

Tune-up procedure for RADWIN JET DUO 3.x GHz

Tune-up procedure as required by FCC rule 2.1033(c)(9).

The tune-up procedure calibrates the RADWIN JET DUO 3.x GHz to comply with the limits as defined by the certification. The tune-up procedure is performed on the RF Module. Each tune-up sequence has three phases:

1. Calibration of pre-defined frequency channel.
2. Verification of the output power limit.
3. Verification of the output power on predefined frequency channels

The calibration is performed with a calibrated power meter.

Calibration sequence example

1. Setting the tested frequency channel
2. Setting the a default value to the DAC
3. Reading the measured power from power meter
4. Comparing the measured value with the target power
5. If the measured value ≤ 2 dB from target value PASS
6. If the measured value > 2 dB from target value, set a new value to the DAC
7. Repeat items 3 to 5 until PASS
8. Setting an un-calibrated frequency channel to be verified.
9. If the verification fails the test fails.

Following is a calibration output sample

RF MODULE CALIBRATION																	
Test Num	P/N	S/N	Overall Status	Calibration	User	Cal frequency	Cal tx chain	Cal tx setting	Cal target pwr	Cal meas. pwr	Test frequency	Test tx chain	Test target	Test meas. pwr	Test delta		
1	AP0147610	D360000000	Pass	Pass	Administrator	3450	3	28	30	-9.3	3500	3	30	9.5	-0.5		
						3450	3	64	30	10.4	3500	2	30	9.8	-0.2		
						3450	2	28	30	-13.7	3500	3	30	10.3	0.3		
						3450	2	73	30	10.9	3650	3	30	9.4	-0.6		
						3450	3	28	30	-5.7	3650	2	30	10.3	0.3		
						3450	3	68	30	10.3	3650	3	30	10.9	0.9		
						3600	3	36	30	8.8							
						3600	2	36	30	0.3							
						3600	2	20	30	8.6							
						3600	3	36	30	10.2							
						3700	3	23	30	9.3							
						3700	2	23	30	3.7							
						3700	2	33	30	9							
						3700	3	23	30	0.1							
						3700	3	33	30	11							
ANTENNA CALIBRATION																	
Test Idx	Test Status	ANT_PN_Lab	Serial_Number	Freq	TxPower	RF CH	Phase	ANT Mode	V-H	Low Limit	High Limit	Result	RF_Test_Status	AVG_3c3_H	AVG_3c3_V	AVG_2c2	AVG_2c2_V2
55	Pass	AP0155970	A3000000038	3500	7	0	0	3c3	H	1223	903	1083	Pass				
55	Pass	AP0155970	A3000000038	3500	7	0	7	3c3	H	1223	903	1130	Pass				
55	Pass	AP0155970	A3000000038	3500	7	2	0	3c3	V	1283	963	1122	Pass				
55	Pass	AP0155970	A3000000038	3500	7	2	7	3c3	V	1283	963	1180	Pass				
55	Pass	AP0155970	A3000000038	3500	7	0	0	3c3	H	1223	903	1080	Pass				
55	Pass	AP0155970	A3000000038	3500	7	0	7	3c3	H	1223	903	1131	Pass				
55	Pass	AP0155970	A3000000038	3500	7	2	0	3c3	V	1283	963	1131	Pass				
55	Pass	AP0155970	A3000000038	3500	7	2	7	3c3	V	1283	963	1190	Pass				
55	Pass	AP0155970	A3000000038	3500	7	3	0	3c3	V	1283	963	1229	Pass				
55	Pass	AP0155970	A3000000038	3500	7	0	0	3c3	H	1223	903	1042	Pass				
55	Pass	AP0155970	A3000000038	3500	7	0	7	3c3	H	1223	903	1083	Pass				
55	Pass	AP0155970	A3000000038	3500	7	1	0	3c3	V	1283	963	1073	Pass				
55	Pass	AP0155970	A3000000038	3500	7	1	7	3c3	V	1283	963	1131	Pass				
55	Pass	AP0155970	A3000000038	3500	7	1	0	2c2	V	1223	903	1053	Pass				
55	Pass	AP0155970	A3000000038	3500	7	3	0	2c2	V	1223	903	1053	Pass				
55	Pass	AP0155970	A3000000038	3500	7	1	0	2c2	V	1223	903	1073	Pass				
55	Pass	AP0155970	A3000000038	3400	7	-	-	-	-	-	-	Pass		1100	1028	1095	1130
55	Pass	AP0155970	A3000000038	3600	7	-	-	-	-	-	-	Pass		1076	1087	1201	1188
55	Pass	AP0155970	A3000000038	3800	7	-	-	-	-	-	-	Pass		1054	1041	1064	1155