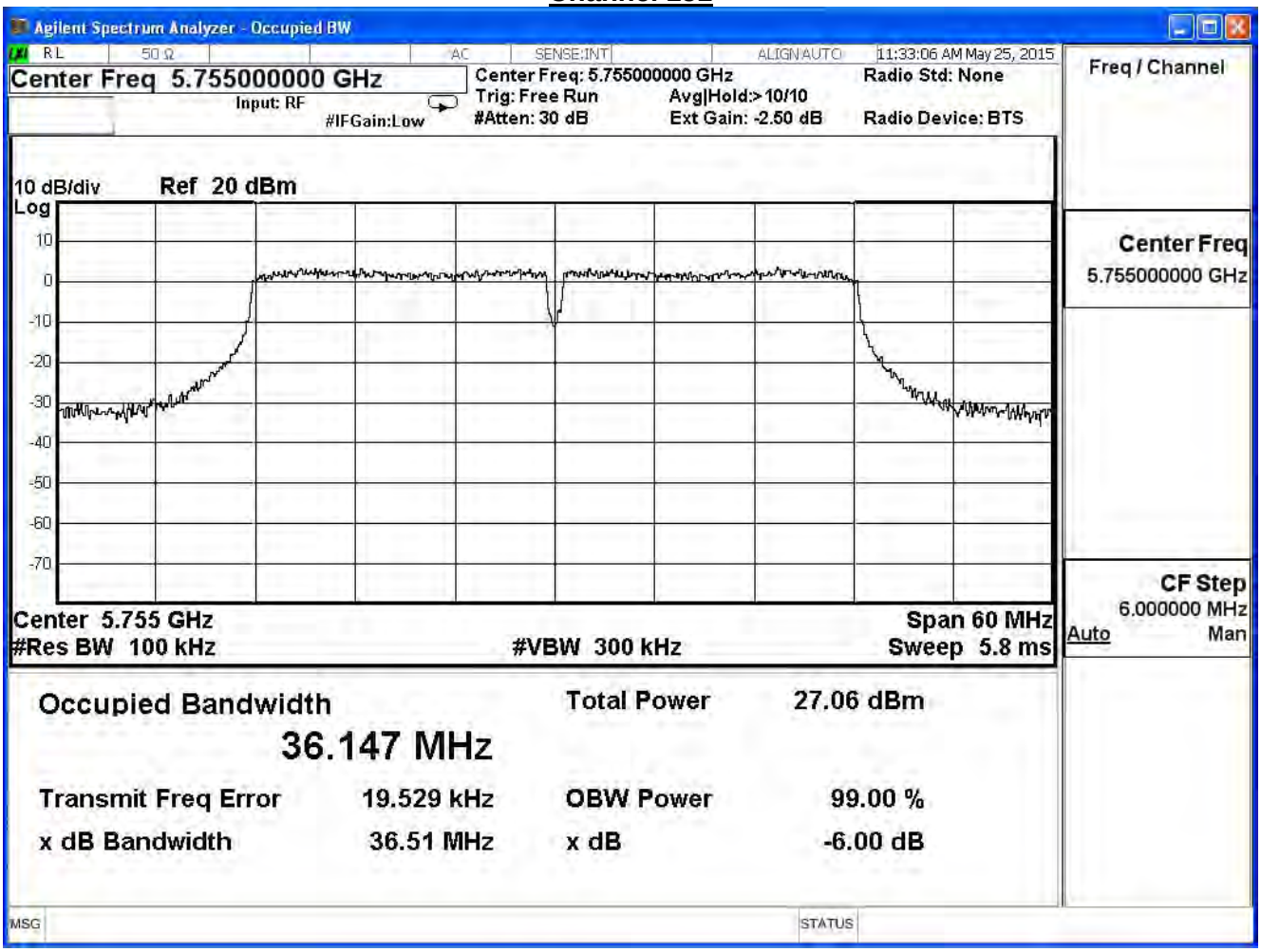
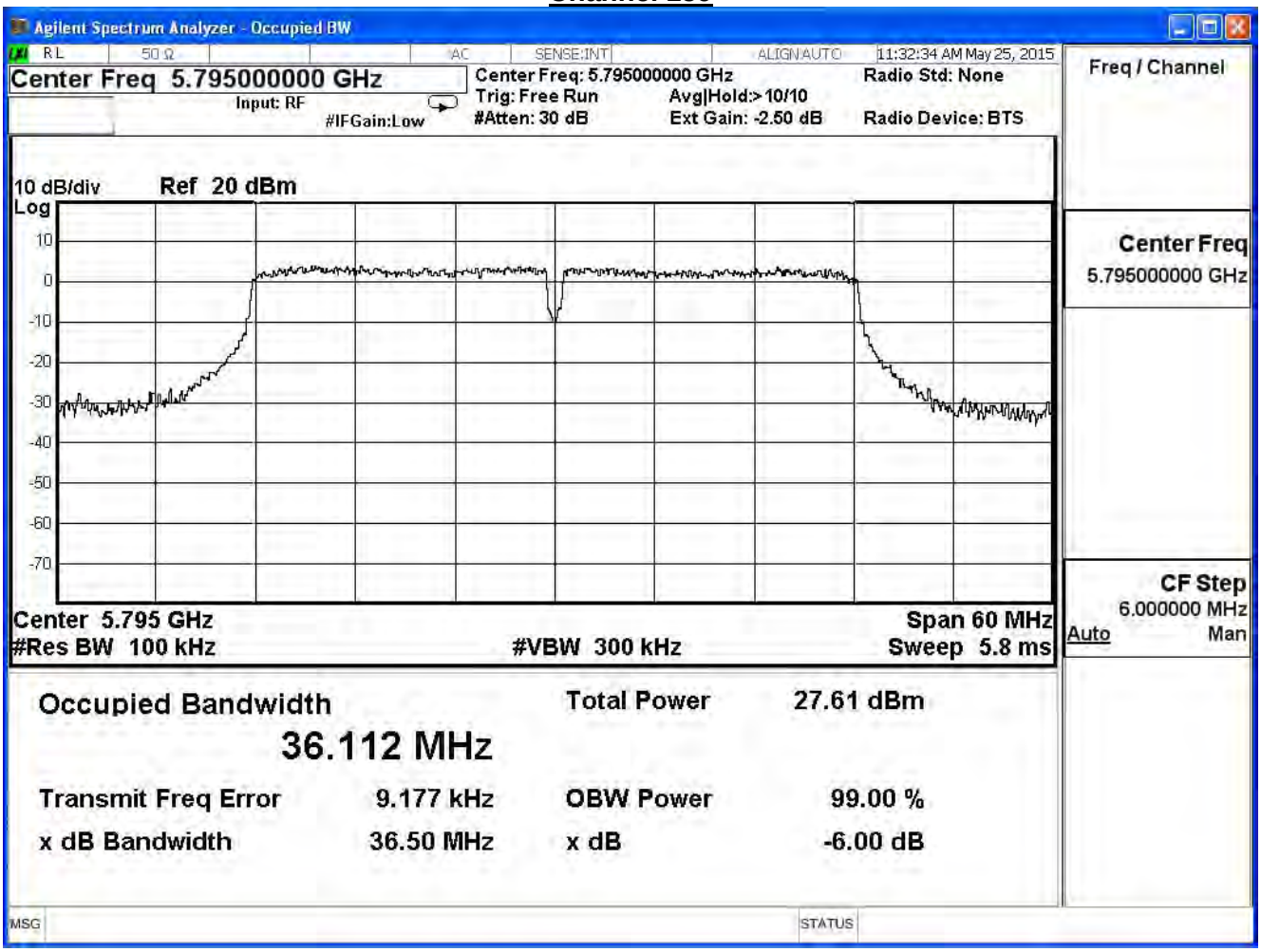
Product	Dual-band Wireless Range Extender		
Test Item	DTS Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/05/25	Test Site	SR7

IEEE 802.11n (40MHz)(ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
151	5755	36.51	≧0.5	Pass
159	5795	36.50	≧0.5	Pass

Channel 151



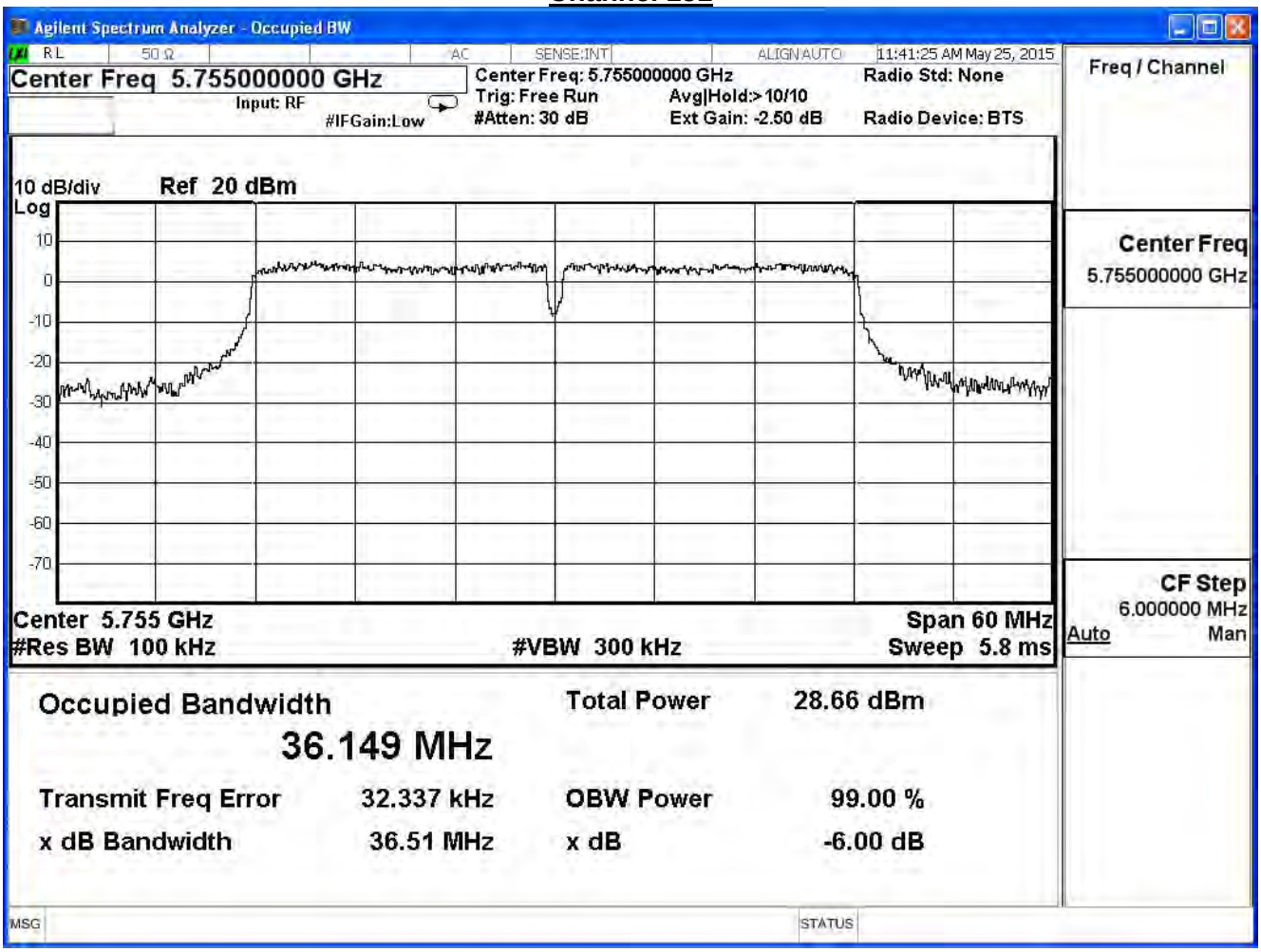
Channel 159


Agilent Spectrum Analyzer - Occupied BW
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
11:32:34 AM May 25, 2015
Center Freq 5.795000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.795000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -2.50 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 20 dBm
10
0
-10
-20
-30
-40
-50
-60
-70
Center Freq
5.795000000 GHz
CF Step
6.000000 MHz
Auto
Man
Center 5.795 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 60 MHz
Sweep 5.8 ms
Occupied Bandwidth
36.112 MHz
Total Power
27.61 dBm
Transmit Freq Error
9.177 kHz
OBW Power
99.00 %
x dB Bandwidth
36.50 MHz
x dB
-6.00 dB
MSG
STATUS

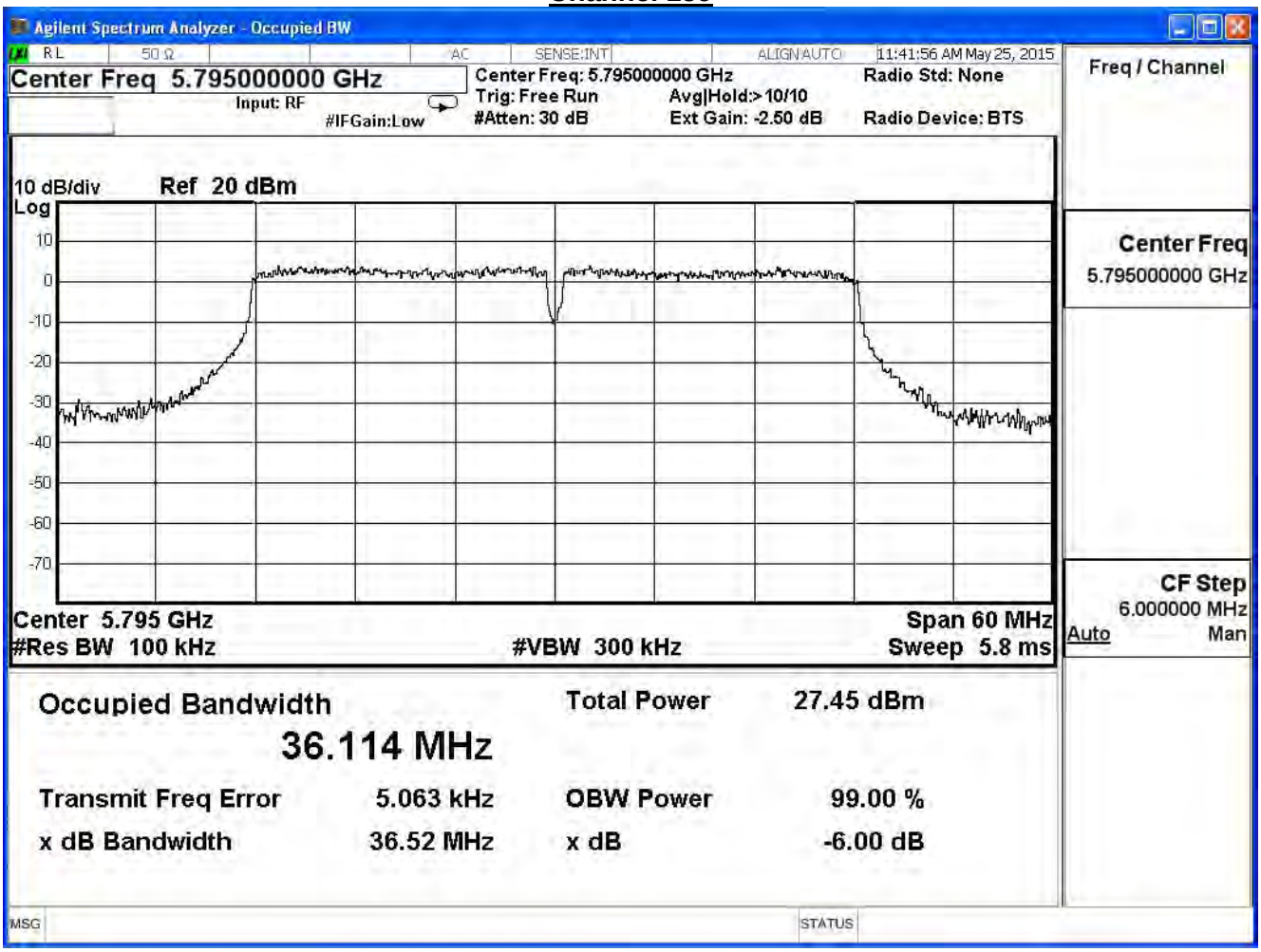
Product	Dual-band Wireless Range Extender		
Test Item	DTS Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/05/25	Test Site	SR7

IEEE 802.11n (40MHz)(ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
151	5755	36.51	≧0.5	Pass
159	5795	36.52	≧0.5	Pass

Channel 151



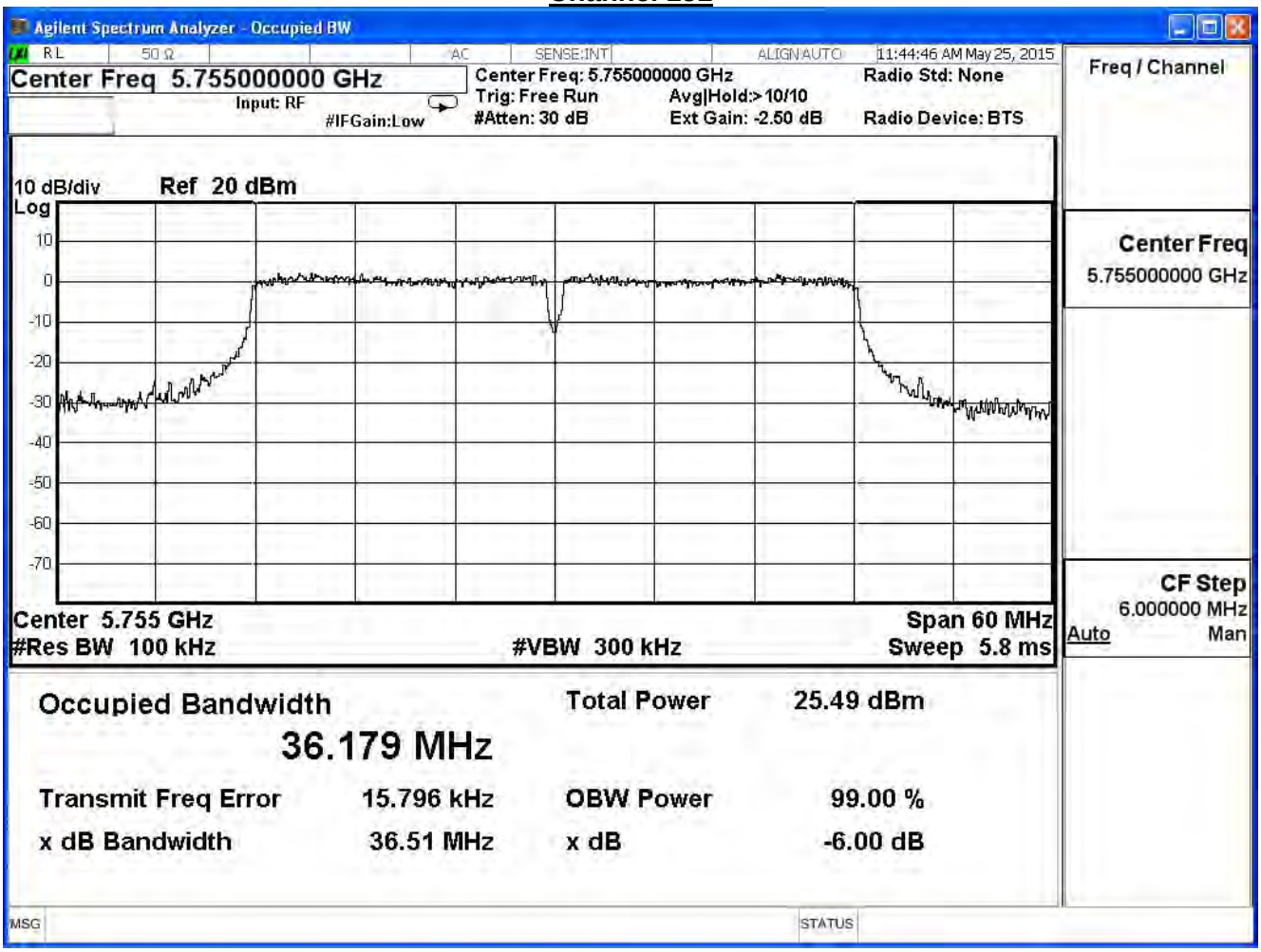
Channel 159


Agilent Spectrum Analyzer - Occupied BW
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
11:41:56 AM May 25, 2015
Center Freq 5.795000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.795000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -2.50 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 20 dBm
10
0
-10
-20
-30
-40
-50
-60
-70
Center Freq
5.795000000 GHz
CF Step
6.000000 MHz
Auto
Man
Center 5.795 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 60 MHz
Sweep 5.8 ms
Occupied Bandwidth
36.114 MHz
Total Power
27.45 dBm
Transmit Freq Error
5.063 kHz
OBW Power
99.00 %
x dB Bandwidth
36.52 MHz
x dB
-6.00 dB
MSG
STATUS

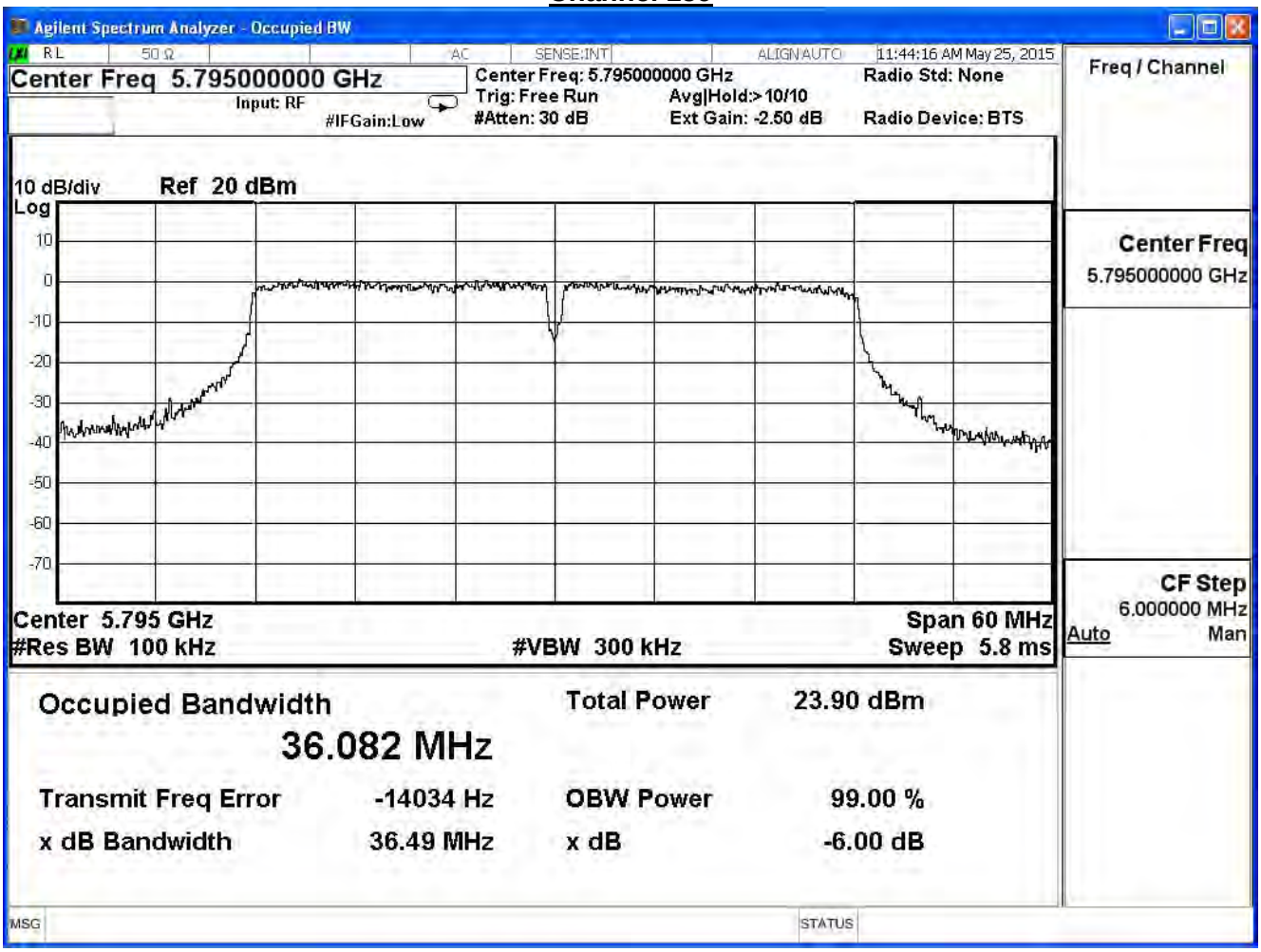
Product	Dual-band Wireless Range Extender		
Test Item	DTS Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/05/25	Test Site	SR7

IEEE 802.11n (40MHz)(ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
151	5755	36.51	≧0.5	Pass
159	5795	36.49	≧0.5	Pass

Channel 151



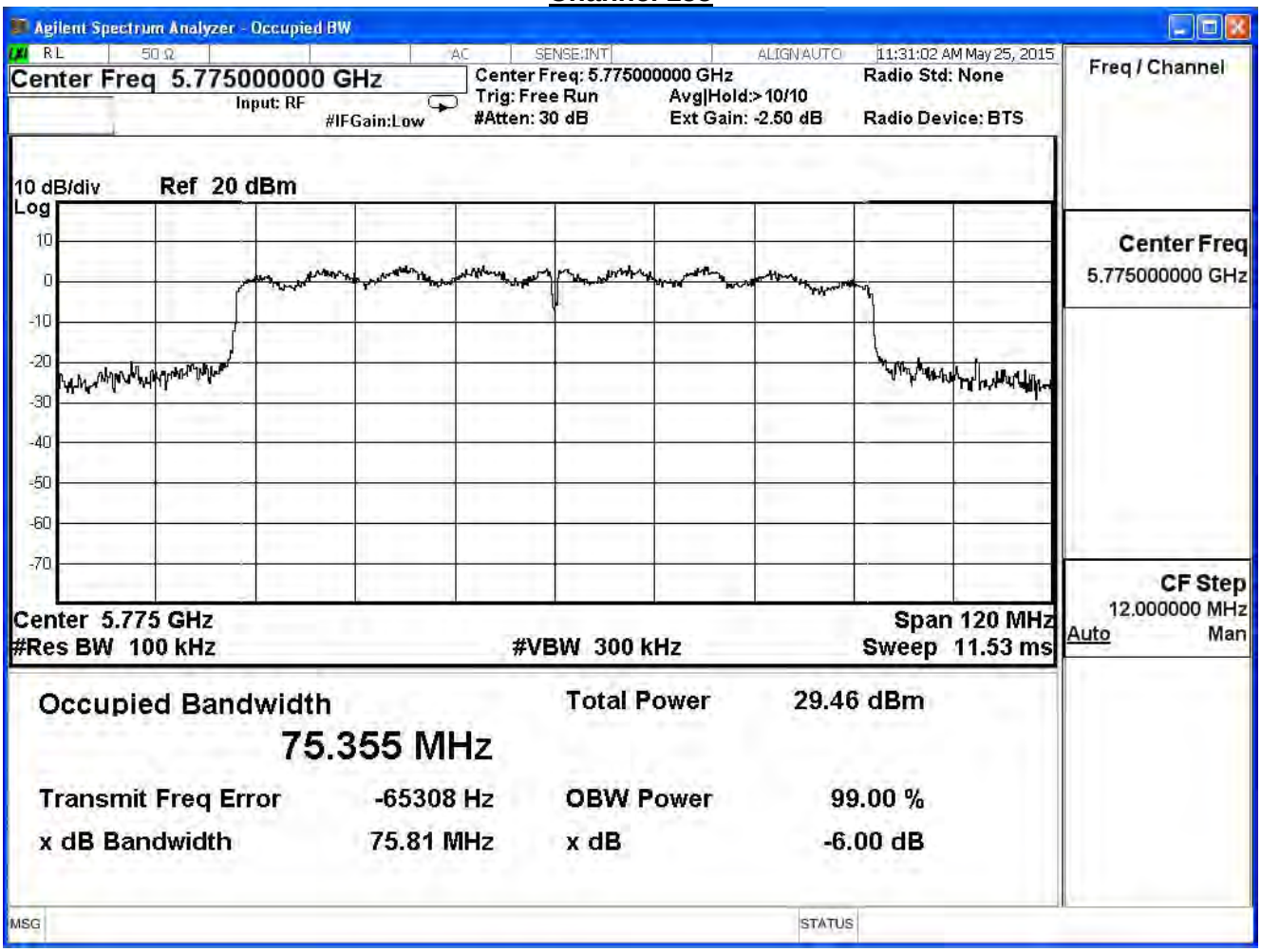
Channel 159


Agilent Spectrum Analyzer - Occupied BW
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
11:44:16 AM May 25, 2015
Center Freq 5.795000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.795000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -2.50 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 20 dBm
10
0
-10
-20
-30
-40
-50
-60
-70
Center Freq
5.795000000 GHz
CF Step
6.000000 MHz
Auto
Man
Center 5.795 GHz
#Res BW 100 kHz
#VBW 300 kHz
Span 60 MHz
Sweep 5.8 ms
Occupied Bandwidth
36.082 MHz
Total Power
23.90 dBm
Transmit Freq Error
-14034 Hz
OBW Power
99.00 %
x dB Bandwidth
36.49 MHz
x dB
-6.00 dB
MSG
STATUS

Product	Dual-band Wireless Range Extender		
Test Item	DTS Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/05/25	Test Site	SR7

IEEE 802.11ac (80MHz)(ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
155	5775	75.81	≧0.5	Pass

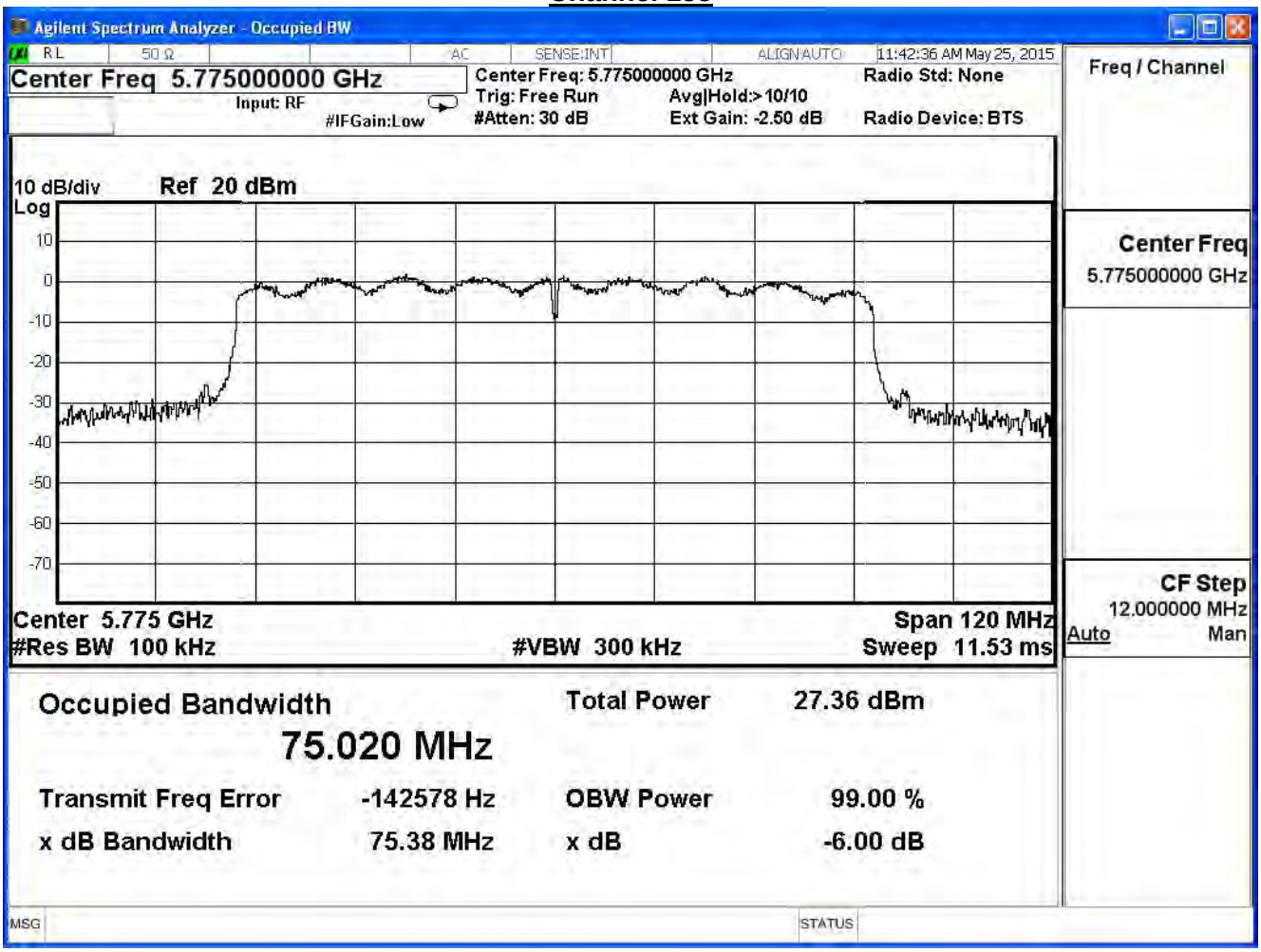
Channel 155



Product	Dual-band Wireless Range Extender		
Test Item	DTS Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/05/25	Test Site	SR7

IEEE 802.11ac (80MHz)(ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
155	5775	75.38	≧0.5	Pass

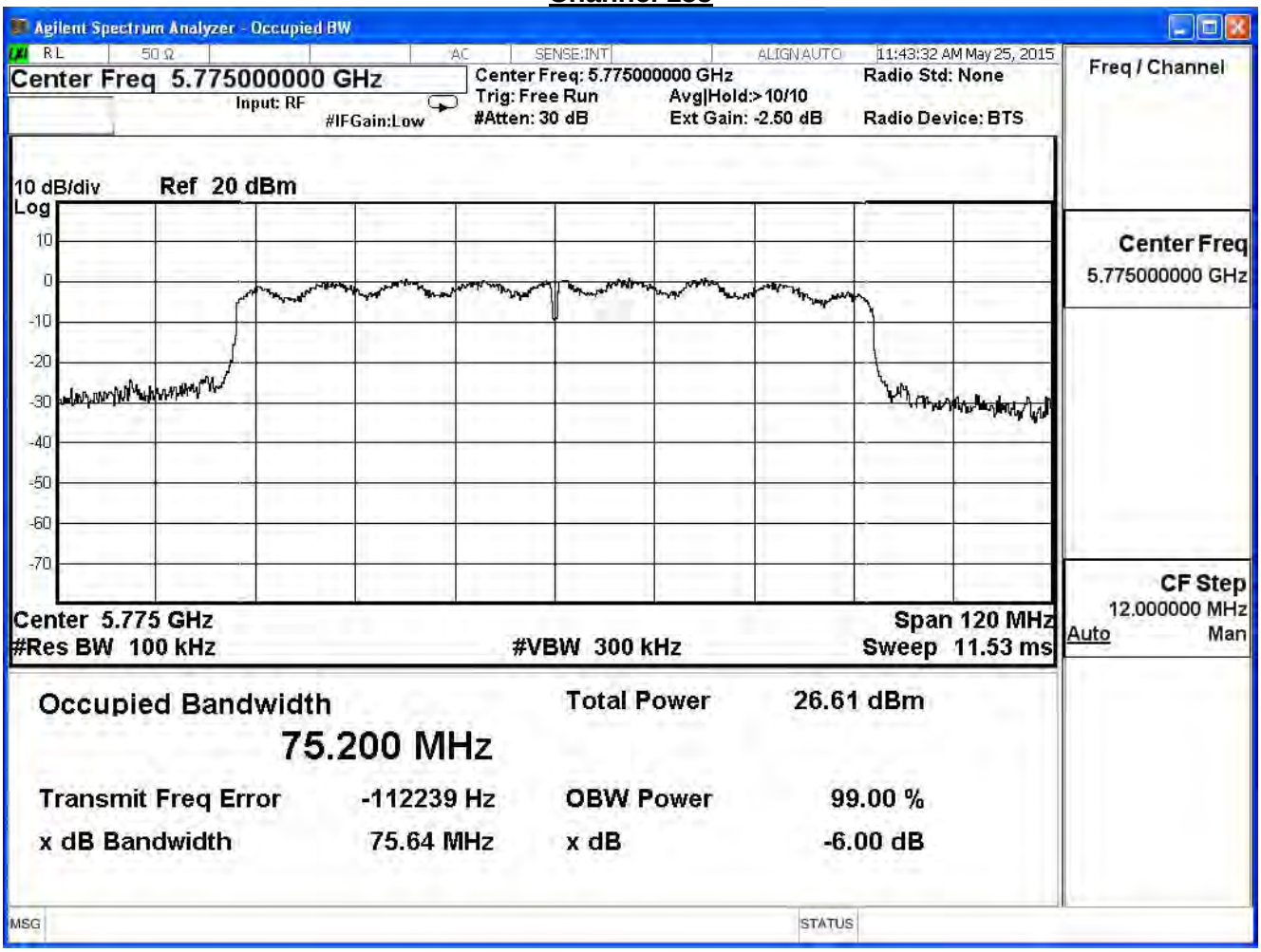
Channel 155



Product	Dual-band Wireless Range Extender		
Test Item	DTS Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/05/25	Test Site	SR7

IEEE 802.11ac (80MHz)(ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
155	5775	75.64	≧0.5	Pass

Channel 155



8. Occupied Bandwidth

8.1. Test Equipment

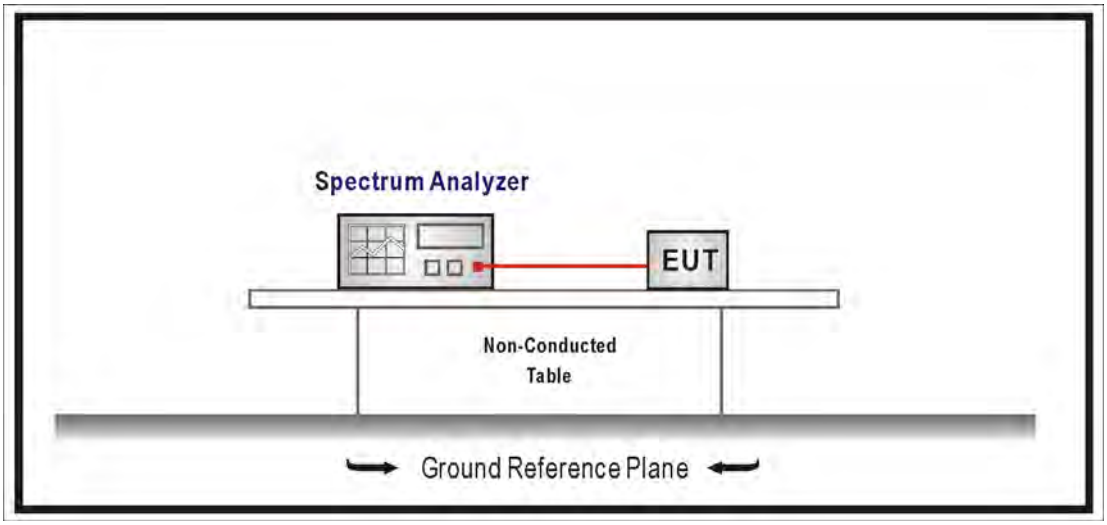
The following test equipments are used during the test:

Occupied Bandwidth / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A-EXA	US47140172	2016/08/23

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

8.2. Test Setup



8.3. Test Procedures

The EUT was setup according to ANSI C63.10; tested according to DTS test procedure of KDB558074 v03r02 for compliance to FCC 47CFR 15.247 requirements.
Set RBW = 1-5% of the OBW, Set the VBW≧3xRBW, Sweep Time=Auto.

8.4. Limits

NA

8.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2014

8.6. Uncertainty

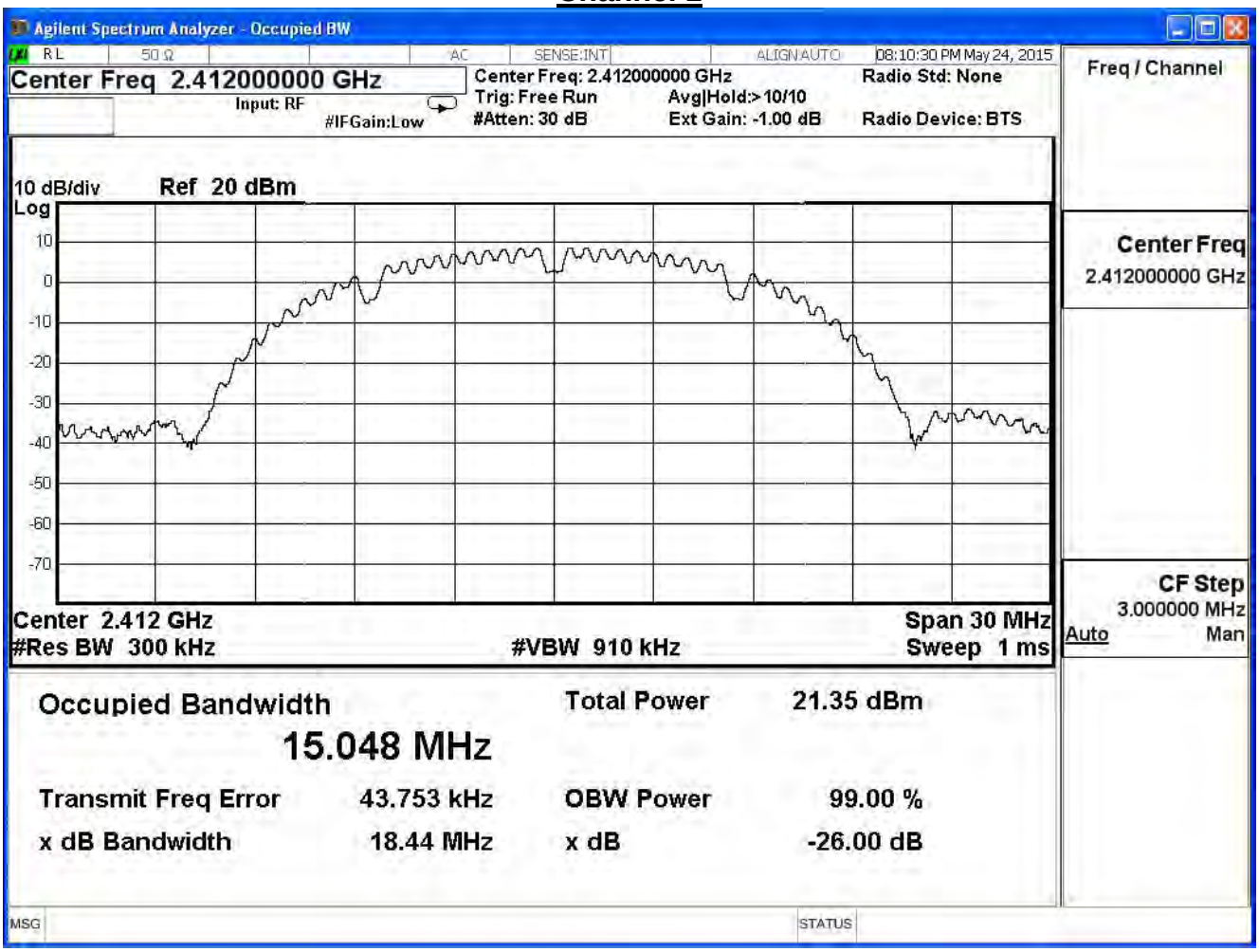
The measurement uncertainty is defined as ±150Hz

8.7. Test Result

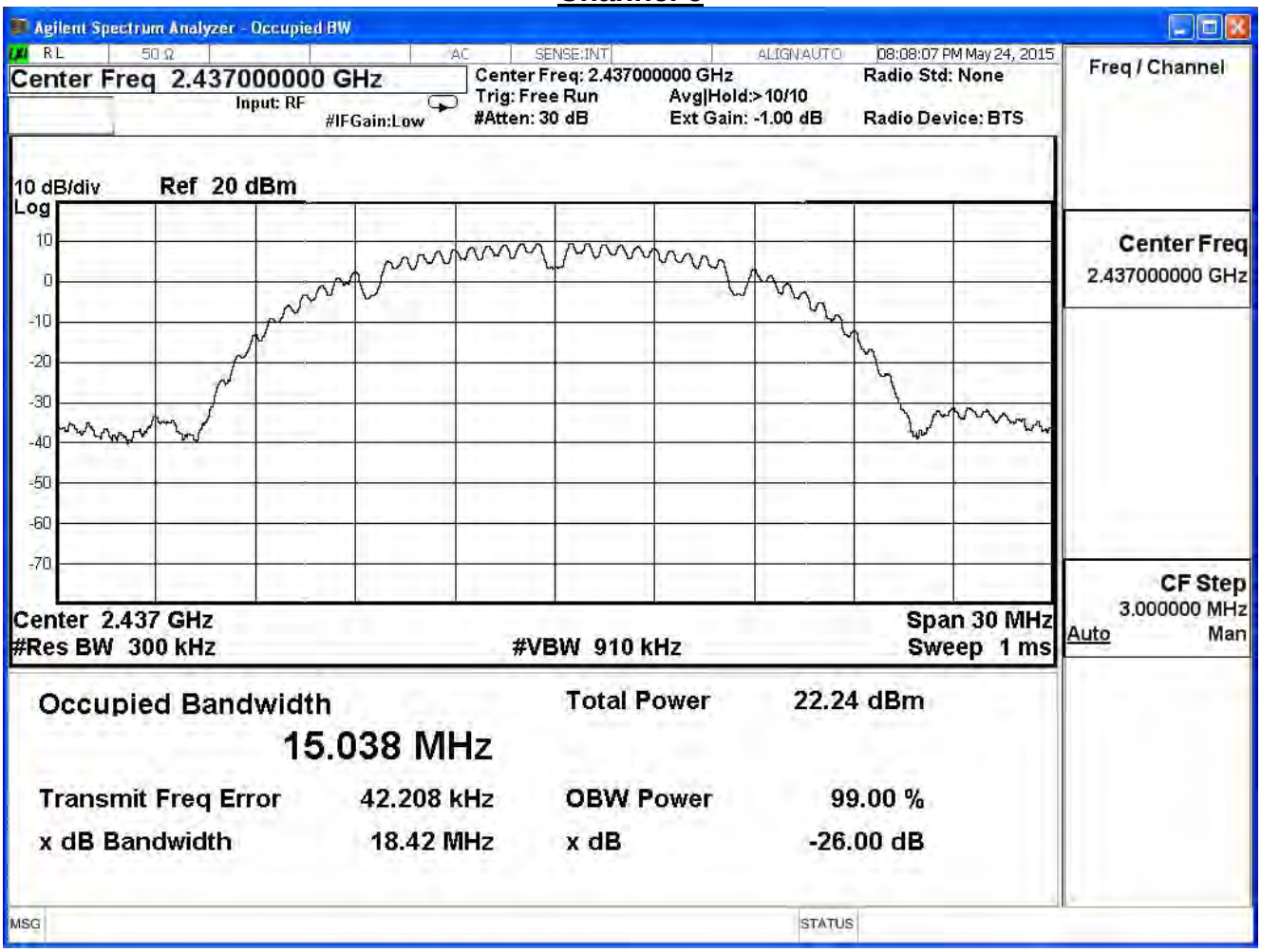
Product	Dual-band Wireless Range Extender		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/05/24	Test Site	SR7

802.11 b (ANT 0)				
Channel No.	Frequency (MHz)	Measure Level(MHz)	Limit (MHz)	Result
1	2412	15.048	--	Pass
6	2437	15.038	--	Pass
11	2462	15.011	--	Pass

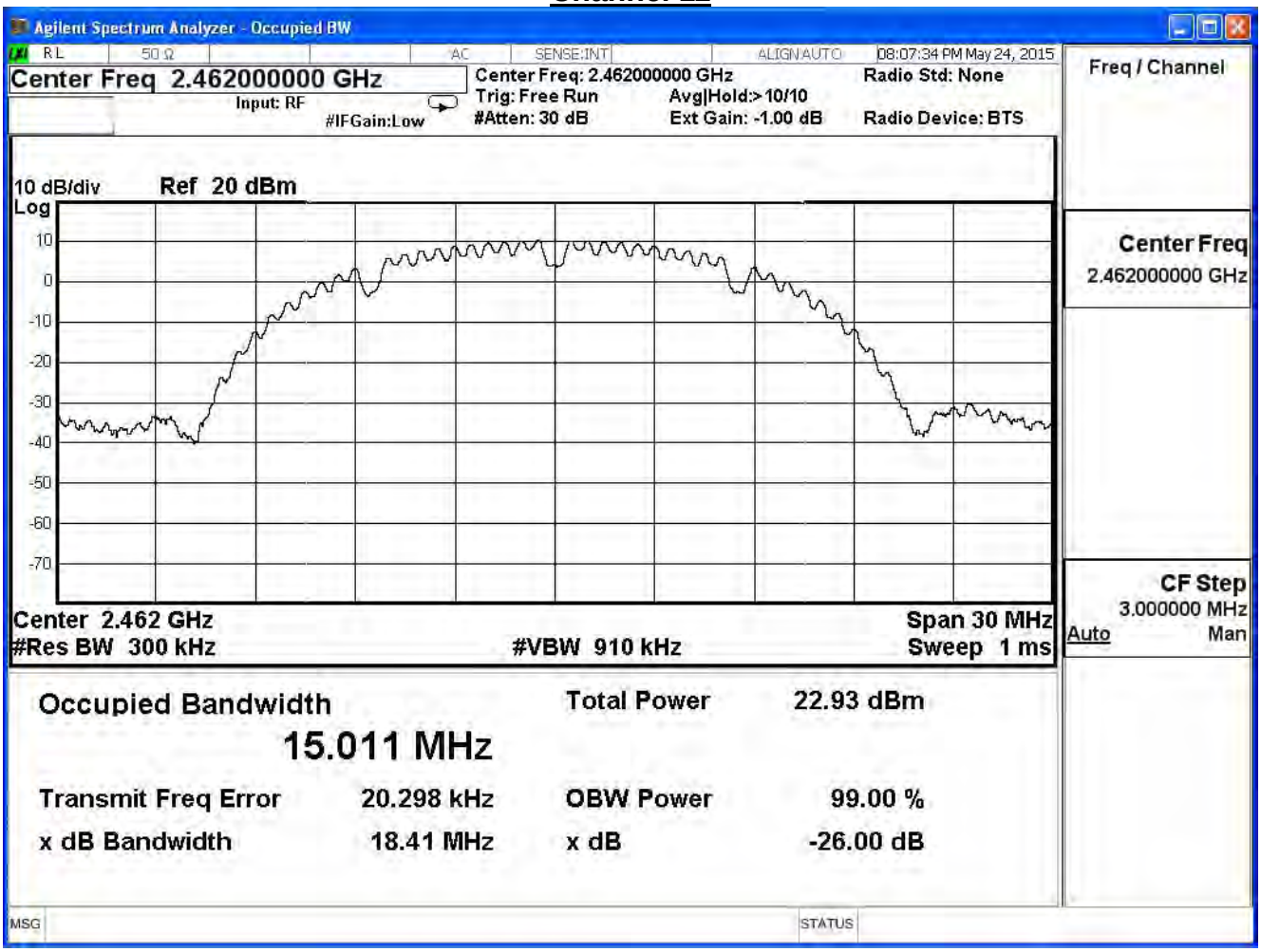
Channel 1



Channel 6


Agilent Spectrum Analyzer - Occupied BW
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
08:08:07 PM May 24, 2015
Center Freq 2.437000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.437000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 20 dBm
10
0
-10
-20
-30
-40
-50
-60
-70
Center Freq
2.437000000 GHz
Center 2.437 GHz
#Res BW 300 kHz
#VBW 910 kHz
Span 30 MHz
Sweep 1 ms
CF Step
3.000000 MHz
Auto
Man
Occupied Bandwidth
15.038 MHz
Total Power
22.24 dBm
Transmit Freq Error
42.208 kHz
OBW Power
99.00 %
x dB Bandwidth
18.42 MHz
x dB
-26.00 dB
MSG
STATUS

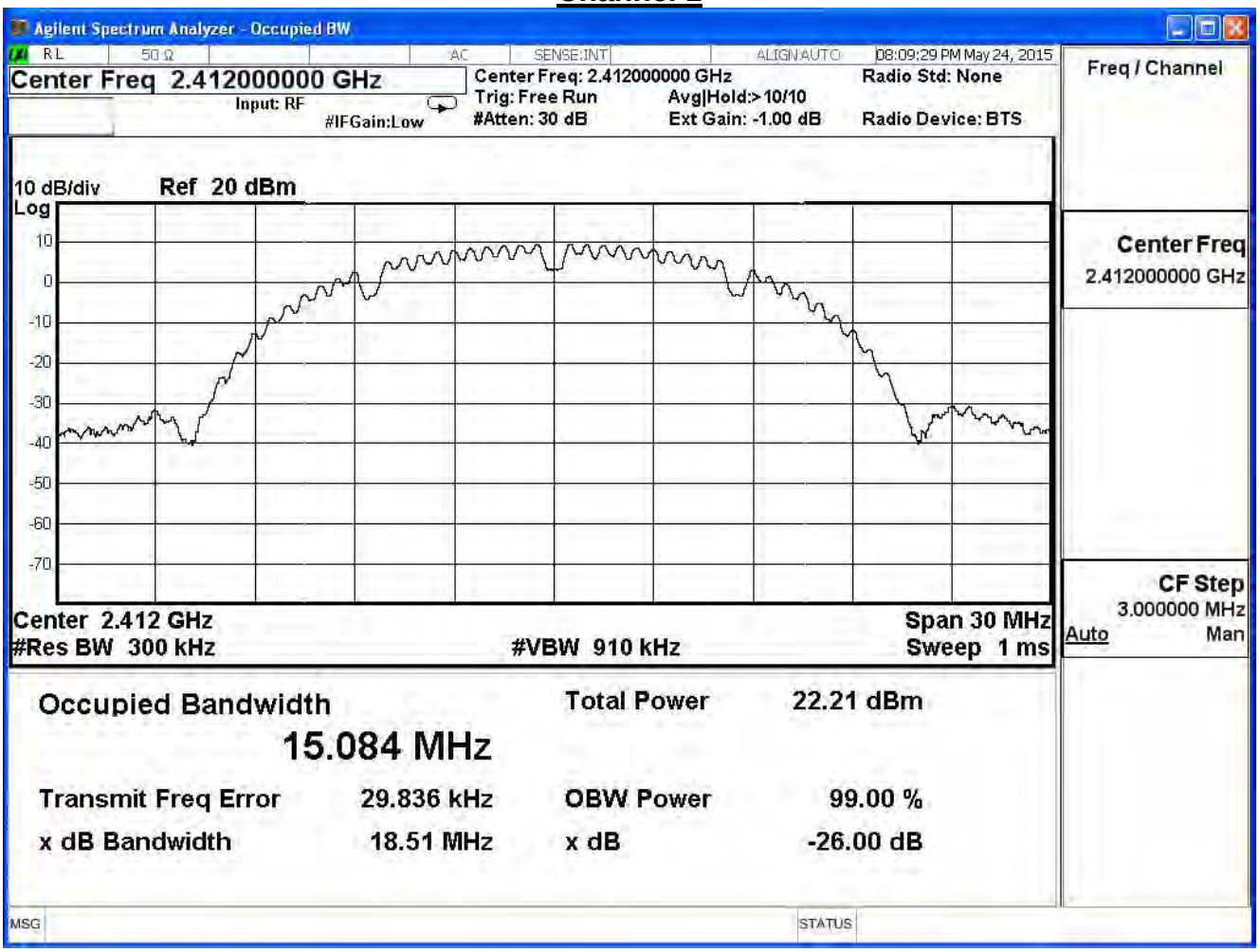
Channel 11


Agilent Spectrum Analyzer - Occupied BW
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
08:07:34 PM May 24, 2015
Center Freq 2.462000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.462000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 20 dBm
10
0
-10
-20
-30
-40
-50
-60
-70
Center Freq
2.462000000 GHz
Center 2.462 GHz
#Res BW 300 kHz
#VBW 910 kHz
Span 30 MHz
Sweep 1 ms
CF Step
3.000000 MHz
Auto
Man
Occupied Bandwidth
15.011 MHz
Total Power
22.93 dBm
Transmit Freq Error
20.298 kHz
OBW Power
99.00 %
x dB Bandwidth
18.41 MHz
x dB
-26.00 dB
MSG
STATUS

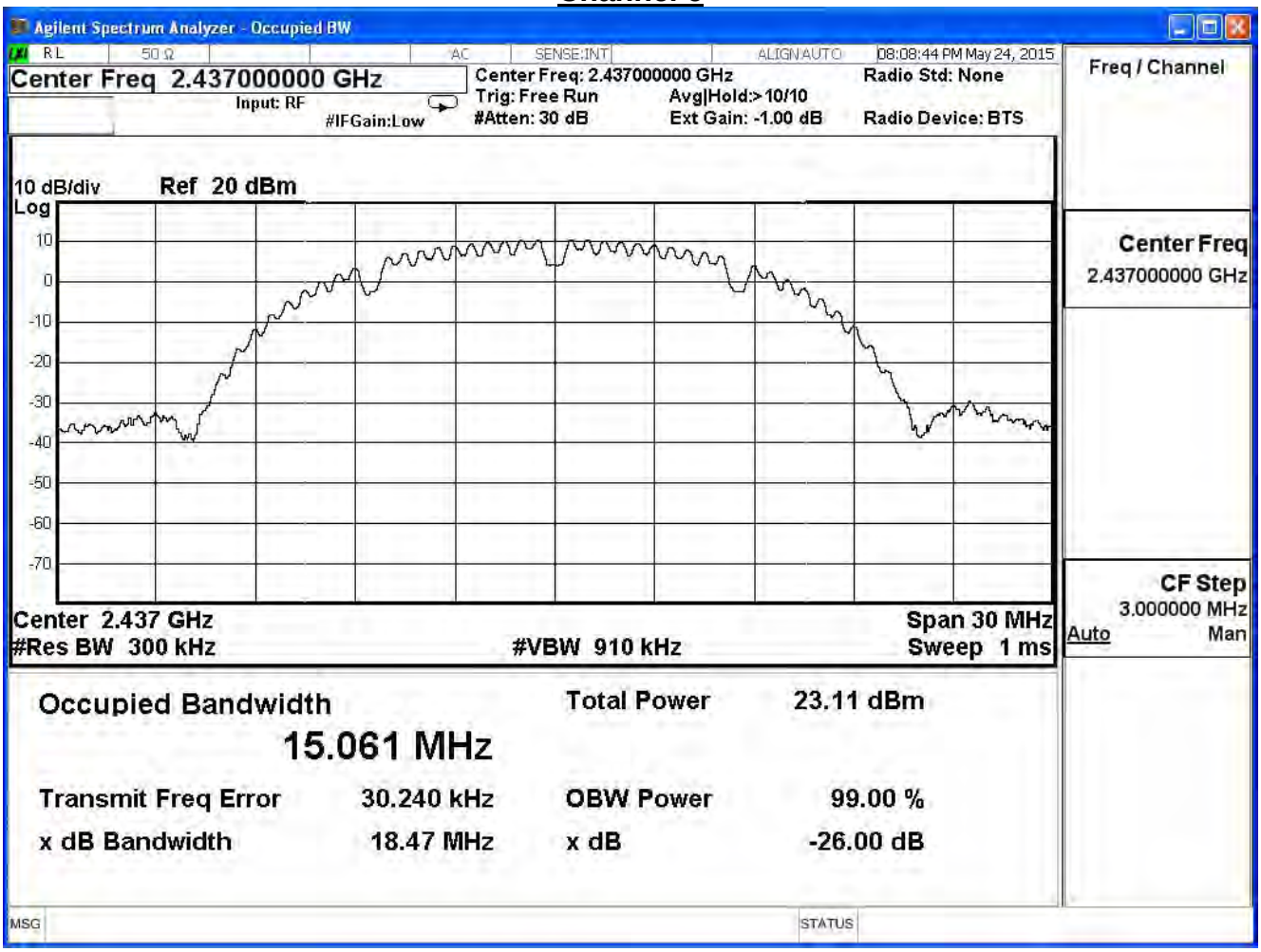
Product	Dual-band Wireless Range Extender		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/05/24	Test Site	SR7

802.11 b (ANT 1)				
Channel No.	Frequency (MHz)	Measure Level(MHz)	Limit (MHz)	Result
1	2412	15.084	--	Pass
6	2437	15.061	--	Pass
11	2462	15.054	--	Pass

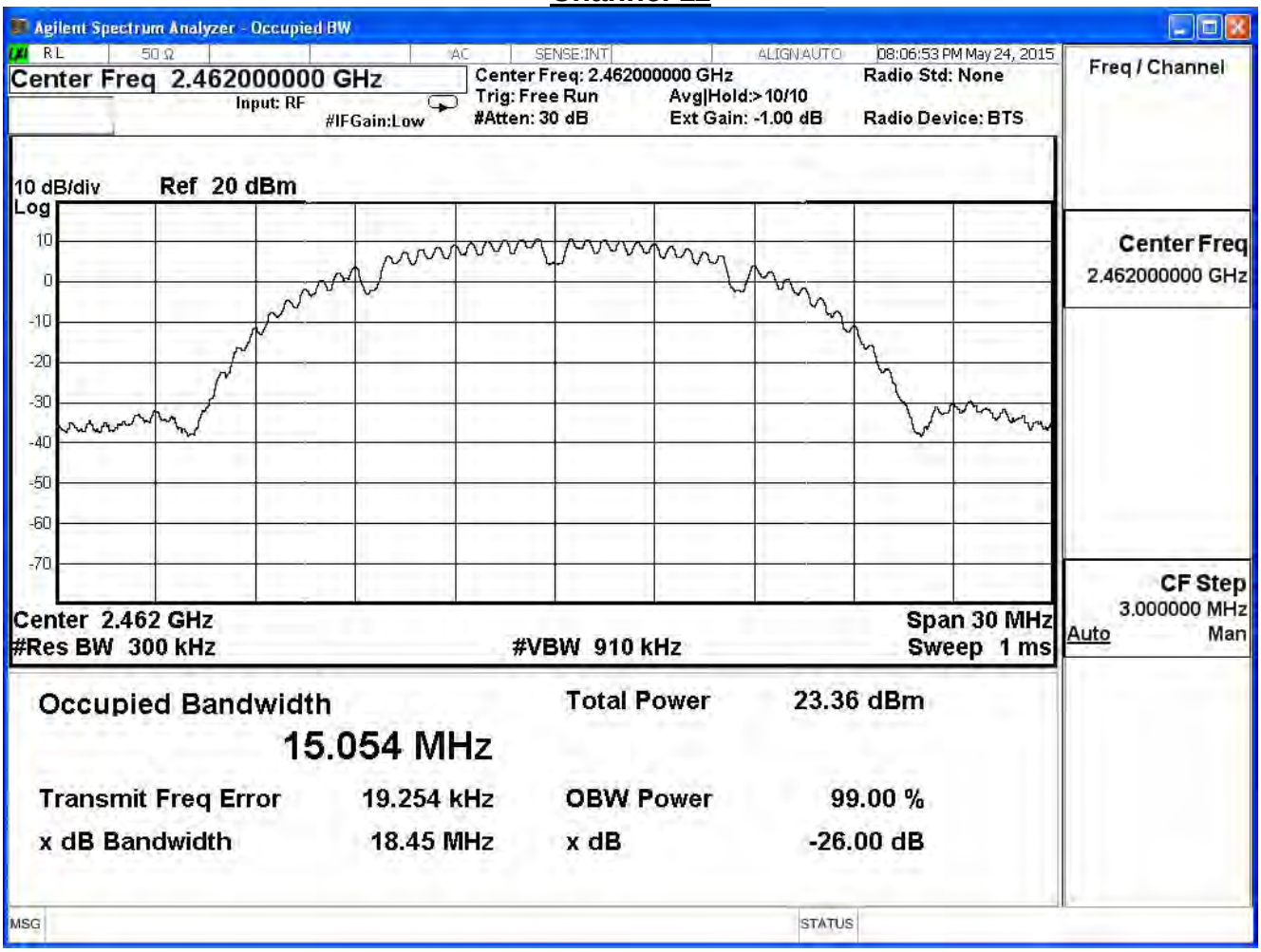
Channel 1



Channel 6


Agilent Spectrum Analyzer - Occupied BW
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
08:08:44 PM May 24, 2015
Center Freq 2.437000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.437000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 20 dBm
10
0
-10
-20
-30
-40
-50
-60
-70
Center Freq
2.437000000 GHz
Center 2.437 GHz
#Res BW 300 kHz
#VBW 910 kHz
Span 30 MHz
Sweep 1 ms
CF Step
3.000000 MHz
Auto
Man
Occupied Bandwidth
15.061 MHz
Total Power
23.11 dBm
Transmit Freq Error
30.240 kHz
OBW Power
99.00 %
x dB Bandwidth
18.47 MHz
x dB
-26.00 dB
MSG
STATUS

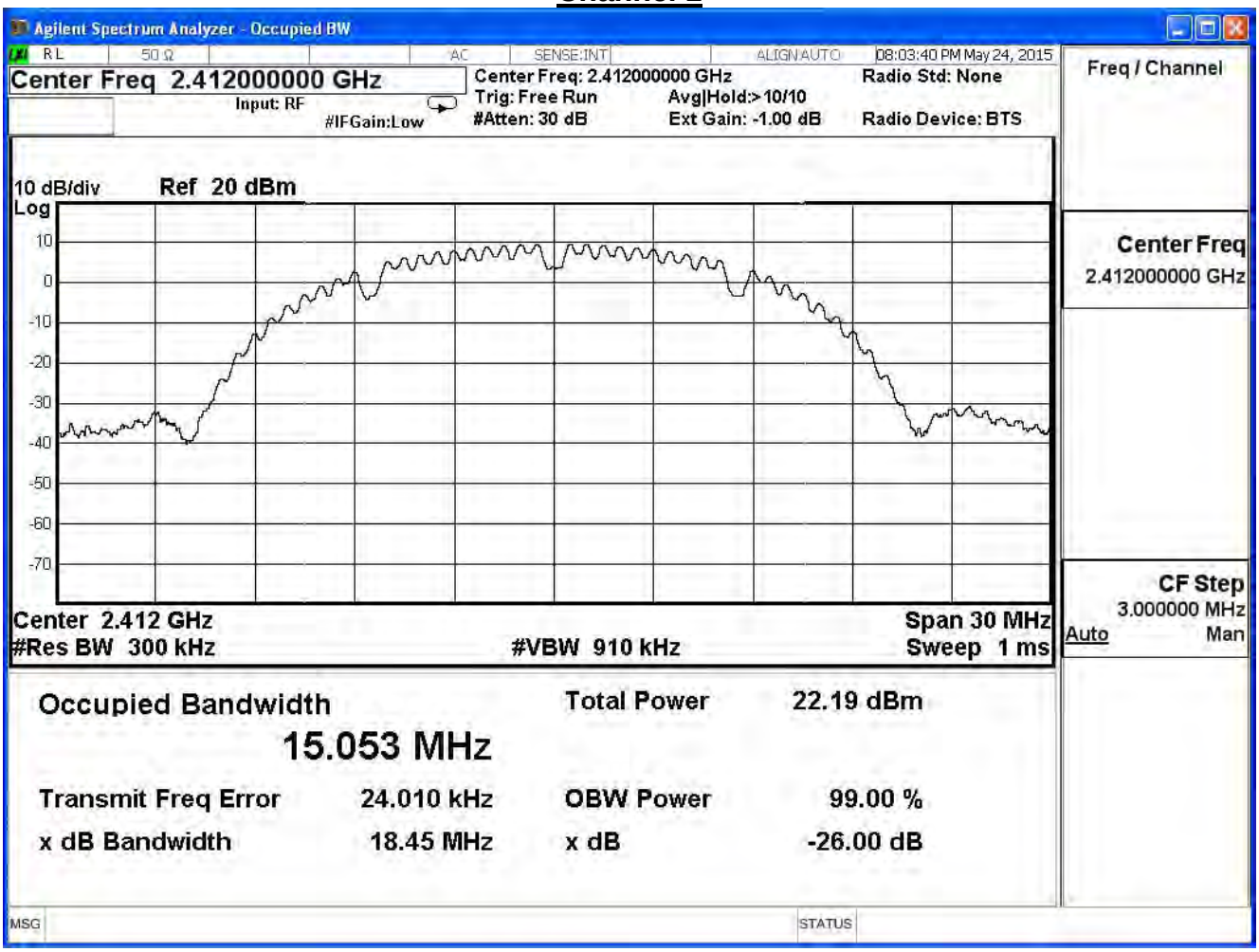
Channel 11


Agilent Spectrum Analyzer - Occupied BW
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
08:06:53 PM May 24, 2015
Center Freq 2.462000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.462000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 20 dBm
10
0
-10
-20
-30
-40
-50
-60
-70
Center Freq
2.462000000 GHz
Center 2.462 GHz
#Res BW 300 kHz
#VBW 910 kHz
Span 30 MHz
Sweep 1 ms
CF Step
3.000000 MHz
Auto
Man
Occupied Bandwidth
15.054 MHz
Total Power
23.36 dBm
Transmit Freq Error
19.254 kHz
OBW Power
99.00 %
x dB Bandwidth
18.45 MHz
x dB
-26.00 dB
MSG
STATUS

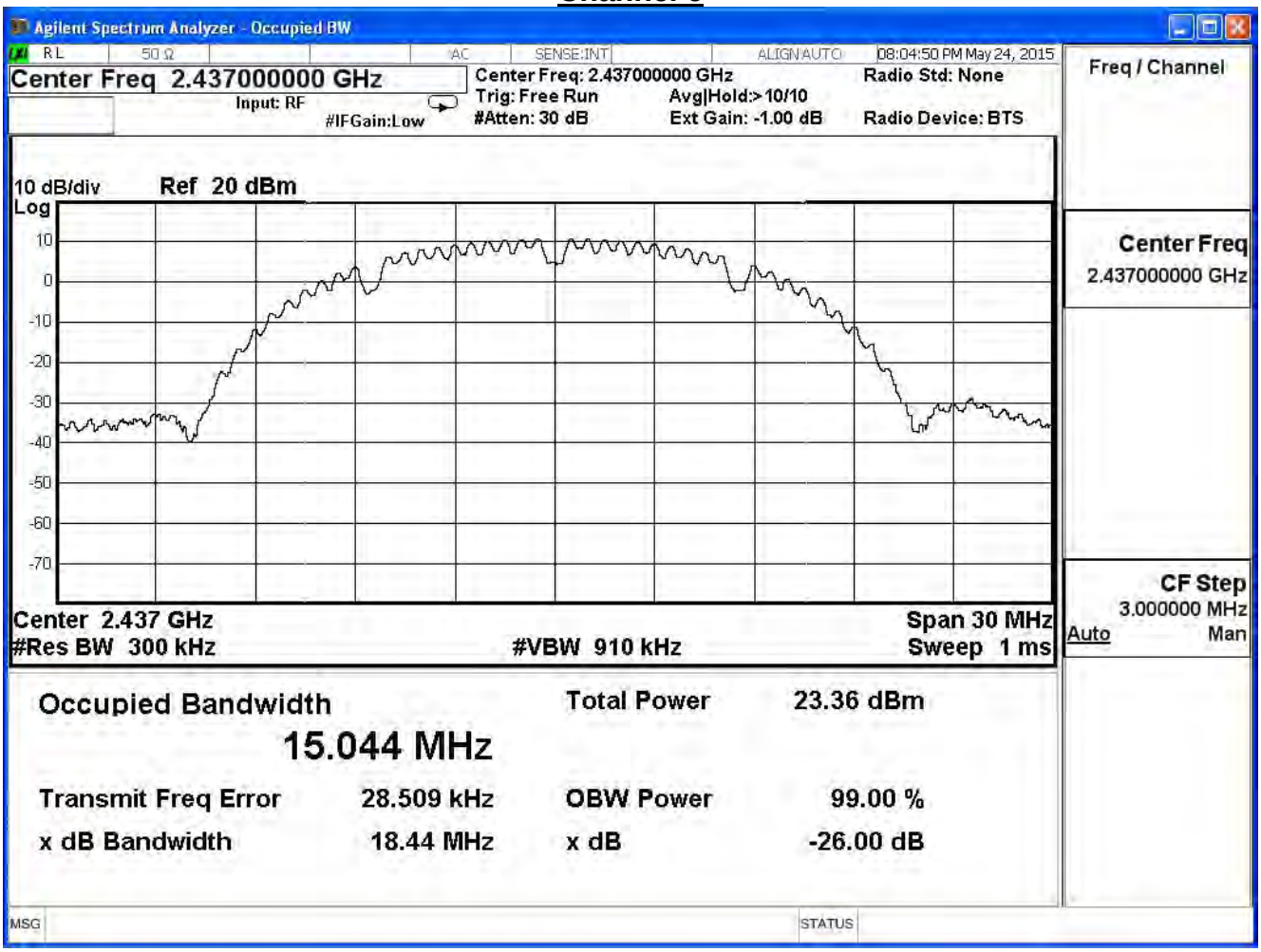
Product	Dual-band Wireless Range Extender		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/05/24	Test Site	SR7

802.11 b (ANT 2)				
Channel No.	Frequency (MHz)	Measure Level(MHz)	Limit (MHz)	Result
1	2412	15.053	--	Pass
6	2437	15.044	--	Pass
11	2462	15.041	--	Pass

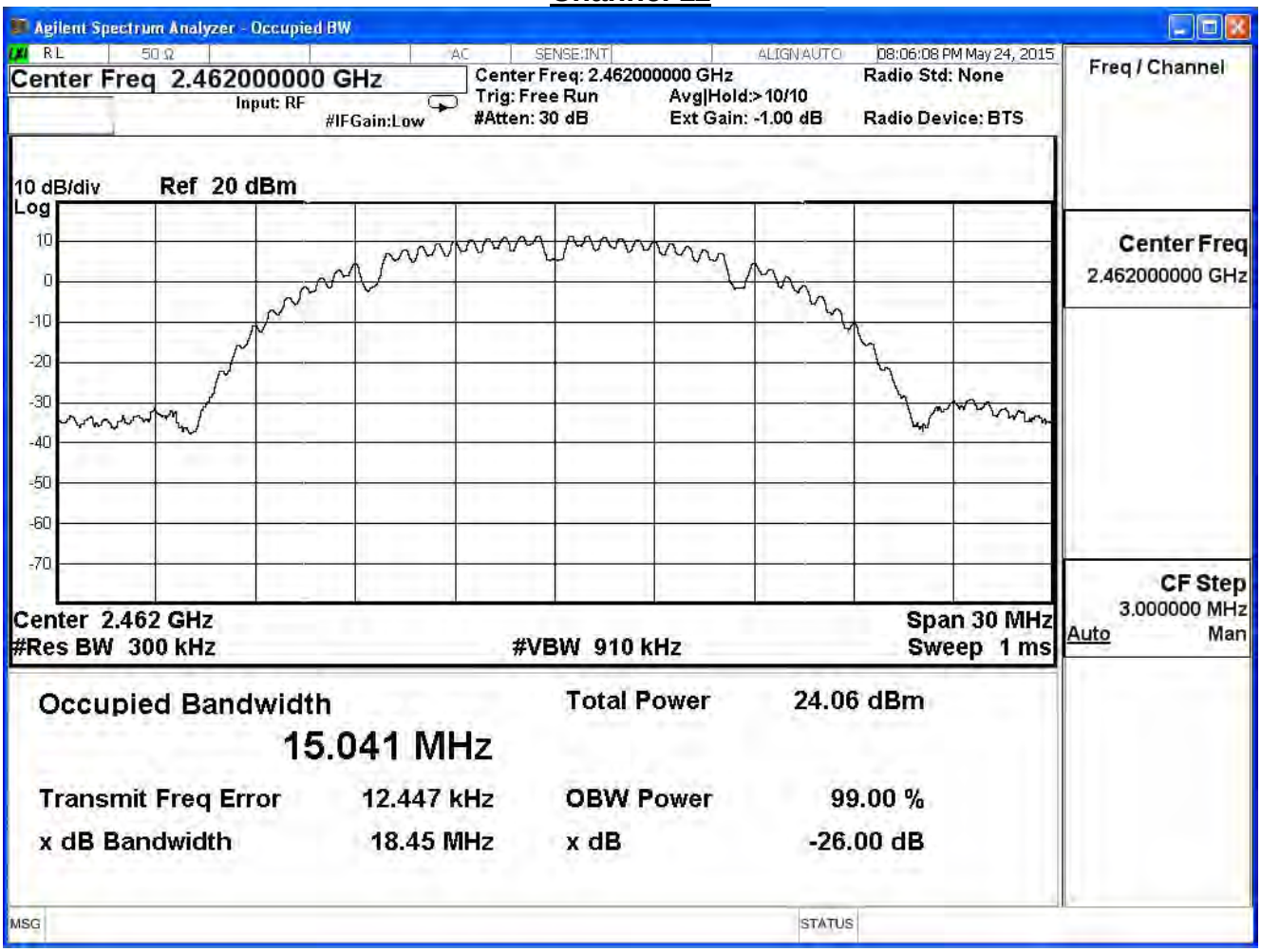
Channel 1



Channel 6


Agilent Spectrum Analyzer - Occupied BW
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
08:04:50 PM May 24, 2015
Center Freq 2.437000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.437000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 20 dBm
10
0
-10
-20
-30
-40
-50
-60
-70
Center Freq
2.437000000 GHz
Center 2.437 GHz
#Res BW 300 kHz
#VBW 910 kHz
Span 30 MHz
Sweep 1 ms
CF Step
3.000000 MHz
Auto
Man
Occupied Bandwidth
15.044 MHz
Total Power
23.36 dBm
Transmit Freq Error
28.509 kHz
OBW Power
99.00 %
x dB Bandwidth
18.44 MHz
x dB
-26.00 dB
MSG
STATUS

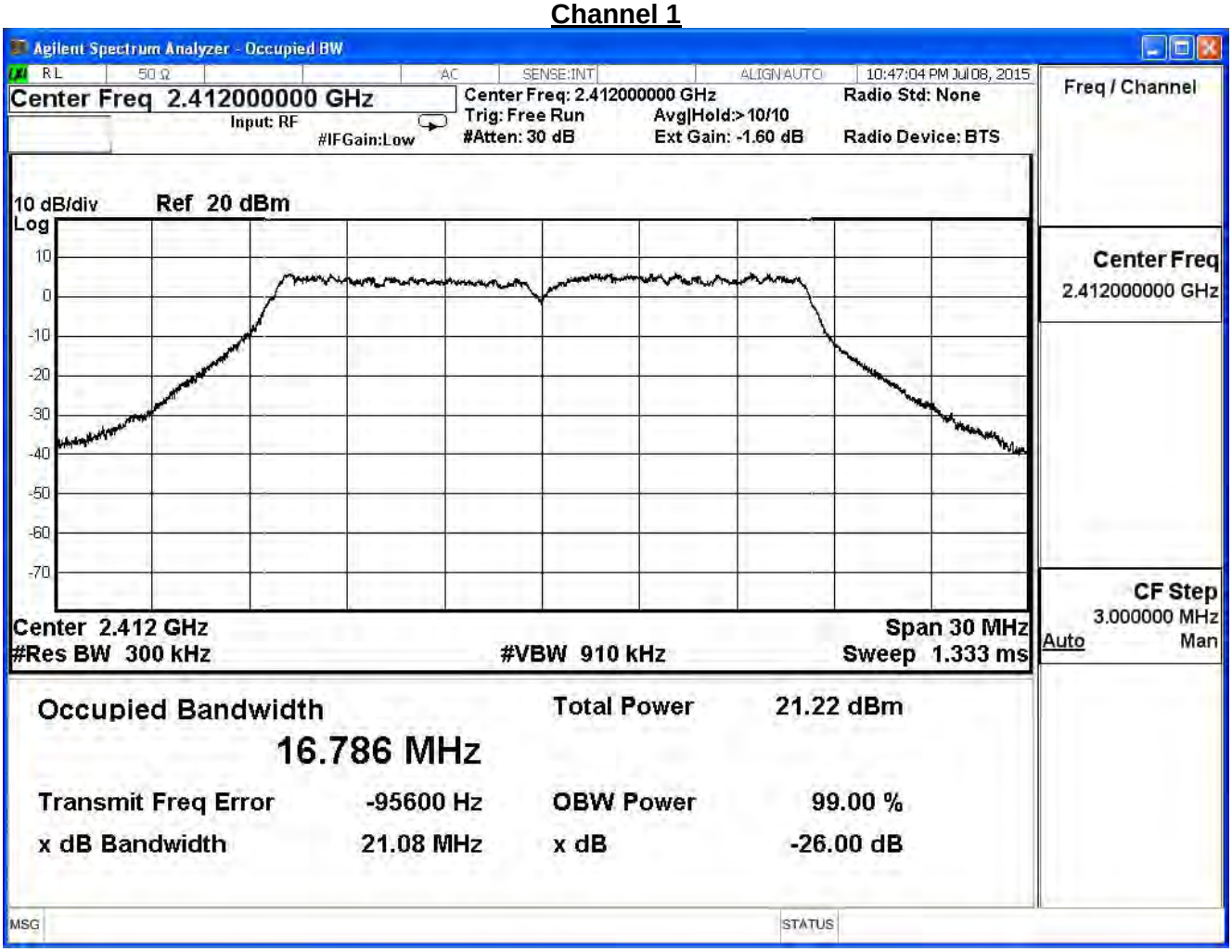
Channel 11


Agilent Spectrum Analyzer - Occupied BW
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
08:06:08 PM May 24, 2015
Center Freq 2.462000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.462000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold:>10/10
Ext Gain: -1.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 20 dBm
10
0
-10
-20
-30
-40
-50
-60
-70
Center Freq
2.462000000 GHz
Center 2.462 GHz
#Res BW 300 kHz
#VBW 910 kHz
Span 30 MHz
Sweep 1 ms
CF Step
3.000000 MHz
Auto
Man
Occupied Bandwidth
15.041 MHz
Total Power
24.06 dBm
Transmit Freq Error
12.447 kHz
OBW Power
99.00 %
x dB Bandwidth
18.45 MHz
x dB
-26.00 dB
MSG
STATUS

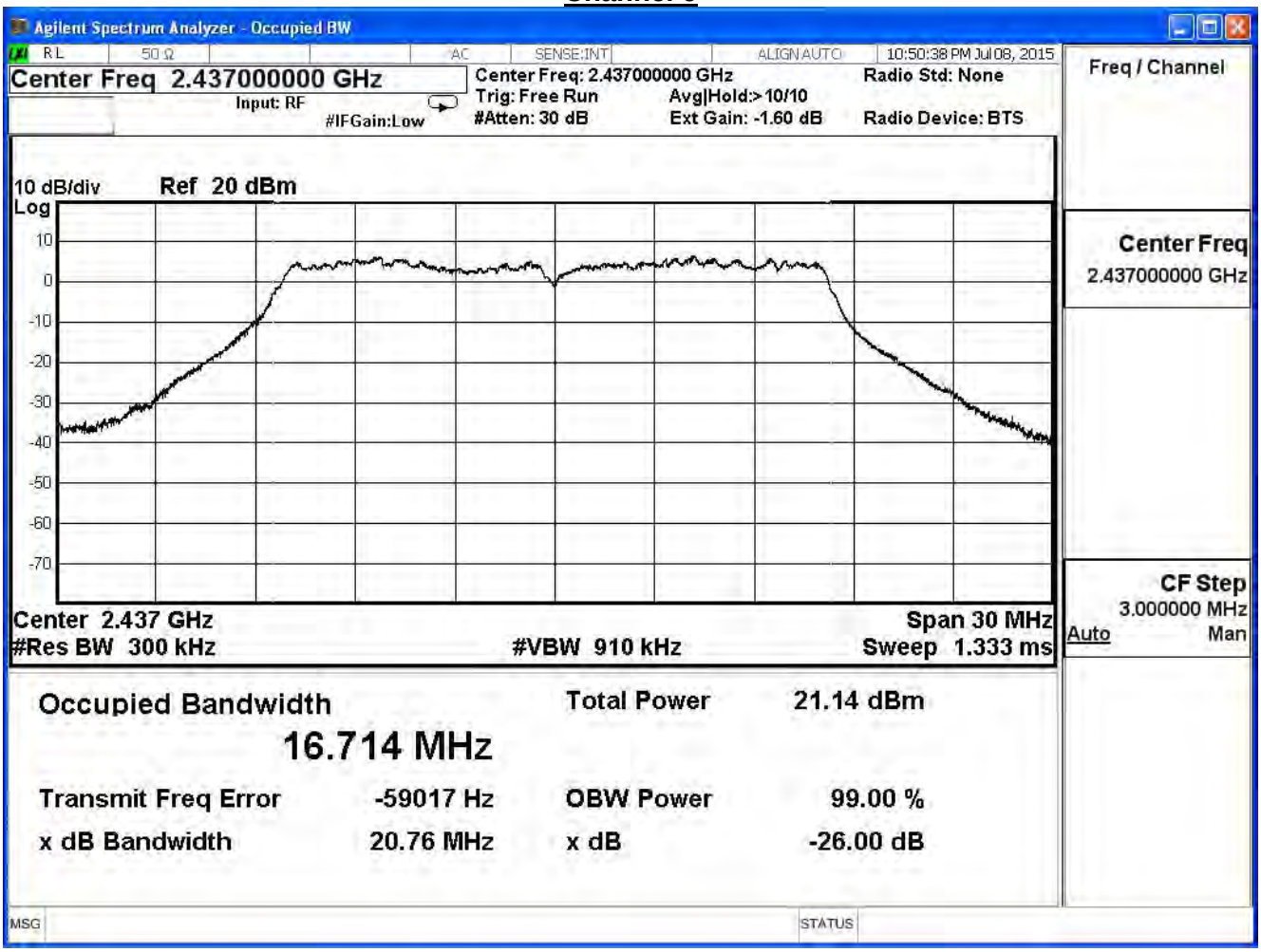
Product	Dual-band Wireless Range Extender		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/07/08	Test Site	SR7

802.11 g (ANT 0)				
Channel No.	Frequency (MHz)	Measure Level(MHz)	Limit (MHz)	Result
1	2412	16.786	--	Pass
6	2437	16.714	--	Pass
11	2462	16.692	--	Pass

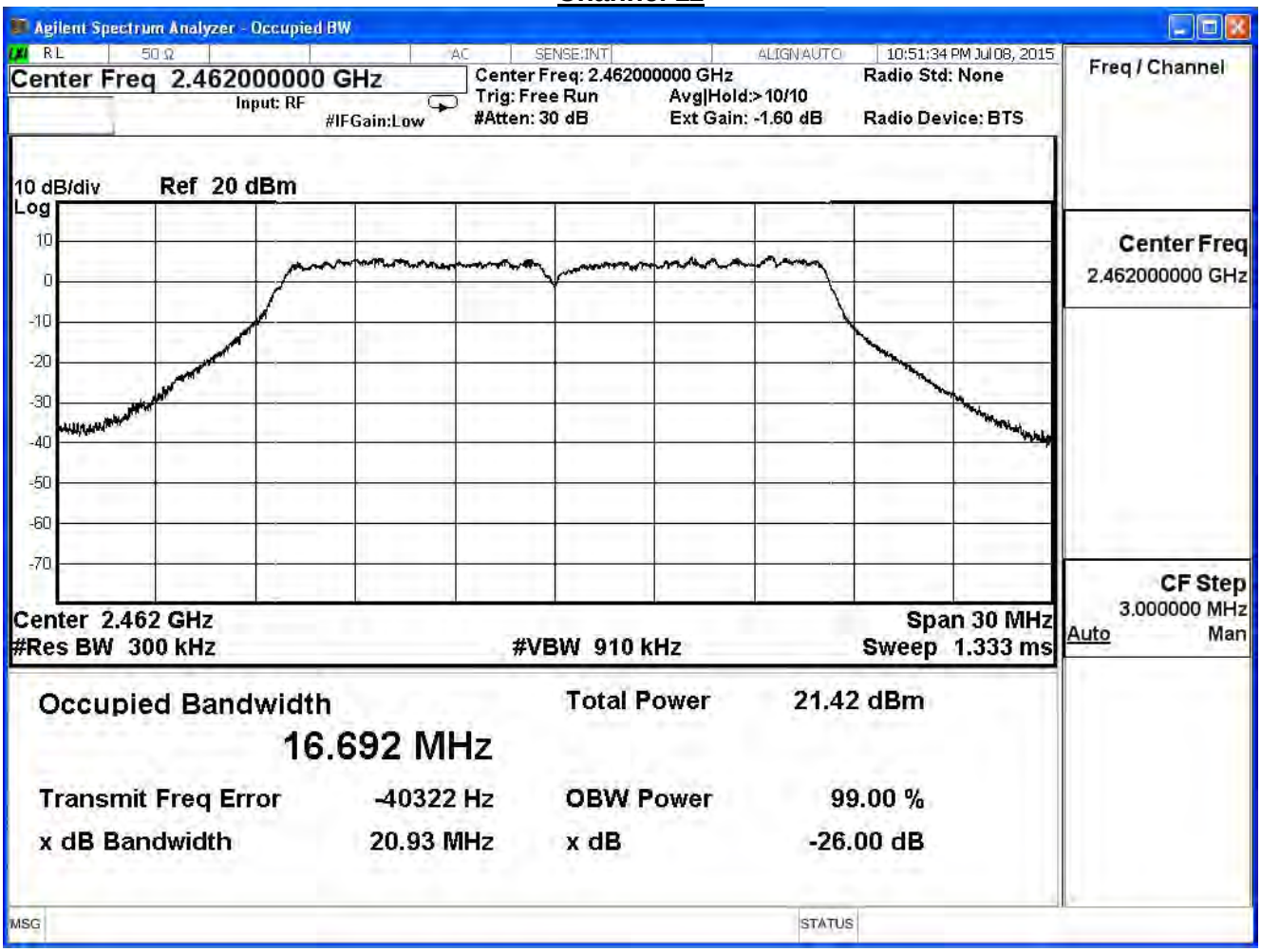
Channel 1



Channel 6


Agilent Spectrum Analyzer - Occupied BW
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:50:38 PM Jul 08, 2015
Center Freq 2.437000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.437000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -1.60 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 20 dBm
10
0
-10
-20
-30
-40
-50
-60
-70
Center Freq
2.437000000 GHz
Center 2.437 GHz
#Res BW 300 kHz
#VBW 910 kHz
Span 30 MHz
Sweep 1.333 ms
CF Step
3.000000 MHz
Auto
Man
Occupied Bandwidth
16.714 MHz
Total Power
21.14 dBm
Transmit Freq Error
-59017 Hz
OBW Power
99.00 %
x dB Bandwidth
20.76 MHz
x dB
-26.00 dB
MSG
STATUS

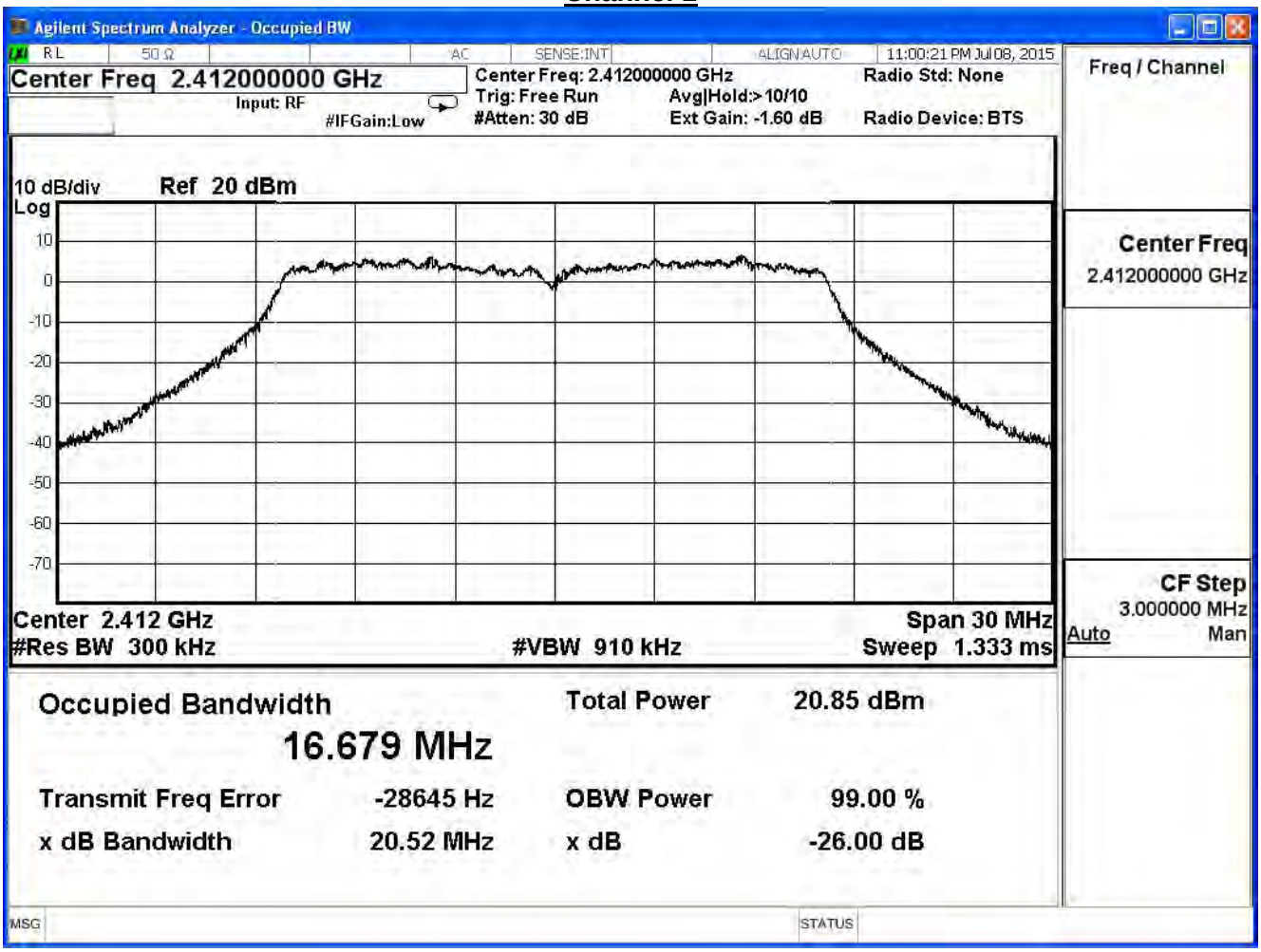
Channel 11


Agilent Spectrum Analyzer - Occupied BW
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:51:34 PM Jul 08, 2015
Center Freq 2.462000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.462000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -1.60 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 20 dBm
10
0
-10
-20
-30
-40
-50
-60
-70
Center Freq
2.462000000 GHz
Center 2.462 GHz
#Res BW 300 kHz
#VBW 910 kHz
Span 30 MHz
Sweep 1.333 ms
CF Step
3.000000 MHz
Auto
Man
Occupied Bandwidth
16.692 MHz
Total Power
21.42 dBm
Transmit Freq Error
-40322 Hz
OBW Power
99.00 %
x dB Bandwidth
20.93 MHz
x dB
-26.00 dB
MSG
STATUS

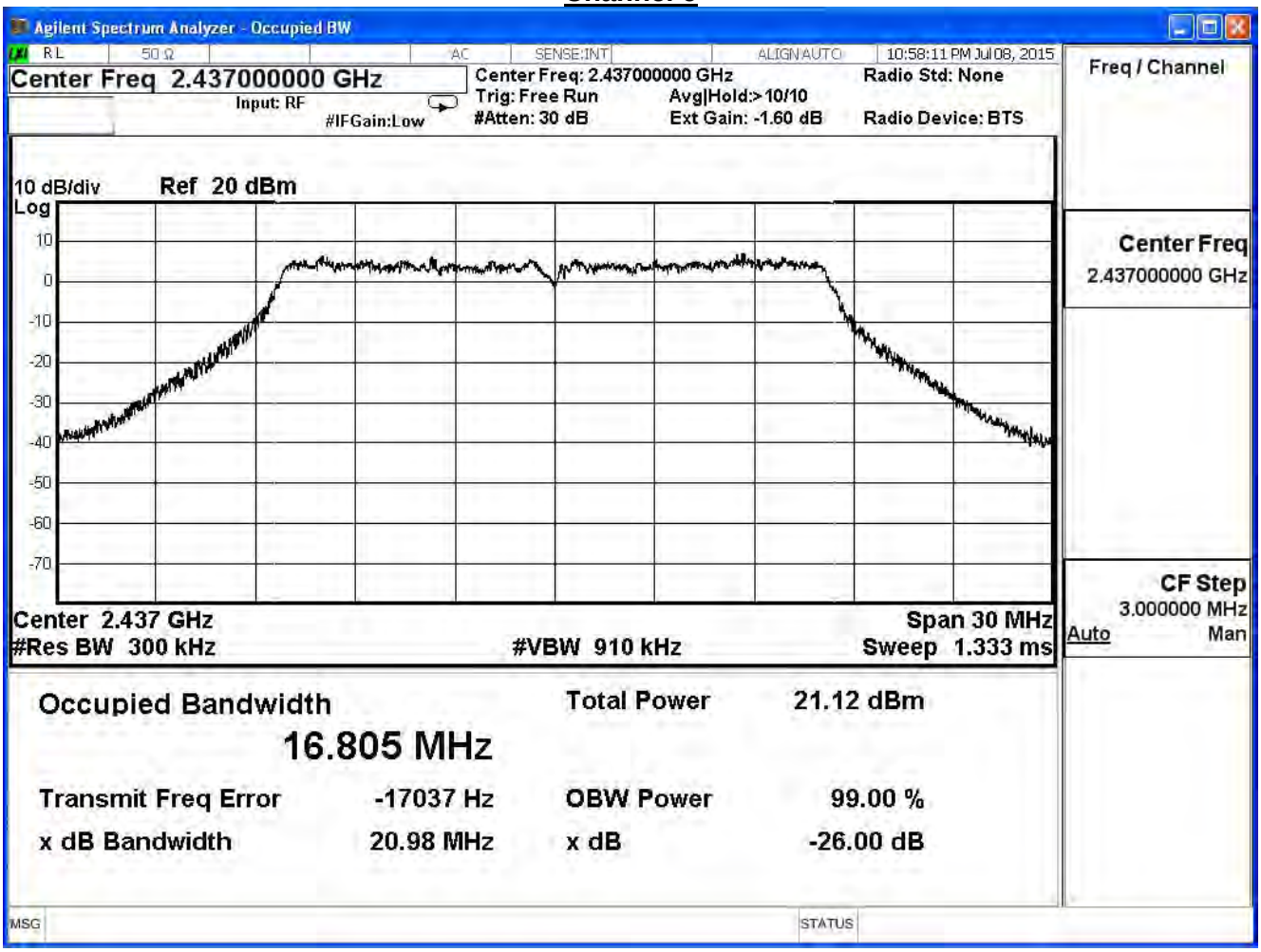
Product	Dual-band Wireless Range Extender		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/07/08	Test Site	SR7

802.11 g (ANT 1)				
Channel No.	Frequency (MHz)	Measure Level(MHz)	Limit (MHz)	Result
1	2412	16.679	--	Pass
6	2437	16.805	--	Pass
11	2462	16.725	--	Pass

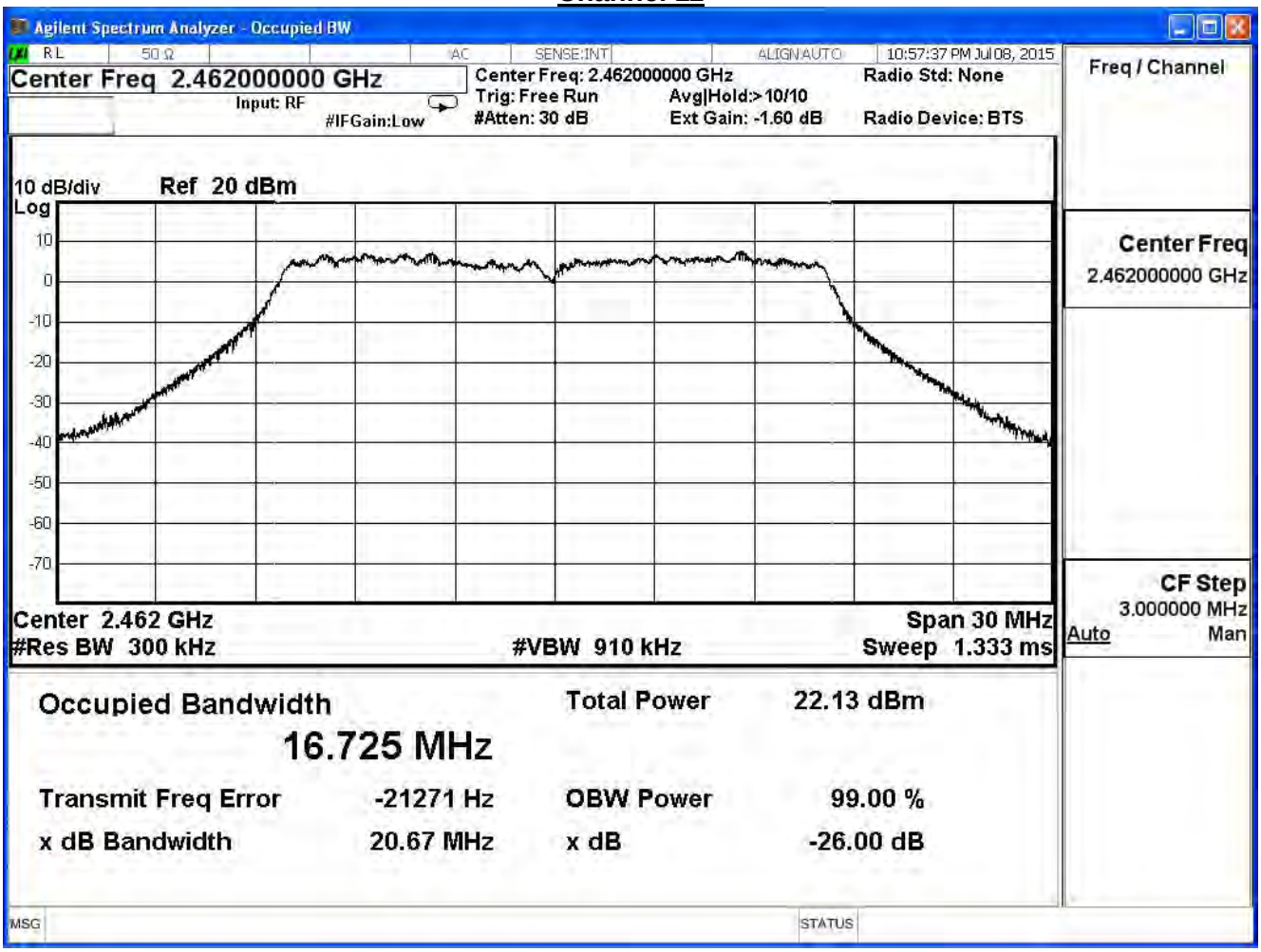
Channel 1



Channel 6


Agilent Spectrum Analyzer - Occupied BW
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:58:11 PM Jul 08, 2015
Center Freq 2.437000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.437000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -1.60 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 20 dBm
10
0
-10
-20
-30
-40
-50
-60
-70
Center Freq
2.437000000 GHz
Center 2.437 GHz
#Res BW 300 kHz
#VBW 910 kHz
Span 30 MHz
Sweep 1.333 ms
CF Step
3.000000 MHz
Auto
Man
Occupied Bandwidth
16.805 MHz
Total Power
21.12 dBm
Transmit Freq Error
-17037 Hz
OBW Power
99.00 %
x dB Bandwidth
20.98 MHz
x dB
-26.00 dB
MSG
STATUS

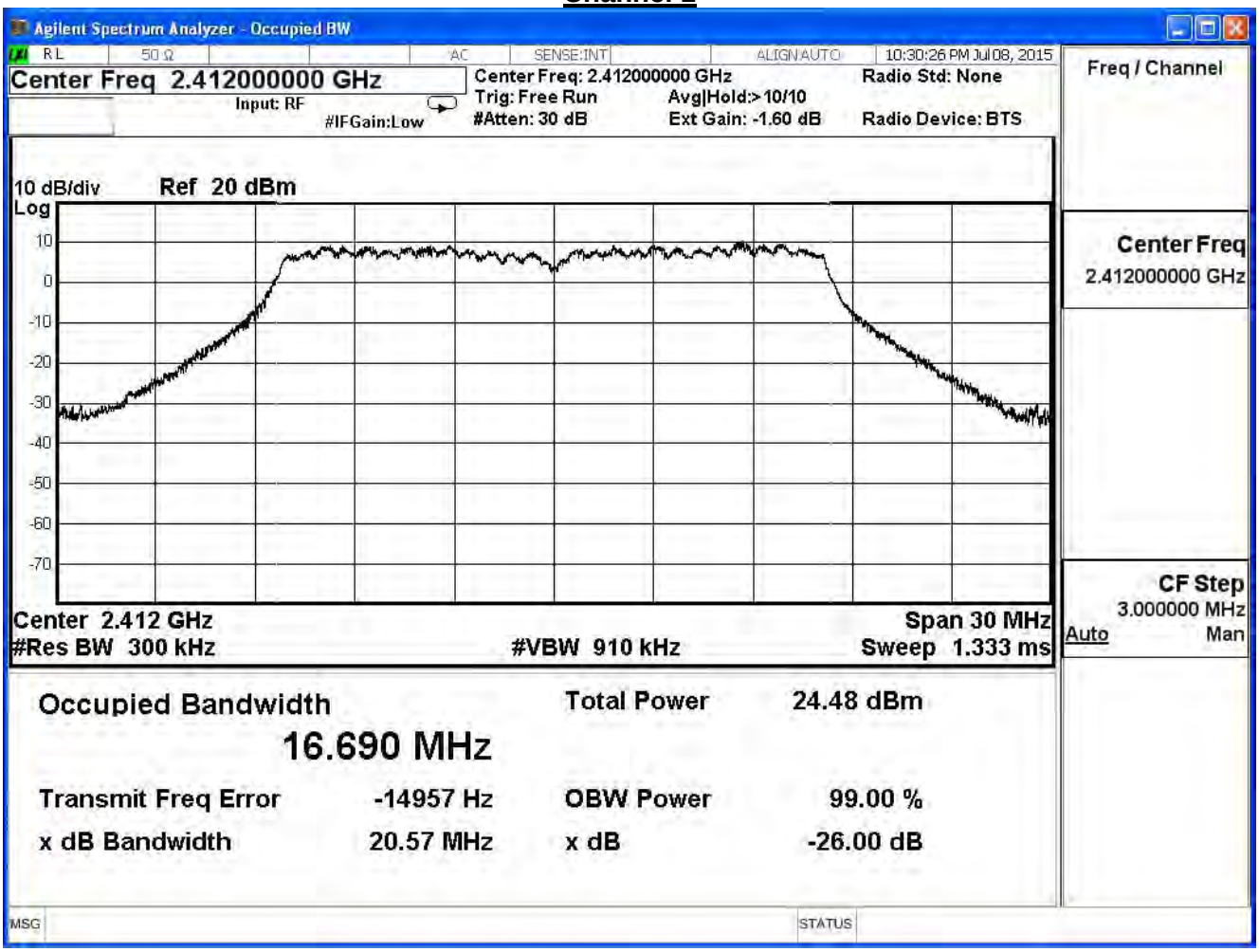
Channel 11


Agilent Spectrum Analyzer - Occupied BW
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:57:37 PM Jul 08, 2015
Center Freq 2.462000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.462000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -1.60 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Ref 20 dBm
Log
10
0
-10
-20
-30
-40
-50
-60
-70
Center Freq
2.462000000 GHz
Center 2.462 GHz
#Res BW 300 kHz
#VBW 910 kHz
Span 30 MHz
Sweep 1.333 ms
CF Step
3.000000 MHz
Auto
Man
Occupied Bandwidth
16.725 MHz
Total Power
22.13 dBm
Transmit Freq Error
-21271 Hz
OBW Power
99.00 %
x dB Bandwidth
20.67 MHz
x dB
-26.00 dB
MSG
STATUS

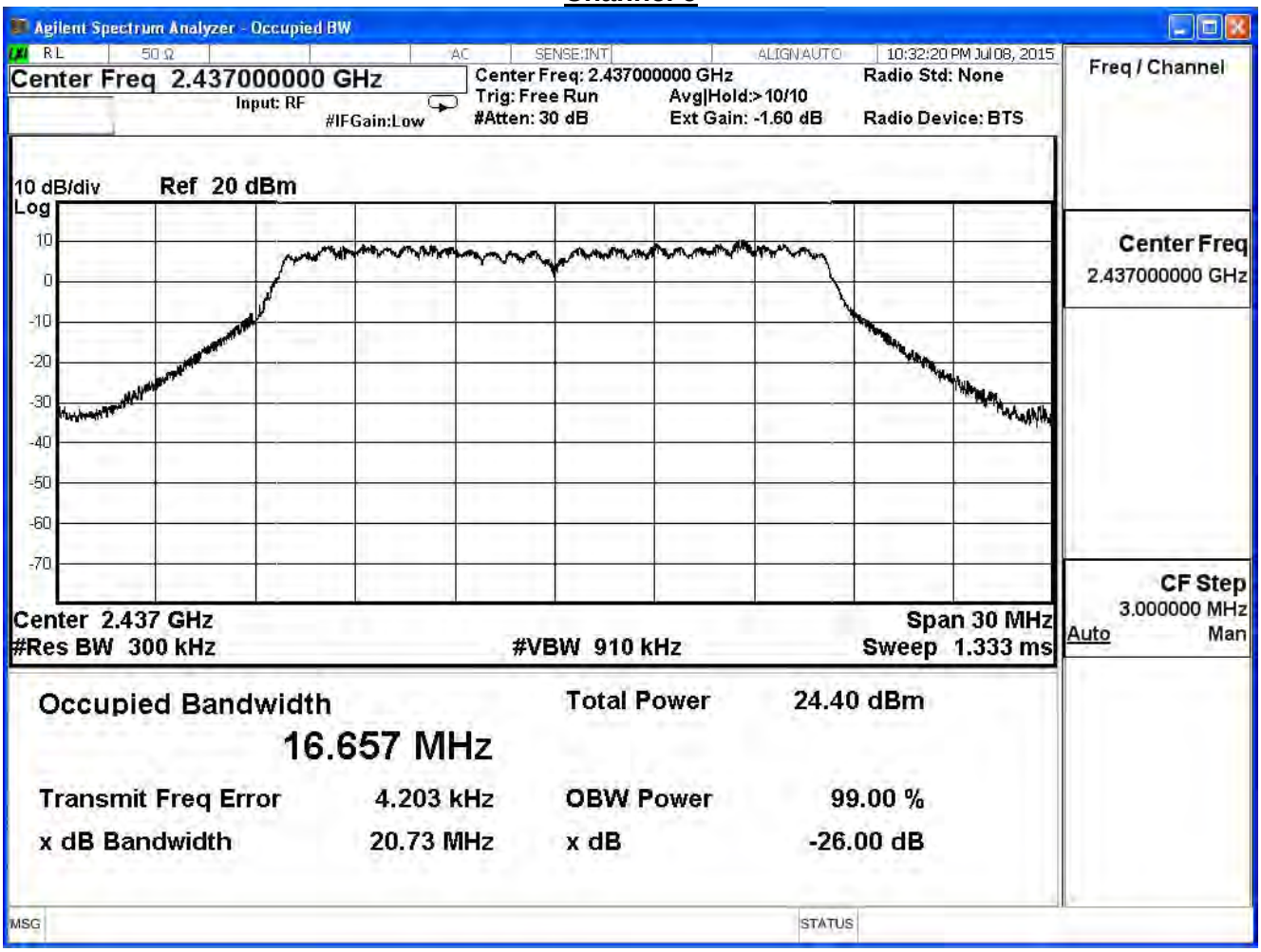
Product	Dual-band Wireless Range Extender		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/07/08	Test Site	SR7

802.11 g (ANT 2)				
Channel No.	Frequency (MHz)	Measure Level(MHz)	Limit (MHz)	Result
1	2412	16.690	--	Pass
6	2437	16.657	--	Pass
11	2462	16.653	--	Pass

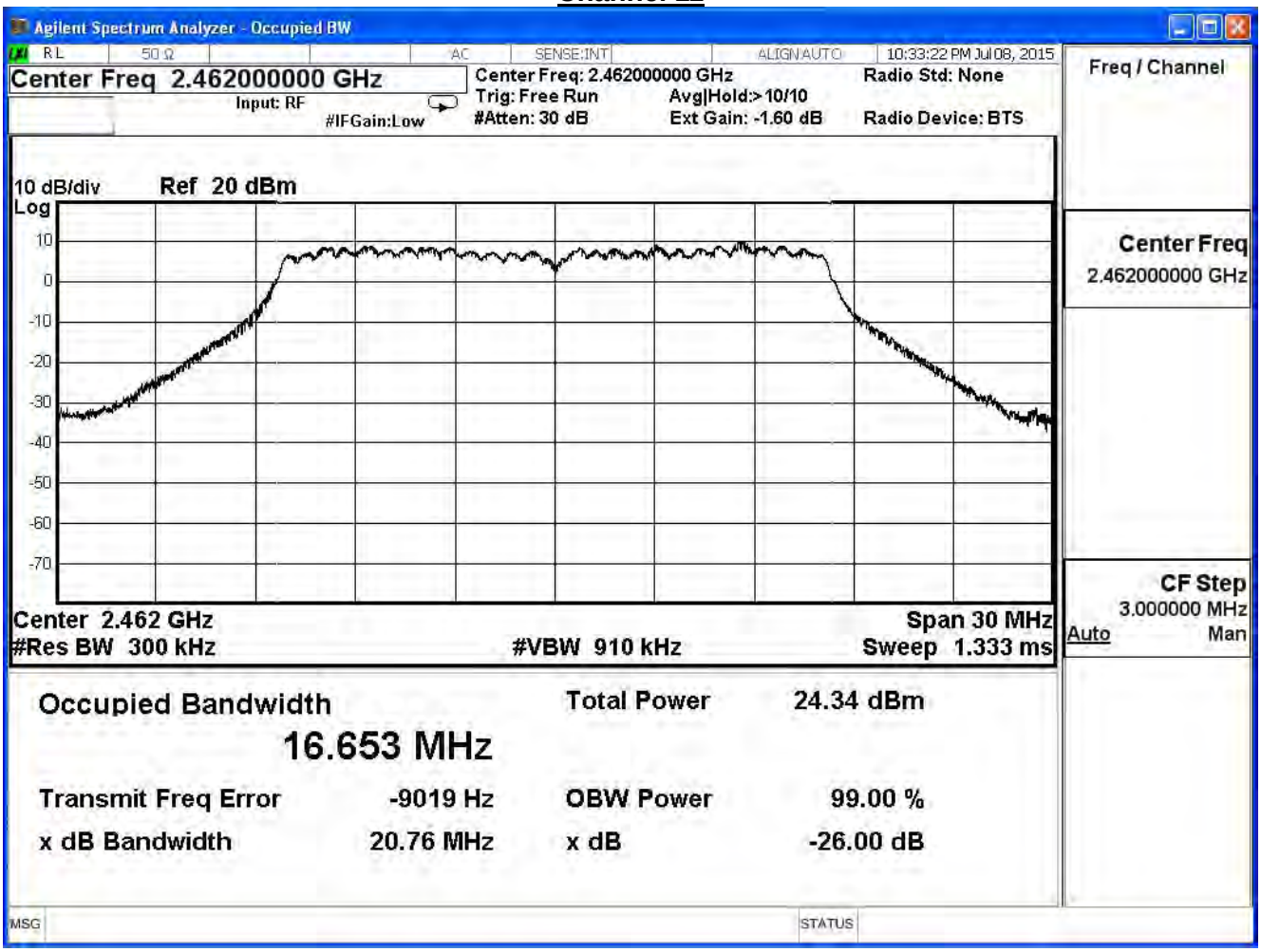
Channel 1



Channel 6


Agilent Spectrum Analyzer - Occupied BW
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:32:20 PM Jul 08, 2015
Center Freq 2.437000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.437000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -1.60 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 20 dBm
10
0
-10
-20
-30
-40
-50
-60
-70
Center Freq
2.437000000 GHz
Center 2.437 GHz
#Res BW 300 kHz
#VBW 910 kHz
Span 30 MHz
Sweep 1.333 ms
CF Step
3.000000 MHz
Auto
Man
Occupied Bandwidth
16.657 MHz
Total Power
24.40 dBm
Transmit Freq Error
4.203 kHz
OBW Power
99.00 %
x dB Bandwidth
20.73 MHz
x dB
-26.00 dB
MSG
STATUS

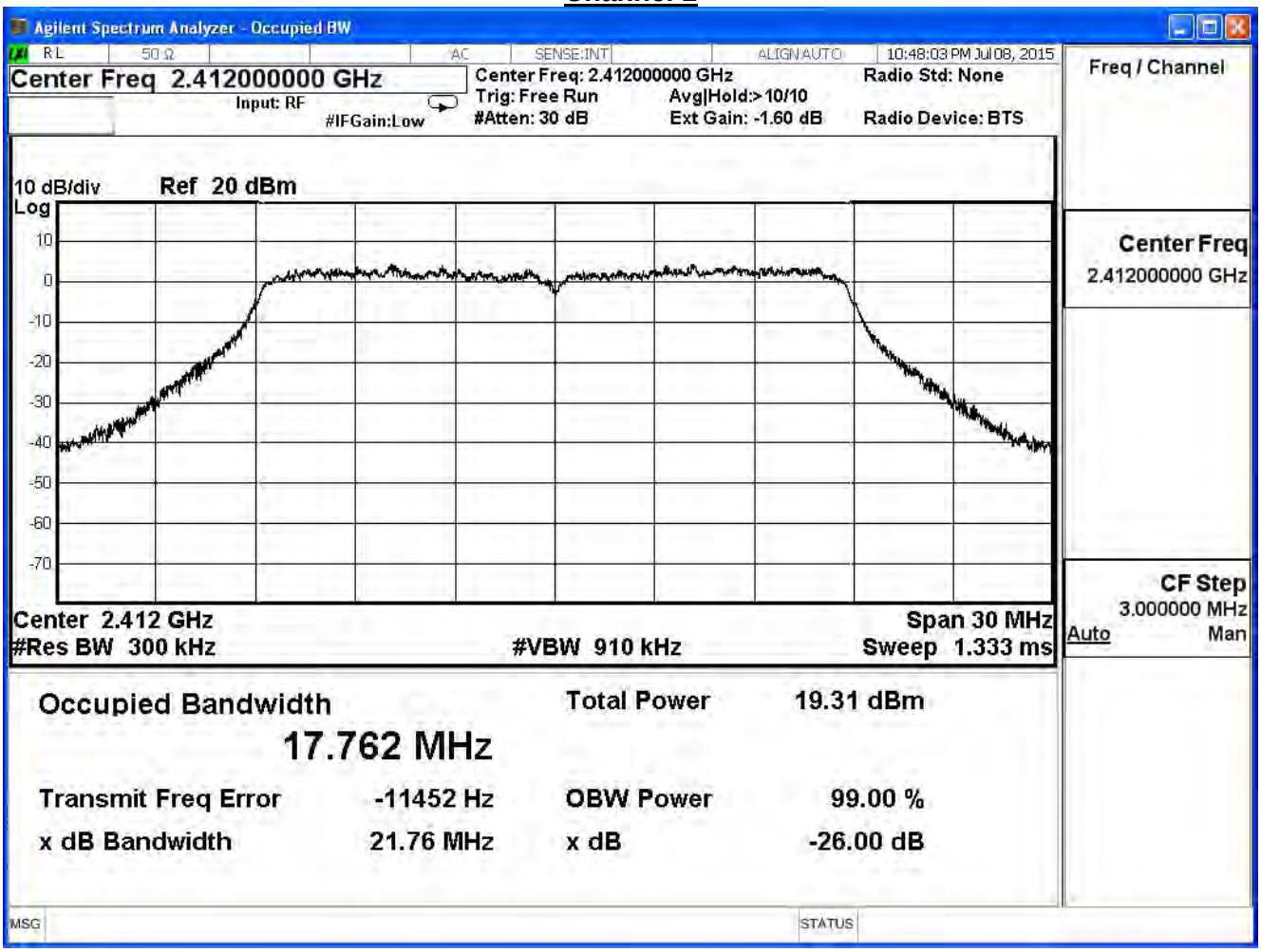
Channel 11


Agilent Spectrum Analyzer - Occupied BW
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:33:22 PM Jul 08, 2015
Center Freq 2.462000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.462000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -1.60 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 20 dBm
10
0
-10
-20
-30
-40
-50
-60
-70
Center Freq
2.462000000 GHz
Center 2.462 GHz
#Res BW 300 kHz
#VBW 910 kHz
Span 30 MHz
Sweep 1.333 ms
CF Step
3.000000 MHz
Auto
Man
Occupied Bandwidth
16.653 MHz
Total Power
24.34 dBm
Transmit Freq Error
-9019 Hz
OBW Power
99.00 %
x dB Bandwidth
20.76 MHz
x dB
-26.00 dB
MSG
STATUS

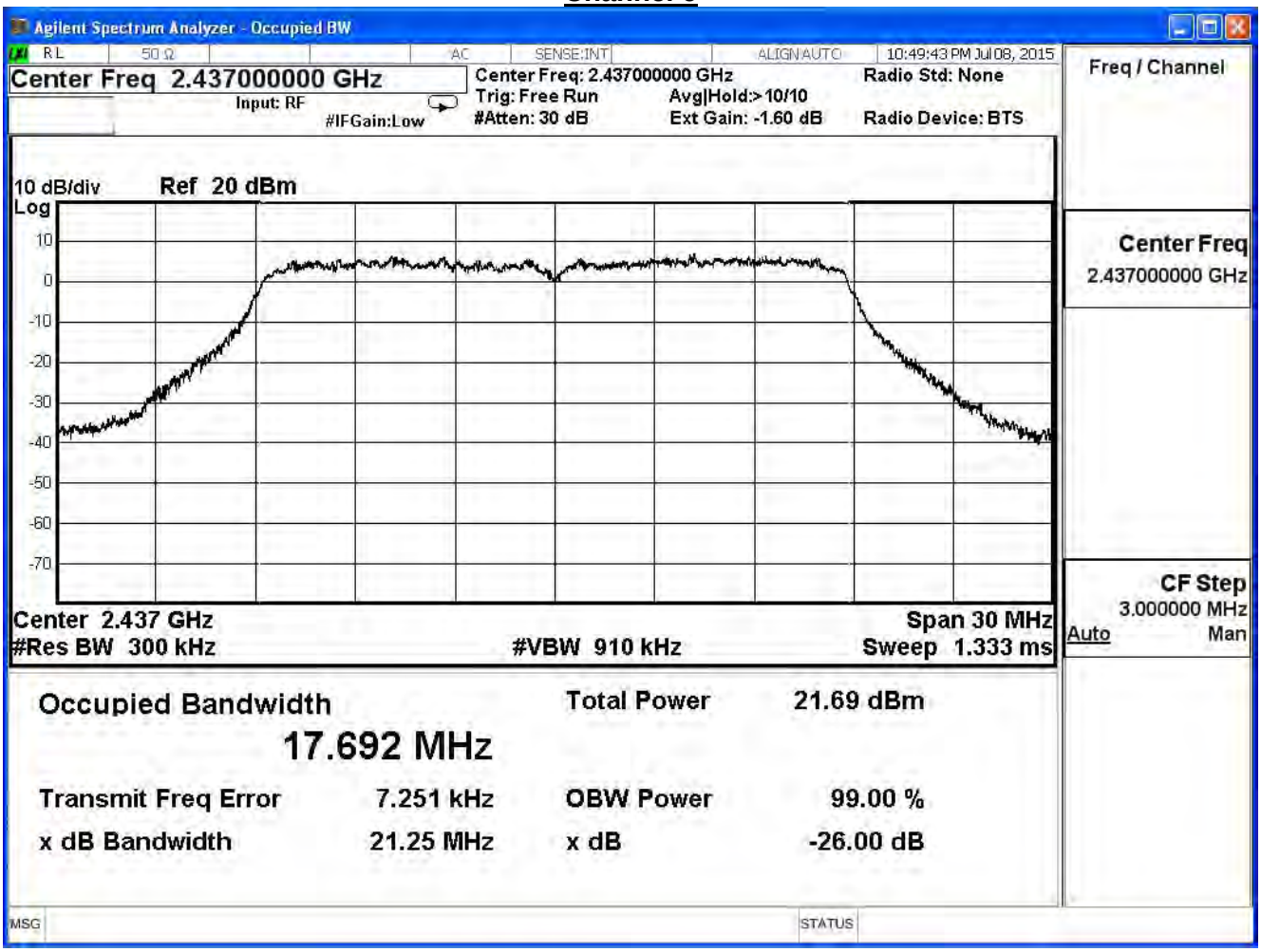
Product	Dual-band Wireless Range Extender		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/07/08	Test Site	SR7

IEEE802.11n 20MHz (ANT 0)				
Channel No.	Frequency (MHz)	Measure Level(MHz)	Limit (MHz)	Result
1	2412	17.762	--	Pass
6	2437	17.692	--	Pass
11	2462	17.817	--	Pass

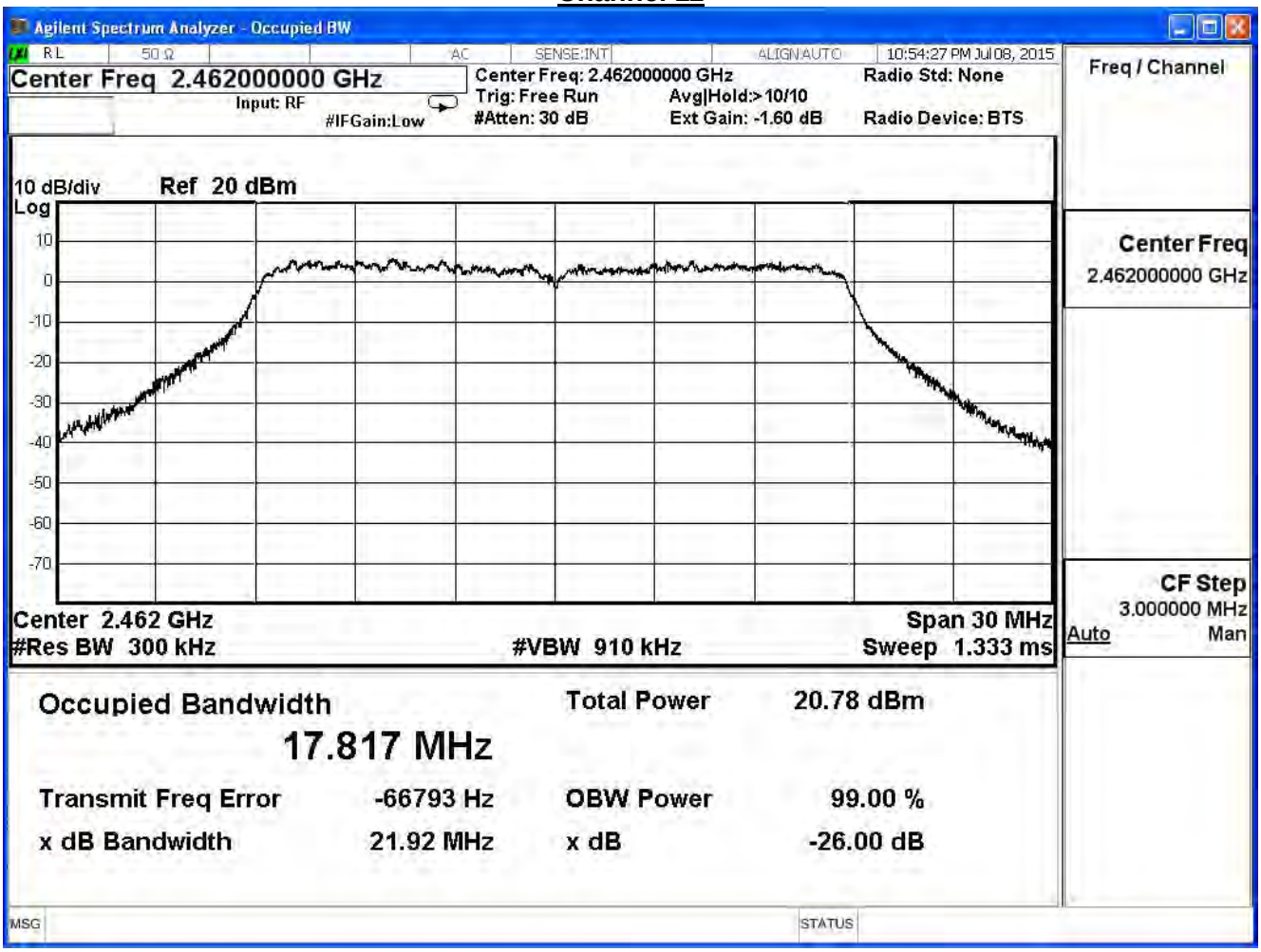
Channel 1



Channel 6


Agilent Spectrum Analyzer - Occupied BW
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:49:43 PM Jul 08, 2015
Center Freq 2.437000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.437000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -1.60 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 20 dBm
10
0
-10
-20
-30
-40
-50
-60
-70
Center Freq
2.437000000 GHz
Center 2.437 GHz
#Res BW 300 kHz
#VBW 910 kHz
Span 30 MHz
Sweep 1.333 ms
CF Step
3.000000 MHz
Auto
Man
Occupied Bandwidth
17.692 MHz
Total Power
21.69 dBm
Transmit Freq Error
7.251 kHz
OBW Power
99.00 %
x dB Bandwidth
21.25 MHz
x dB
-26.00 dB
MSG
STATUS

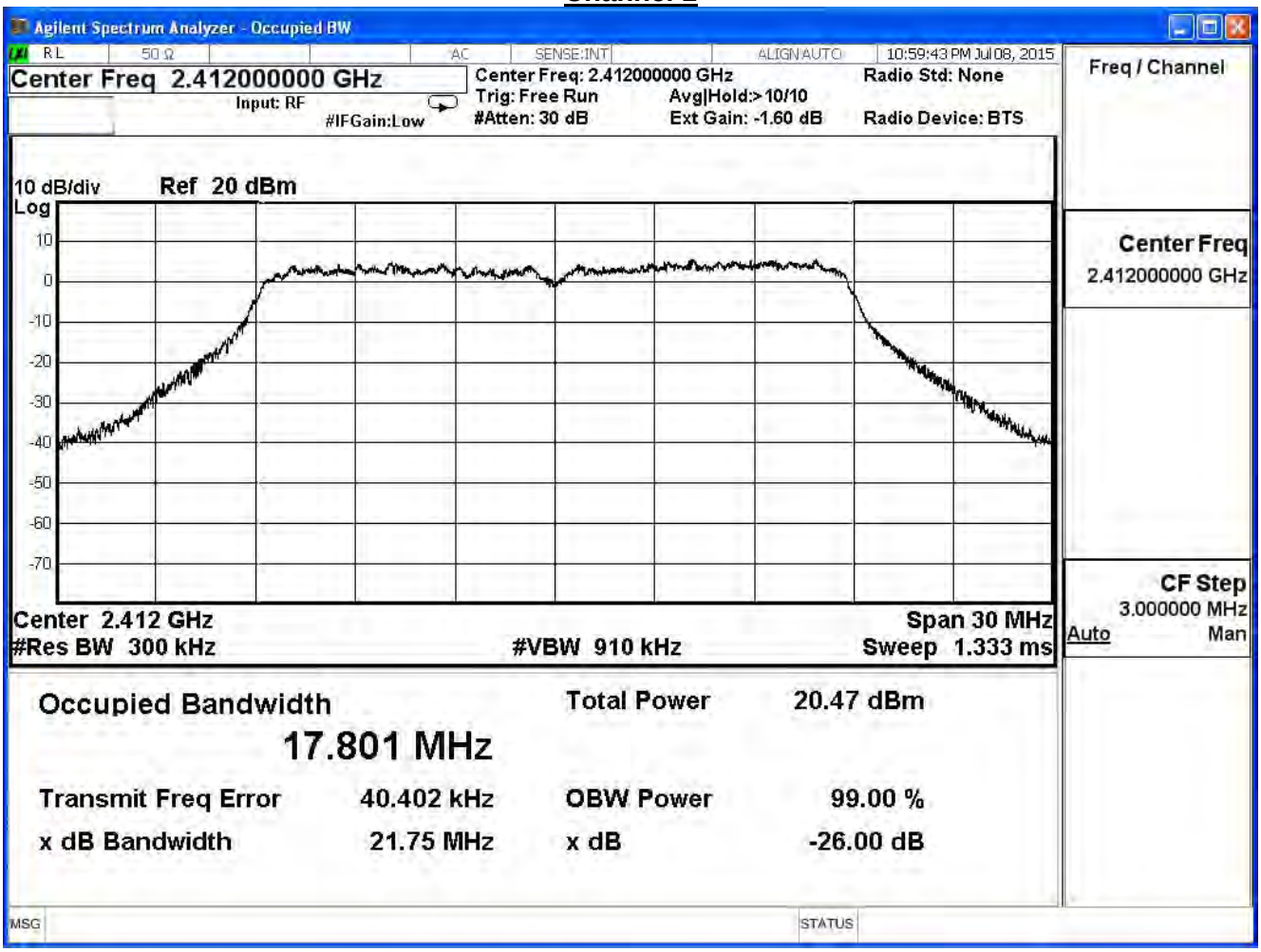
Channel 11


Agilent Spectrum Analyzer - Occupied BW
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:54:27 PM Jul 08, 2015
Center Freq 2.462000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.462000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -1.60 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 20 dBm
10
0
-10
-20
-30
-40
-50
-60
-70
Center Freq
2.462000000 GHz
Center 2.462 GHz
#Res BW 300 kHz
#VBW 910 kHz
Span 30 MHz
Sweep 1.333 ms
CF Step
3.000000 MHz
Auto
Man
Occupied Bandwidth
17.817 MHz
Total Power
20.78 dBm
Transmit Freq Error
-66793 Hz
OBW Power
99.00 %
x dB Bandwidth
21.92 MHz
x dB
-26.00 dB
MSG
STATUS

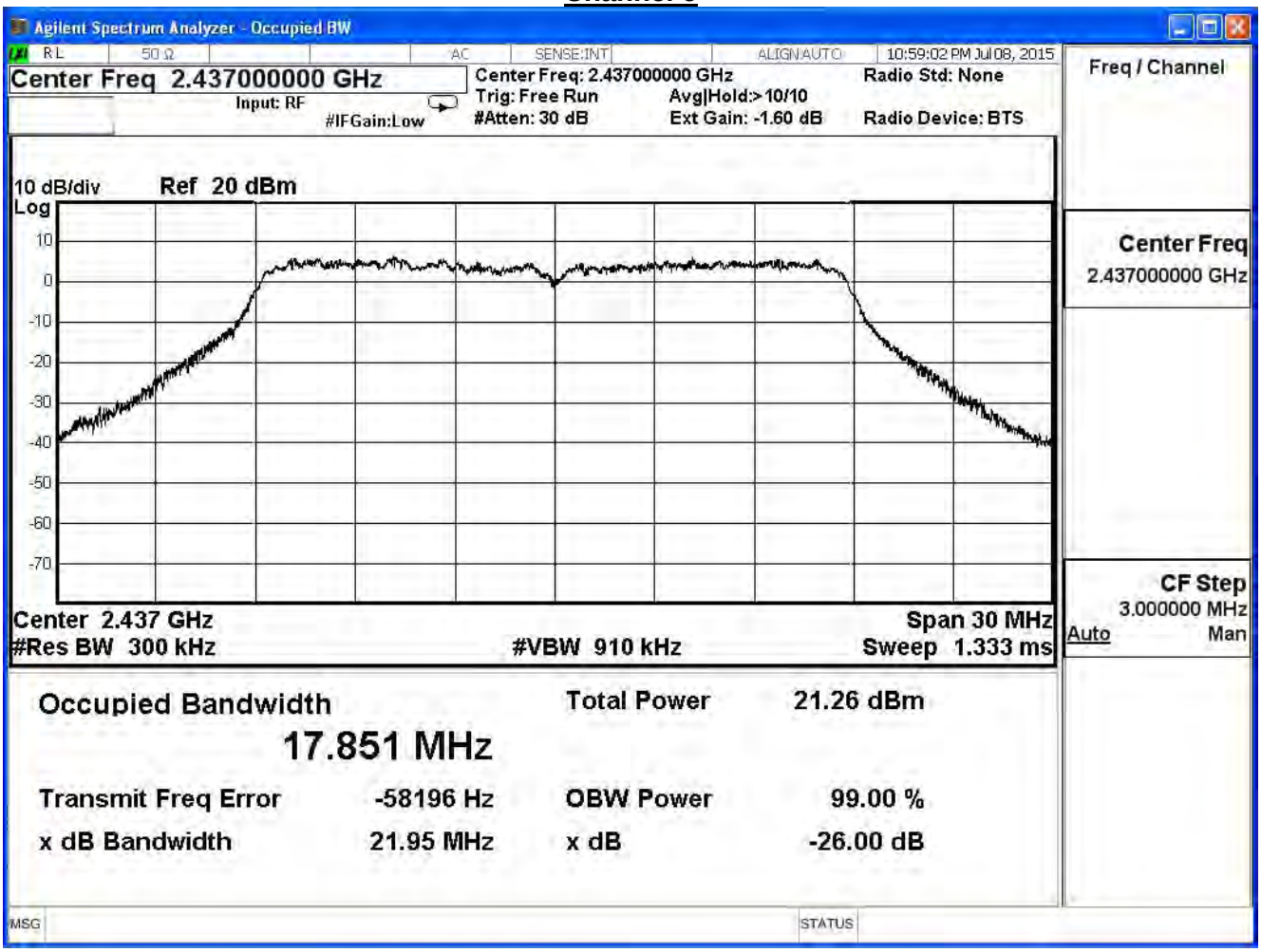
Product	Dual-band Wireless Range Extender		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/07/08	Test Site	SR7

IEEE802.11n 20MHz (ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
1	2412	17.801	--	Pass
6	2437	17.851	--	Pass
11	2462	17.760	--	Pass

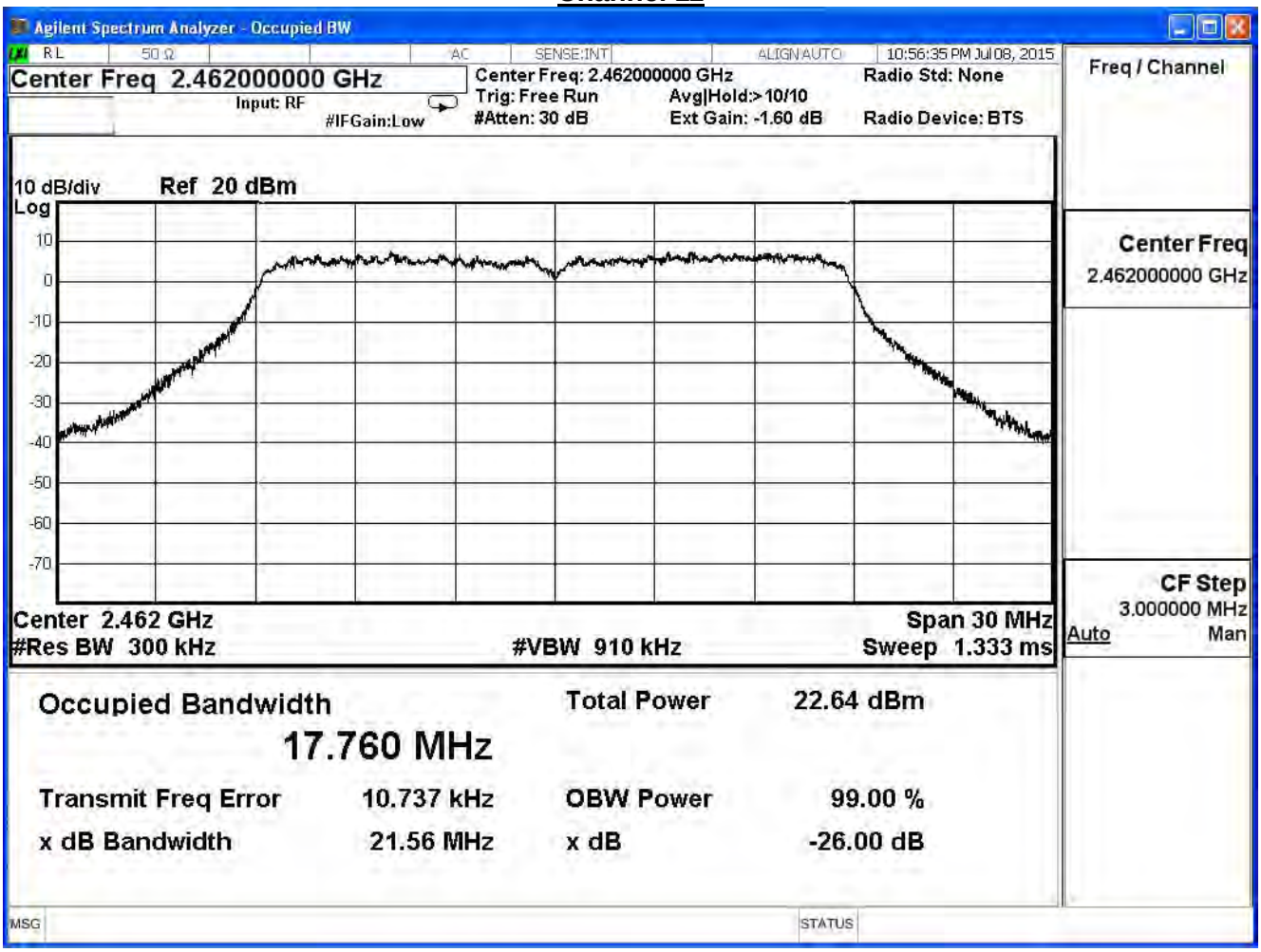
Channel 1



Channel 6


Agilent Spectrum Analyzer - Occupied BW
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:59:02 PM Jul 08, 2015
Center Freq 2.437000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.437000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -1.60 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 20 dBm
10
0
-10
-20
-30
-40
-50
-60
-70
Center Freq
2.437000000 GHz
Center 2.437 GHz
#Res BW 300 kHz
#VBW 910 kHz
Span 30 MHz
Sweep 1.333 ms
CF Step
3.000000 MHz
Auto
Man
Occupied Bandwidth
17.851 MHz
Total Power
21.26 dBm
Transmit Freq Error
-58196 Hz
OBW Power
99.00 %
x dB Bandwidth
21.95 MHz
x dB
-26.00 dB
MSG
STATUS

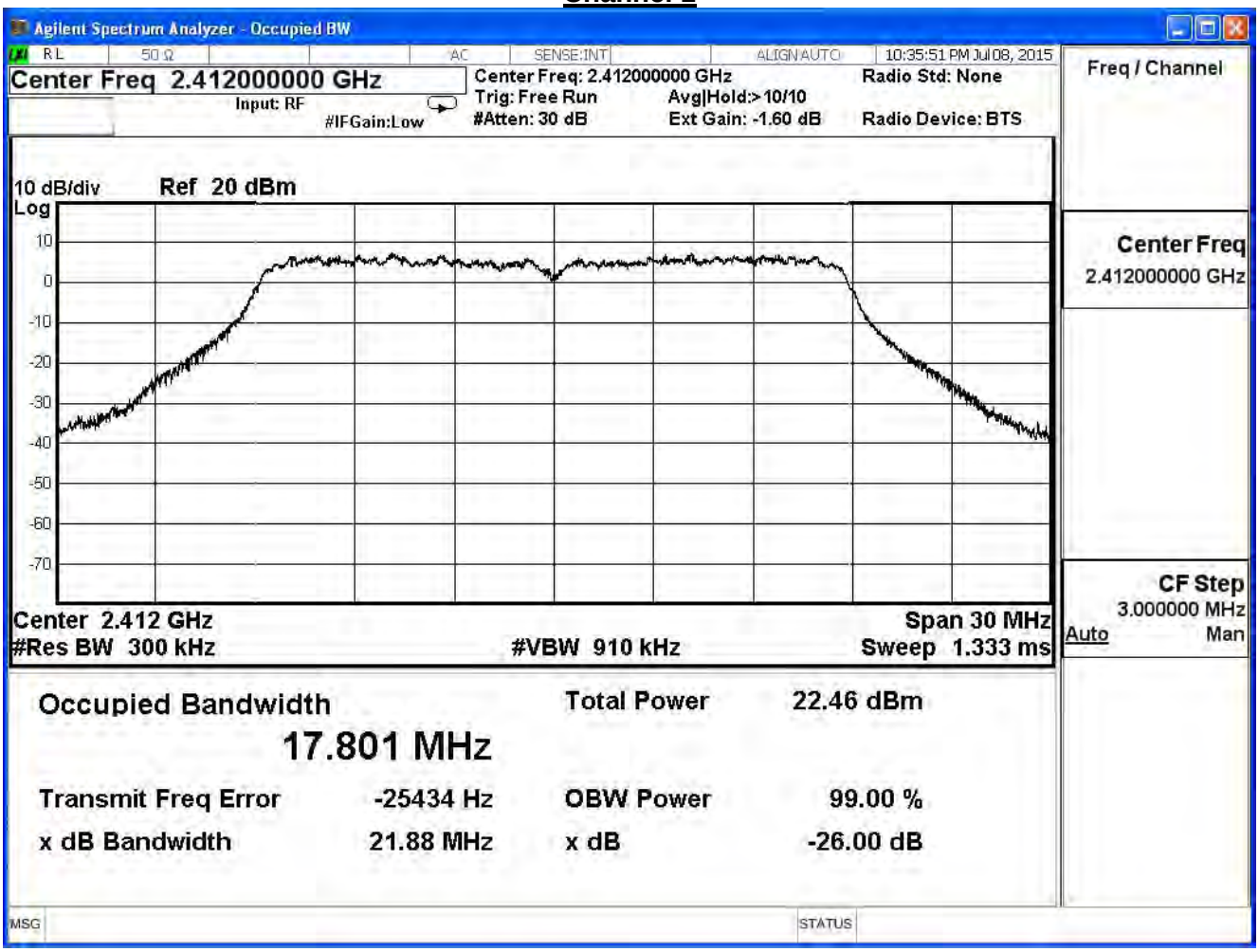
Channel 11


Agilent Spectrum Analyzer - Occupied BW
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:56:35 PM Jul 08, 2015
Center Freq 2.462000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.462000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -1.60 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 20 dBm
10
0
-10
-20
-30
-40
-50
-60
-70
Center Freq
2.462000000 GHz
Center 2.462 GHz
#Res BW 300 kHz
#VBW 910 kHz
Span 30 MHz
Sweep 1.333 ms
CF Step
3.000000 MHz
Auto
Man
Occupied Bandwidth
17.760 MHz
Total Power
22.64 dBm
Transmit Freq Error
10.737 kHz
OBW Power
99.00 %
x dB Bandwidth
21.56 MHz
x dB
-26.00 dB
MSG
STATUS

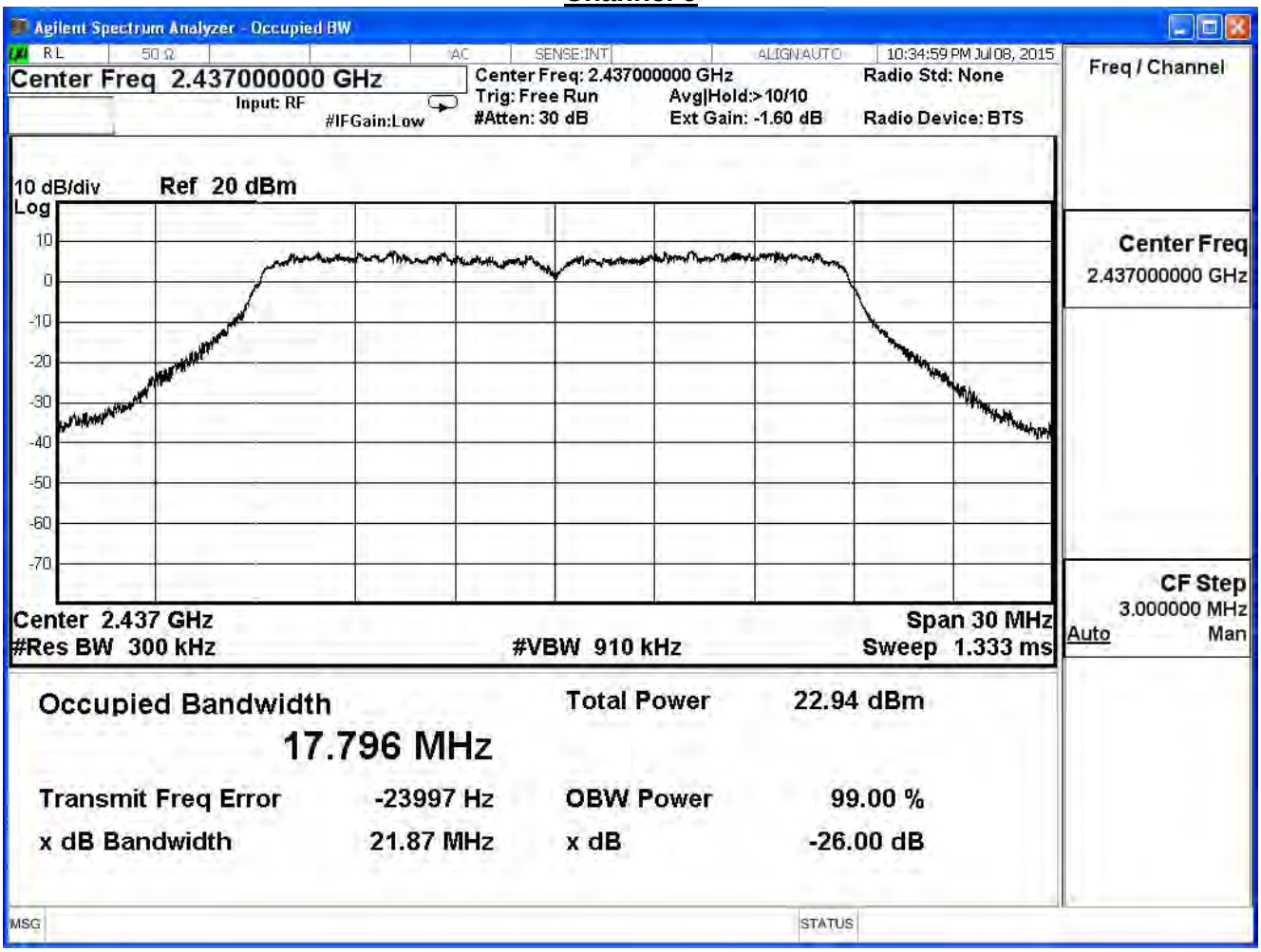
Product	Dual-band Wireless Range Extender		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/07/08	Test Site	SR7

IEEE802.11n 20MHz (ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
1	2412	17.801	--	Pass
6	2437	17.796	--	Pass
11	2462	17.800	--	Pass

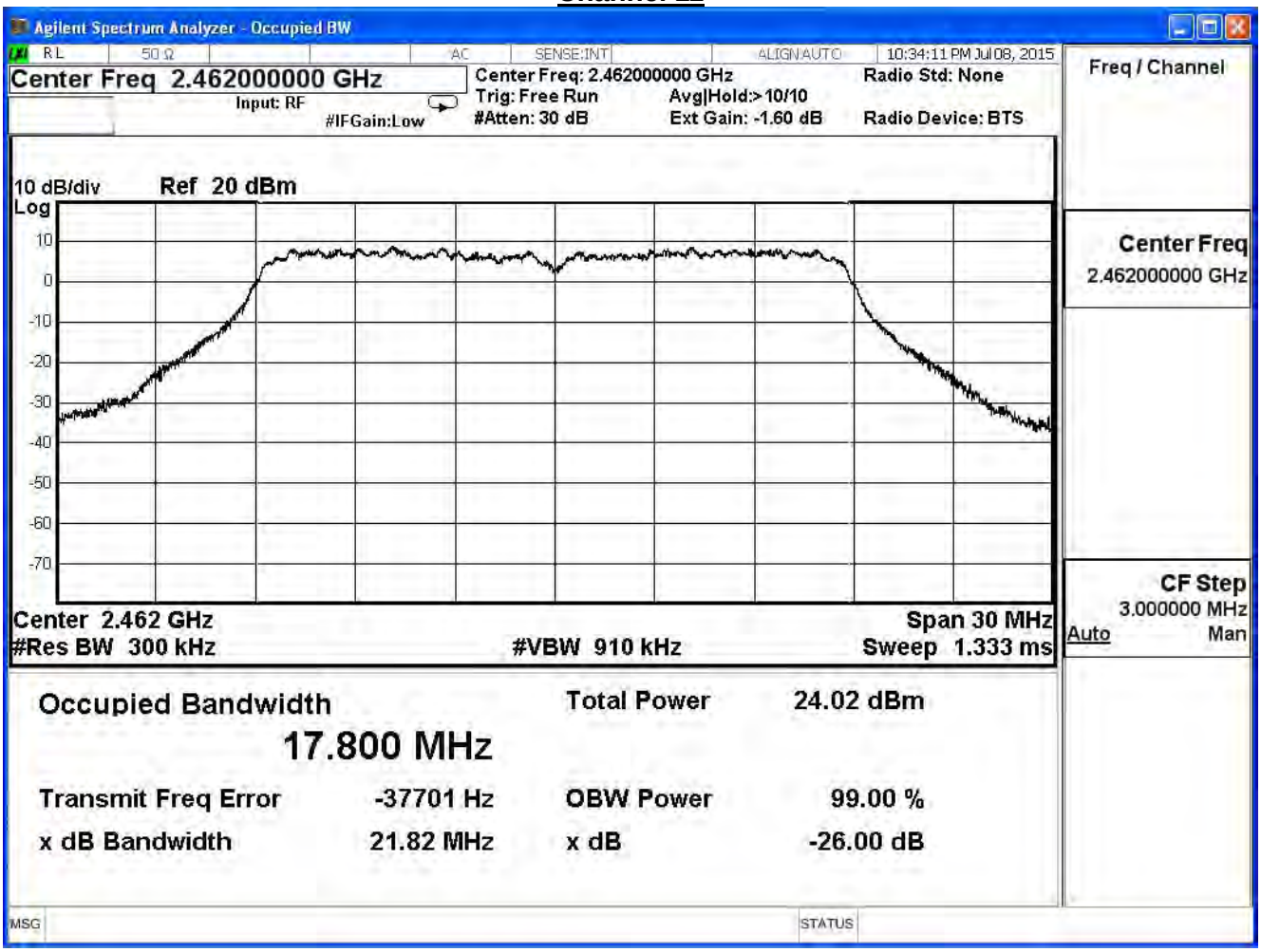
Channel 1



Channel 6


Agilent Spectrum Analyzer - Occupied BW
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:34:59 PM Jul 08, 2015
Center Freq 2.437000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.437000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -1.60 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 20 dBm
10
0
-10
-20
-30
-40
-50
-60
-70
Center Freq
2.437000000 GHz
Center 2.437 GHz
#Res BW 300 kHz
#VBW 910 kHz
Span 30 MHz
Sweep 1.333 ms
CF Step
3.000000 MHz
Auto
Man
Occupied Bandwidth
17.796 MHz
Total Power
22.94 dBm
Transmit Freq Error
-23997 Hz
OBW Power
99.00 %
x dB Bandwidth
21.87 MHz
x dB
-26.00 dB
MSG
STATUS

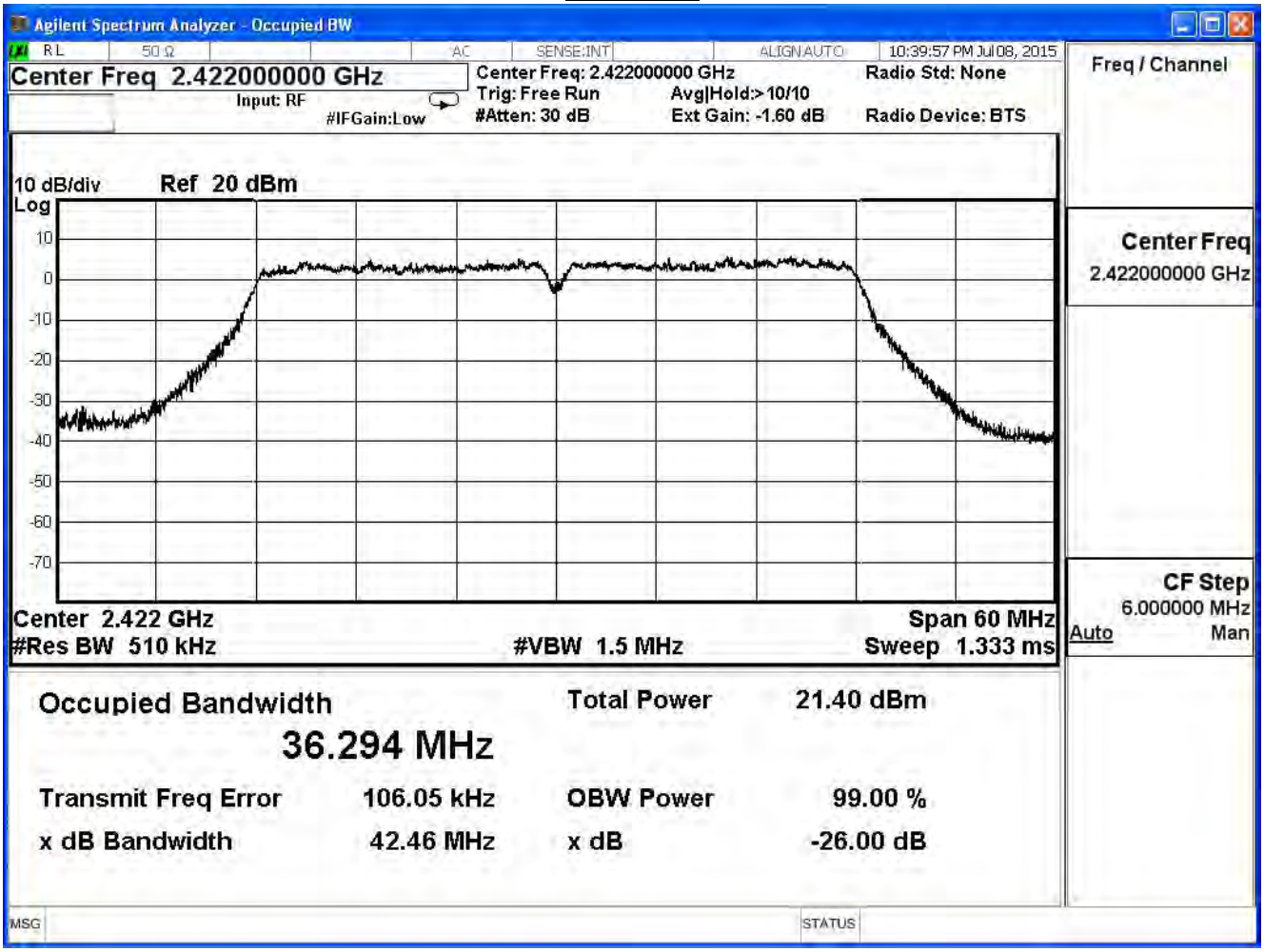
Channel 11


Agilent Spectrum Analyzer - Occupied BW
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:34:11 PM Jul 08, 2015
Center Freq 2.462000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.462000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -1.60 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 20 dBm
10
0
-10
-20
-30
-40
-50
-60
-70
Center Freq
2.462000000 GHz
Center 2.462 GHz
#Res BW 300 kHz
#VBW 910 kHz
Span 30 MHz
Sweep 1.333 ms
CF Step
3.000000 MHz
Auto
Man
Occupied Bandwidth
17.800 MHz
Total Power
24.02 dBm
Transmit Freq Error
-37701 Hz
OBW Power
99.00 %
x dB Bandwidth
21.82 MHz
x dB
-26.00 dB
MSG
STATUS

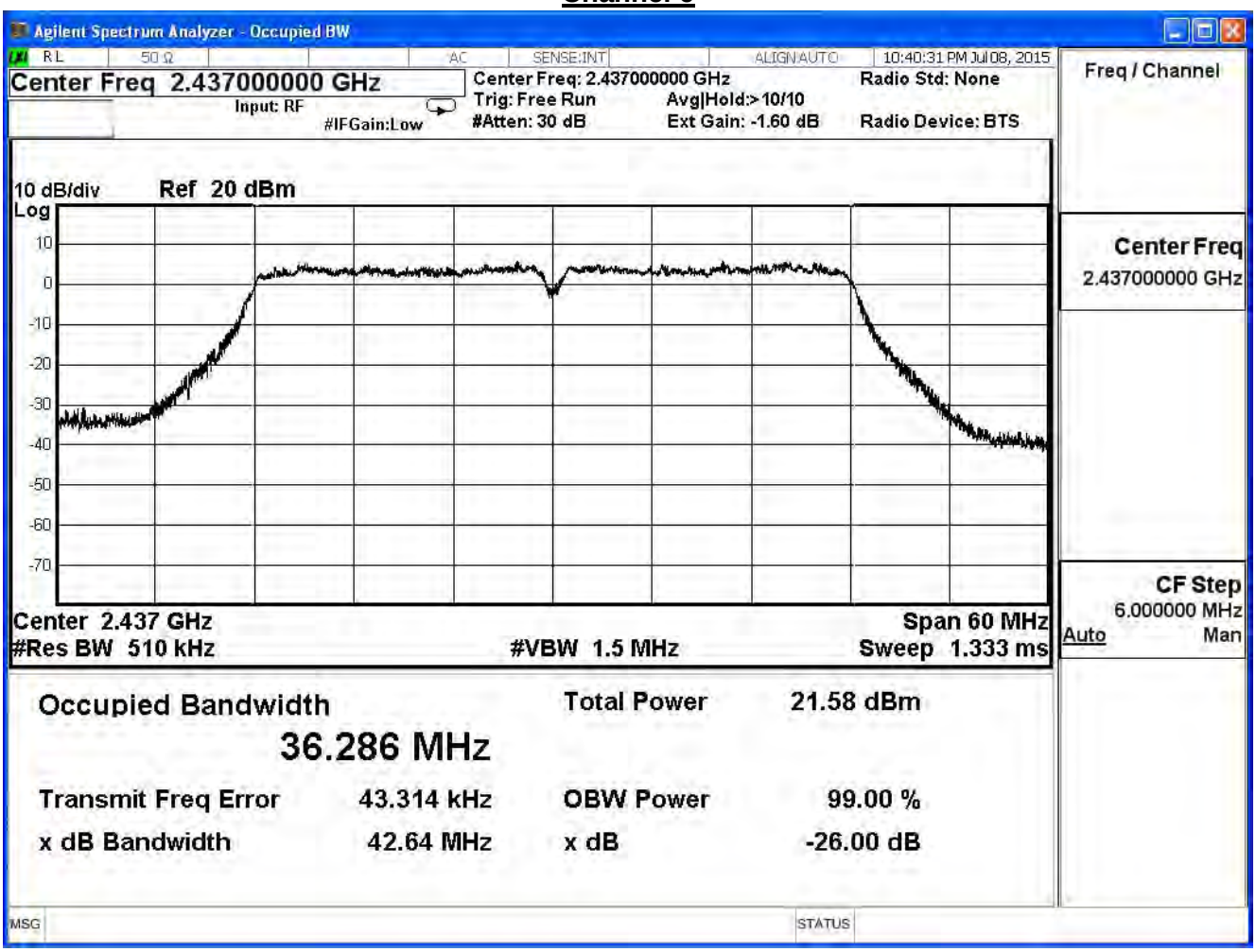
Product	Dual-band Wireless Range Extender		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/07/08	Test Site	SR7

IEEE802.11n 40MHz (ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
3	2422	36.294	--	Pass
6	2437	36.286	--	Pass
9	2452	36.318	--	Pass

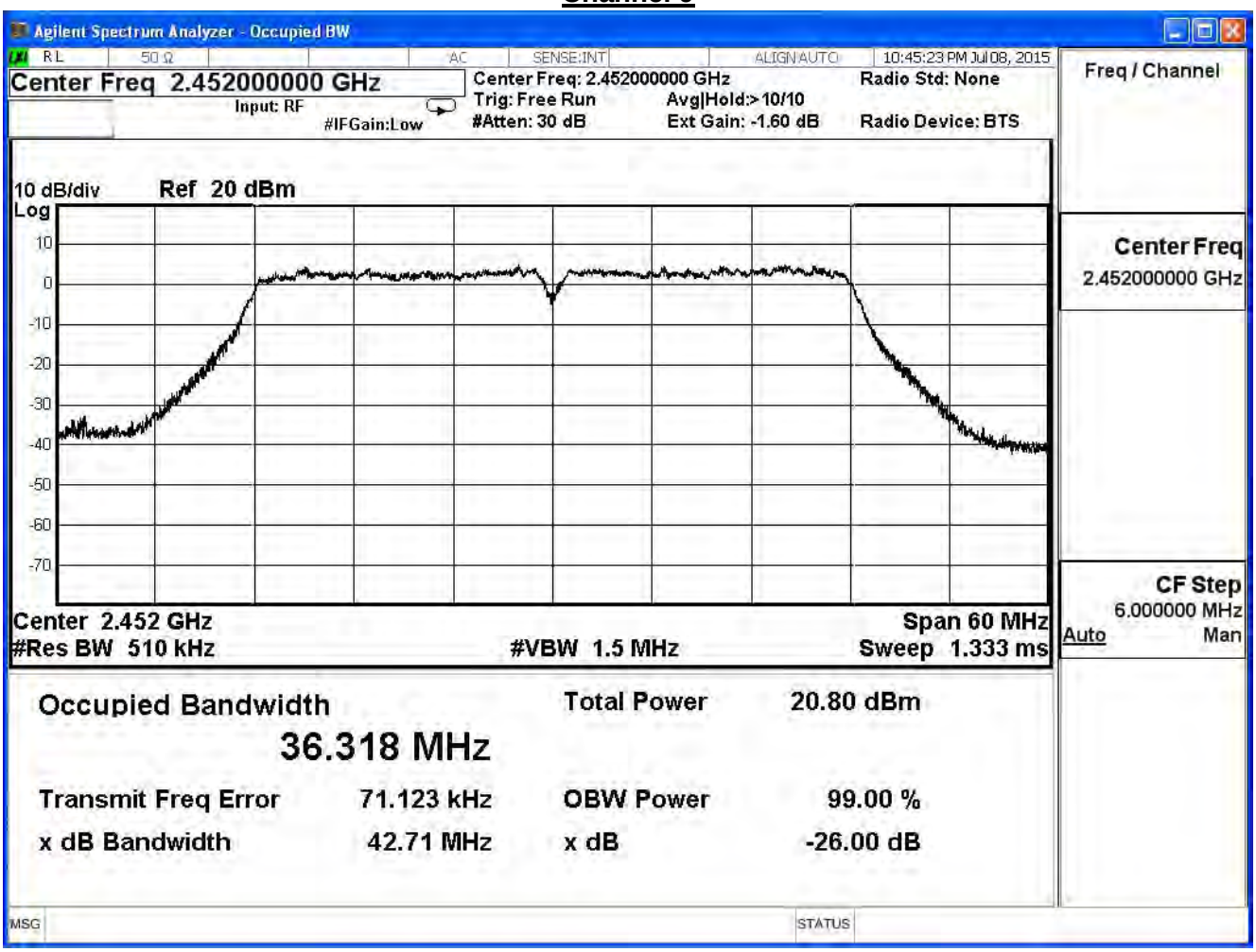
Channel 3



Channel 6


Agilent Spectrum Analyzer - Occupied BW
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:40:31 PM Jul 08, 2015
Center Freq 2.437000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.437000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -1.60 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 20 dBm
10
0
-10
-20
-30
-40
-50
-60
-70
Center Freq
2.437000000 GHz
Center 2.437 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 60 MHz
Sweep 1.333 ms
CF Step
6.000000 MHz
Auto
Man
Occupied Bandwidth
36.286 MHz
Total Power
21.58 dBm
Transmit Freq Error
43.314 kHz
OBW Power
99.00 %
x dB Bandwidth
42.64 MHz
x dB
-26.00 dB
MSG
STATUS

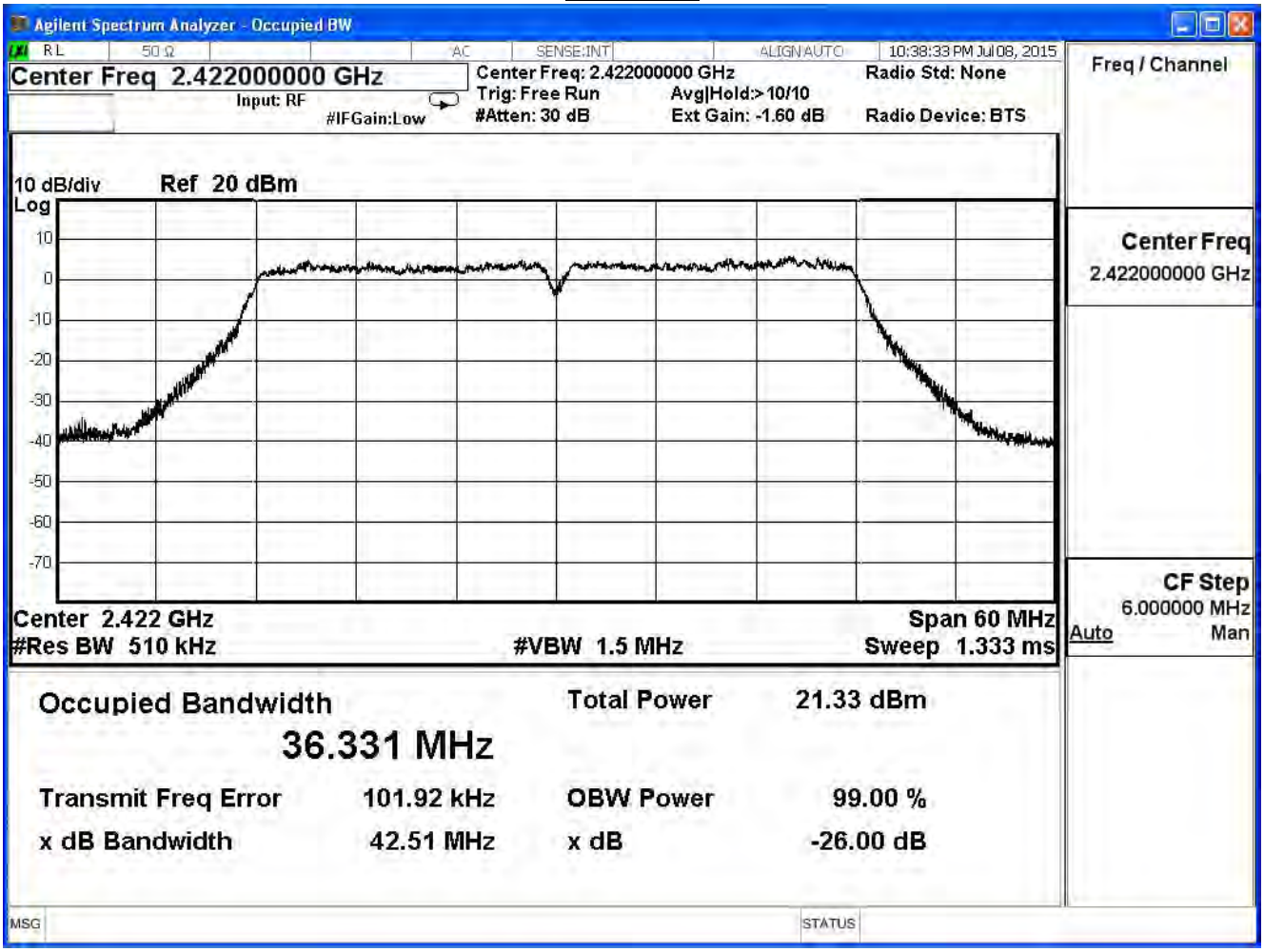
Channel 9


Agilent Spectrum Analyzer - Occupied BW
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:45:23 PM Jul 08, 2015
Center Freq 2.452000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.452000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -1.60 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 20 dBm
10
0
-10
-20
-30
-40
-50
-60
-70
Center Freq
2.452000000 GHz
Center 2.452 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 60 MHz
Sweep 1.333 ms
CF Step
6.000000 MHz
Auto
Man
Occupied Bandwidth
36.318 MHz
Total Power
20.80 dBm
Transmit Freq Error
71.123 kHz
OBW Power
99.00 %
x dB Bandwidth
42.71 MHz
x dB
-26.00 dB
MSG
STATUS

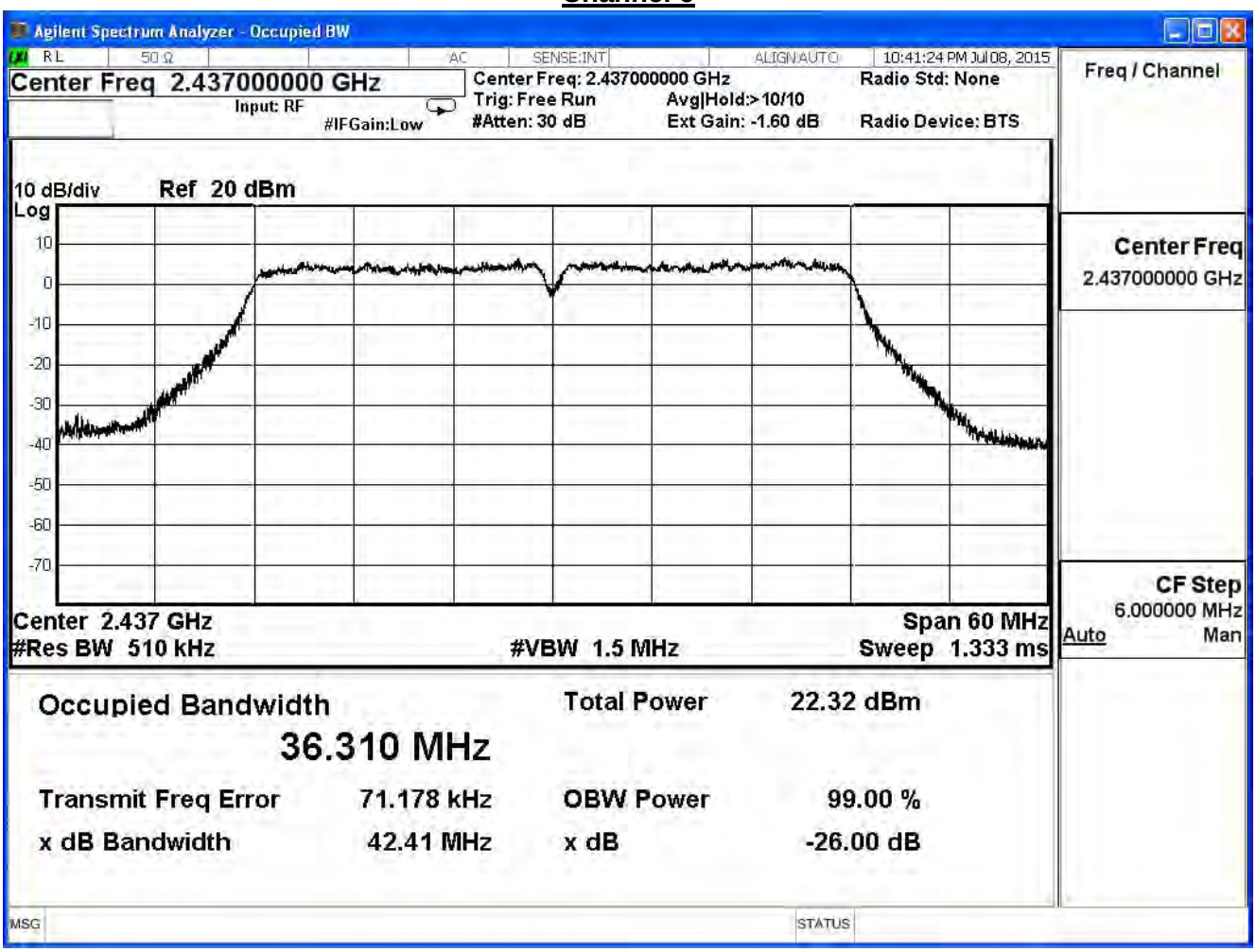
Product	Dual-band Wireless Range Extender		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/07/08	Test Site	SR7

IEEE802.11n 40MHz (ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
3	2422	36.331	--	Pass
6	2437	36.310	--	Pass
9	2452	36.310	--	Pass

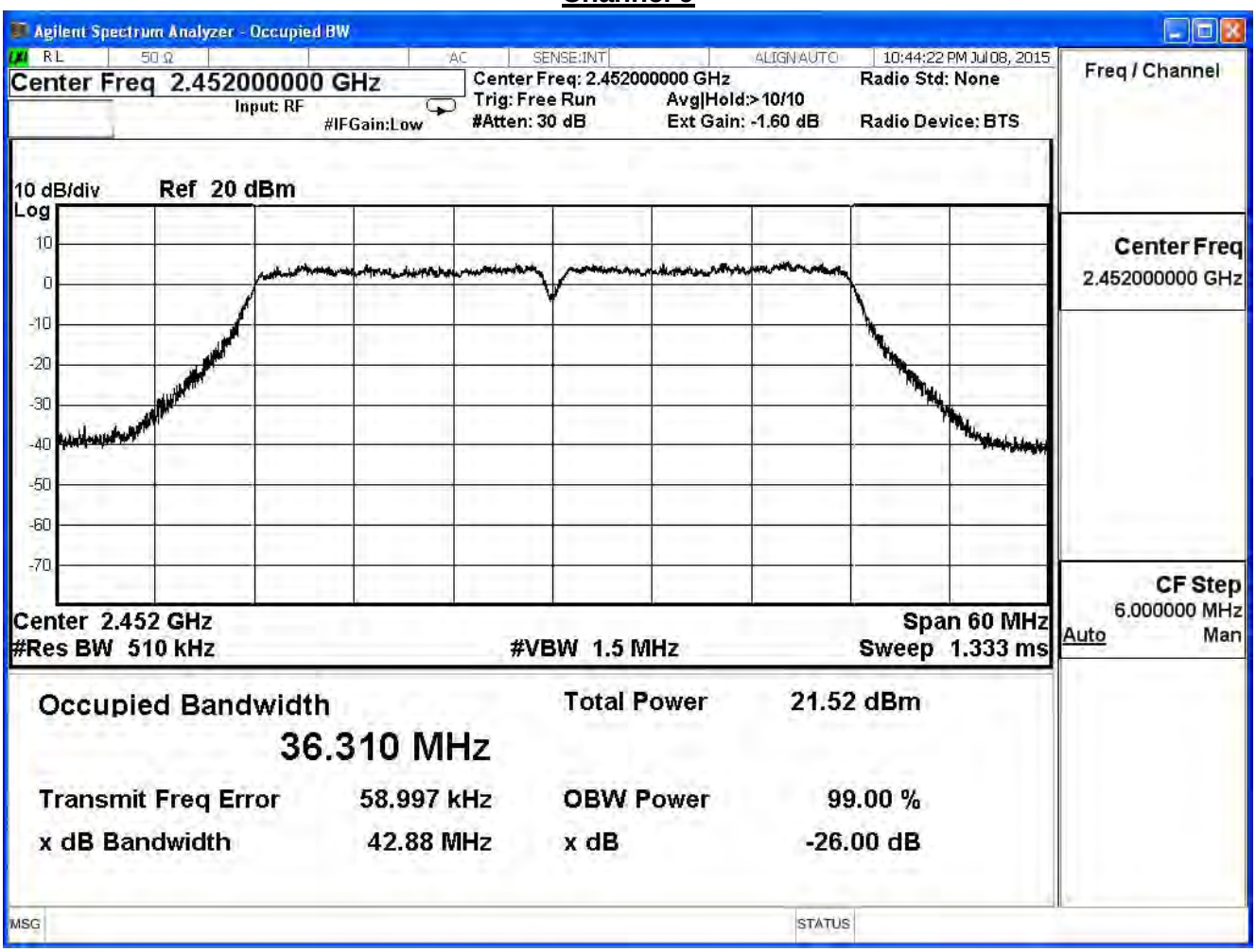
Channel 3



Channel 6


Agilent Spectrum Analyzer - Occupied BW
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:41:24 PM Jul 08, 2015
Center Freq 2.437000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.437000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -1.60 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 20 dBm
10
0
-10
-20
-30
-40
-50
-60
-70
Center Freq
2.437000000 GHz
Center 2.437 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 60 MHz
Sweep 1.333 ms
CF Step
6.000000 MHz
Auto
Man
Occupied Bandwidth
36.310 MHz
Total Power
22.32 dBm
Transmit Freq Error
71.178 kHz
OBW Power
99.00 %
x dB Bandwidth
42.41 MHz
x dB
-26.00 dB
MSG
STATUS

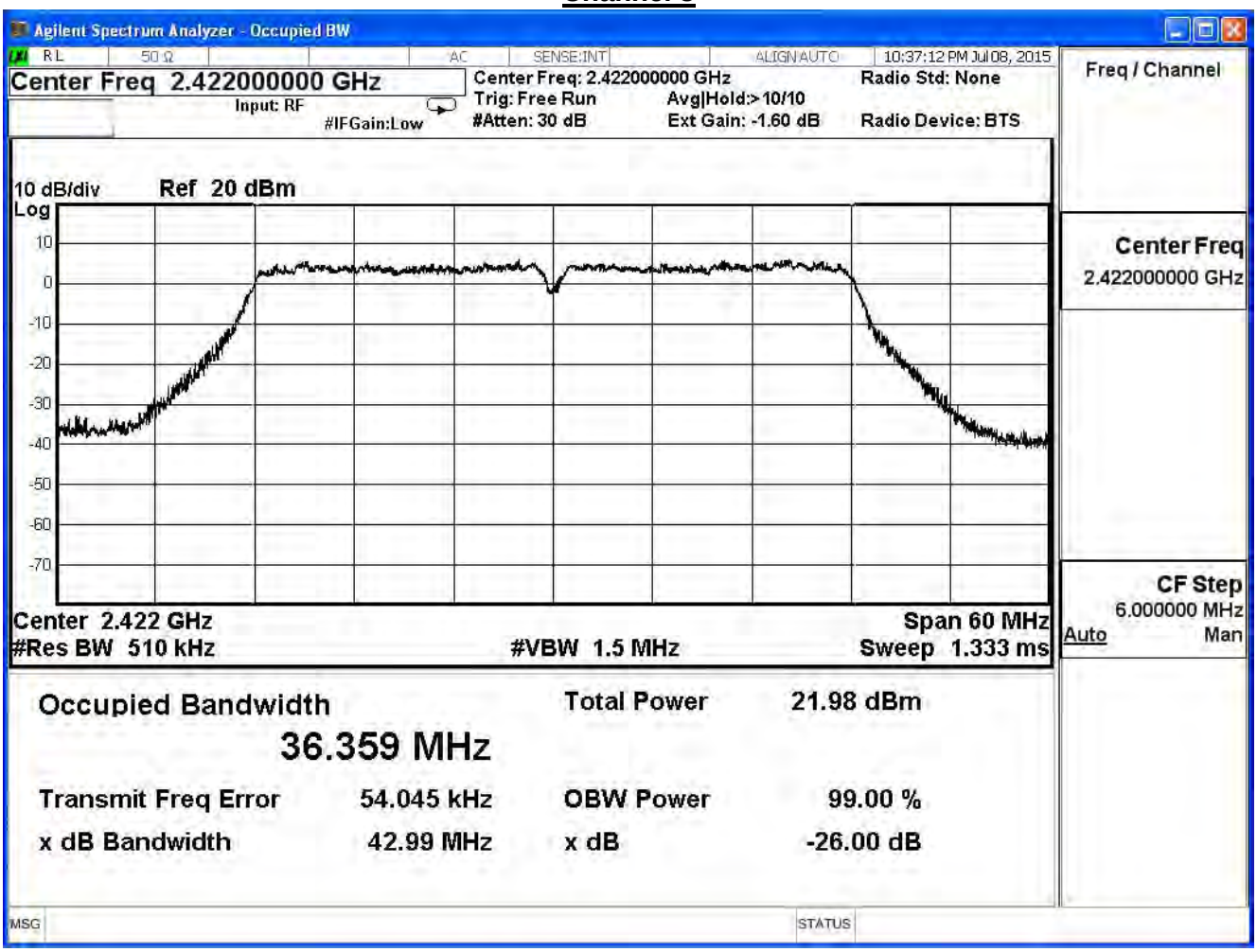
Channel 9


Agilent Spectrum Analyzer - Occupied BW
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:44:22 PM Jul 08, 2015
Center Freq 2.452000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.452000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold:>10/10
Ext Gain: -1.60 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 20 dBm
10
0
-10
-20
-30
-40
-50
-60
-70
Center Freq
2.452000000 GHz
Center 2.452 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 60 MHz
Sweep 1.333 ms
CF Step
6.000000 MHz
Auto
Man
Occupied Bandwidth
36.310 MHz
Total Power
21.52 dBm
Transmit Freq Error
58.997 kHz
OBW Power
99.00 %
x dB Bandwidth
42.88 MHz
x dB
-26.00 dB
MSG
STATUS

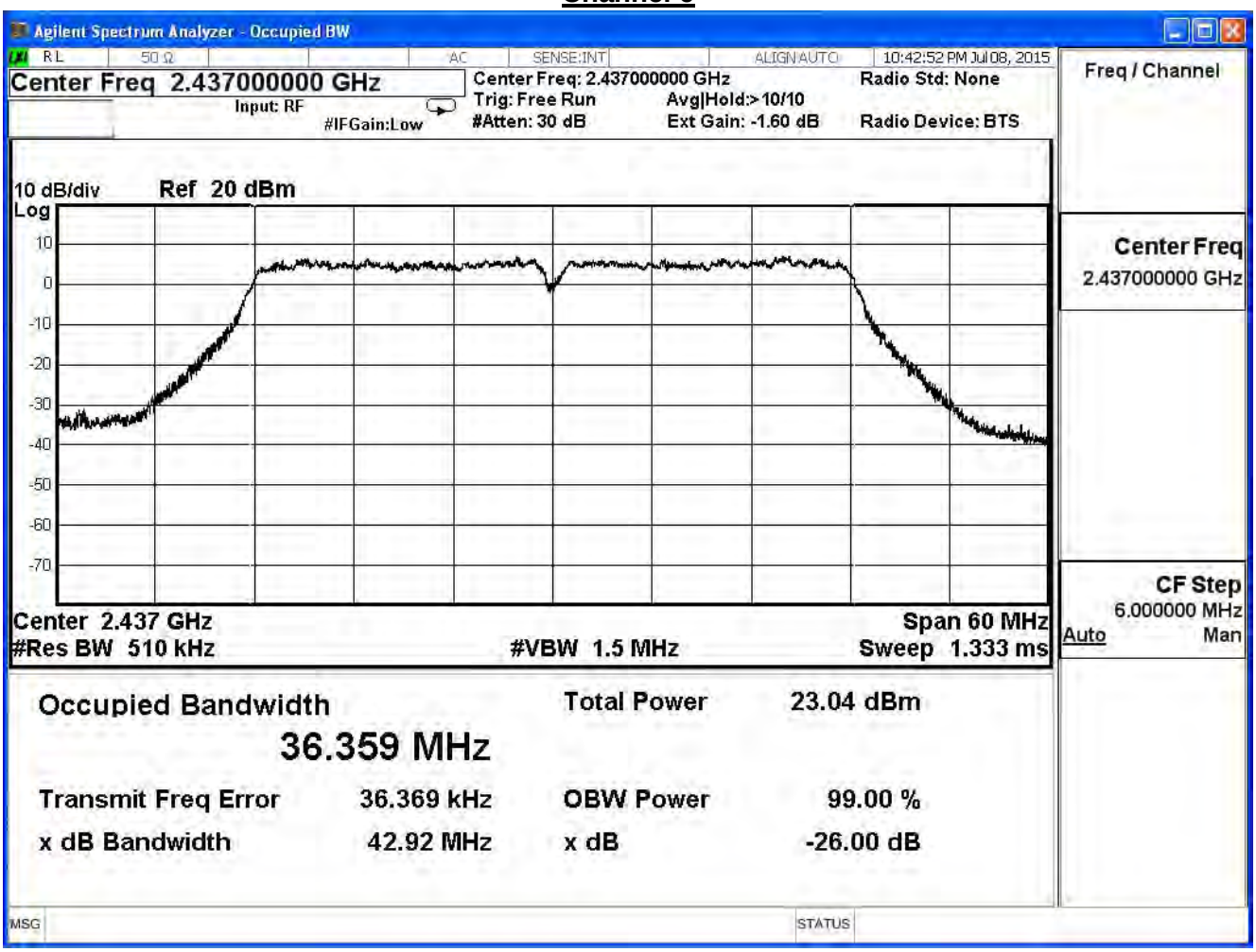
Product	Dual-band Wireless Range Extender		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/07/08	Test Site	SR7

IEEE802.11n 40MHz (ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
3	2422	36.359	--	Pass
6	2437	36.359	--	Pass
9	2452	36.335	--	Pass

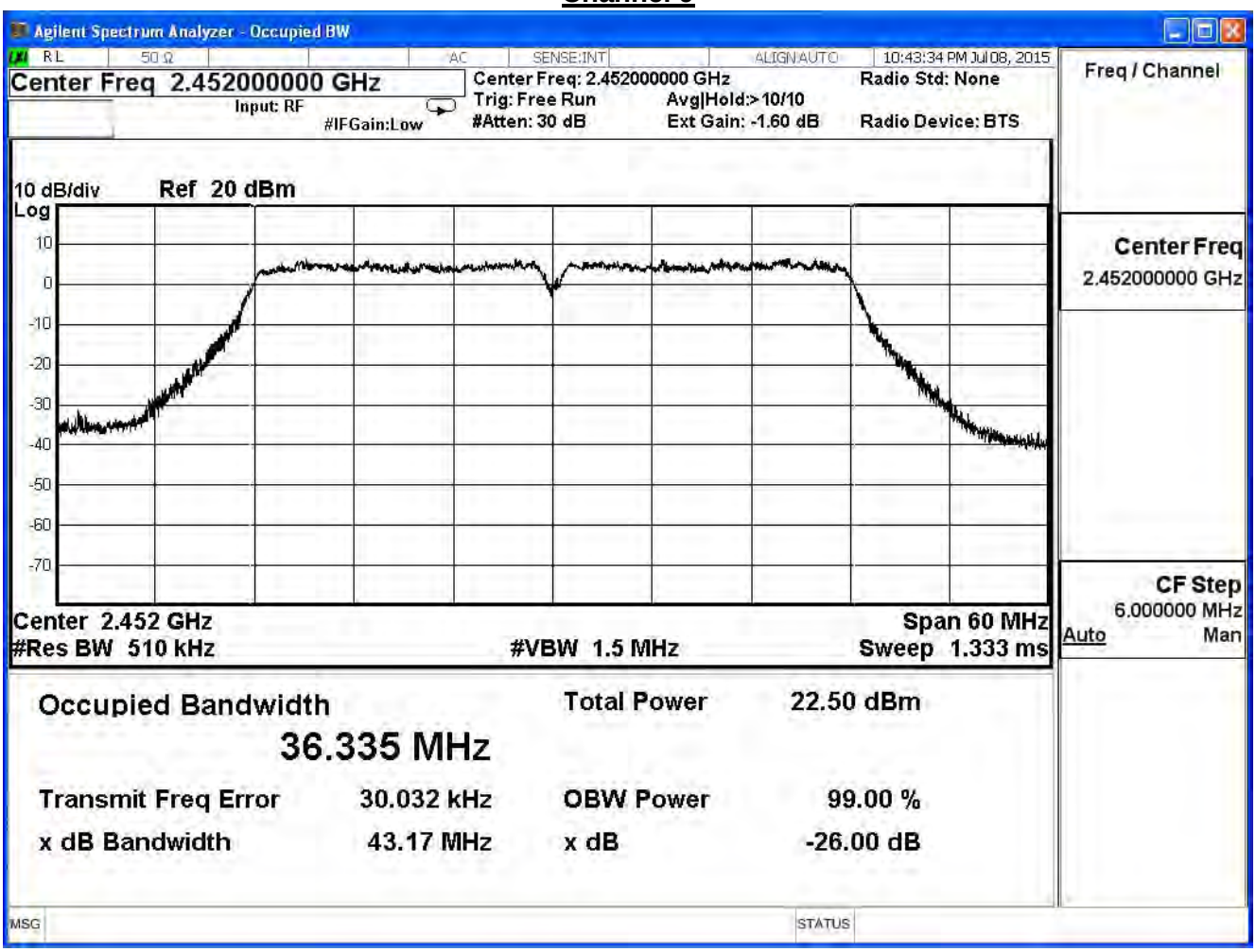
Channel 3



Channel 6


Agilent Spectrum Analyzer - Occupied BW
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:42:52 PM Jul 08, 2015
Center Freq 2.437000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.437000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -1.60 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 20 dBm
10
0
-10
-20
-30
-40
-50
-60
-70
Center Freq
2.437000000 GHz
Center 2.437 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 60 MHz
Sweep 1.333 ms
CF Step
6.000000 MHz
Auto
Man
Occupied Bandwidth
36.359 MHz
Total Power
23.04 dBm
Transmit Freq Error
36.369 kHz
OBW Power
99.00 %
x dB Bandwidth
42.92 MHz
x dB
-26.00 dB
MSG
STATUS

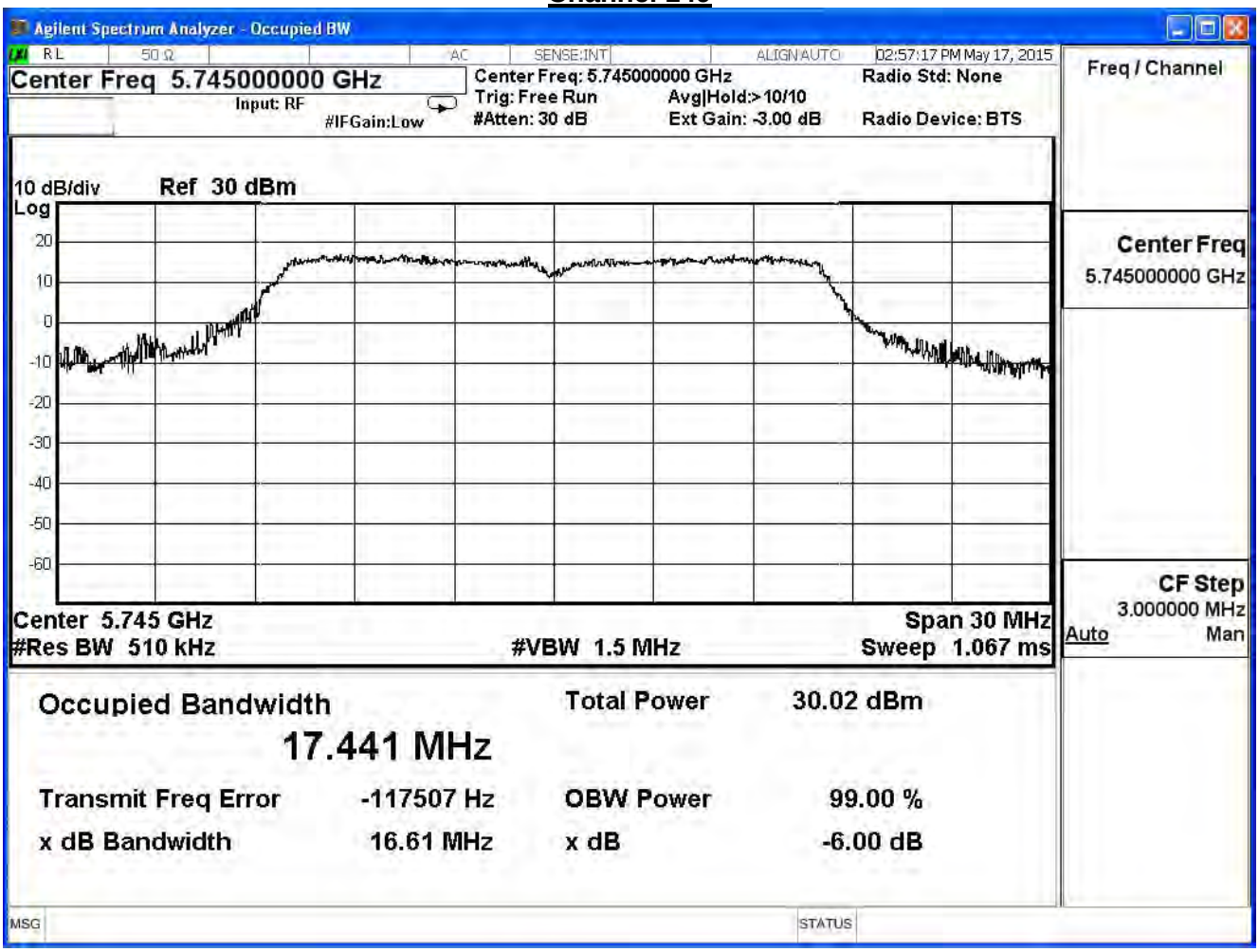
Channel 9


Agilent Spectrum Analyzer - Occupied BW
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
10:43:34 PM Jul 08, 2015
Center Freq 2.452000000 GHz
Input: RF
#IFGain:Low
Center Freq: 2.452000000 GHz
Trig: Free Run
#Atten: 30 dB
Avg|Hold:>10/10
Ext Gain: -1.60 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 20 dBm
10
0
-10
-20
-30
-40
-50
-60
-70
Center Freq
2.452000000 GHz
Center 2.452 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 60 MHz
Sweep 1.333 ms
CF Step
6.000000 MHz
Auto
Man
Occupied Bandwidth
36.335 MHz
Total Power
22.50 dBm
Transmit Freq Error
30.032 kHz
OBW Power
99.00 %
x dB Bandwidth
43.17 MHz
x dB
-26.00 dB
MSG
STATUS

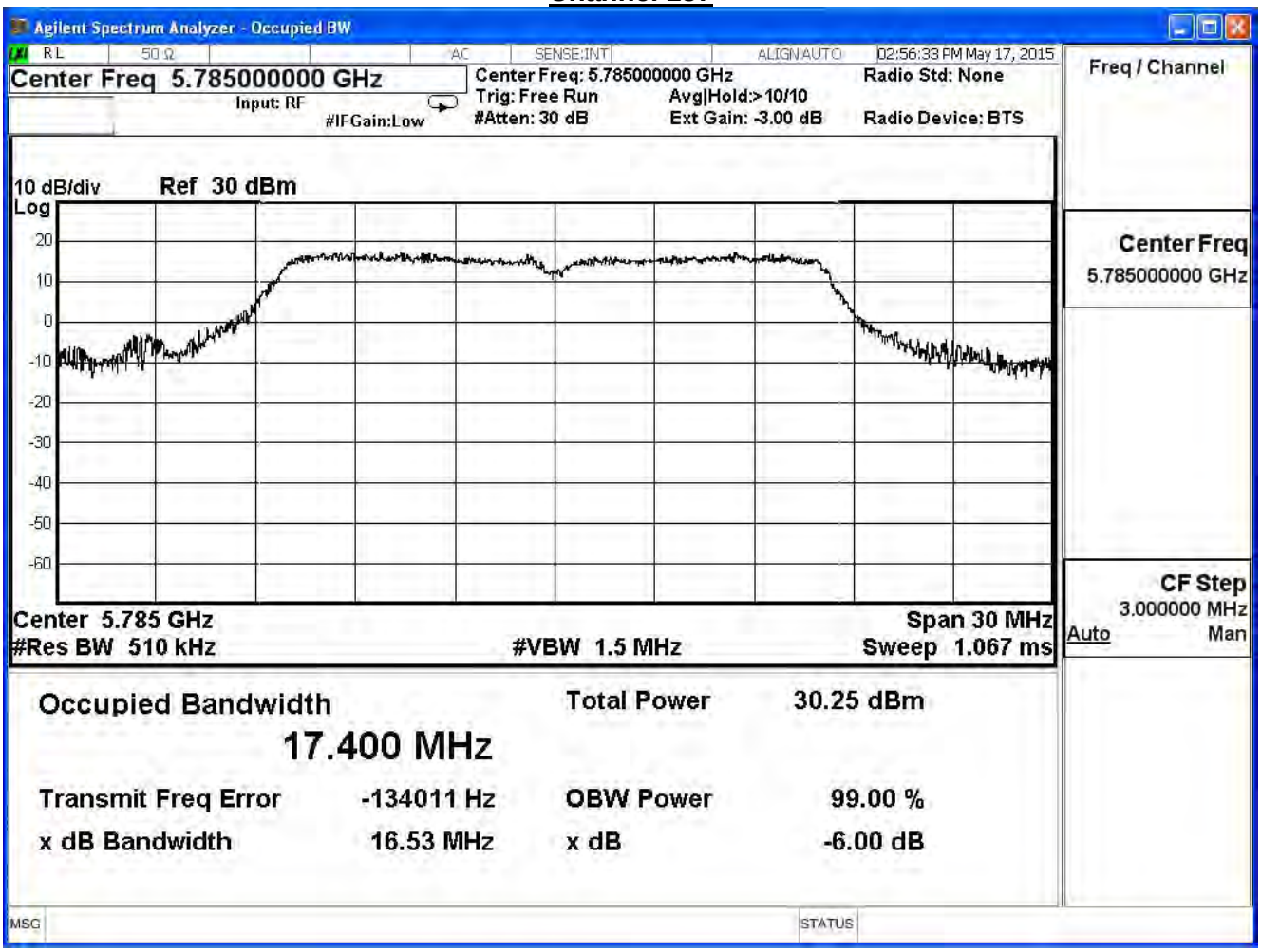
Product	Dual-band Wireless Range Extender		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/05/17	Test Site	SR7

802.11 a (ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
149	5745	17.441	--	Pass
157	5785	17.400	--	Pass
165	5825	17.472	--	Pass

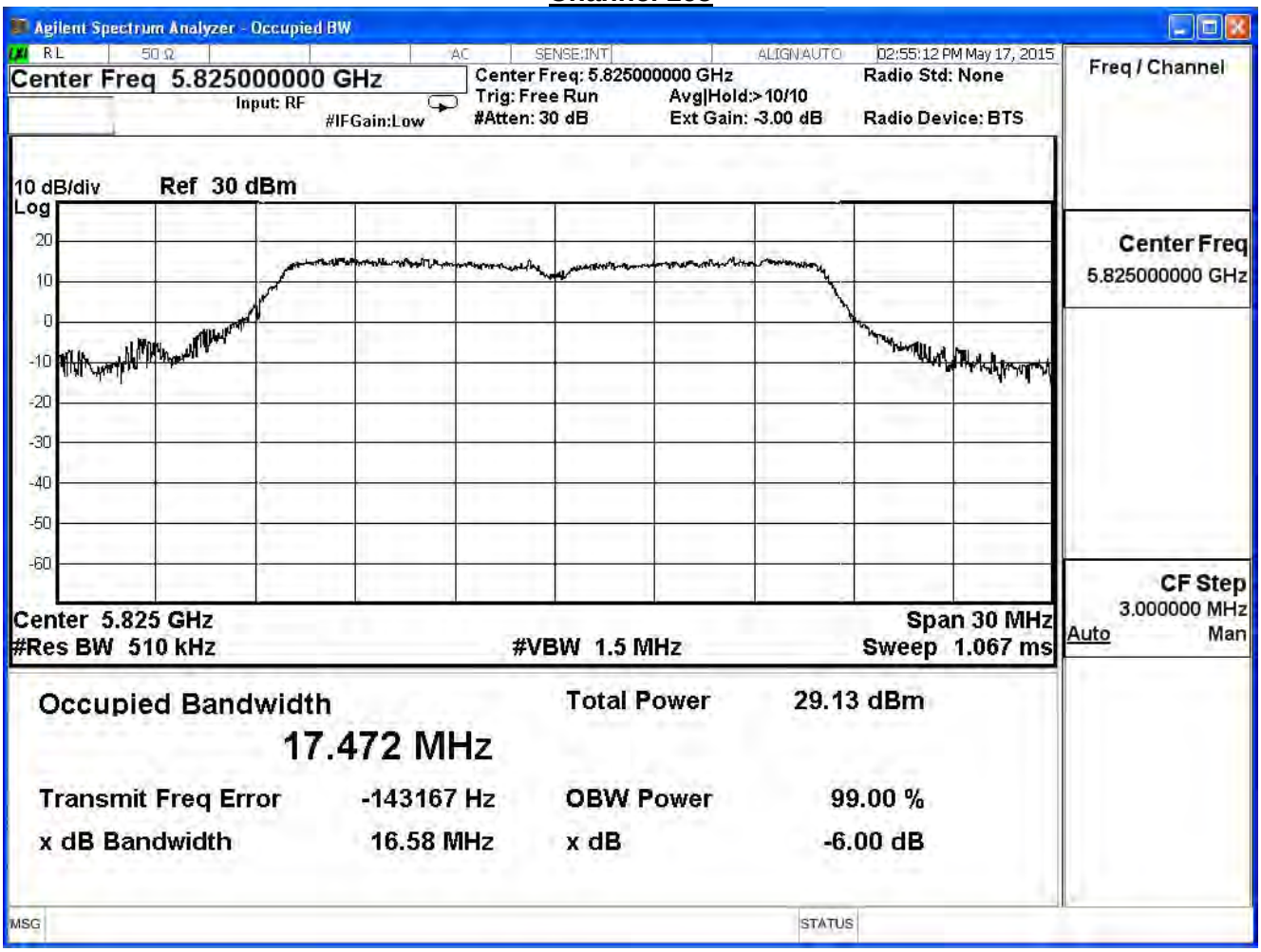
Channel 149



Channel 157


Agilent Spectrum Analyzer - Occupied BW
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
02:56:33 PM May 17, 2015
Center Freq 5.785000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.785000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -3.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.785000000 GHz
Center 5.785 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 30 MHz
Sweep 1.067 ms
CF Step
3.000000 MHz
Auto
Man
Occupied Bandwidth
17.400 MHz
Total Power
30.25 dBm
Transmit Freq Error
-134011 Hz
OBW Power
99.00 %
x dB Bandwidth
16.53 MHz
x dB
-6.00 dB
MSG
STATUS

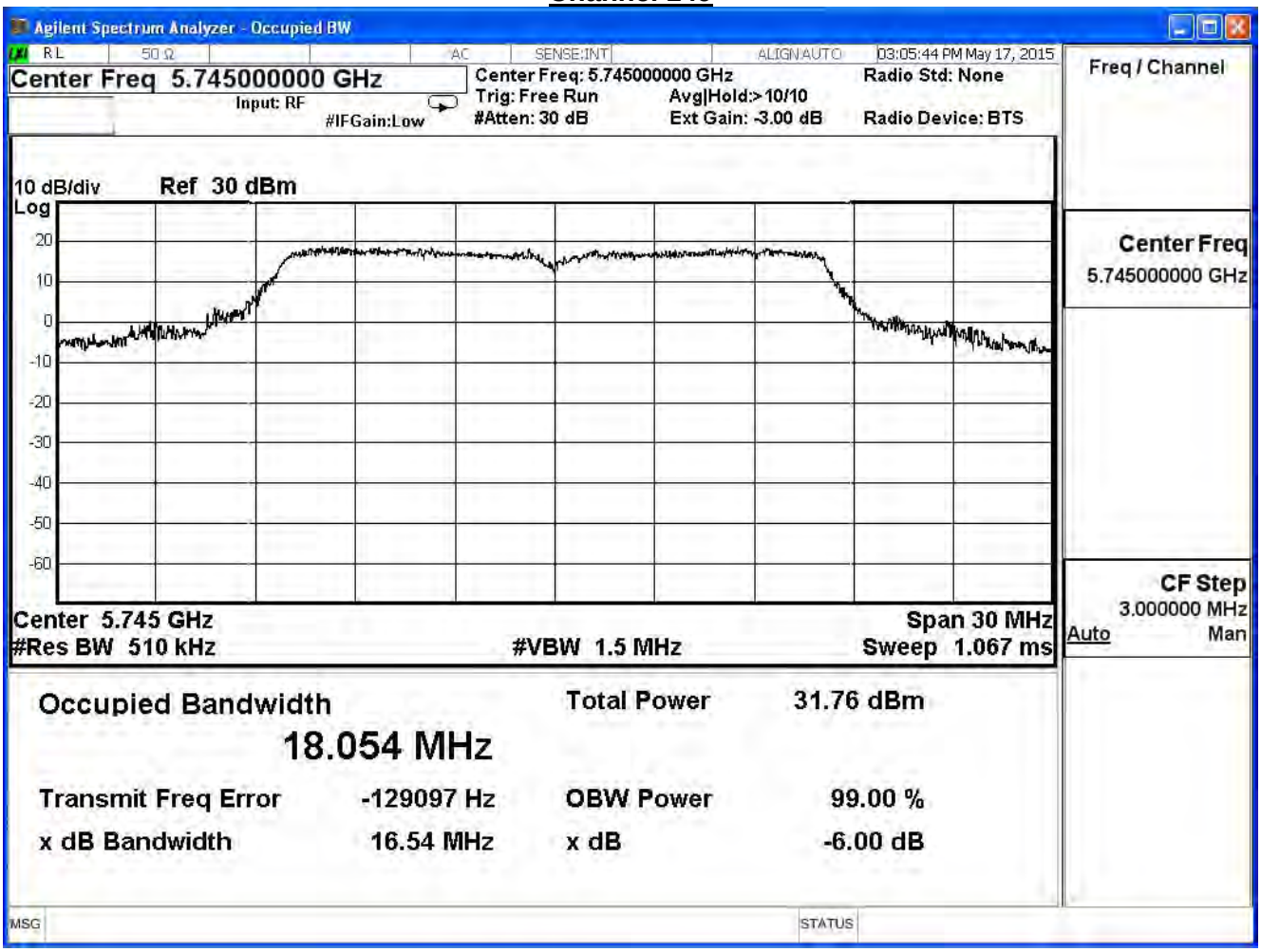
Channel 165


Agilent Spectrum Analyzer - Occupied BW
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
02:55:12 PM May 17, 2015
Center Freq 5.825000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.825000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -3.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.825000000 GHz
Center 5.825 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 30 MHz
Sweep 1.067 ms
CF Step
3.000000 MHz
Auto
Man
Occupied Bandwidth
17.472 MHz
Total Power
29.13 dBm
Transmit Freq Error
-143167 Hz
OBW Power
99.00 %
x dB Bandwidth
16.58 MHz
x dB
-6.00 dB
MSG
STATUS

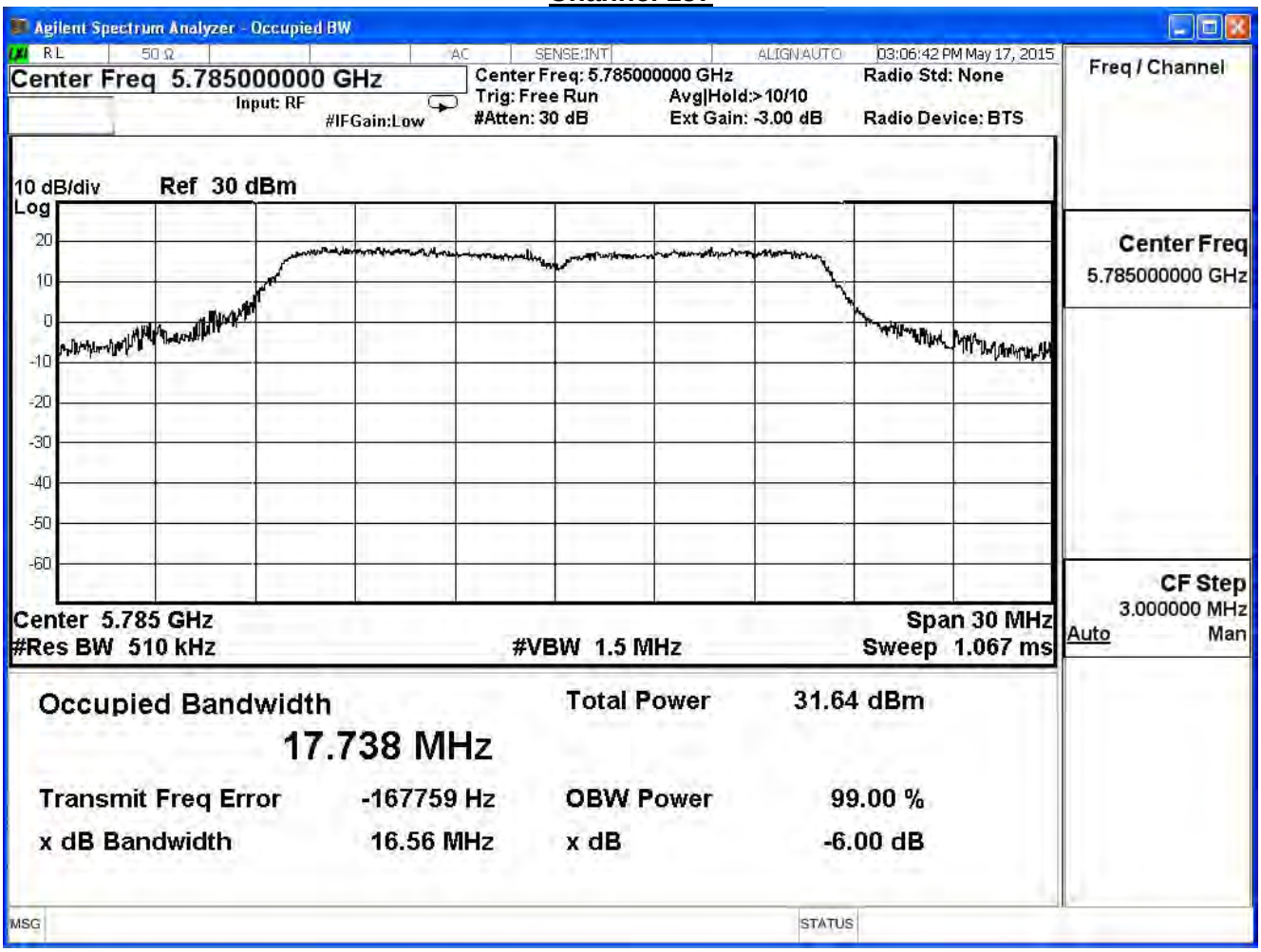
Product	Dual-band Wireless Range Extender		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/05/17	Test Site	SR7

802.11 a (ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
149	5745	18.054	--	Pass
157	5785	17.738	--	Pass
165	5825	17.700	--	Pass

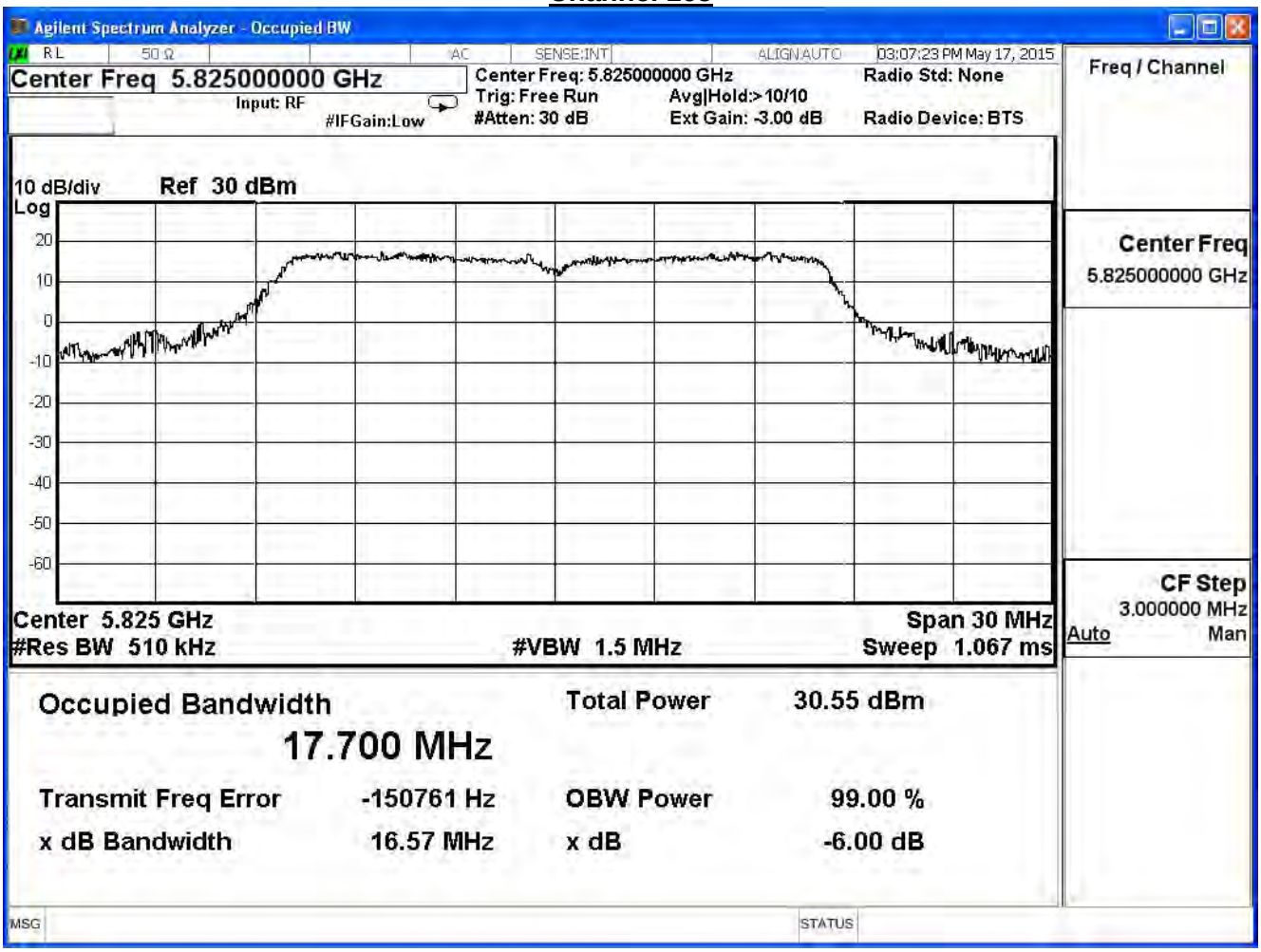
Channel 149



Channel 157


Agilent Spectrum Analyzer - Occupied BW
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
03:06:42 PM May 17, 2015
Center Freq 5.785000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.785000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -3.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.785000000 GHz
CF Step
3.000000 MHz
Auto
Man
Center 5.785 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 30 MHz
Sweep 1.067 ms
Occupied Bandwidth
17.738 MHz
Total Power
31.64 dBm
Transmit Freq Error
-167759 Hz
OBW Power
99.00 %
x dB Bandwidth
16.56 MHz
x dB
-6.00 dB
MSG
STATUS

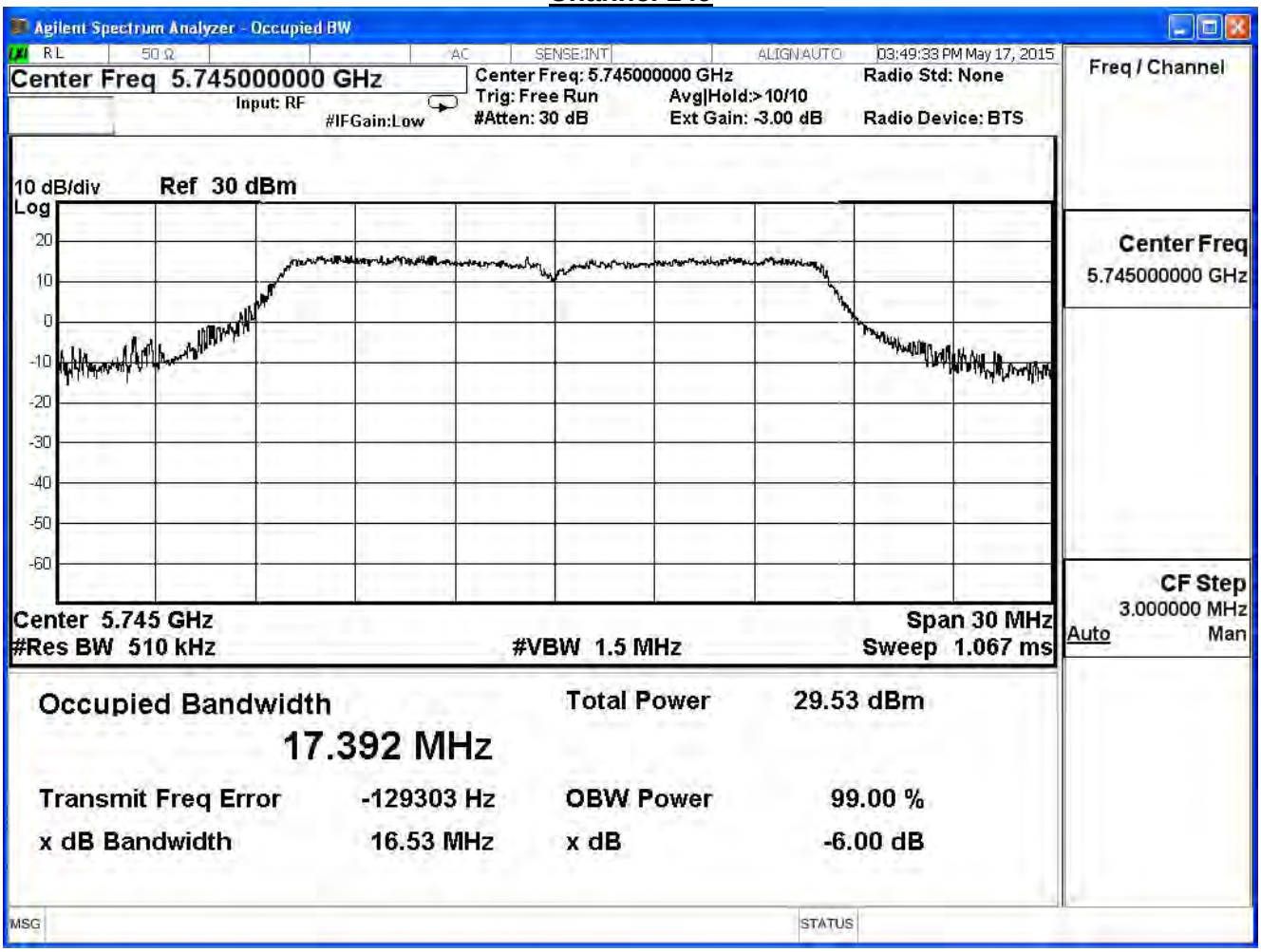
Channel 165


Agilent Spectrum Analyzer - Occupied BW
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
03:07:23 PM May 17, 2015
Center Freq 5.825000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.825000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -3.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.825000000 GHz
CF Step
3.000000 MHz
Auto
Man
Center 5.825 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 30 MHz
Sweep 1.067 ms
Occupied Bandwidth
17.700 MHz
Total Power
30.55 dBm
Transmit Freq Error
-150761 Hz
OBW Power
99.00 %
x dB Bandwidth
16.57 MHz
x dB
-6.00 dB
MSG
STATUS

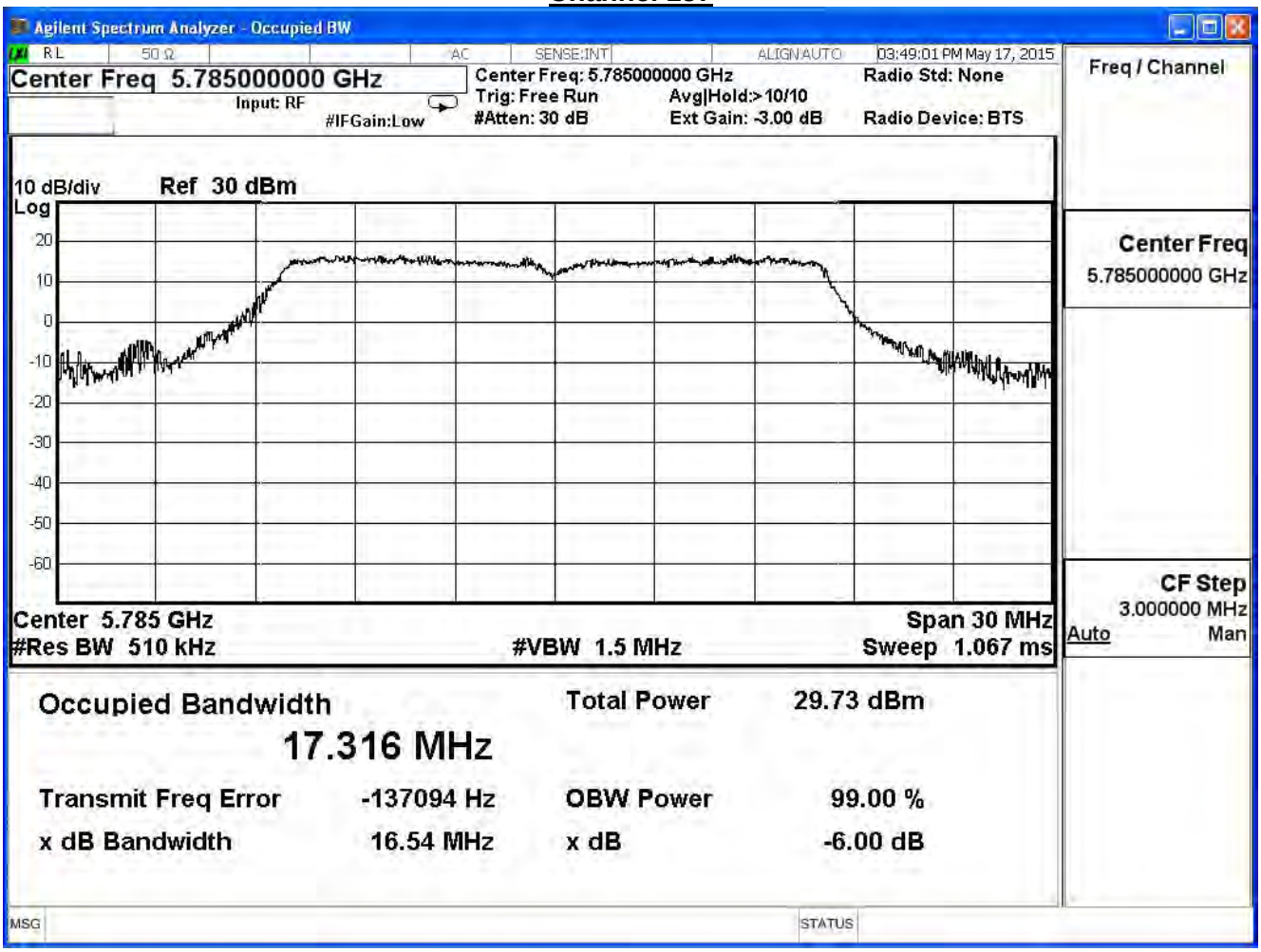
Product	Dual-band Wireless Range Extender		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/05/17	Test Site	SR7

802.11 a (ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
149	5745	17.392	--	Pass
157	5785	17.316	--	Pass
165	5825	17.230	--	Pass

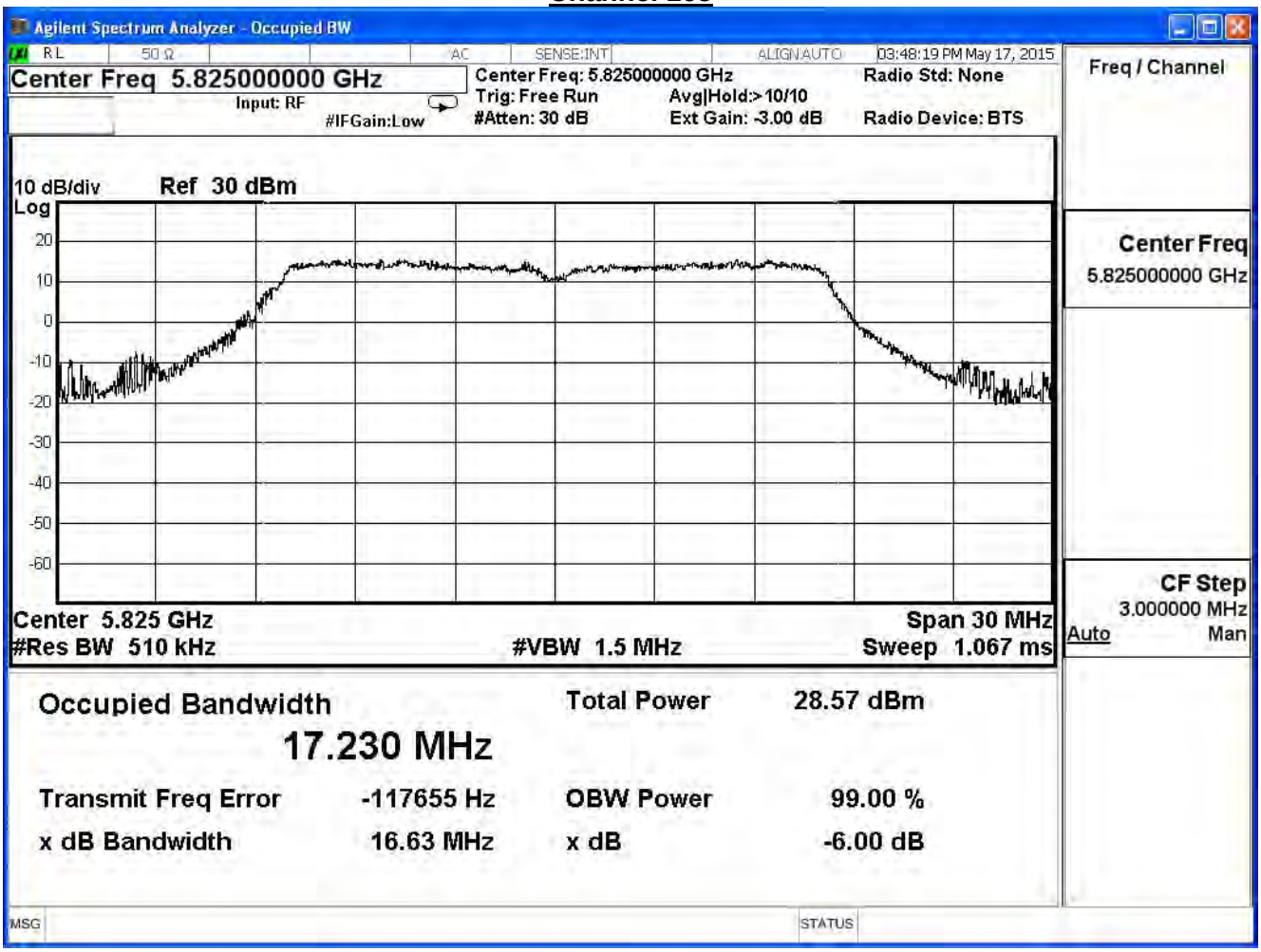
Channel 149



Channel 157


Agilent Spectrum Analyzer - Occupied BW
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
03:49:01 PM May 17, 2015
Center Freq 5.785000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.785000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -3.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.785000000 GHz
CF Step
3.000000 MHz
Auto
Man
Center 5.785 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 30 MHz
Sweep 1.067 ms
Occupied Bandwidth
17.316 MHz
Total Power
29.73 dBm
Transmit Freq Error
-137094 Hz
OBW Power
99.00 %
x dB Bandwidth
16.54 MHz
x dB
-6.00 dB
MSG
STATUS

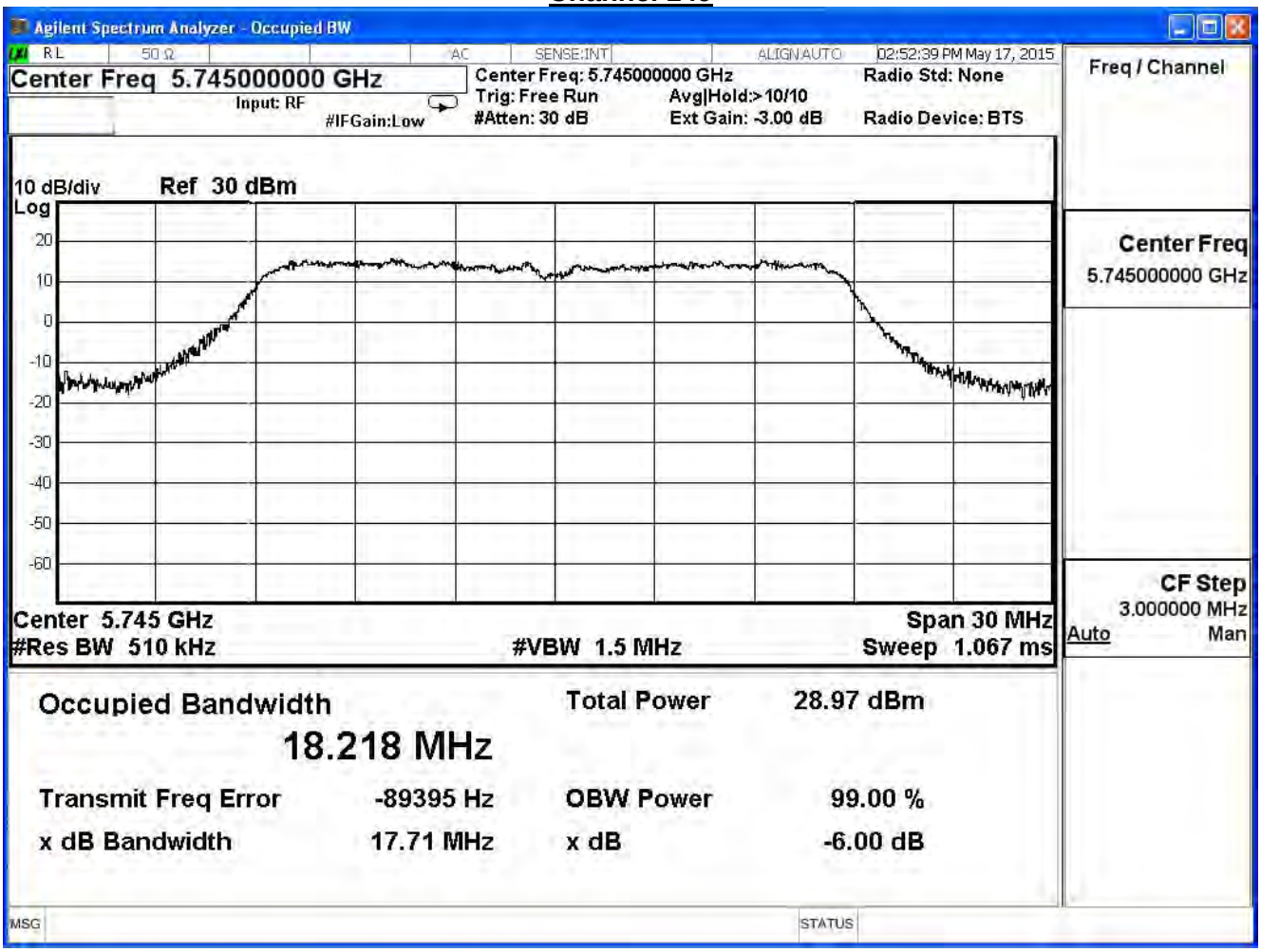
Channel 165


Agilent Spectrum Analyzer - Occupied BW
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
03:48:19 PM May 17, 2015
Center Freq 5.825000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.825000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -3.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.825000000 GHz
Center 5.825 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 30 MHz
Sweep 1.067 ms
CF Step
3.000000 MHz
Auto
Man
Occupied Bandwidth
17.230 MHz
Total Power
28.57 dBm
Transmit Freq Error
-117655 Hz
OBW Power
99.00 %
x dB Bandwidth
16.63 MHz
x dB
-6.00 dB
MSG
STATUS

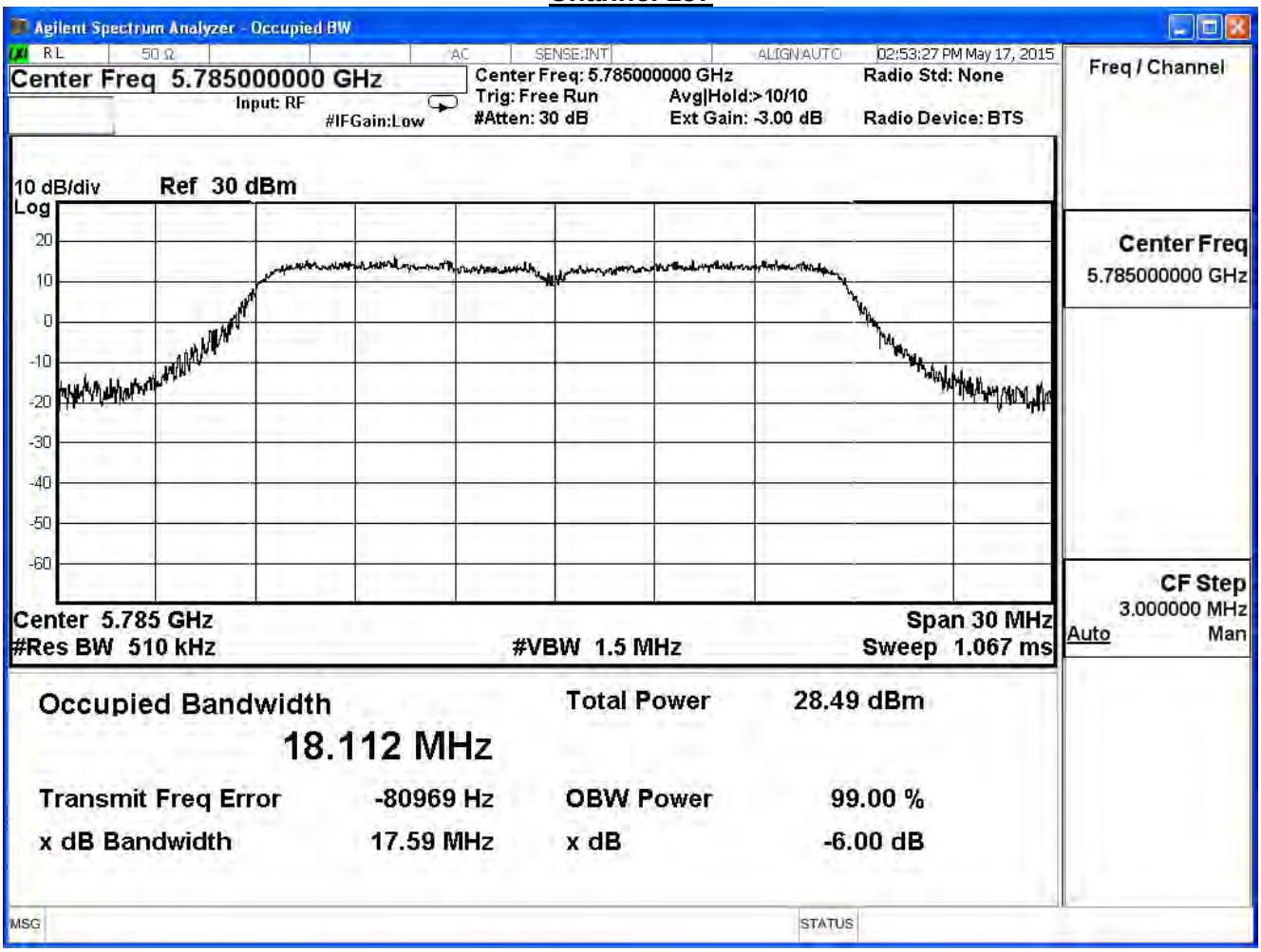
Product	Dual-band Wireless Range Extender		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/05/17	Test Site	SR7

IEEE 802.11n (20MHz)(ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
149	5745	18.218	--	Pass
157	5785	18.112	--	Pass
165	5825	18.136	--	Pass

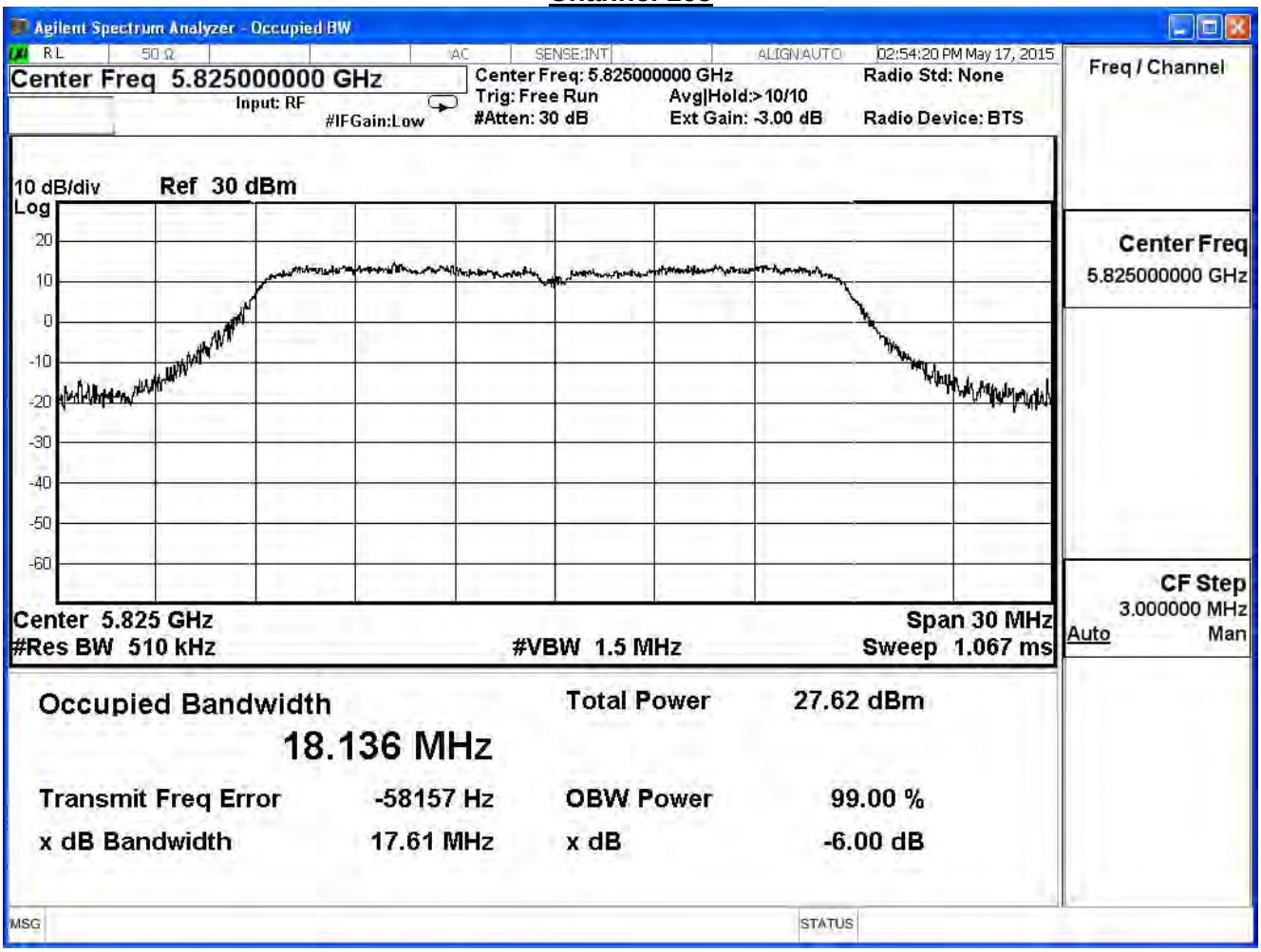
Channel 149



Channel 157


Agilent Spectrum Analyzer - Occupied BW
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
02:53:27 PM May 17, 2015
Center Freq 5.785000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.785000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -3.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.785000000 GHz
CF Step
3.000000 MHz
Auto
Man
Center 5.785 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 30 MHz
Sweep 1.067 ms
Occupied Bandwidth
18.112 MHz
Total Power
28.49 dBm
Transmit Freq Error
-80969 Hz
OBW Power
99.00 %
x dB Bandwidth
17.59 MHz
x dB
-6.00 dB
MSG
STATUS

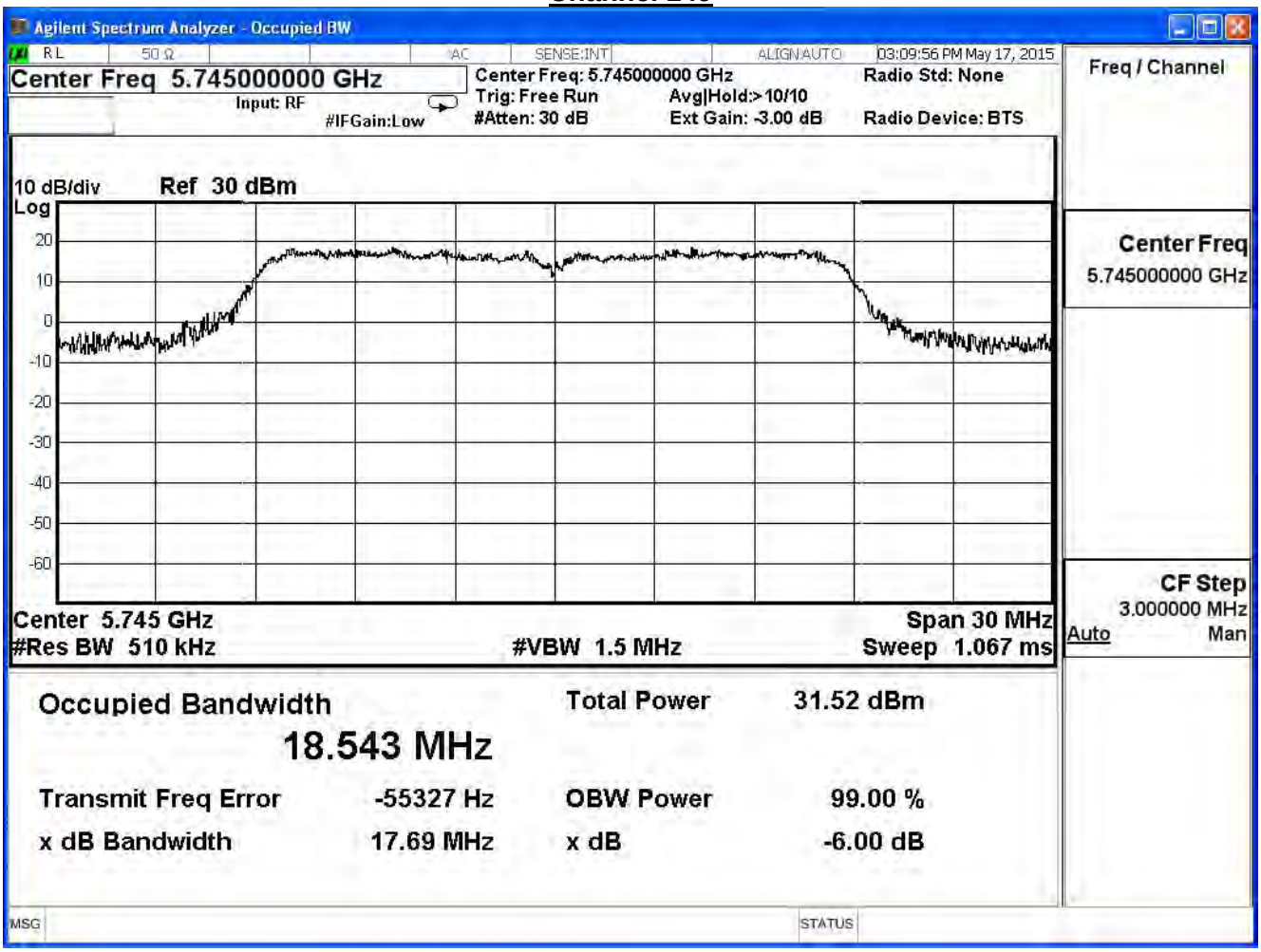
Channel 165


Agilent Spectrum Analyzer - Occupied BW
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
02:54:20 PM May 17, 2015
Center Freq 5.825000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.825000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -3.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.825000000 GHz
Center 5.825 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 30 MHz
Sweep 1.067 ms
CF Step
3.000000 MHz
Auto
Man
Occupied Bandwidth
18.136 MHz
Total Power
27.62 dBm
Transmit Freq Error
-58157 Hz
OBW Power
99.00 %
x dB Bandwidth
17.61 MHz
x dB
-6.00 dB
MSG
STATUS

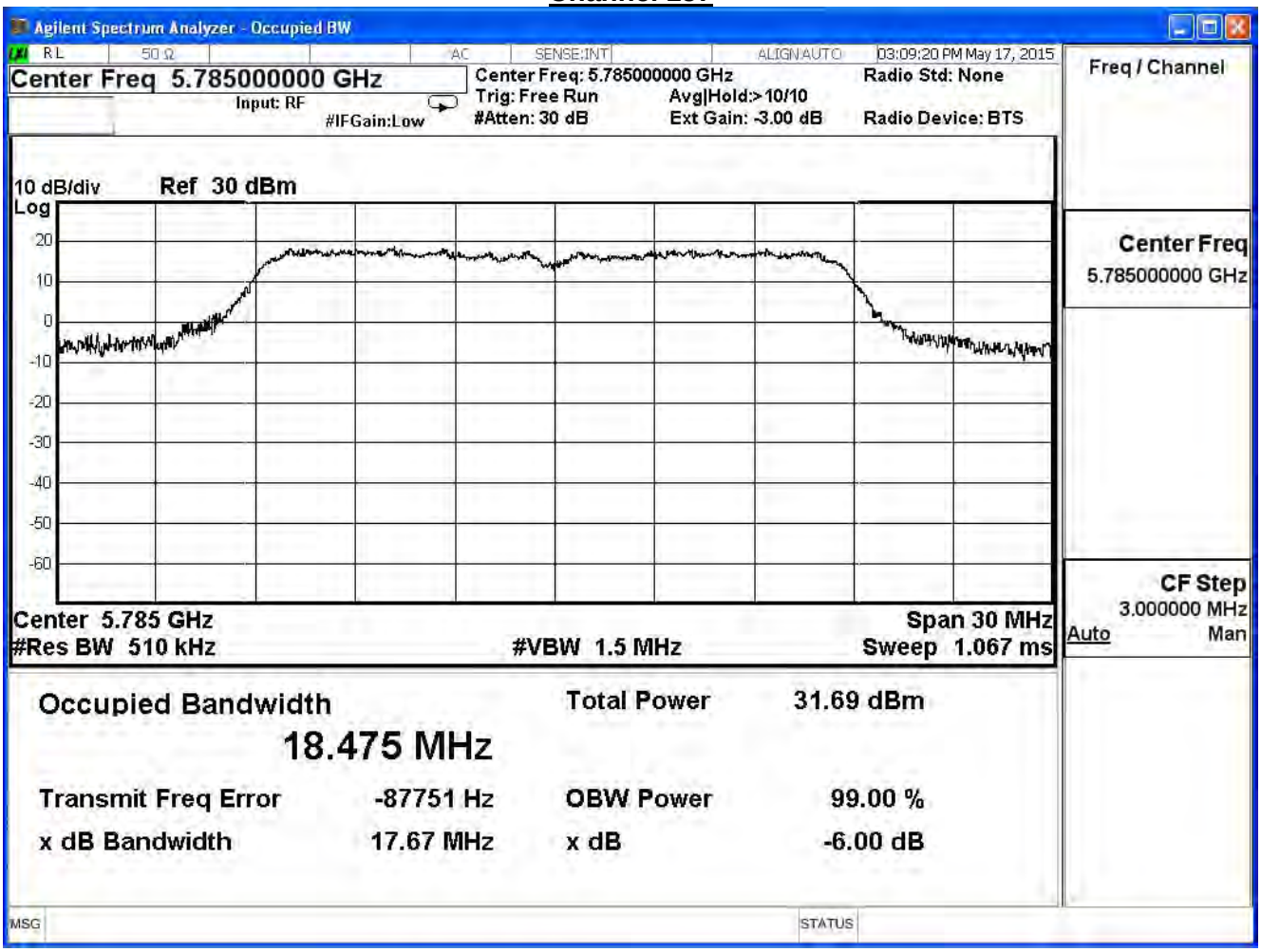
Product	Dual-band Wireless Range Extender		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/05/17	Test Site	SR7

IEEE 802.11n (20MHz)(ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
149	5745	18.543	--	Pass
157	5785	18.475	--	Pass
165	5825	18.460	--	Pass

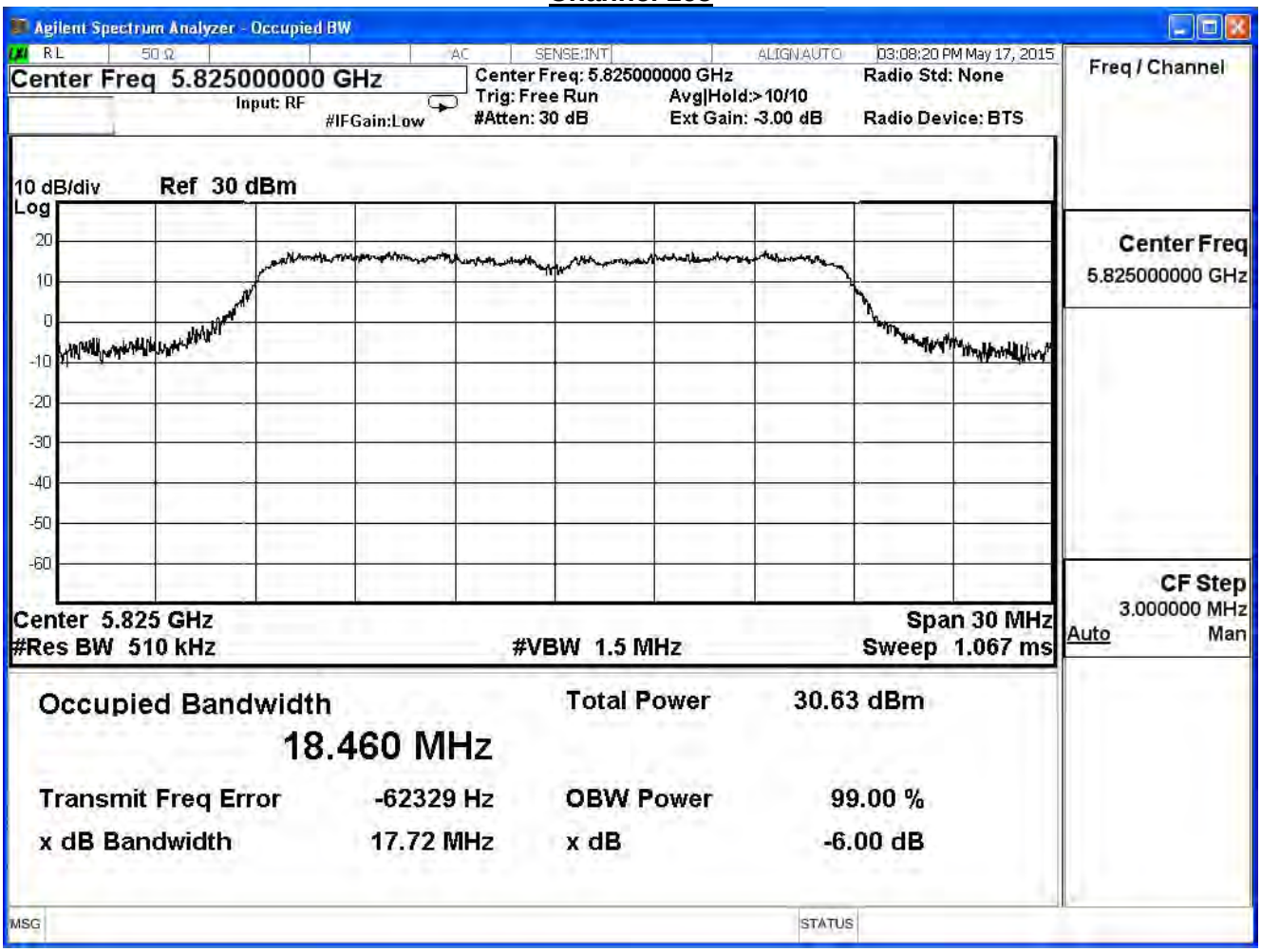
Channel 149



Channel 157


Agilent Spectrum Analyzer - Occupied BW
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
03:09:20 PM May 17, 2015
Center Freq 5.785000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.785000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -3.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.785000000 GHz
Center 5.785 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 30 MHz
Sweep 1.067 ms
CF Step
3.000000 MHz
Auto
Man
Occupied Bandwidth
18.475 MHz
Total Power
31.69 dBm
Transmit Freq Error
-87751 Hz
OBW Power
99.00 %
x dB Bandwidth
17.67 MHz
x dB
-6.00 dB
MSG
STATUS

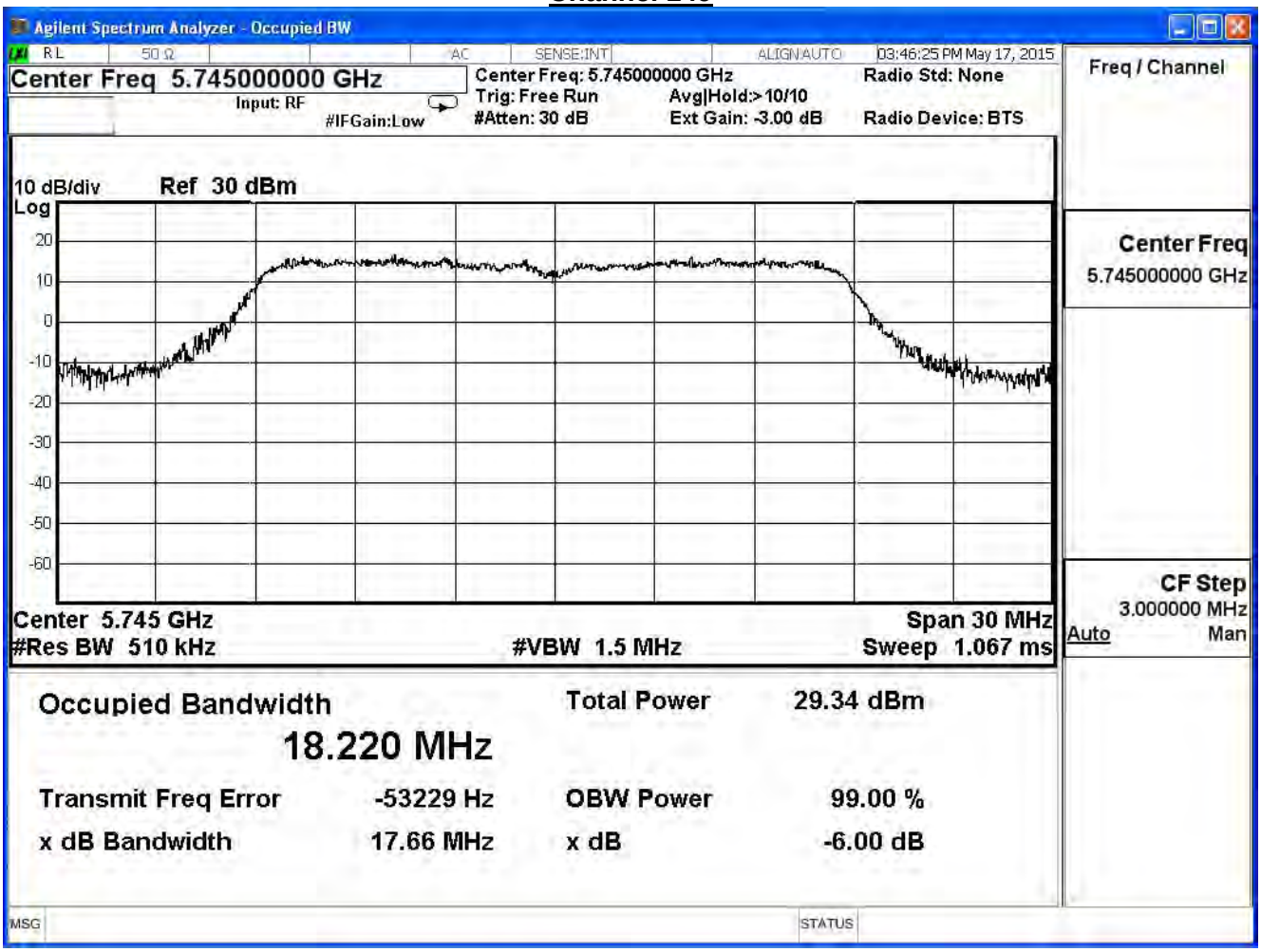
Channel 165


Agilent Spectrum Analyzer - Occupied BW
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
03:08:20 PM May 17, 2015
Center Freq 5.825000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.825000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -3.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.825000000 GHz
CF Step
3.000000 MHz
Auto
Man
Center 5.825 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 30 MHz
Sweep 1.067 ms
Occupied Bandwidth
18.460 MHz
Total Power
30.63 dBm
Transmit Freq Error
-62329 Hz
OBW Power
99.00 %
x dB Bandwidth
17.72 MHz
x dB
-6.00 dB
MSG
STATUS

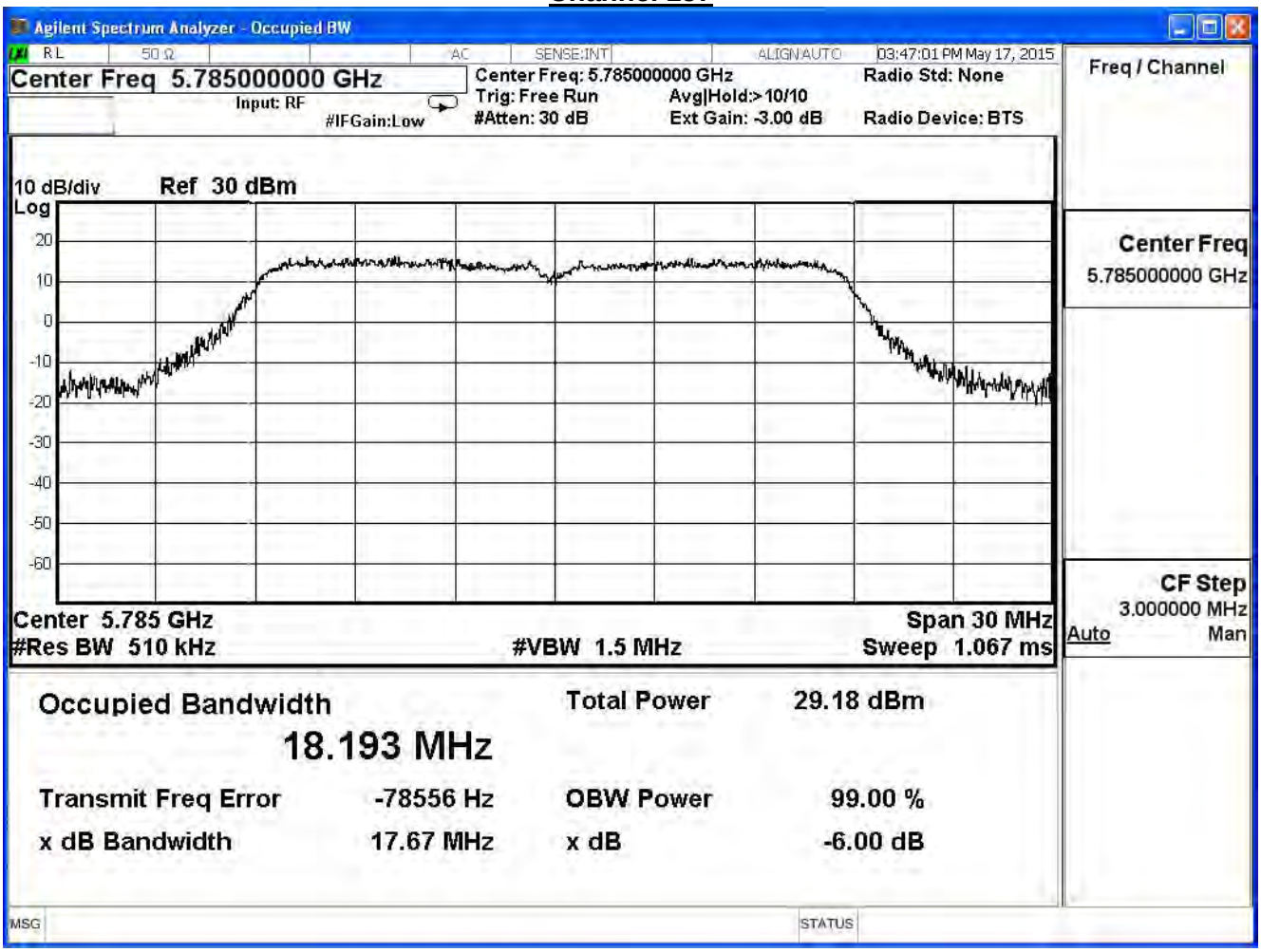
Product	Dual-band Wireless Range Extender		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/05/17	Test Site	SR7

IEEE 802.11n (20MHz)(ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
149	5745	18.220	--	Pass
157	5785	18.193	--	Pass
165	5825	18.200	--	Pass

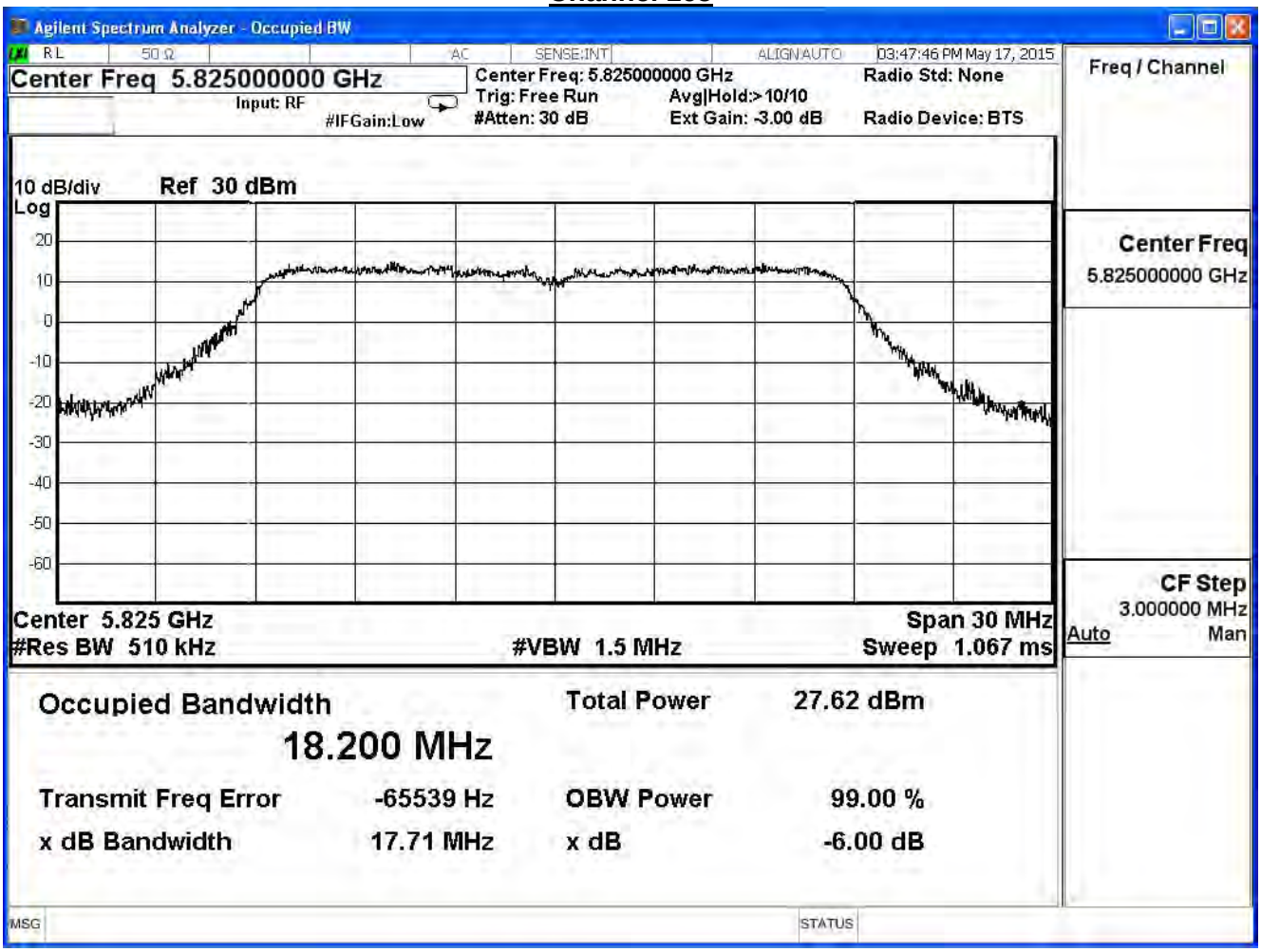
Channel 149



Channel 157


Agilent Spectrum Analyzer - Occupied BW
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
03:47:01 PM May 17, 2015
Center Freq 5.785000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.785000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -3.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.785000000 GHz
CF Step
3.000000 MHz
Auto
Man
Center 5.785 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 30 MHz
Sweep 1.067 ms
Occupied Bandwidth
18.193 MHz
Total Power
29.18 dBm
Transmit Freq Error
-78556 Hz
OBW Power
99.00 %
x dB Bandwidth
17.67 MHz
x dB
-6.00 dB
MSG
STATUS

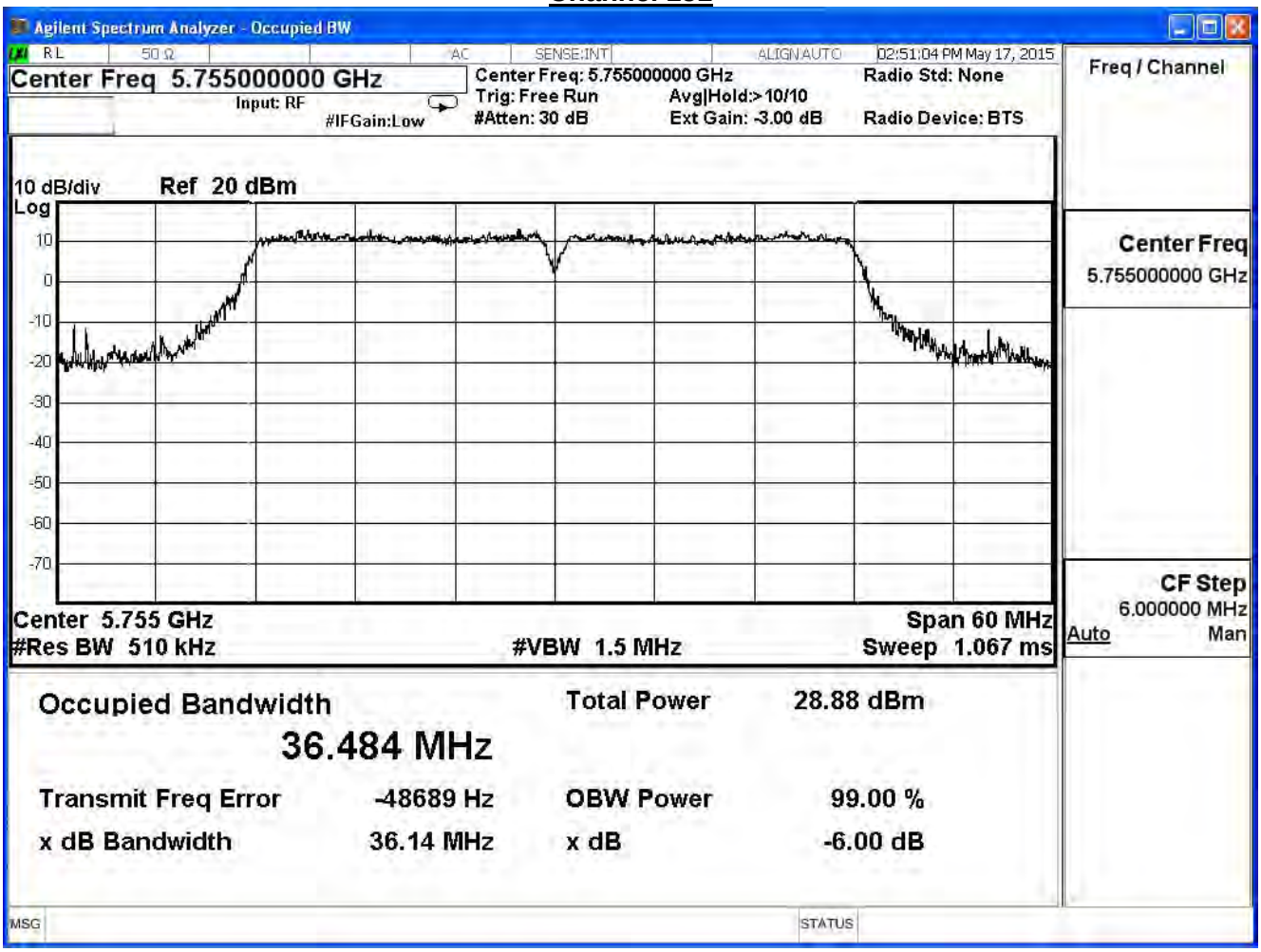
Channel 165


Agilent Spectrum Analyzer - Occupied BW
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
03:47:46 PM May 17, 2015
Center Freq 5.825000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.825000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -3.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.825000000 GHz
Center 5.825 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 30 MHz
Sweep 1.067 ms
CF Step
3.000000 MHz
Auto
Man
Occupied Bandwidth
18.200 MHz
Total Power
27.62 dBm
Transmit Freq Error
-65539 Hz
OBW Power
99.00 %
x dB Bandwidth
17.71 MHz
x dB
-6.00 dB
MSG
STATUS

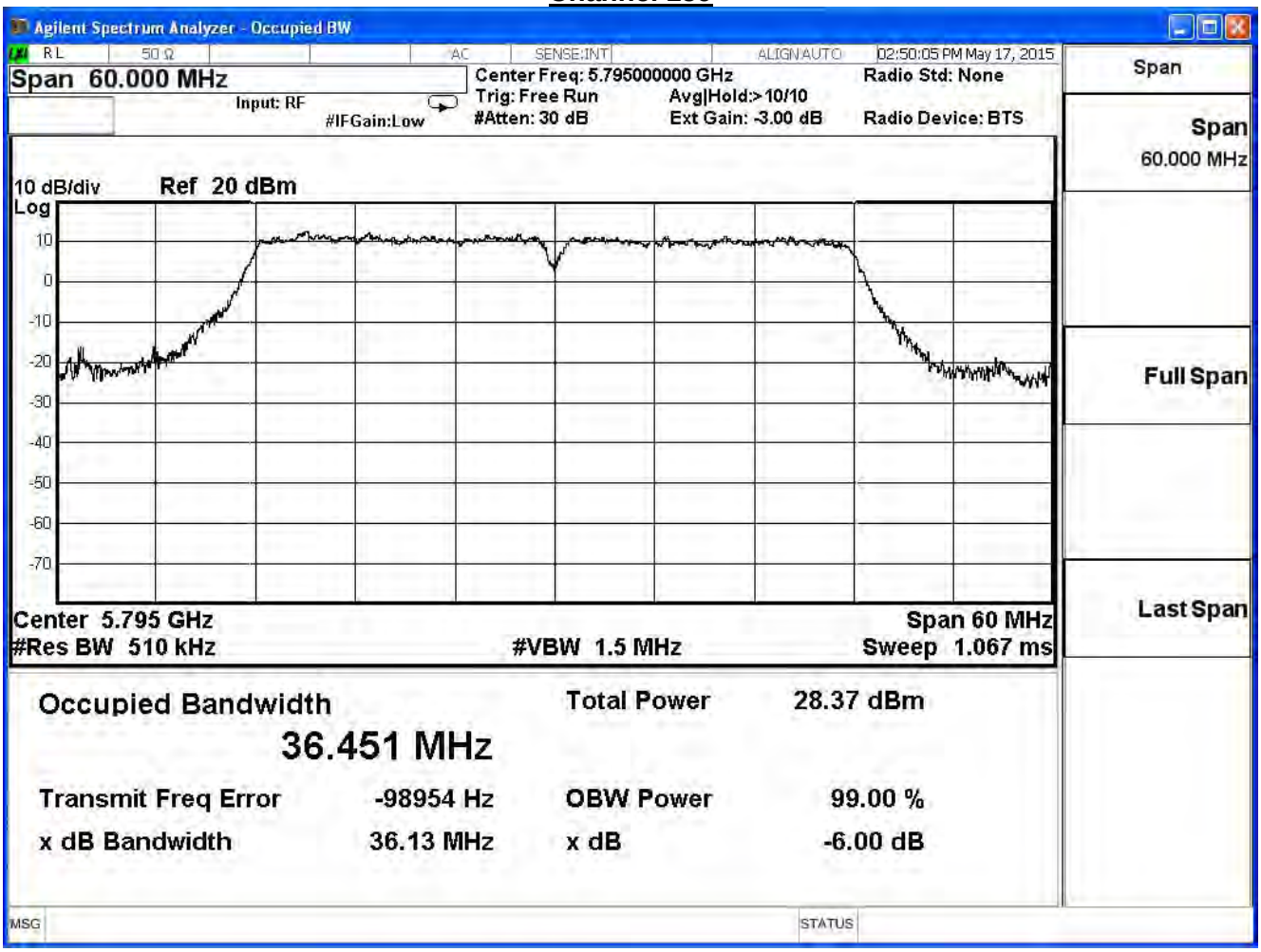
Product	Dual-band Wireless Range Extender		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/05/17	Test Site	SR7

IEEE 802.11n (40MHz)(ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
151	5755	36.484	--	Pass
159	5795	36.451	--	Pass

Channel 151



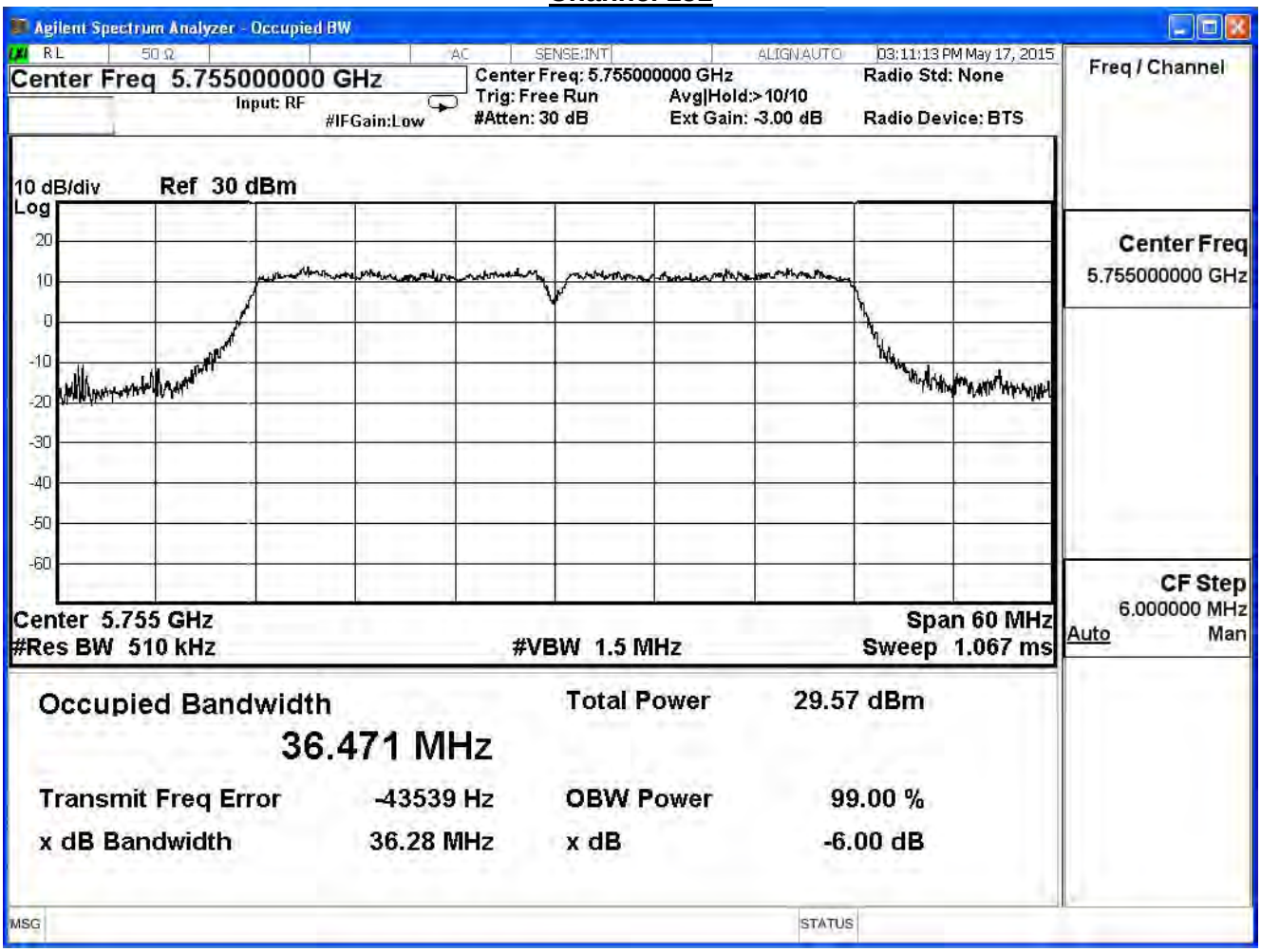
Channel 159


Agilent Spectrum Analyzer - Occupied BW
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
02:50:05 PM May 17, 2015
Span 60.000 MHz
Input: RF
#IFGain:Low
Center Freq: 5.795000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -3.00 dB
Radio Std: None
Radio Device: BTS
10 dB/div
Log
Ref 20 dBm
10
0
-10
-20
-30
-40
-50
-60
-70
Center 5.795 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 60 MHz
Sweep 1.067 ms
Occupied Bandwidth
36.451 MHz
Total Power
28.37 dBm
Transmit Freq Error
-98954 Hz
OBW Power
99.00 %
x dB Bandwidth
36.13 MHz
x dB
-6.00 dB
MSG
STATUS
Span
Span
60.000 MHz
Full Span
Last Span

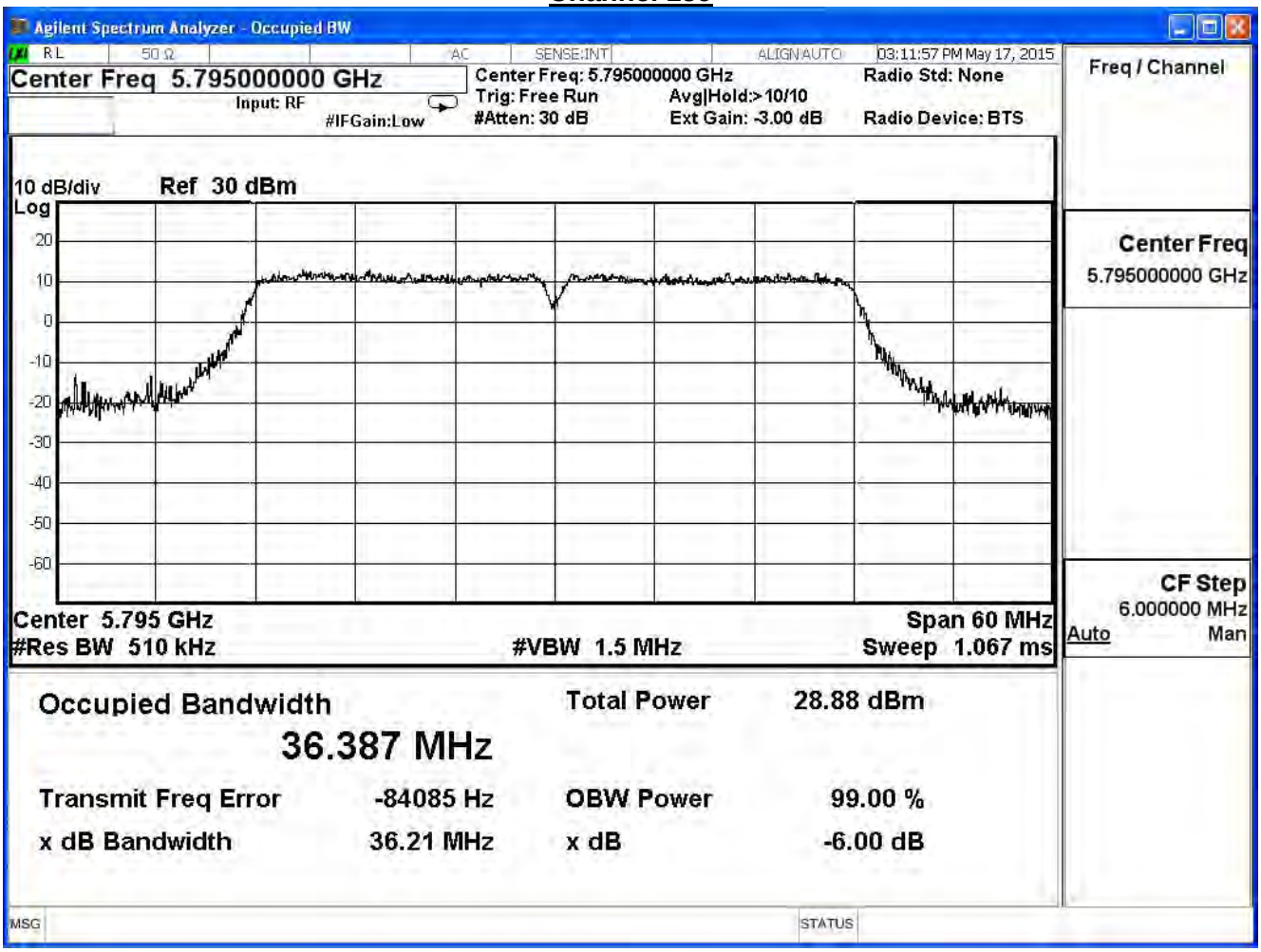
Product	Dual-band Wireless Range Extender		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/05/17	Test Site	SR7

IEEE 802.11n (40MHz)(ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
151	5755	36.471	--	Pass
159	5795	36.387	--	Pass

Channel 151



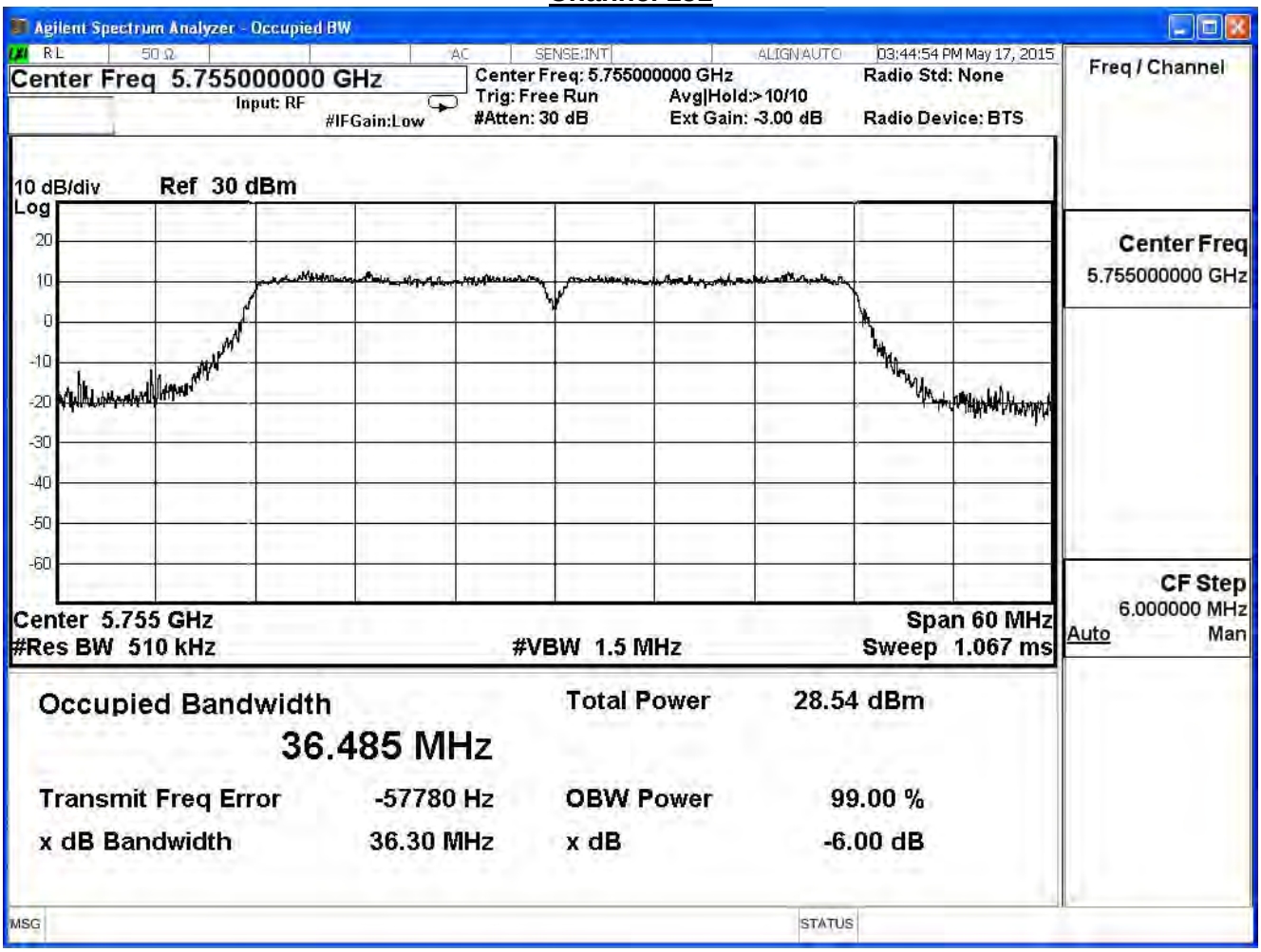
Channel 159


Agilent Spectrum Analyzer - Occupied BW
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
03:11:57 PM May 17, 2015
Center Freq 5.795000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.795000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -3.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.795000000 GHz
CF Step
6.000000 MHz
Auto
Man
Center 5.795 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 60 MHz
Sweep 1.067 ms
Occupied Bandwidth
36.387 MHz
Total Power
28.88 dBm
Transmit Freq Error
-84085 Hz
OBW Power
99.00 %
x dB Bandwidth
36.21 MHz
x dB
-6.00 dB
MSG
STATUS

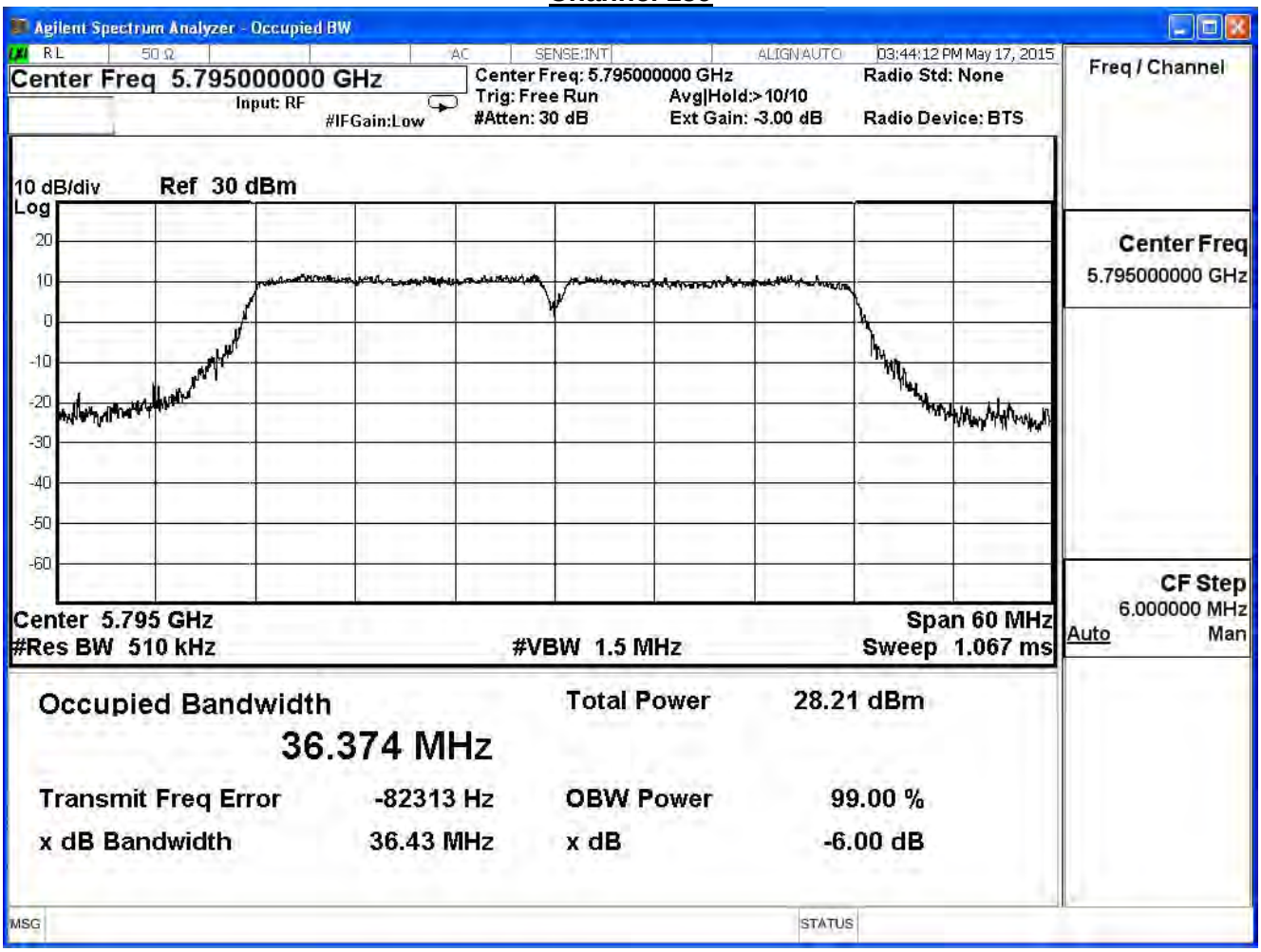
Product	Dual-band Wireless Range Extender		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/05/17	Test Site	SR7

IEEE 802.11n (40MHz)(ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
151	5755	36.485	--	Pass
159	5795	36.374	--	Pass

Channel 151



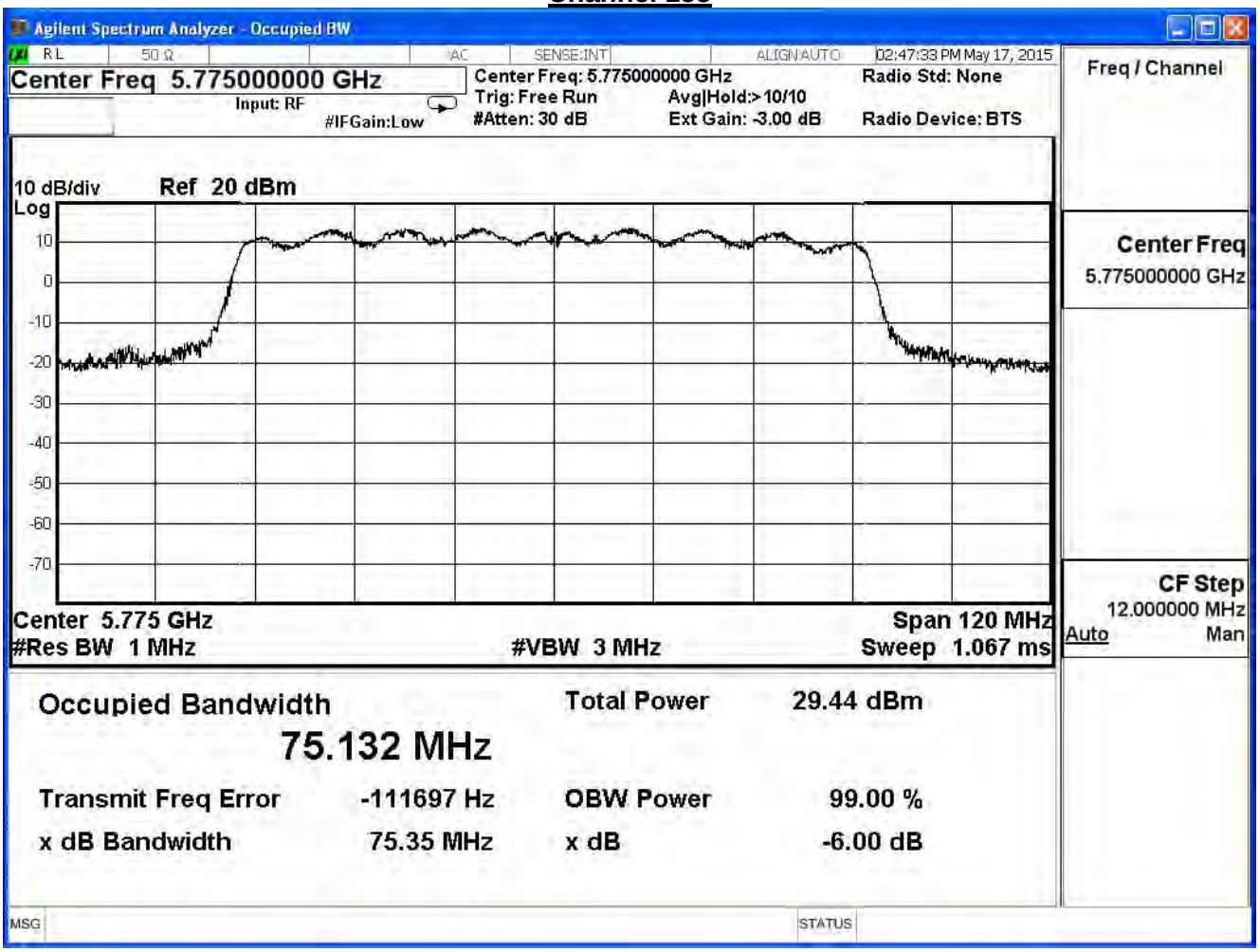
Channel 159


Agilent Spectrum Analyzer - Occupied BW
RL
50 Ω
AC
SENSE:INT
ALIGN AUTO
03:44:12 PM May 17, 2015
Center Freq 5.795000000 GHz
Input: RF
#IFGain:Low
Center Freq: 5.795000000 GHz
Trig: Free Run
Avg|Hold:>10/10
#Atten: 30 dB
Ext Gain: -3.00 dB
Radio Std: None
Radio Device: BTS
Freq / Channel
10 dB/div
Log
Ref 30 dBm
20
10
0
-10
-20
-30
-40
-50
-60
Center Freq
5.795000000 GHz
Center 5.795 GHz
#Res BW 510 kHz
#VBW 1.5 MHz
Span 60 MHz
Sweep 1.067 ms
CF Step
6.000000 MHz
Auto
Man
Occupied Bandwidth
36.374 MHz
Total Power
28.21 dBm
Transmit Freq Error
-82313 Hz
OBW Power
99.00 %
x dB Bandwidth
36.43 MHz
x dB
-6.00 dB
MSG
STATUS

Product	Dual-band Wireless Range Extender		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/05/17	Test Site	SR7

IEEE 802.11ac (80MHz)(ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
155	5775	75.132	--	Pass

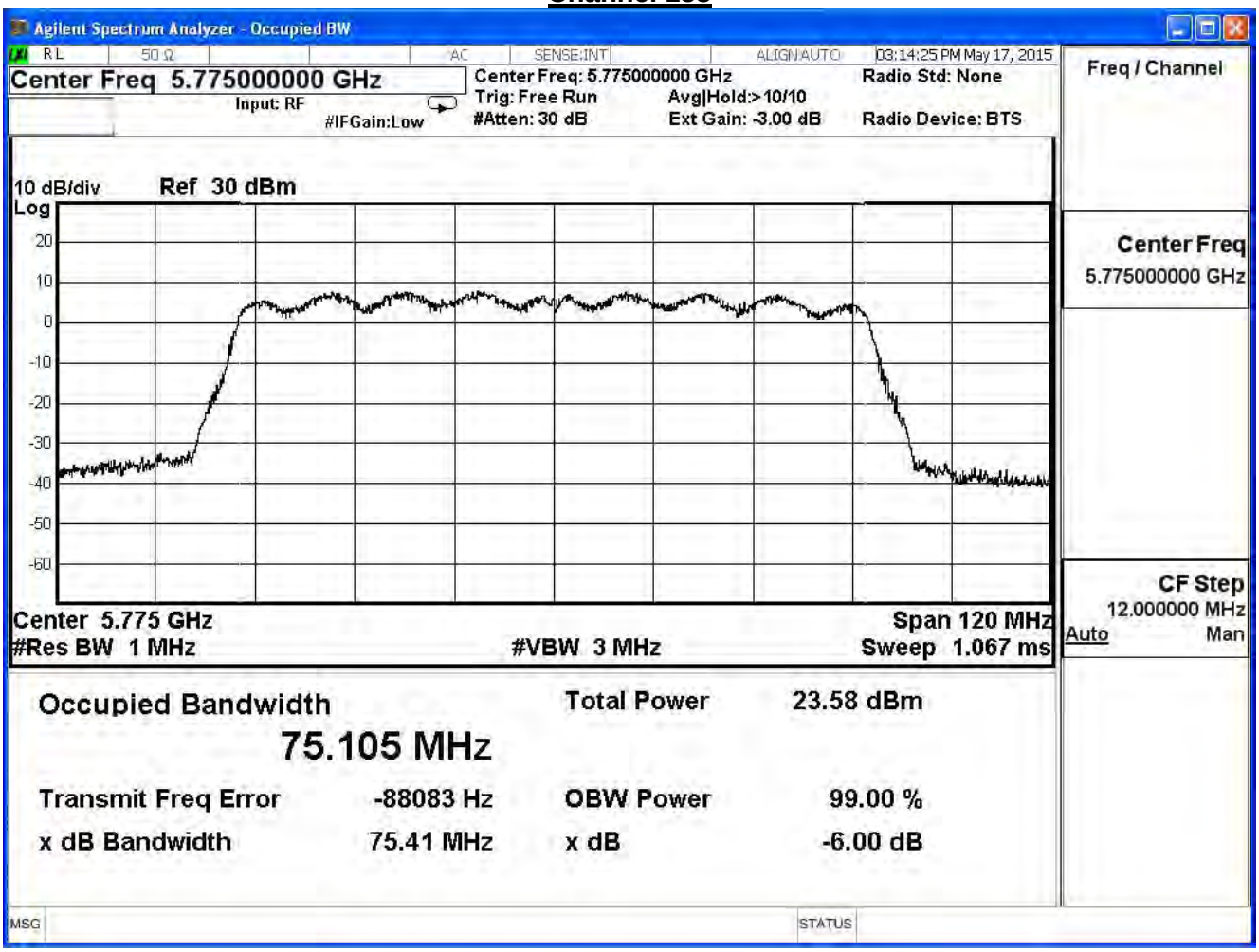
Channel 155



Product	Dual-band Wireless Range Extender		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/05/17	Test Site	SR7

IEEE 802.11ac (80MHz)(ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
155	5775	75.105	--	Pass

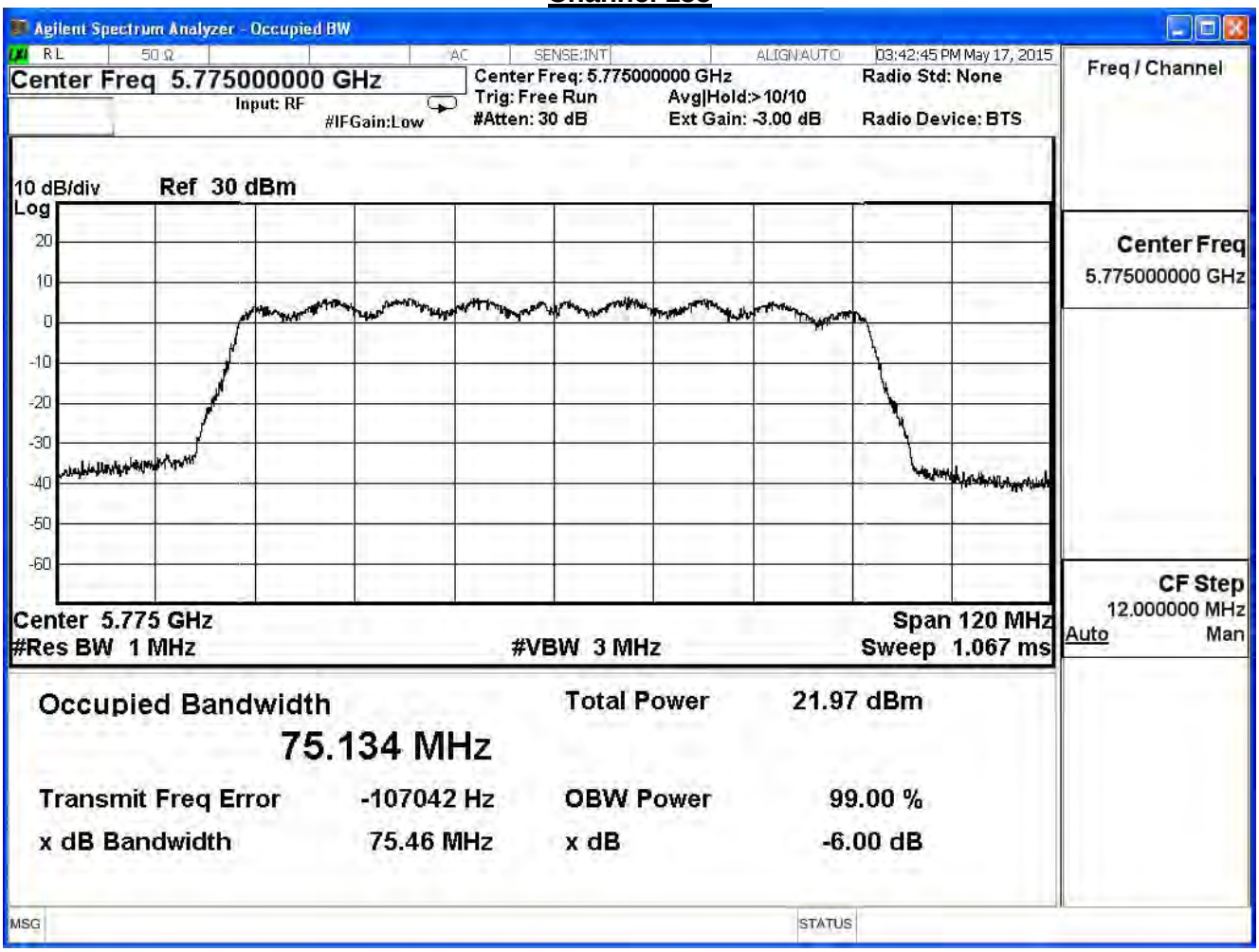
Channel 155



Product	Dual-band Wireless Range Extender		
Test Item	Occupied Bandwidth		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/05/17	Test Site	SR7

IEEE 802.11ac (80MHz)(ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (MHz)	Limit (MHz)	Result
155	5775	75.134	--	Pass

Channel 155



9. Power Density

9.1. Test Equipment

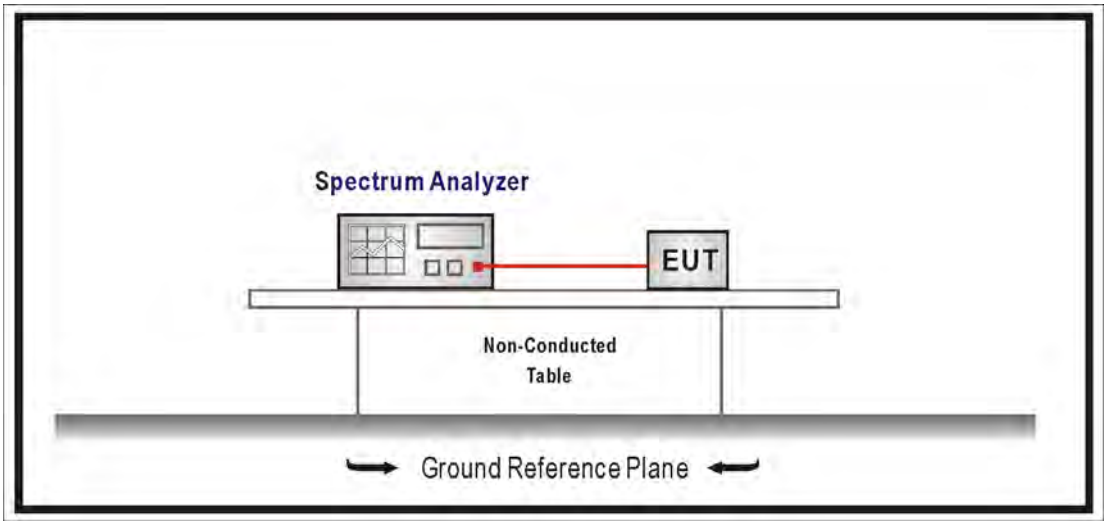
The following test equipment is used during the test:

Power Density / SR7

Instrument	Manufacturer	Model No.	Serial No	Next Cal. Date
Spectrum Analyzer	Agilent	N9010A-EXA	US47140172	2016/08/23

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

9.2. Test Setup



9.3. 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.

9.4. Test Procedures

The EUT was setup according to ANSI C63.10: 2013; tested according to DTS test procedure section 10.2 of KDB558074 v03r02 for compliance to FCC 47CFR 15.247 requirements.
Set 3KHz ≦RBW≦100 kHz, Set VBW≧3xRBW, Sweep time=Auto, Set Peak detector;
The tested according to section E)c) of KDB662911 v02v01.

9.5. Test Specification

According to FCC Part 15 Subpart C Paragraph 15.247: 2014

9.6. Uncertainty

The measurement uncertainty is defined as ±1.27dB.

9.7. Test Result

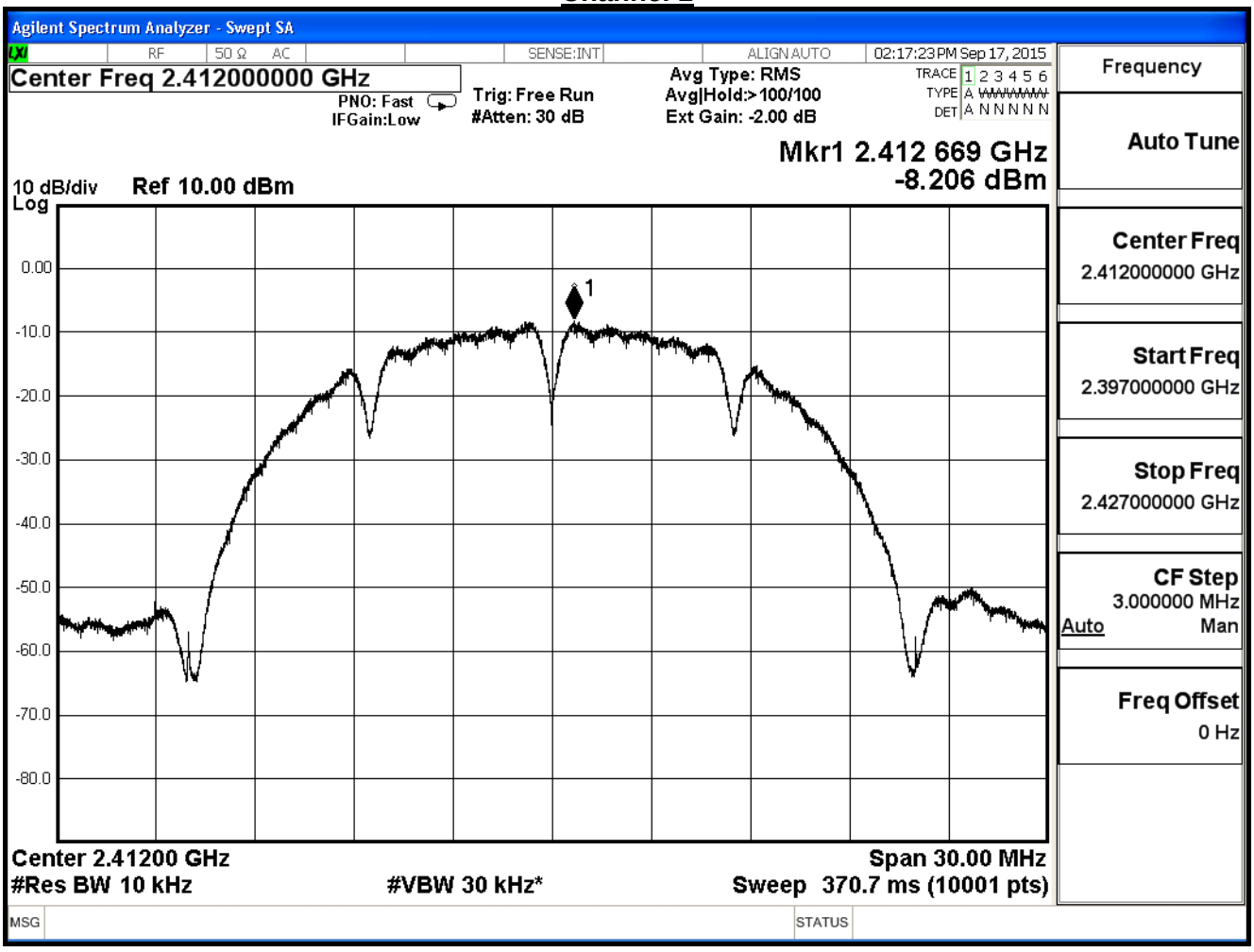
Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/09/17	Test Site	SR7

IEEE 802.11b (ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	-8.206	≦7.43	Pass
6	2437	-3.561	≦7.43	Pass
11	2462	-9.015	≦7.43	Pass

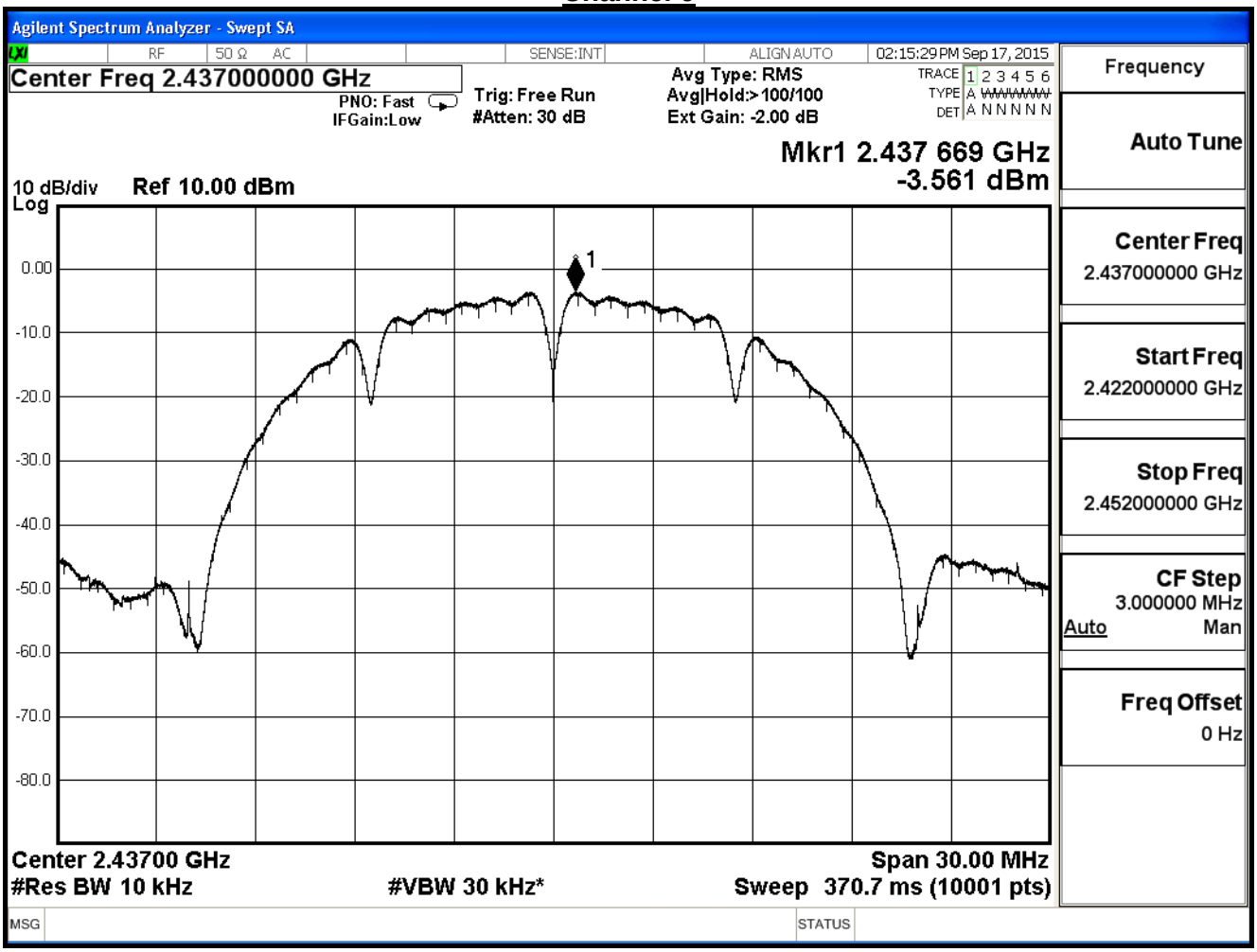
Directional Antenna: 10log(Ant N)+Max Gain =3+3.57=6.57 dBi

Power Density Limit:8dBm-(6.57dBi-6dB)=7.43 dBm

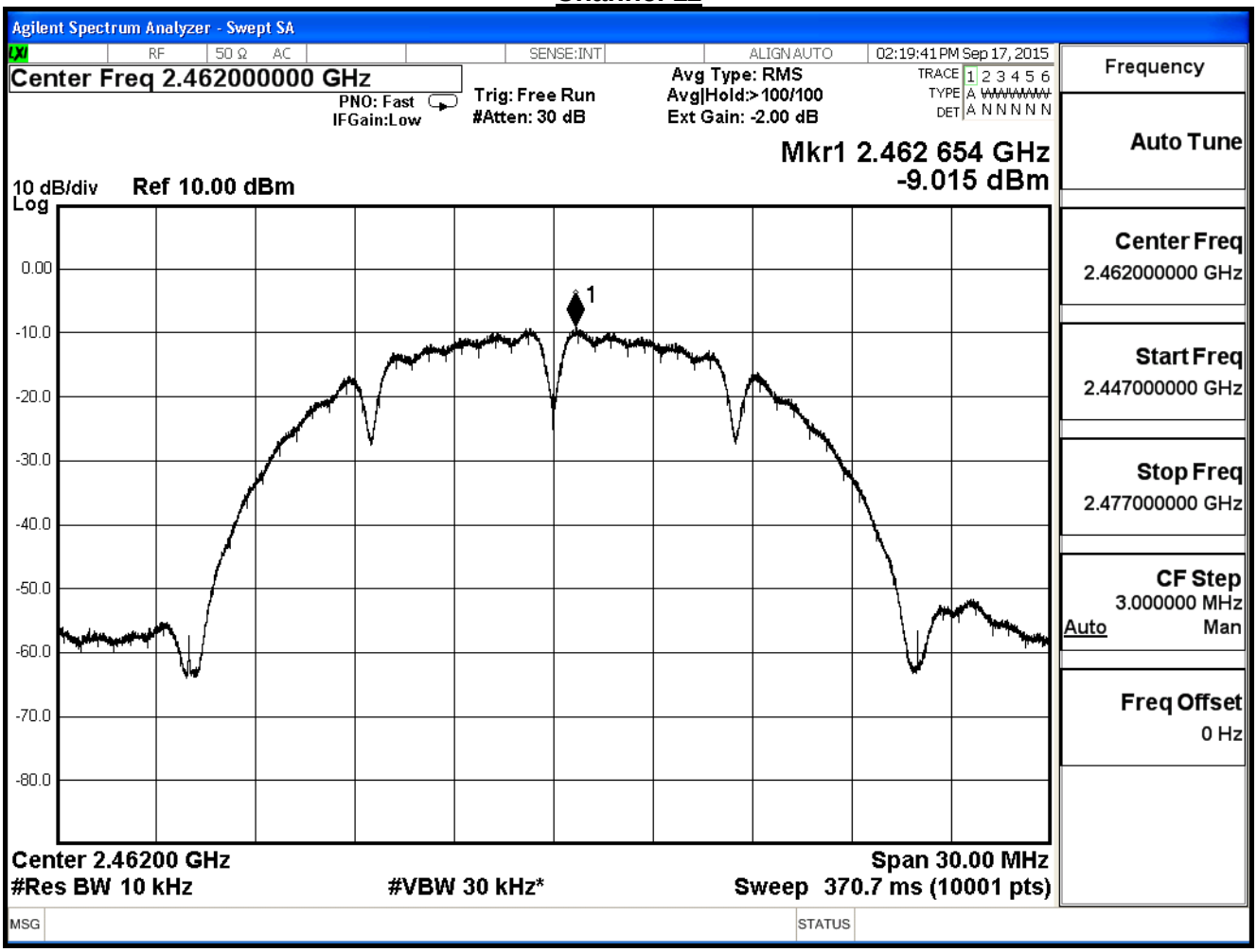
Channel 1



Channel 6


Agilent Spectrum Analyzer - Swept SA
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
02:15:29 PM Sep 17, 2015
Center Freq 2.437000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 2.437 669 GHz
-3.561 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
1
Center 2.43700 GHz
#Res BW 10 kHz
#VBW 30 kHz*
Span 30.00 MHz
Sweep 370.7 ms (10001 pts)
Frequency
Auto Tune
Center Freq
2.437000000 GHz
Start Freq
2.422000000 GHz
Stop Freq
2.452000000 GHz
CF Step
3.000000 MHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

Channel 11


Agilent Spectrum Analyzer - Swept SA
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
02:19:41 PM Sep 17, 2015
Center Freq 2.462000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 2.462 654 GHz
-9.015 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
1
Center 2.46200 GHz
#Res BW 10 kHz
#VBW 30 kHz*
Span 30.00 MHz
Sweep 370.7 ms (10001 pts)
Frequency
Auto Tune
Center Freq
2.462000000 GHz
Start Freq
2.447000000 GHz
Stop Freq
2.477000000 GHz
CF Step
3.000000 MHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

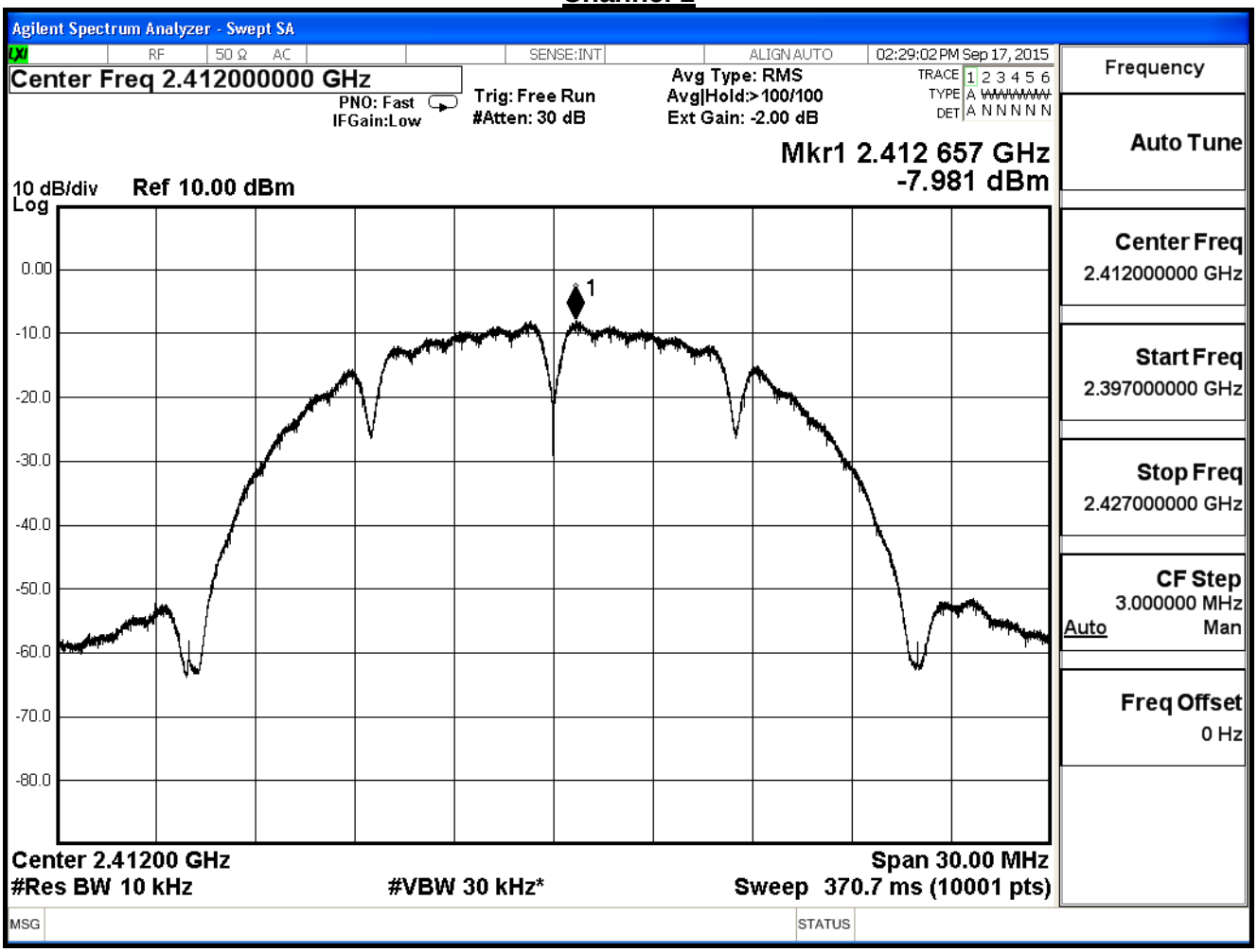
Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/09/17	Test Site	SR7

IEEE 802.11b (ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	-7.981	≦7.43	Pass
6	2437	-2.737	≦7.43	Pass
11	2462	-8.570	≦7.43	Pass

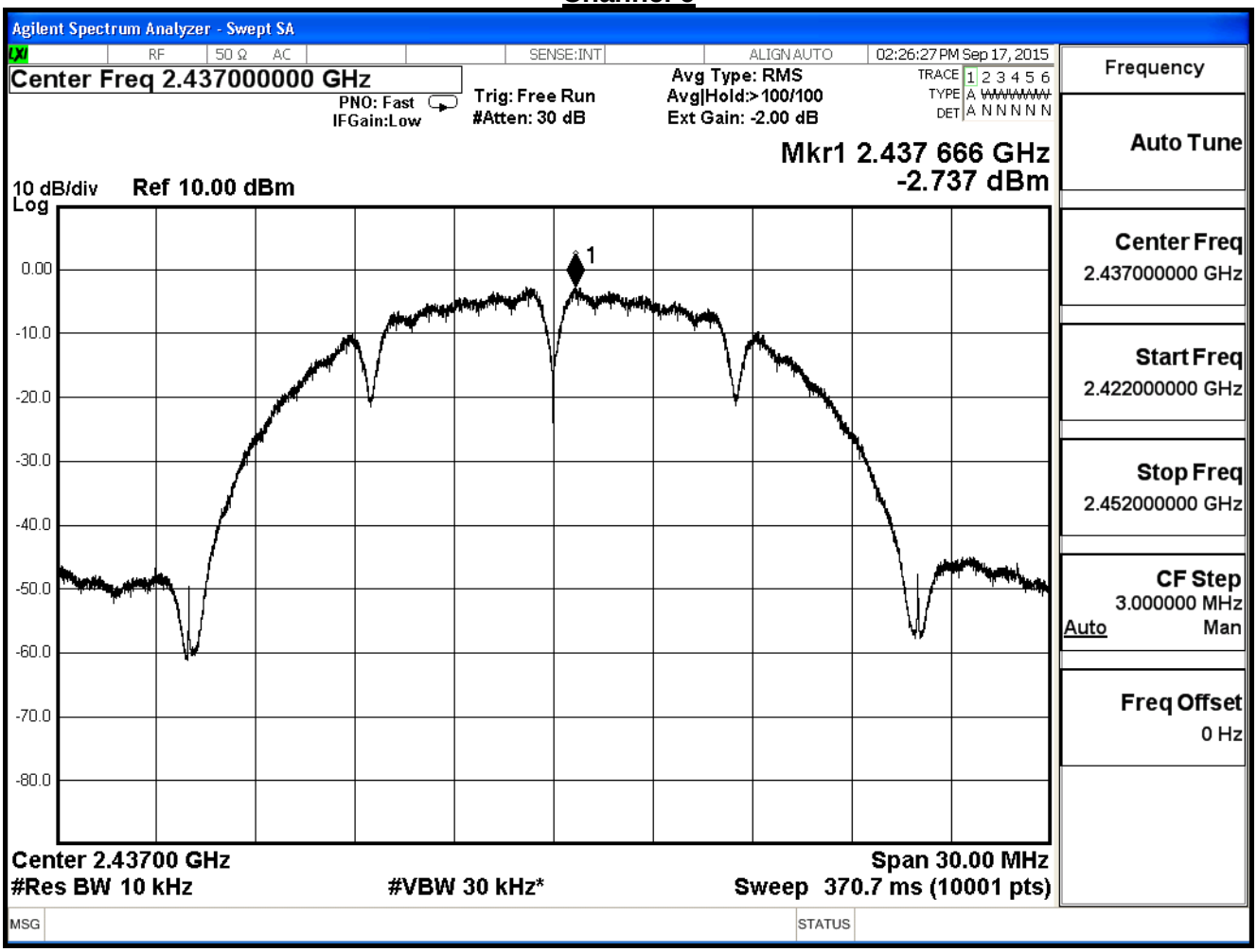
Directional Antenna: 10log(Ant N)+Max Gain =3+3.57=6.57 dBi

Power Density Limit:8dBm-(6.57dBi-6dB)=7.43 dBm

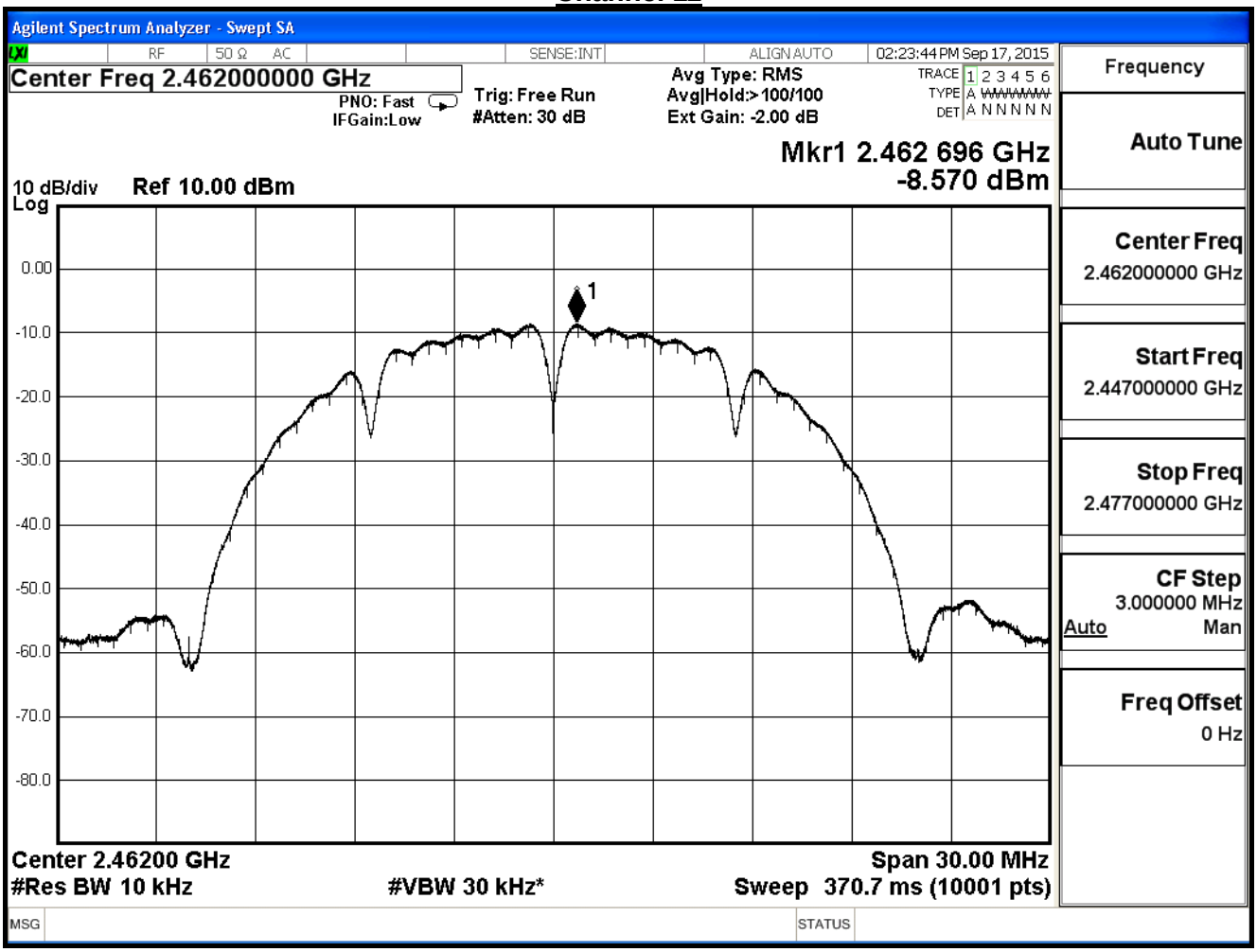
Channel 1



Channel 6


Agilent Spectrum Analyzer - Swept SA
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
02:26:27 PM Sep 17, 2015
Center Freq 2.437000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 2.437 666 GHz
-2.737 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 2.43700 GHz
#Res BW 10 kHz
#VBW 30 kHz*
Span 30.00 MHz
Sweep 370.7 ms (10001 pts)
MSG
STATUS
Frequency
Auto Tune
Center Freq
2.437000000 GHz
Start Freq
2.422000000 GHz
Stop Freq
2.452000000 GHz
CF Step
3.000000 MHz
Auto
Man
Freq Offset
0 Hz

Channel 11


Agilent Spectrum Analyzer - Swept SA
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
02:23:44 PM Sep 17, 2015
Center Freq 2.462000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 2.462 696 GHz
-8.570 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
1
Center 2.46200 GHz
#Res BW 10 kHz
#VBW 30 kHz*
Span 30.00 MHz
Sweep 370.7 ms (10001 pts)
Frequency
Auto Tune
Center Freq
2.462000000 GHz
Start Freq
2.447000000 GHz
Stop Freq
2.477000000 GHz
CF Step
3.000000 MHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

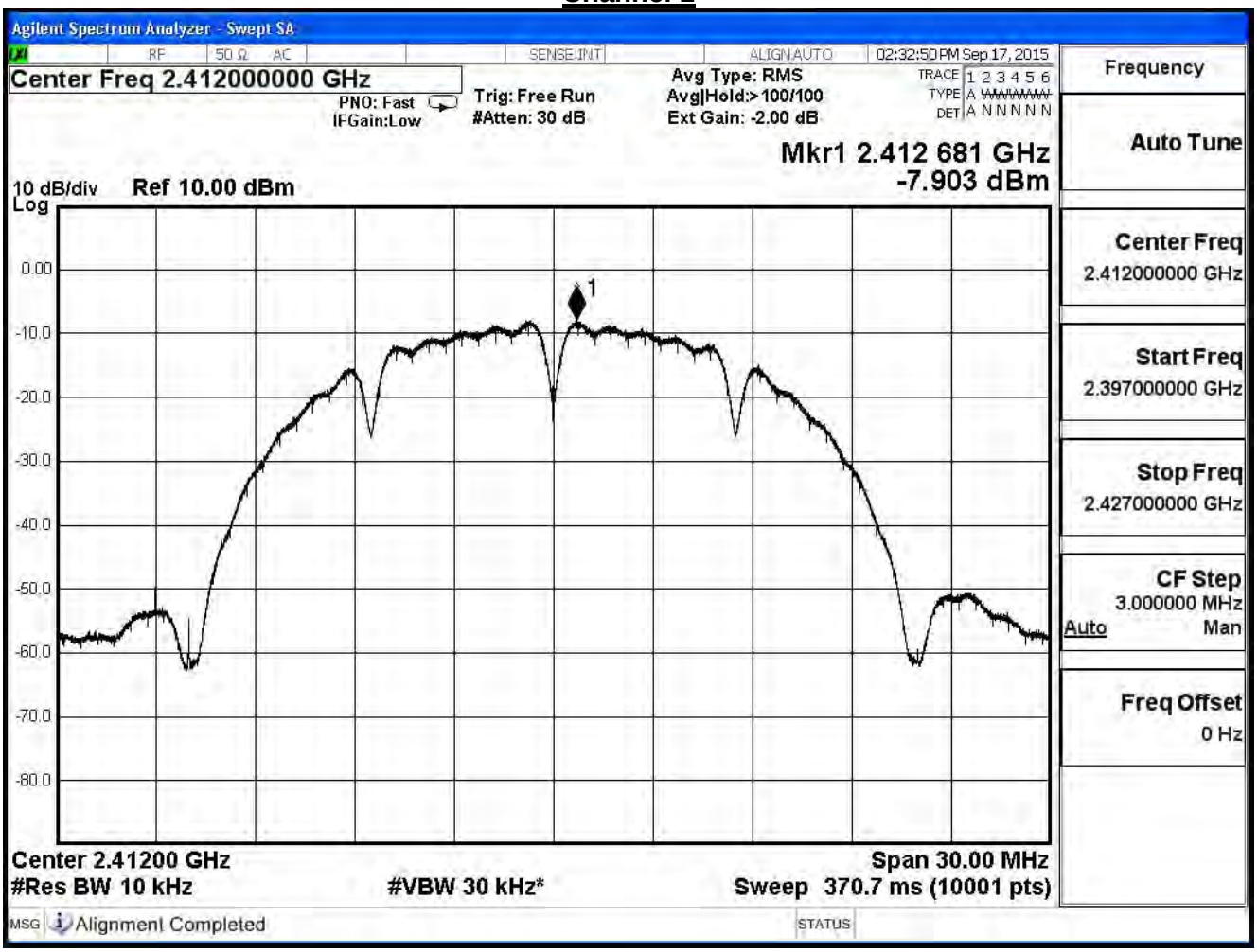
Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/09/17	Test Site	SR7

IEEE 802.11b (ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	-7.903	≦7.43	Pass
6	2437	-3.108	≦7.43	Pass
11	2462	-9.204	≦7.43	Pass

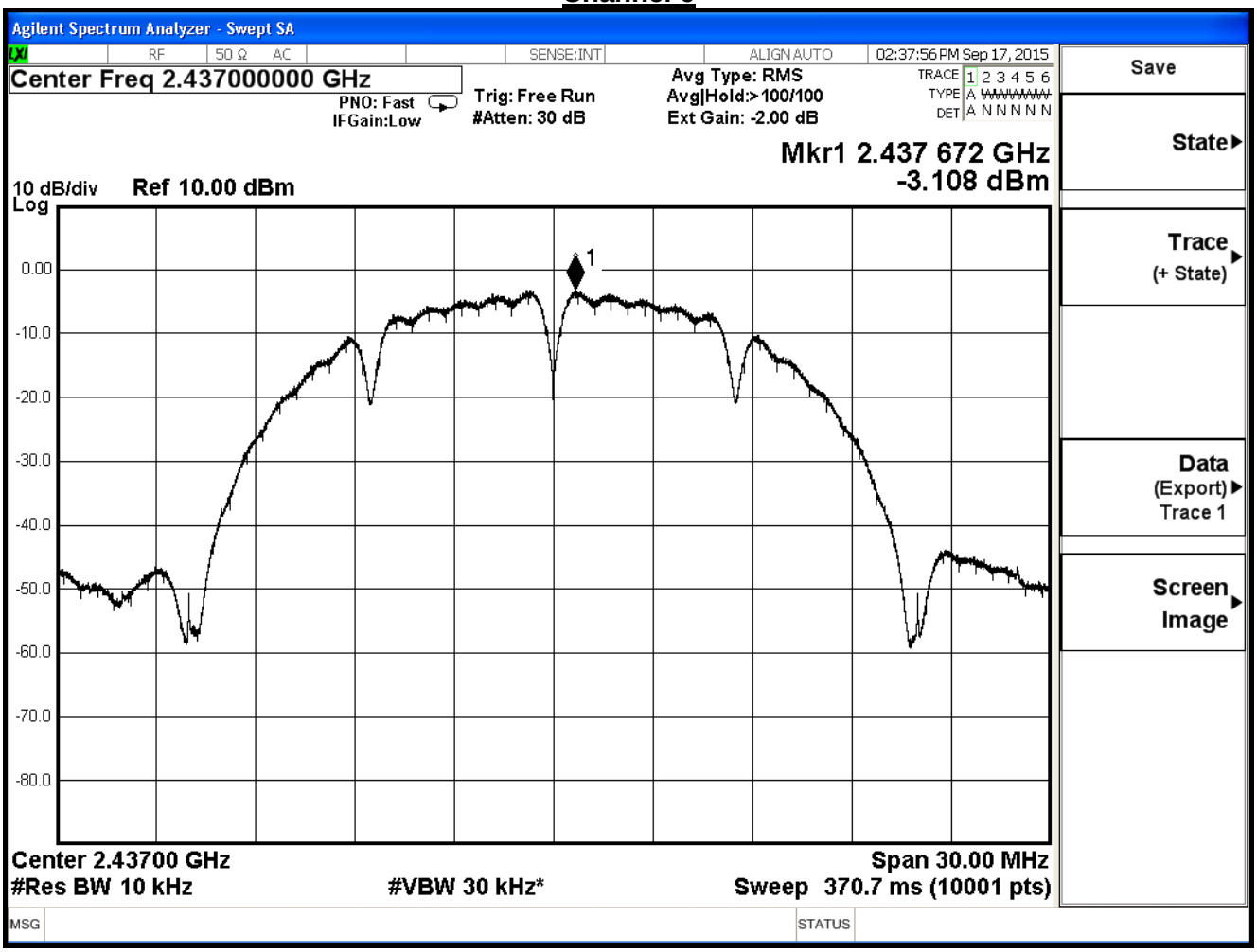
Directional Antenna: 10log(Ant N)+Max Gain =3+3.57=6.57 dBi

Power Density Limit:8dBm-(6.57dBi-6dB)=7.43 dBm

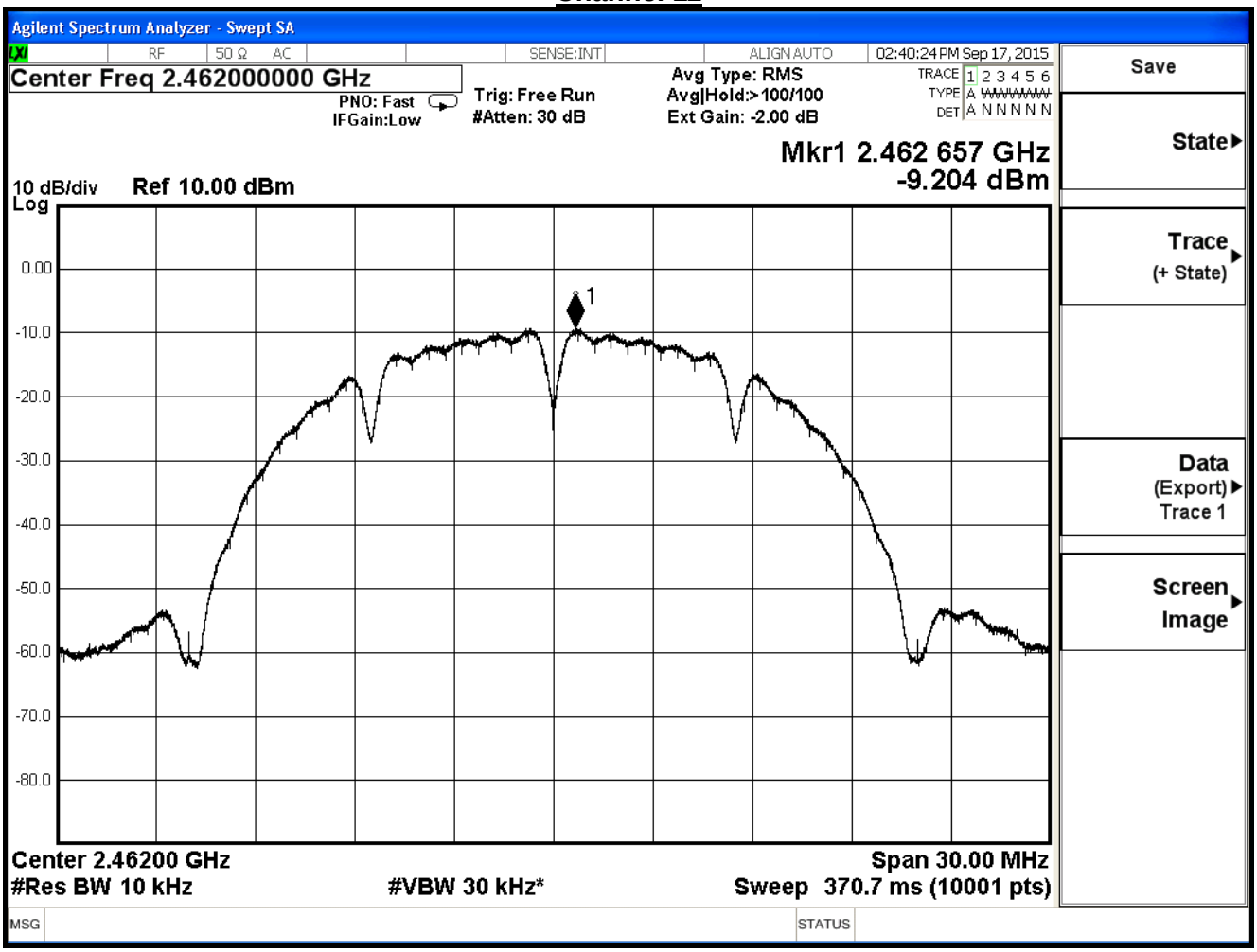
Channel 1



Channel 6


Agilent Spectrum Analyzer - Swept SA
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
02:37:56 PM Sep 17, 2015
Center Freq 2.437000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 2.437 672 GHz
-3.108 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 2.43700 GHz
#Res BW 10 kHz
#VBW 30 kHz*
Span 30.00 MHz
Sweep 370.7 ms (10001 pts)
MSG
STATUS
Save
State
Trace
(+ State)
Data
(Export)
Trace 1
Screen
Image

Channel 11


Agilent Spectrum Analyzer - Swept SA
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
02:40:24 PM Sep 17, 2015
Center Freq 2.462000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 2.462 657 GHz
-9.204 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
1
Center 2.46200 GHz
#Res BW 10 kHz
#VBW 30 kHz*
Span 30.00 MHz
Sweep 370.7 ms (10001 pts)
MSG
STATUS
Save
State
Trace
(+ State)
Data
(Export)
Trace 1
Screen
Image

Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/09/17	Test Site	SR7

IEEE 802.11b (ANT 0+1+2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	-3.257	≦7.43	Pass
6	2437	1.649	≦7.43	Pass
11	2462	-4.150	≦7.43	Pass

Directional Antenna: 10log(Ant N)+Max Gain =3+3.57=6.57 dBi

Power Density Limit:8dBm-(6.57dBi-6dB)=7.43 dBm

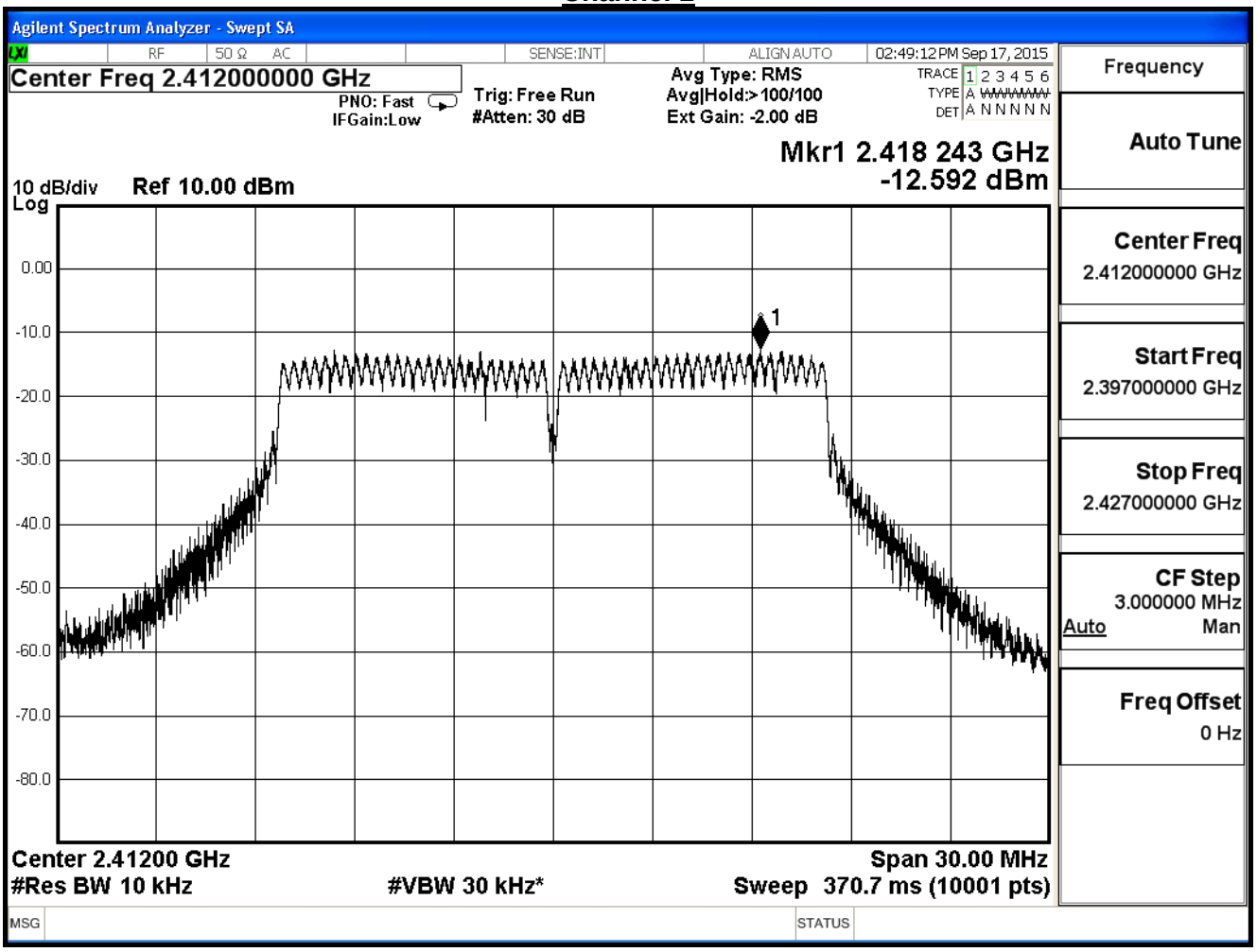
Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/09/17	Test Site	SR7

IEEE 802.11g (ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	-12.592	≦7.43	Pass
6	2437	-7.333	≦7.43	Pass
11	2462	-13.741	≦7.43	Pass

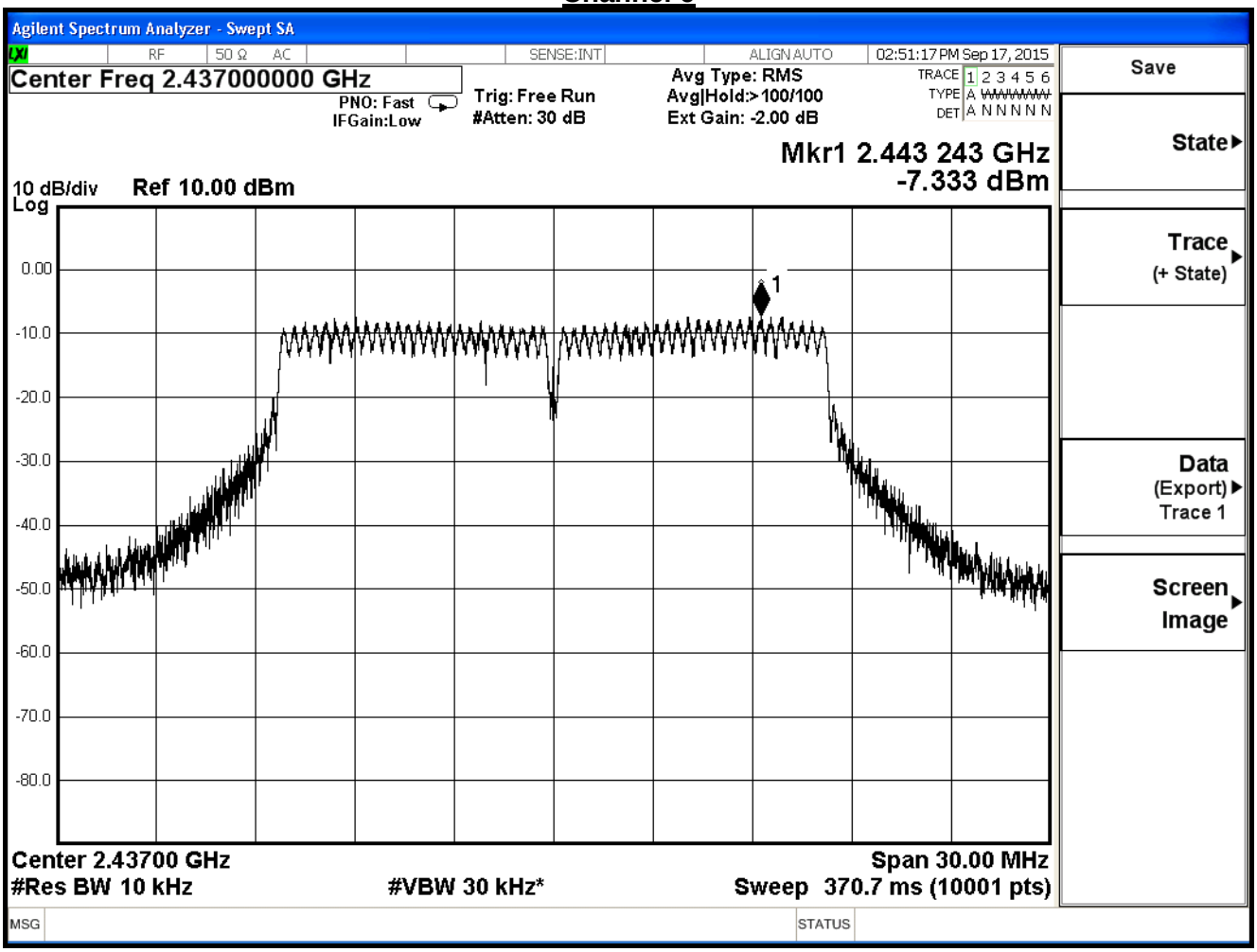
Directional Antenna: 10log(Ant N)+Max Gain =3+3.57=6.57 dBi

Power Density Limit:8dBm-(6.57dBi-6dB)=7.43 dBm

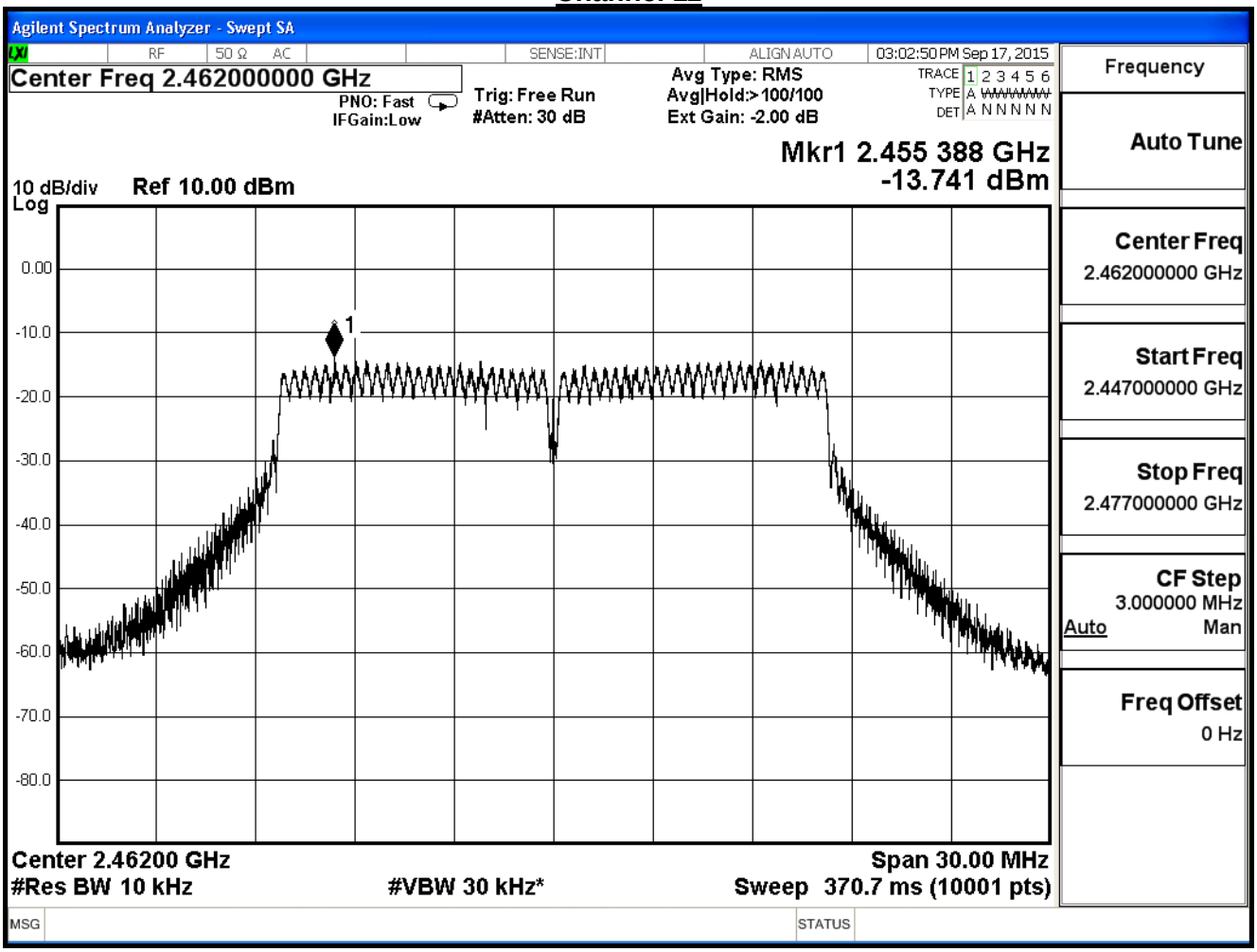
Channel 1



Channel 6


Agilent Spectrum Analyzer - Swept SA
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
02:51:17 PM Sep 17, 2015
Center Freq 2.437000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 2.443 243 GHz
-7.333 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
1
Center 2.43700 GHz
#Res BW 10 kHz
#VBW 30 kHz*
Span 30.00 MHz
Sweep 370.7 ms (10001 pts)
MSG
STATUS
Save
State
Trace
(+ State)
Data
(Export)
Trace 1
Screen
Image

Channel 11


Agilent Spectrum Analyzer - Swept SA
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
03:02:50 PM Sep 17, 2015
Center Freq 2.462000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 2.455 388 GHz
-13.741 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 2.46200 GHz
#Res BW 10 kHz
#VBW 30 kHz*
Span 30.00 MHz
Sweep 370.7 ms (10001 pts)
MSG
STATUS
Frequency
Auto Tune
Center Freq
2.462000000 GHz
Start Freq
2.447000000 GHz
Stop Freq
2.477000000 GHz
CF Step
3.000000 MHz
Auto
Man
Freq Offset
0 Hz

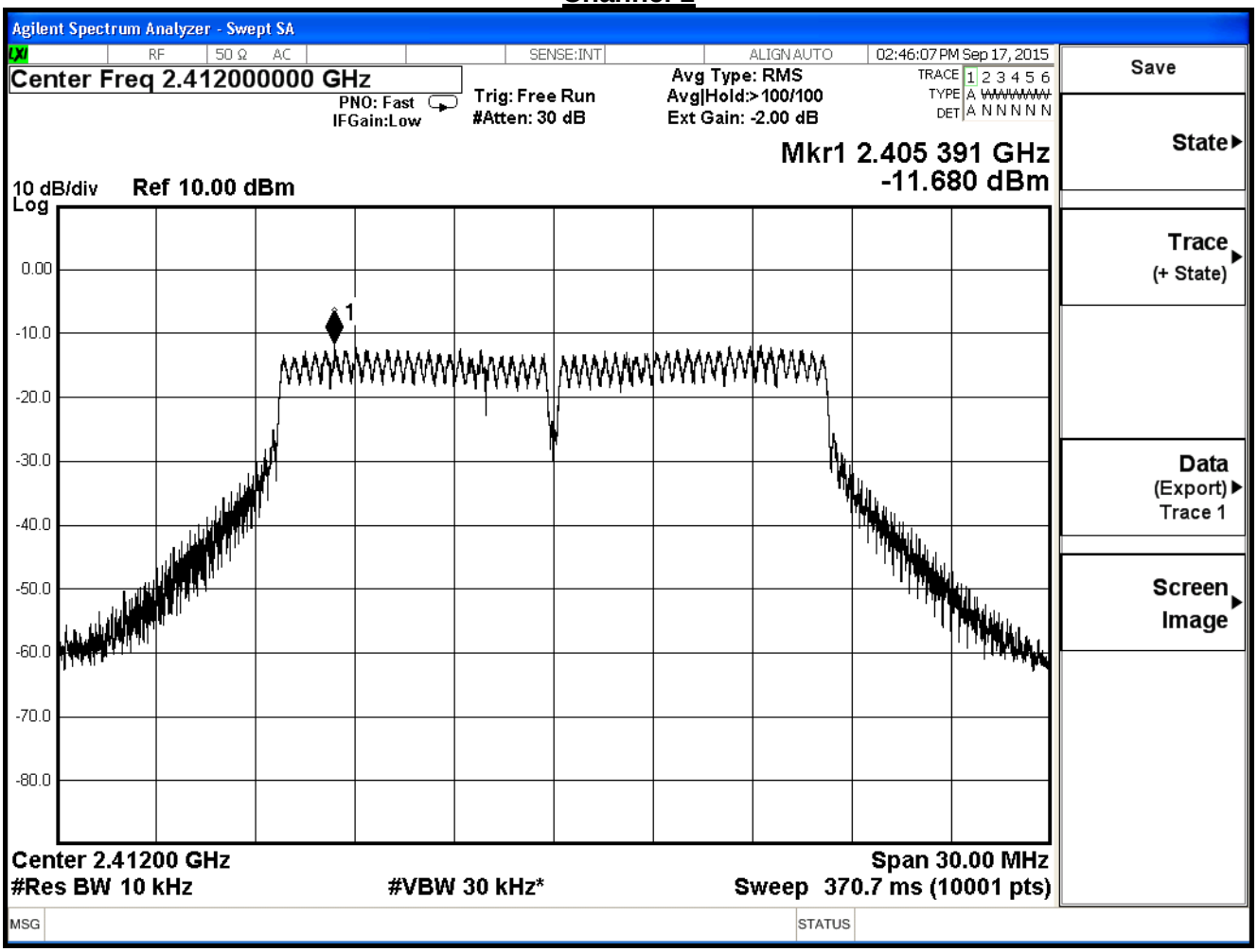
Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/09/17	Test Site	SR7

IEEE 802.11g (ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	-11.680	≦7.43	Pass
6	2437	-6.734	≦7.43	Pass
11	2462	-13.070	≦7.43	Pass

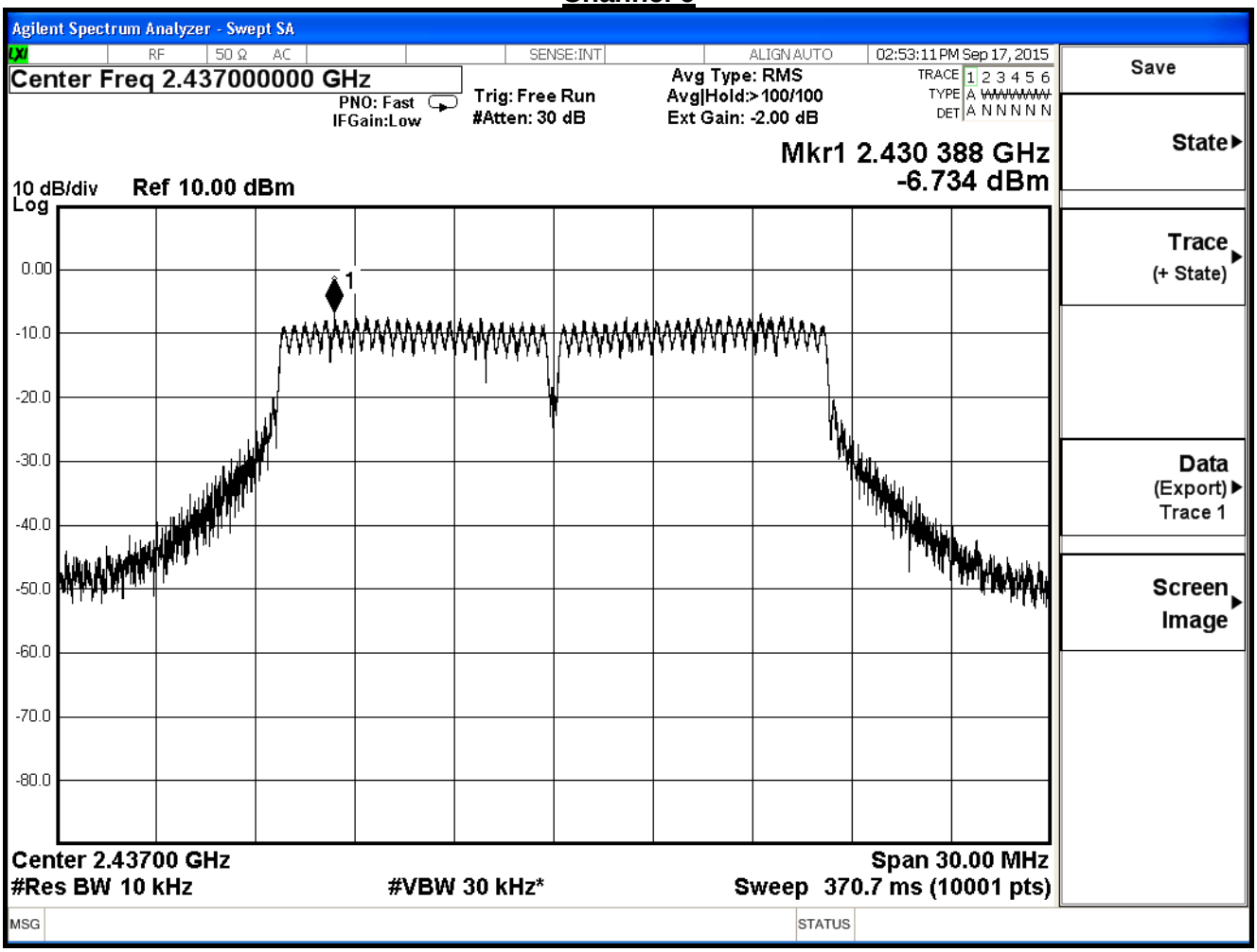
Directional Antenna: 10log(Ant N)+Max Gain =3+3.57=6.57 dBi

Power Density Limit:8dBm-(6.57dBi-6dB)=7.43 dBm

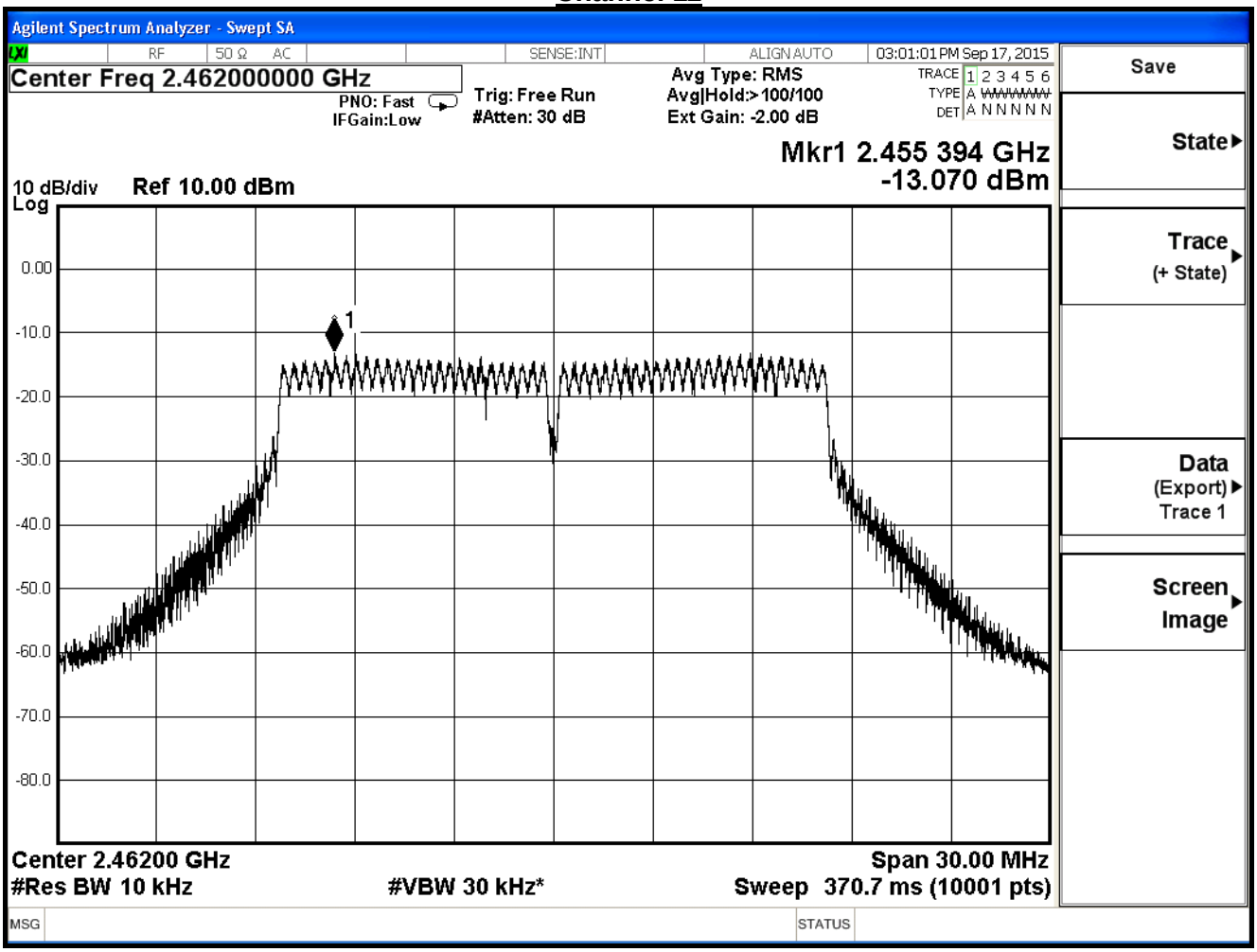
Channel 1



Channel 6


Agilent Spectrum Analyzer - Swept SA
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
02:53:11 PM Sep 17, 2015
Center Freq 2.437000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 2.430 388 GHz
-6.734 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 2.43700 GHz
#Res BW 10 kHz
#VBW 30 kHz*
Span 30.00 MHz
Sweep 370.7 ms (10001 pts)
MSG
STATUS
Save
State
Trace
(+ State)
Data
(Export)
Trace 1
Screen
Image

Channel 11


Agilent Spectrum Analyzer - Swept SA
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
03:01:01 PM Sep 17, 2015
Center Freq 2.462000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 2.455 394 GHz
-13.070 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 2.46200 GHz
#Res BW 10 kHz
#VBW 30 kHz*
Span 30.00 MHz
Sweep 370.7 ms (10001 pts)
MSG
STATUS
Save
State
Trace
(+ State)
Data
(Export)
Trace 1
Screen
Image

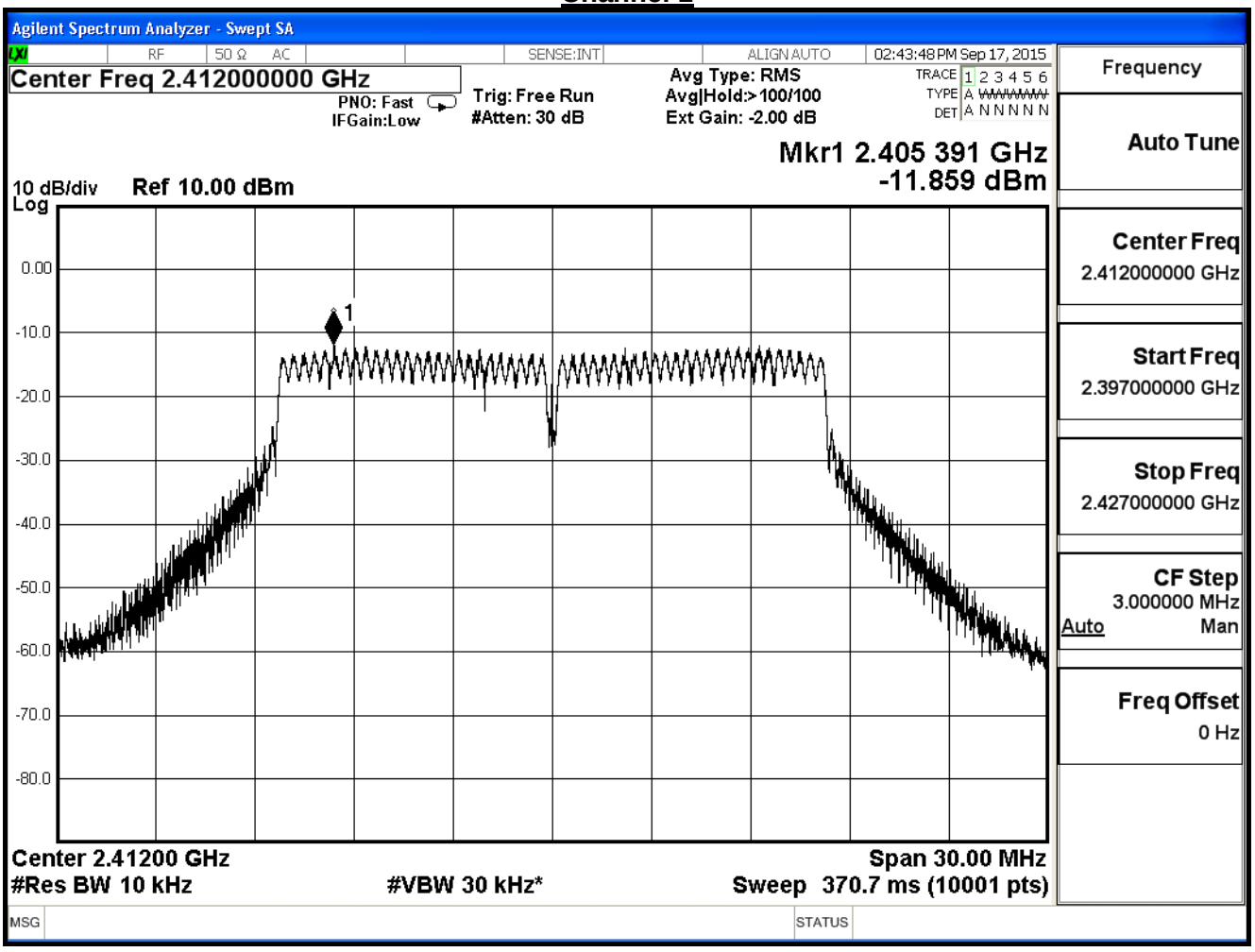
Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/09/17	Test Site	SR7

IEEE 802.11g (ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	-11.859	≦7.43	Pass
6	2437	-6.843	≦7.43	Pass
11	2462	-12.670	≦7.43	Pass

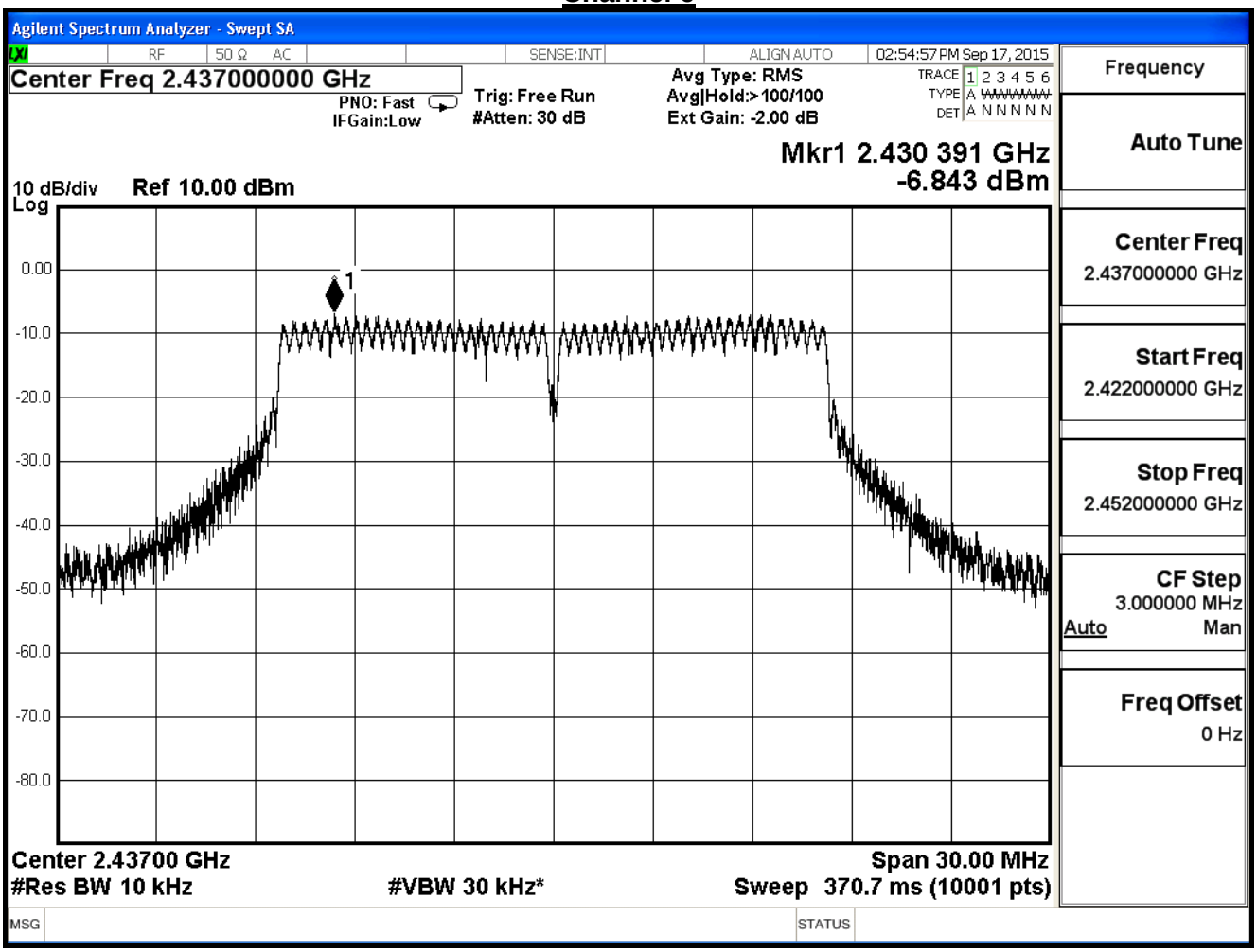
Directional Antenna: 10log(Ant N)+Max Gain =3+3.57=6.57 dBi

Power Density Limit:8dBm-(6.57dBi-6dB)=7.43 dBm

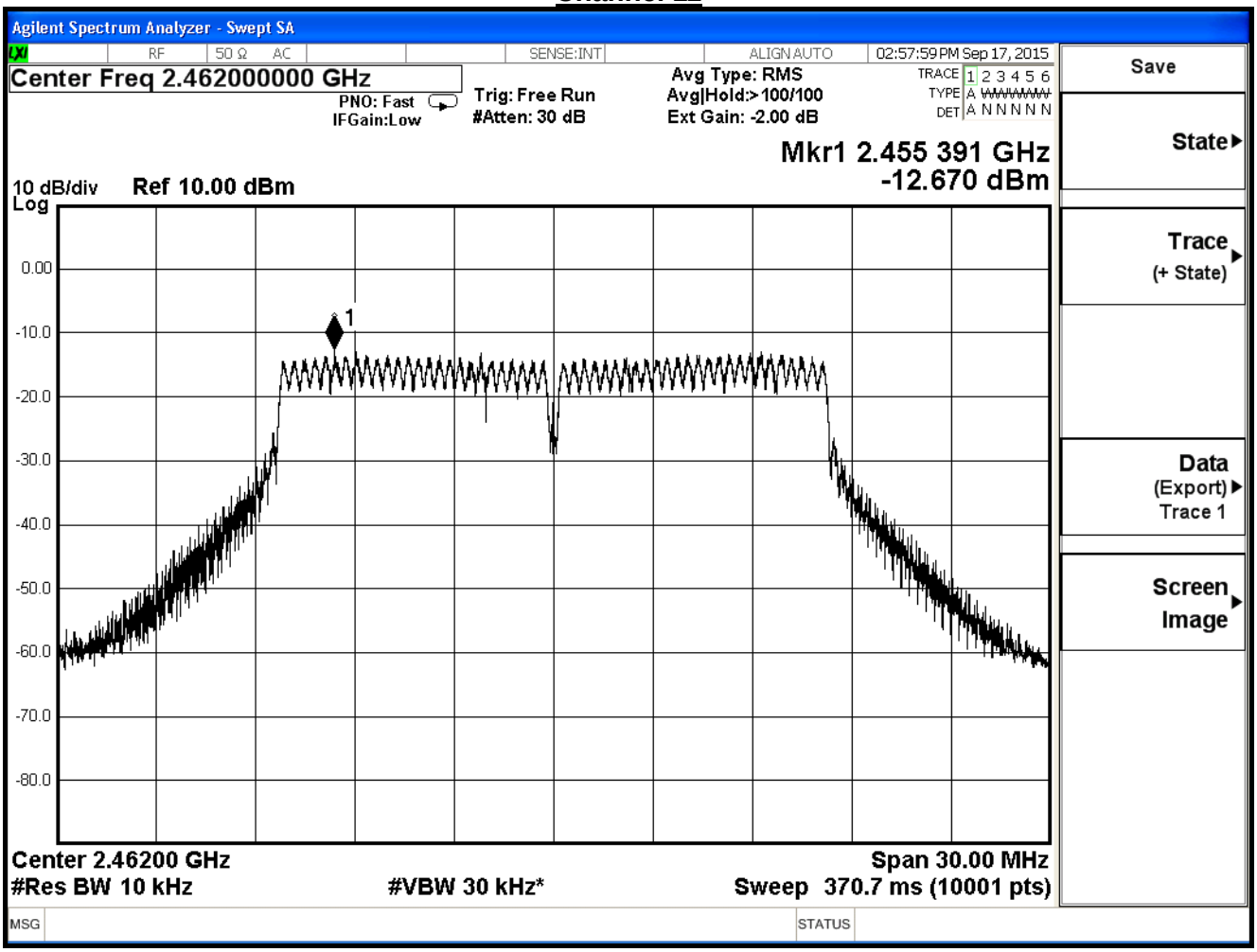
Channel 1



Channel 6


Agilent Spectrum Analyzer - Swept SA
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
02:54:57 PM Sep 17, 2015
Center Freq 2.437000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 2.430 391 GHz
-6.843 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 2.43700 GHz
#Res BW 10 kHz
#VBW 30 kHz*
Span 30.00 MHz
Sweep 370.7 ms (10001 pts)
MSG
STATUS
Frequency
Auto Tune
Center Freq
2.437000000 GHz
Start Freq
2.422000000 GHz
Stop Freq
2.452000000 GHz
CF Step
3.000000 MHz
Auto
Man
Freq Offset
0 Hz

Channel 11


Agilent Spectrum Analyzer - Swept SA
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
02:57:59 PM Sep 17, 2015
Center Freq 2.462000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 2.455 391 GHz
-12.670 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 2.46200 GHz
#Res BW 10 kHz
#VBW 30 kHz*
Span 30.00 MHz
Sweep 370.7 ms (10001 pts)
MSG
STATUS
Save
State
Trace
(+ State)
Data
(Export)
Trace 1
Screen
Image

Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/09/17	Test Site	SR7

IEEE 802.11g (ANT 0+1+2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	-7.255	≦7.43	Pass
6	2437	-2.191	≦7.43	Pass
11	2462	-8.367	≦7.43	Pass

Directional Antenna: 10log(Ant N)+Max Gain =3+3.57=6.57 dBi

Power Density Limit:8dBm-(6.57dBi-6dB)=7.43 dBm

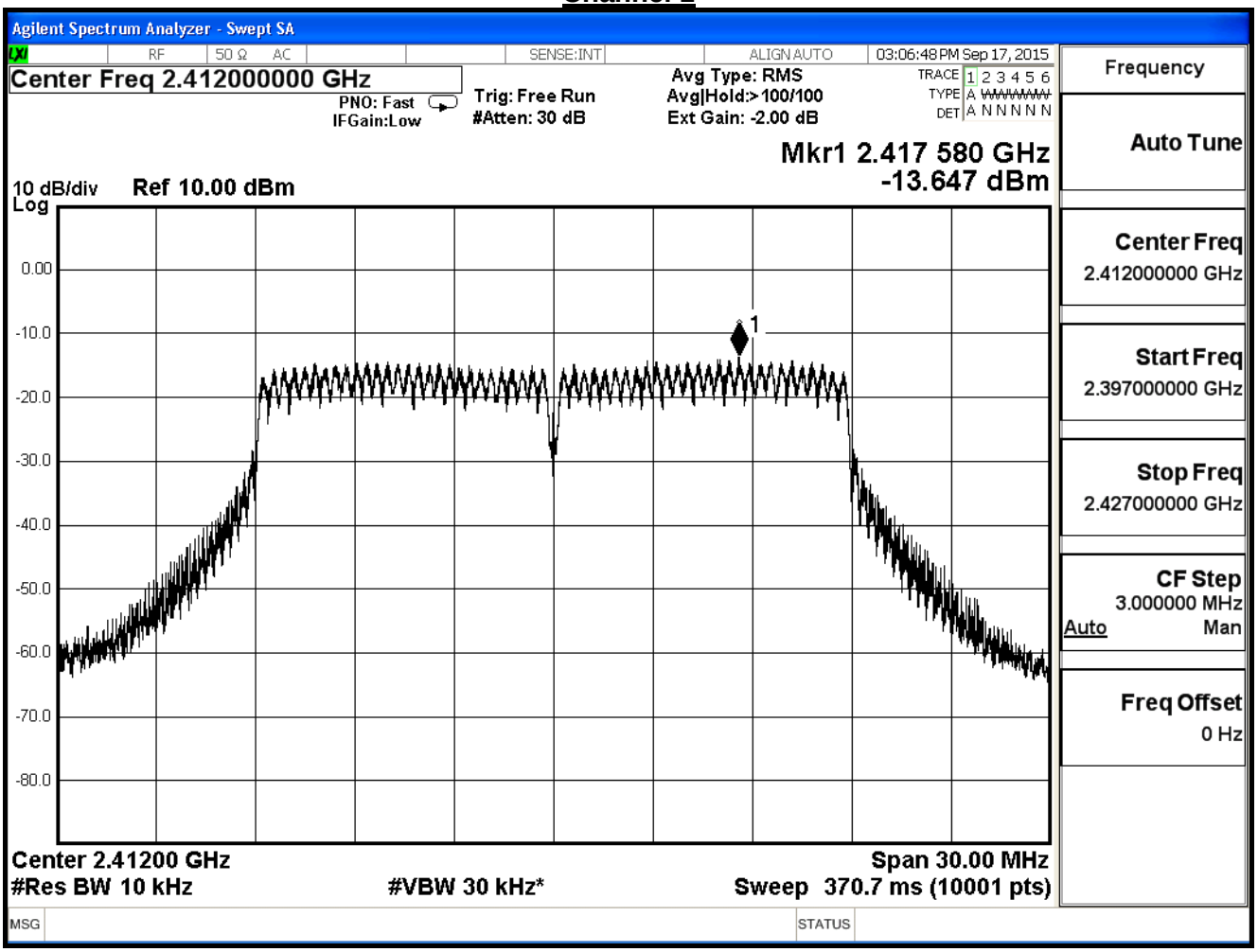
Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/09/17	Test Site	SR7

IEEE802.11n 20MHz (ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	-13.647	≦7.43	Pass
6	2437	-6.323	≦7.43	Pass
11	2462	-9.651	≦7.43	Pass

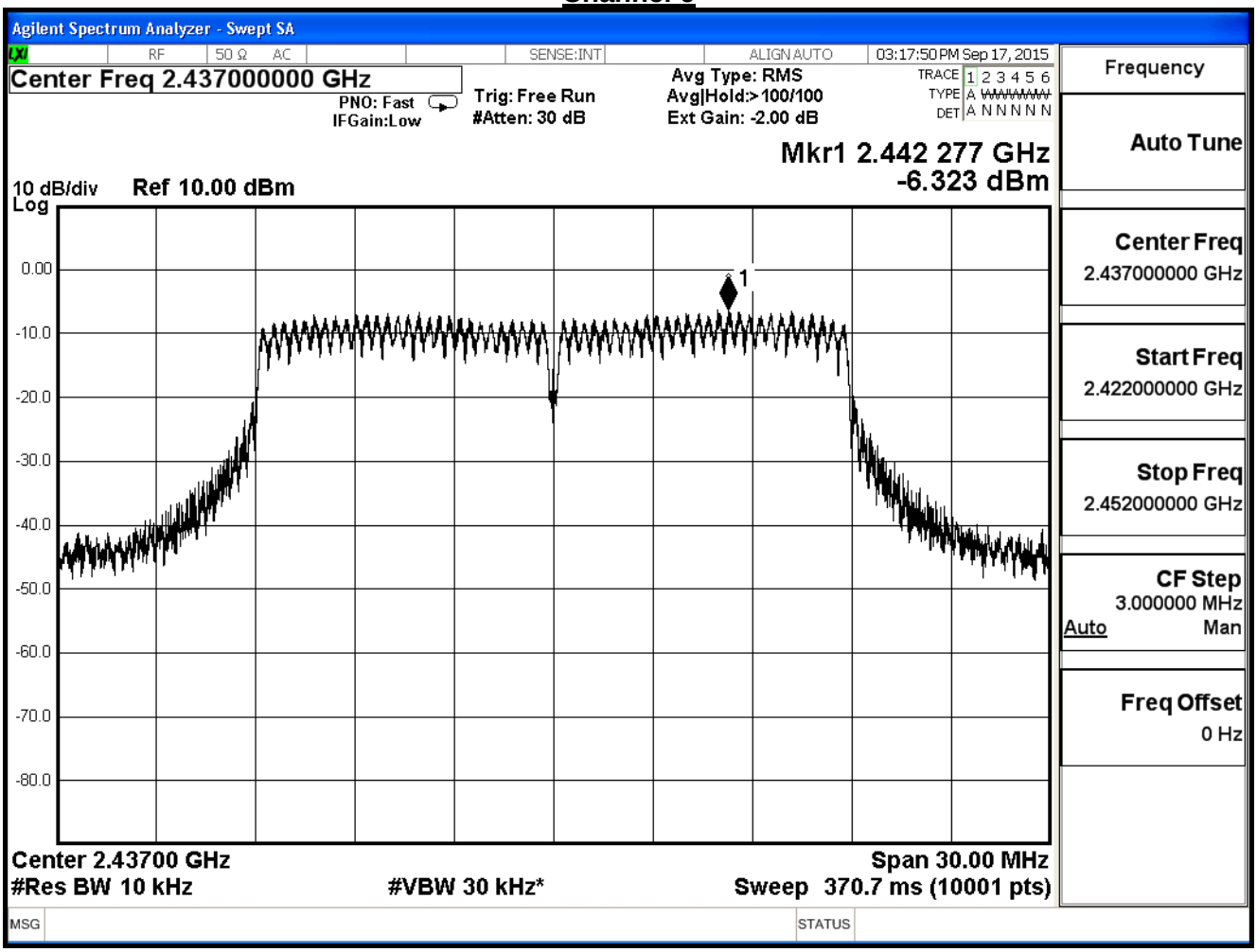
Directional Antenna: 10log(Ant N)+Max Gain =3+3.57=6.57 dBi

Power Density Limit:8dBm-(6.57dBi-6dB)=7.43 dBm

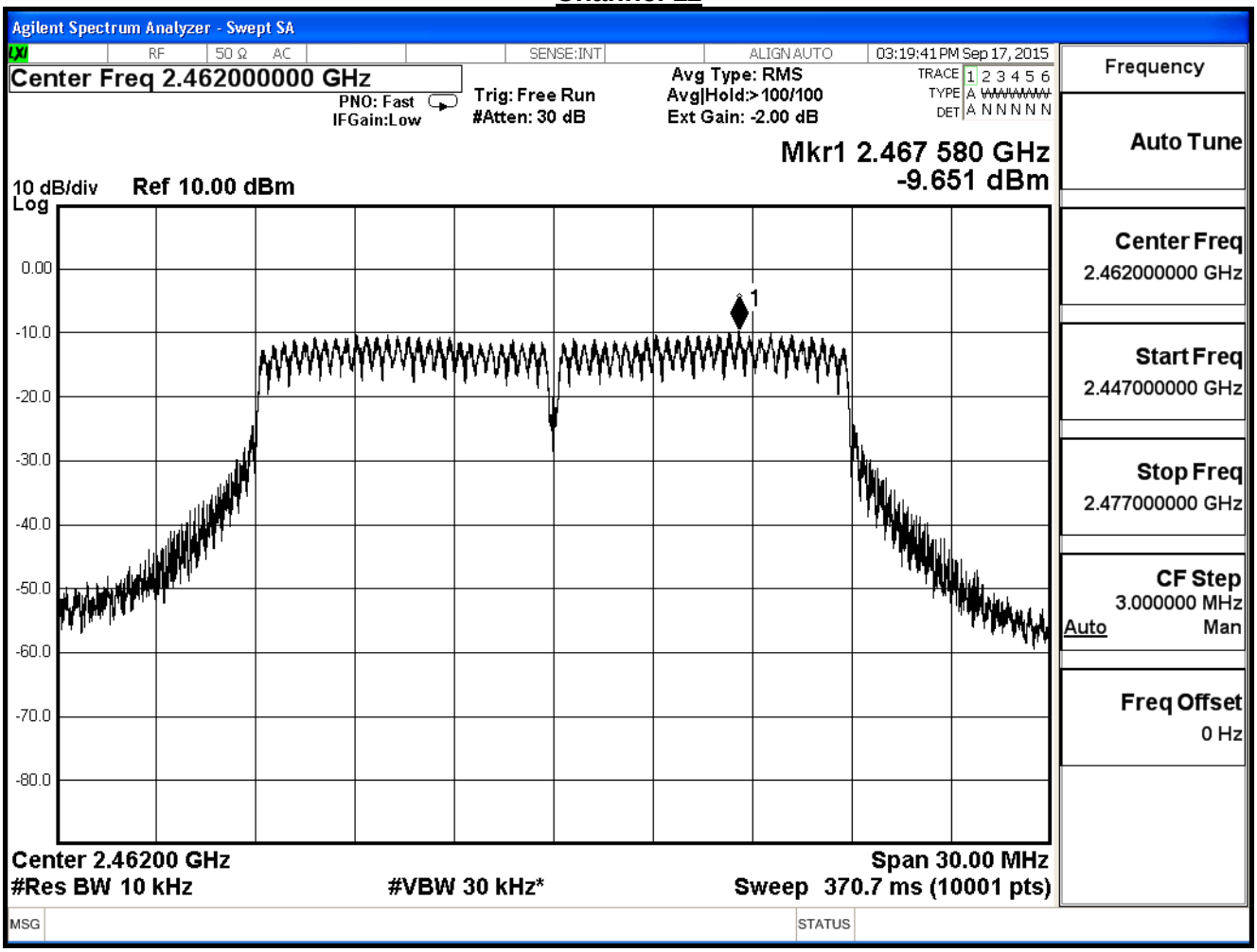
Channel 1



Channel 6


Agilent Spectrum Analyzer - Swept SA
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
03:17:50 PM Sep 17, 2015
Center Freq 2.437000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 2.442 277 GHz
-6.323 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 2.43700 GHz
#Res BW 10 kHz
#VBW 30 kHz*
Span 30.00 MHz
Sweep 370.7 ms (10001 pts)
MSG
STATUS
Frequency
Auto Tune
Center Freq
2.437000000 GHz
Start Freq
2.422000000 GHz
Stop Freq
2.452000000 GHz
CF Step
3.000000 MHz
Auto
Man
Freq Offset
0 Hz

Channel 11


Agilent Spectrum Analyzer - Swept SA
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
03:19:41 PM Sep 17, 2015
Center Freq 2.462000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 2.467 580 GHz
-9.651 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
1
Center 2.46200 GHz
#Res BW 10 kHz
#VBW 30 kHz*
Span 30.00 MHz
Sweep 370.7 ms (10001 pts)
Frequency
Auto Tune
Center Freq
2.462000000 GHz
Start Freq
2.447000000 GHz
Stop Freq
2.477000000 GHz
CF Step
3.000000 MHz
Auto
Man
Freq Offset
0 Hz
MSG
STATUS

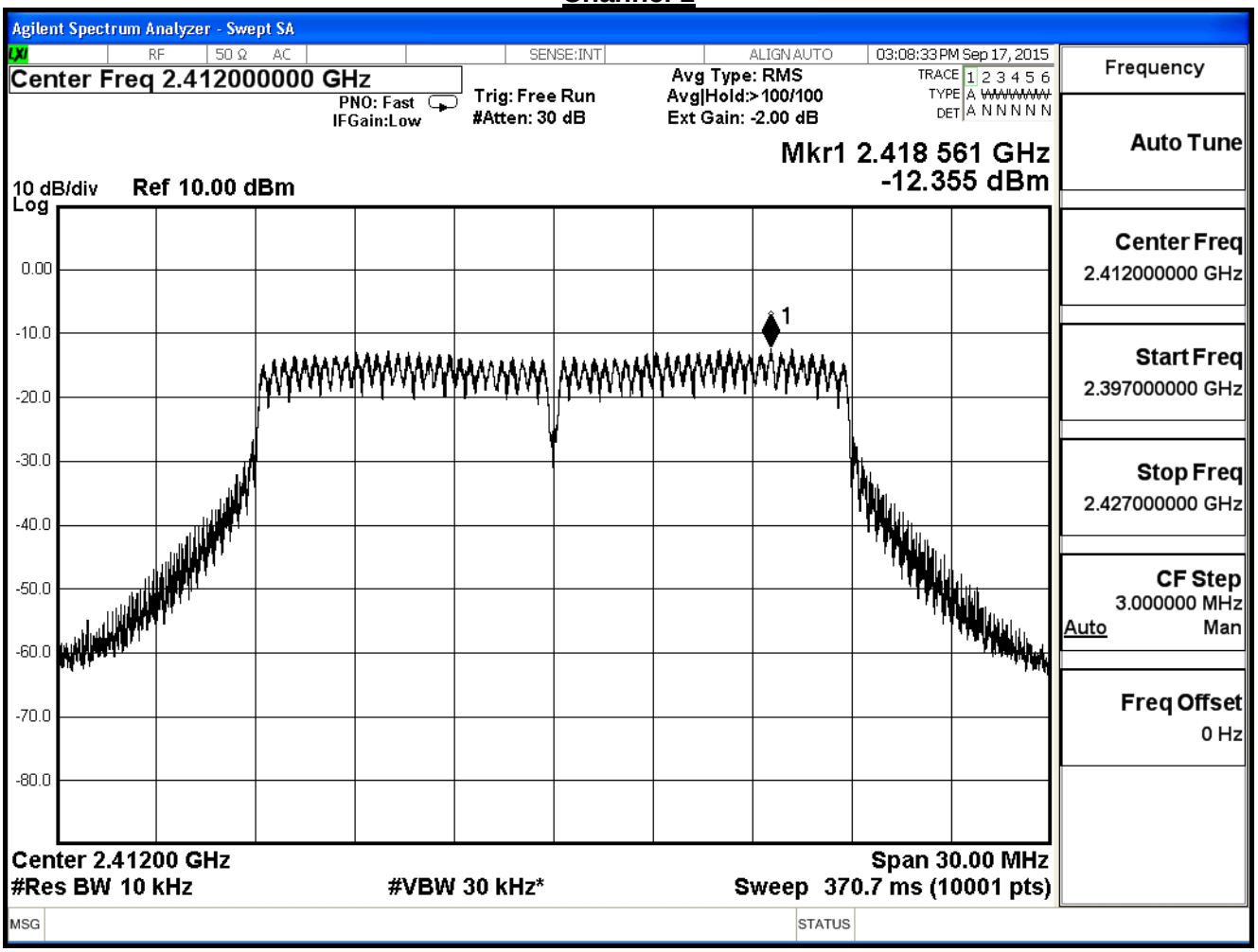
Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/09/17	Test Site	SR7

IEEE802.11n 20MHz (ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	-12.355	≦7.43	Pass
6	2437	-6.386	≦7.43	Pass
11	2462	-10.317	≦7.43	Pass

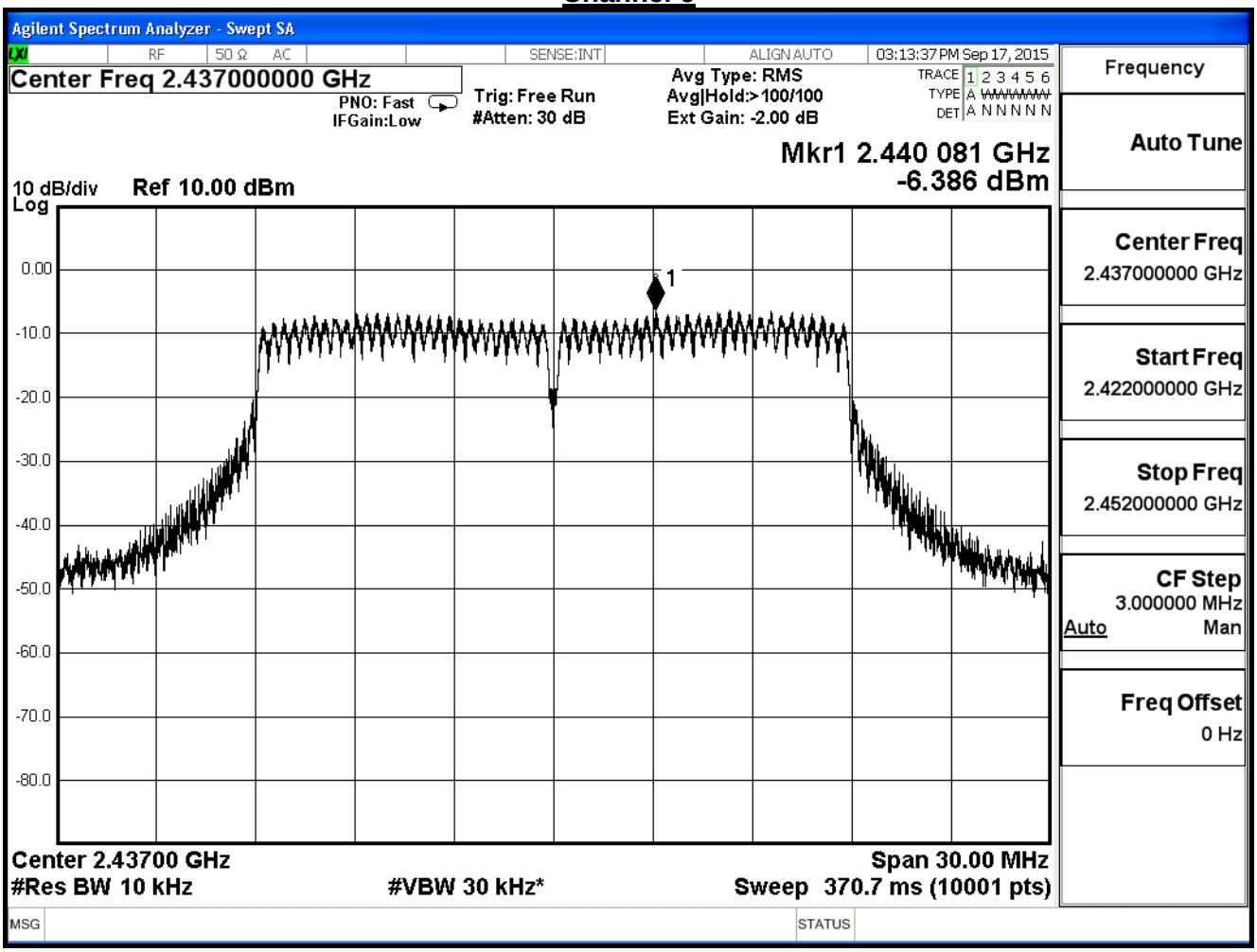
Directional Antenna: 10log(Ant N)+Max Gain =3+3.57=6.57 dBi

Power Density Limit:8dBm-(6.57dBi-6dB)=7.43 dBm

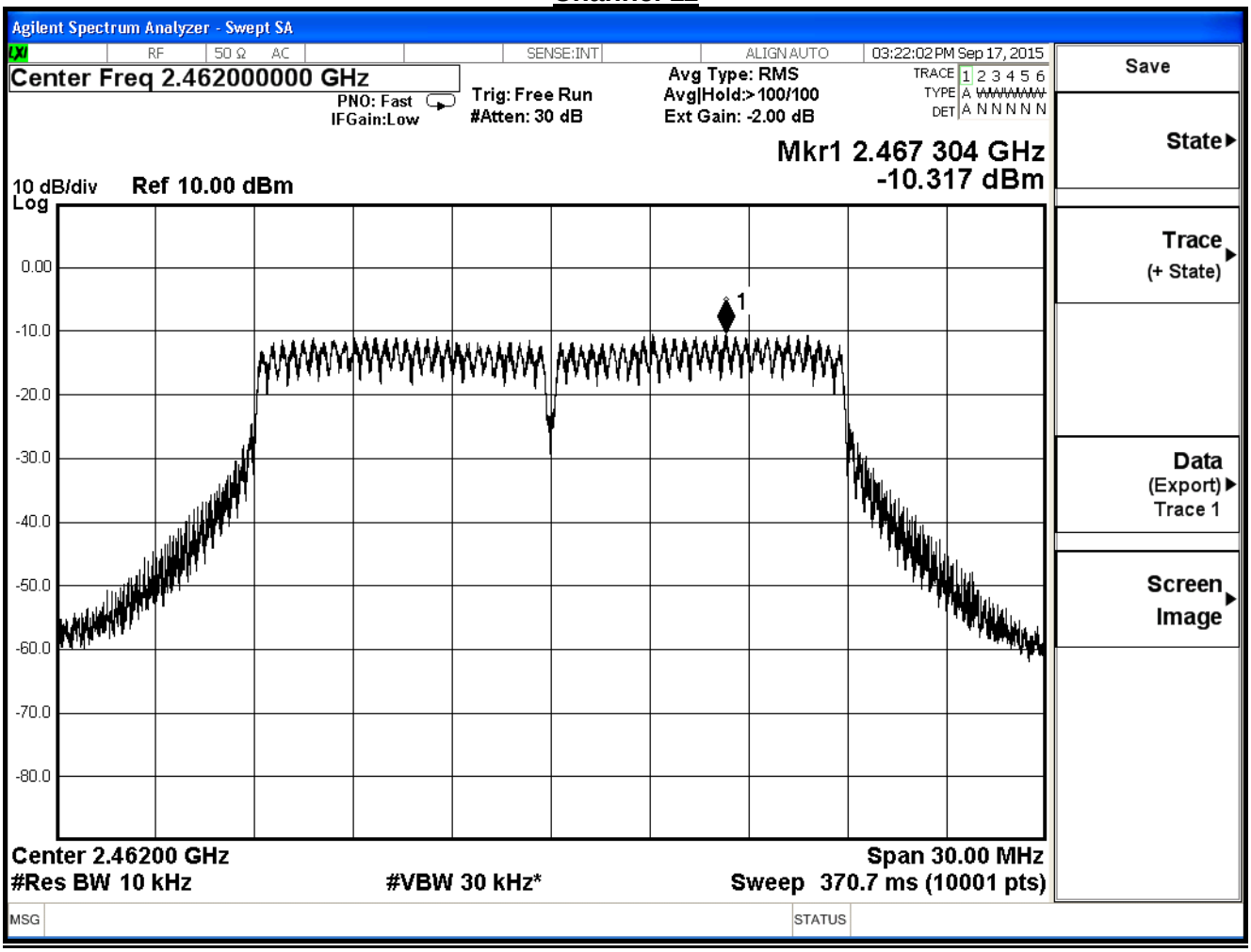
Channel 1



Channel 6


Agilent Spectrum Analyzer - Swept SA
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
03:13:37 PM Sep 17, 2015
Center Freq 2.437000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 2.440 081 GHz
-6.386 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
1
Center 2.43700 GHz
#Res BW 10 kHz
#VBW 30 kHz*
Span 30.00 MHz
Sweep 370.7 ms (10001 pts)
MSG
STATUS
Frequency
Auto Tune
Center Freq
2.437000000 GHz
Start Freq
2.422000000 GHz
Stop Freq
2.452000000 GHz
CF Step
3.000000 MHz
Auto
Man
Freq Offset
0 Hz

Channel 11


Agilent Spectrum Analyzer - Swept SA
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
03:22:02 PM Sep 17, 2015
Center Freq 2.462000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 2.467 304 GHz
-10.317 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 2.46200 GHz
#Res BW 10 kHz
#VBW 30 kHz*
Span 30.00 MHz
Sweep 370.7 ms (10001 pts)
MSG
STATUS
Save
State
Trace
(+ State)
Data
(Export)
Trace 1
Screen
Image

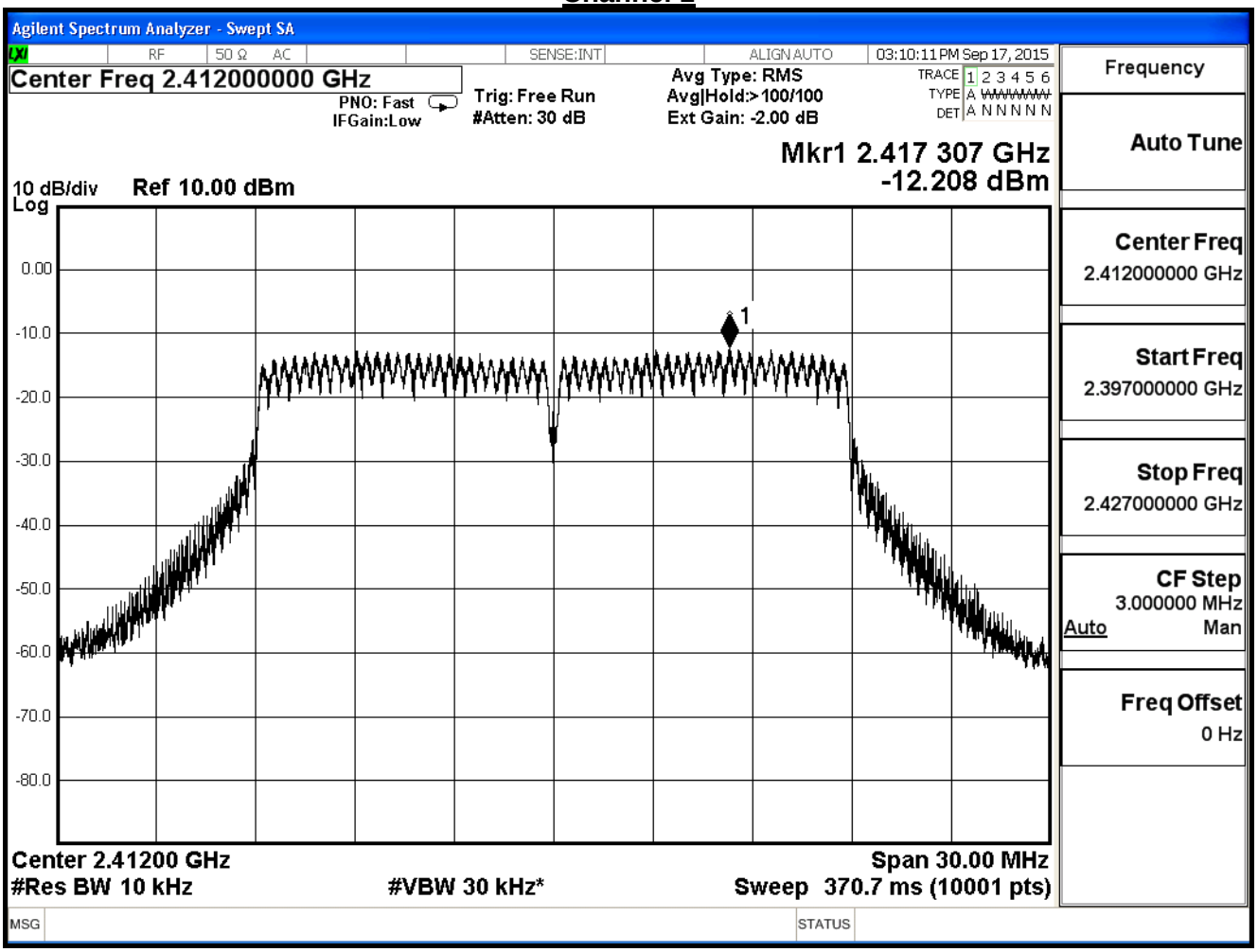
Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/09/17	Test Site	SR7

IEEE802.11n 20MHz (ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	-12.208	≦7.43	Pass
6	2437	-6.821	≦7.43	Pass
11	2462	-10.244	≦7.43	Pass

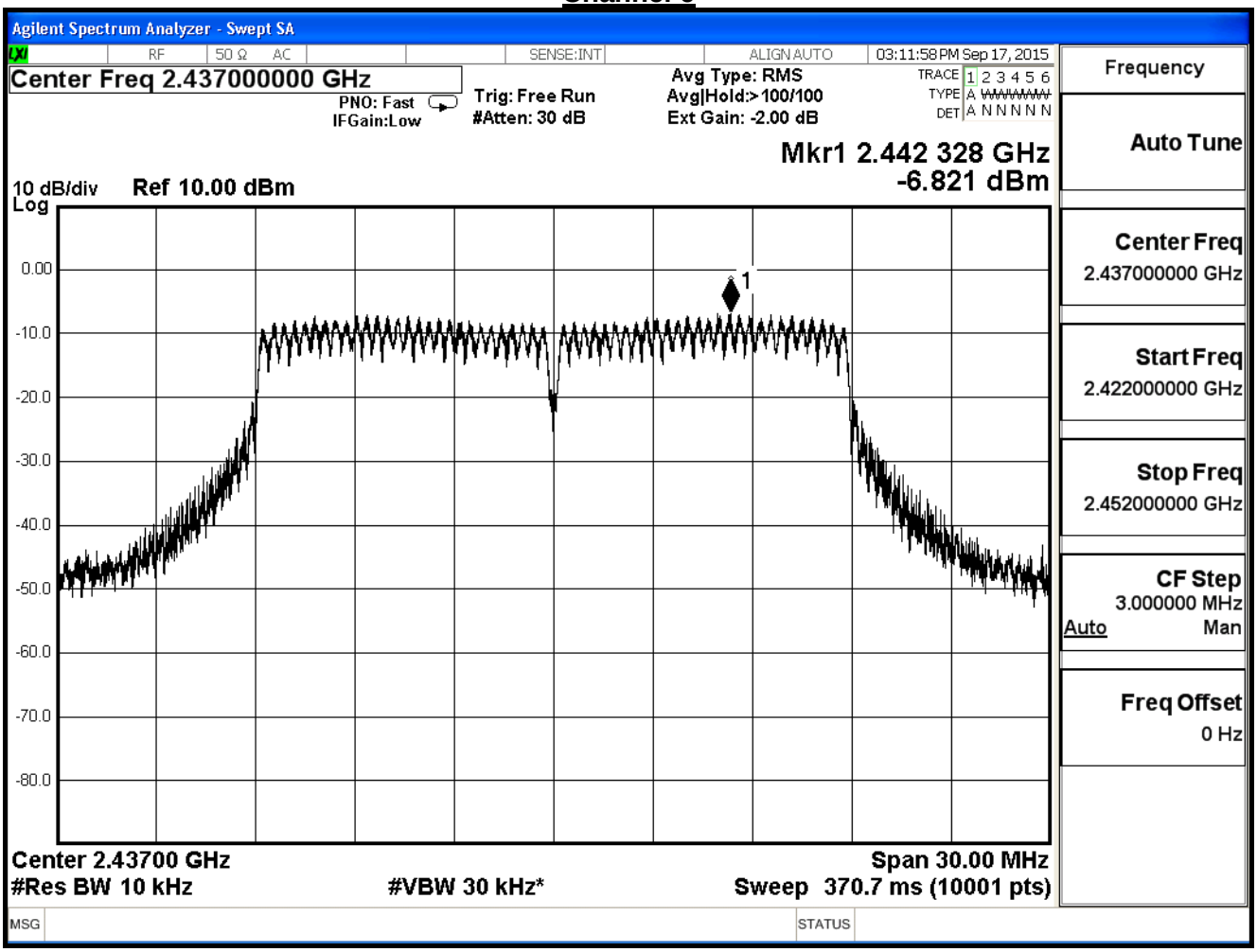
Directional Antenna: 10log(Ant N)+Max Gain =3+3.57=6.57 dBi

Power Density Limit:8dBm-(6.57dBi-6dB)=7.43 dBm

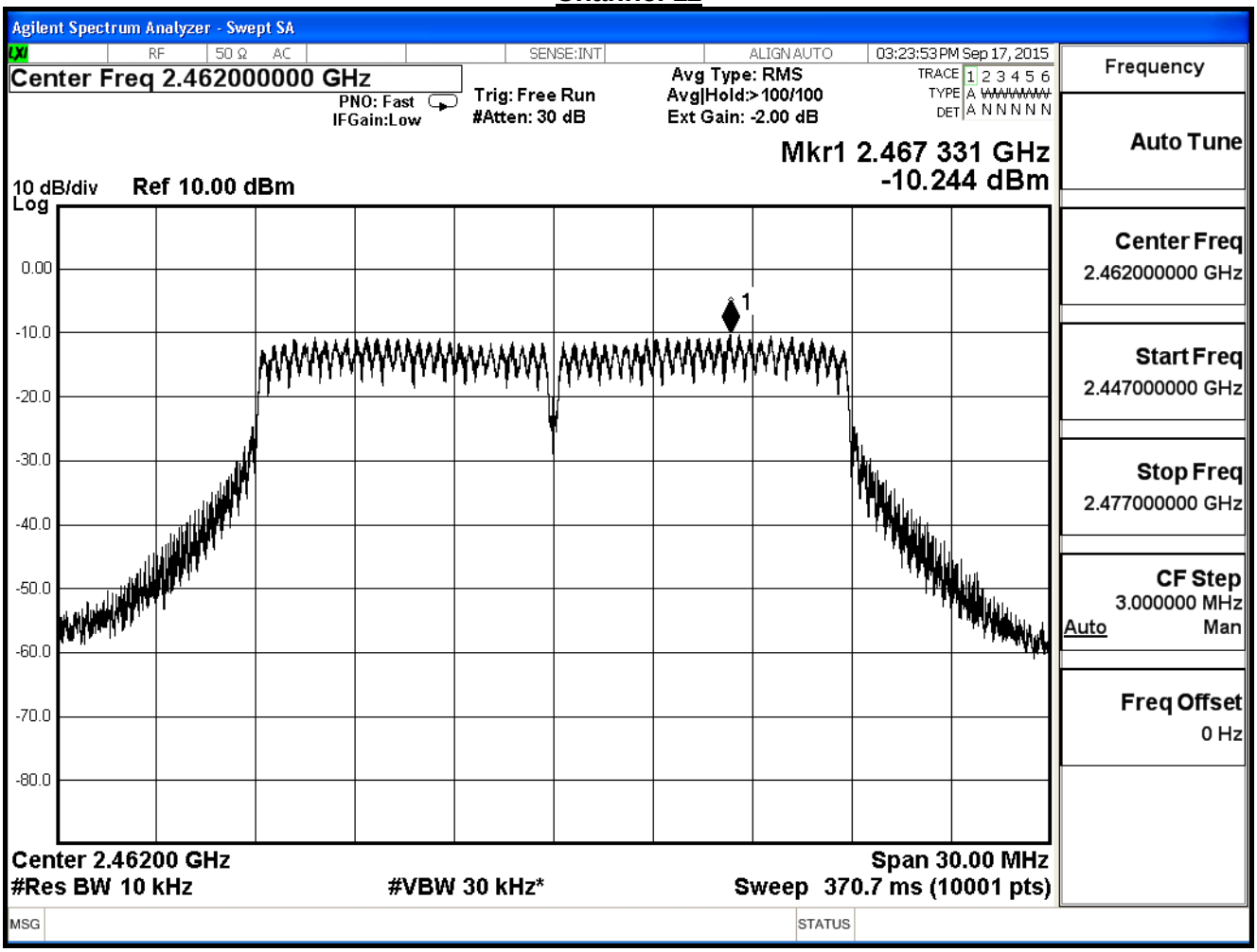
Channel 1



Channel 6


Agilent Spectrum Analyzer - Swept SA
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
03:11:58 PM Sep 17, 2015
Center Freq 2.437000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 2.442 328 GHz
-6.821 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 2.43700 GHz
#Res BW 10 kHz
#VBW 30 kHz*
Span 30.00 MHz
Sweep 370.7 ms (10001 pts)
MSG
STATUS
Frequency
Auto Tune
Center Freq
2.437000000 GHz
Start Freq
2.422000000 GHz
Stop Freq
2.452000000 GHz
CF Step
3.000000 MHz
Auto
Man
Freq Offset
0 Hz

Channel 11


Agilent Spectrum Analyzer - Swept SA
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
03:23:53 PM Sep 17, 2015
Center Freq 2.462000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 2.467 331 GHz
-10.244 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 2.46200 GHz
#Res BW 10 kHz
#VBW 30 kHz*
Span 30.00 MHz
Sweep 370.7 ms (10001 pts)
MSG
STATUS
Frequency
Auto Tune
Center Freq
2.462000000 GHz
Start Freq
2.447000000 GHz
Stop Freq
2.477000000 GHz
CF Step
3.000000 MHz
Auto
Man
Freq Offset
0 Hz

Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/09/17	Test Site	SR7

IEEE802.11n 20MHz (ANT 0+1+2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	-7.919	≦7.43	Pass
6	2437	-1.733	≦7.43	Pass
11	2462	-5.289	≦7.43	Pass

Directional Antenna: 10log(Ant N)+Max Gain =3+3.57=6.57 dBi

Power Density Limit:8dBm-(6.57dBi-6dB)=7.43 dBm

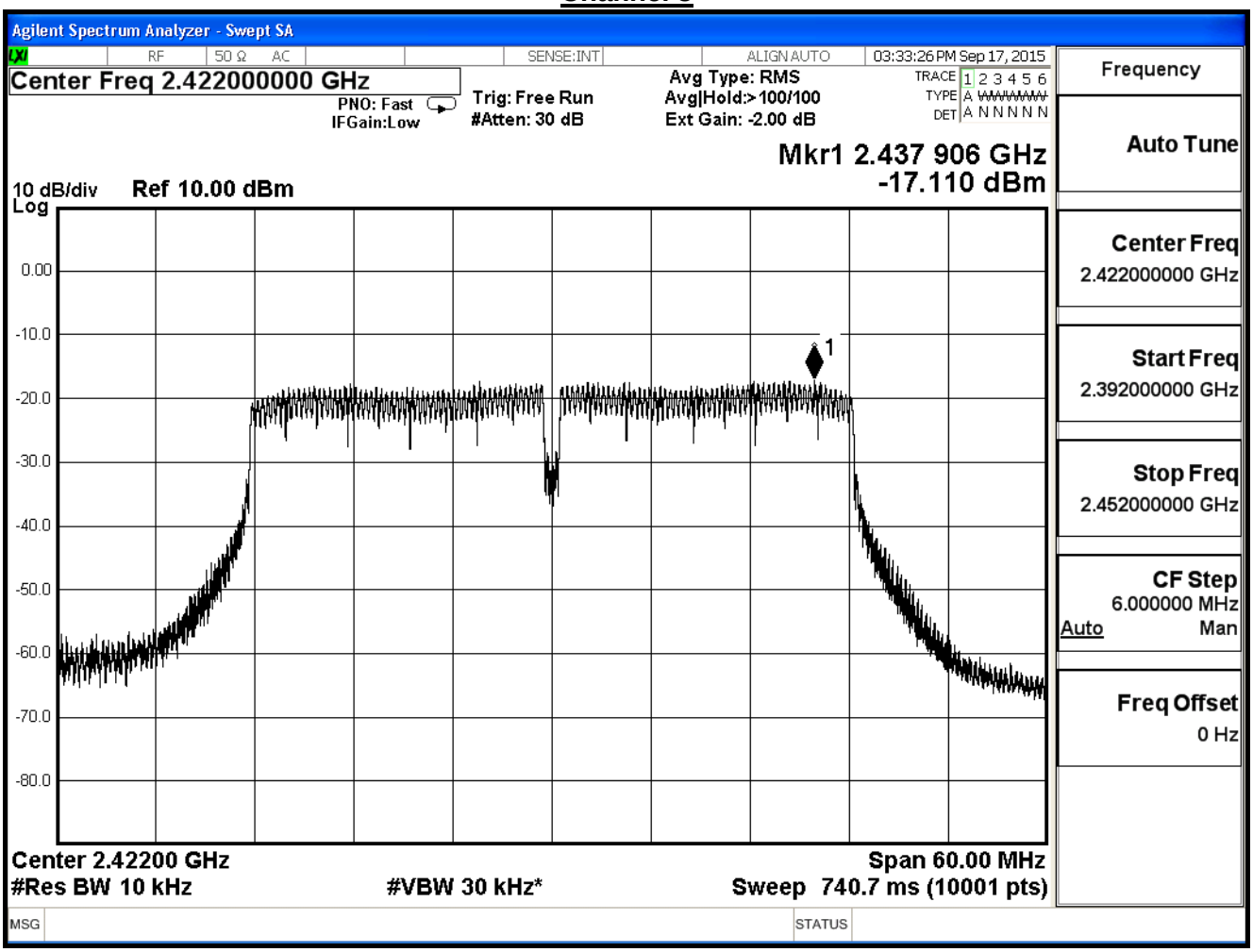
Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/09/17	Test Site	SR7

IEEE802.11n 40MHz (ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
3	2422	-17.110	≦7.43	Pass
6	2437	-12.720	≦7.43	Pass
9	2452	-15.158	≦7.43	Pass

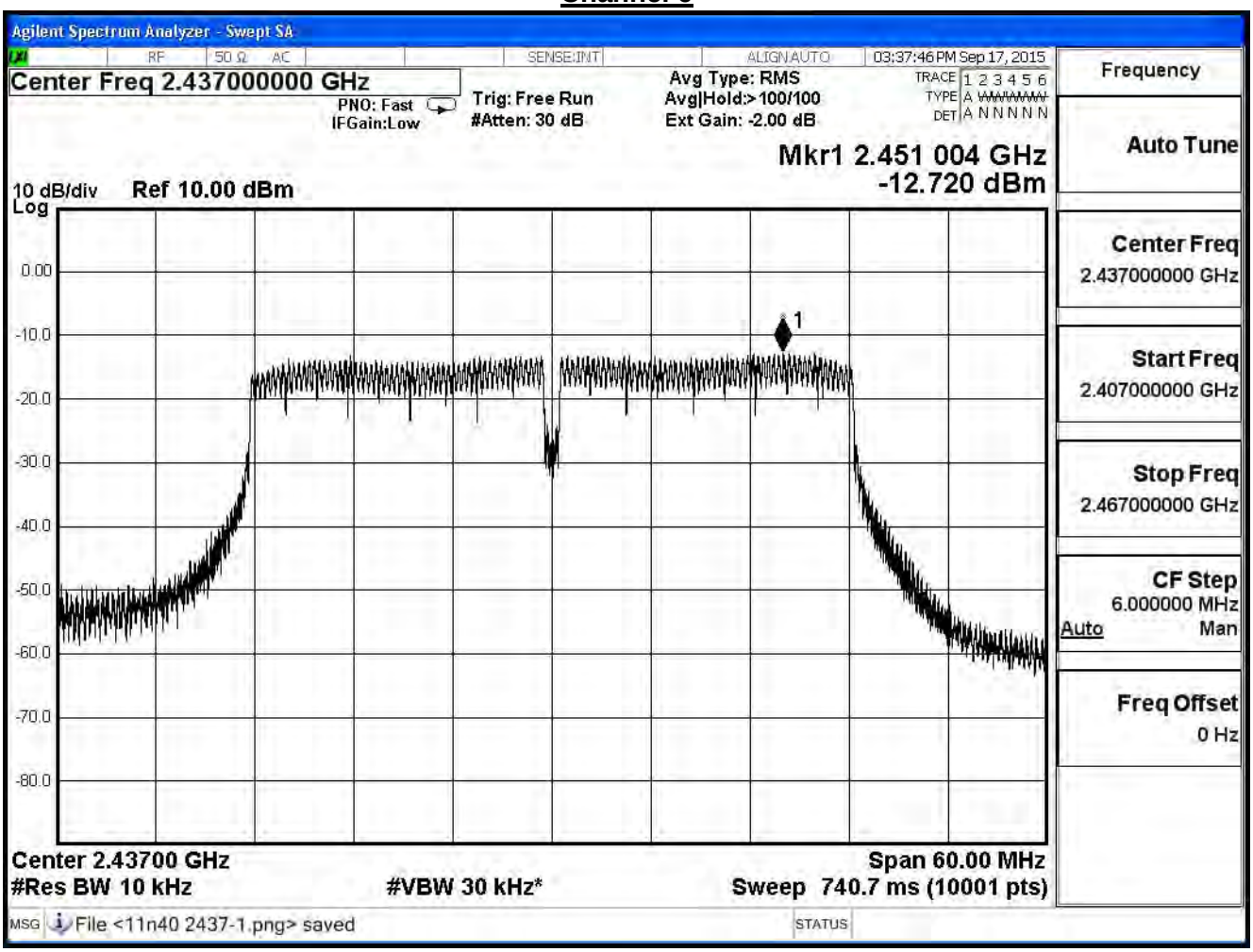
Directional Antenna: 10log(Ant N)+Max Gain =3+3.57=6.57 dBi

Power Density Limit:8dBm-(6.57dBi-6dB)=7.43 dBm

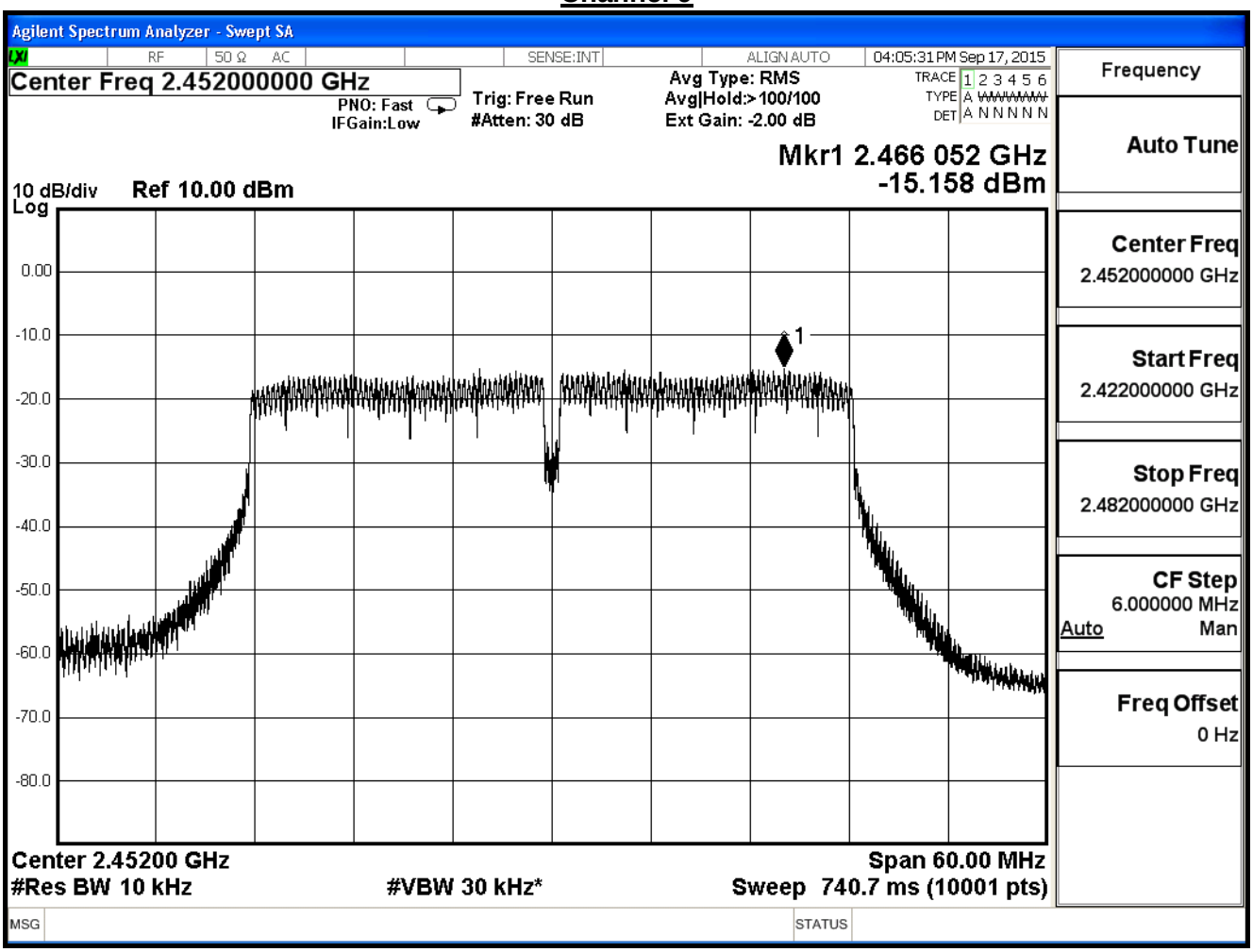
Channel 3



Channel 6


Agilent Spectrum Analyzer - Swept SA
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
03:37:46 PM Sep 17, 2015
Center Freq 2.437000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 2.451 004 GHz
-12.720 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
1
Center 2.43700 GHz
#Res BW 10 kHz
#VBW 30 kHz*
Span 60.00 MHz
Sweep 740.7 ms (10001 pts)
MSG
File <11n40 2437-1.png> saved
STATUS
Frequency
Auto Tune
Center Freq
2.437000000 GHz
Start Freq
2.407000000 GHz
Stop Freq
2.467000000 GHz
CF Step
6.000000 MHz
Auto
Man
Freq Offset
0 Hz

Channel 9


Agilent Spectrum Analyzer - Swept SA
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
04:05:31 PM Sep 17, 2015
Center Freq 2.452000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 2.466 052 GHz
-15.158 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 2.45200 GHz
#Res BW 10 kHz
#VBW 30 kHz*
Span 60.00 MHz
Sweep 740.7 ms (10001 pts)
MSG
STATUS
Frequency
Auto Tune
Center Freq
2.452000000 GHz
Start Freq
2.422000000 GHz
Stop Freq
2.482000000 GHz
CF Step
6.000000 MHz
Auto
Man
Freq Offset
0 Hz

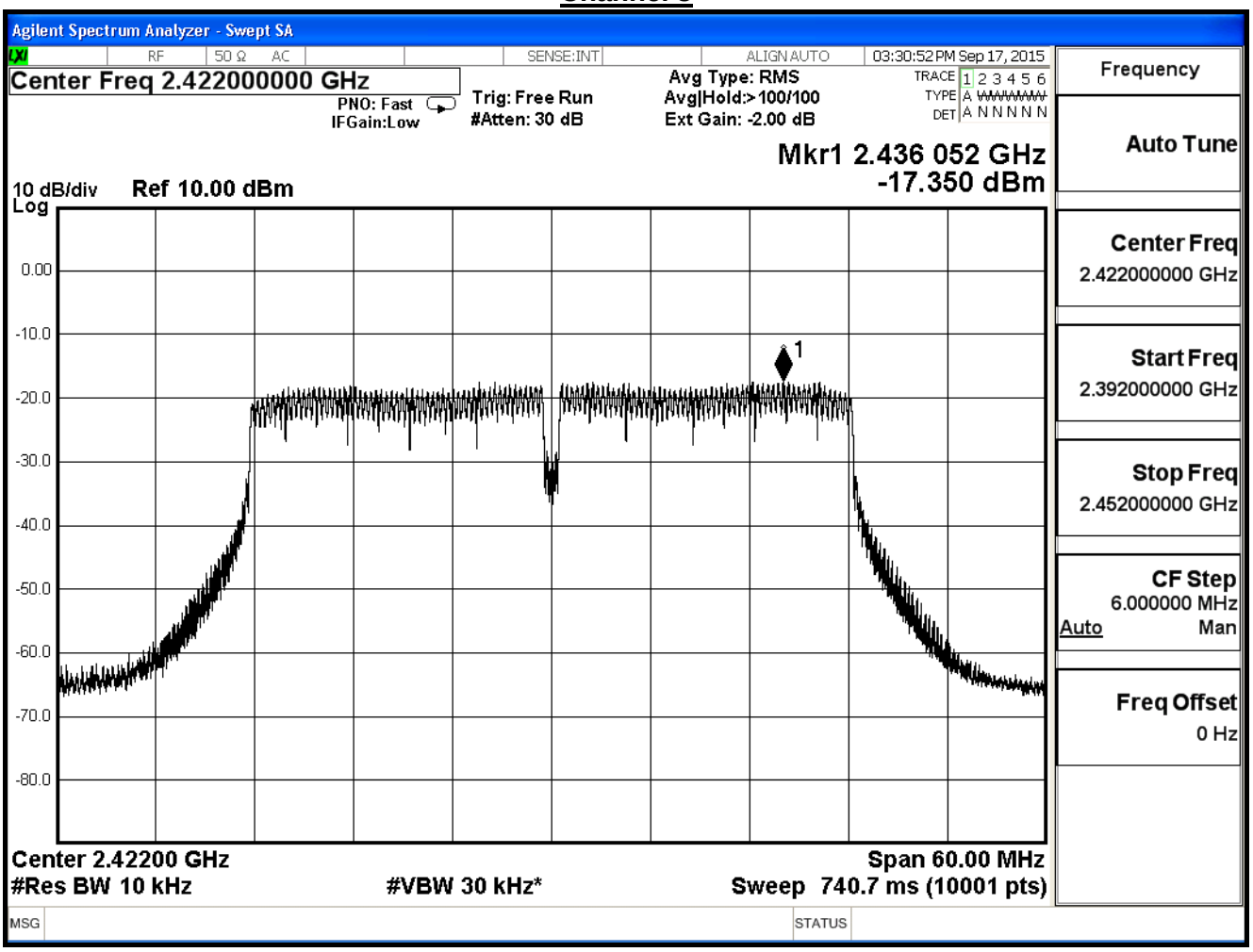
Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/09/17	Test Site	SR7

IEEE802.11n 40MHz (ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
3	2422	-17.350	≦7.43	Pass
6	2437	-12.752	≦7.43	Pass
9	2452	-15.719	≦7.43	Pass

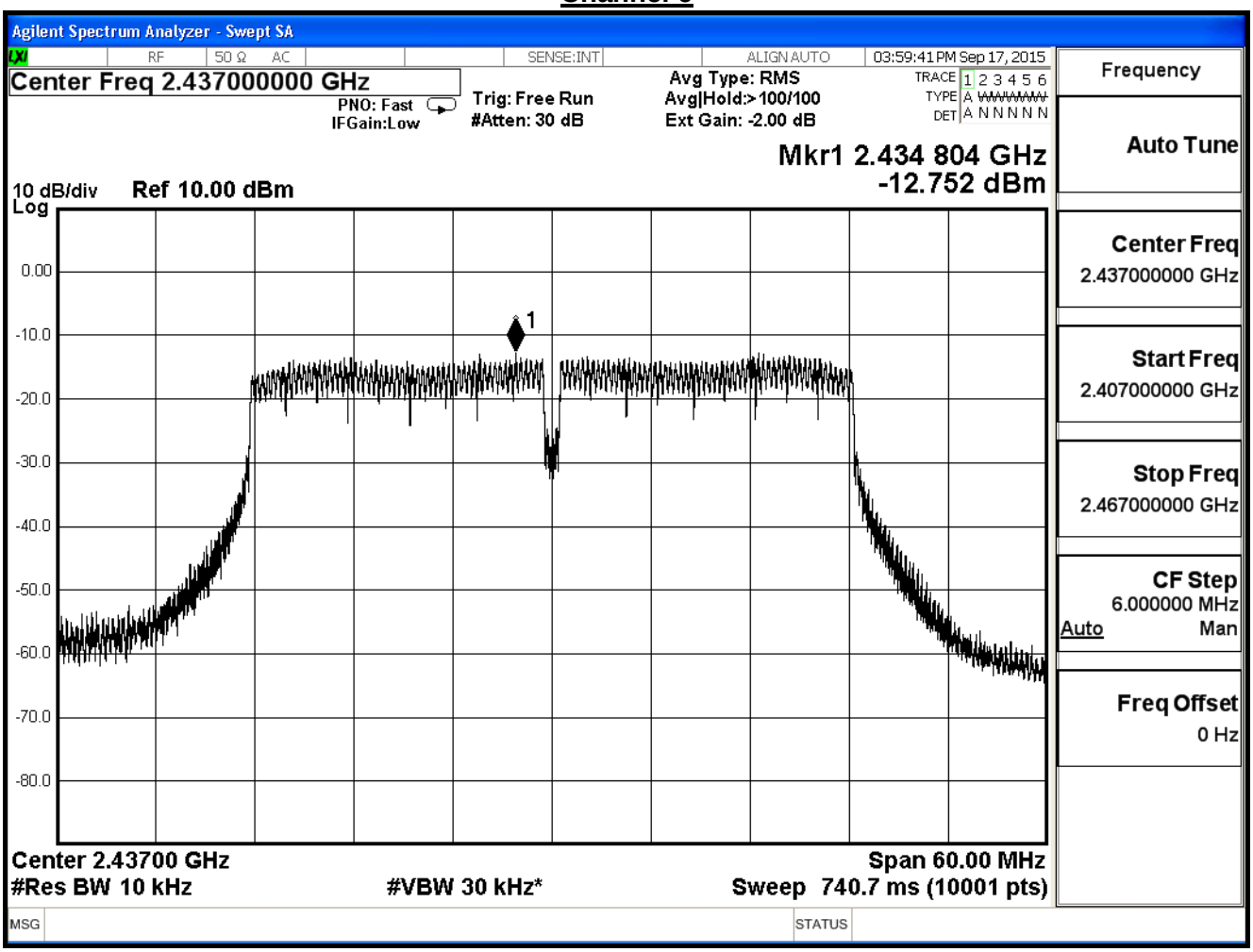
Directional Antenna: 10log(Ant N)+Max Gain =3+3.57=6.57 dBi

Power Density Limit:8dBm-(6.57dBi-6dB)=7.43 dBm

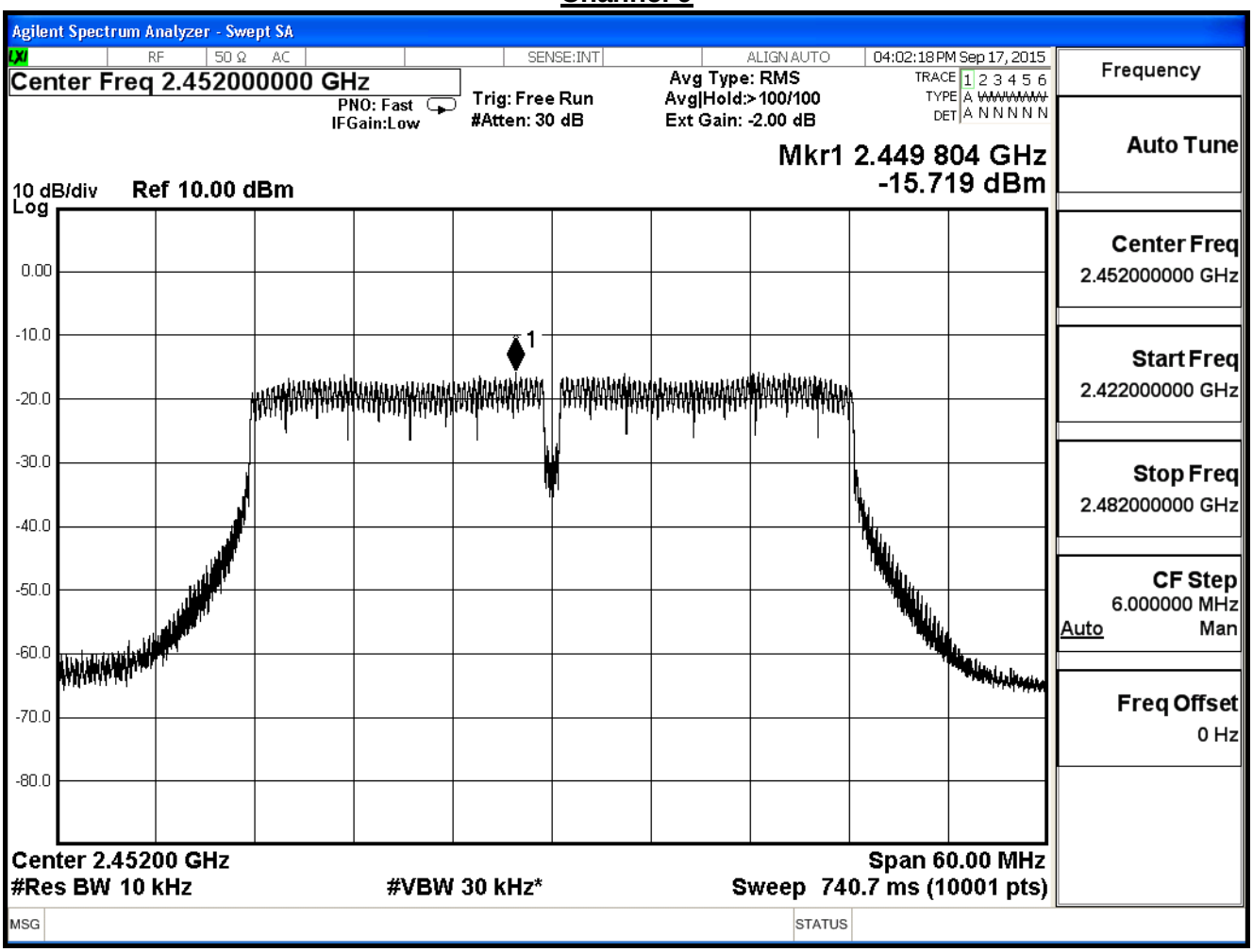
Channel 3



Channel 6


Agilent Spectrum Analyzer - Swept SA
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
03:59:41 PM Sep 17, 2015
Center Freq 2.437000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 2.434 804 GHz
-12.752 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 2.43700 GHz
#Res BW 10 kHz
#VBW 30 kHz*
Span 60.00 MHz
Sweep 740.7 ms (10001 pts)
MSG
STATUS
Frequency
Auto Tune
Center Freq
2.437000000 GHz
Start Freq
2.407000000 GHz
Stop Freq
2.467000000 GHz
CF Step
6.000000 MHz
Auto
Man
Freq Offset
0 Hz

Channel 9


Agilent Spectrum Analyzer - Swept SA
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
04:02:18 PM Sep 17, 2015
Center Freq 2.452000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 2.449 804 GHz
-15.719 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 2.45200 GHz
#Res BW 10 kHz
#VBW 30 kHz*
Span 60.00 MHz
Sweep 740.7 ms (10001 pts)
MSG
STATUS
Frequency
Auto Tune
Center Freq
2.452000000 GHz
Start Freq
2.422000000 GHz
Stop Freq
2.482000000 GHz
CF Step
6.000000 MHz
Auto
Man
Freq Offset
0 Hz

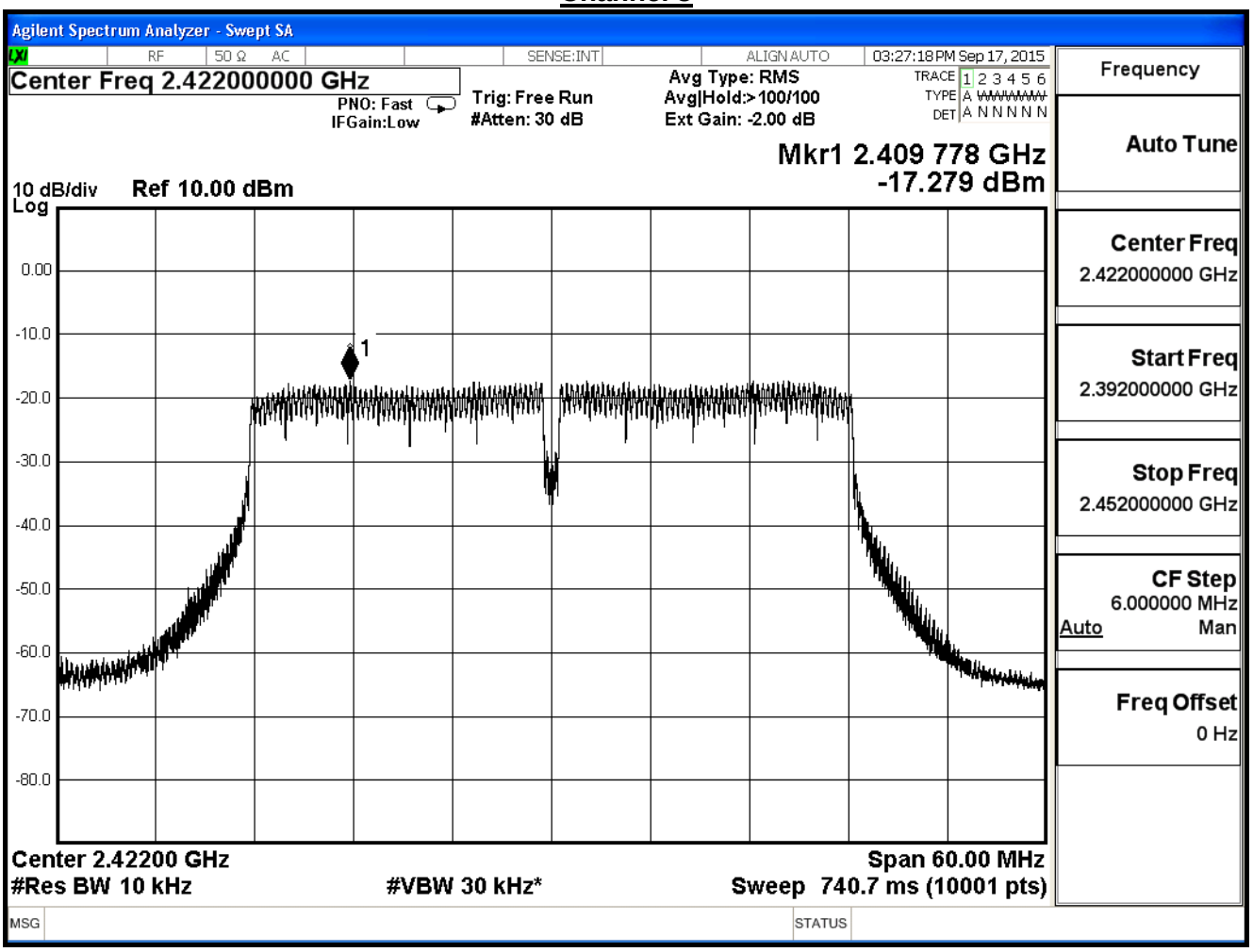
Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/09/17	Test Site	SR7

IEEE802.11n 40MHz (ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
3	2422	-17.279	≦7.43	Pass
6	2437	-12.838	≦7.43	Pass
9	2452	-15.801	≦7.43	Pass

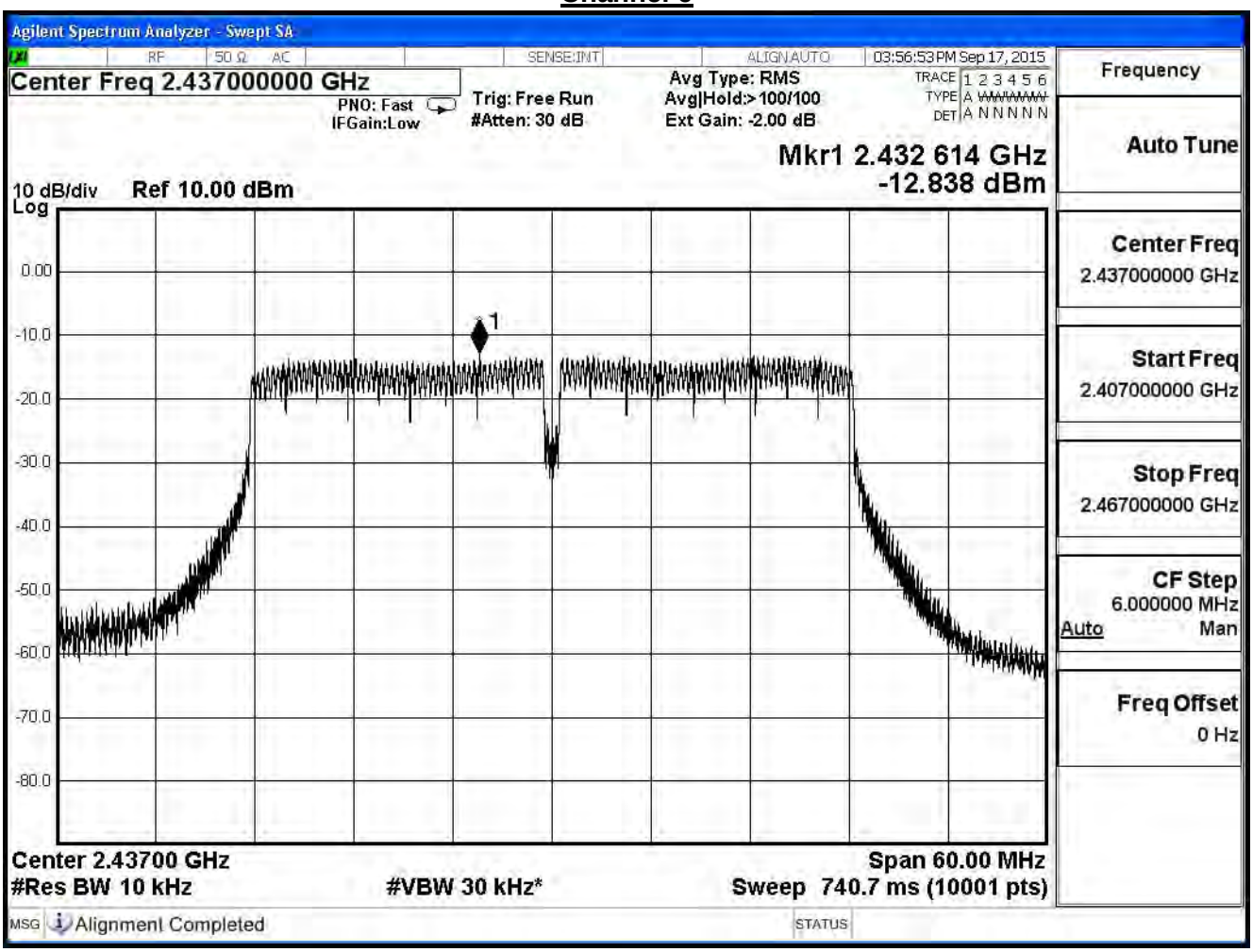
Directional Antenna: 10log(Ant N)+Max Gain =3+3.57=6.57 dBi

Power Density Limit:8dBm-(6.57dBi-6dB)=7.43 dBm

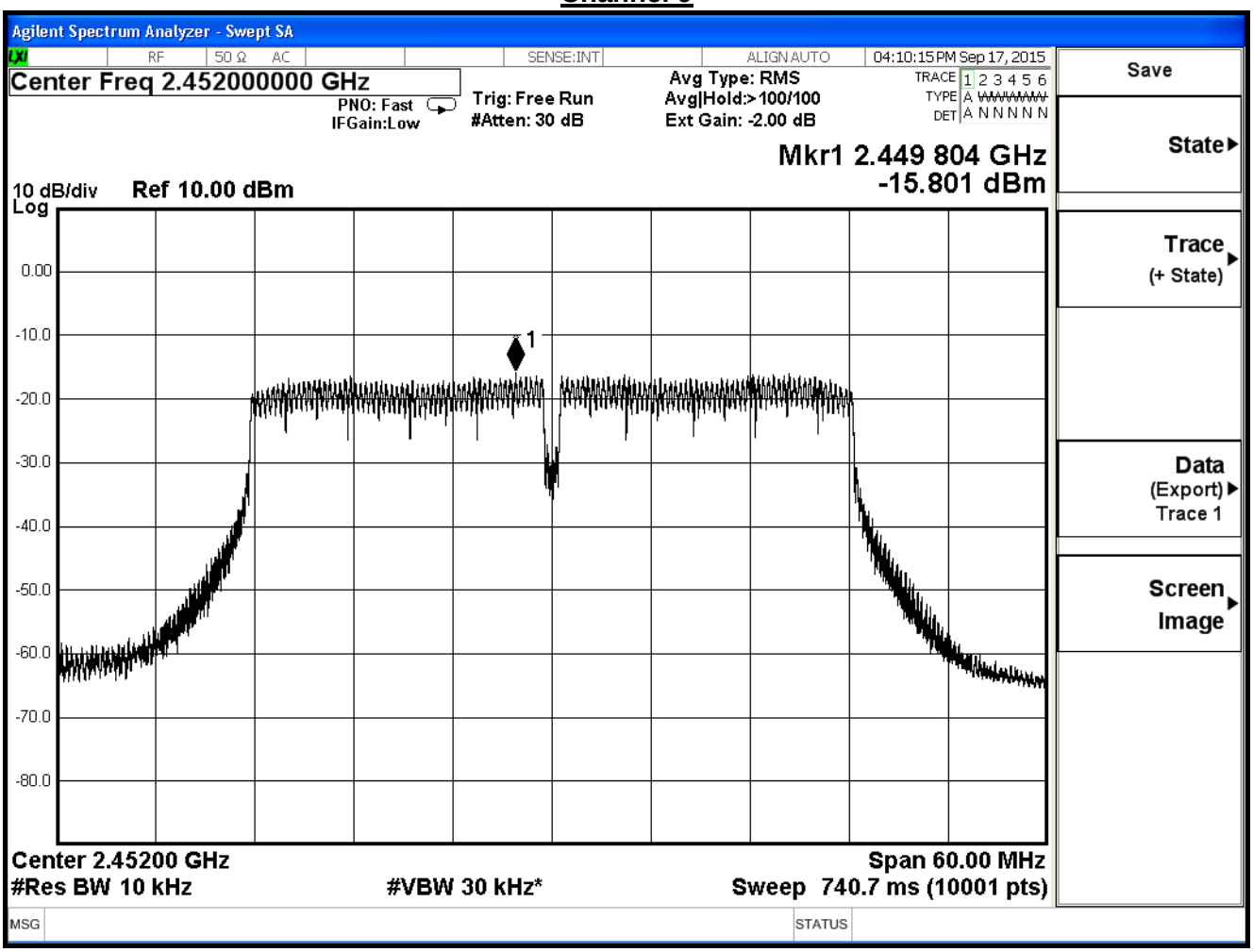
Channel 3



Channel 6


Agilent Spectrum Analyzer - Swept SA
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
03:56:53 PM Sep 17, 2015
Center Freq 2.437000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 2.432 614 GHz
-12.838 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 2.43700 GHz
#Res BW 10 kHz
#VBW 30 kHz*
Span 60.00 MHz
Sweep 740.7 ms (10001 pts)
MSG
Alignment Completed
STATUS
Frequency
Auto Tune
Center Freq
2.437000000 GHz
Start Freq
2.407000000 GHz
Stop Freq
2.467000000 GHz
CF Step
6.000000 MHz
Auto
Man
Freq Offset
0 Hz

Channel 9


Agilent Spectrum Analyzer - Swept SA
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
04:10:15 PM Sep 17, 2015
Center Freq 2.452000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -2.00 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 2.449 804 GHz
-15.801 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 2.45200 GHz
#Res BW 10 kHz
#VBW 30 kHz*
Span 60.00 MHz
Sweep 740.7 ms (10001 pts)
MSG
STATUS
Save
State
Trace
(+ State)
Data
(Export)
Trace 1
Screen
Image

Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/09/17	Test Site	SR7

IEEE802.11n 40MHz (ANT 0+1+2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
3	2422	-12.474	≦7.43	Pass
6	2437	-7.999	≦7.43	Pass
9	2452	-10.779	≦7.43	Pass

Directional Antenna: 10log(Ant N)+Max Gain =3+3.57=6.57 dBi

Power Density Limit:8dBm-(6.57dBi-6dB)=7.43 dBm

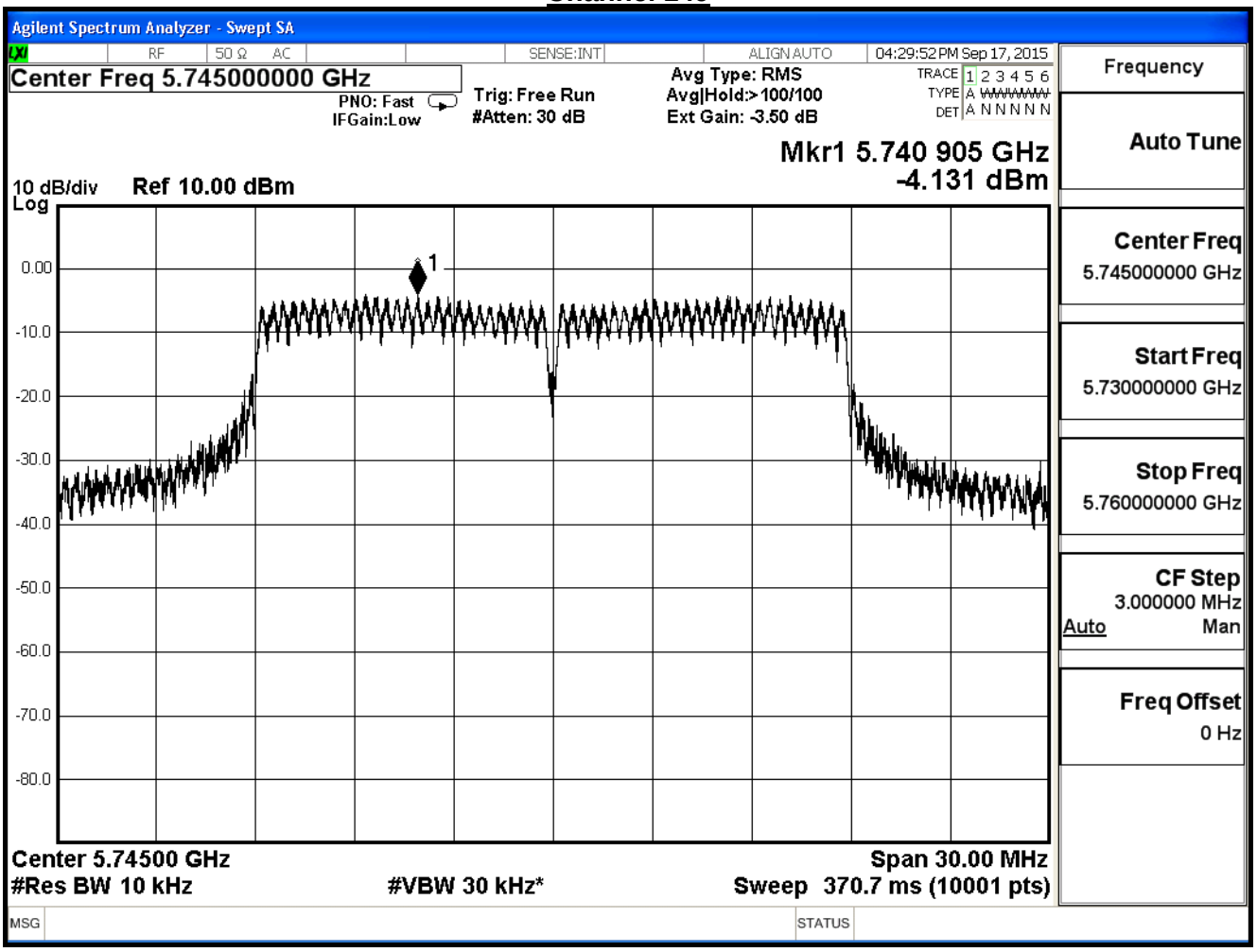
Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/09/17	Test Site	SR7

IEEE 802.11a (ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
149	5745	-4.131	≦6.40	Pass
157	5785	-5.965	≦6.40	Pass
165	5825	-5.943	≦6.40	Pass

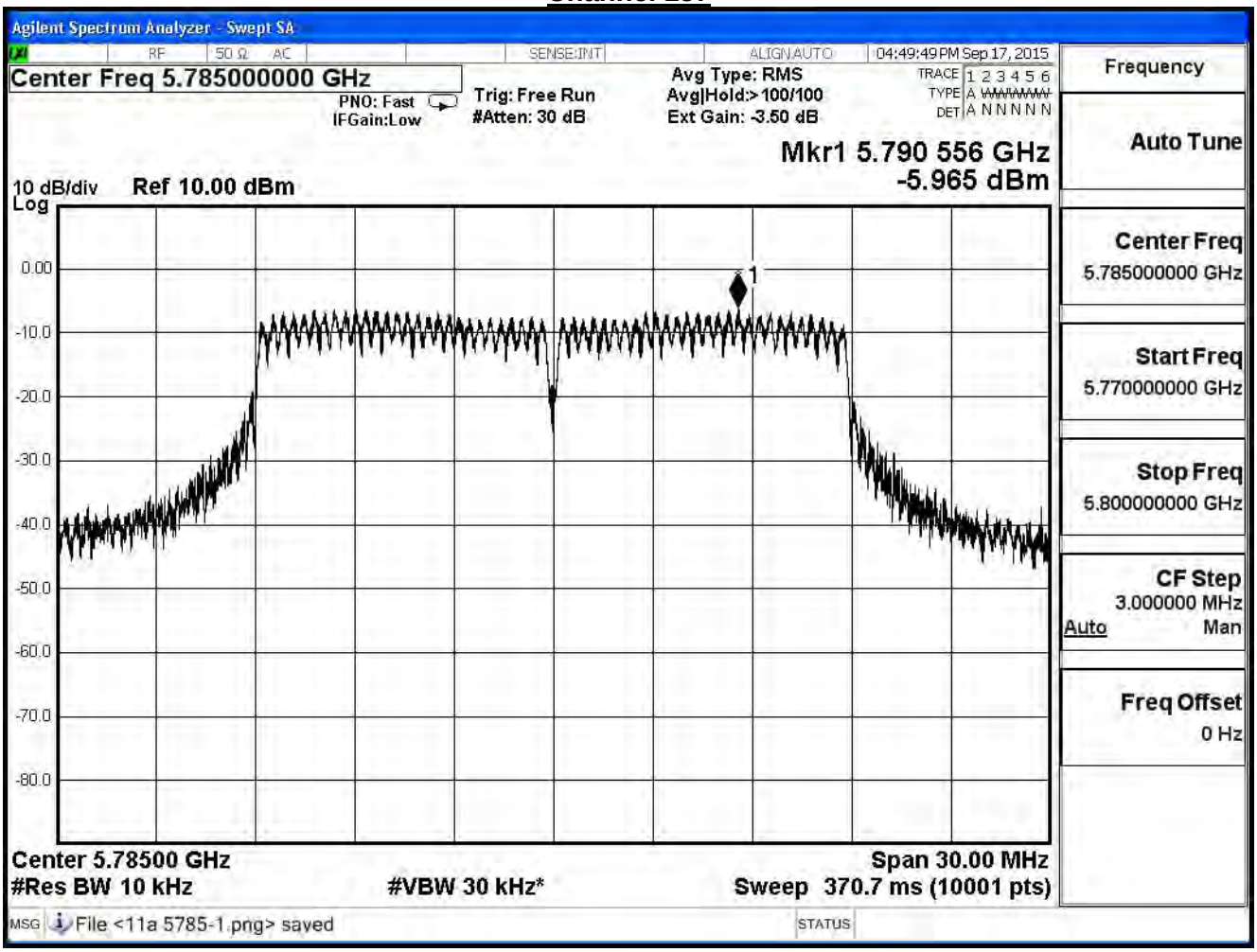
Directional Antenna: 10log(Ant N)+Max Gain =3+4.6=7.60 dBi

Power Density Limit:8dBm-(7.60dBi-6dB)=6.40 dBm

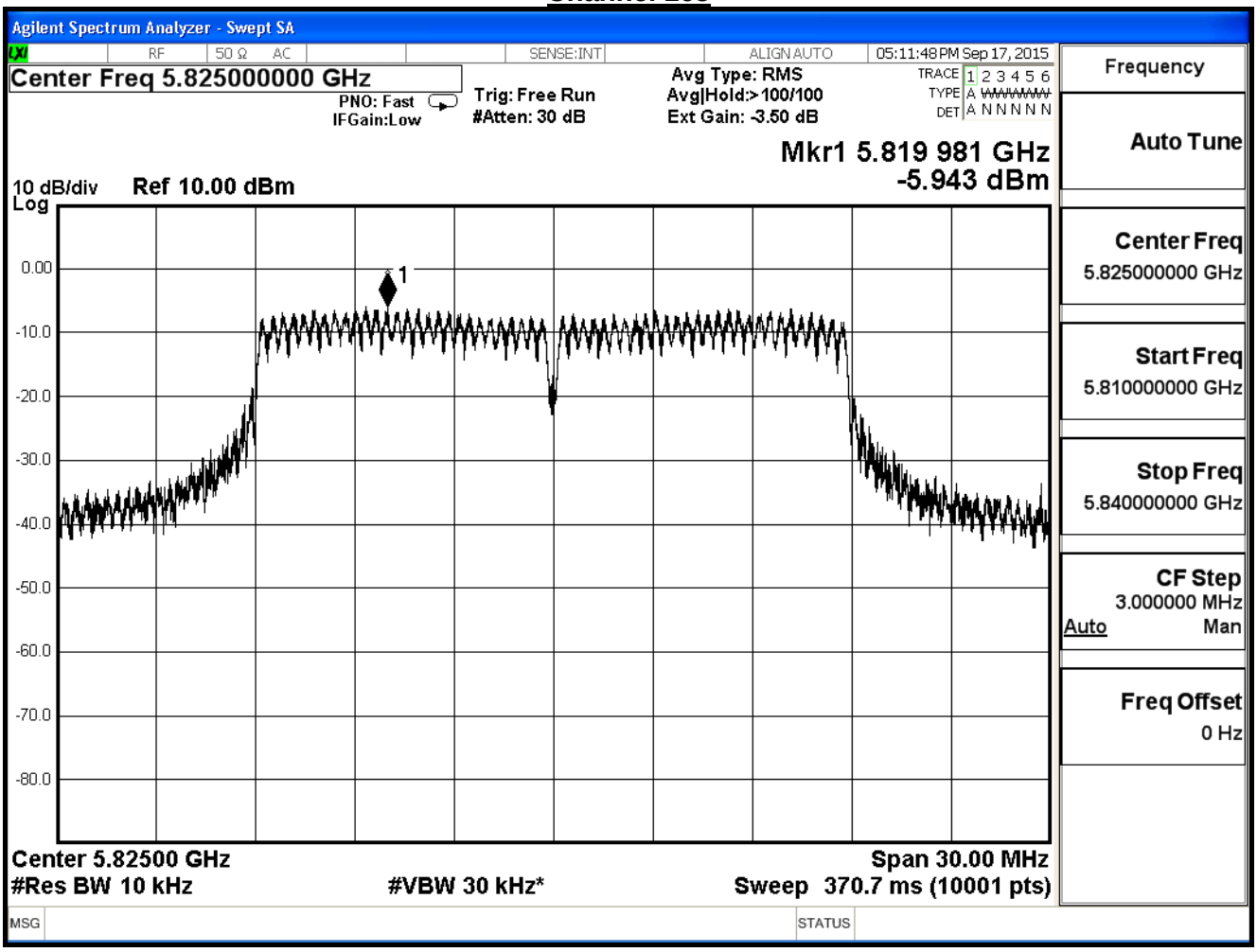
Channel 149



Channel 157


Agilent Spectrum Analyzer - Swept SA
RF
50 Ω
AC
SENSE:INT
ALIGN AUTO
04:49:49 PM Sep 17, 2015
Center Freq 5.785000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -3.50 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.790 556 GHz
-5.965 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 5.78500 GHz
#Res BW 10 kHz
#VBW 30 kHz*
Span 30.00 MHz
Sweep 370.7 ms (10001 pts)
MSG
File <11a 5785-1.png> saved
STATUS
Frequency
Auto Tune
Center Freq
5.785000000 GHz
Start Freq
5.770000000 GHz
Stop Freq
5.800000000 GHz
CF Step
3.000000 MHz
Auto
Man
Freq Offset
0 Hz

Channel 165


Agilent Spectrum Analyzer - Swept SA
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
05:11:48 PM Sep 17, 2015
Center Freq 5.825000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -3.50 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.819 981 GHz
-5.943 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 5.82500 GHz
#Res BW 10 kHz
#VBW 30 kHz*
Span 30.00 MHz
Sweep 370.7 ms (10001 pts)
MSG
STATUS
Frequency
Auto Tune
Center Freq
5.825000000 GHz
Start Freq
5.810000000 GHz
Stop Freq
5.840000000 GHz
CF Step
3.000000 MHz
Auto
Man
Freq Offset
0 Hz

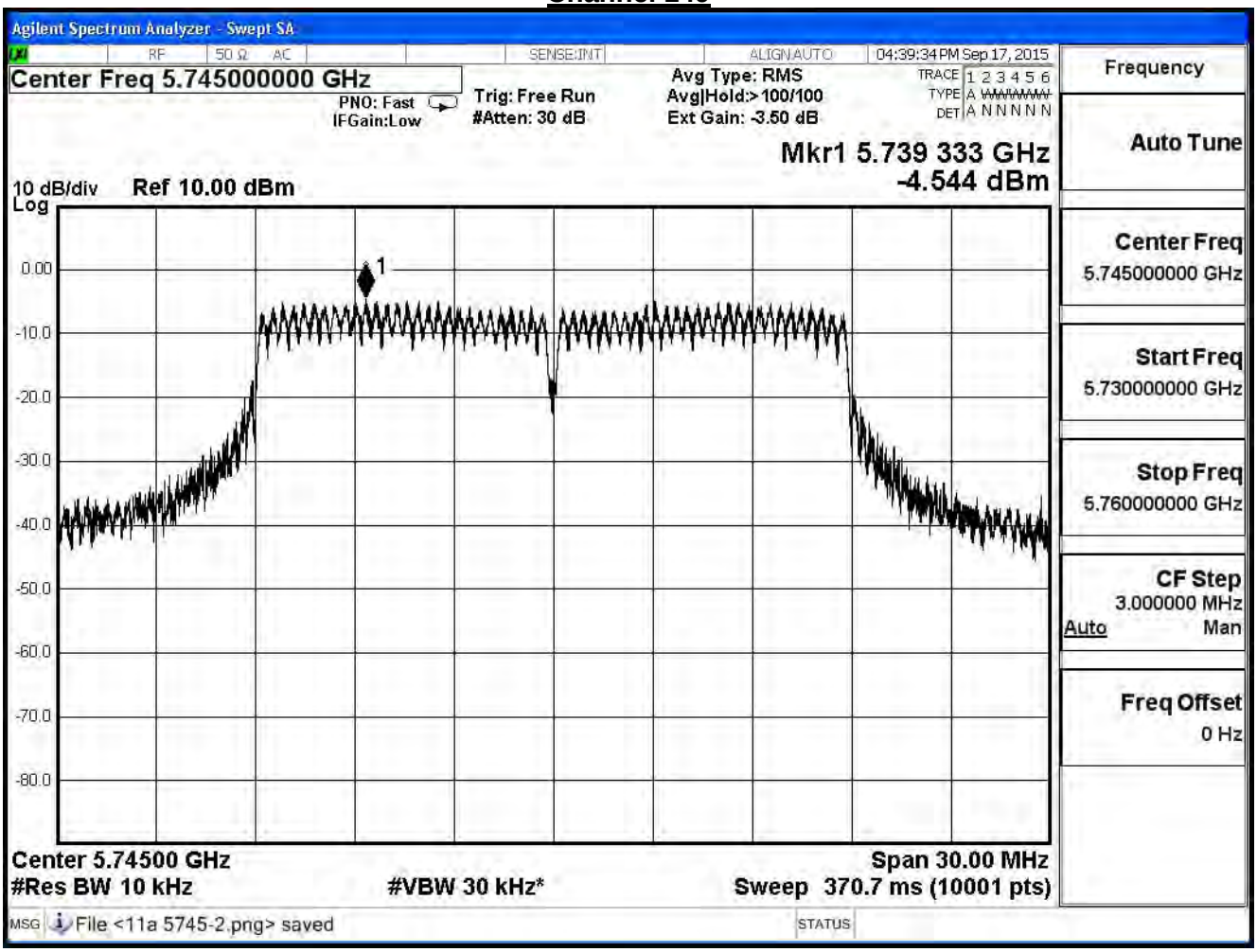
Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/09/17	Test Site	SR7

IEEE 802.11a (ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
149	5745	-4.544	≦6.40	Pass
157	5785	-5.467	≦6.40	Pass
165	5825	-4.935	≦6.40	Pass

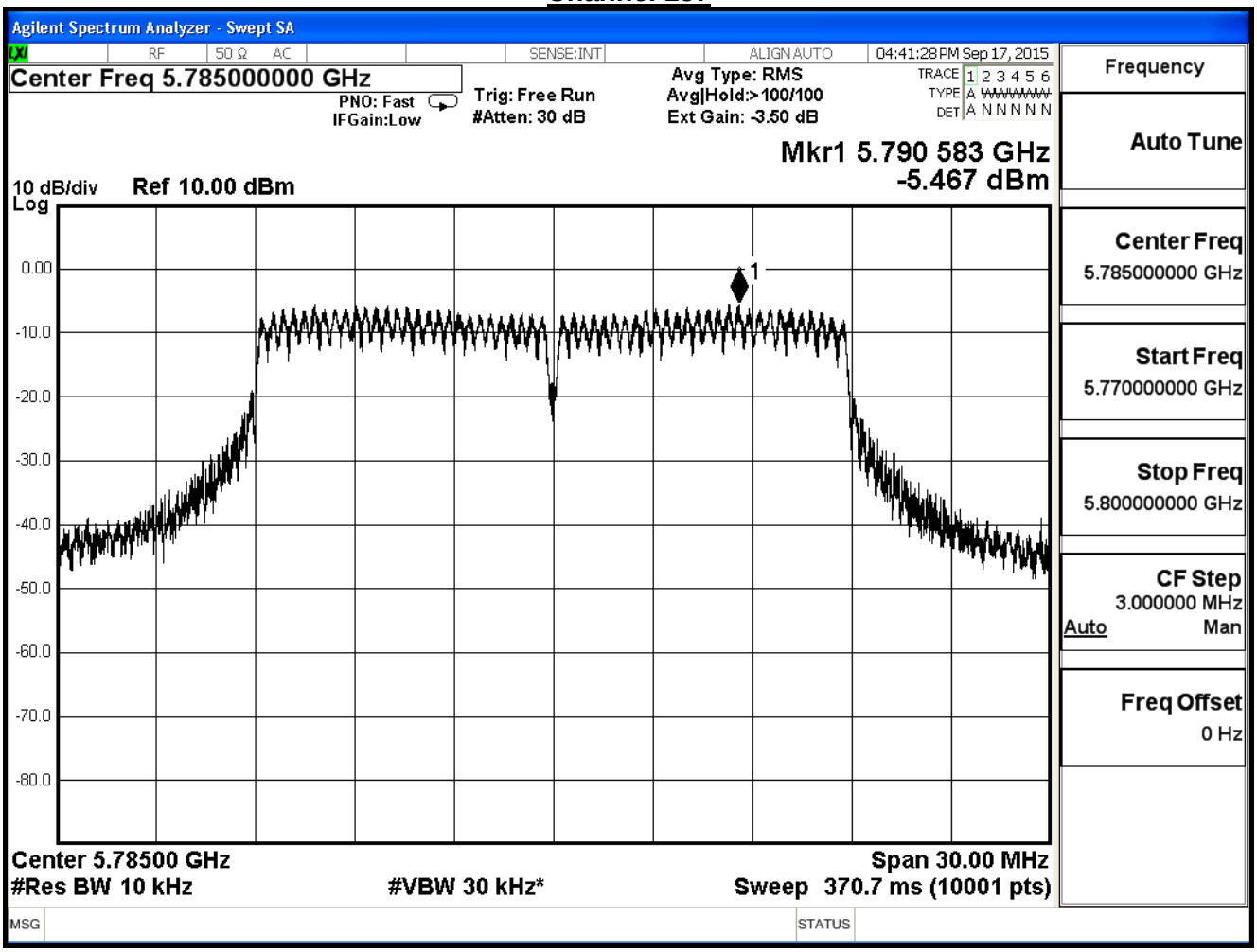
Directional Antenna: 10log(Ant N)+Max Gain =3+4.6=7.60 dBi

Power Density Limit:8dBm-(7.60dBi-6dB)=6.40 dBm

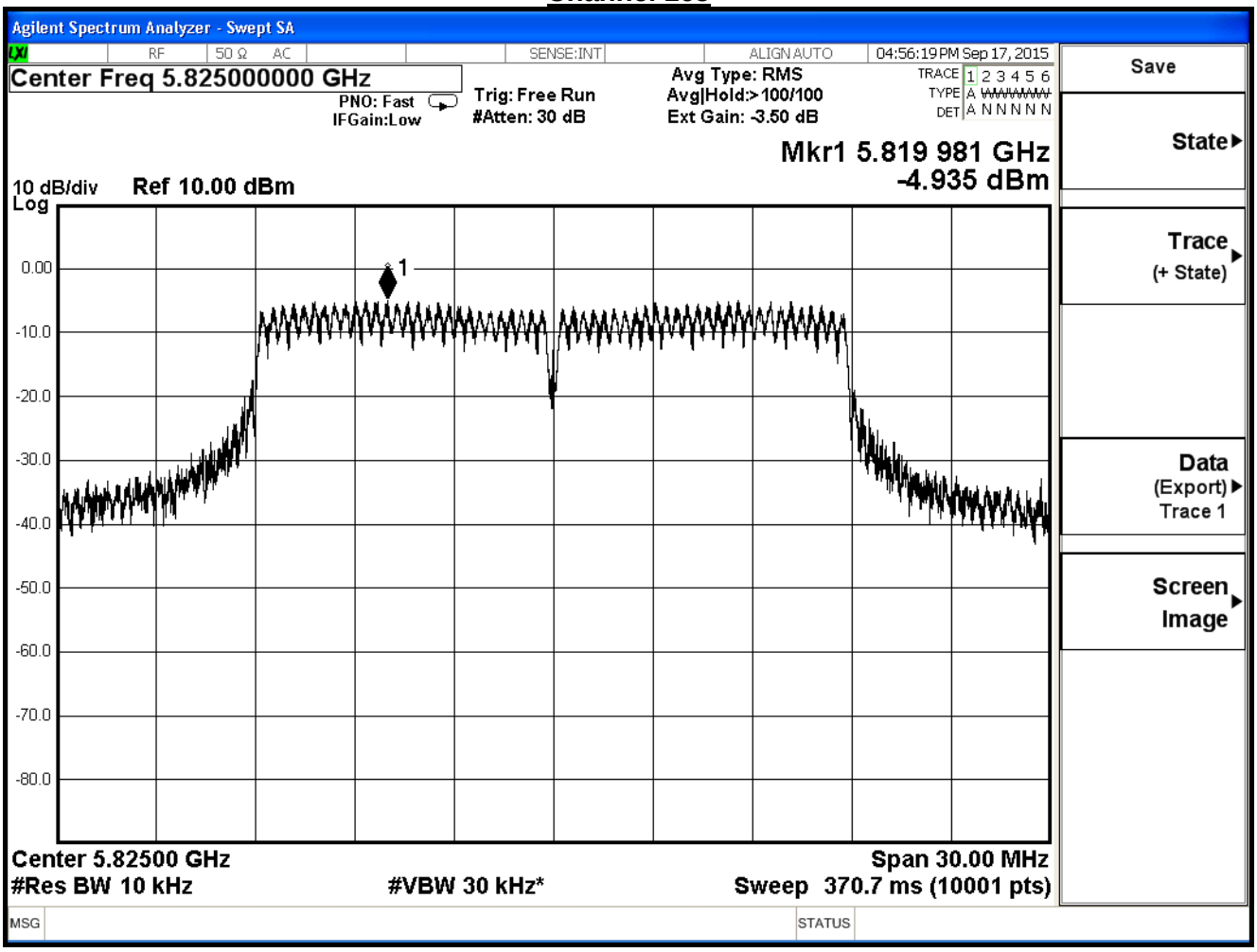
Channel 149



Channel 157


Agilent Spectrum Analyzer - Swept SA
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
04:41:28 PM Sep 17, 2015
Center Freq 5.785000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -3.50 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.790 583 GHz
-5.467 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 5.78500 GHz
#Res BW 10 kHz
#VBW 30 kHz*
Span 30.00 MHz
Sweep 370.7 ms (10001 pts)
MSG
STATUS
Frequency
Auto Tune
Center Freq
5.785000000 GHz
Start Freq
5.770000000 GHz
Stop Freq
5.800000000 GHz
CF Step
3.000000 MHz
Auto
Man
Freq Offset
0 Hz

Channel 165


Agilent Spectrum Analyzer - Swept SA
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
04:56:19 PM Sep 17, 2015
Center Freq 5.825000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -3.50 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.819 981 GHz
-4.935 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 5.82500 GHz
#Res BW 10 kHz
#VBW 30 kHz*
Span 30.00 MHz
Sweep 370.7 ms (10001 pts)
MSG
STATUS
Save
State
Trace
(+ State)
Data
(Export)
Trace 1
Screen
Image

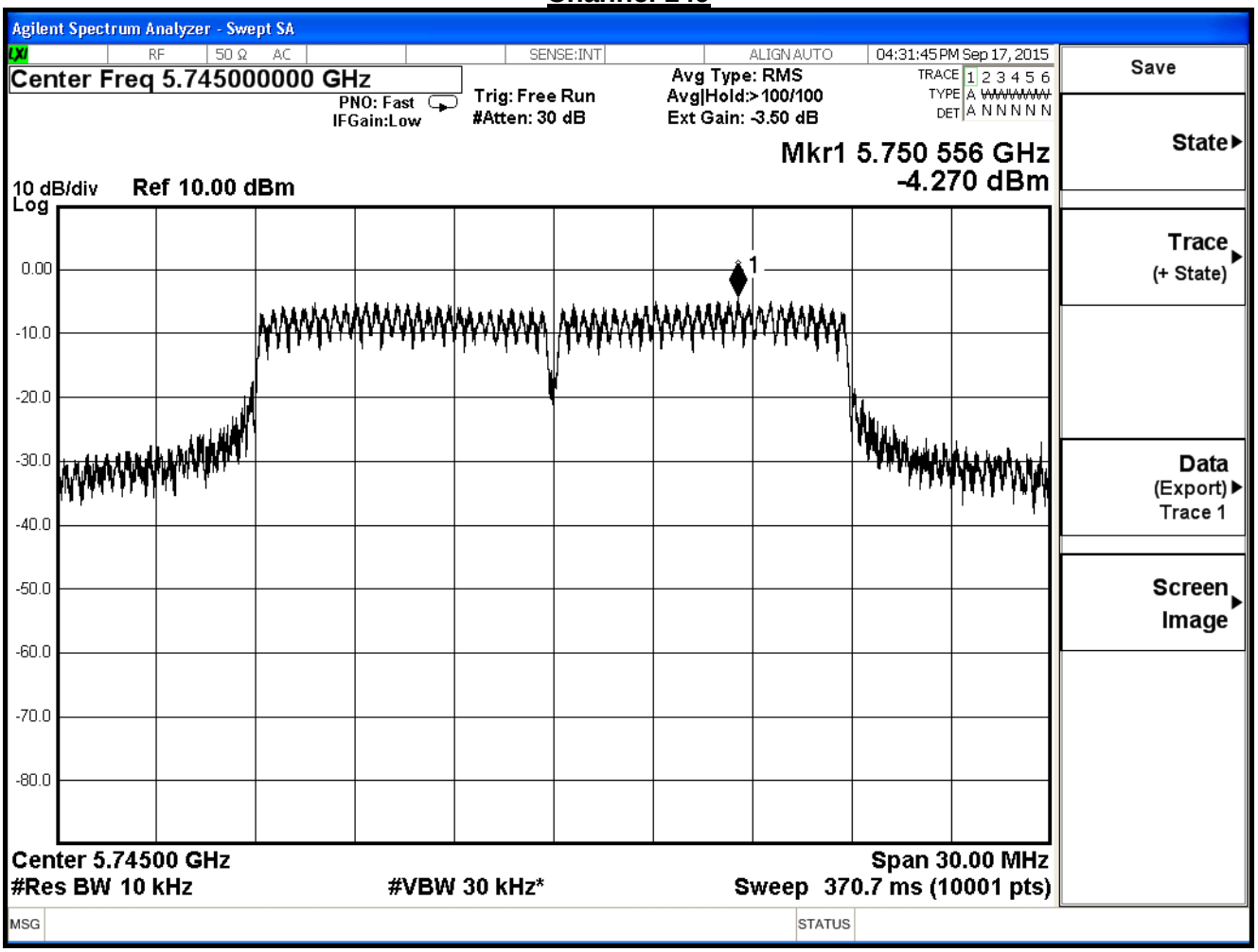
Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/09/17	Test Site	SR7

IEEE 802.11a (ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
149	5745	-4.270	≦6.40	Pass
157	5785	-5.339	≦6.40	Pass
165	5825	-5.355	≦6.40	Pass

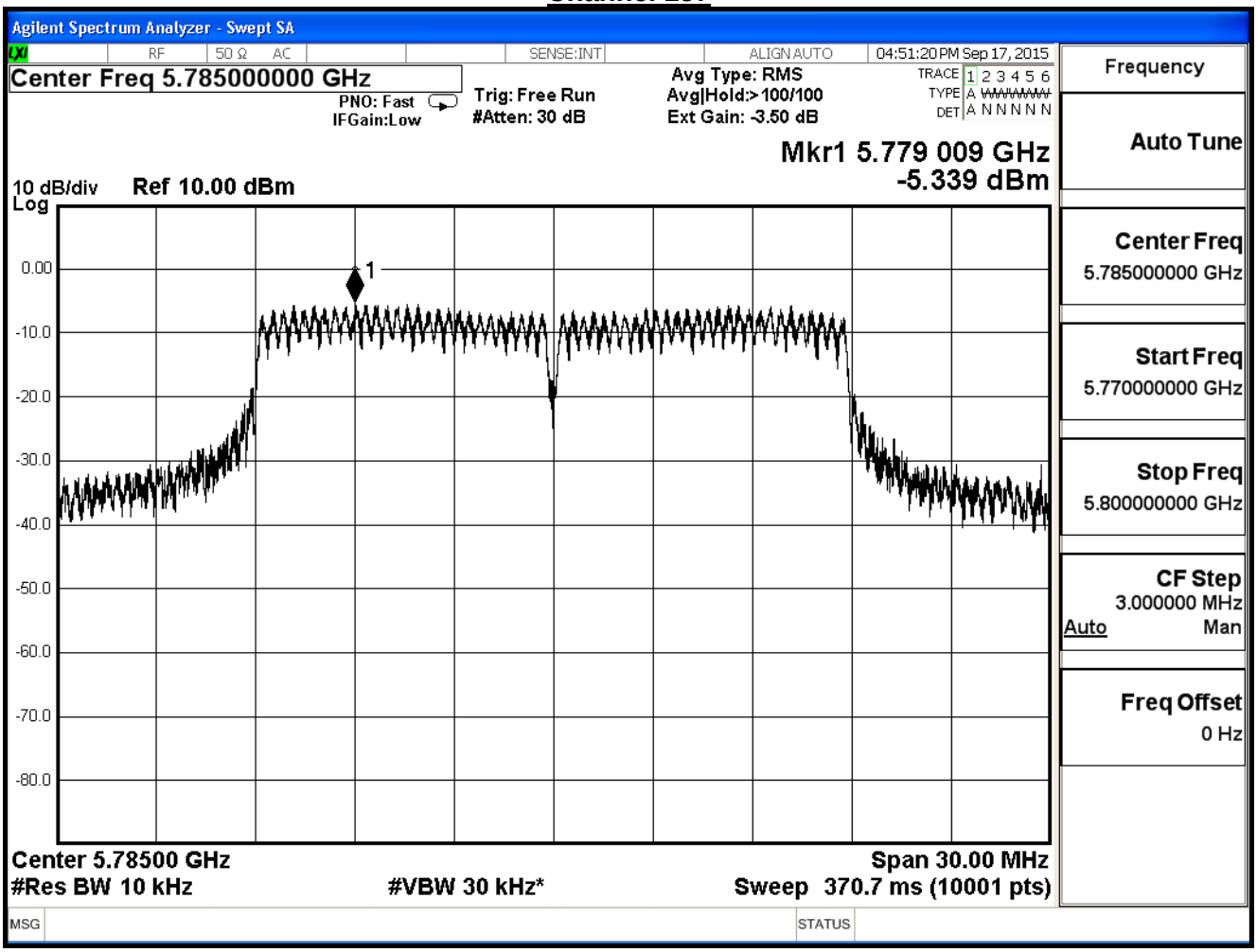
Directional Antenna: 10log(Ant N)+Max Gain =3+4.6=7.60 dBi

Power Density Limit:8dBm-(7.60dBi-6dB)=6.40 dBm

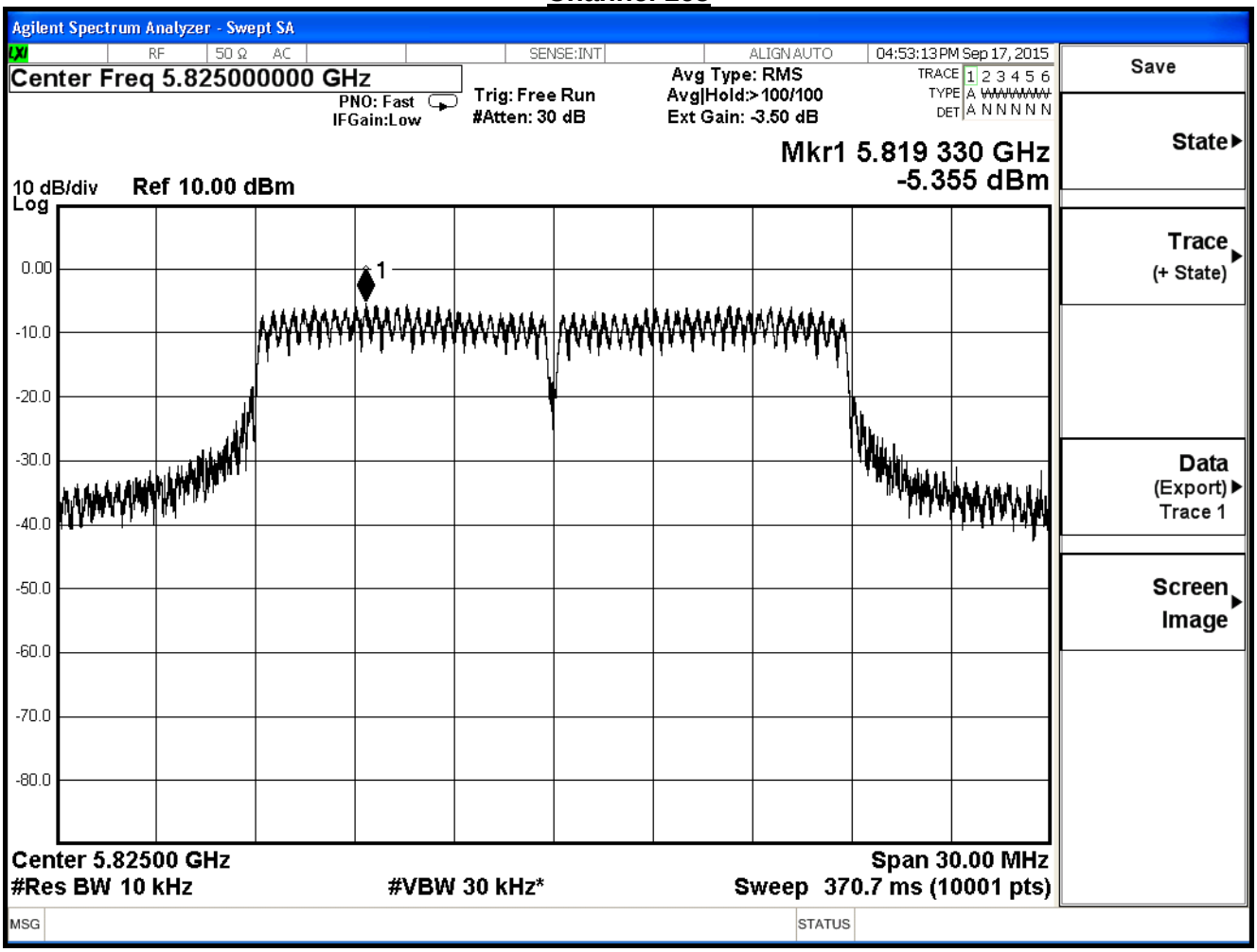
Channel 149



Channel 157


Agilent Spectrum Analyzer - Swept SA
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
04:51:20 PM Sep 17, 2015
Center Freq 5.785000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -3.50 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.779 009 GHz
-5.339 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 5.78500 GHz
#Res BW 10 kHz
#VBW 30 kHz*
Span 30.00 MHz
Sweep 370.7 ms (10001 pts)
MSG
STATUS
Frequency
Auto Tune
Center Freq
5.785000000 GHz
Start Freq
5.770000000 GHz
Stop Freq
5.800000000 GHz
CF Step
3.000000 MHz
Auto
Man
Freq Offset
0 Hz

Channel 165


Agilent Spectrum Analyzer - Swept SA
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
04:53:13 PM Sep 17, 2015
Center Freq 5.825000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -3.50 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.819 330 GHz
-5.355 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 5.82500 GHz
#Res BW 10 kHz
#VBW 30 kHz*
Span 30.00 MHz
Sweep 370.7 ms (10001 pts)
MSG
STATUS
Save
State
Trace
(+ State)
Data
(Export)
Trace 1
Screen
Image

Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/09/17	Test Site	SR7

IEEE 802.11a (ANT 0+1+2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
149	5745	0.460	≦6.40	Pass
157	5785	-0.811	≦6.40	Pass
165	5825	-0.585	≦6.40	Pass

Directional Antenna: 10log(Ant N)+Max Gain =3+4.6=7.60 dBi

Power Density Limit:8dBm-(7.60dBi-6dB)=6.40 dBm

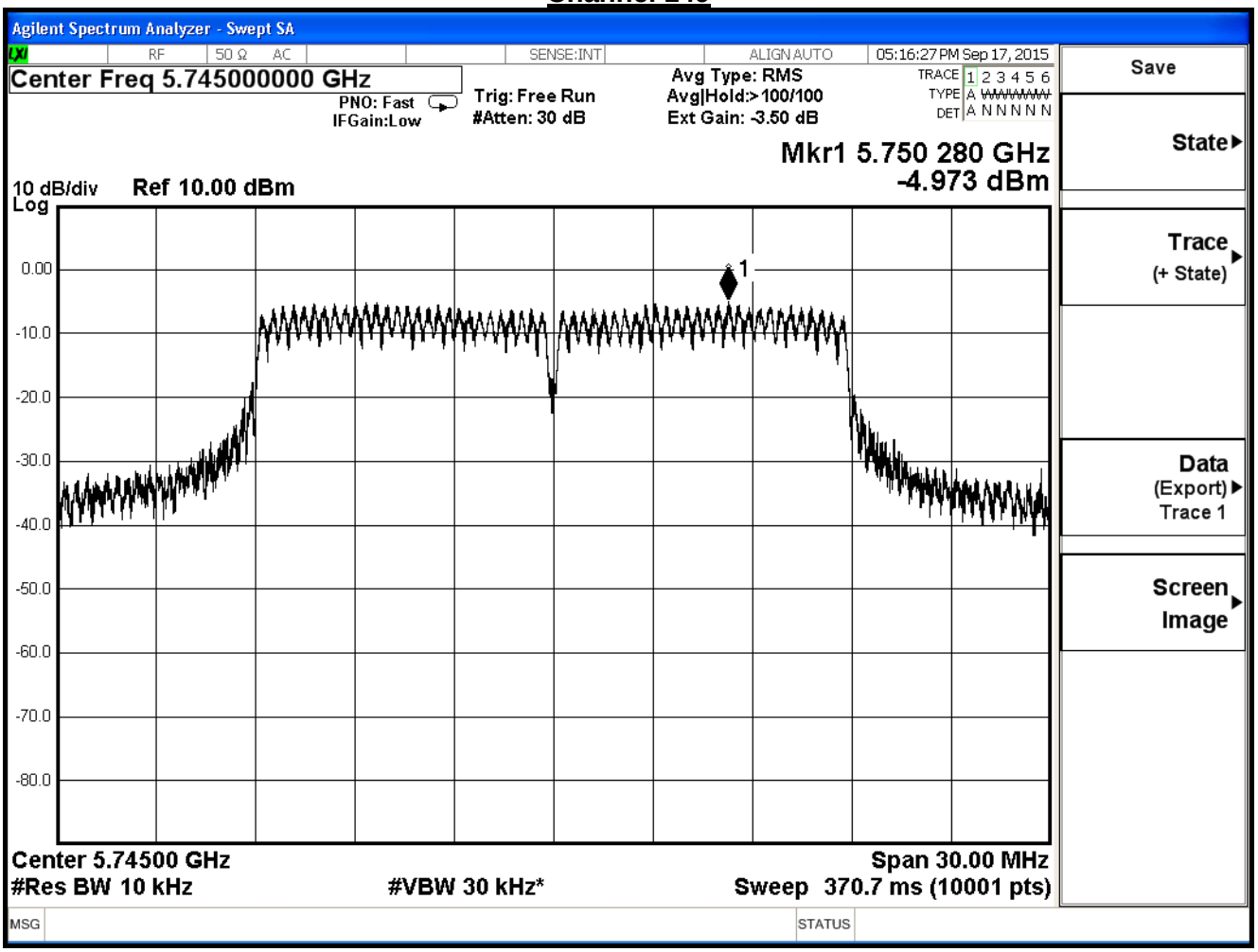
Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/09/17	Test Site	SR7

IEEE802.11n_20MHz_(ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
149	5745	-4.973	≦6.40	Pass
157	5785	-3.458	≦6.40	Pass
165	5825	-3.766	≦6.40	Pass

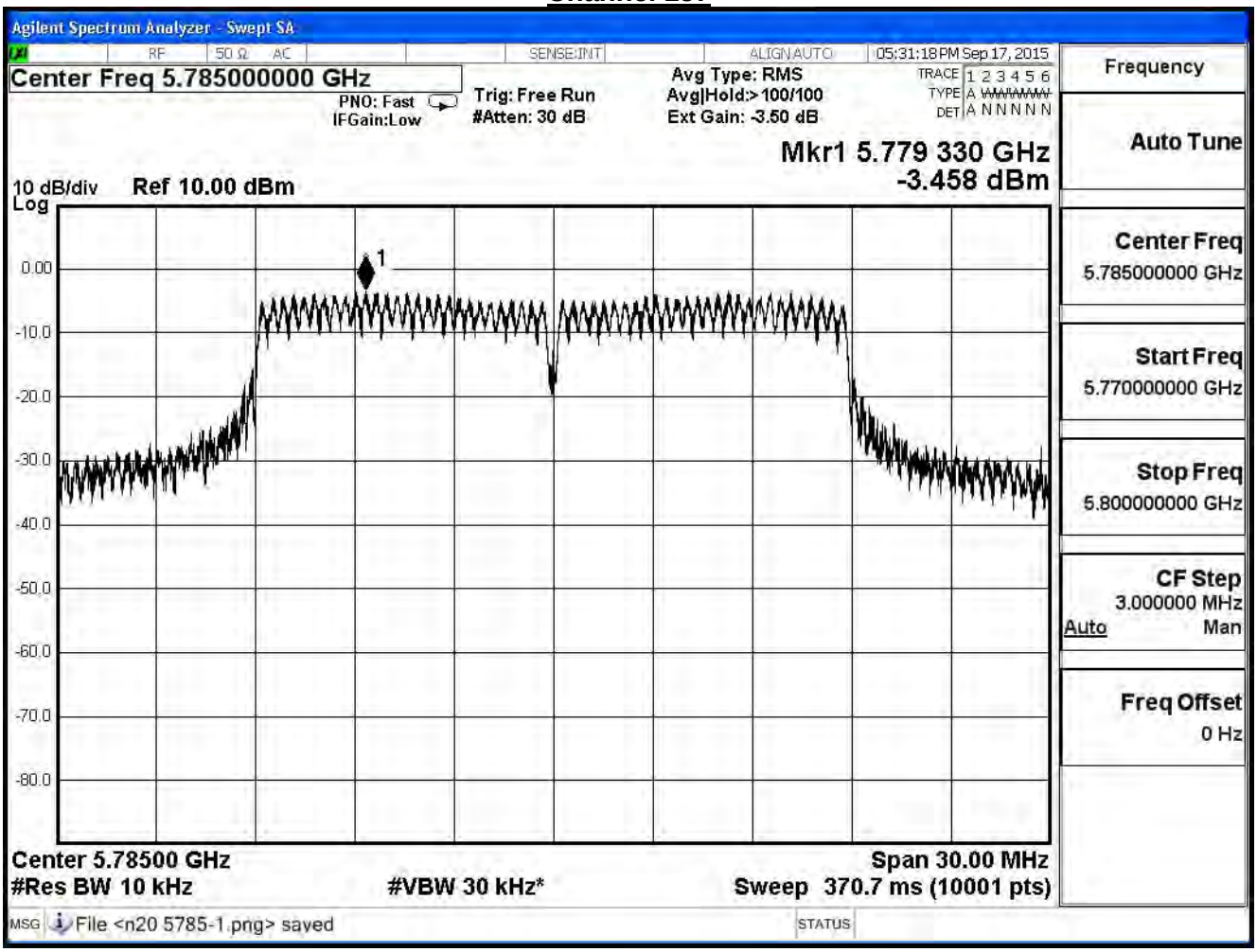
Directional Antenna: 10log(Ant N)+Max Gain =3+4.6=7.60 dBi

Power Density Limit:8dBm-(7.60dBi-6dB)=6.40 dBm

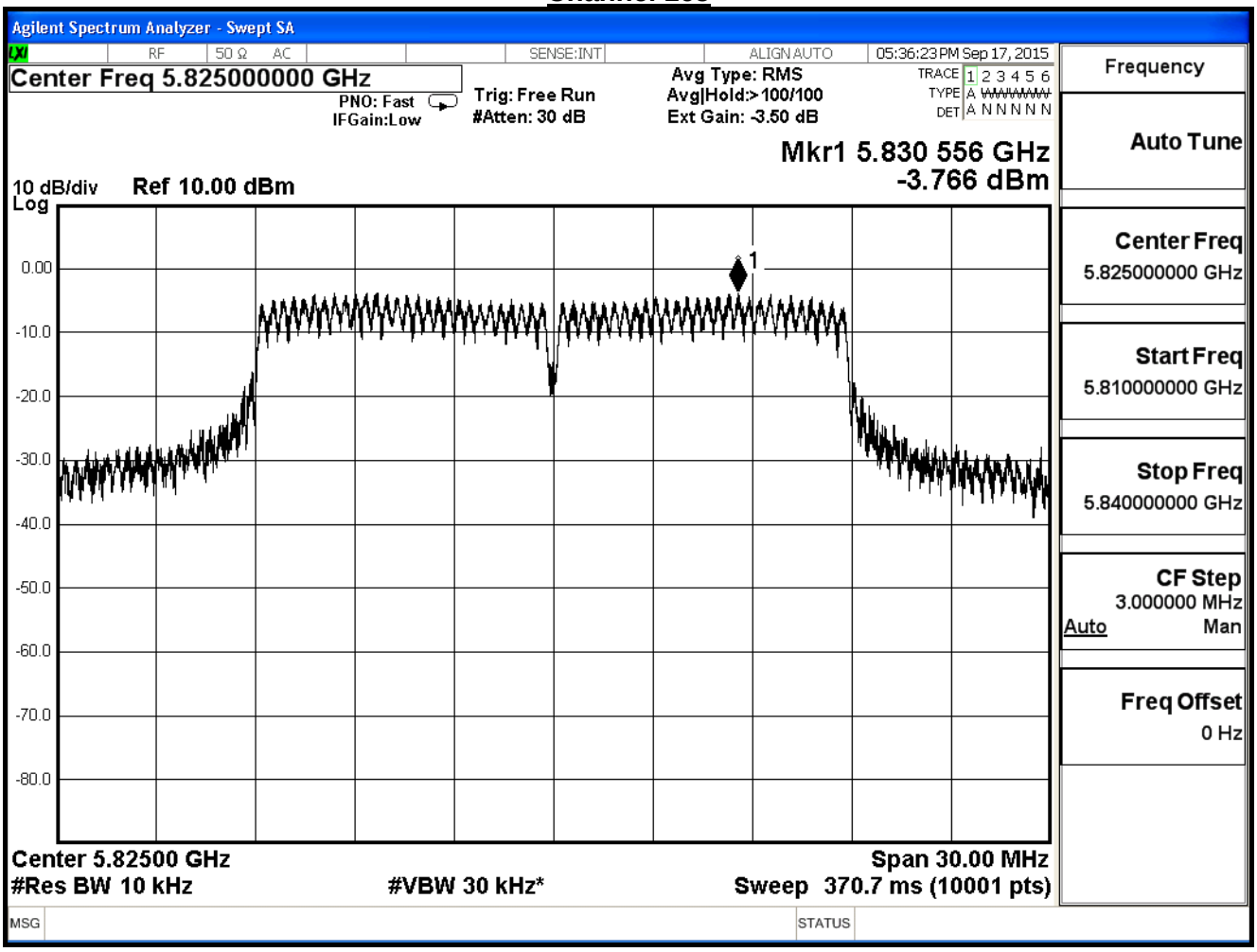
Channel 149



Channel 157


Agilent Spectrum Analyzer - Swept SA
RF 50 Ω AC
SENSE:INT
ALIGN AUTO
05:31:18 PM Sep 17, 2015
Center Freq 5.785000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -3.50 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.779 330 GHz
-3.458 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 5.78500 GHz
#Res BW 10 kHz
#VBW 30 kHz*
Span 30.00 MHz
Sweep 370.7 ms (10001 pts)
MSG
File <n20 5785-1.png> saved
STATUS
Frequency
Auto Tune
Center Freq
5.785000000 GHz
Start Freq
5.770000000 GHz
Stop Freq
5.800000000 GHz
CF Step
3.000000 MHz
Auto
Man
Freq Offset
0 Hz

Channel 165


Agilent Spectrum Analyzer - Swept SA
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
05:36:23 PM Sep 17, 2015
Center Freq 5.825000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -3.50 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.830 556 GHz
-3.766 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 5.82500 GHz
#Res BW 10 kHz
#VBW 30 kHz*
Span 30.00 MHz
Sweep 370.7 ms (10001 pts)
MSG
STATUS
Frequency
Auto Tune
Center Freq
5.825000000 GHz
Start Freq
5.810000000 GHz
Stop Freq
5.840000000 GHz
CF Step
3.000000 MHz
Auto
Man
Freq Offset
0 Hz

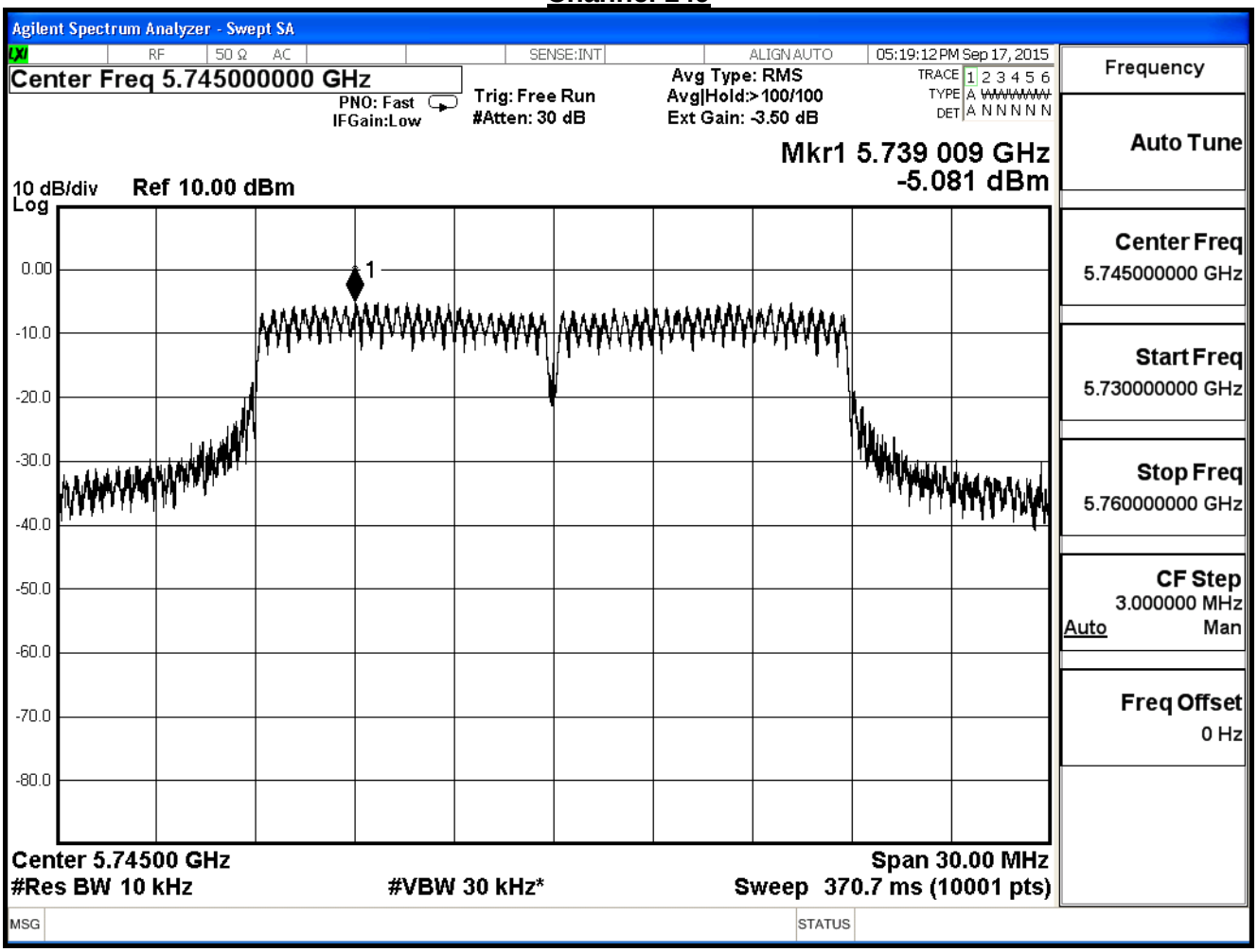
Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/09/17	Test Site	SR7

IEEE802.11n_20MHz_(ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
149	5745	-5.081	≦6.40	Pass
157	5785	-3.212	≦6.40	Pass
165	5825	-3.120	≦6.40	Pass

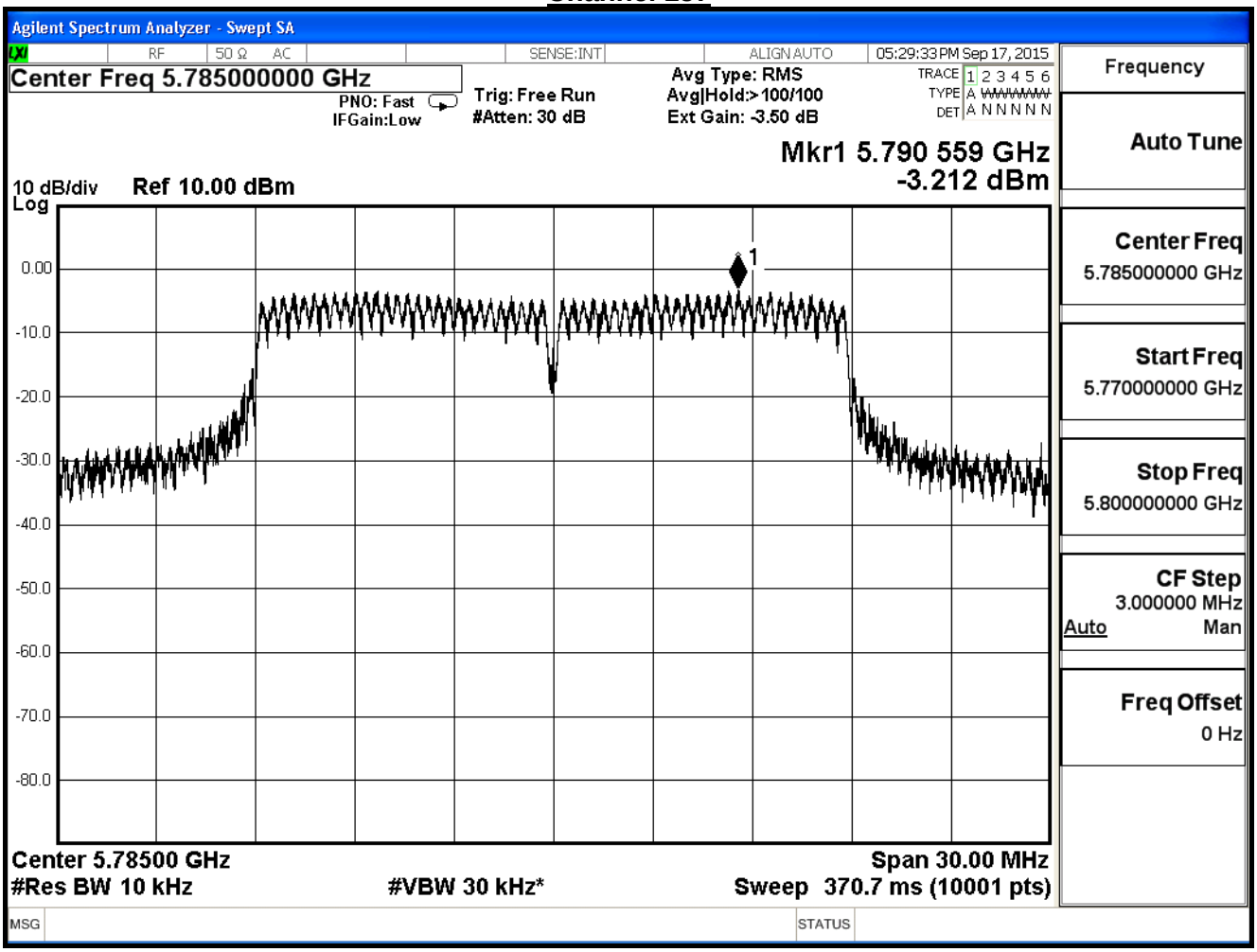
Directional Antenna: 10log(Ant N)+Max Gain =3+4.6=7.60 dBi

Power Density Limit:8dBm-(7.60dBi-6dB)=6.40 dBm

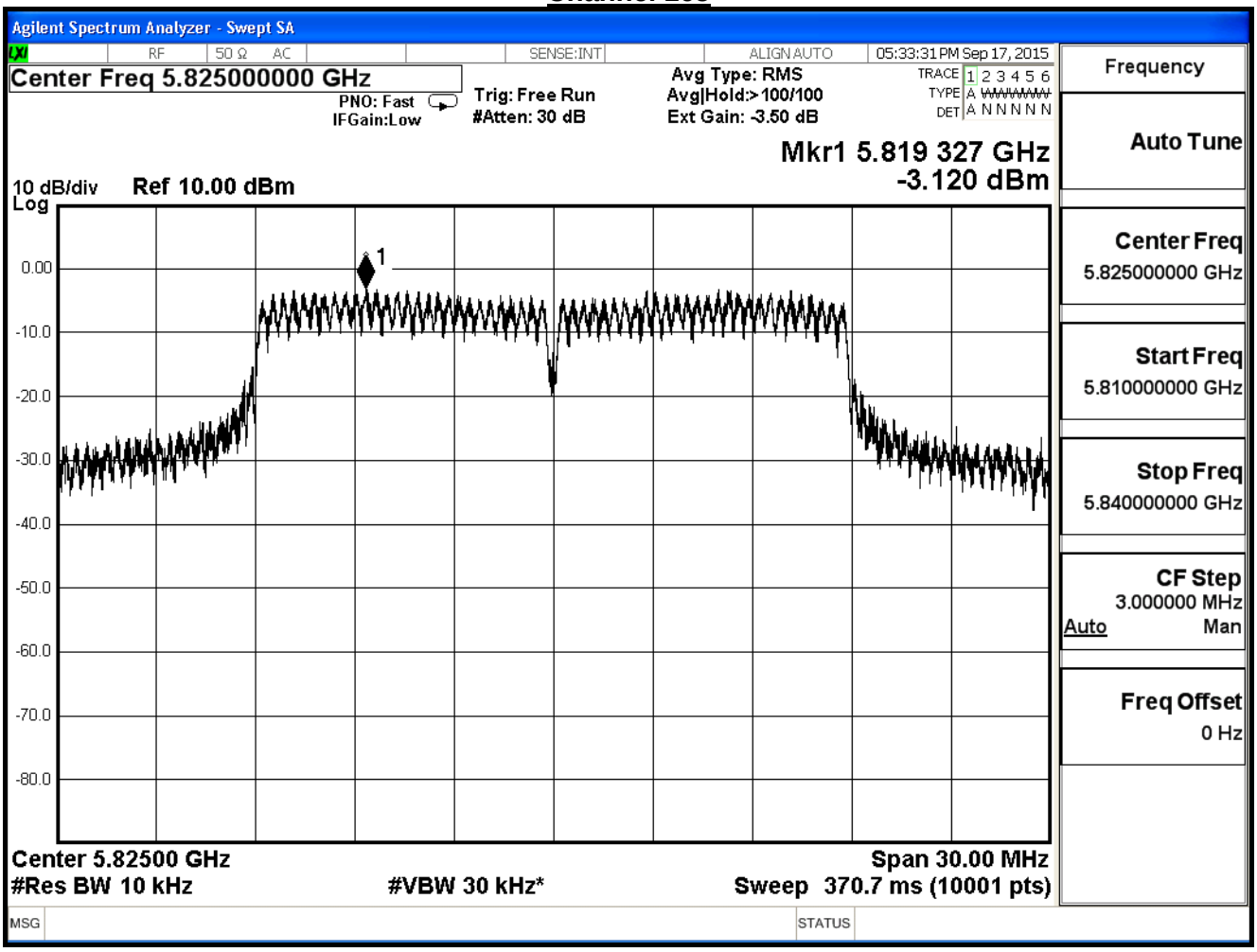
Channel 149



Channel 157


Agilent Spectrum Analyzer - Swept SA
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
05:29:33 PM Sep 17, 2015
Center Freq 5.785000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -3.50 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.790 559 GHz
-3.212 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 5.78500 GHz
#Res BW 10 kHz
#VBW 30 kHz*
Span 30.00 MHz
Sweep 370.7 ms (10001 pts)
MSG
STATUS
Frequency
Auto Tune
Center Freq
5.785000000 GHz
Start Freq
5.770000000 GHz
Stop Freq
5.800000000 GHz
CF Step
3.000000 MHz
Auto
Man
Freq Offset
0 Hz

Channel 165


Agilent Spectrum Analyzer - Swept SA
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
05:33:31 PM Sep 17, 2015
Center Freq 5.825000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -3.50 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.819 327 GHz
-3.120 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 5.82500 GHz
#Res BW 10 kHz
#VBW 30 kHz*
Span 30.00 MHz
Sweep 370.7 ms (10001 pts)
MSG
STATUS
Frequency
Auto Tune
Center Freq
5.825000000 GHz
Start Freq
5.810000000 GHz
Stop Freq
5.840000000 GHz
CF Step
3.000000 MHz
Auto
Man
Freq Offset
0 Hz

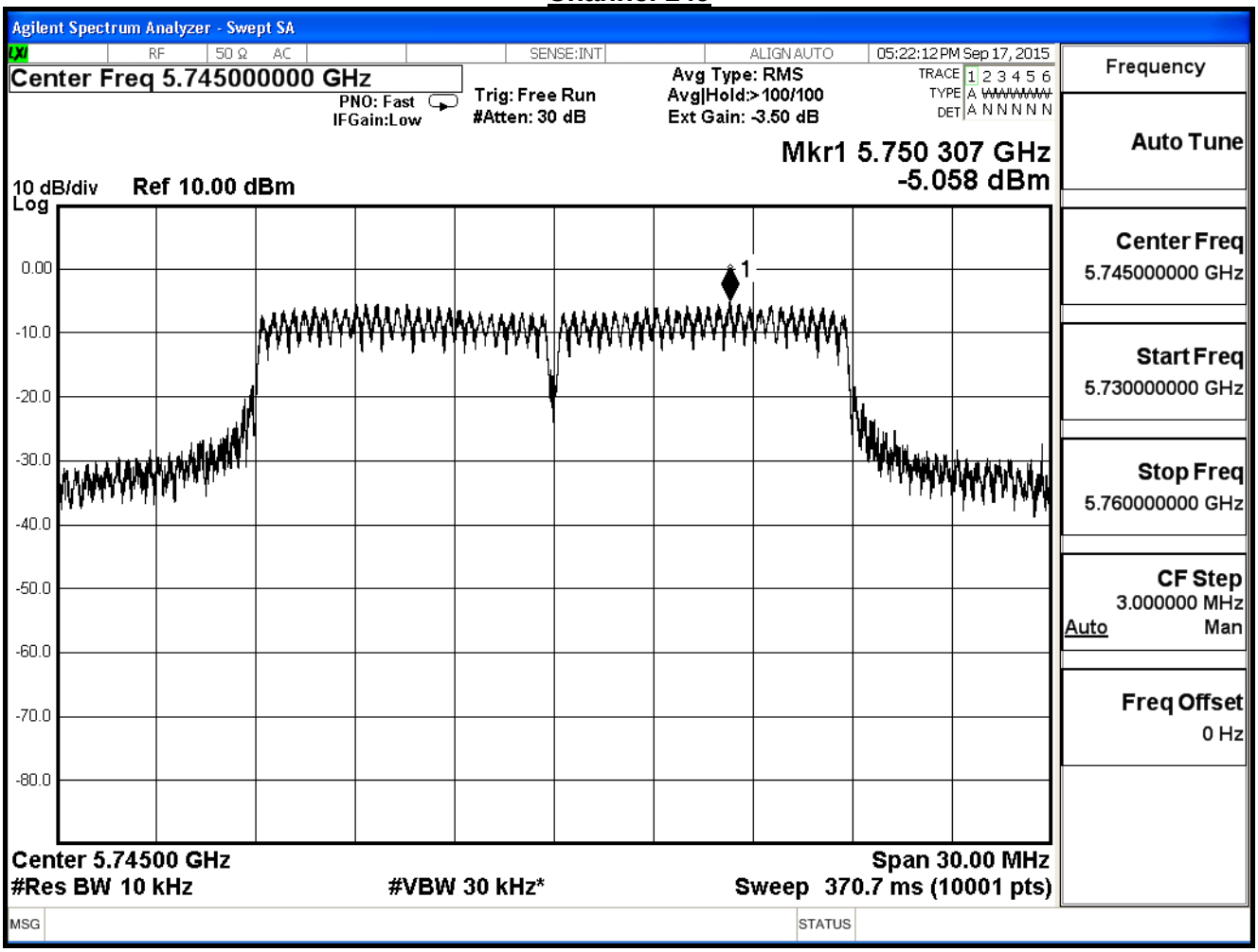
Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/09/17	Test Site	SR7

IEEE802.11n_20MHz_(ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
149	5745	-5.058	≦6.40	Pass
157	5785	-3.613	≦6.40	Pass
165	5825	-3.247	≦6.40	Pass

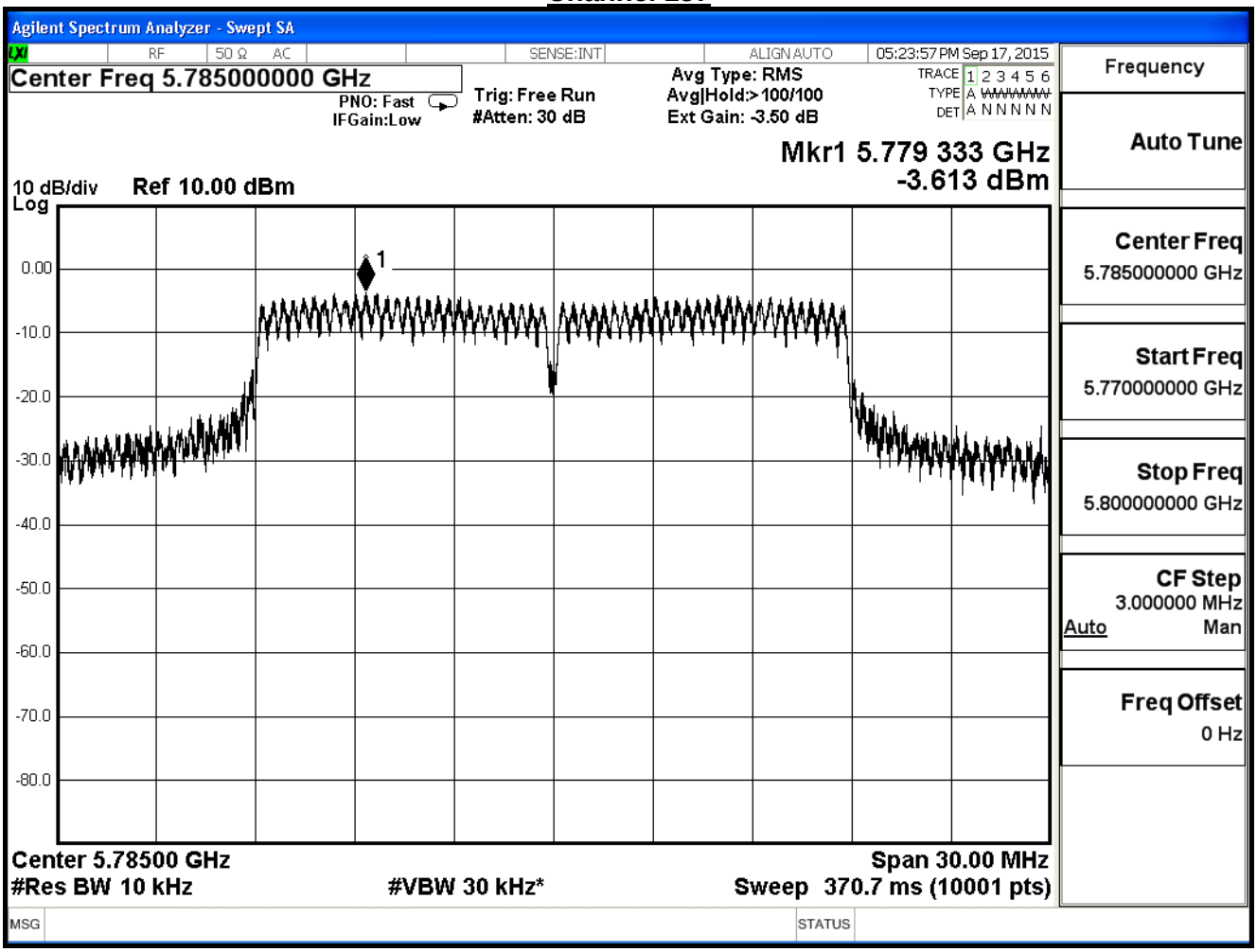
Directional Antenna: 10log(Ant N)+Max Gain =3+4.6=7.60 dBi

Power Density Limit:8dBm-(7.60dBi-6dB)=6.40 dBm

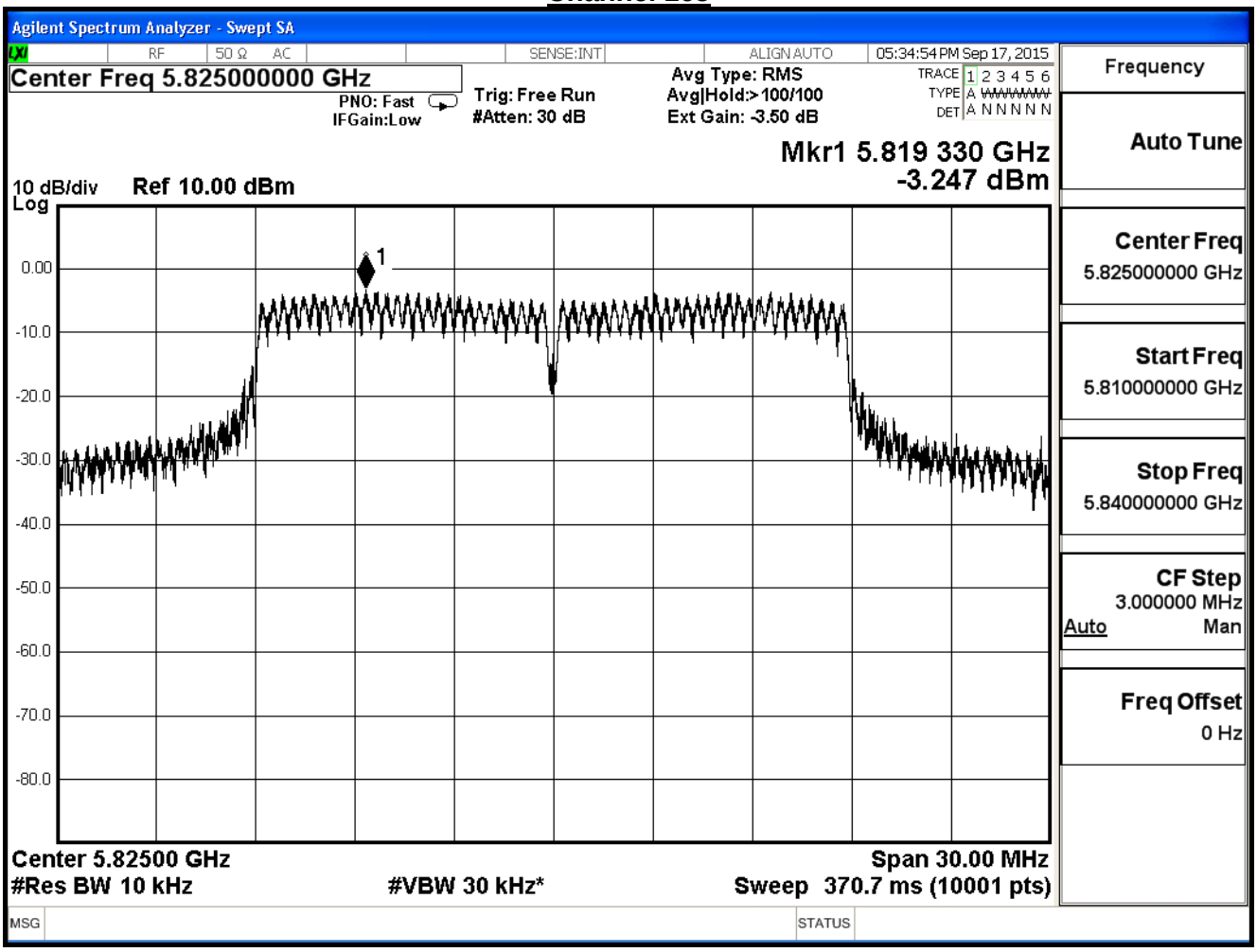
Channel 149



Channel 157


Agilent Spectrum Analyzer - Swept SA
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
05:23:57 PM Sep 17, 2015
Center Freq 5.785000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -3.50 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.779 333 GHz
-3.613 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 5.78500 GHz
#Res BW 10 kHz
#VBW 30 kHz*
Span 30.00 MHz
Sweep 370.7 ms (10001 pts)
MSG
STATUS
Frequency
Auto Tune
Center Freq
5.785000000 GHz
Start Freq
5.770000000 GHz
Stop Freq
5.800000000 GHz
CF Step
3.000000 MHz
Auto
Man
Freq Offset
0 Hz

Channel 165


Agilent Spectrum Analyzer - Swept SA
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
05:34:54 PM Sep 17, 2015
Center Freq 5.825000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -3.50 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.819 330 GHz
-3.247 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 5.82500 GHz
#Res BW 10 kHz
#VBW 30 kHz*
Span 30.00 MHz
Sweep 370.7 ms (10001 pts)
MSG
STATUS
Frequency
Auto Tune
Center Freq
5.825000000 GHz
Start Freq
5.810000000 GHz
Stop Freq
5.840000000 GHz
CF Step
3.000000 MHz
Auto
Man
Freq Offset
0 Hz

Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/09/17	Test Site	SR7

IEEE802.11n 20MHz(ANT 0+1+2)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
149	5745	-0.266	≦6.40	Pass
157	5785	1.347	≦6.40	Pass
165	5825	1.402	≦6.40	Pass

Directional Antenna: 10log(Ant N)+Max Gain =3+4.6=7.60 dBi

Power Density Limit:8dBm-(7.60dBi-6dB)=6.40 dBm

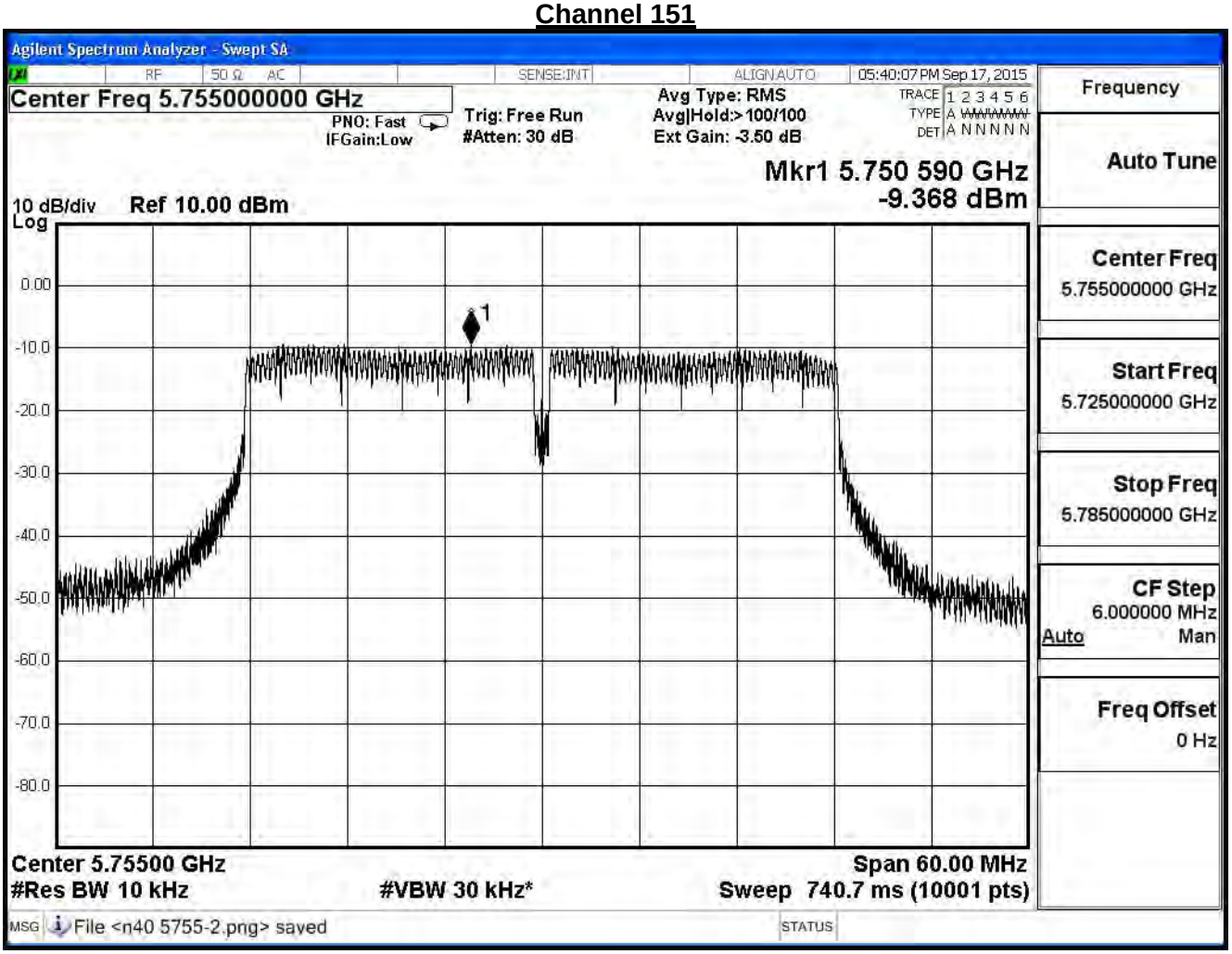
Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/09/17	Test Site	SR7

IEEE 802.11n_40MHz (ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
151	5755	-9.368	≦6.40	Pass
159	5795	-5.157	≦6.40	Pass

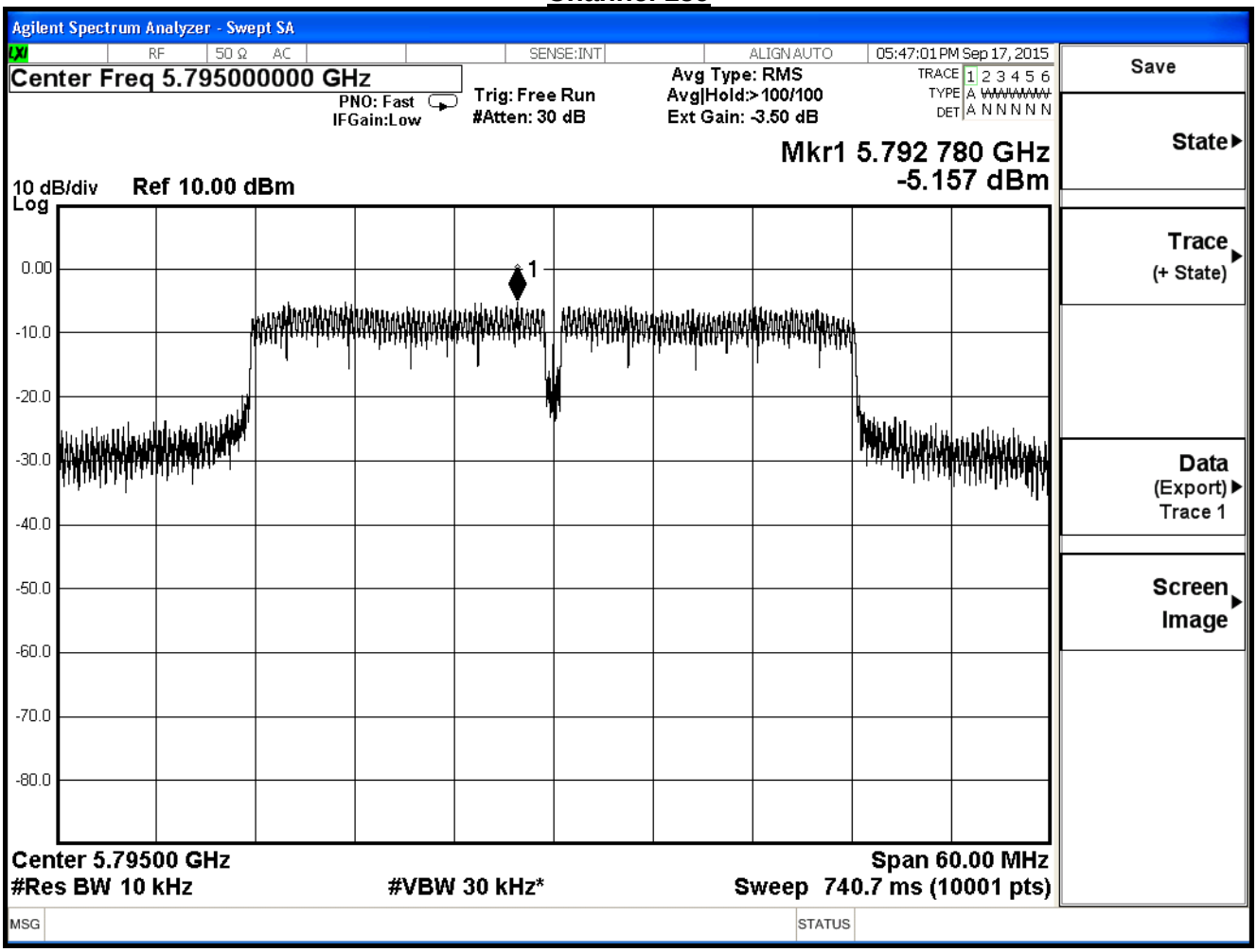
Directional Antenna: 10log(Ant N)+Max Gain =3+4.6=7.60 dBi

Power Density Limit:8dBm-(7.60dBi-6dB)=6.40 dBm

Channel 151



Channel 159


Agilent Spectrum Analyzer - Swept SA
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
05:47:01 PM Sep 17, 2015
Center Freq 5.795000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -3.50 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.792 780 GHz
-5.157 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 5.79500 GHz
#Res BW 10 kHz
#VBW 30 kHz*
Span 60.00 MHz
Sweep 740.7 ms (10001 pts)
MSG
STATUS
Save
State
Trace
(+ State)
Data
(Export)
Trace 1
Screen
Image

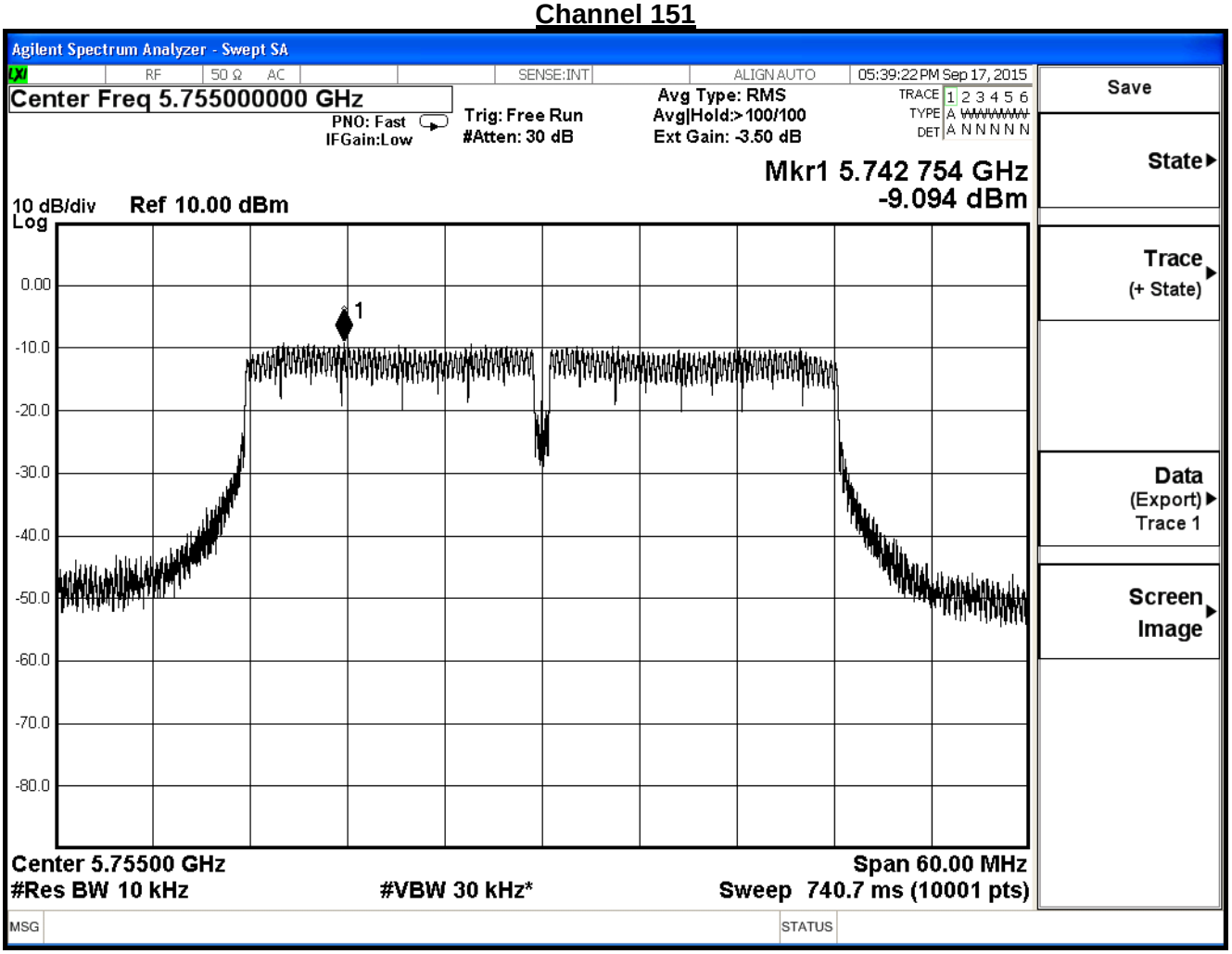
Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/09/17	Test Site	SR7

IEEE 802.11n_40MHz (ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
151	5755	-9.094	≦6.40	Pass
159	5795	-5.080	≦6.40	Pass

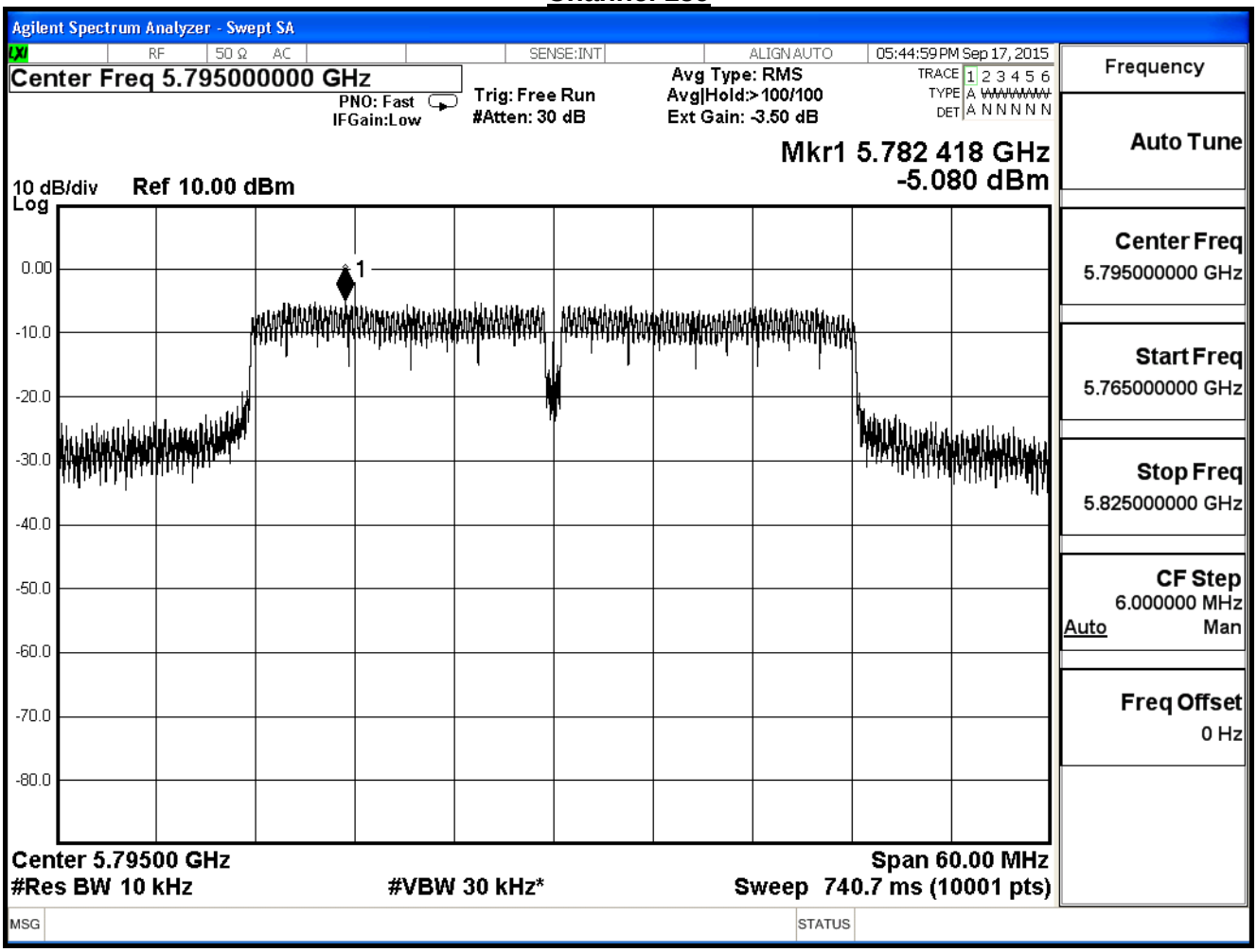
Directional Antenna: 10log(Ant N)+Max Gain =3+4.6=7.60 dBi

Power Density Limit:8dBm-(7.60dBi-6dB)=6.40 dBm

Channel 151



Channel 159


Agilent Spectrum Analyzer - Swept SA
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
05:44:59 PM Sep 17, 2015
Center Freq 5.795000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -3.50 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.782 418 GHz
-5.080 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
Center 5.79500 GHz
#Res BW 10 kHz
#VBW 30 kHz*
Span 60.00 MHz
Sweep 740.7 ms (10001 pts)
MSG
STATUS
Frequency
Auto Tune
Center Freq
5.795000000 GHz
Start Freq
5.765000000 GHz
Stop Freq
5.825000000 GHz
CF Step
6.000000 MHz
Auto
Man
Freq Offset
0 Hz

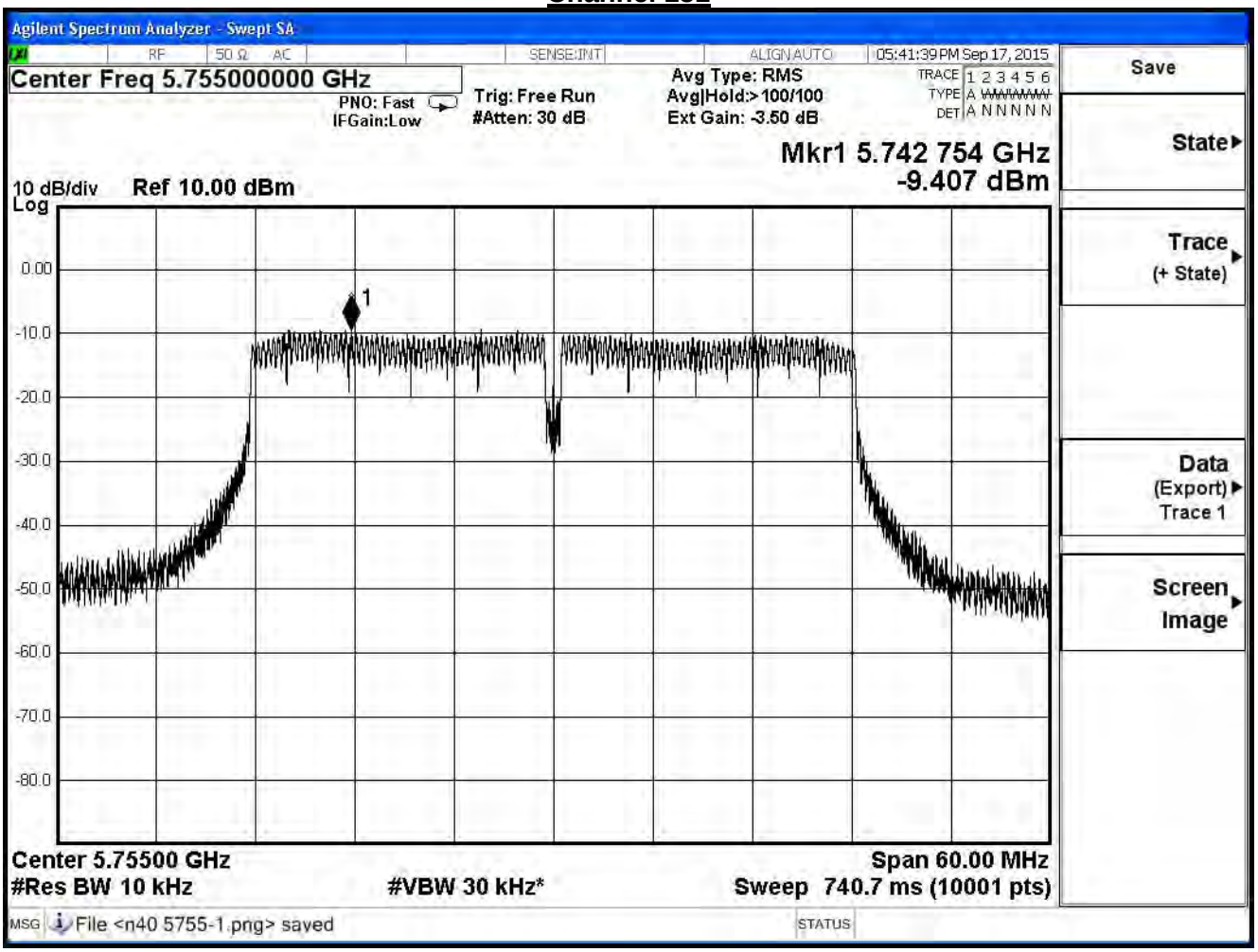
Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/09/17	Test Site	SR7

IEEE 802.11n_40MHz (ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
151	5755	-9.407	≦6.40	Pass
159	5795	-4.940	≦6.40	Pass

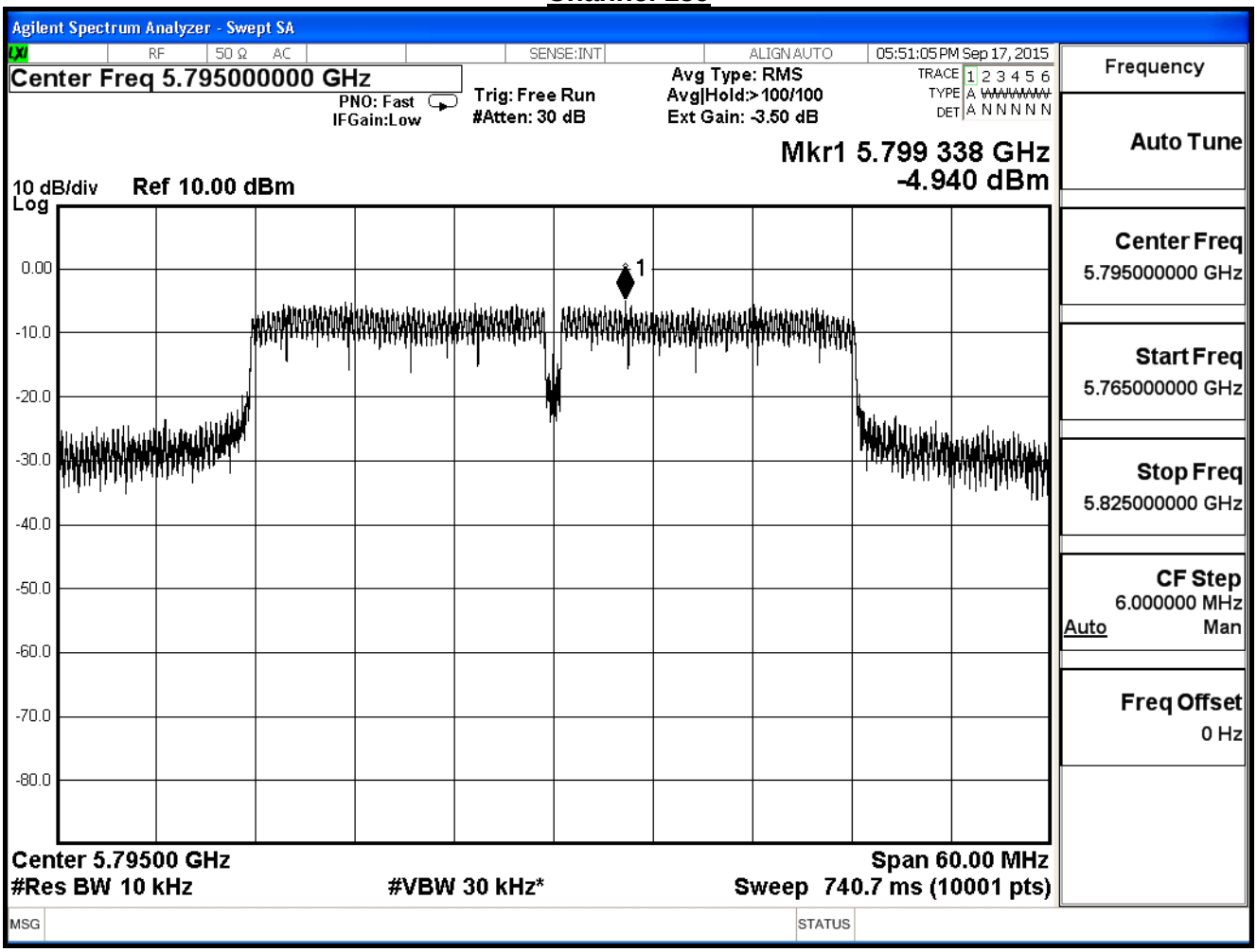
Directional Antenna: 10log(Ant N)+Max Gain =3+4.6=7.60 dBi

Power Density Limit:8dBm-(7.60dBi-6dB)=6.40 dBm

Channel 151



Channel 159


Agilent Spectrum Analyzer - Swept SA
RF
50 Ω AC
SENSE:INT
ALIGN AUTO
05:51:05 PM Sep 17, 2015
Center Freq 5.795000000 GHz
PNO: Fast
IFGain:Low
Trig: Free Run
#Atten: 30 dB
Avg Type: RMS
Avg|Hold:>100/100
Ext Gain: -3.50 dB
TRACE 1 2 3 4 5 6
TYPE A WWWWW
DET A N N N N N
Mkr1 5.799 338 GHz
-4.940 dBm
10 dB/div
Log
Ref 10.00 dBm
0.00
-10.0
-20.0
-30.0
-40.0
-50.0
-60.0
-70.0
-80.0
1
Center 5.79500 GHz
#Res BW 10 kHz
#VBW 30 kHz*
Span 60.00 MHz
Sweep 740.7 ms (10001 pts)
MSG
STATUS
Frequency
Auto Tune
Center Freq
5.795000000 GHz
Start Freq
5.765000000 GHz
Stop Freq
5.825000000 GHz
CF Step
6.000000 MHz
Auto
Man
Freq Offset
0 Hz

Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/09/17	Test Site	SR7

IEEE802.11n 40MHz(ANT 0+1+2)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
151	5755	-4.516	≦6.40	Pass
159	5795	-0.287	≦6.40	Pass

Directional Antenna: 10log(Ant N)+Max Gain =3+4.6=7.60 dBi

Power Density Limit:8dBm-(7.60dBi-6dB)=6.40 dBm

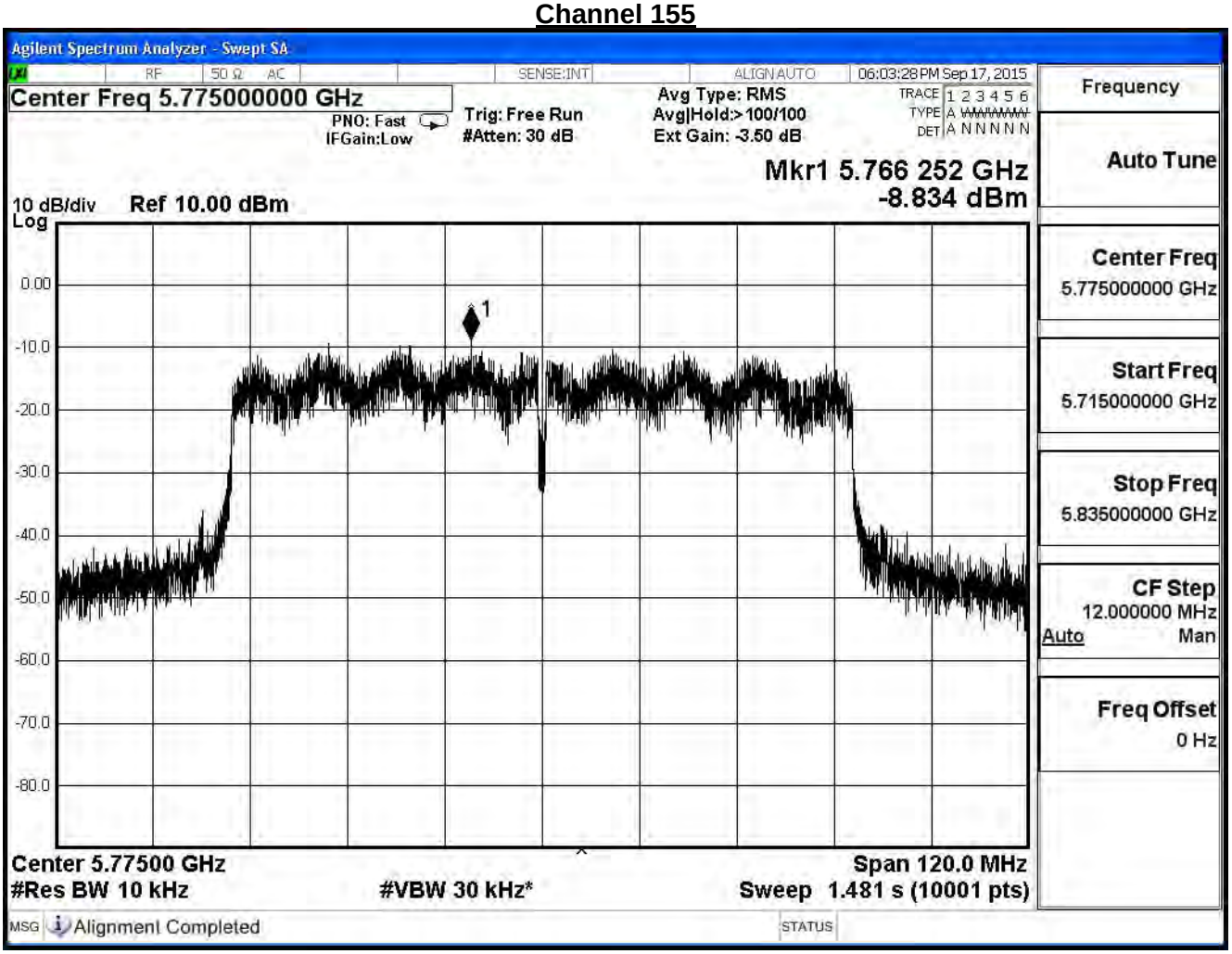
Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/09/17	Test Site	SR7

IEEE 802.11ac_80MHz (ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
155	5775	-8.834	≦6.40	Pass

Directional Antenna: 10log(Ant N)+Max Gain =3+4.6=7.60 dBi

Power Density Limit:8dBm-(7.60dBi-6dB)=6.40 dBm

Channel 155



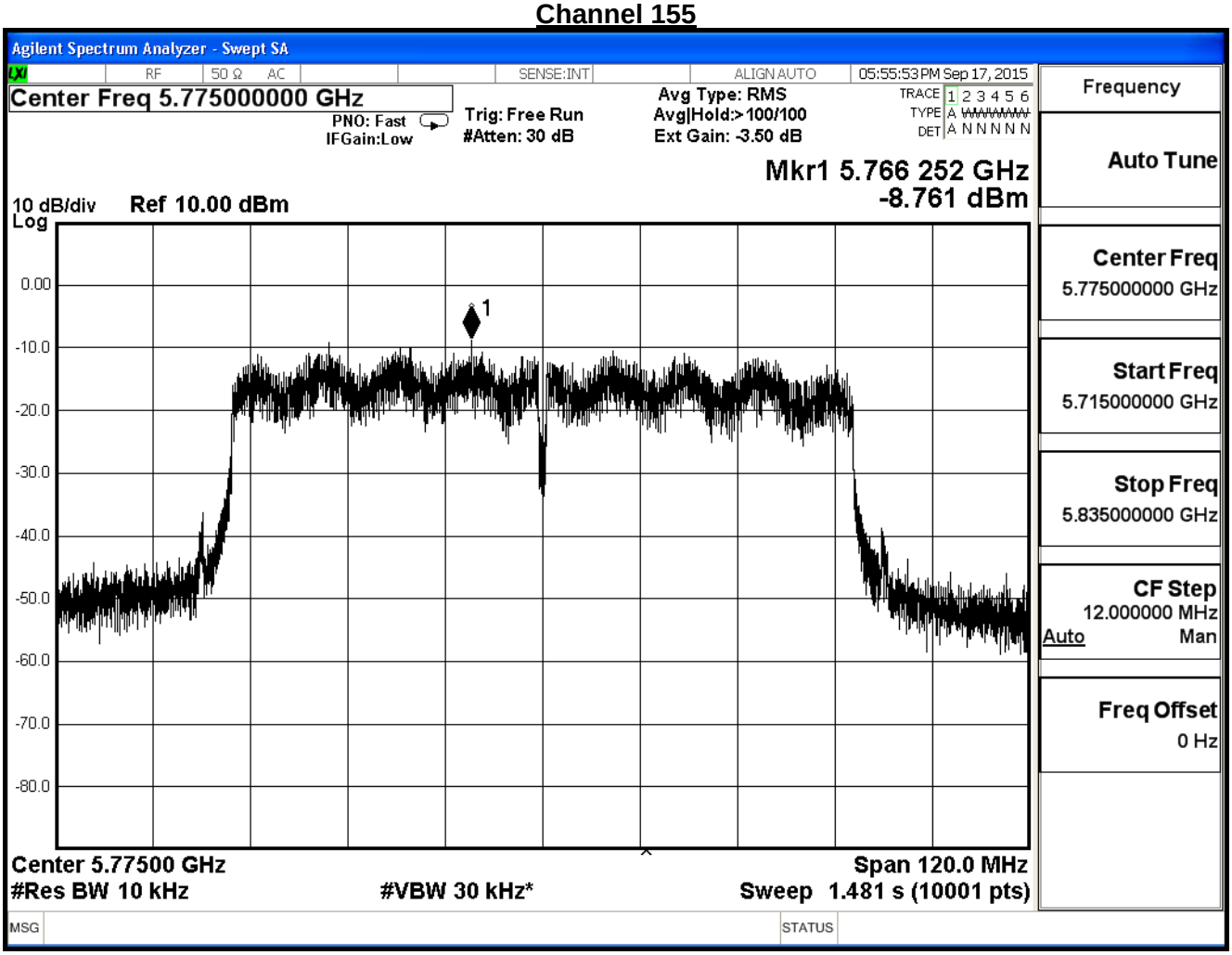
Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/09/17	Test Site	SR7

IEEE 802.11ac_80MHz (ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
155	5775	-8.761	≦6.40	Pass

Directional Antenna: 10log(Ant N)+Max Gain =3+4.6=7.60 dBi

Power Density Limit:8dBm-(7.60dBi-6dB)=6.40 dBm

Channel 155



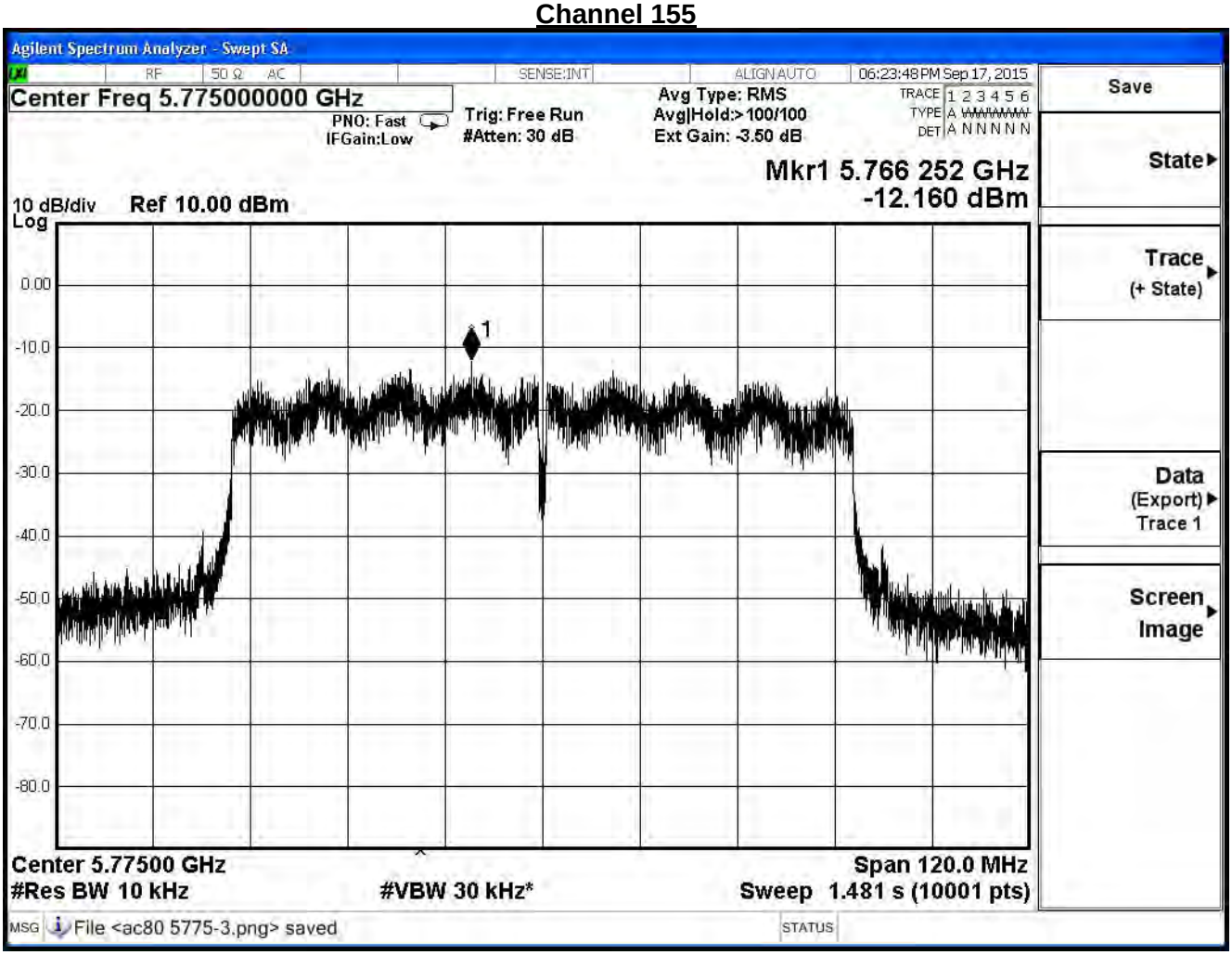
Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/09/17	Test Site	SR7

IEEE 802.11ac_80MHz (ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
155	5775	-12.160	≦6.40	Pass

Directional Antenna: 10log(Ant N)+Max Gain =3+4.6=7.60 dBi

Power Density Limit:8dBm-(7.60dBi-6dB)=6.40 dBm

Channel 155



Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 1: Transmit_CDD Mode_AD890326		
Date of Test	2015/09/17	Test Site	SR7

IEEE802.11ac 80MHz(ANT 0+1+2)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
155	5775	-4.886	≦6.40	Pass

Directional Antenna: 10log(Ant N)+Max Gain =3+4.6=7.60 dBi

Power Density Limit:8dBm-(7.60dBi-6dB)=6.40 dBm

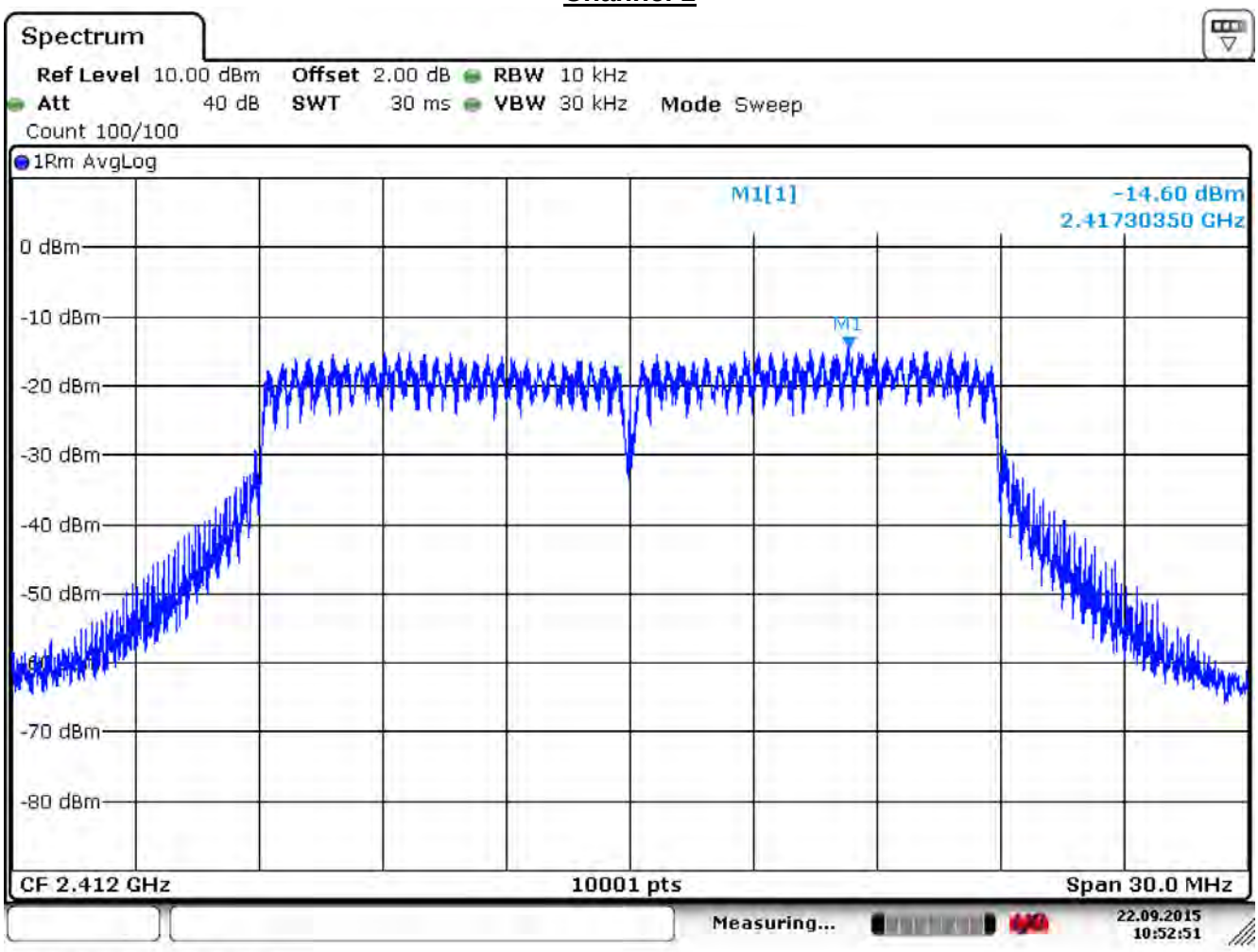
Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 2: Transmit_Beamforming Mode_AD890326		
Date of Test	2015/09/22	Test Site	SR7

IEEE802.11n 20MHz (ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	-14.60	≦7.43	Pass
6	2437	-9.31	≦7.43	Pass
11	2462	-13.73	≦7.43	Pass

Directional Antenna: 10log(Ant N)+Max Gain =3+3.57=6.57 dBi

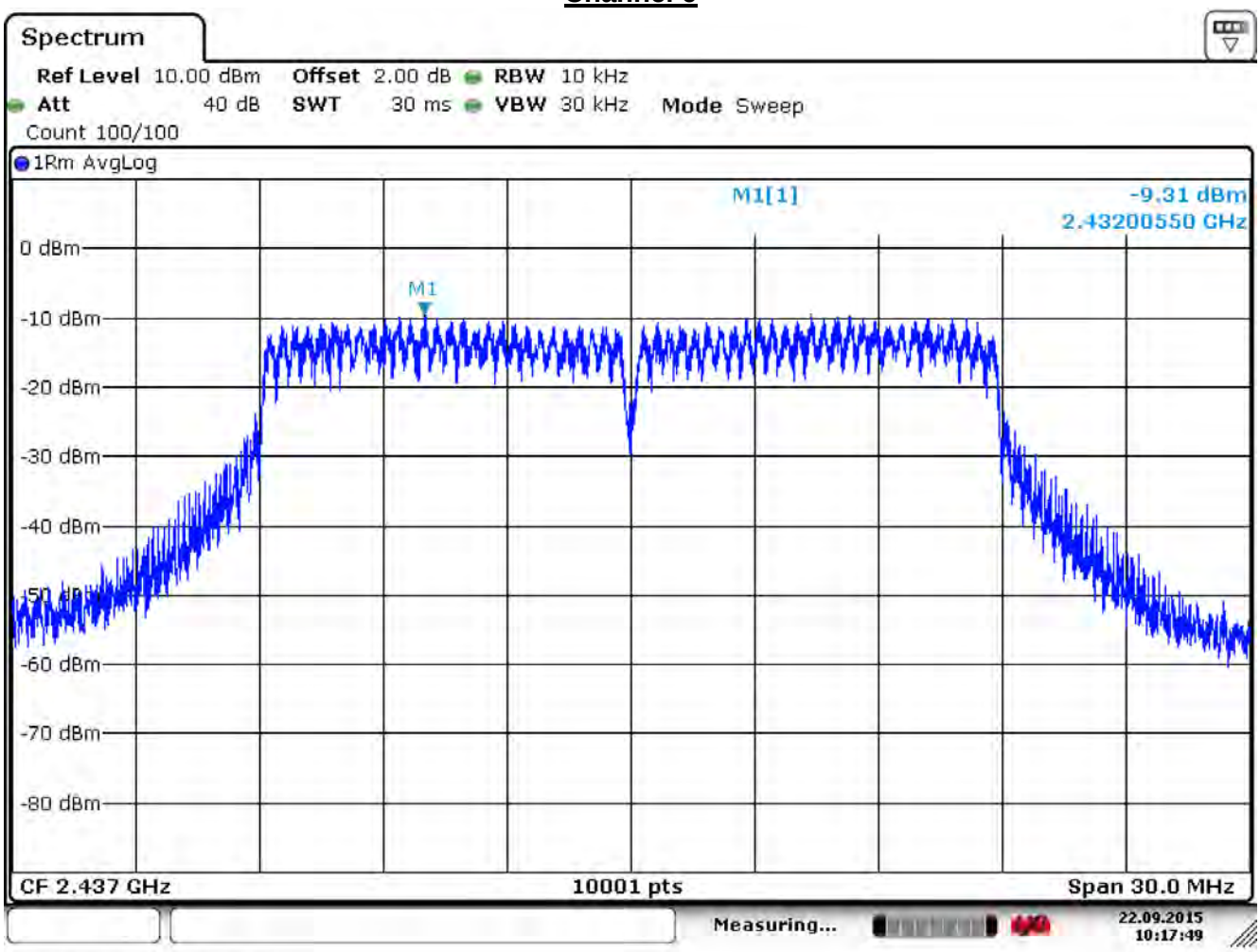
Power Density Limit:8dBm-(6.57dBi-6dB)=7.43 dBm

Channel 1



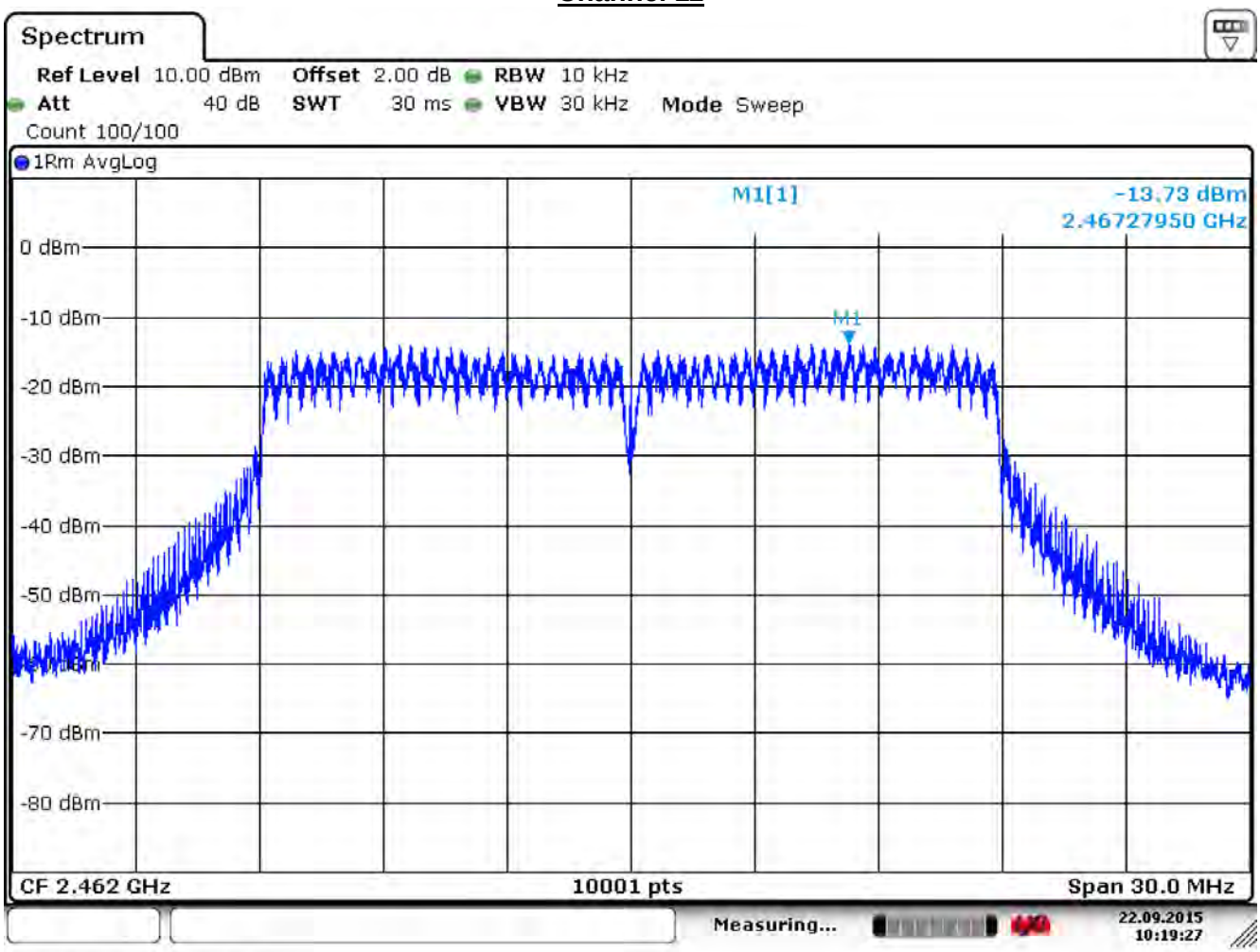
Date: 22.SEP.2015 10:52:52

Channel 6



Date: 22.SEP.2015 10:17:50

Channel 11



Date: 22.SEP.2015 10:19:27

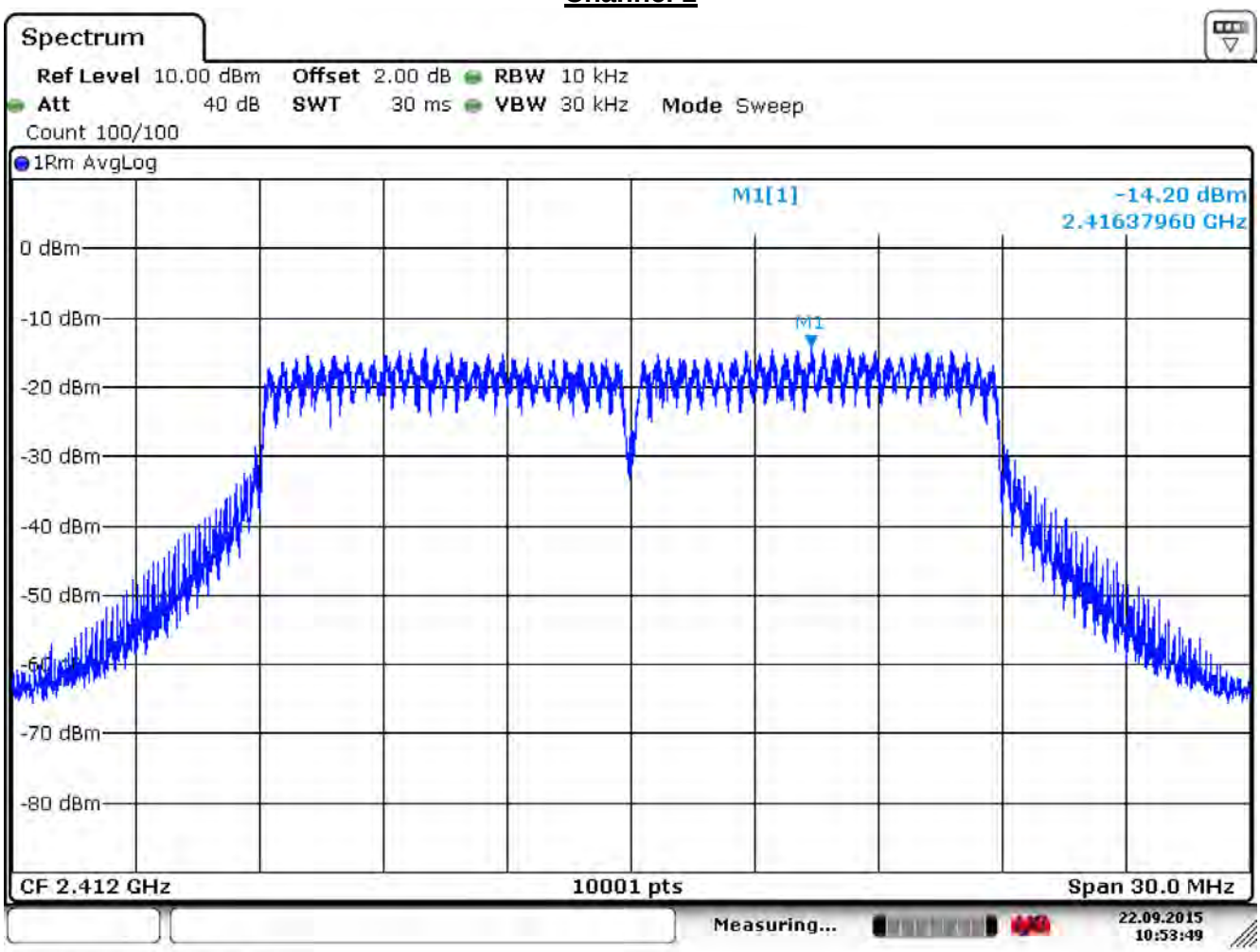
Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 2: Transmit_Beamforming Mode_AD890326		
Date of Test	2015/09/22	Test Site	SR7

IEEE802.11n 20MHz (ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	-14.20	≦7.43	Pass
6	2437	-9.79	≦7.43	Pass
11	2462	-13.84	≦7.43	Pass

Directional Antenna: 10log(Ant N)+Max Gain =3+3.57=6.57 dBi

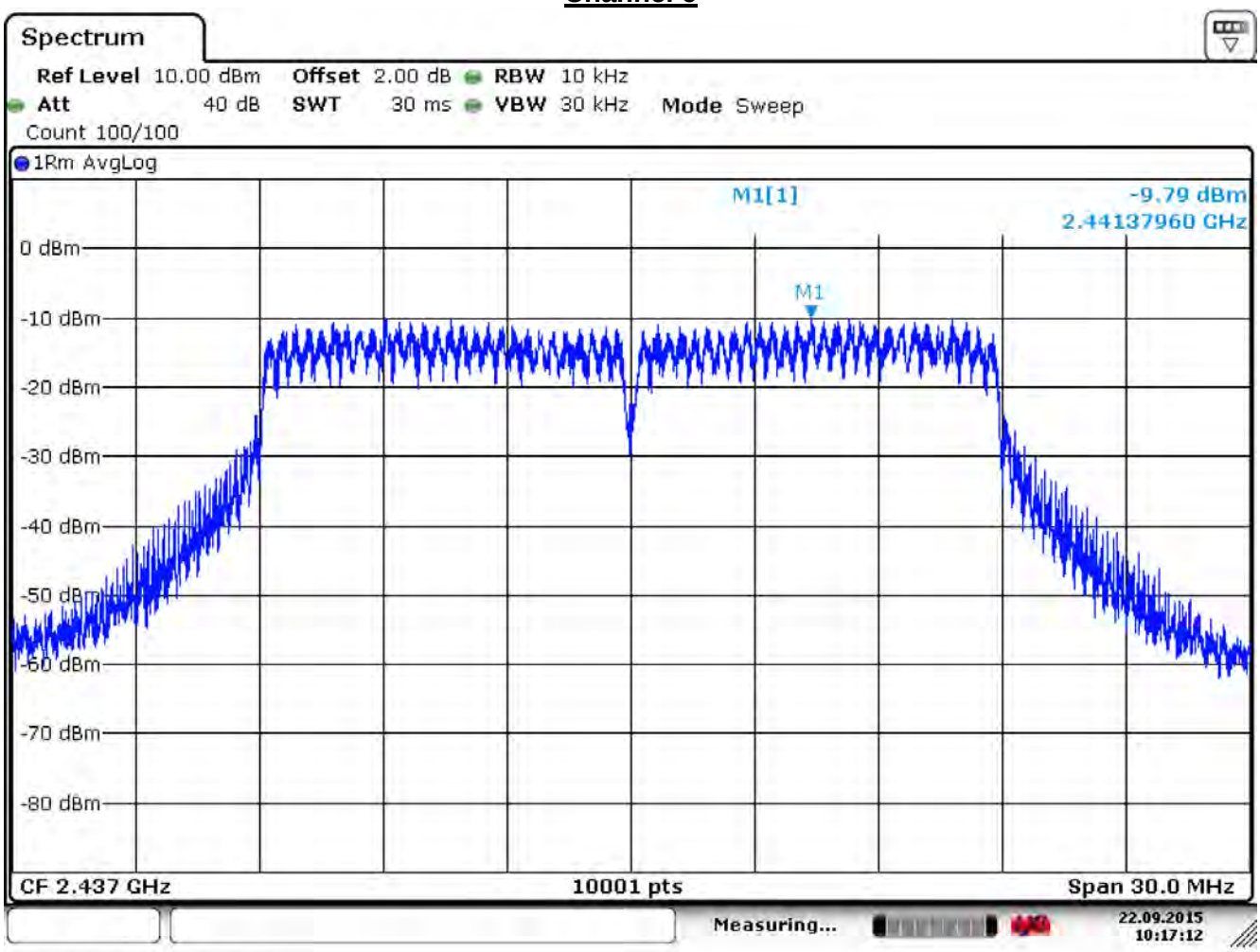
Power Density Limit:8dBm-(6.57dBi-6dB)=7.43 dBm

Channel 1



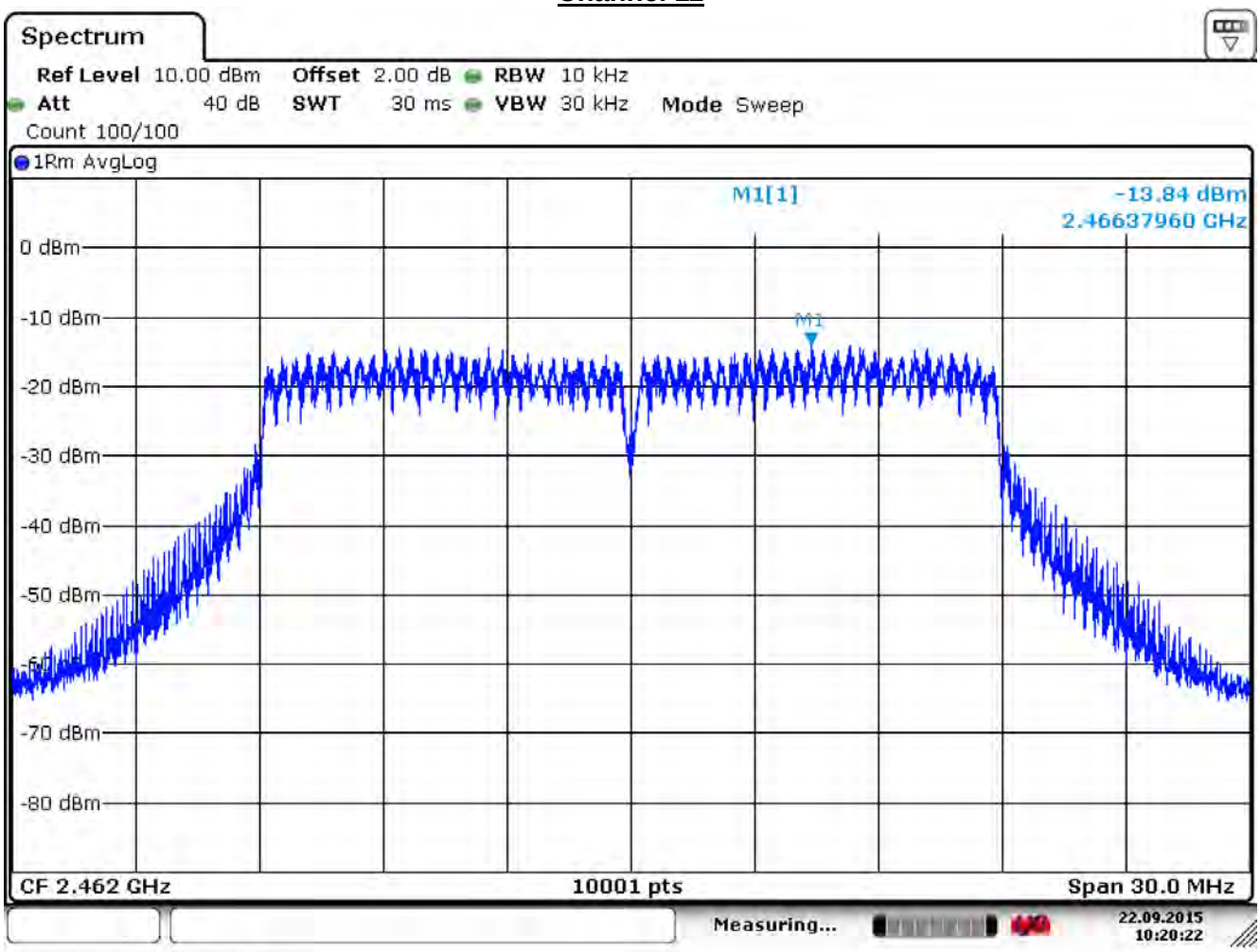
Date: 22.SEP.2015 10:53:49

Channel 6



Date: 22.SEP.2015 10:17:12

Channel 11



Date: 22.SEP.2015 10:20:23

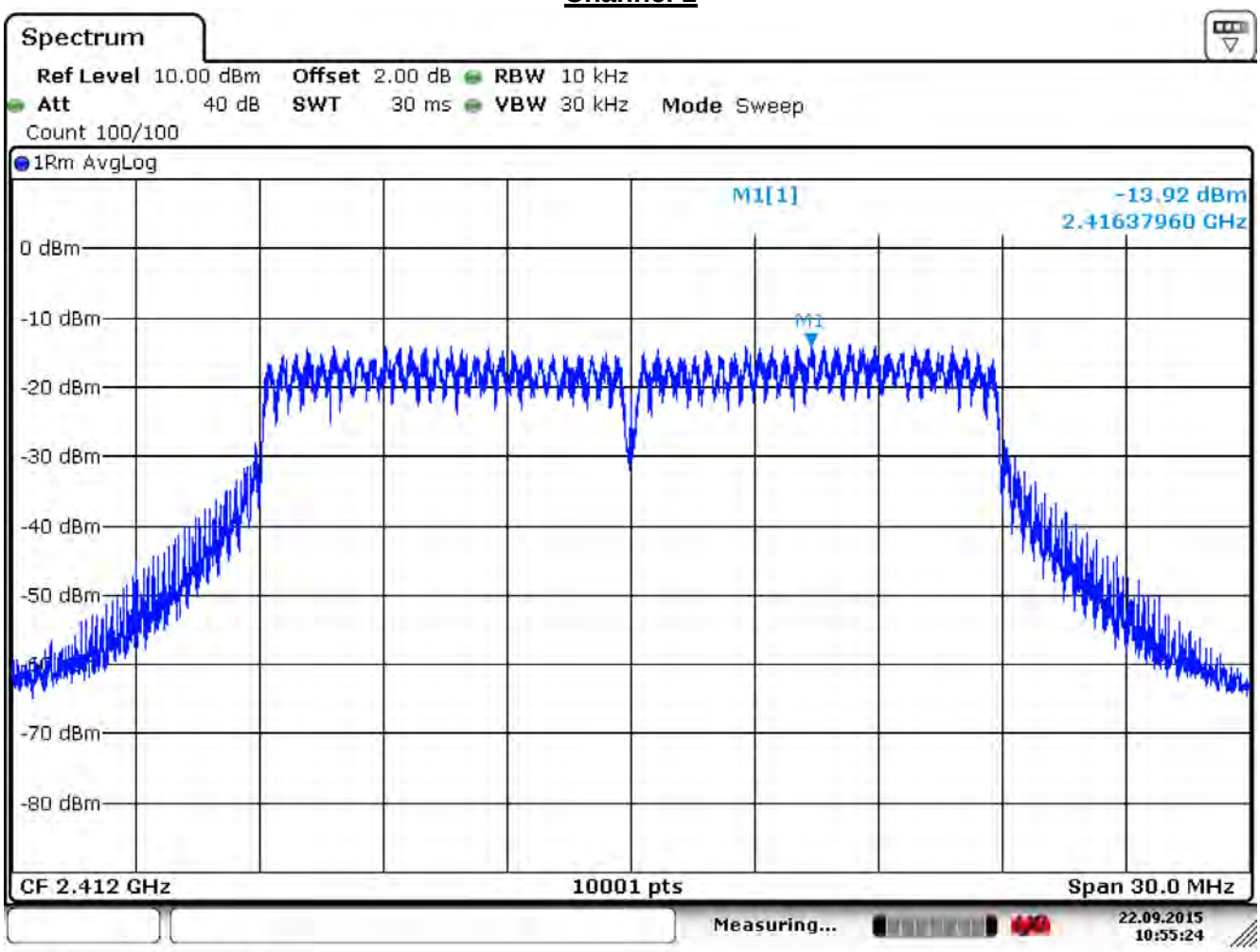
Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 2: Transmit_Beamforming Mode_AD890326		
Date of Test	2015/09/22	Test Site	SR7

IEEE802.11n 20MHz (ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	-13.92	≦7.43	Pass
6	2437	-9.18	≦7.43	Pass
11	2462	-13.81	≦7.43	Pass

Directional Antenna: 10log(Ant N)+Max Gain =3+3.57=6.57 dBi

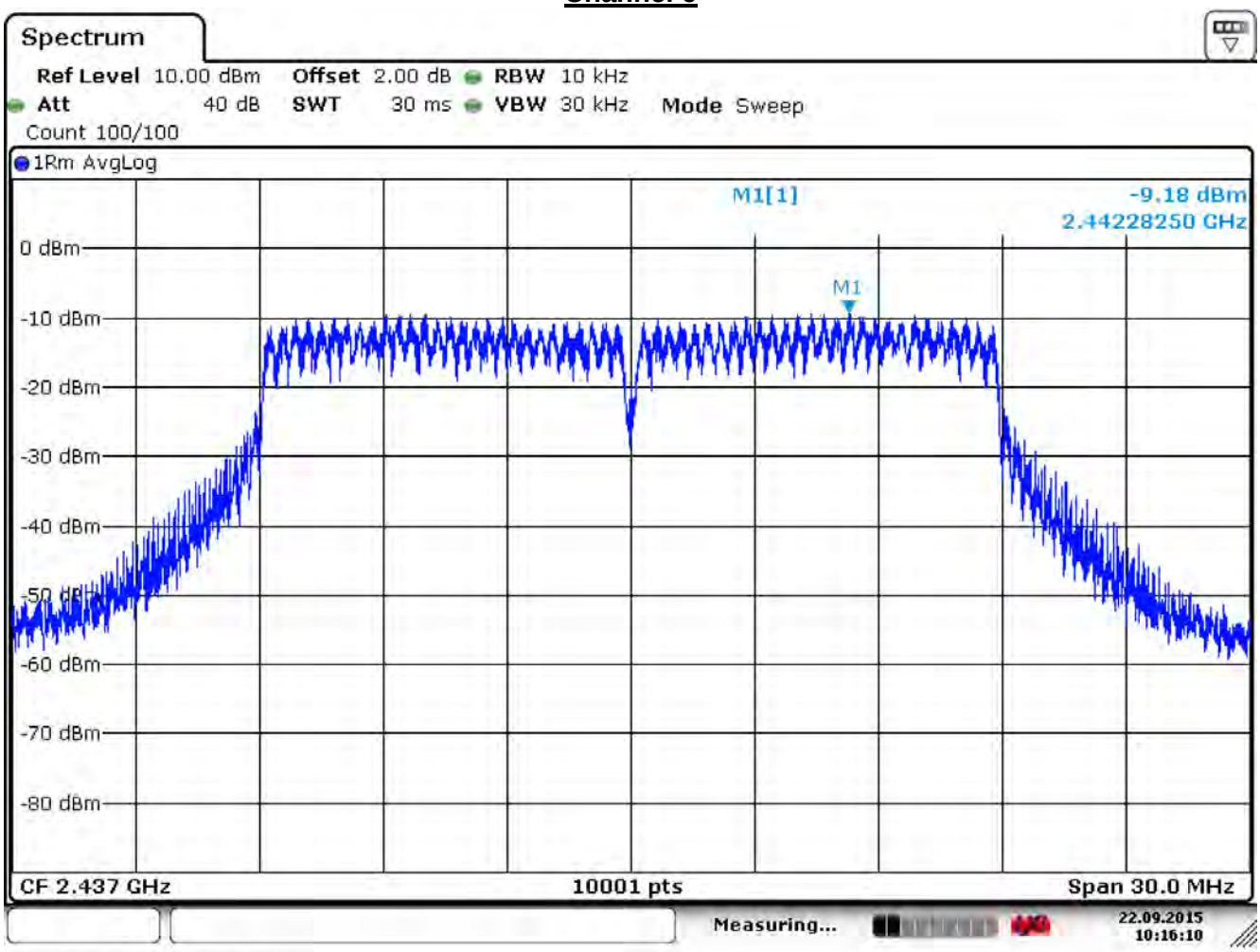
Power Density Limit:8dBm-(6.57dBi-6dB)=7.43 dBm

Channel 1



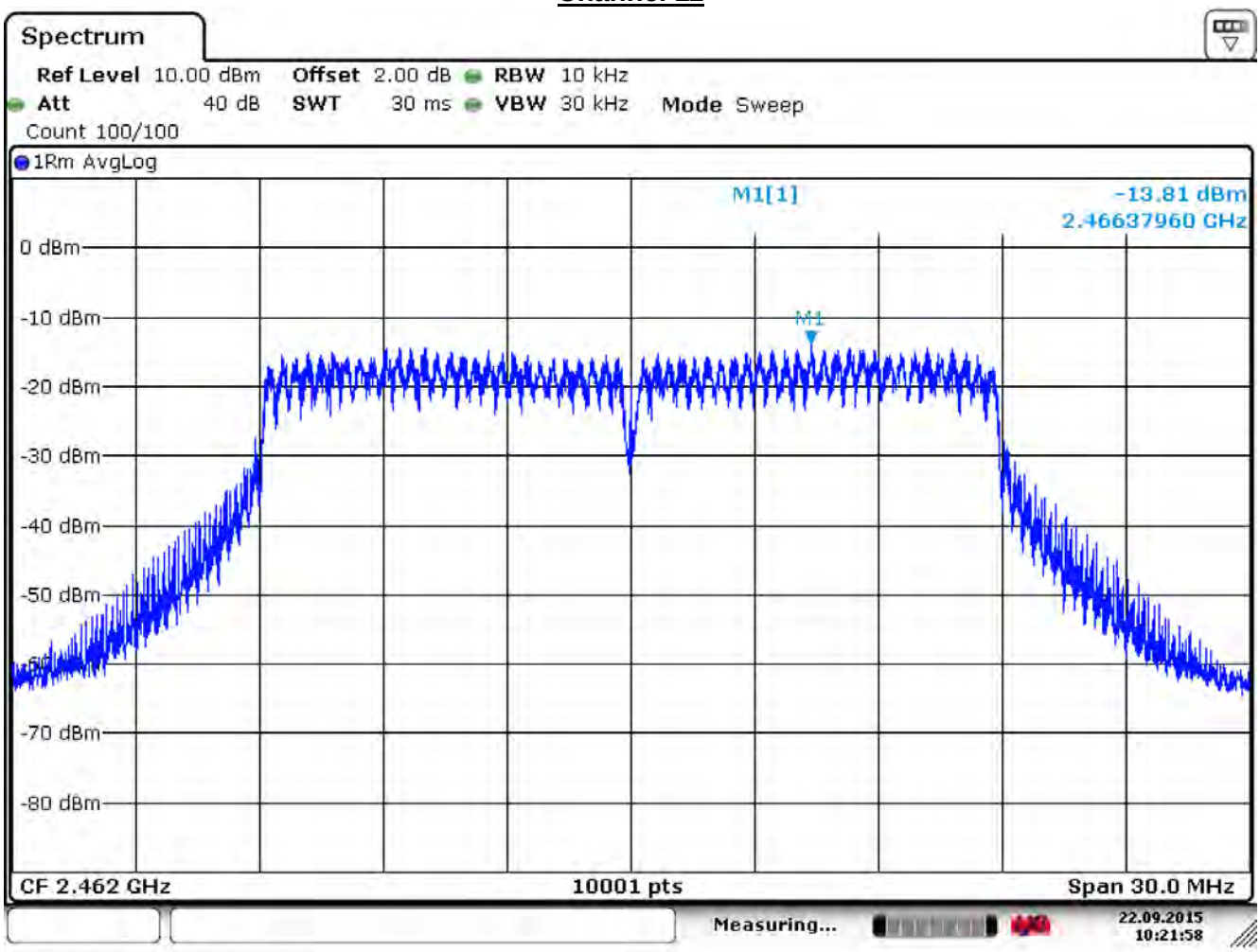
Date: 22.SEP.2015 10:55:25

Channel 6



Date: 22.SEP.2015 10:16:10

Channel 11



Date: 22.SEP.2015 10:21:57

Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 2: Transmit_Beamforming Mode_AD890326		
Date of Test	2015/09/22	Test Site	SR7

IEEE802.11n 20MHz (ANT 0+1+2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
1	2412	-9.46	≦7.43	Pass
6	2437	-4.65	≦7.43	Pass
11	2462	-9.02	≦7.43	Pass

Directional Antenna: 10log(Ant N)+Max Gain =3+3.57=6.57 dBi

Power Density Limit:8dBm-(6.57dBi-6dB)=7.43 dBm

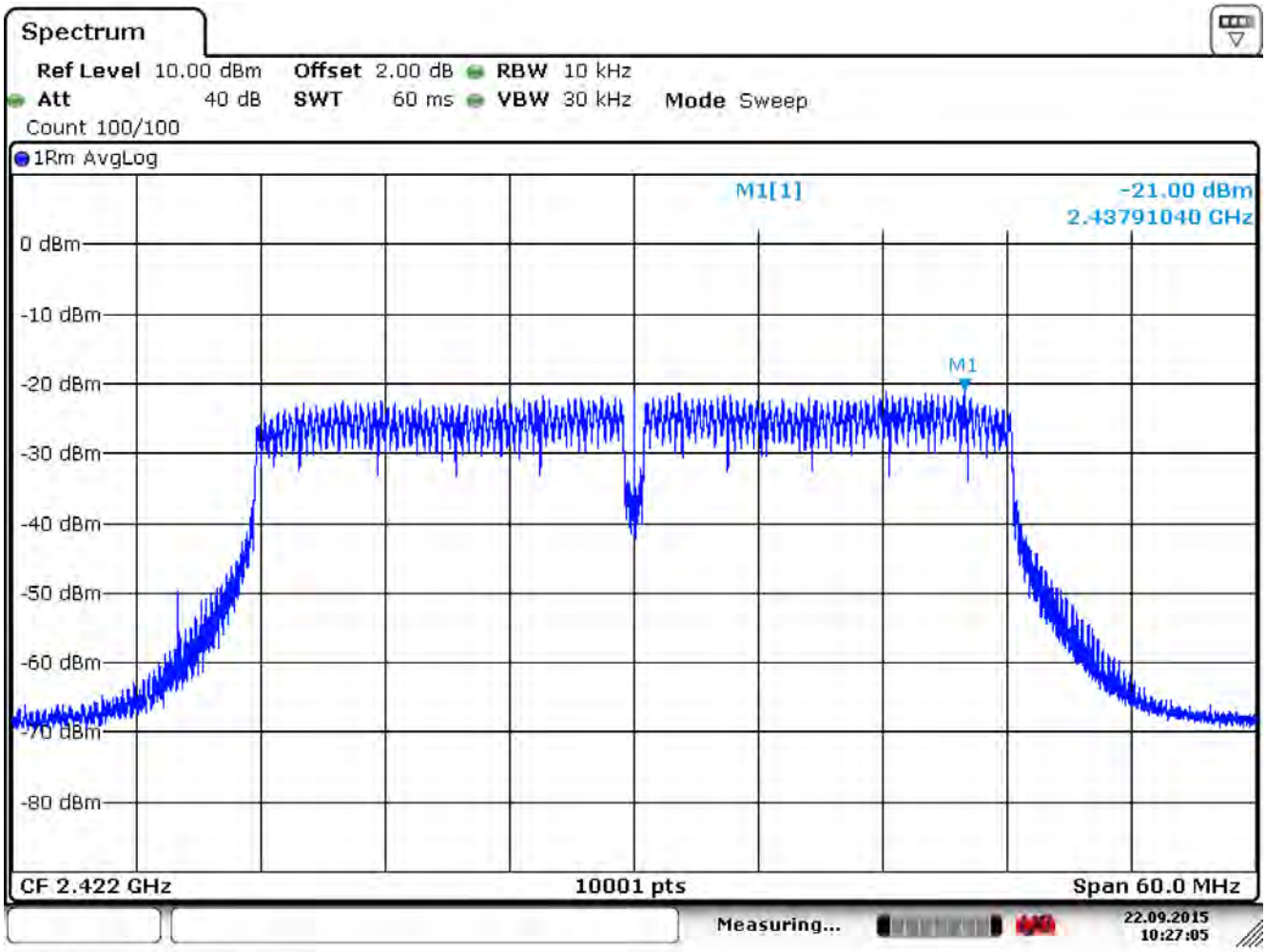
Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 2: Transmit_Beamforming Mode_AD890326		
Date of Test	2015/09/22	Test Site	SR7

IEEE802.11n 40MHz (ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
3	2422	-21.00	≦7.43	Pass
6	2437	-16.30	≦7.43	Pass
9	2452	-17.16	≦7.43	Pass

Directional Antenna: 10log(Ant N)+Max Gain =3+3.57=6.57 dBi

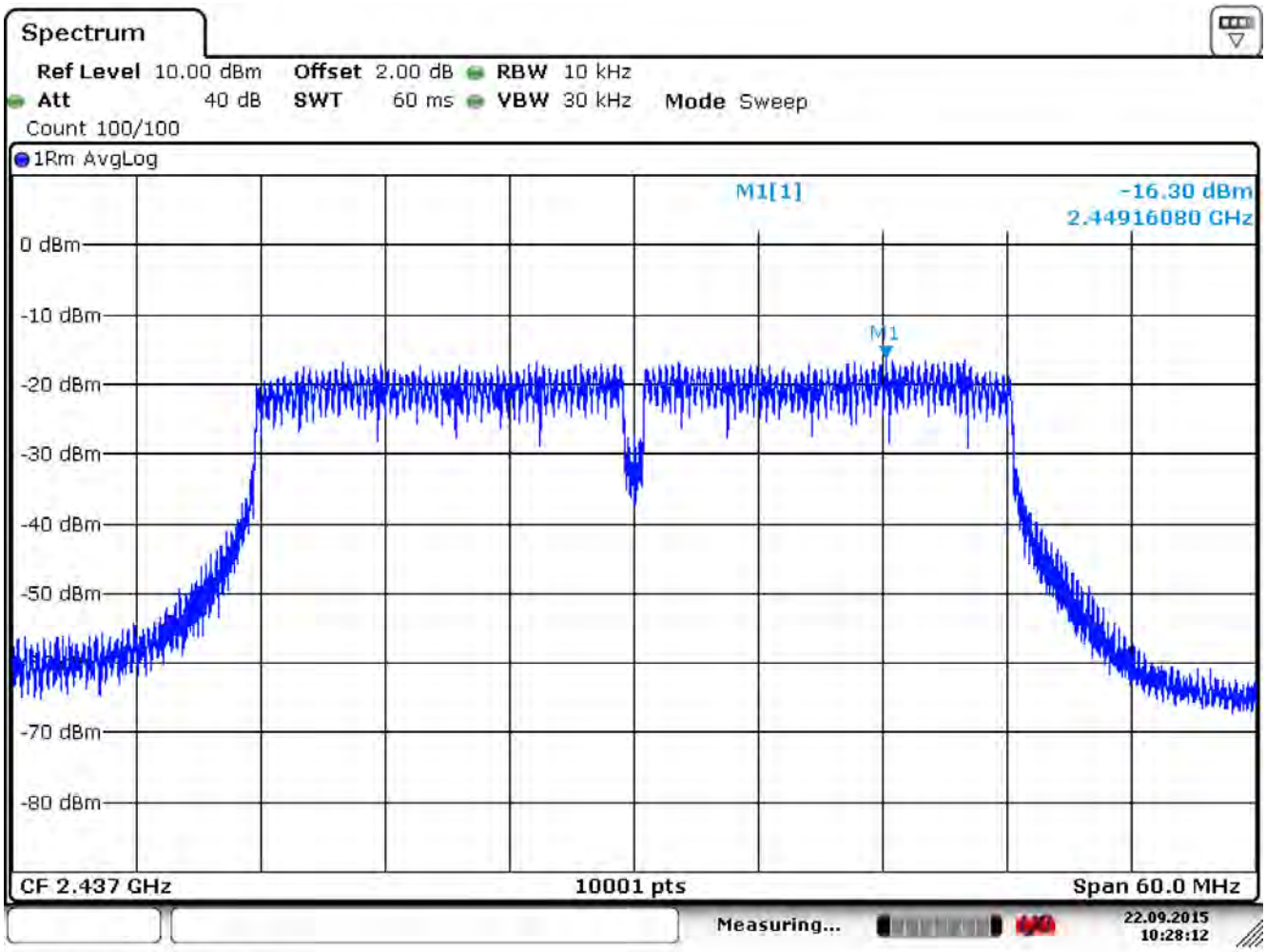
Power Density Limit:8dBm-(6.57dBi-6dB)=7.43 dBm

Channel 3



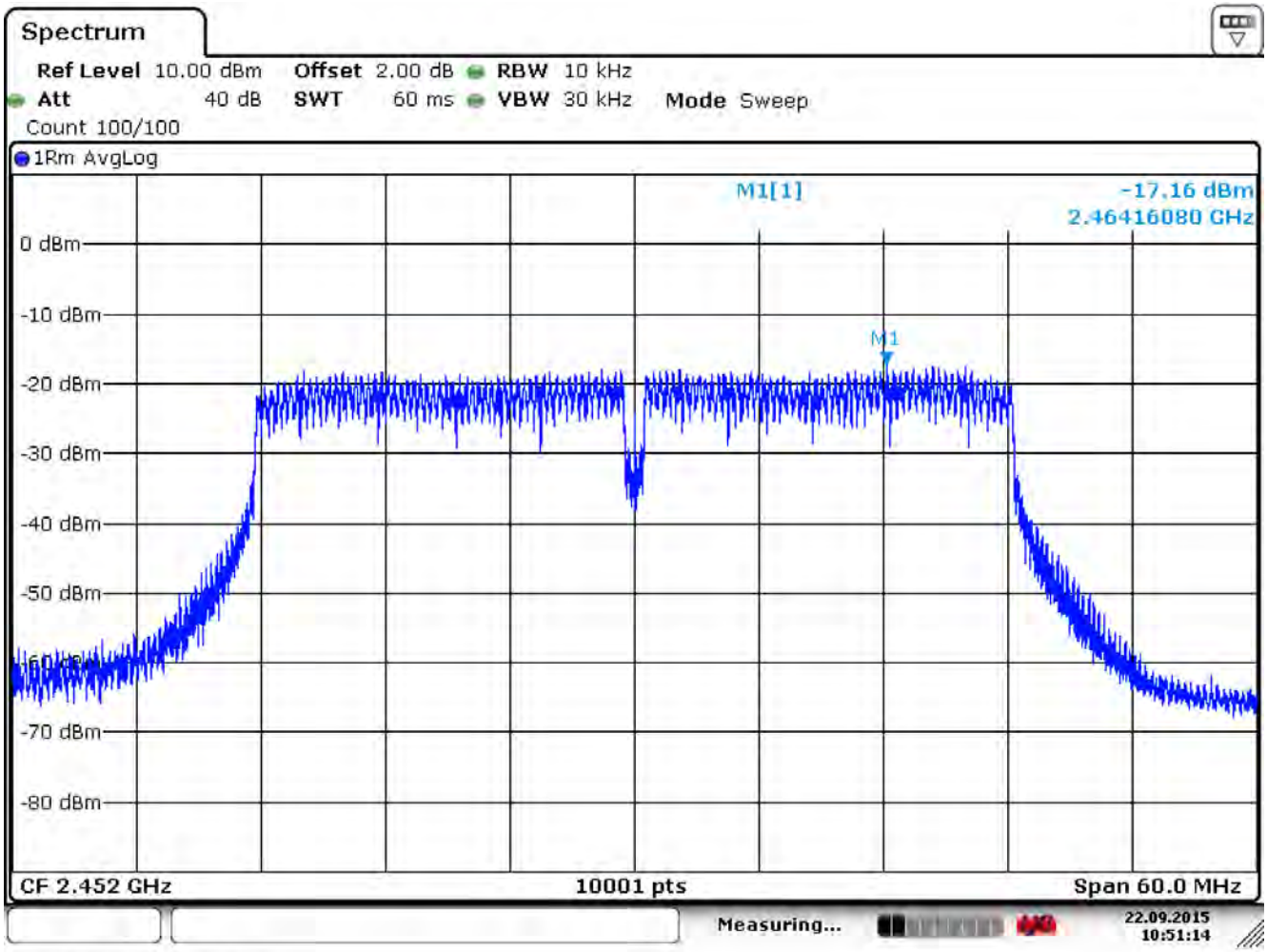
Date: 22.SEP.2015 10:27:05

Channel 6



Date: 22.SEP.2015 10:28:12

Channel 9



Date: 22.SEP.2015 10:51:14

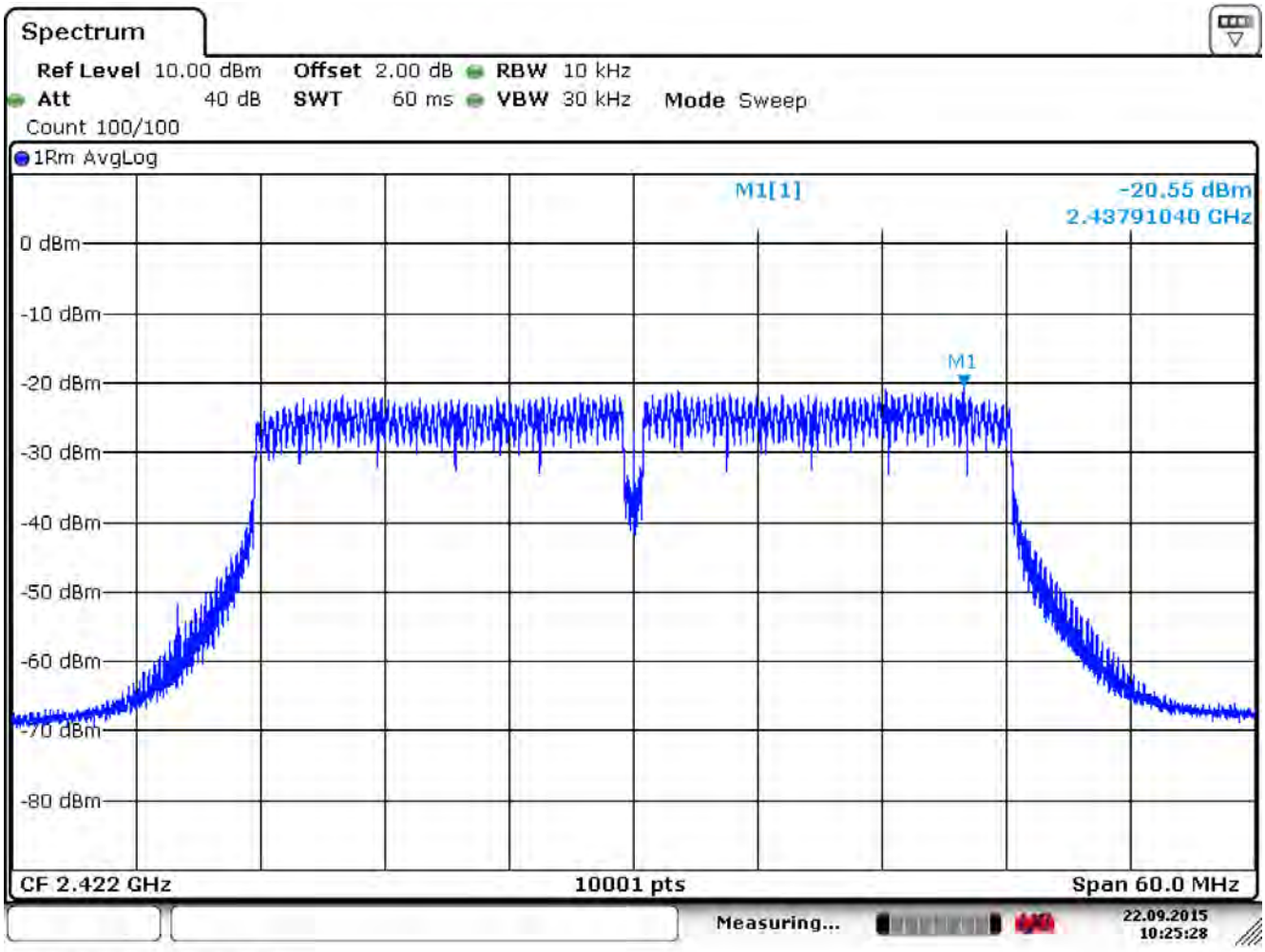
Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 2: Transmit_Beamforming Mode_AD890326		
Date of Test	2015/09/22	Test Site	SR7

IEEE802.11n 40MHz (ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
3	2422	-20.55	≦7.43	Pass
6	2437	-16.02	≦7.43	Pass
9	2452	-17.41	≦7.43	Pass

Directional Antenna: 10log(Ant N)+Max Gain =3+3.57=6.57 dBi

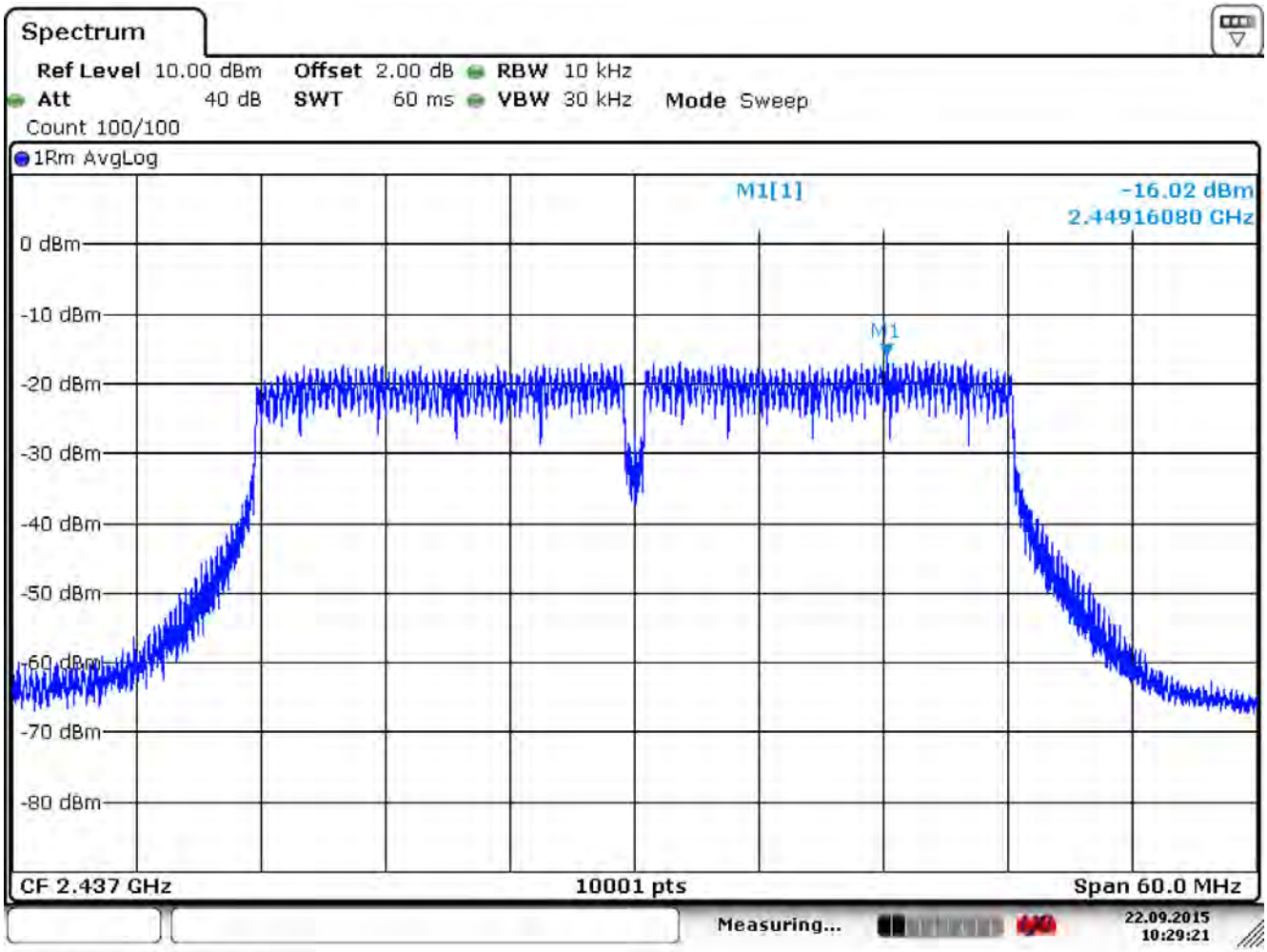
Power Density Limit:8dBm-(6.57dBi-6dB)=7.43 dBm

Channel 3



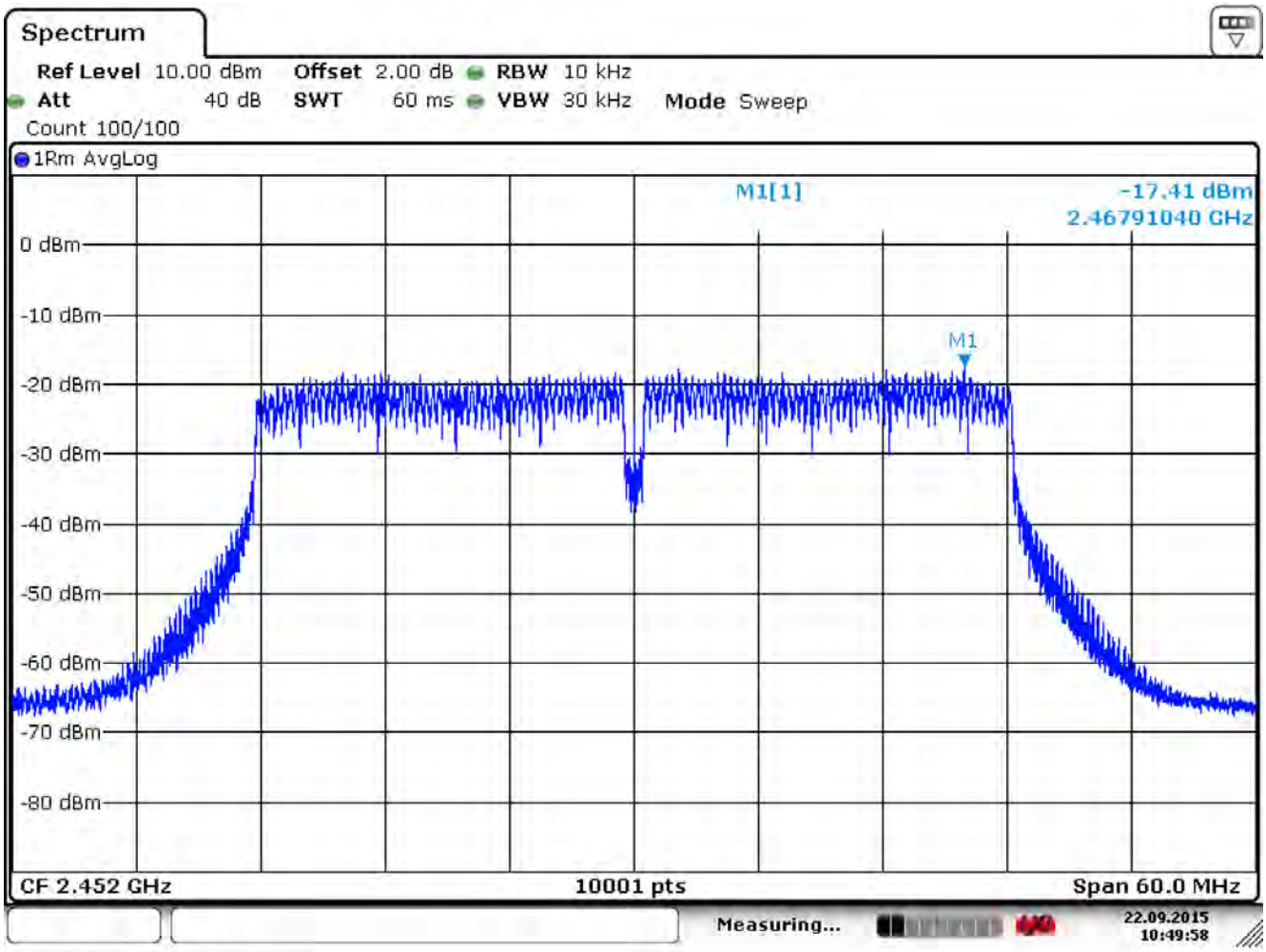
Date: 22.SEP.2015 10:25:28

Channel 6



Date: 22.SEP.2015 10:29:21

Channel 9



Date: 22.SEP.2015 10:49:58

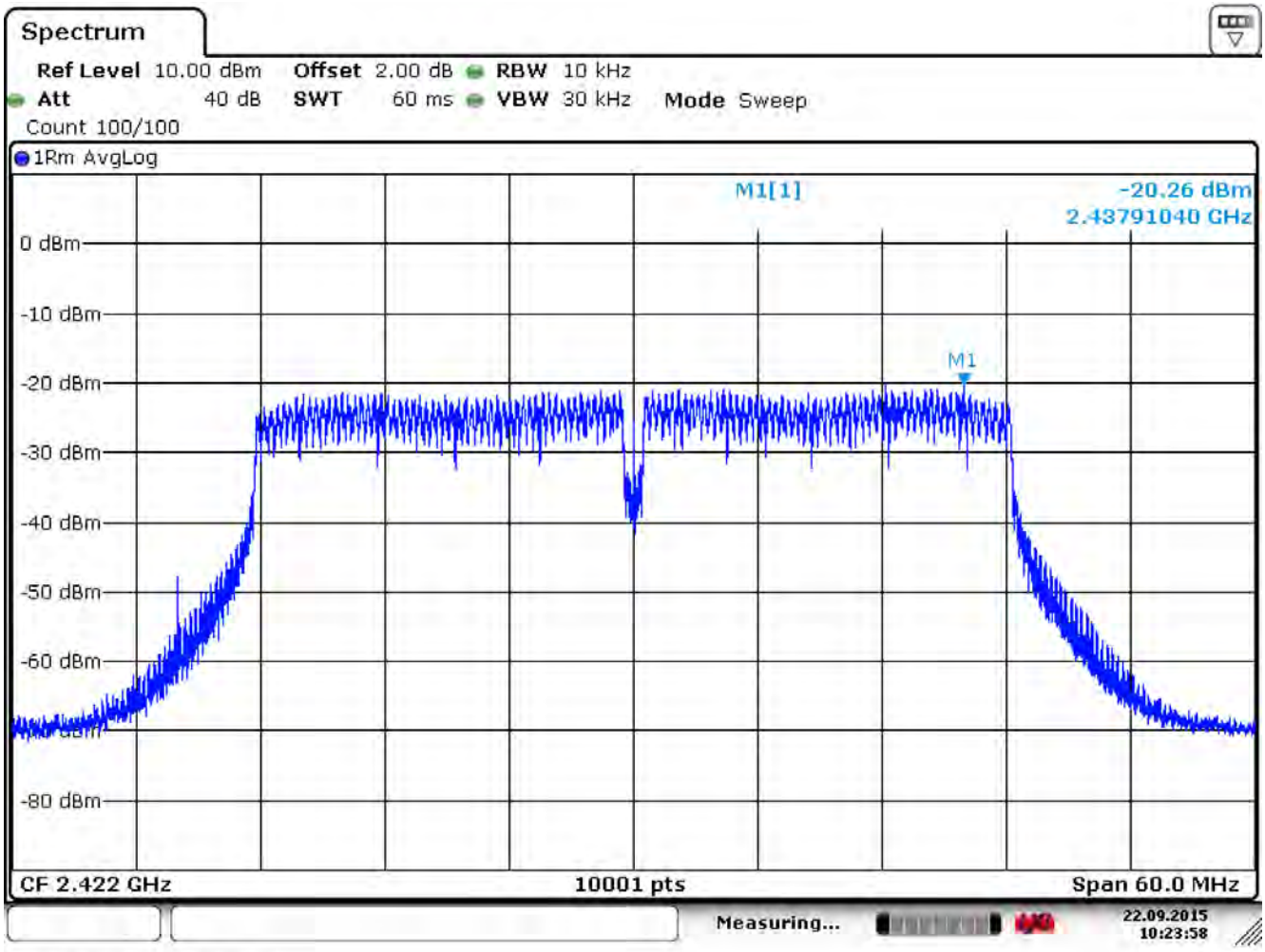
Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 2: Transmit_Beamforming Mode_AD890326		
Date of Test	2015/09/22	Test Site	SR7

IEEE802.11n 40MHz (ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
3	2422	-20.26	≦7.43	Pass
6	2437	-15.62	≦7.43	Pass
9	2452	-16.98	≦7.43	Pass

Directional Antenna: 10log(Ant N)+Max Gain =3+3.57=6.57 dBi

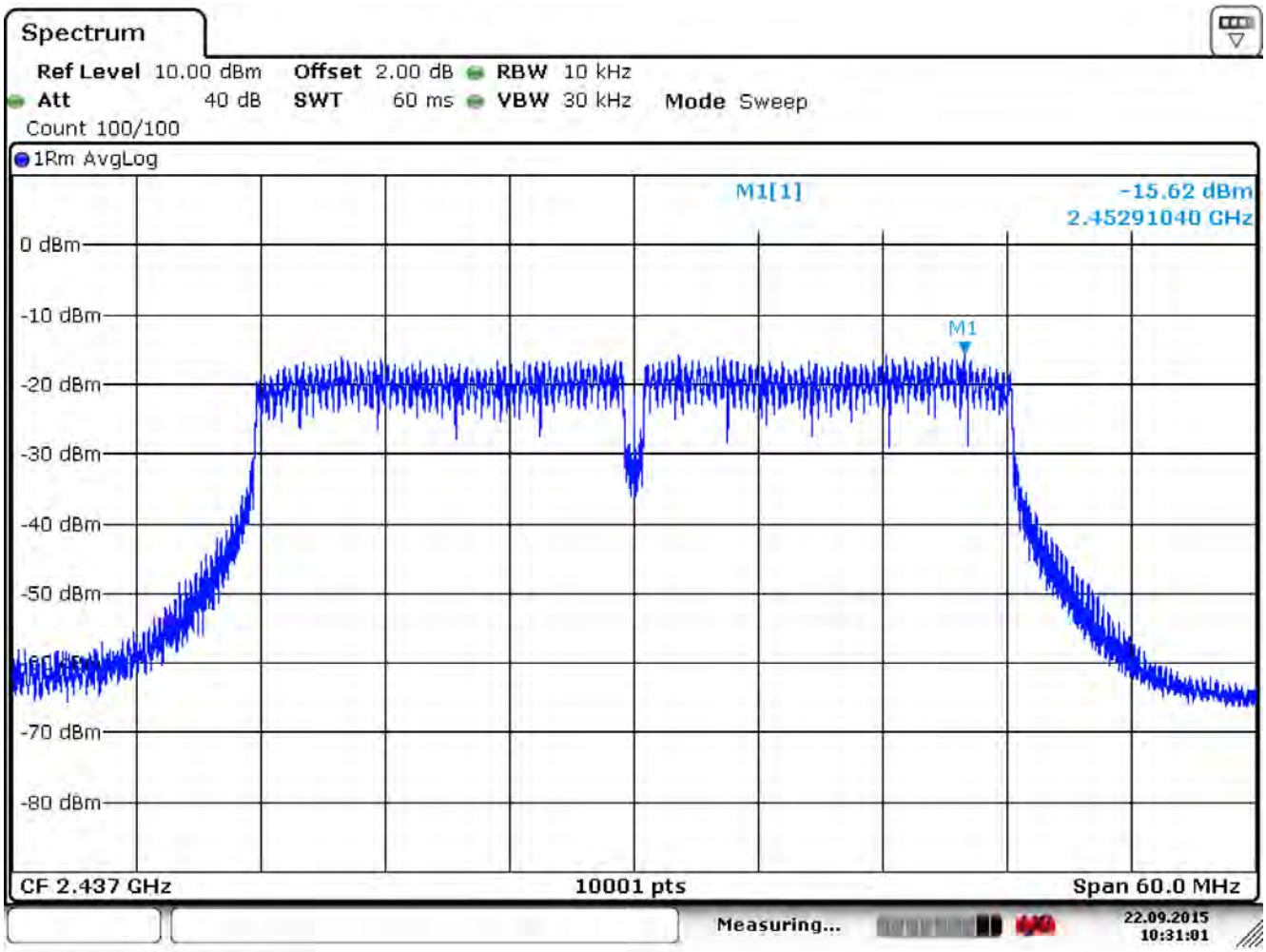
Power Density Limit:8dBm-(6.57dBi-6dB)=7.43 dBm

Channel 3



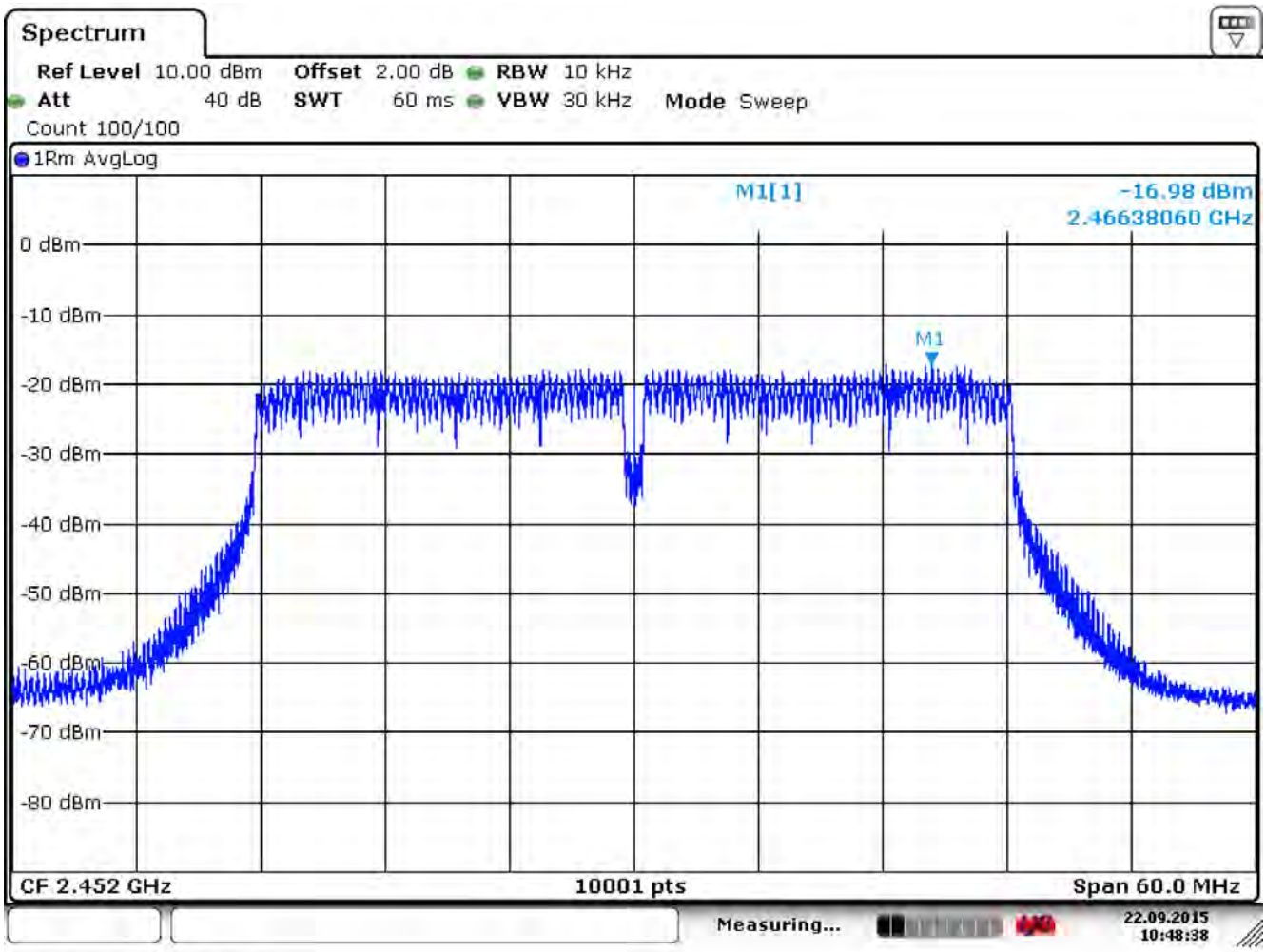
Date: 22.SEP.2015 10:23:59

Channel 6



Date: 22.SEP.2015 10:31:02

Channel 9



Date: 22.SEP.2015 10:48:38

Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 2: Transmit_Beamforming Mode_AD890326		
Date of Test	2015/09/22	Test Site	SR7

IEEE802.11n 40MHz (ANT 0+1+2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
3	2422	-15.82	≦7.43	Pass
6	2437	-11.20	≦7.43	Pass
9	2452	-12.41	≦7.43	Pass

Directional Antenna: 10log(Ant N)+Max Gain =3+3.57=6.57 dBi

Power Density Limit:8dBm-(6.57dBi-6dB)=7.43 dBm

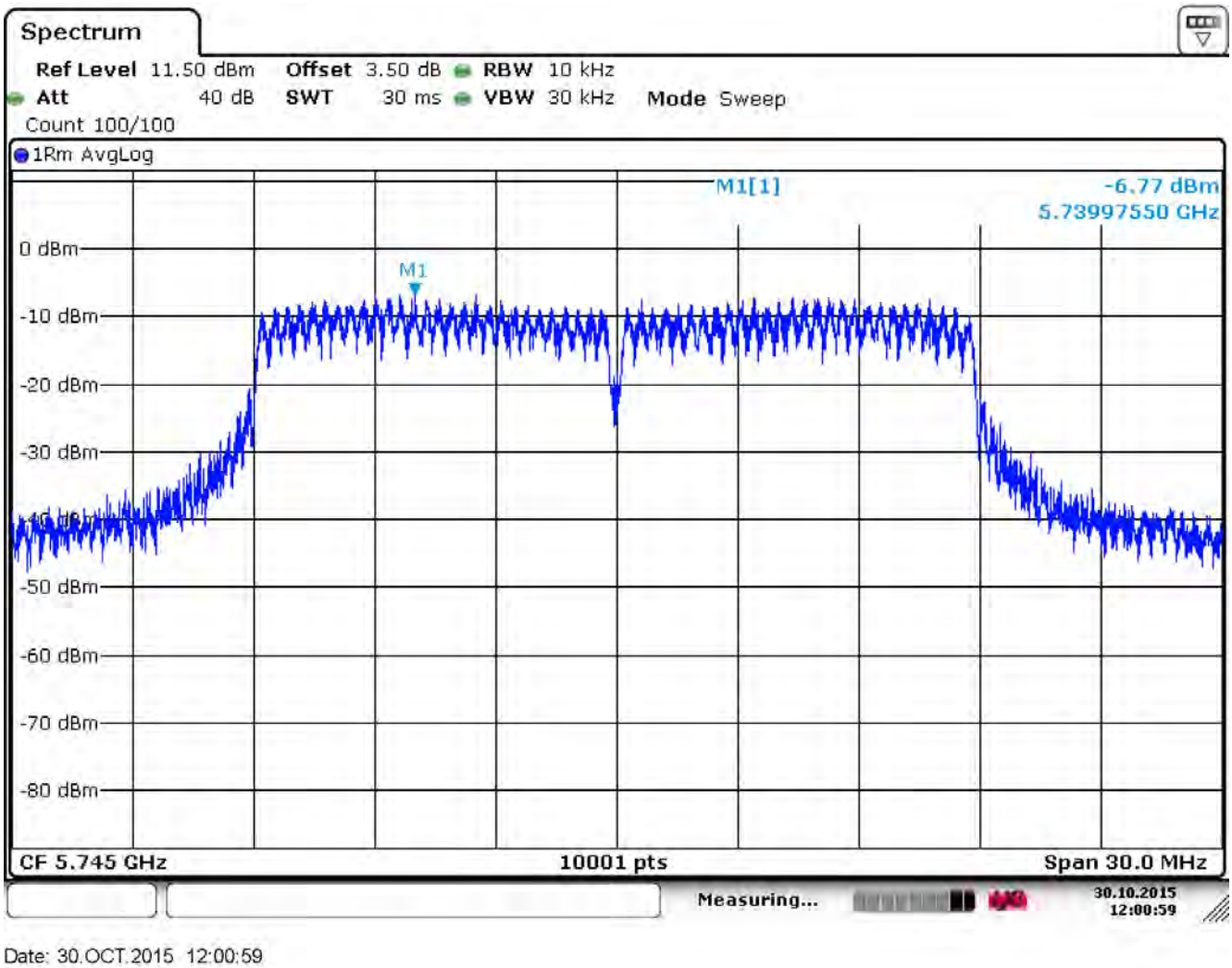
Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 2: Transmit_Beamforming Mode_AD890326		
Date of Test	2015/09/22	Test Site	SR7

IEEE802.11n_20MHz_(ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
149	5745	-6.77	≦6.40	Pass
157	5785	-5.14	≦6.40	Pass
165	5825	-5.56	≦6.40	Pass

Directional Antenna: 10log(Ant N)+Max Gain =3+4.6=7.60 dBi

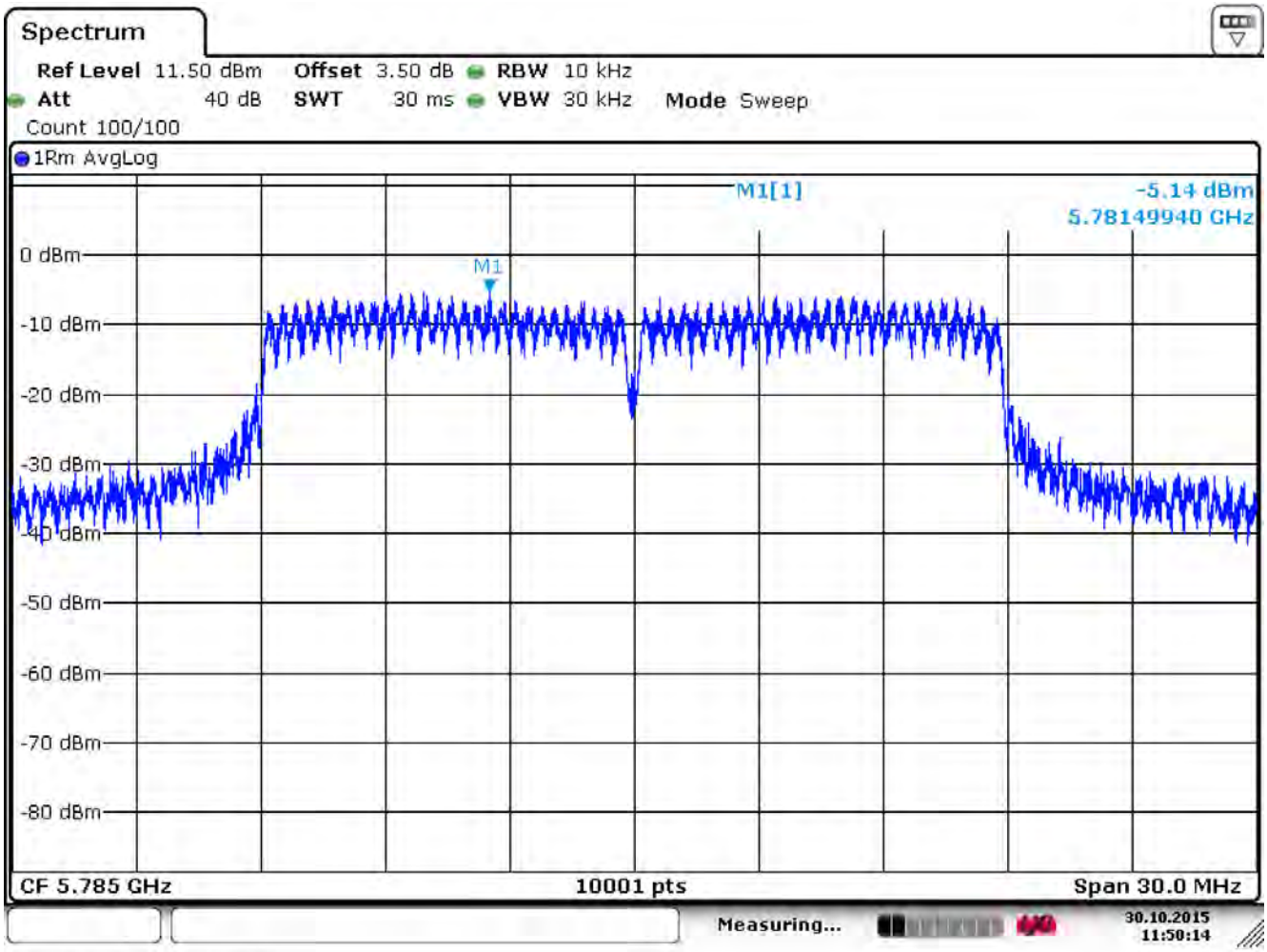
Power Density Limit:8dBm-(7.60dBi-6dB)=6.40 dBm

Channel 149



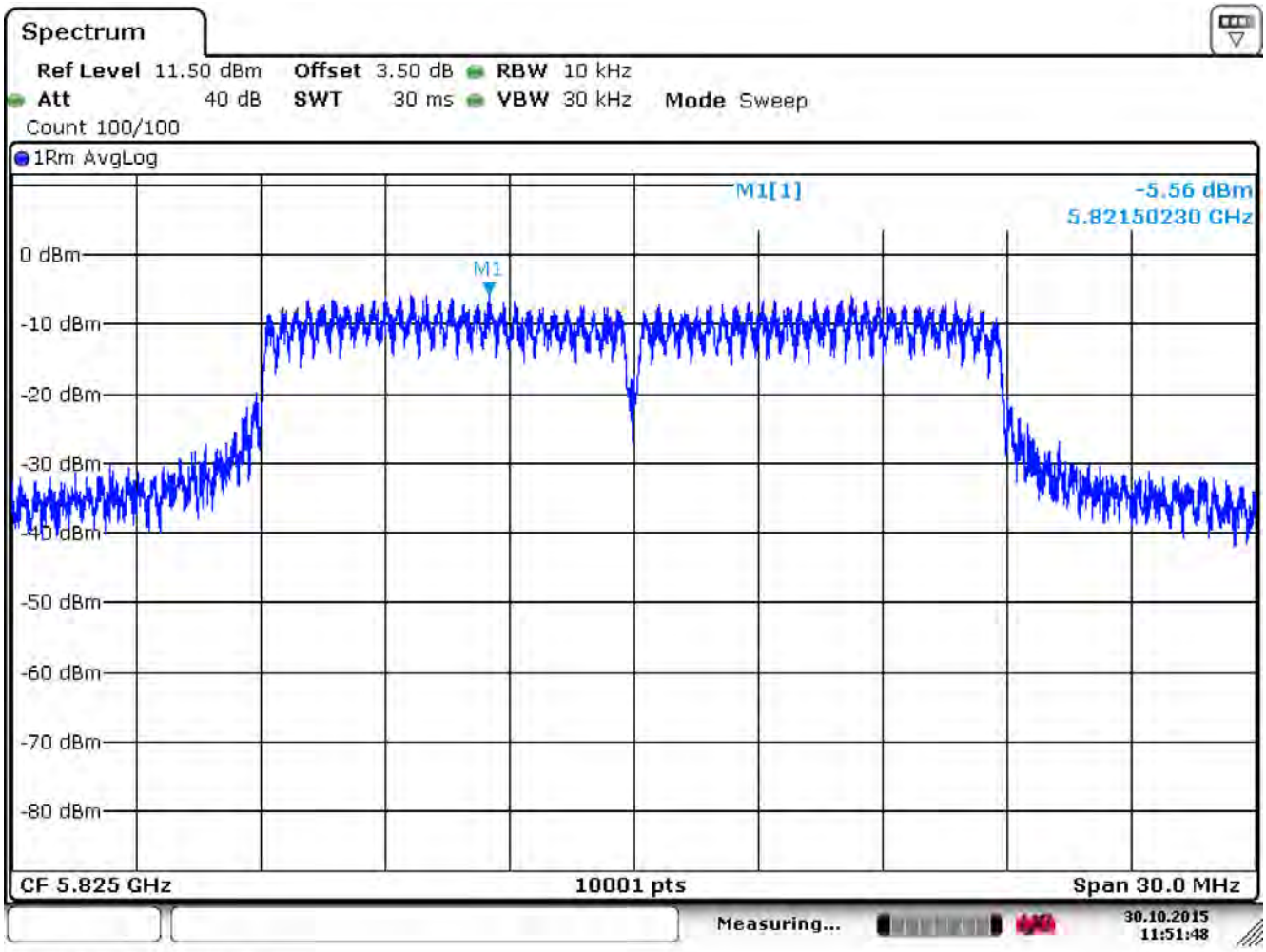
Date: 30.OCT.2015 12:00:59

Channel 157



Date: 30.OCT.2015 11:50:14

Channel 165



Date: 30.OCT.2015 11:51:48

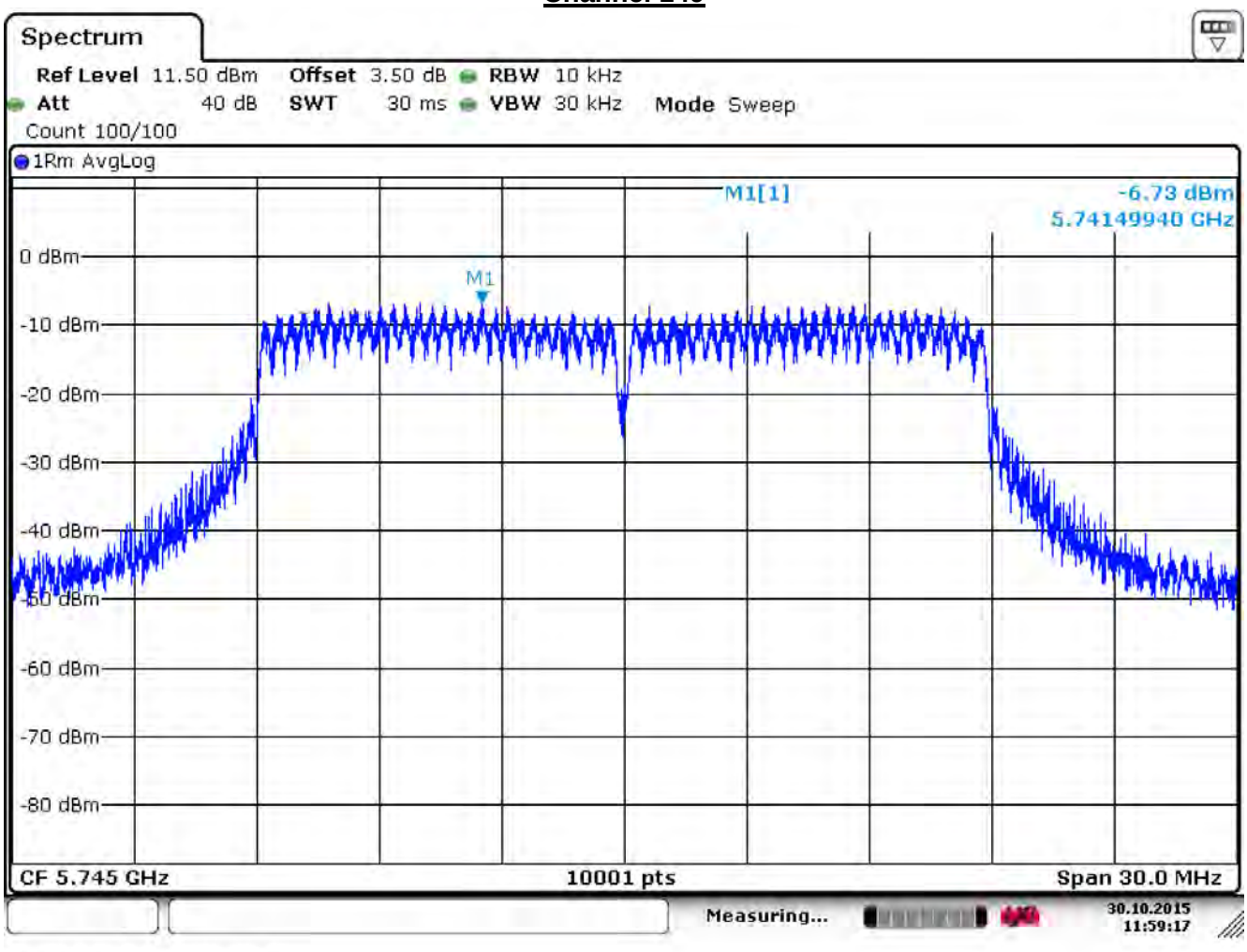
Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 2: Transmit_Beamforming Mode_AD890326		
Date of Test	2015/09/22	Test Site	SR7

IEEE802.11n_20MHz_(ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
149	5745	-6.73	≦6.40	Pass
157	5785	-5.36	≦6.40	Pass
165	5825	-5.36	≦6.40	Pass

Directional Antenna: 10log(Ant N)+Max Gain =3+4.6=7.60 dBi

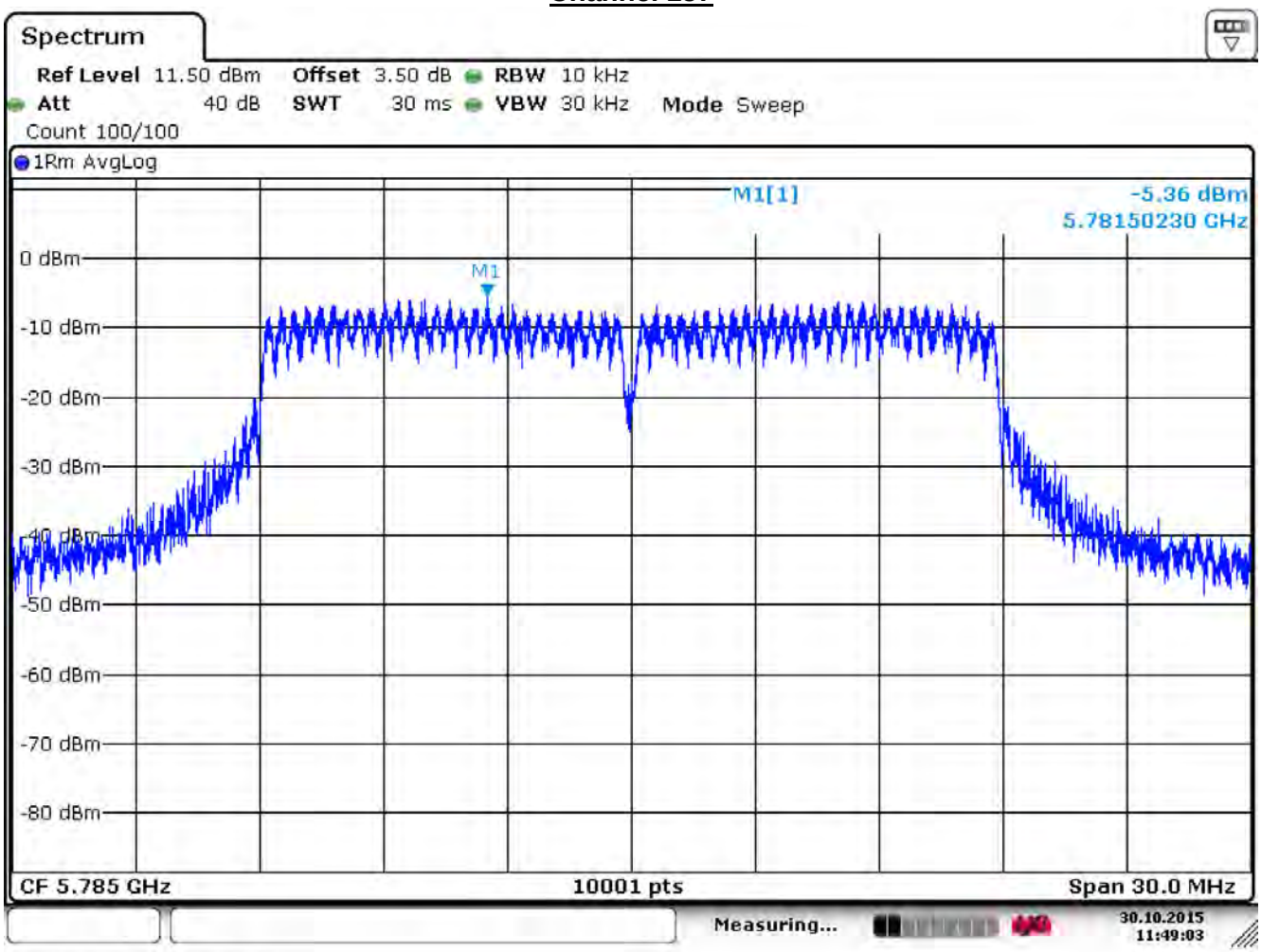
Power Density Limit:8dBm-(7.60dBi-6dB)=6.40 dBm

Channel 149



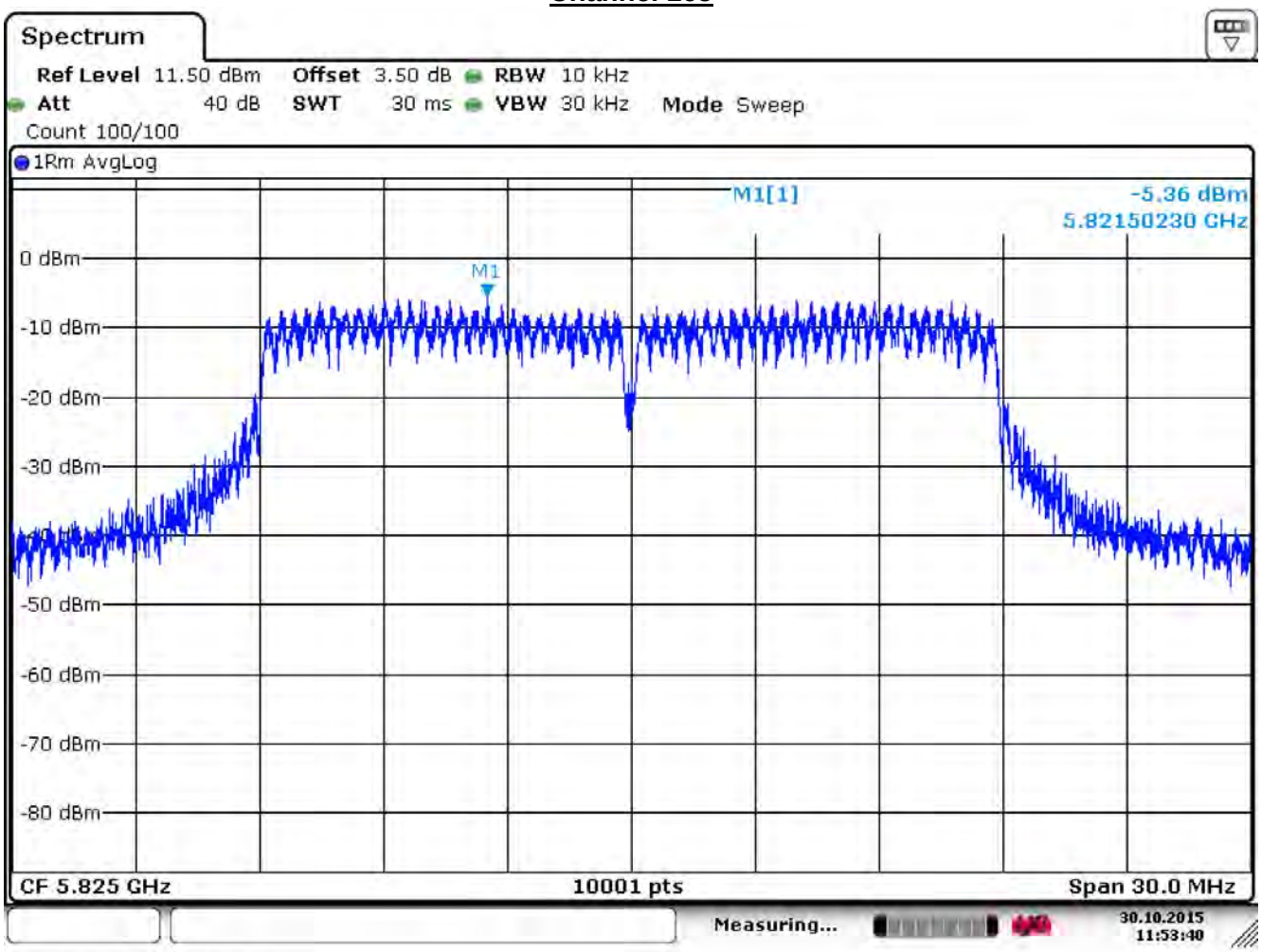
Date: 30.OCT.2015 11:59:17

Channel 157



Date: 30.OCT.2015 11:49:04

Channel 165



Date: 30.OCT.2015 11:53:40

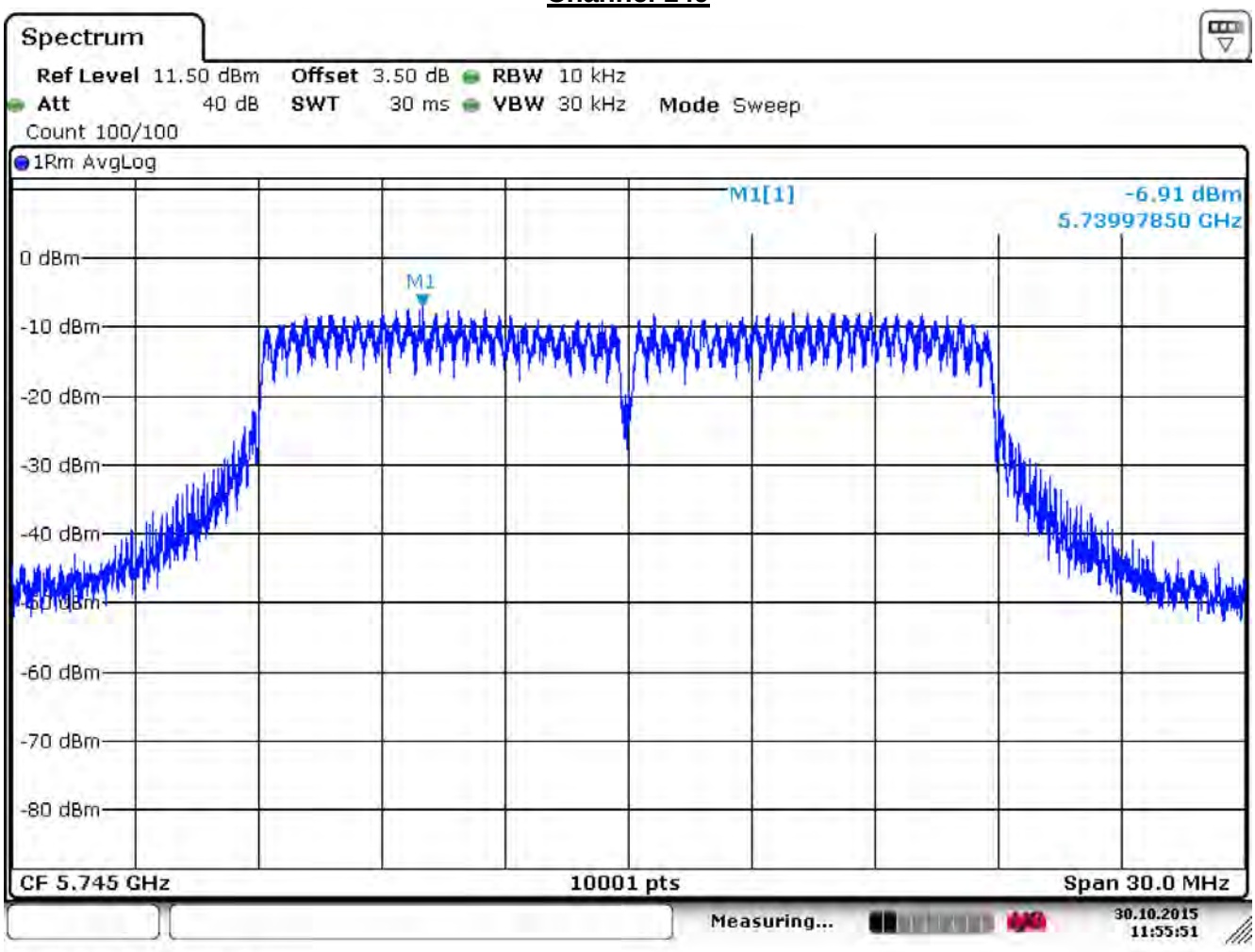
Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 2: Transmit_Beamforming Mode_AD890326		
Date of Test	2015/09/22	Test Site	SR7

IEEE802.11n_20MHz_(ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
149	5745	-6.91	≦6.40	Pass
157	5785	-5.96	≦6.40	Pass
165	5825	-5.55	≦6.40	Pass

Directional Antenna: 10log(Ant N)+Max Gain =3+4.6=7.60 dBi

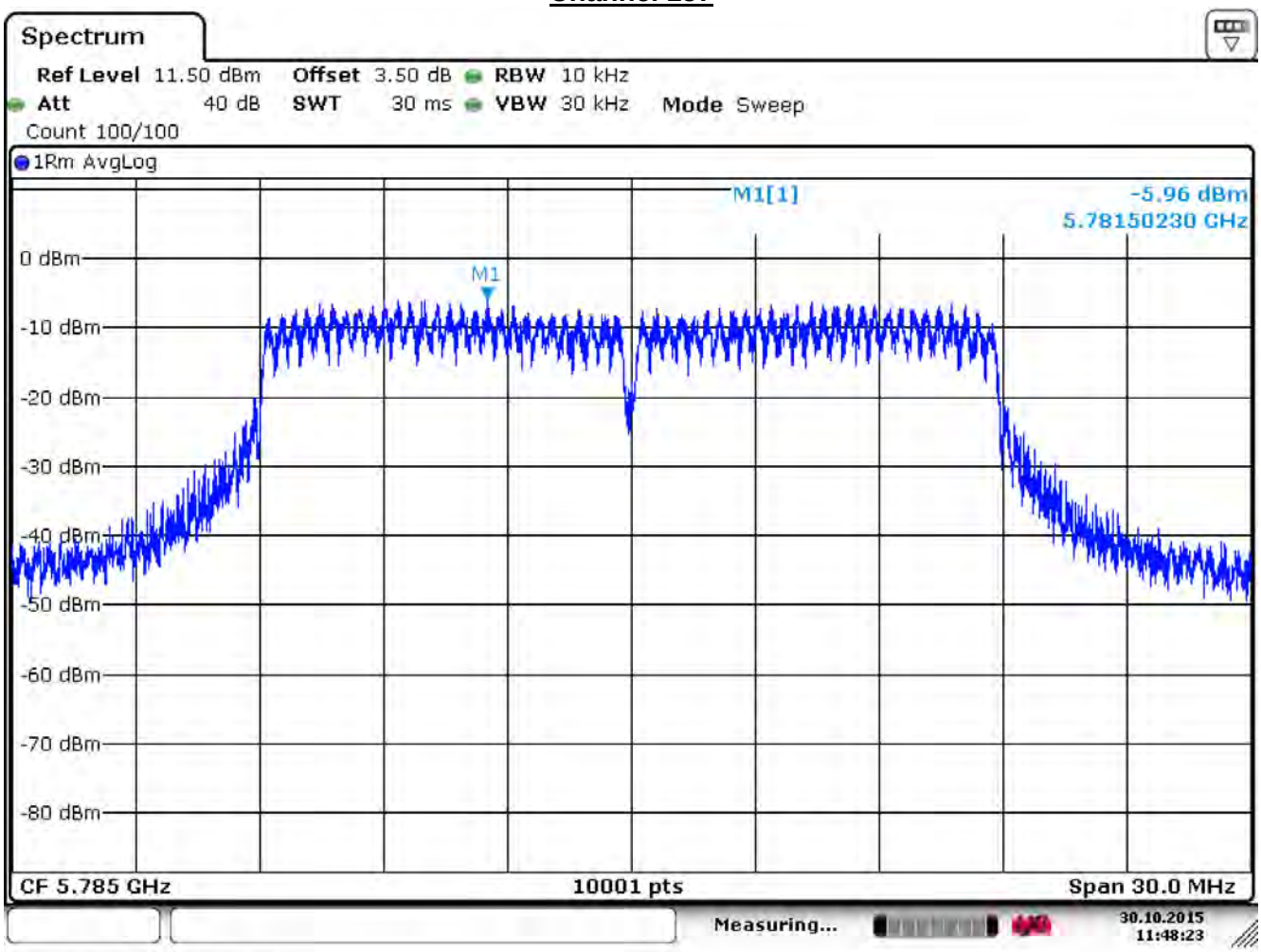
Power Density Limit:8dBm-(7.60dBi-6dB)=6.40 dBm

Channel 149



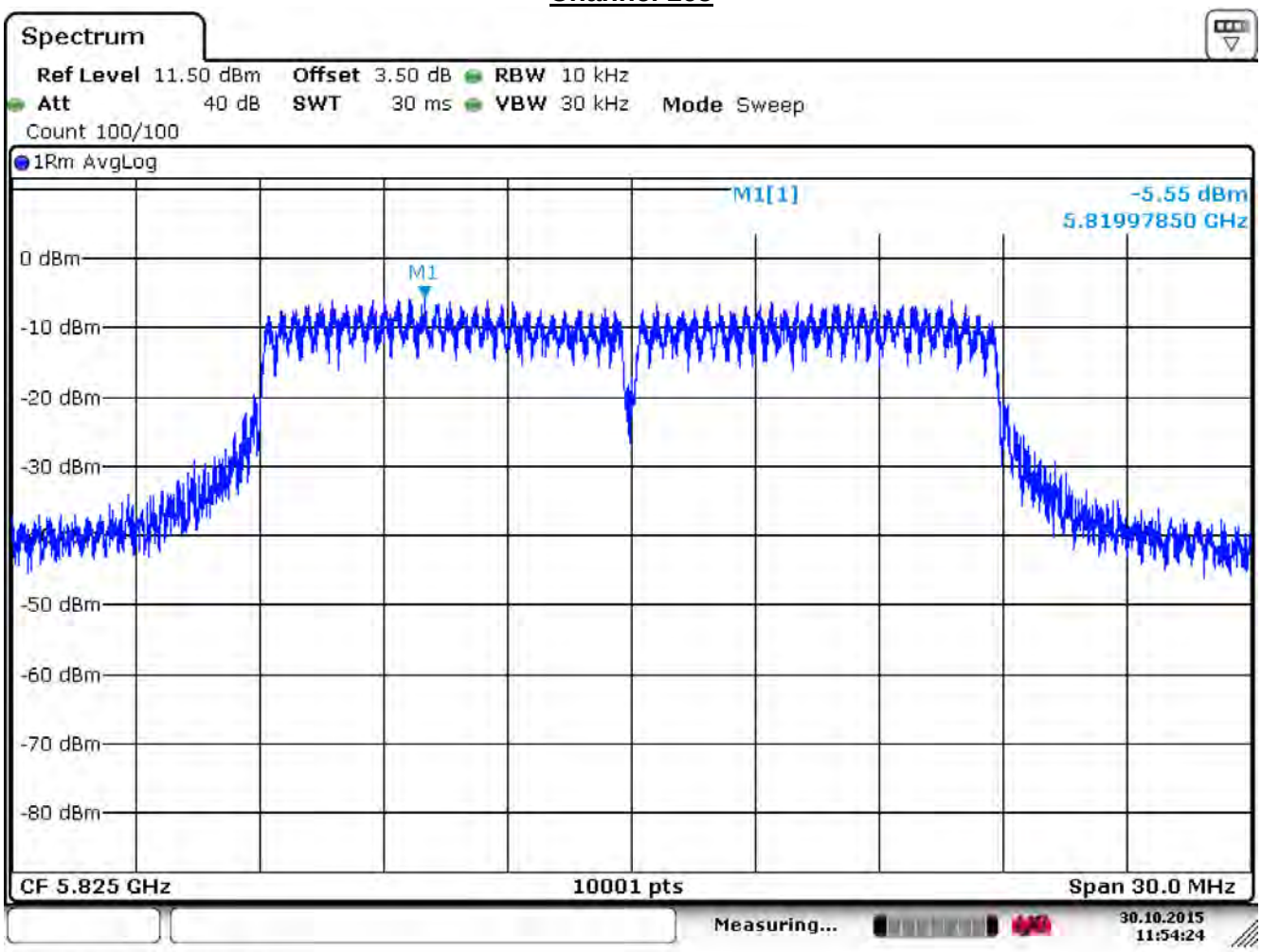
Date: 30.OCT.2015 11:55:51

Channel 157



Date: 30.OCT.2015 11:48:22

Channel 165



Date: 30.OCT.2015 11:54:24

Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 2: Transmit_Beamforming Mode_AD890326		
Date of Test	2015/09/22	Test Site	SR7

IEEE802.11n 20MHz(ANT 0+1+2)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
149	5745	-2.03	≦6.40	Pass
157	5785	-0.70	≦6.40	Pass
165	5825	-0.72	≦6.40	Pass

Directional Antenna: 10log(Ant N)+Max Gain =3+4.6=7.60 dBi

Power Density Limit:8dBm-(7.60dBi-6dB)=6.40 dBm

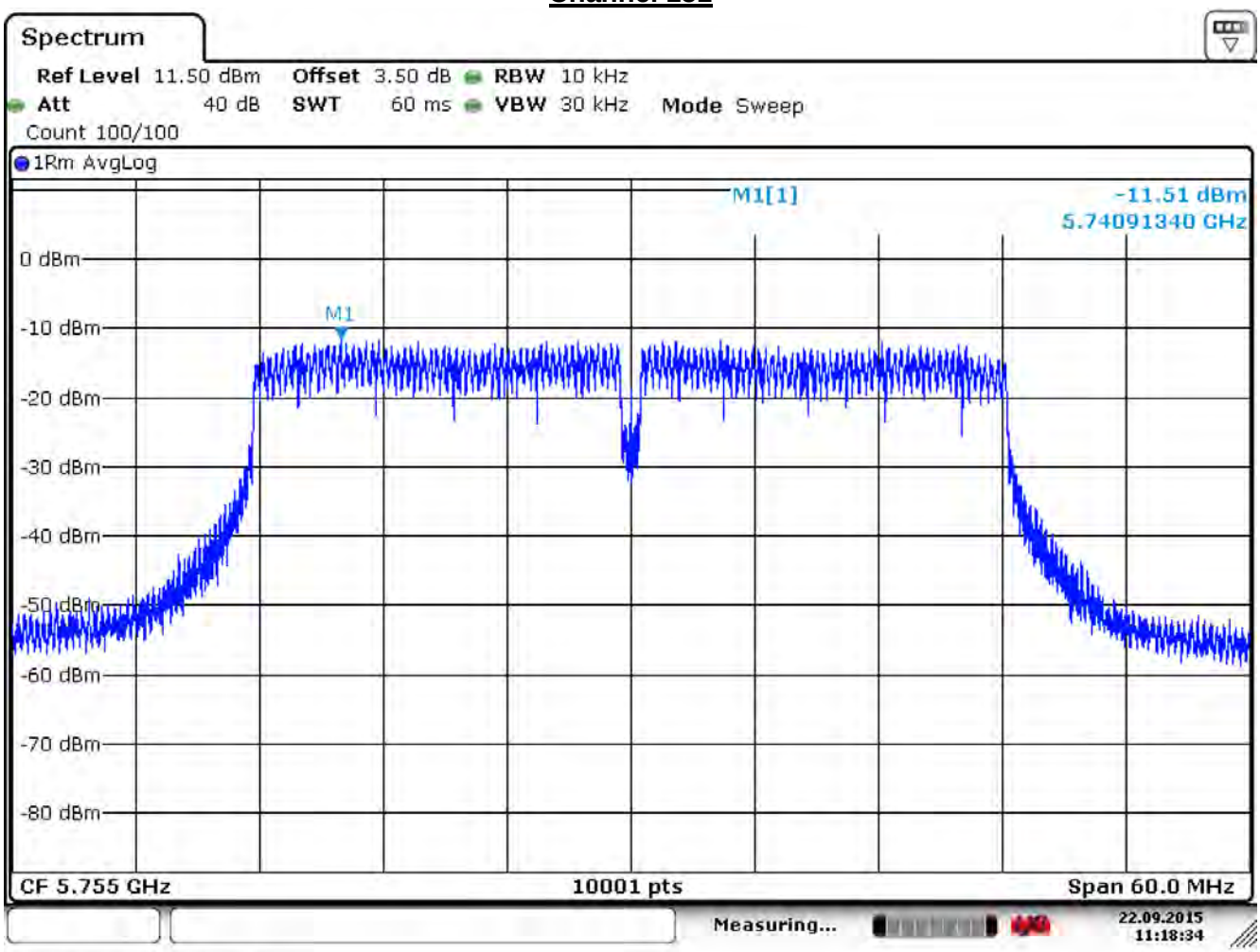
Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 2: Transmit_Beamforming Mode_AD890326		
Date of Test	2015/09/22	Test Site	SR7

IEEE 802.11n_40MHz (ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
151	5755	-11.51	≦6.40	Pass
159	5795	-9.59	≦6.40	Pass

Directional Antenna: 10log(Ant N)+Max Gain =3+4.6=7.60 dBi

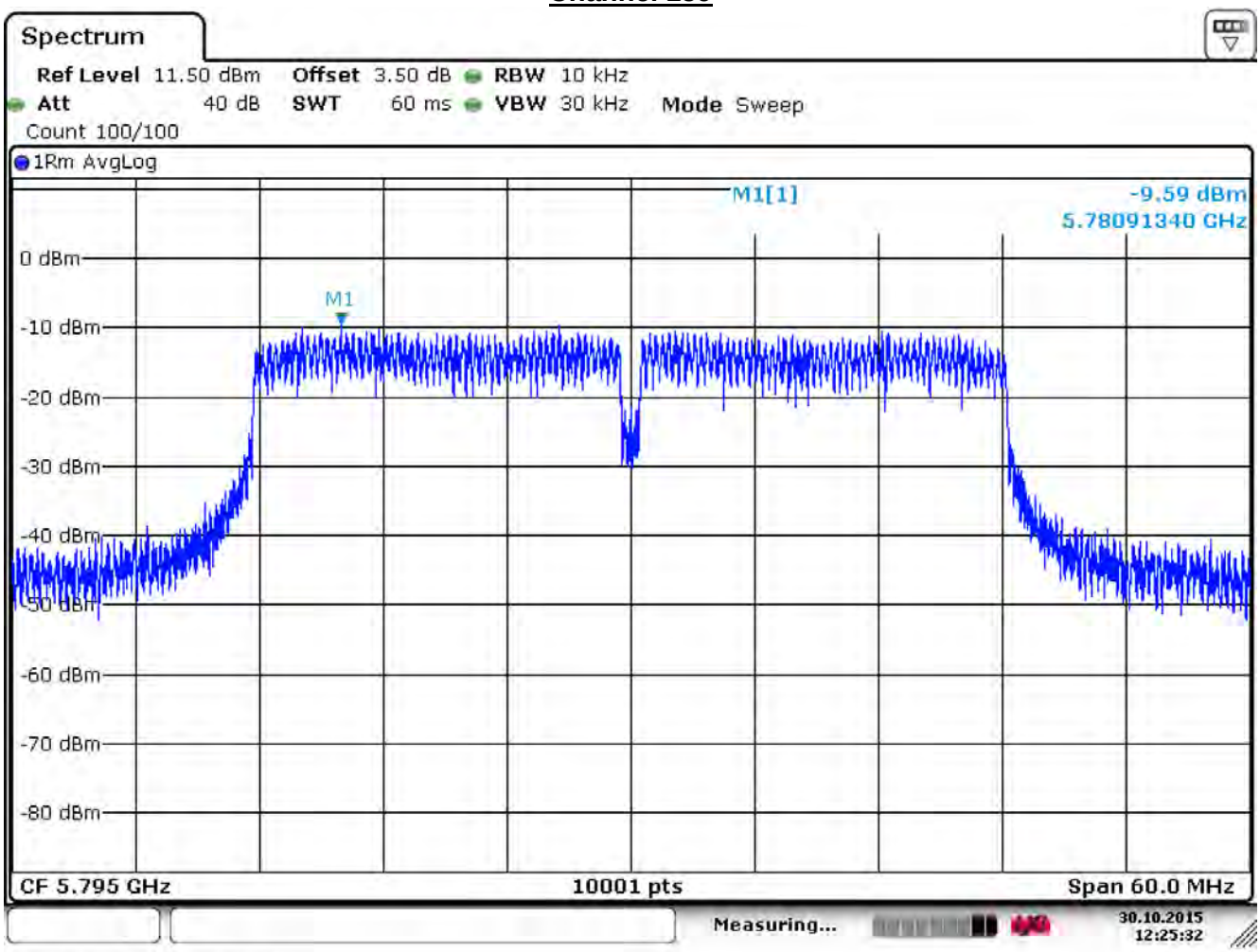
Power Density Limit:8dBm-(7.60dBi-6dB)=6.40 dBm

Channel 151



Date: 22.SEP.2015 11:18:34

Channel 159



Date: 30.OCT.2015 12:25:32

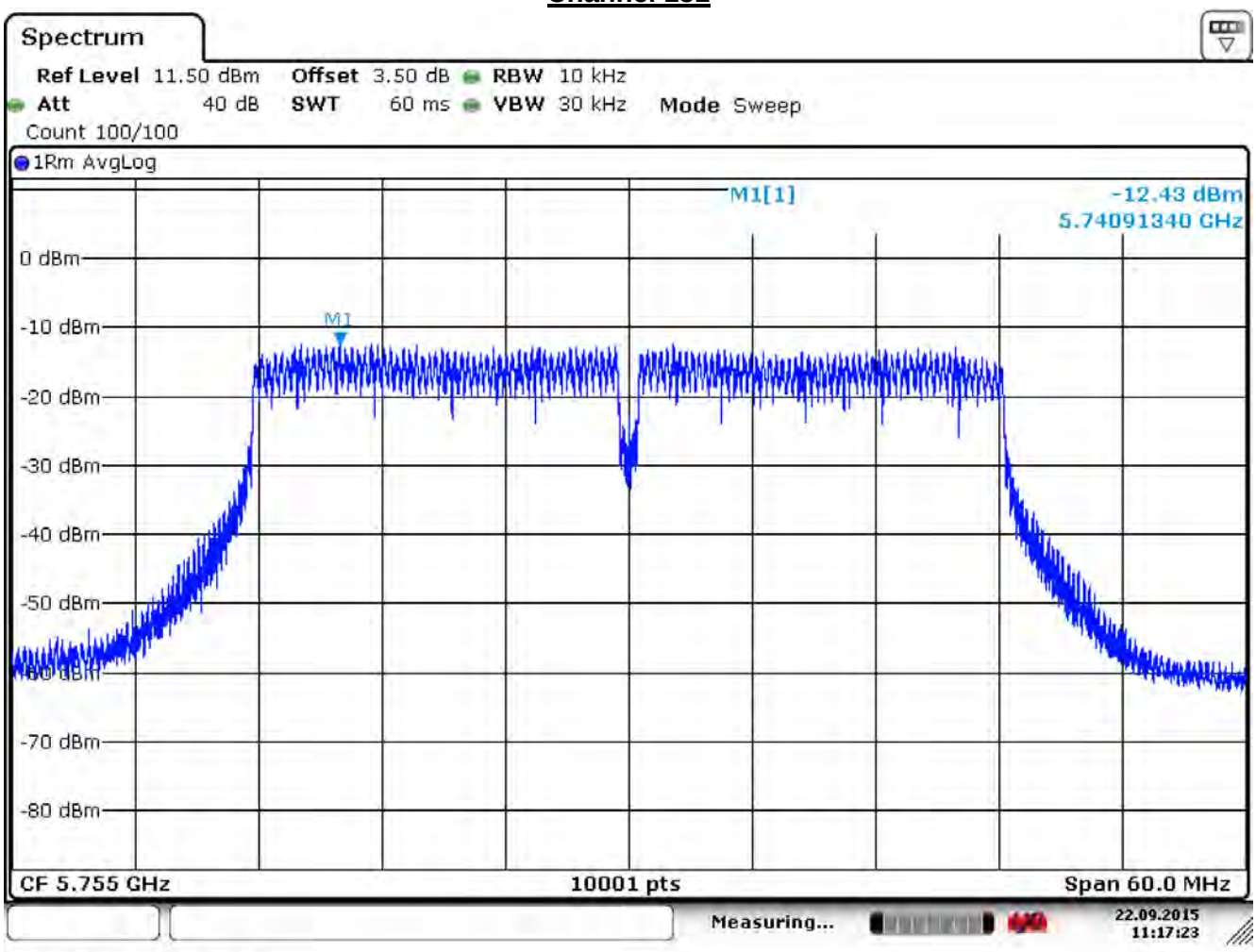
Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 2: Transmit_Beamforming Mode_AD890326		
Date of Test	2015/09/22	Test Site	SR7

IEEE 802.11n_40MHz (ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
151	5755	-12.43	≦6.40	Pass
159	5795	-9.56	≦6.40	Pass

Directional Antenna: 10log(Ant N)+Max Gain =3+4.6=7.60 dBi

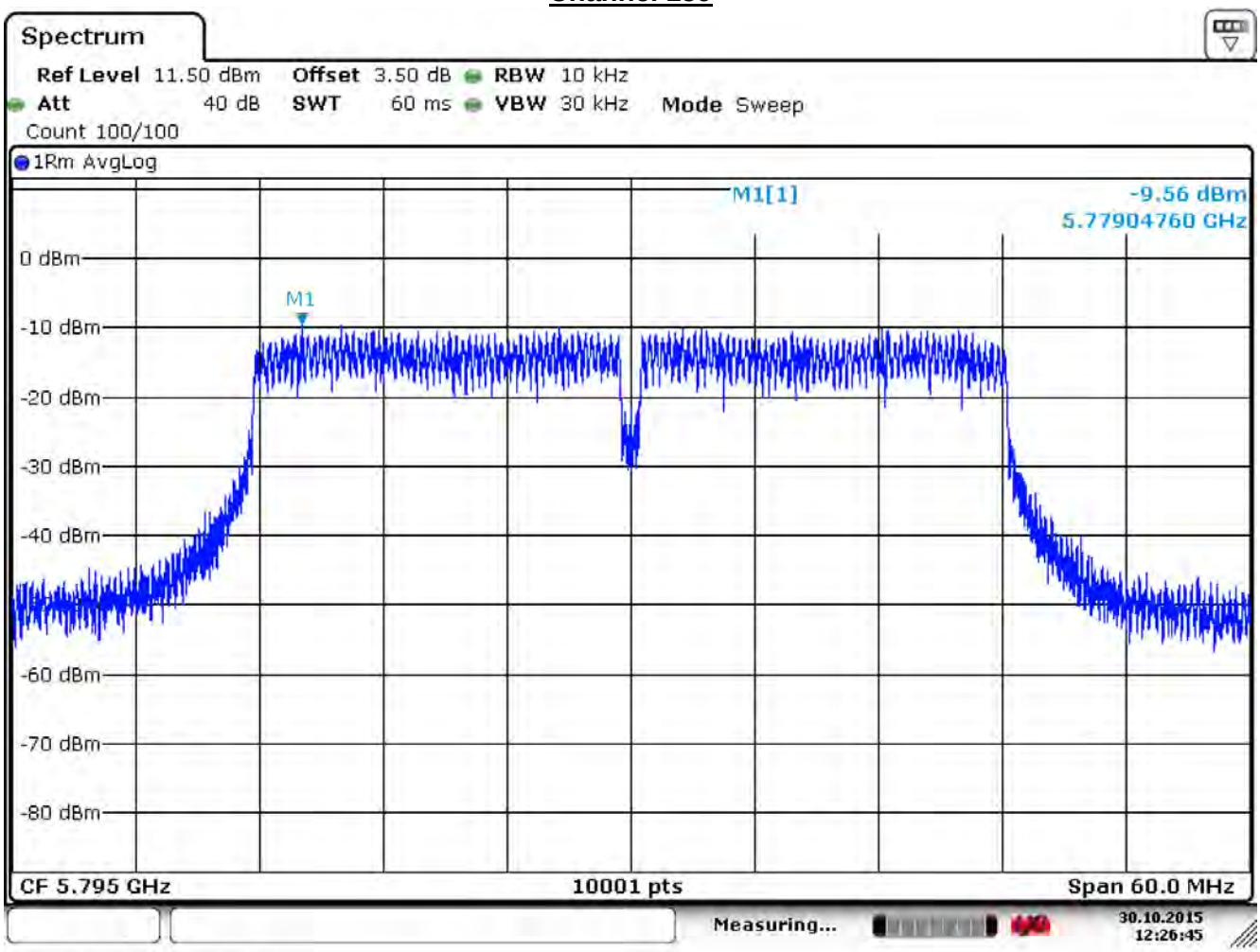
Power Density Limit:8dBm-(7.60dBi-6dB)=6.40 dBm

Channel 151



Date: 22.SEP.2015 11:17:22

Channel 159



Date: 30.OCT.2015 12:26:44

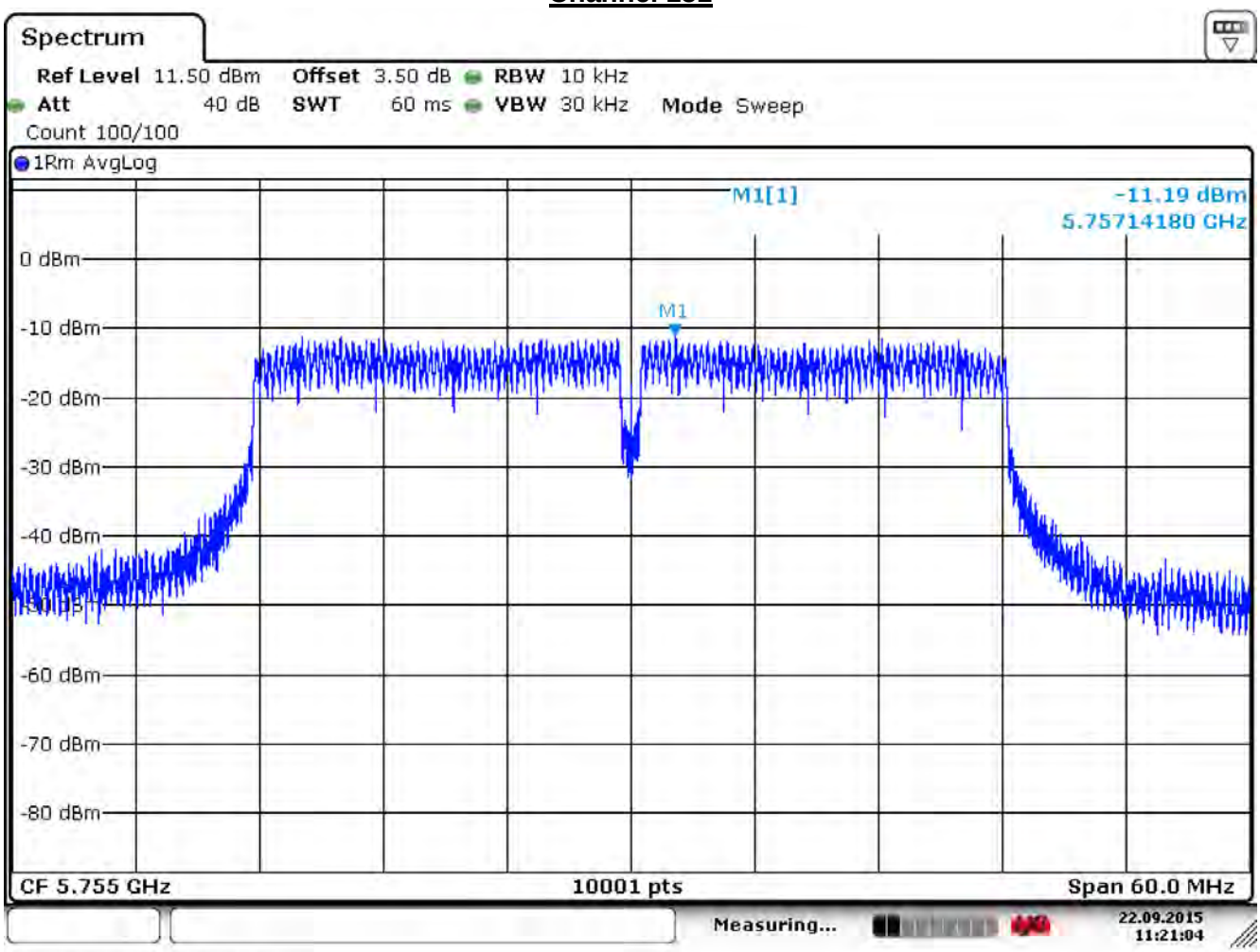
Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 2: Transmit_Beamforming Mode_AD890326		
Date of Test	2015/09/22	Test Site	SR7

IEEE 802.11n_40MHz (ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
151	5755	-11.19	≦6.40	Pass
159	5795	-9.50	≦6.40	Pass

Directional Antenna: 10log(Ant N)+Max Gain =3+4.6=7.60 dBi

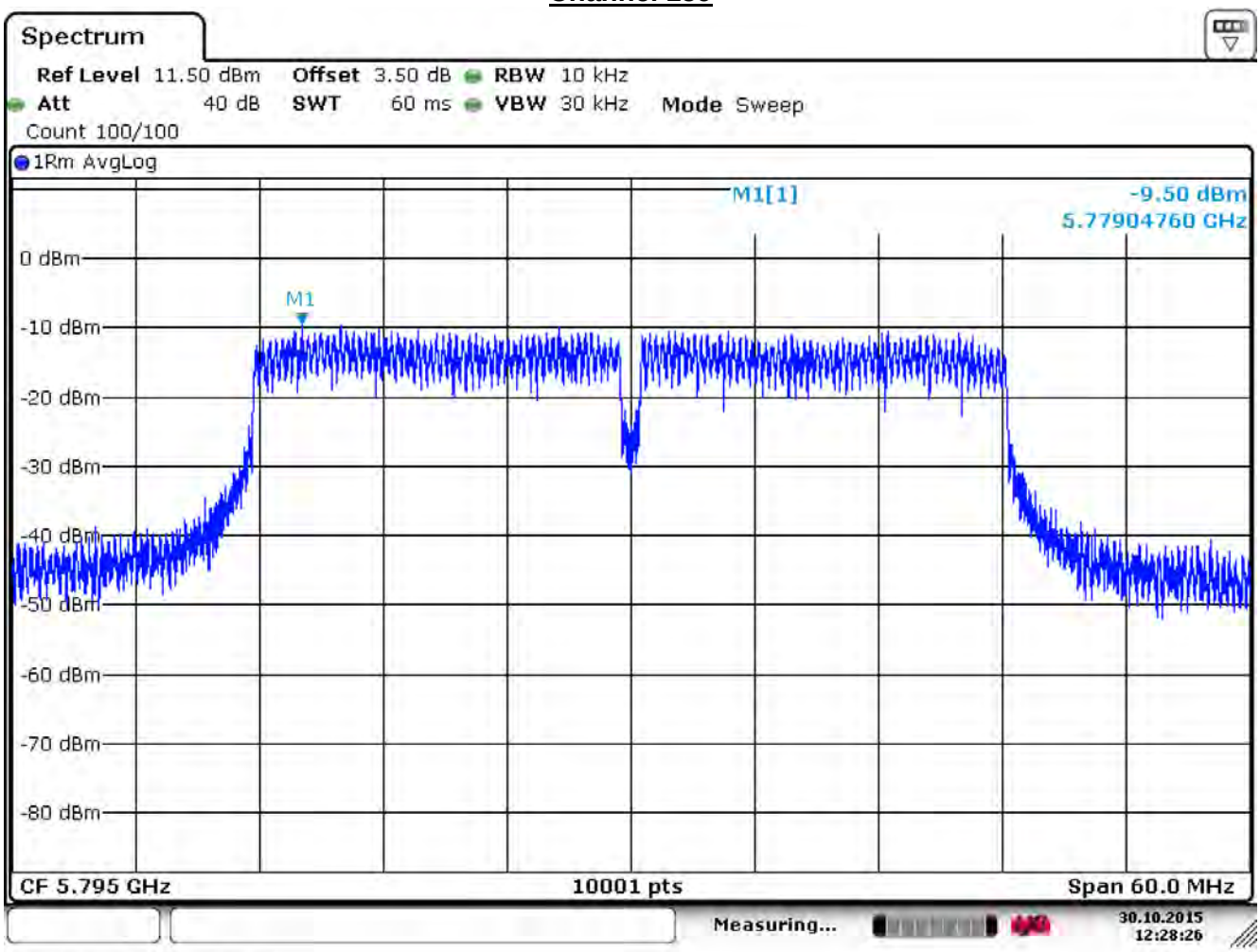
Power Density Limit:8dBm-(7.60dBi-6dB)=6.40 dBm

Channel 151



Date: 22.SEP.2015 11:21:04

Channel 159



Date: 30.OCT.2015 12:28:26

Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 2: Transmit_Beamforming Mode_AD890326		
Date of Test	2015/09/22	Test Site	SR7

IEEE802.11n 40MHz(ANT 0+1+2)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
151	5755	-6.91	≦6.40	Pass
159	5795	-4.78	≦6.40	Pass

Directional Antenna: 10log(Ant N)+Max Gain =3+4.6=7.60 dBi

Power Density Limit:8dBm-(7.60dBi-6dB)=6.40 dBm

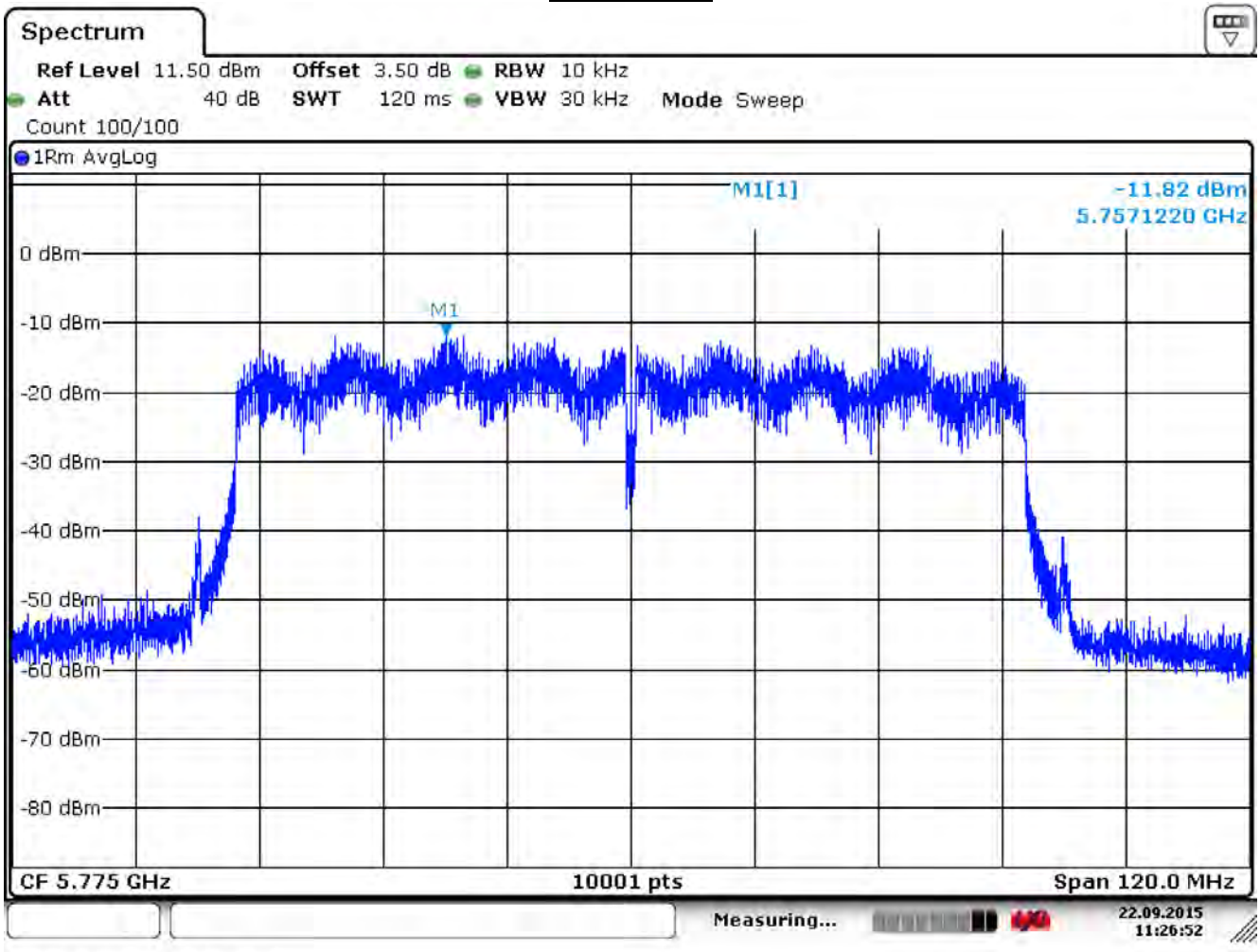
Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 2: Transmit_Beamforming Mode_AD890326		
Date of Test	2015/09/22	Test Site	SR7

IEEE 802.11ac_80MHz (ANT 0)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
155	5775	-11.82	≦6.40	Pass

Directional Antenna: 10log(Ant N)+Max Gain =3+4.6=7.60 dBi

Power Density Limit:8dBm-(7.60dBi-6dB)=6.40 dBm

Channel 155



Date: 22.SEP.2015 11:26:52

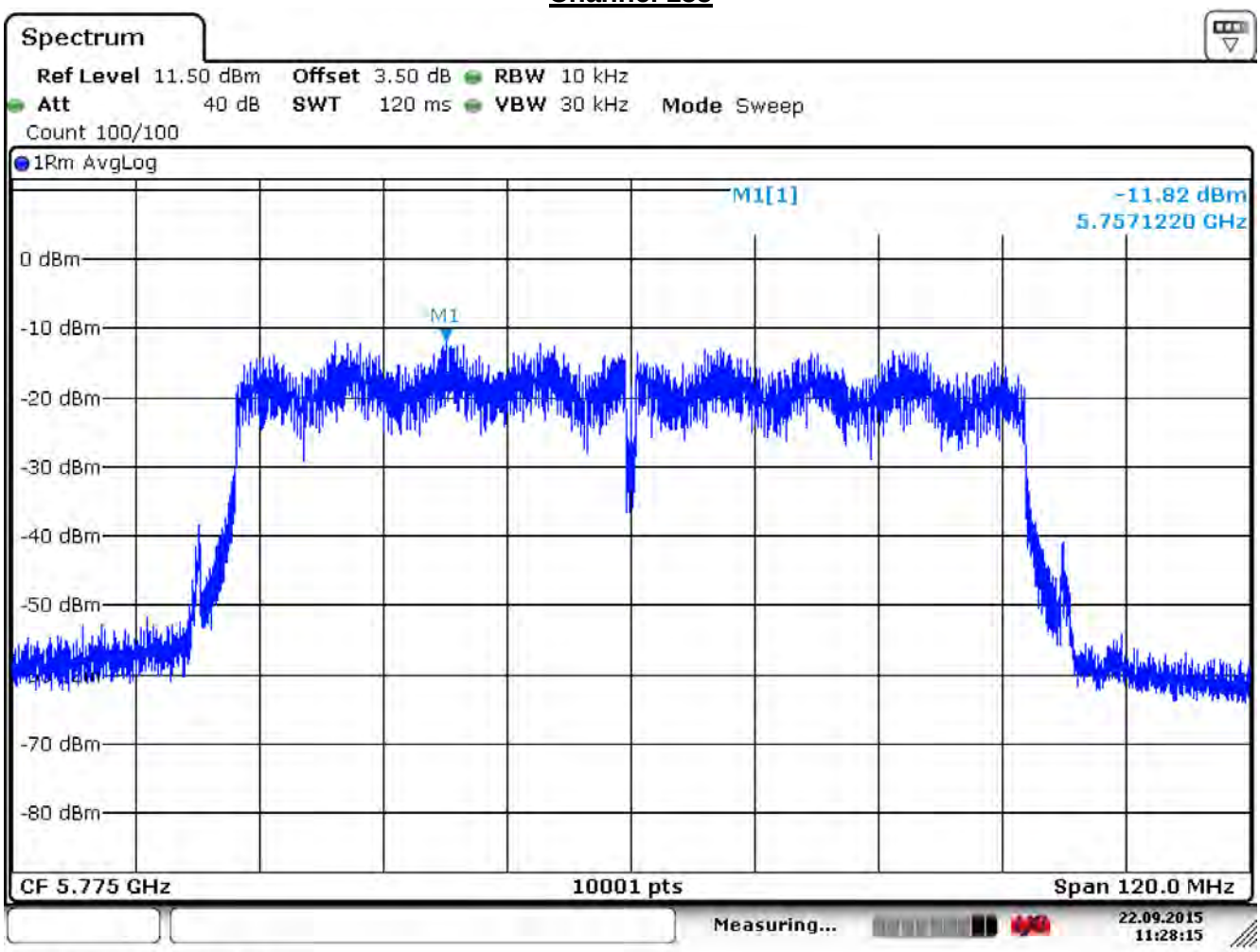
Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 2: Transmit_Beamforming Mode_AD890326		
Date of Test	2015/09/22	Test Site	SR7

IEEE 802.11ac_80MHz (ANT 1)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
155	5775	-11.82	≦6.40	Pass

Directional Antenna: 10log(Ant N)+Max Gain =3+4.6=7.60 dBi

Power Density Limit:8dBm-(7.60dBi-6dB)=6.40 dBm

Channel 155



Date: 22.SEP.2015 11:28:14

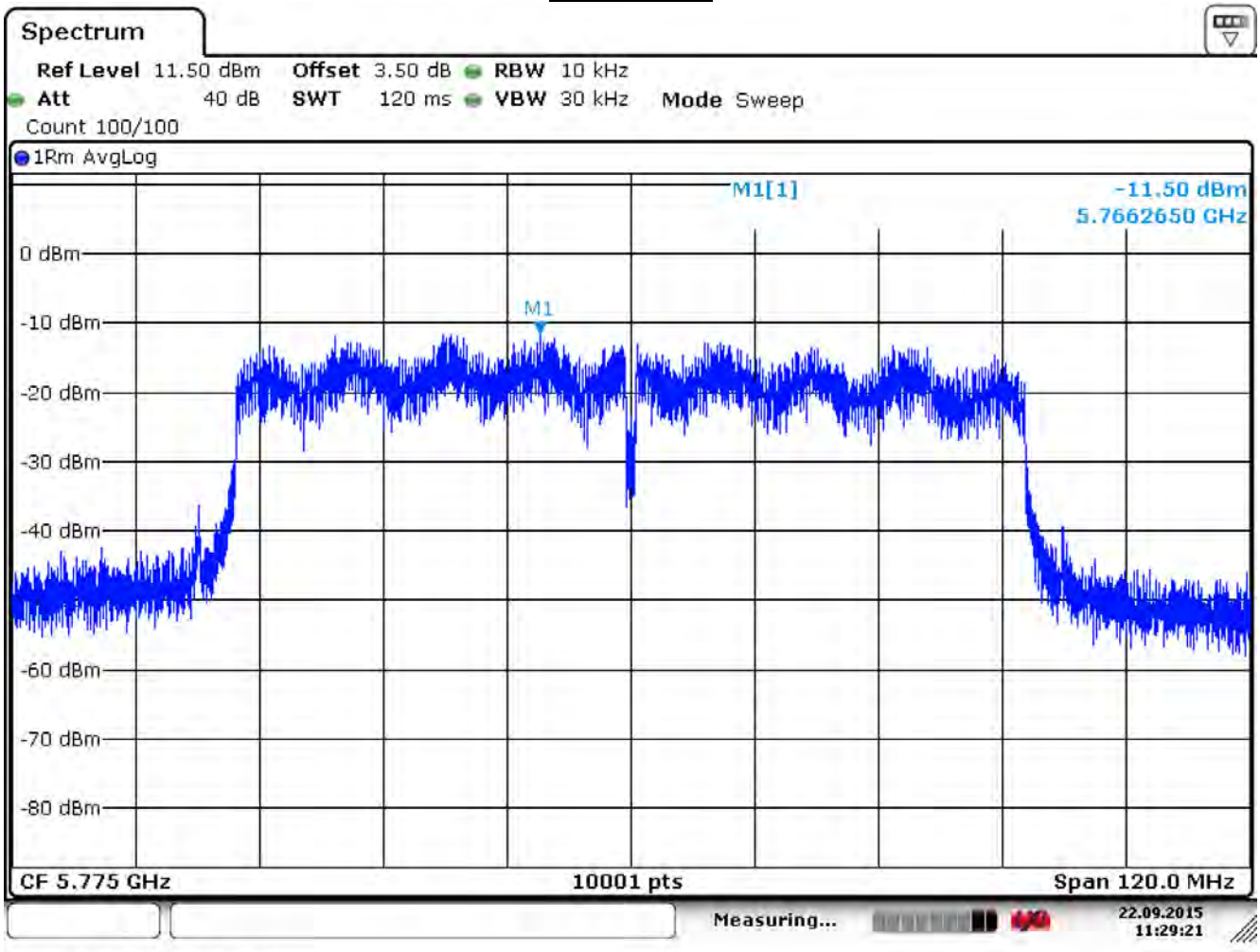
Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 2: Transmit_Beamforming Mode_AD890326		
Date of Test	2015/09/22	Test Site	SR7

IEEE 802.11ac_80MHz (ANT 2)				
Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
155	5775	-11.50	≦6.40	Pass

Directional Antenna: 10log(Ant N)+Max Gain =3+4.6=7.60 dBi

Power Density Limit:8dBm-(7.60dBi-6dB)=6.40 dBm

Channel 155



Date: 22.SEP.2015 11:29:21

Product	Dual-band Wireless Range Extender		
Test Item	Power Density		
Test Mode	Mode 2: Transmit_Beamforming Mode_AD890326		
Date of Test	2015/09/22	Test Site	SR7

IEEE802.11ac 80MHz(ANT 0+1+2)

Channel No.	Frequency (MHz)	Measure Level (dBm)	Limit (dBm)	Result
155	5775	-6.94	≦6.40	Pass

Directional Antenna: 10log(Ant N)+Max Gain =3+4.6=7.60 dBi

Power Density Limit:8dBm-(7.60dBi-6dB)=6.40 dBm