5	CCK	-	18.0	8.8	26.8	0.479				
5150 - 5250	OFDM	-	15.3	7.0	22.3	0.170	4	0	-	-
5725 - 5850	OFDM	-	25.0	7.0	32.0	1.585	5	1	1.585	32.00
							Totals:	2	2.122	33.27

Total Power Density: 0.4221 mW/cm^2 @ 20cm