

Client:	TopCon Positioning Systems	Job Number:	J93450
Model:	FCC ID: WR4-TPSWT41	T-Log Number:	-
		Account Manager:	-
Contact:	Ferdinand Riodique		
Standard:	-	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: 12/11/2013
 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/m²), 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
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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.

Notes:

FCC ID: WR4-TPSWT41, 2.4GHz, BT radio module can be co-located with either FCC ID: QIPPHS8-P

MPE calculations based on the antennas Topcon will use with the two modules.

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Total EIRP calculation - BT + HSPA combination

Band	Mode	Output Power		Antenna gain (Max)	EIRP		Channels Available	Channels Used	Total EIRP	
		Peak	Average		dBm	W			W	dBm
824.2	-	-	30.5	3.0	33.5	2.234	Varies	1	2.234	33.49
1900	-	-	27.3	3.0	30.3	1.072	Varies	0	0.000	-
2400-2483	BT	-	16.1	2.3	18.4	0.070	79	1	0.070	18.43
Totals:								2	2.303	33.62

Freq. MHz	EUT Power		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
	dBm	mW*						
824.5	-	-	-	-	-	2233.57	0.444	0.550
2400	-	-	-	-	-	70.00	0.014	1.000
Total:							0.458	

Freq. MHz	Power Density at 20 cm mW/cm ²	MPE Limit* at 20 cm mW/cm ²	Distance where S <= MPE Limit cm
824.5	0.458	0.550	18.3

* - worse case limit applied