

8. Power Density

8.1. Test Equipment

The following test equipment is used during the test:

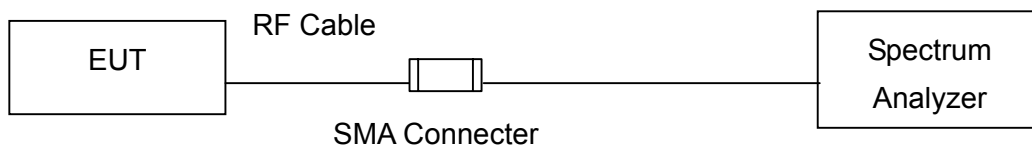
Power Density / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
EXA Signal Analyzer	Agilent	N9010A-EXA	US47140172	2013/07/31

Note: 1. All equipments that need to calibrate are with calibration period of 1 year.

8.2. Test Setup

IEEE 802.11 b / g / a / n (20M / 40M) MODE



8.3. Limits

The peak power spectral density conducted from the intentional radiated to the antenna shall not be greater than +8dBm in any 3kHz band during any time interval of continuous transmission.

8.4. Test Procedures

The EUT was setup according to ANSI C63.4: 2009; tested according to DTS test procedure of Jan. 2012 KDB558074 for compliance to FCC 47CFR 15.247 requirements.

Set RBW= 100 kHz, Set VBW= 300 kHz, Sweep time=Auto, Set detector=Peak detector

8.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2012

8.6. Uncertainty

The measurement uncertainty is defined as $\pm 1.27\text{dB}$.

8.7. Test Result

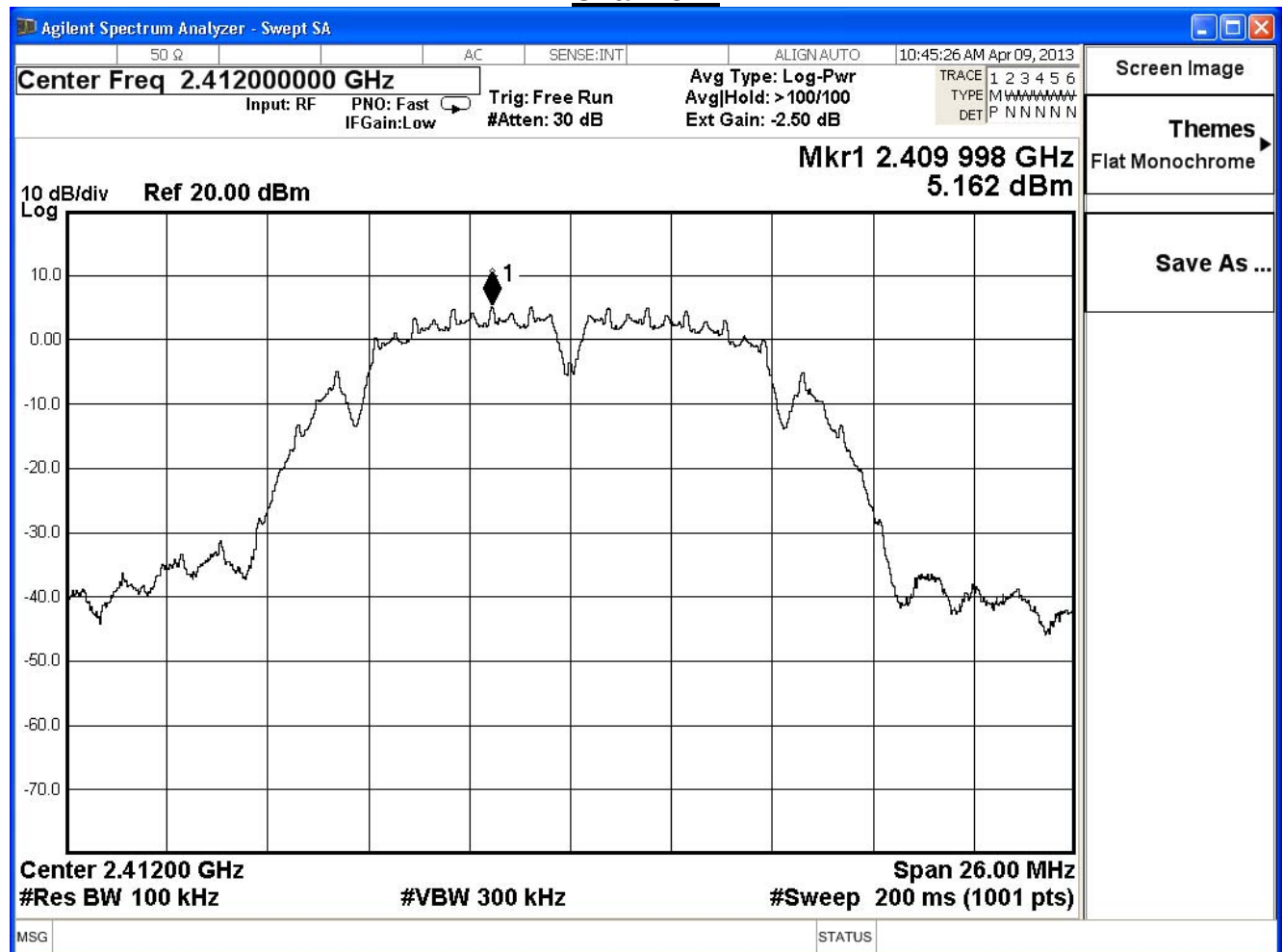
Product	Wireless-N300 Cloud Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit (DSA-12PFA-09)		
Date of Test	2013/04/09	Test Site	SR7

IEEE 802.11b					
Channel No.	Frequency (MHz)	Reading Level (dBm)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	5.162	-10.038	≤ 8	Pass
6	2437	5.109	-10.091	≤ 8	Pass
11	2462	5.671	-9.529	≤ 8	Pass

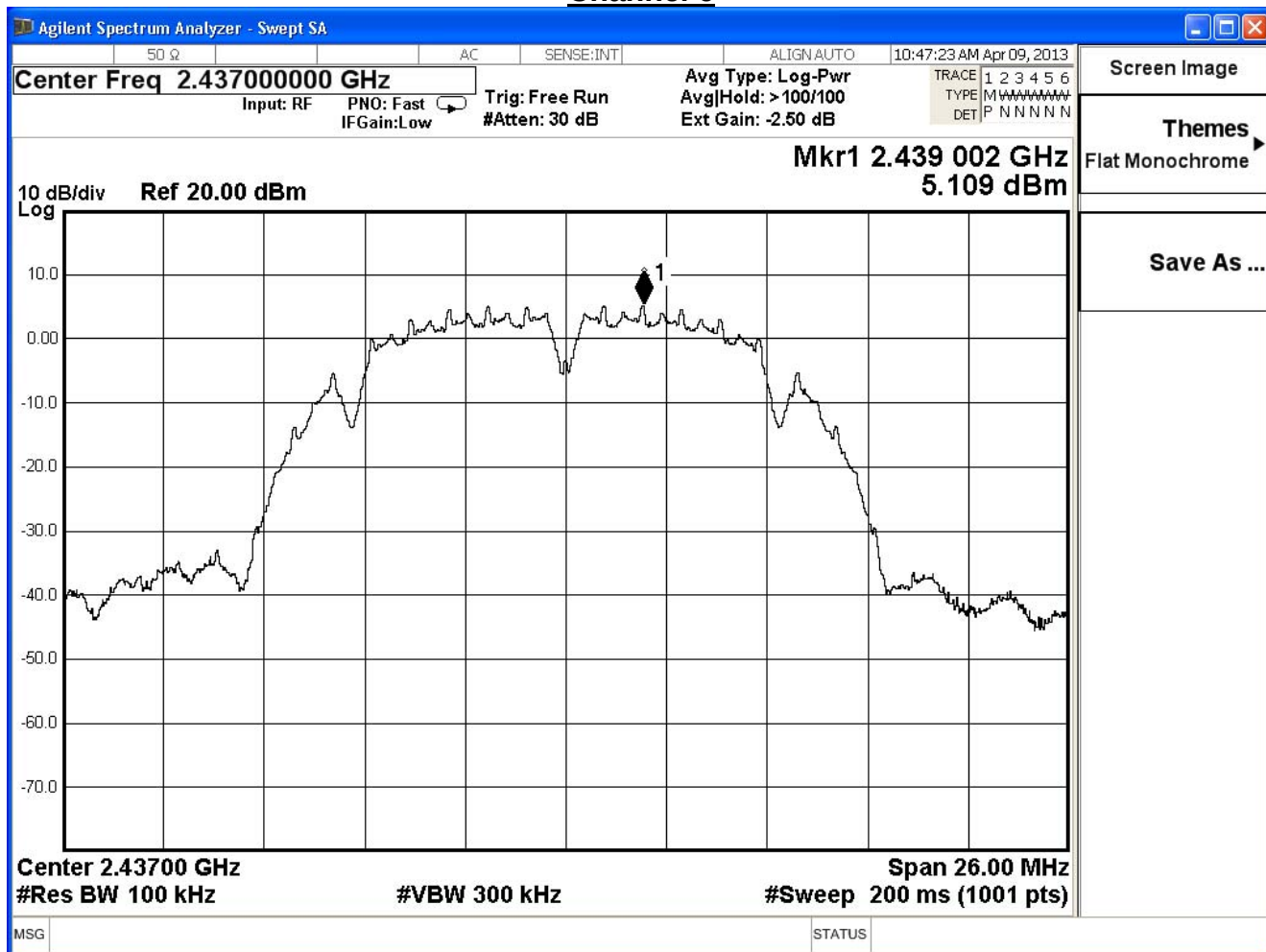
Note: Measure Level = Reading level + BWCF = Reading level -15.2 dB

Bandwidth correction factor (BWCF) = $10\log(3\text{ kHz}/100\text{ kHz})$

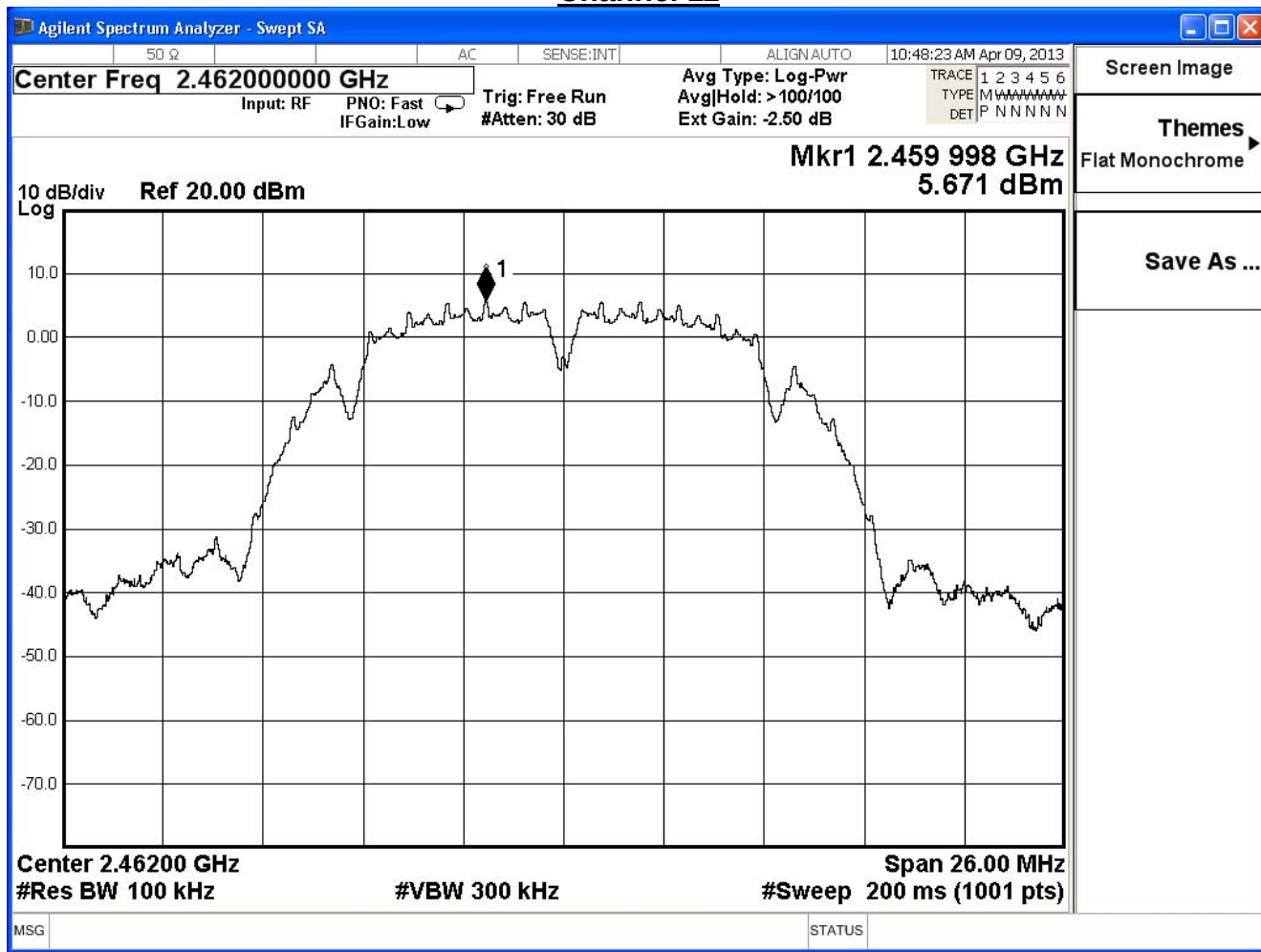
Channel 1



Channel 6



Channel 11



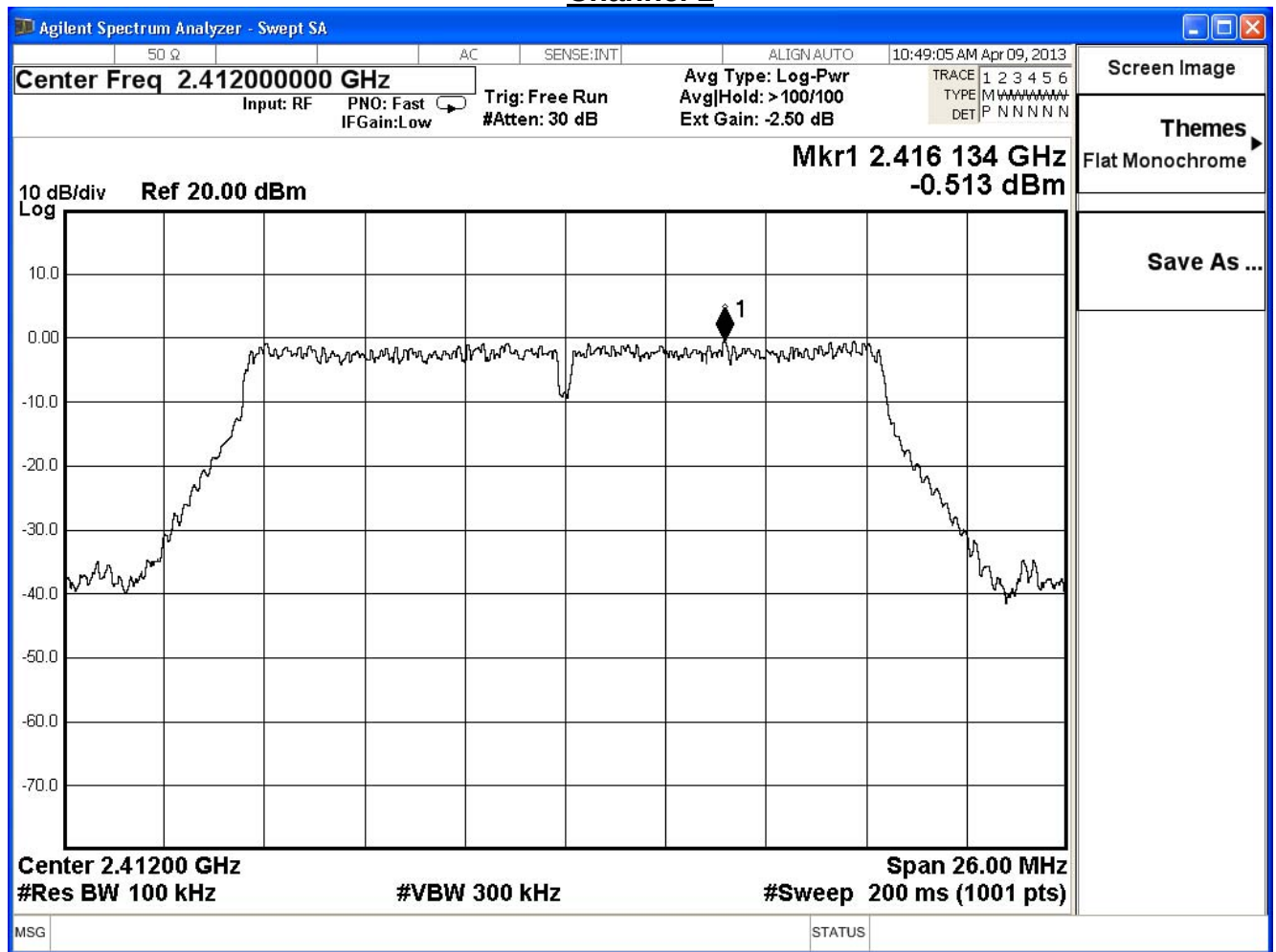
Product	Wireless-N300 Cloud Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit (DSA-12PFA-09)		
Date of Test	2013/04/09	Test Site	SR7

IEEE 802.11g					
Channel No.	Frequency (MHz)	Reading Level (dBm)	Measurement (dBm)	Limit (dBm)	Result
1	2412	-0.513	-15.713	≤ 8	Pass
6	2437	4.801	-10.399	≤ 8	Pass
11	2462	-1.592	-16.792	≤ 8	Pass

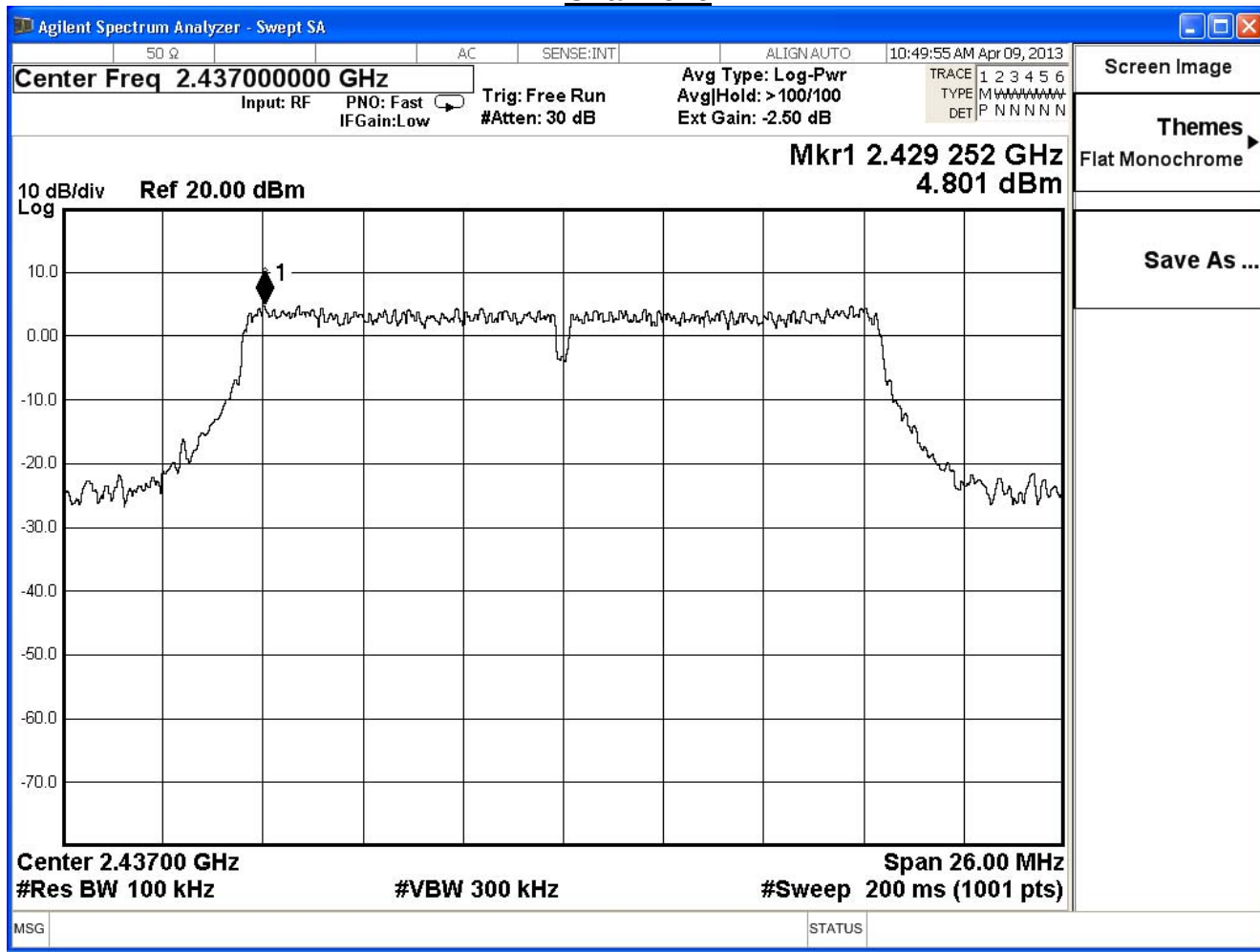
Note: Measure Level = Reading level + BWCF = Reading level -15.2 dB

Bandwidth correction factor (BWCF) = $10\log(3\text{ kHz}/100\text{kHz})$

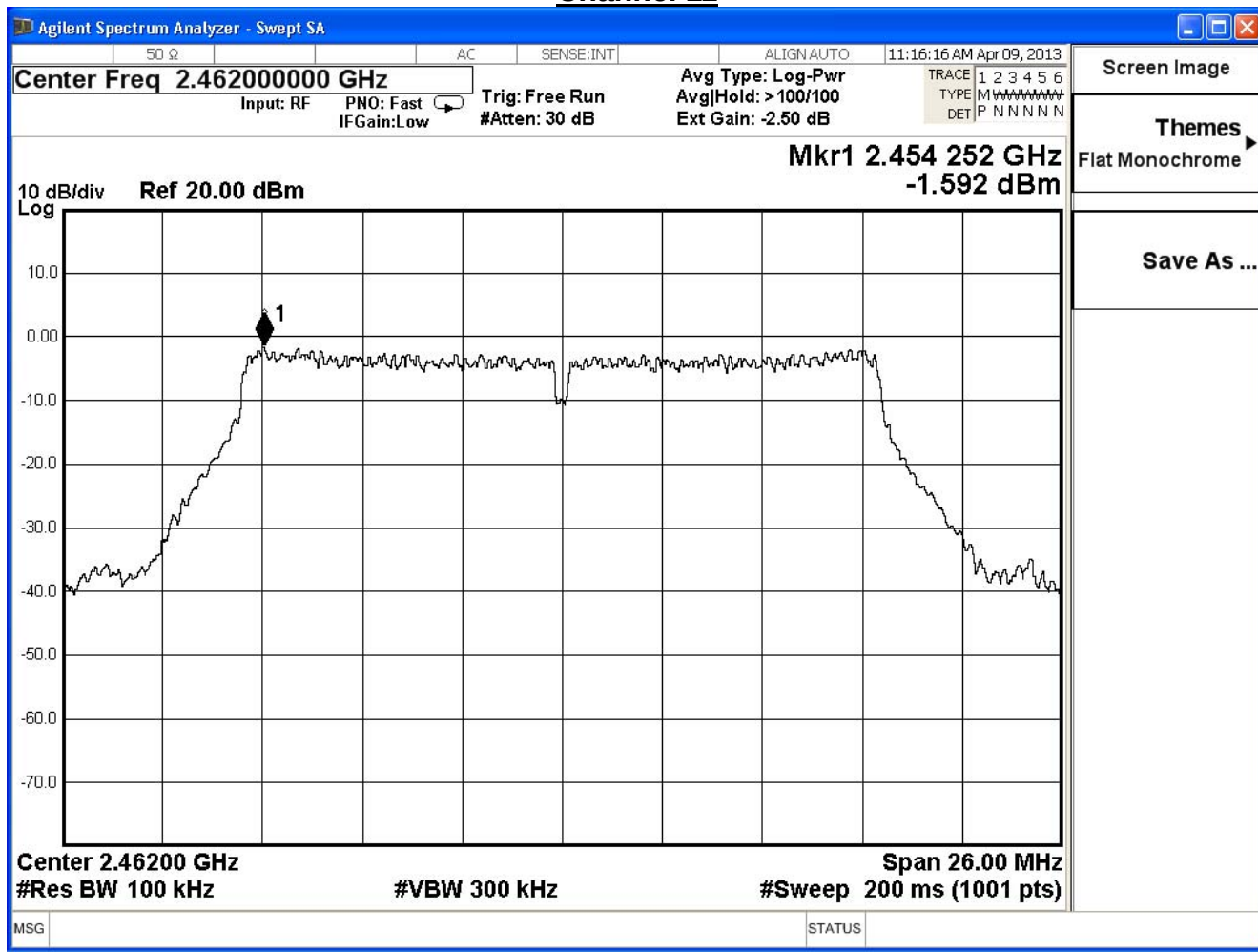
Channel 1



Channel 6



Channel 11



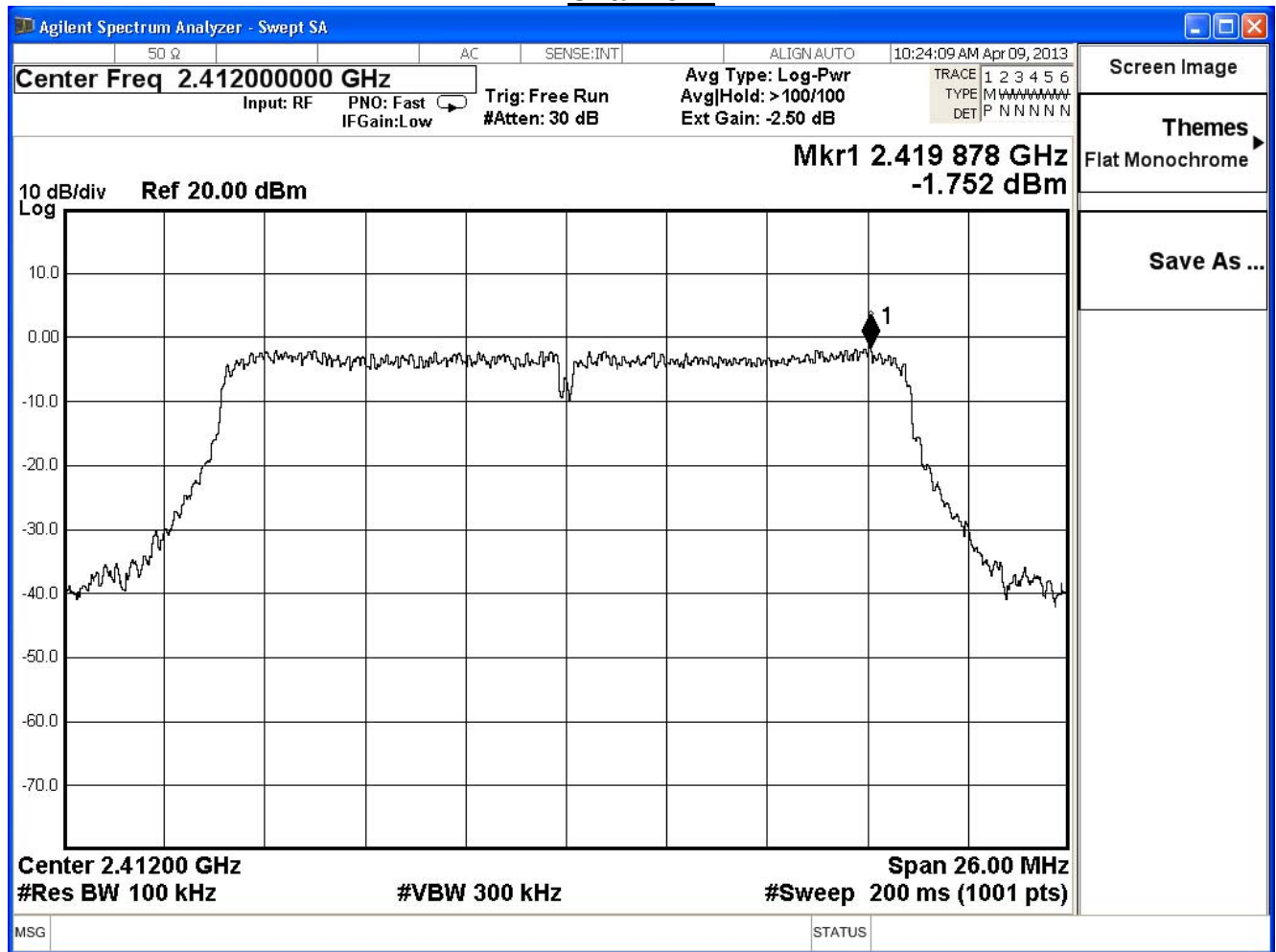
Product	Wireless-N300 Cloud Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit (DSA-12PFA-09)		
Date of Test	2013/04/09	Test Site	SR7

IEEE802.11n_20MHz_(ANT 0)					
Channel No.	Frequency (MHz)	Reading Level (dBm)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	-1.752	-16.952	≤ 8	Pass
6	2437	4.807	-10.393	≤ 8	Pass
11	2462	-1.878	-17.078	≤ 8	Pass

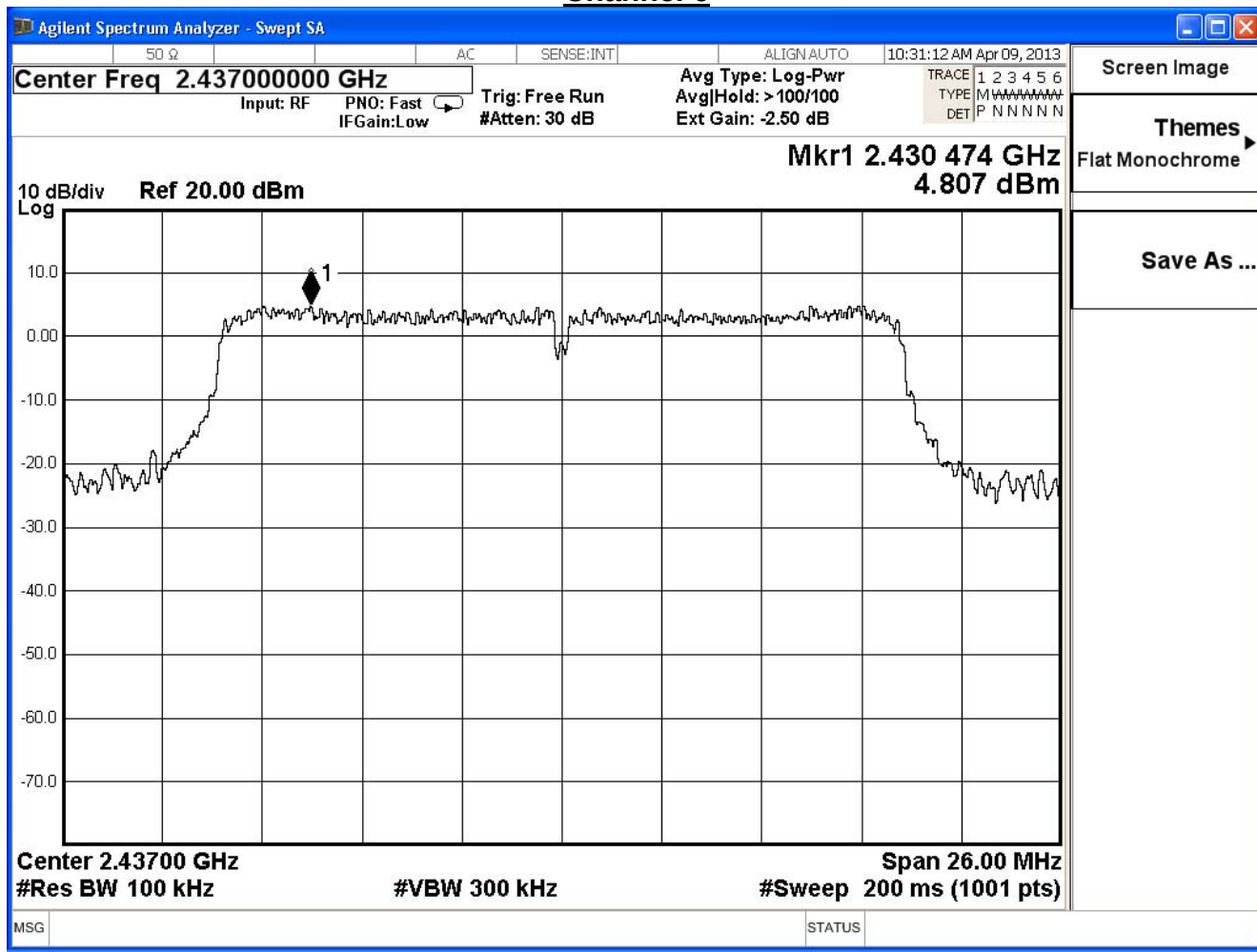
Note: Measure Level = Reading level + BWCF = Reading level -15.2 dB

Bandwidth correction factor (BWCF) = $10\log(3\text{ kHz}/100\text{kHz})$

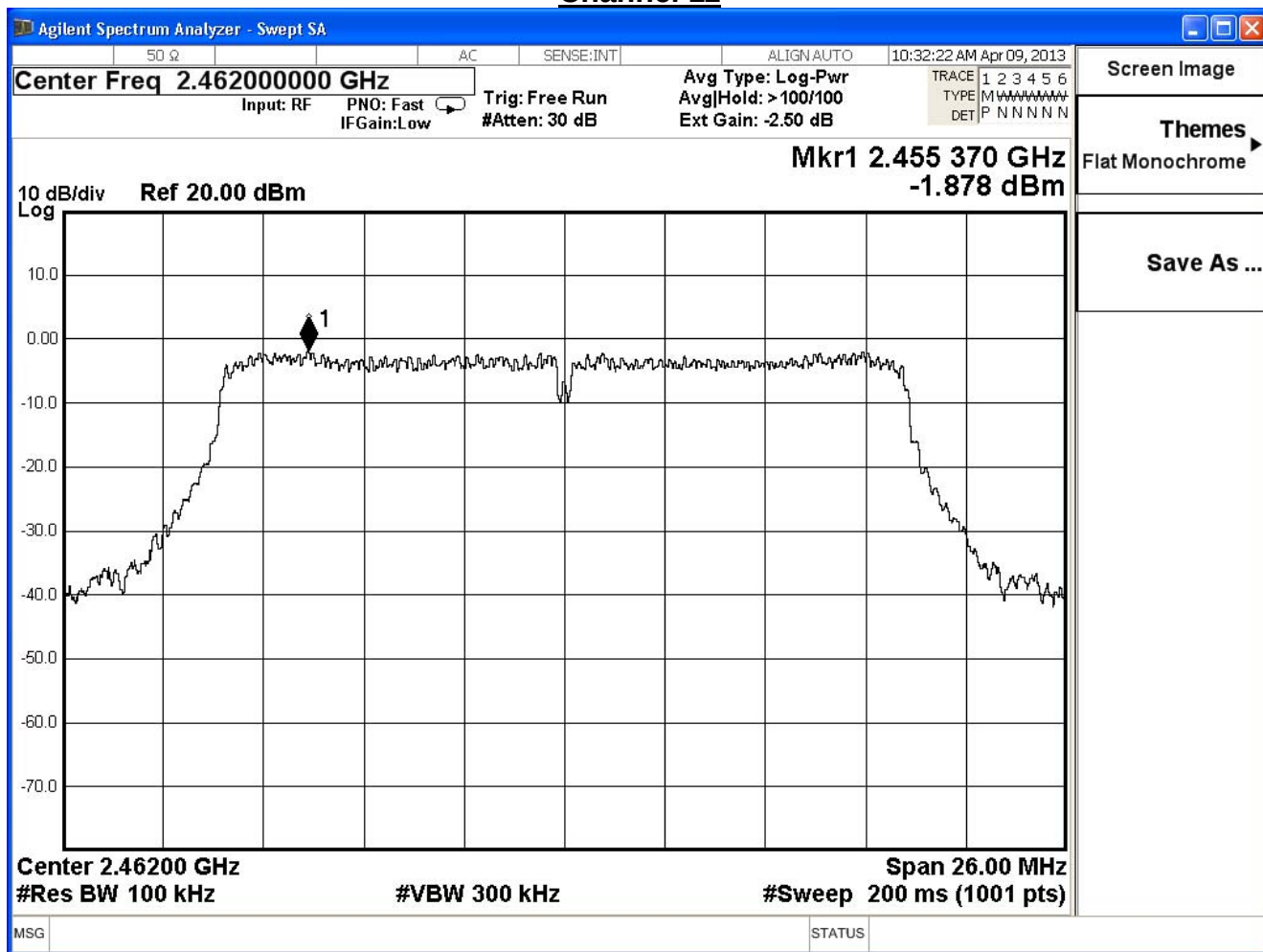
Channel 1



Channel 6



Channel 11



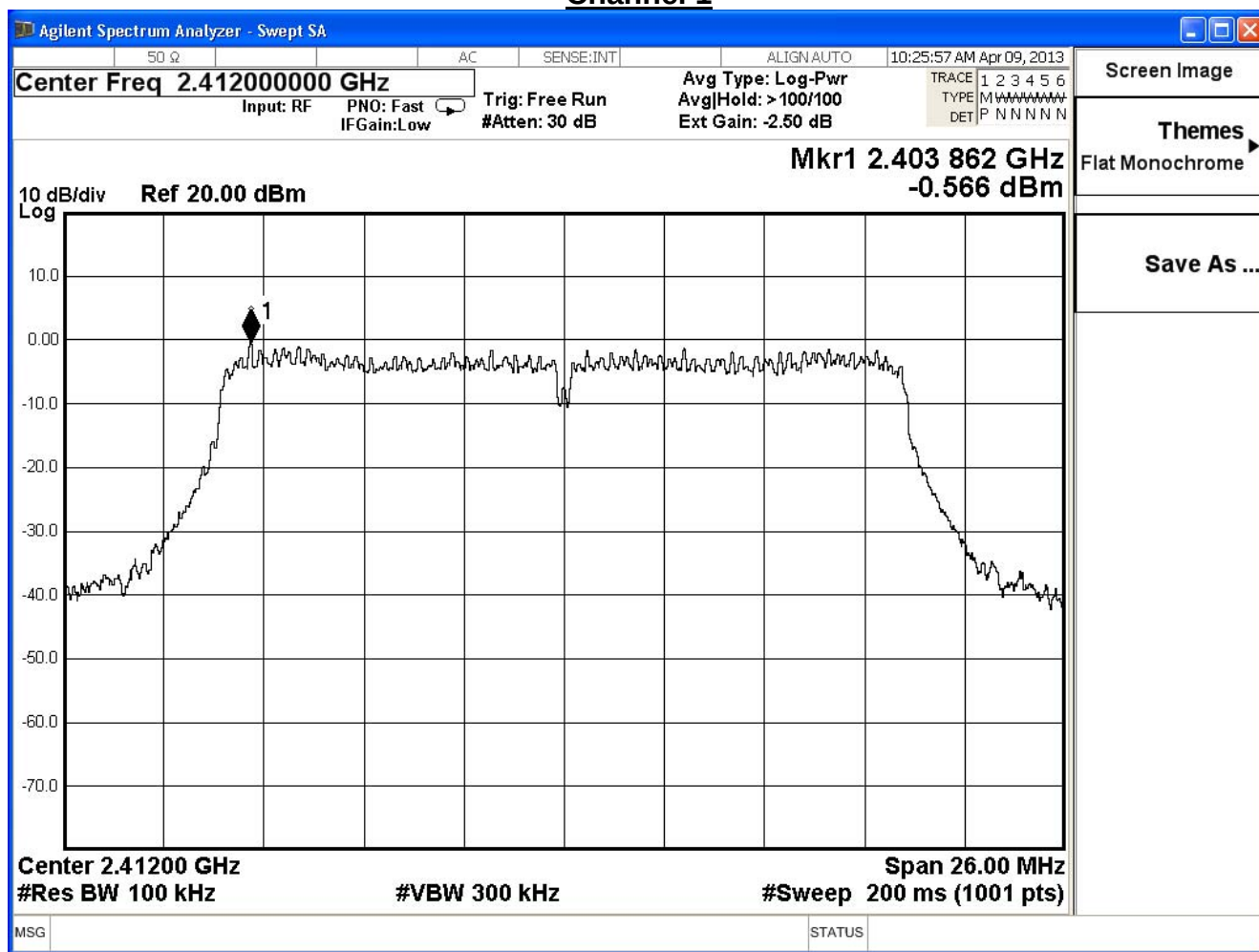
Product	Wireless-N300 Cloud Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit (DSA-12PFA-09)		
Date of Test	2013/04/09	Test Site	SR7

IEEE802.11n_20MHz_(ANT 1)					
Channel No.	Frequency (MHz)	Reading Level (dBm)	Measurement (dBm)	Limit (dBm)	Result
1	2412	-0.566	-15.766	≤ 8	Pass
6	2437	6.060	-9.140	≤ 8	Pass
11	2462	-0.912	-16.112	≤ 8	Pass

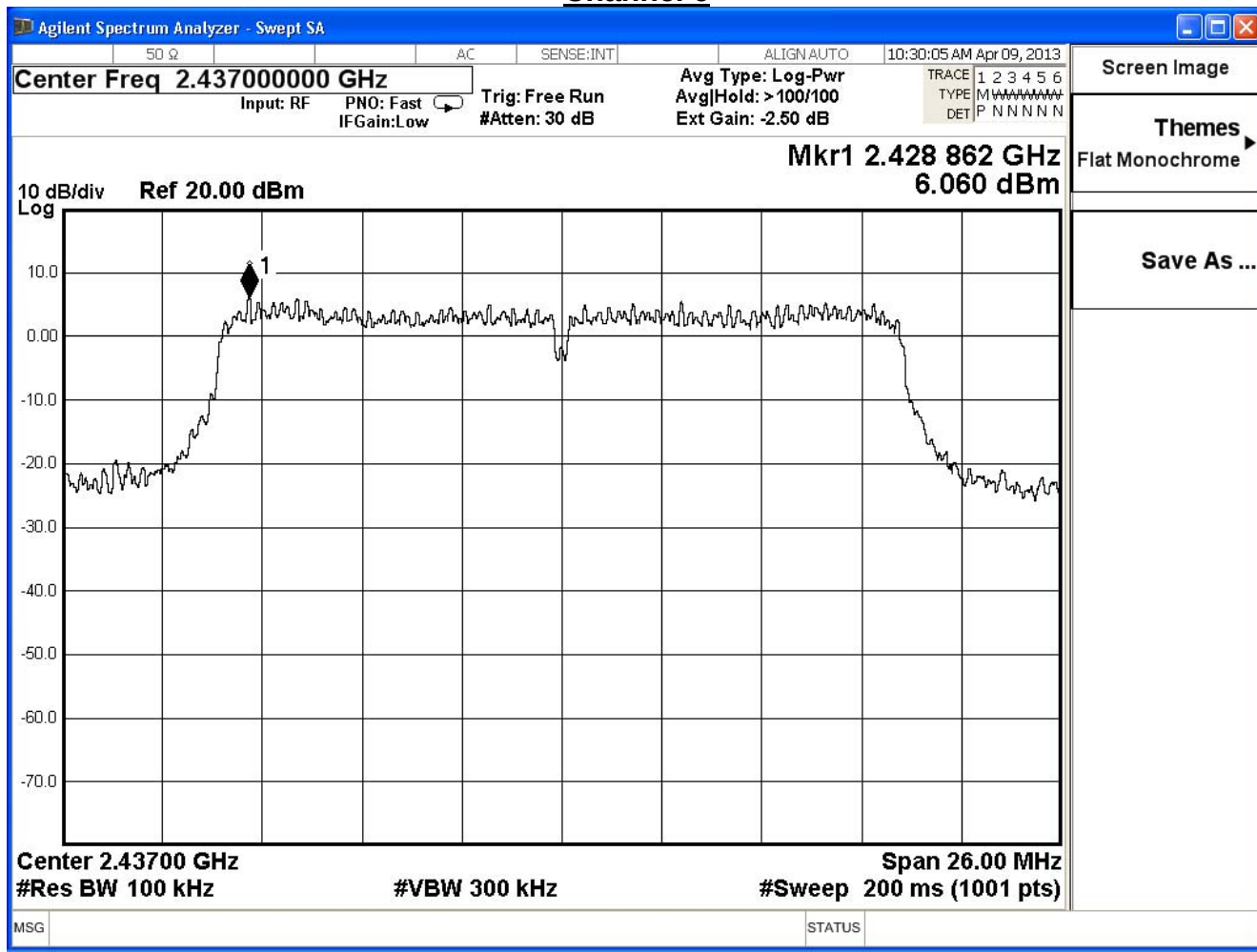
Note: Measure Level = Reading level + BWCF = Reading level -15.2 dB

Bandwidth correction factor (BWCF) = $10\log(3\text{ kHz}/100\text{kHz})$

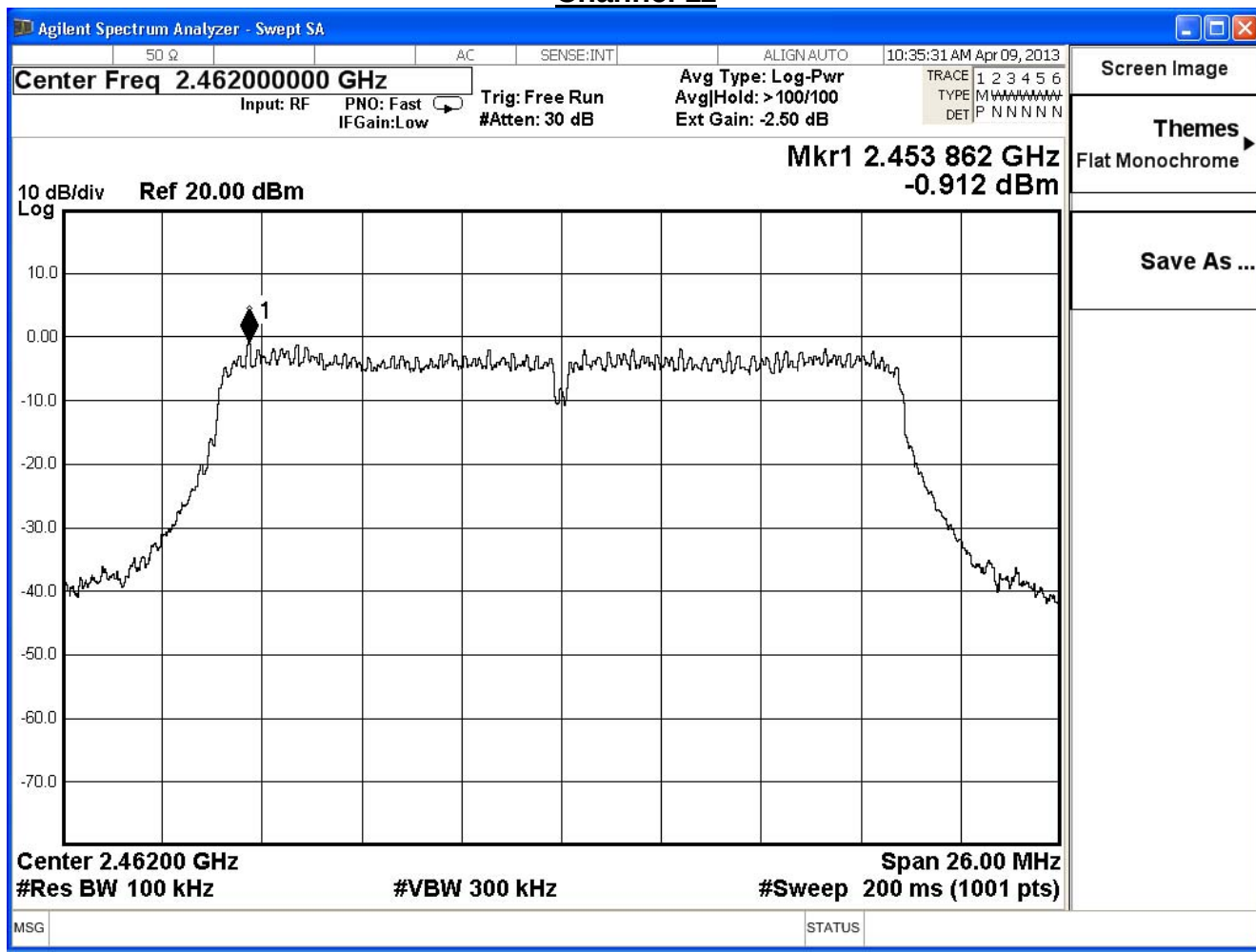
Channel 1



Channel 6



Channel 11



Product	Wireless-N300 Cloud Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit (DSA-12PFA-09)		
Date of Test	2013/04/09	Test Site	SR7

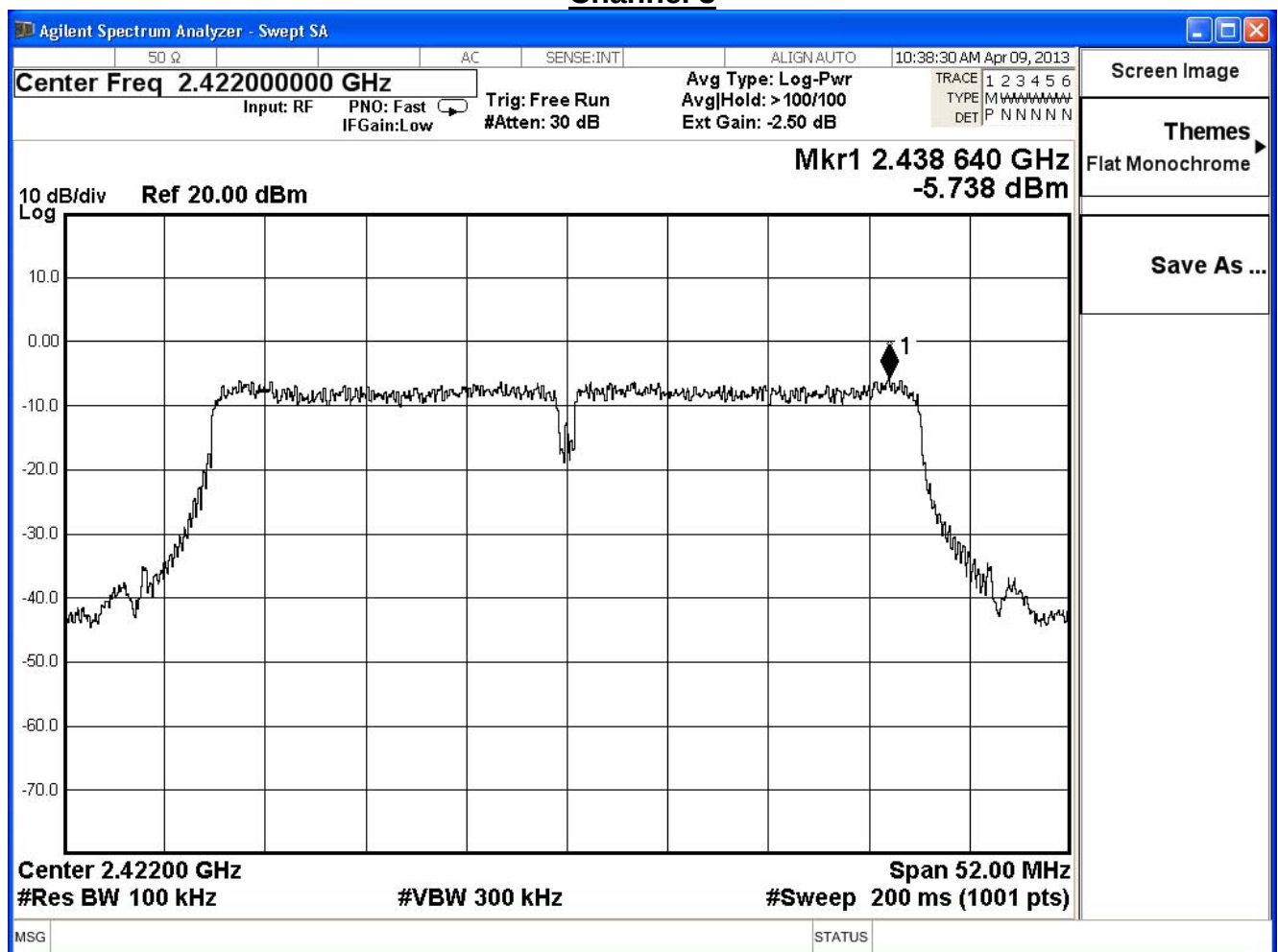
IEEE802.11n 20MHz (ANT 0+1)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	-13.31	≤ 8	Pass
6	2437	-6.71	≤ 8	Pass
11	2462	-13.56	≤ 8	Pass

Product	Wireless-N300 Cloud Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit (DSA-12PFA-09)		
Date of Test	2013/04/09	Test Site	SR7

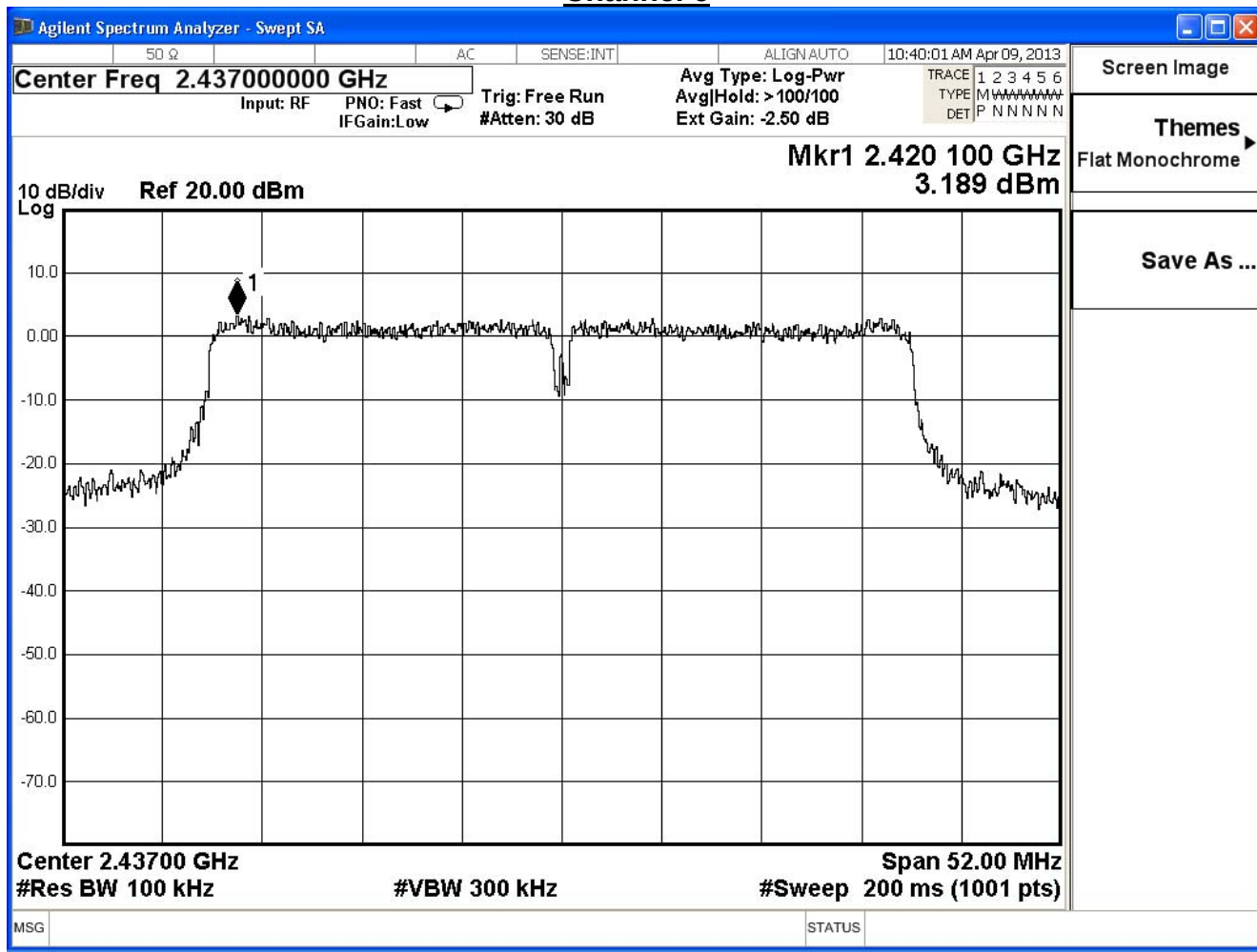
IEEE 802.11n_40MHz (ANT 0)					
Channel No.	Frequency (MHz)	Reading Level (dBm)	Measurement (dBm)	Limit (dBm)	Result
3	2422	-5.738	-20.938	≤ 8	Pass
6	2437	3.189	-12.011	≤ 8	Pass
9	2452	-11.482	-26.682	≤ 8	Pass

Note: Measure Level = Reading level + BWCF = Reading level -15.2 dB
 Bandwidth correction factor (BWCF) = $10\log(3\text{ kHz}/100\text{kHz})$

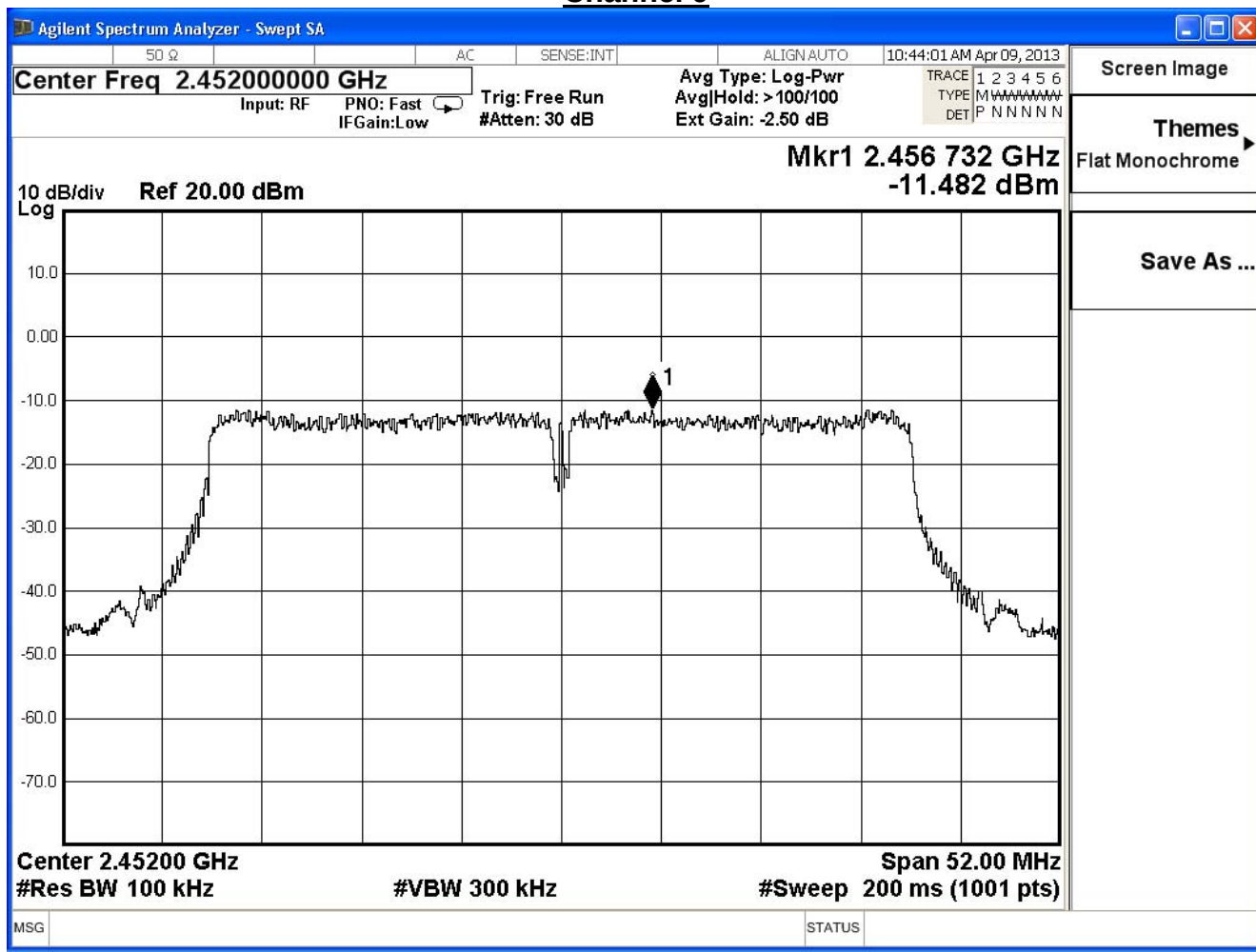
Channel 3



Channel 6



Channel 9



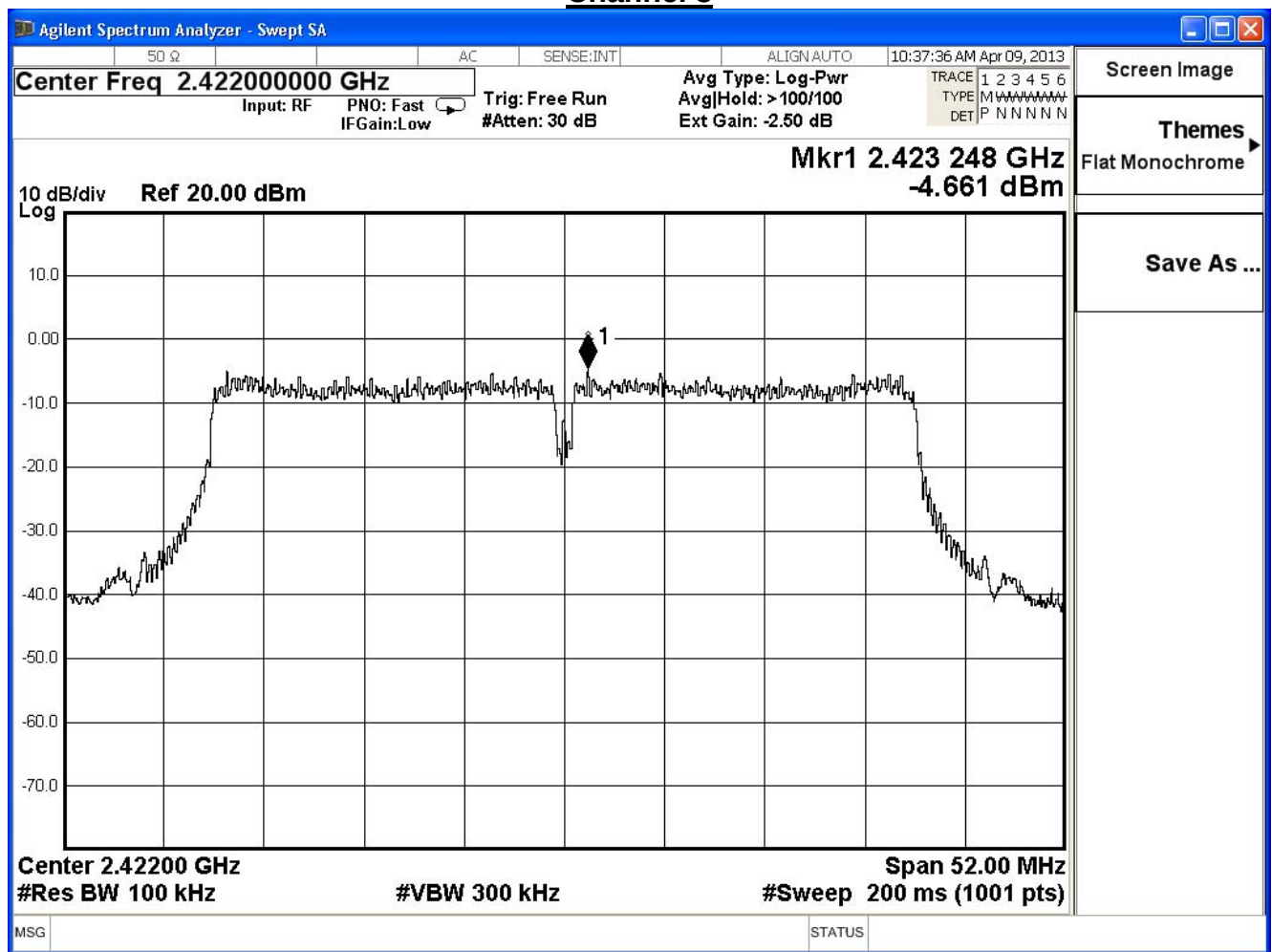
Product	Wireless-N300 Cloud Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit (DSA-12PFA-09)		
Date of Test	2013/04/09	Test Site	SR7

IEEE 802.11n_40MHz (ANT 1)					
Channel No.	Frequency (MHz)	Reading Level (dBm)	Measure Level (dBm)	Limit (dBm)	Result
3	2422	-4.661	-19.861	≤ 8	Pass
6	2437	2.151	-13.049	≤ 8	Pass
9	2452	-10.894	-26.094	≤ 8	Pass

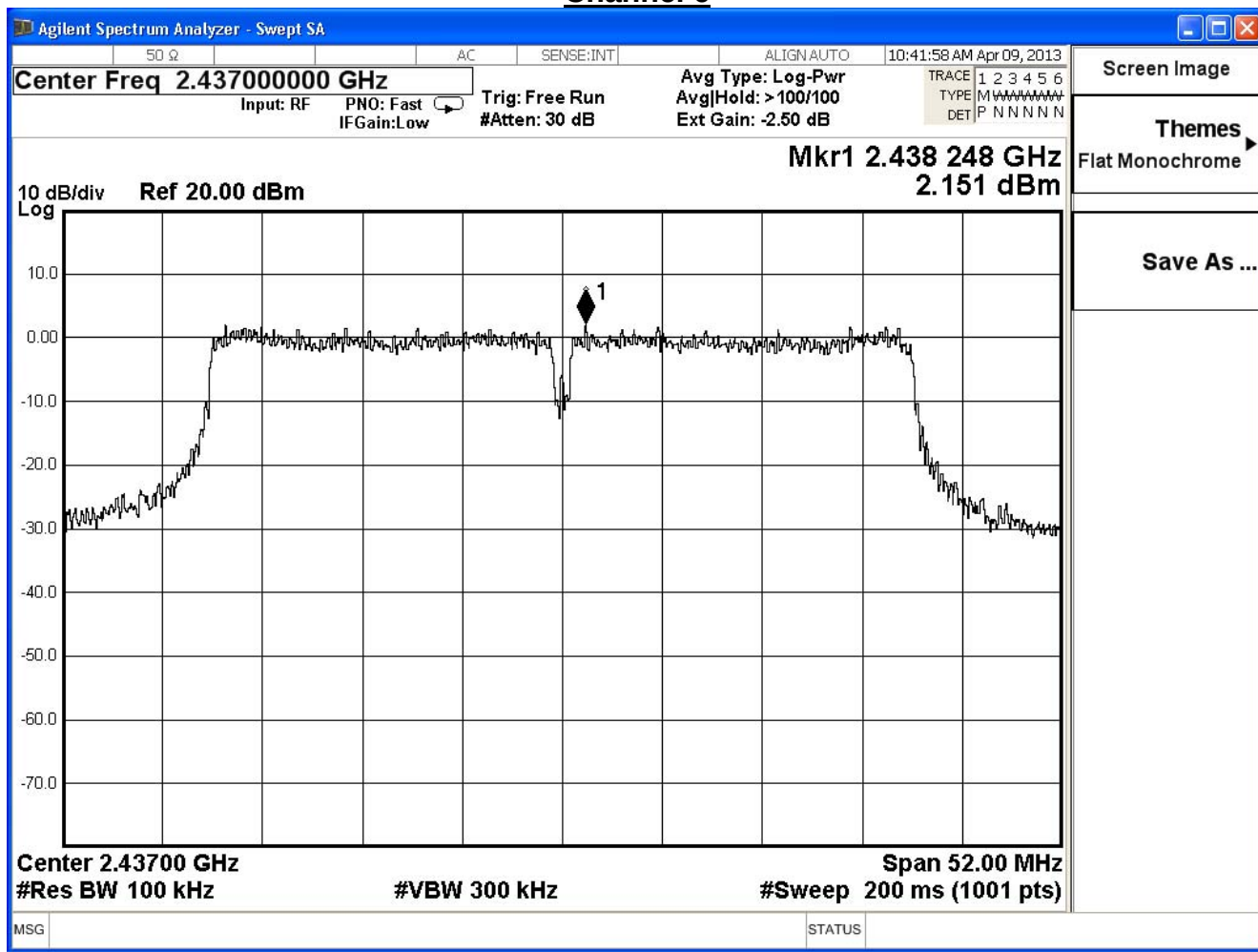
Note: Measure Level = Reading level + BWCF = Reading level -15.2 dB

Bandwidth correction factor (BWCF) = $10\log(3\text{ kHz}/100\text{kHz})$

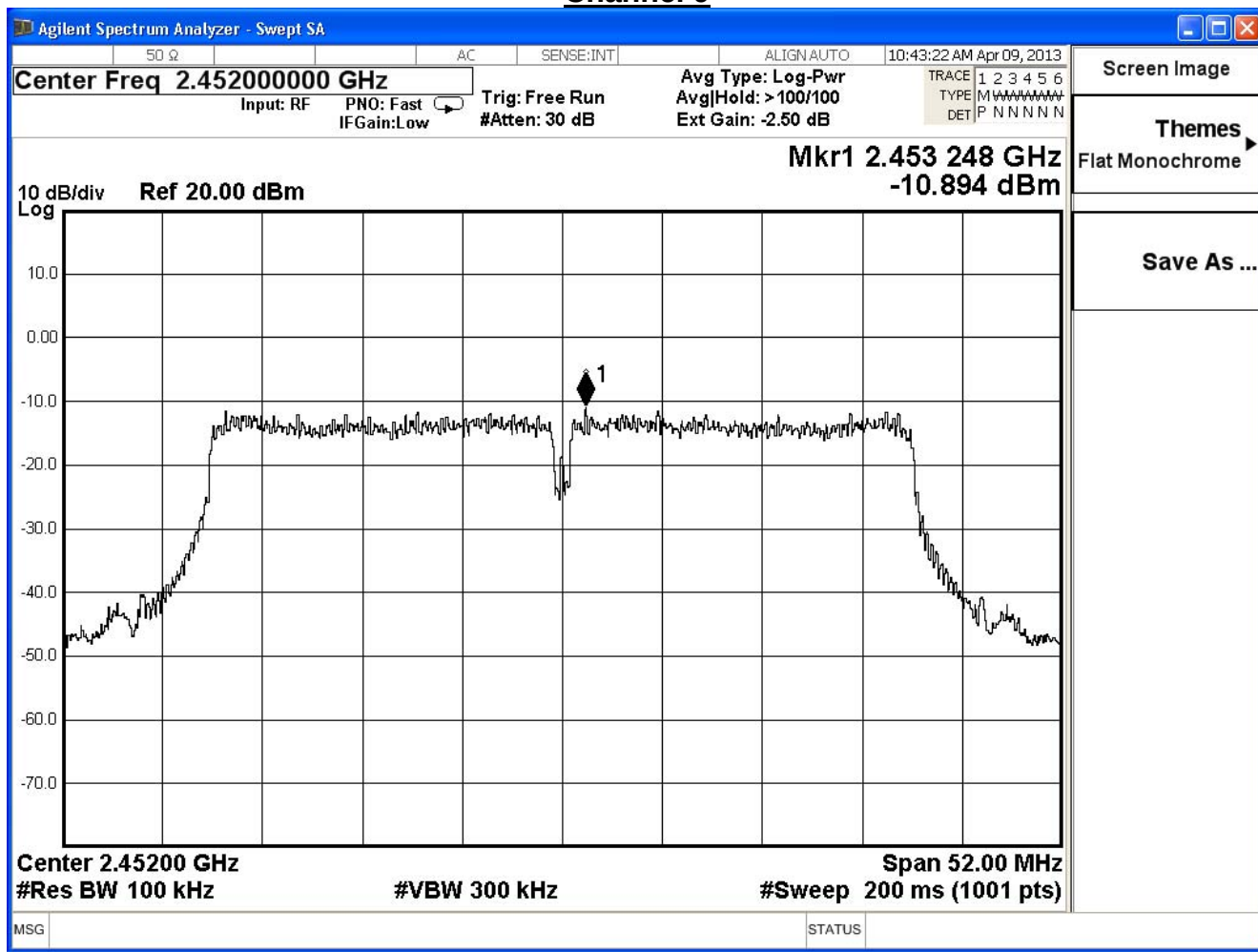
Channel 3



Channel 6



Channel 9



Product	Wireless-N300 Cloud Router		
Test Item	Power Density		
Test Mode	Mode 1: Transmit (DSA-12PFA-09)		
Date of Test	2013/04/09	Test Site	SR7

IEEE802.11n 40MHz(ANT 0+1)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
3	2422	-17.36	≤ 8	Pass
6	2437	-9.49	≤ 8	Pass
9	2452	-23.37	≤ 8	Pass