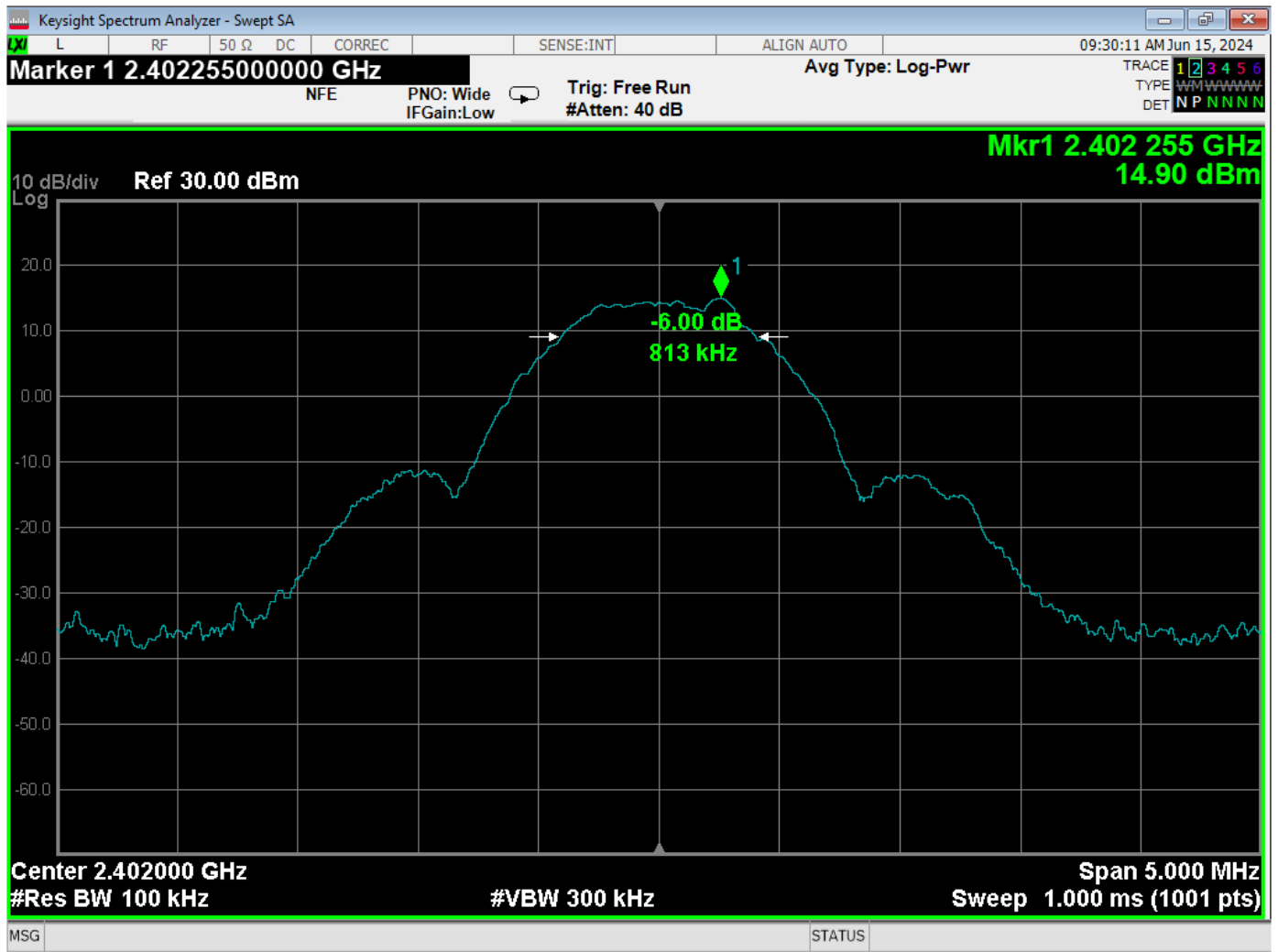
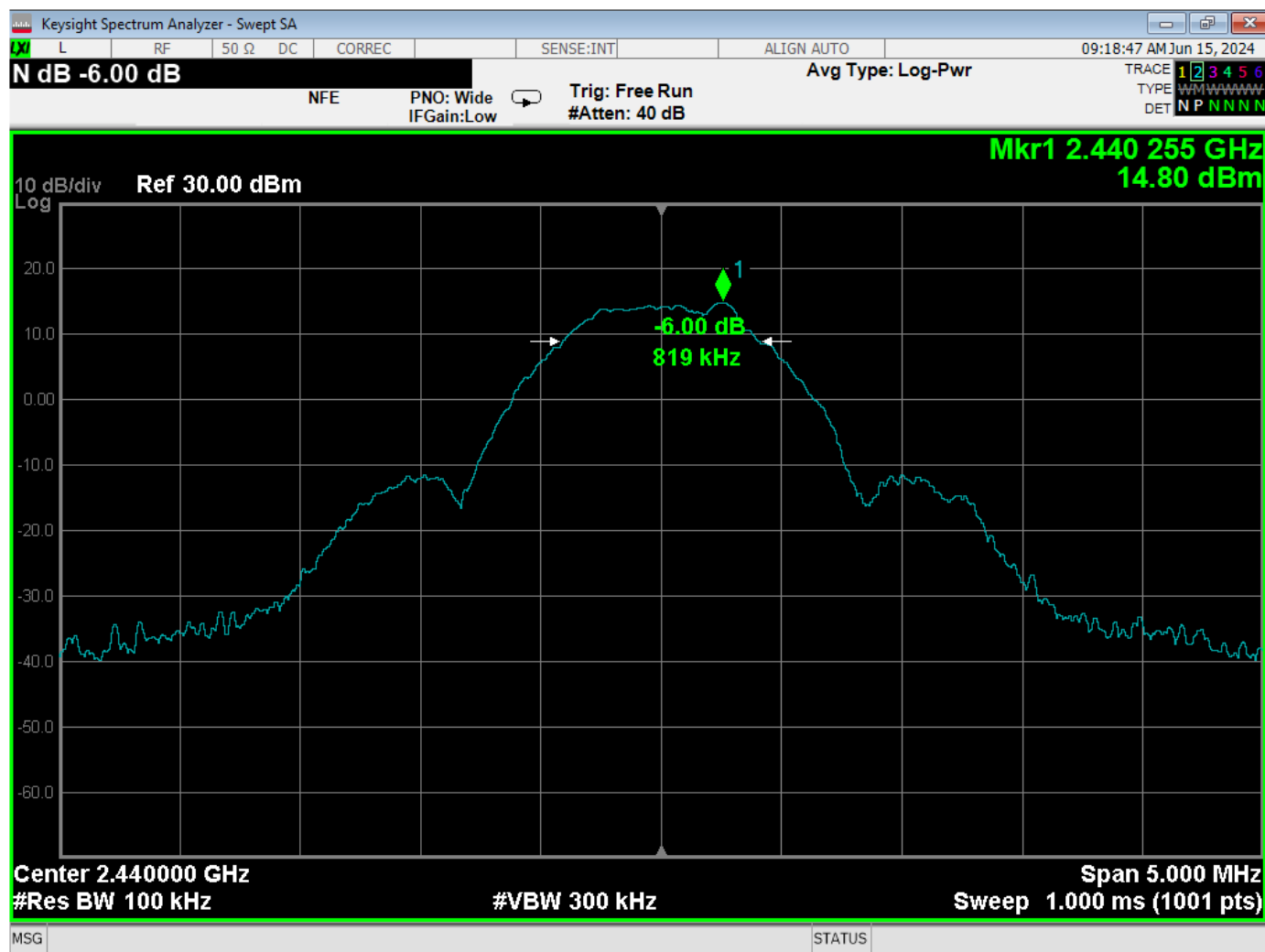




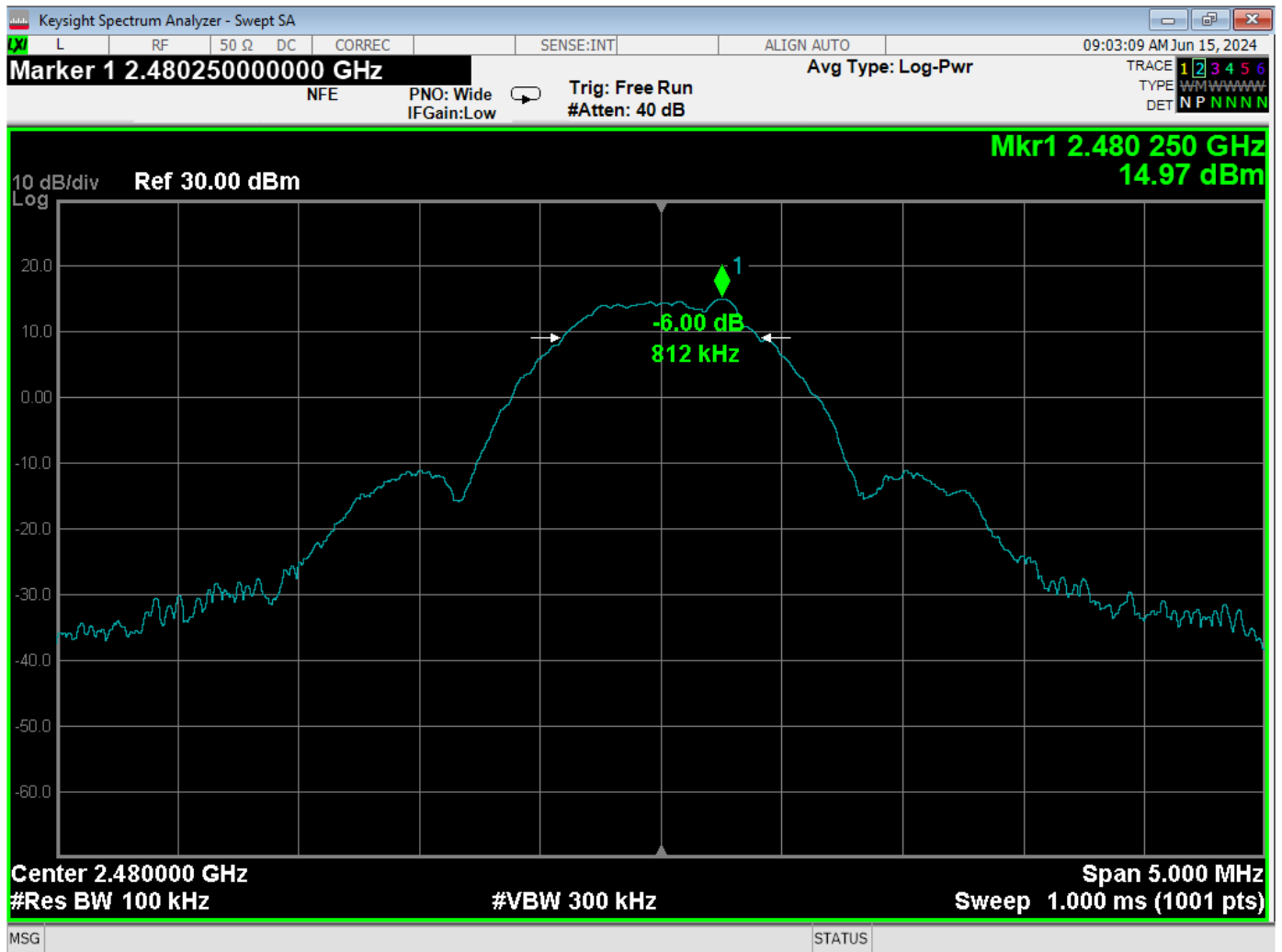
***-6 dB BANDWIDTH
DATA SHEETS***



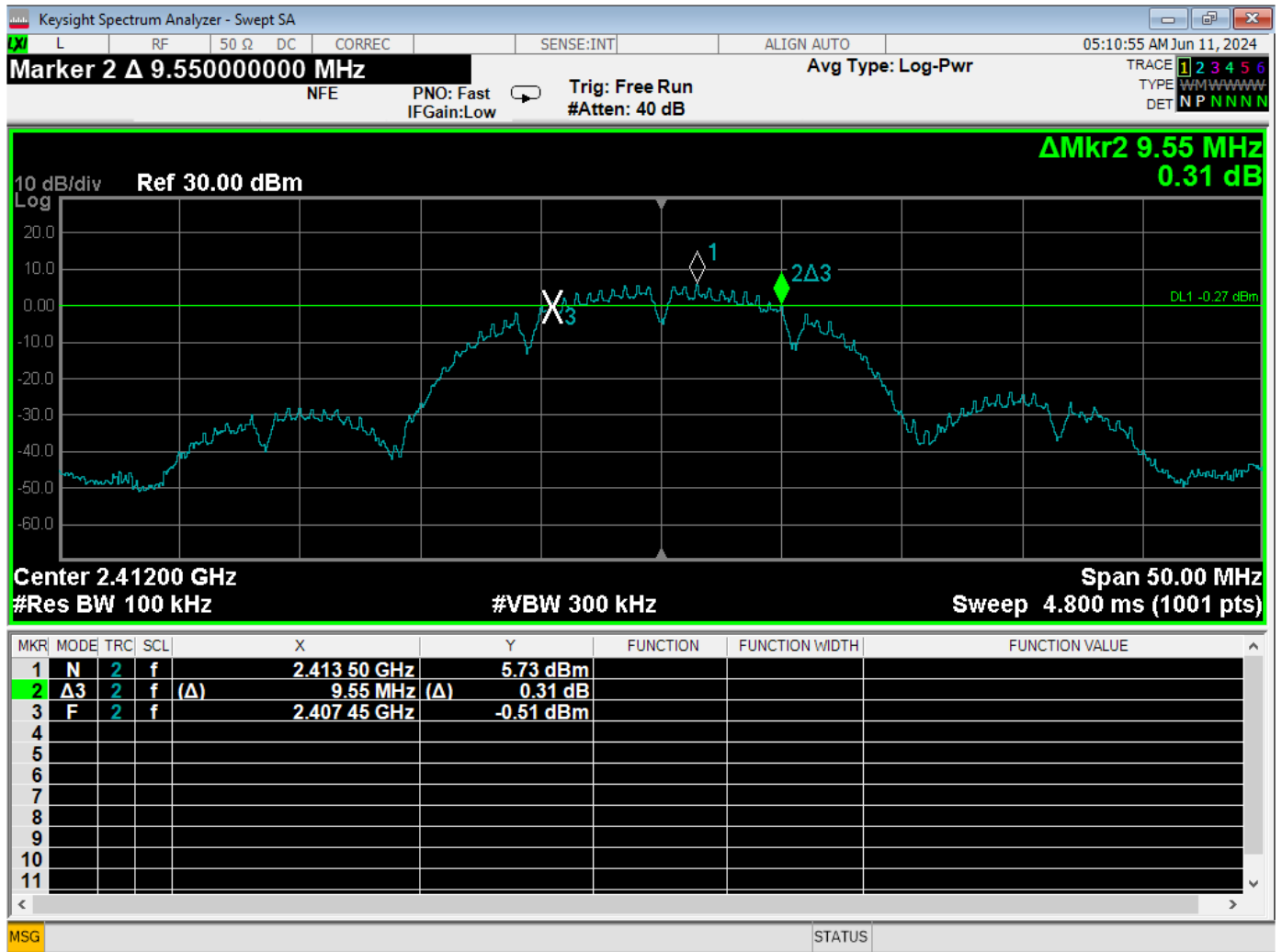
-6 dB Bandwidth – Low Channel – BLE Mode – RedPine



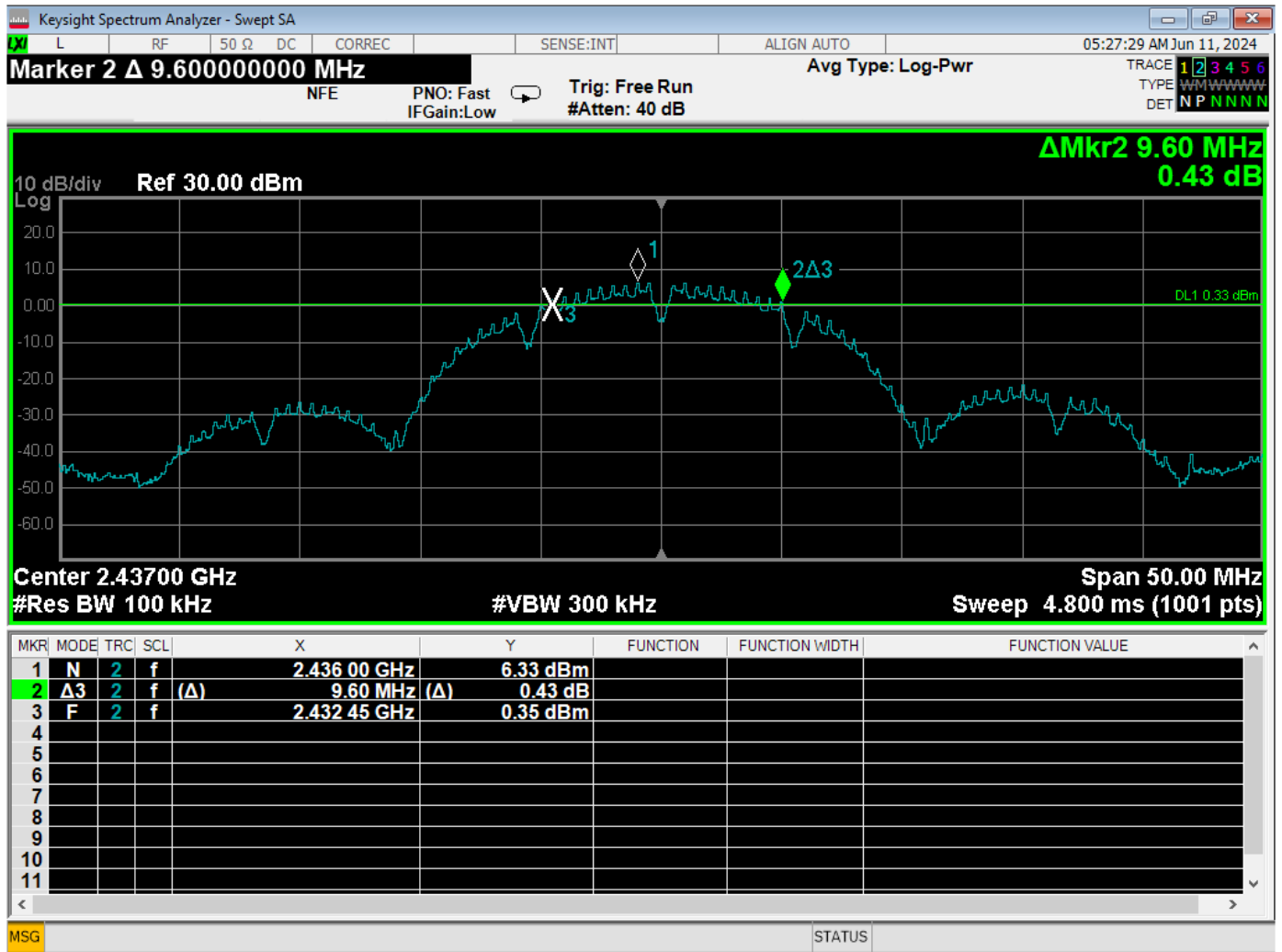
-6 dB Bandwidth – Middle Channel – BLE Mode – RedPine



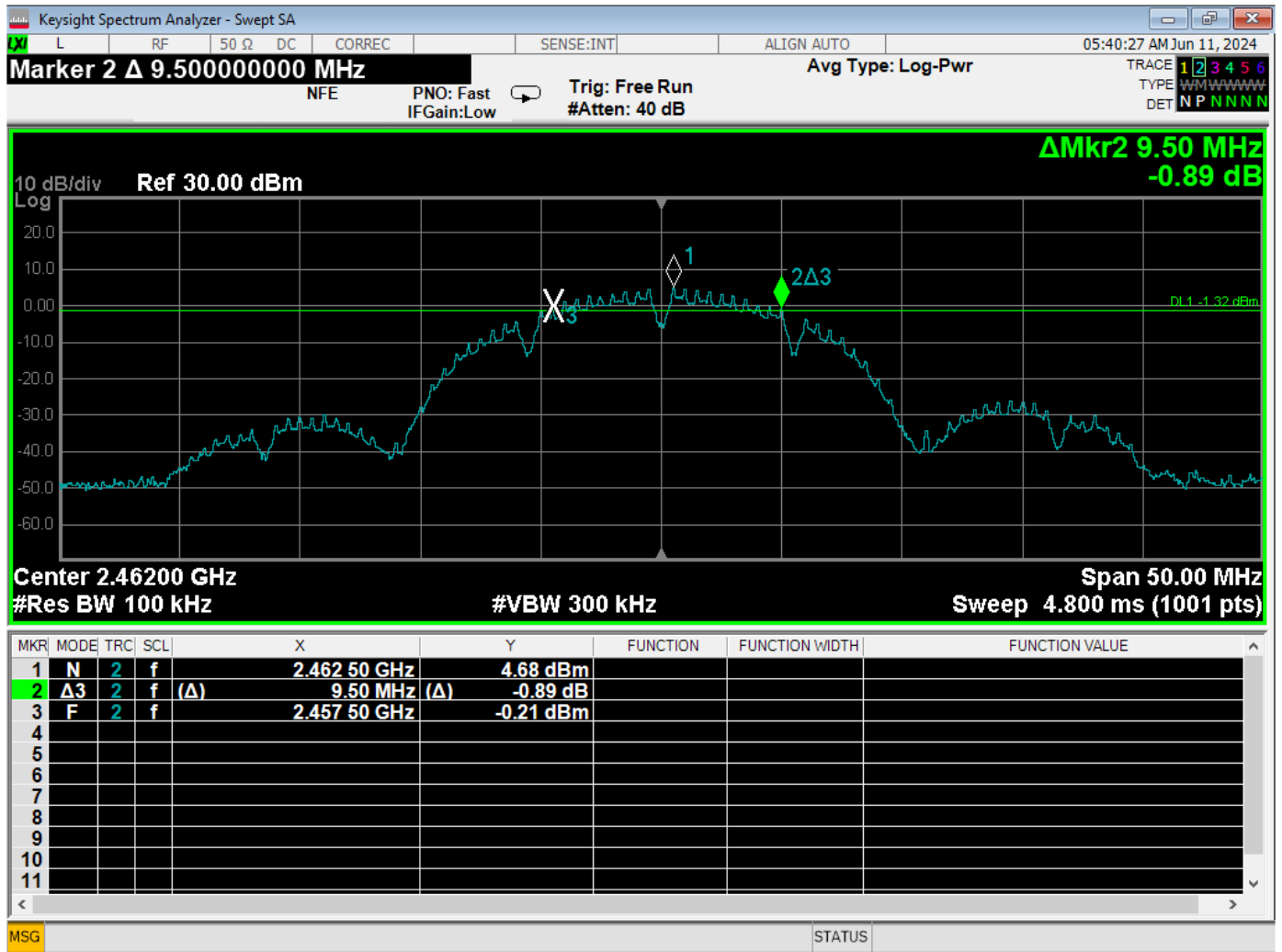
-6 dB Bandwidth – High Channel – 802.11b Mode – RedPine



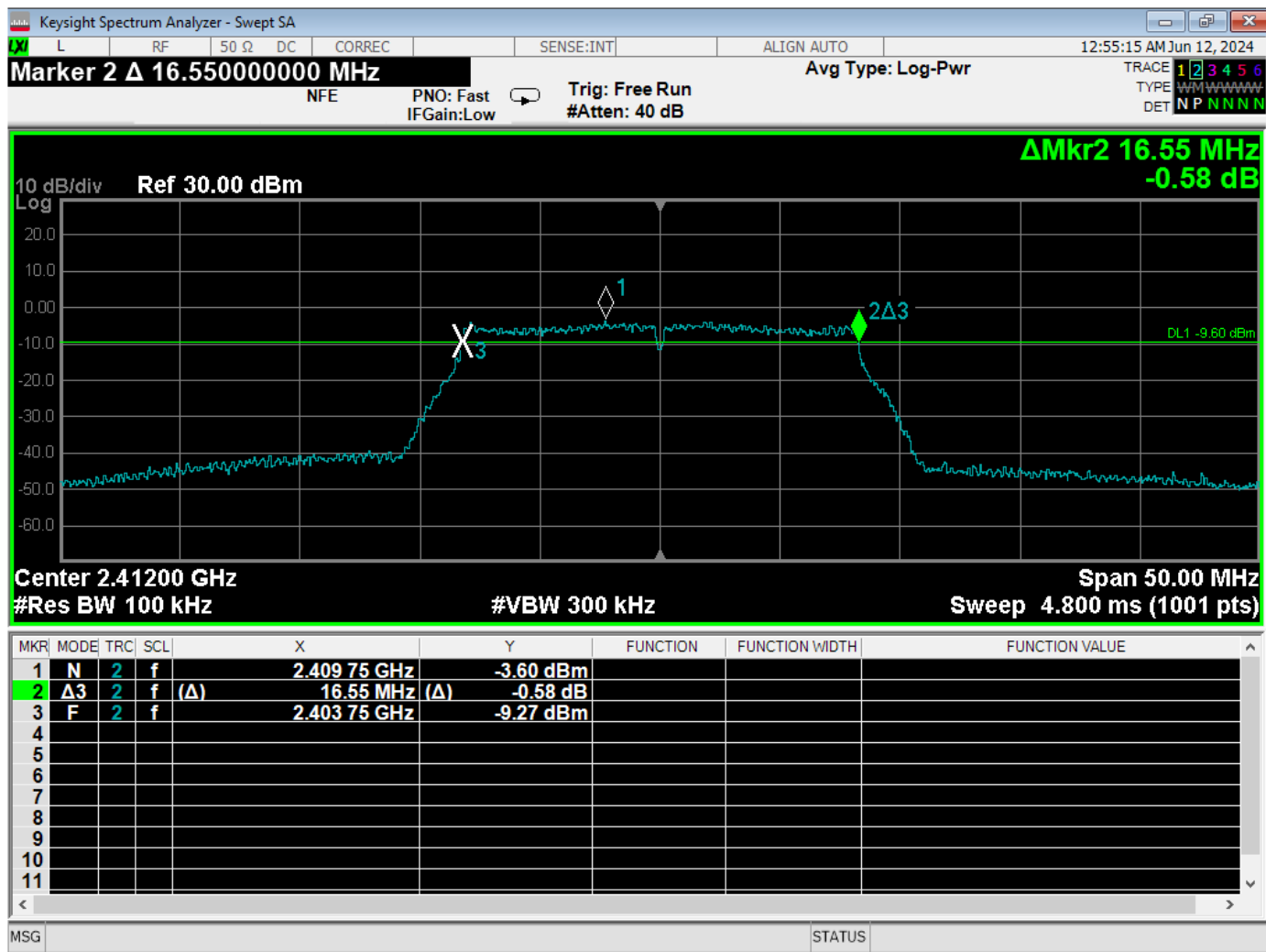
-6 dB Bandwidth – Low Channel – 802.11b Mode – RedPine



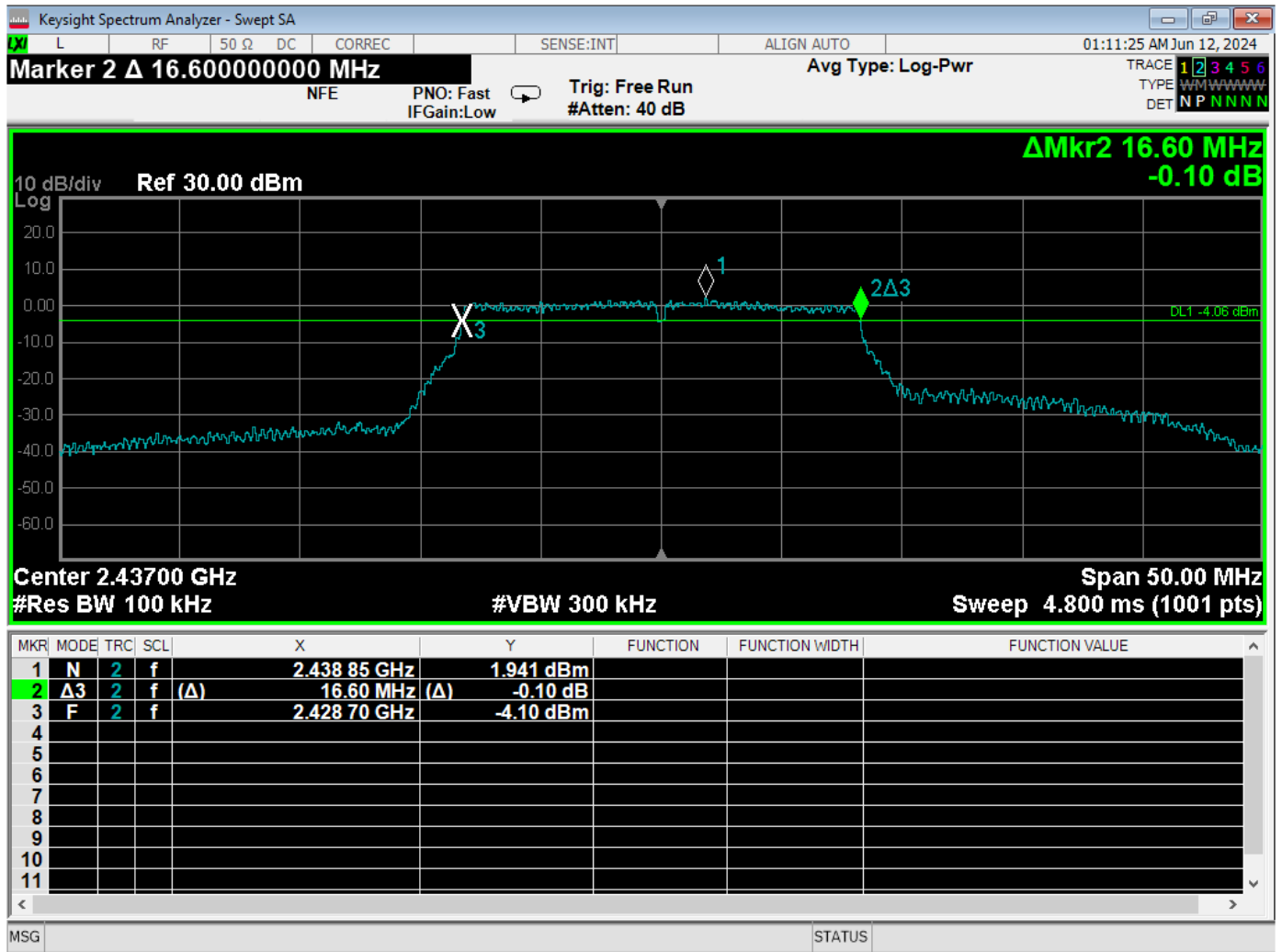
-6 dB Bandwidth – Middle Channel – 802.11b Mode – RedPine



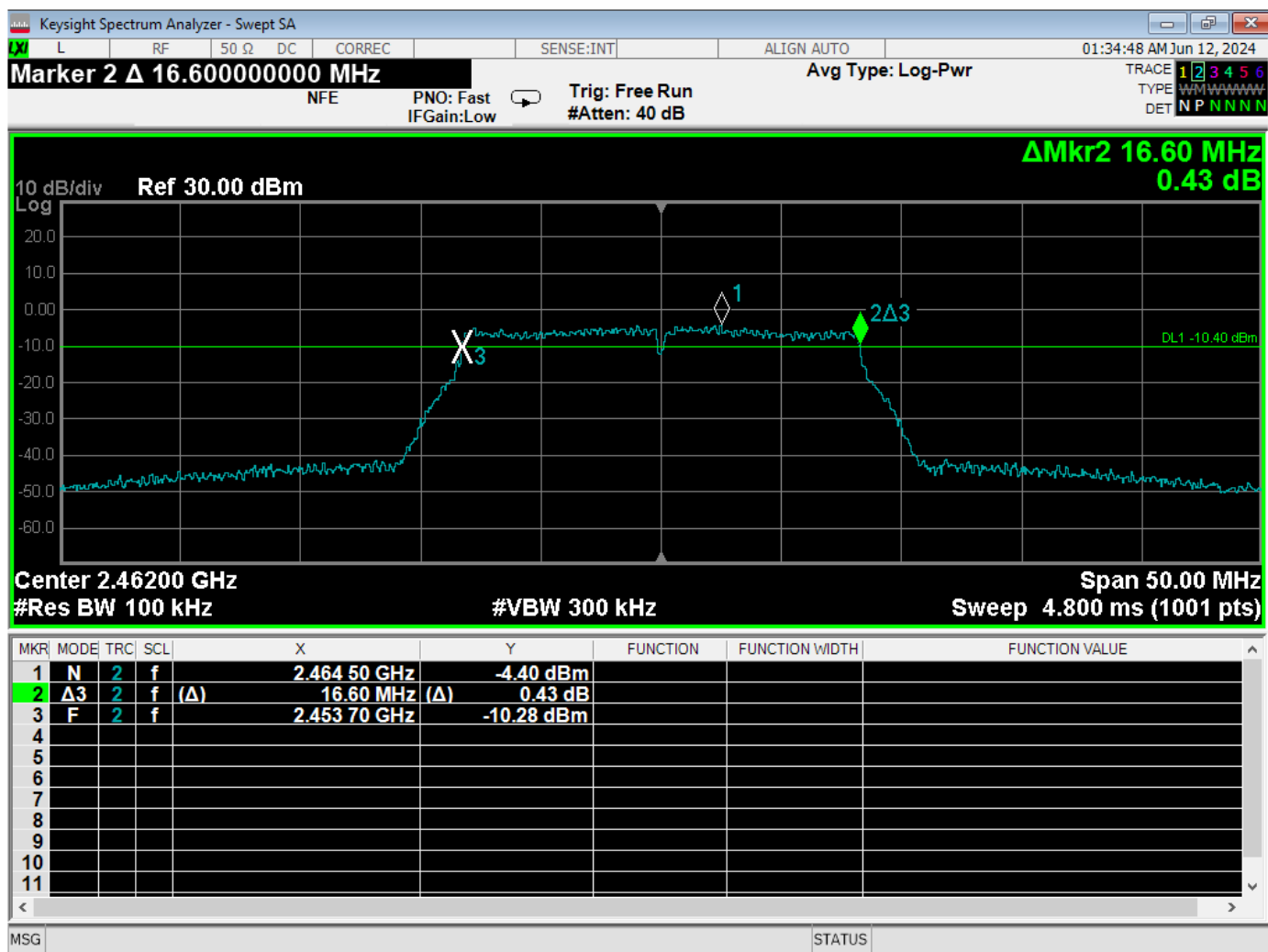
-6 dB Bandwidth – High Channel – 802.11b Mode – RedPine



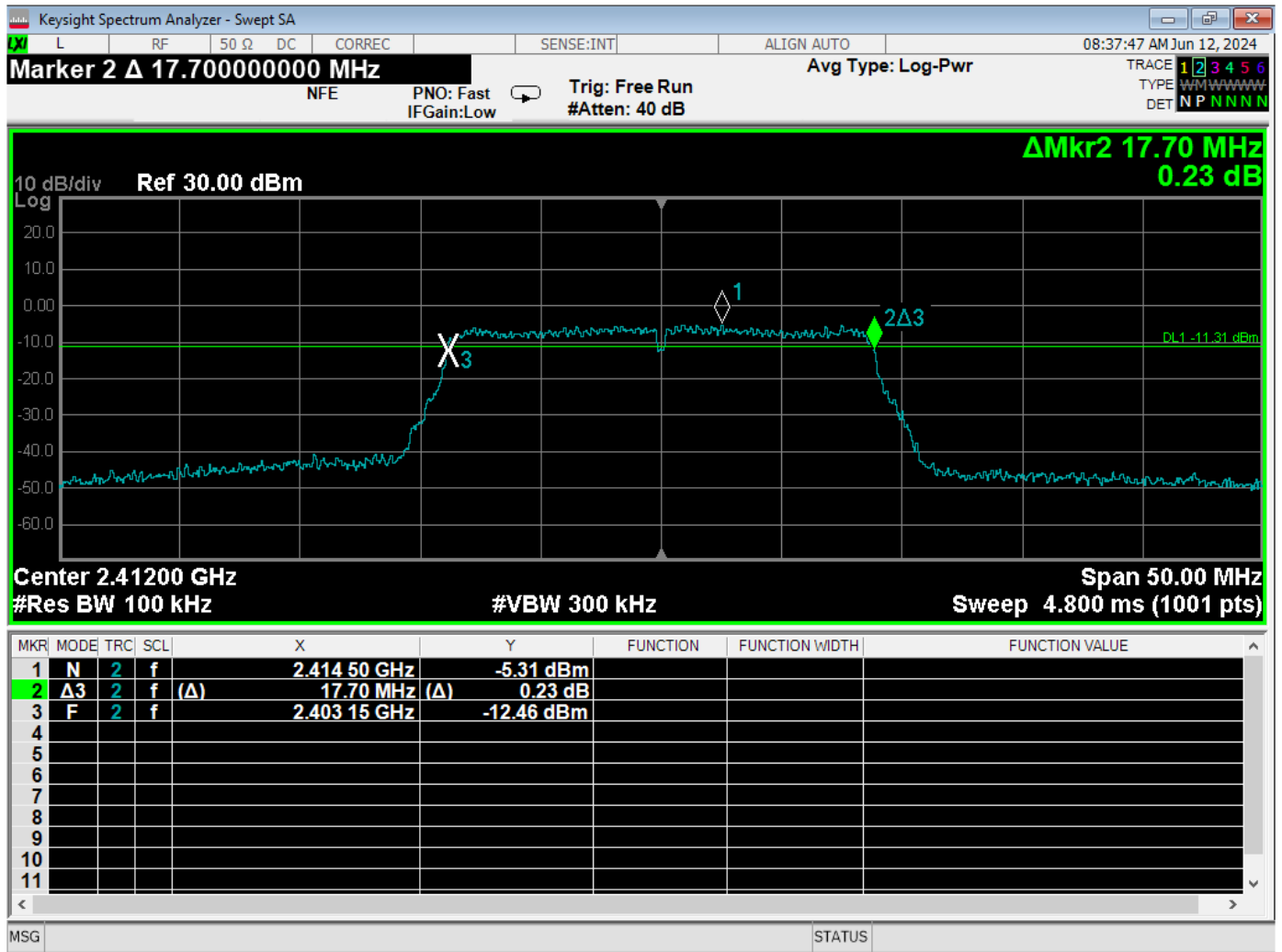
-6 dB Bandwidth – Low Channel – 802.11g Mode – RedPine



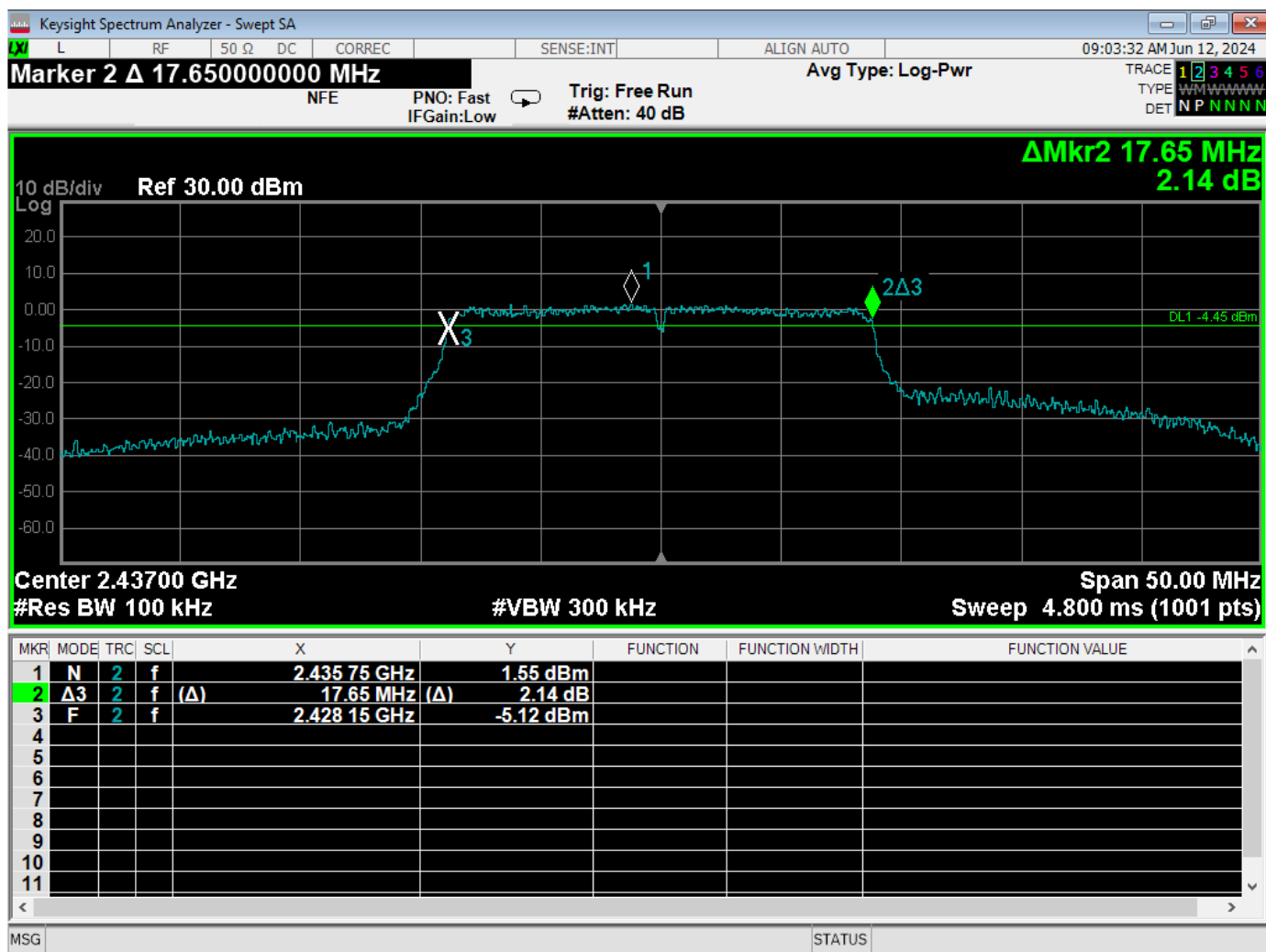
-6 dB Bandwidth – Middle Channel – 802.11g Mode – RedPine



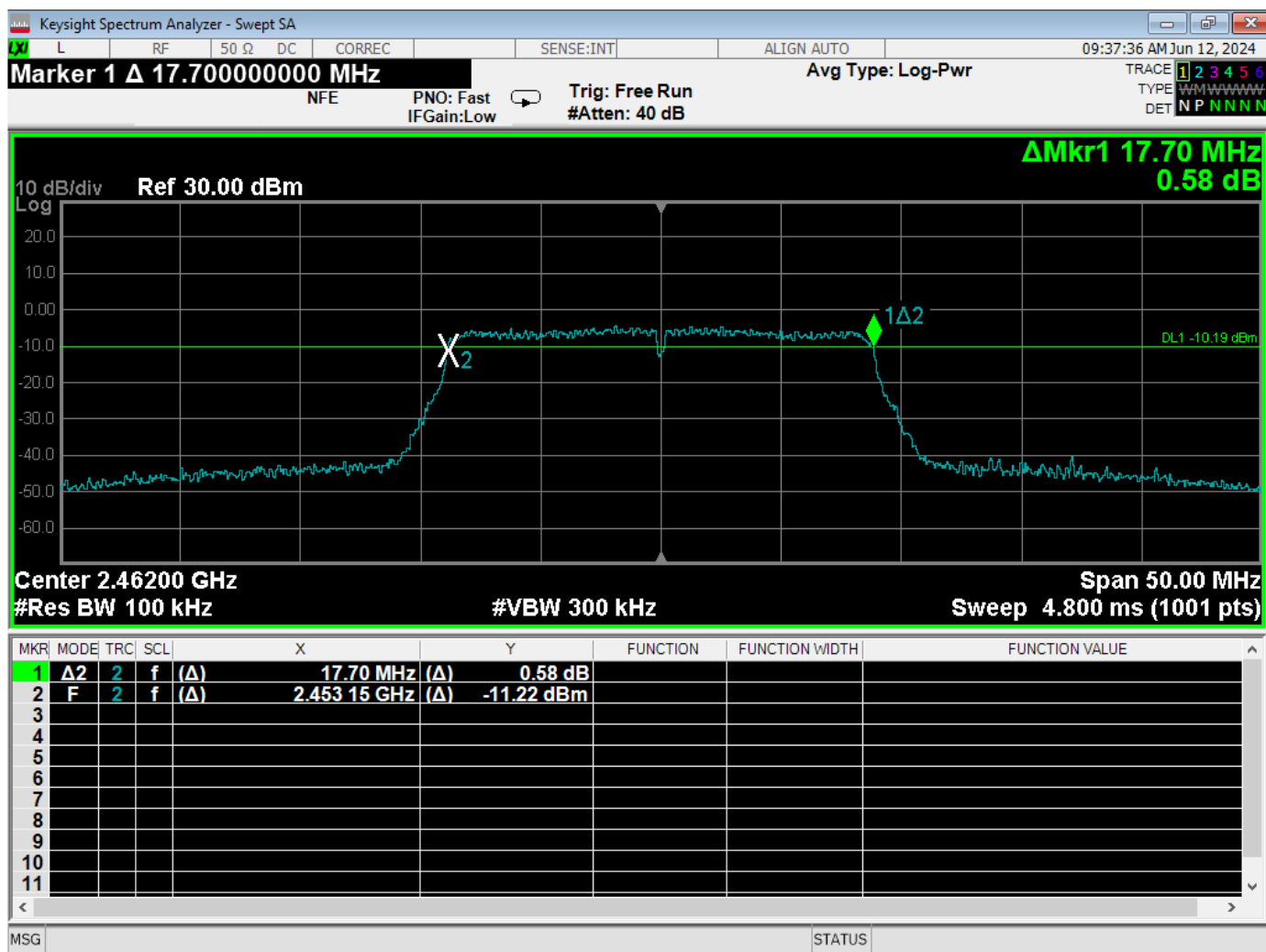
-6 dB Bandwidth – High Channel – 802.11g Mode – RedPine



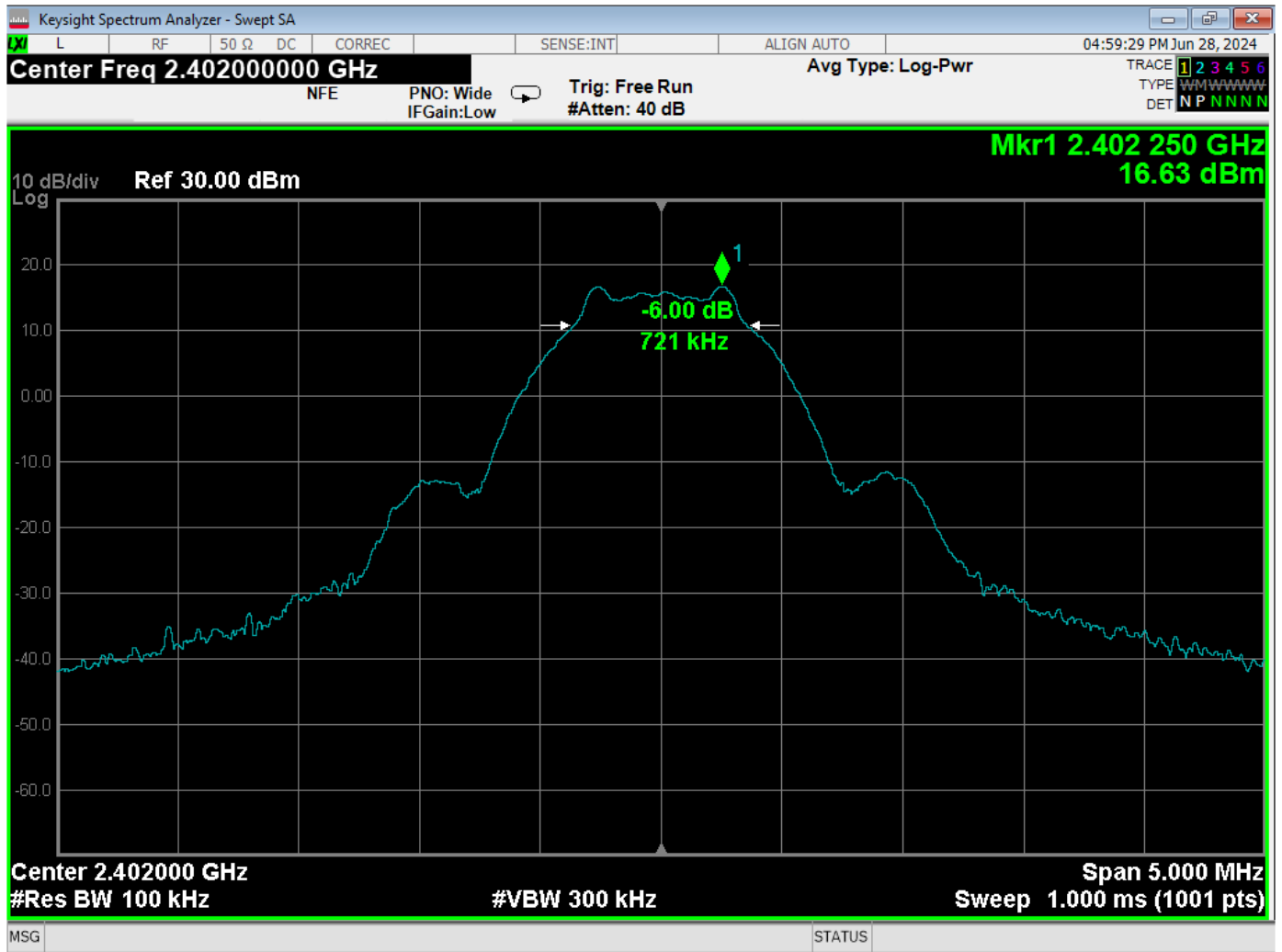
-6 dB Bandwidth – Low Channel – 802.11n Mode – 20 MHz – RedPine



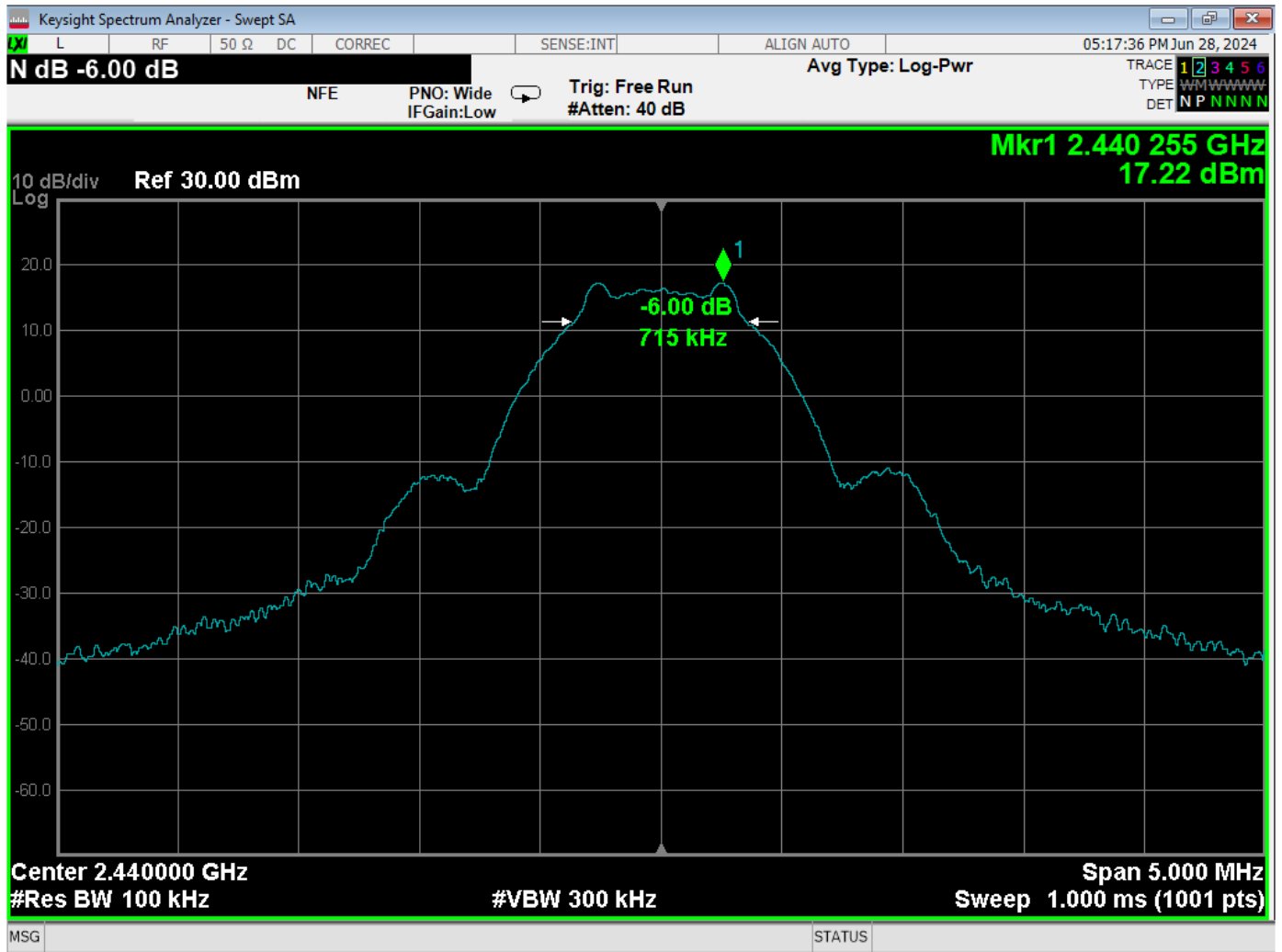
-6 dB Bandwidth – Middle Channel – 802.11n Mode – 20 MHz – RedPine



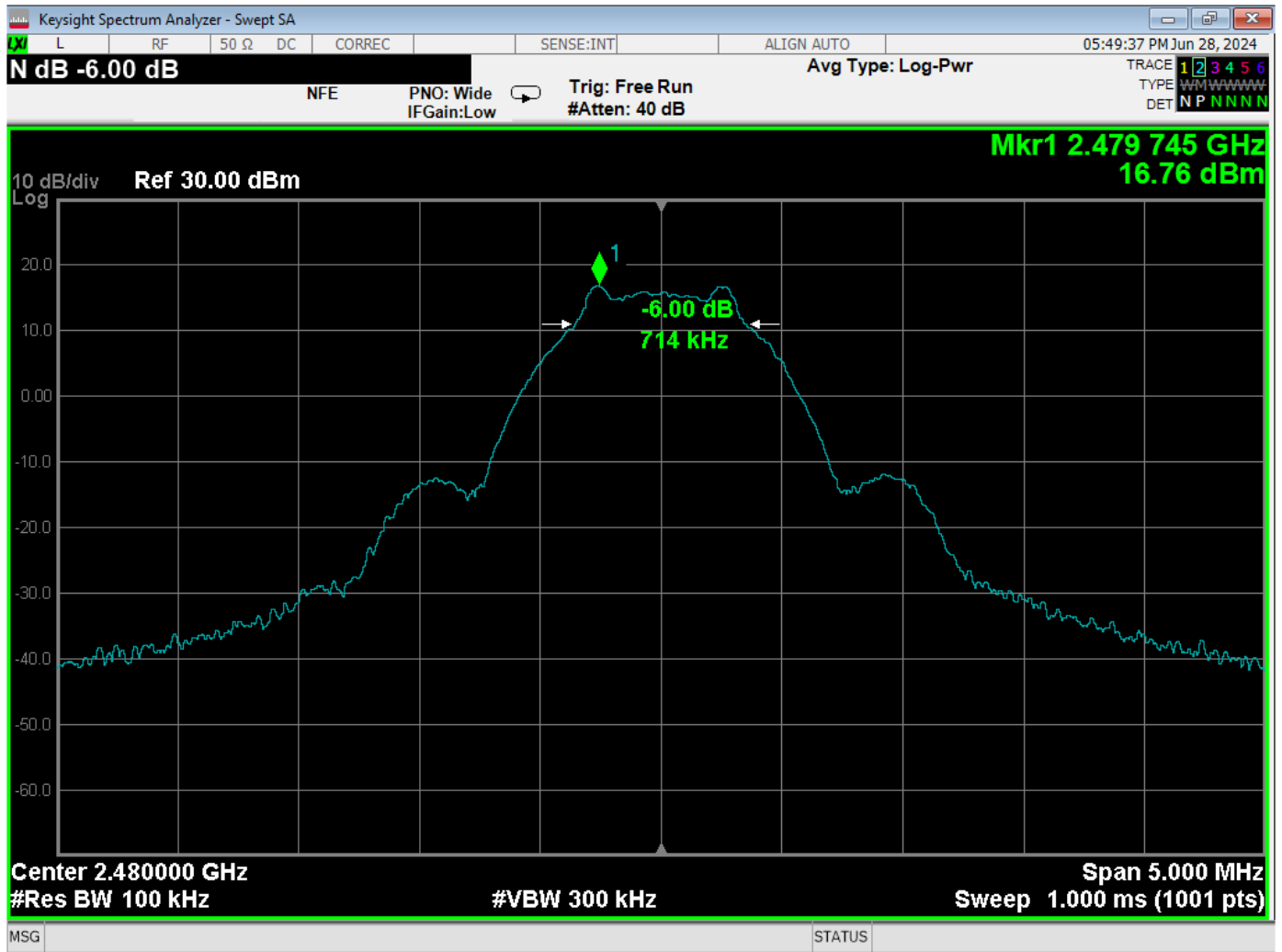
-6 dB Bandwidth – High Channel – 802.11n Mode – 20 MHz – RedPine



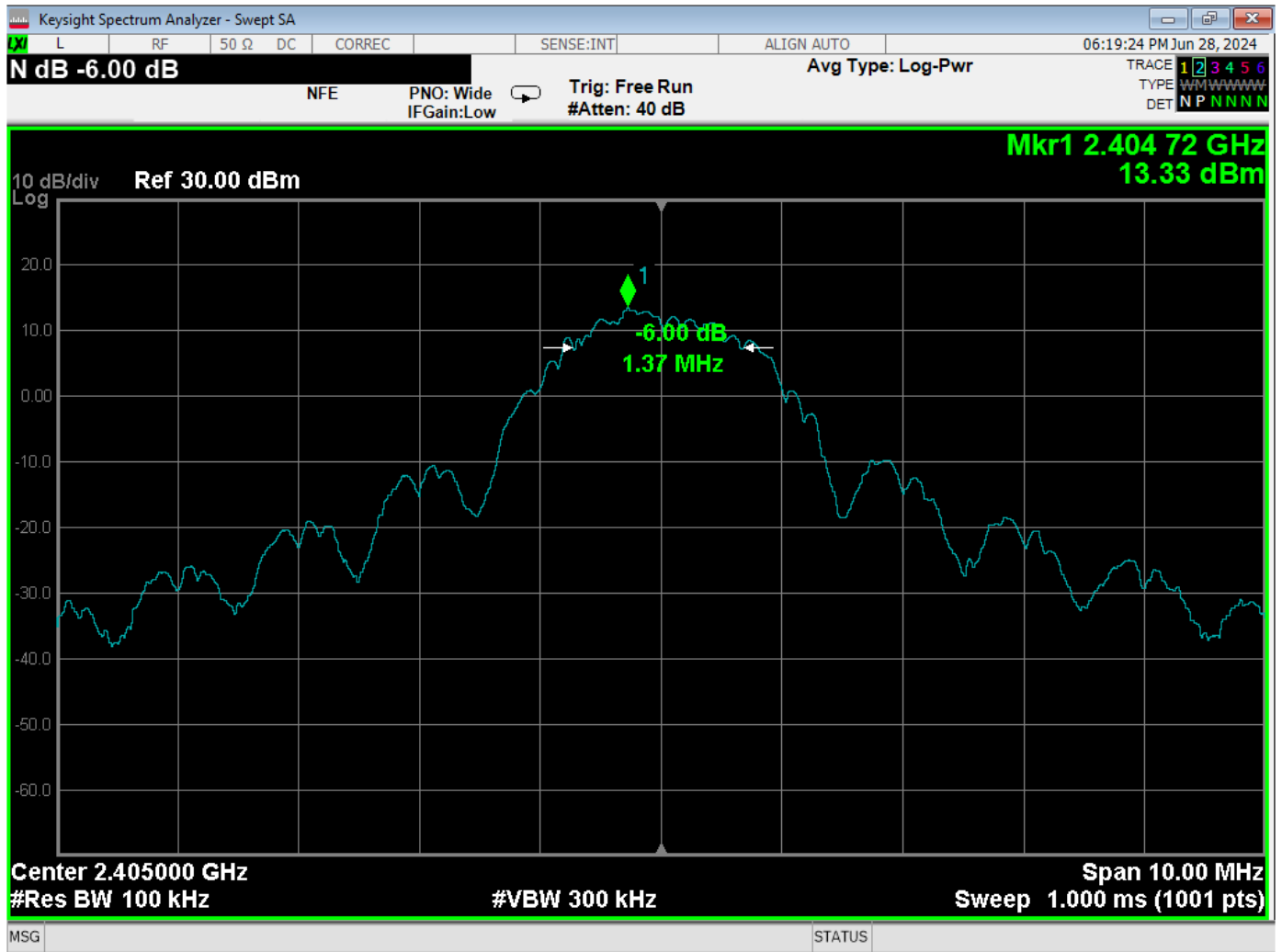
-6 dB Bandwidth – Low Channel – BLE Mode – Nordic



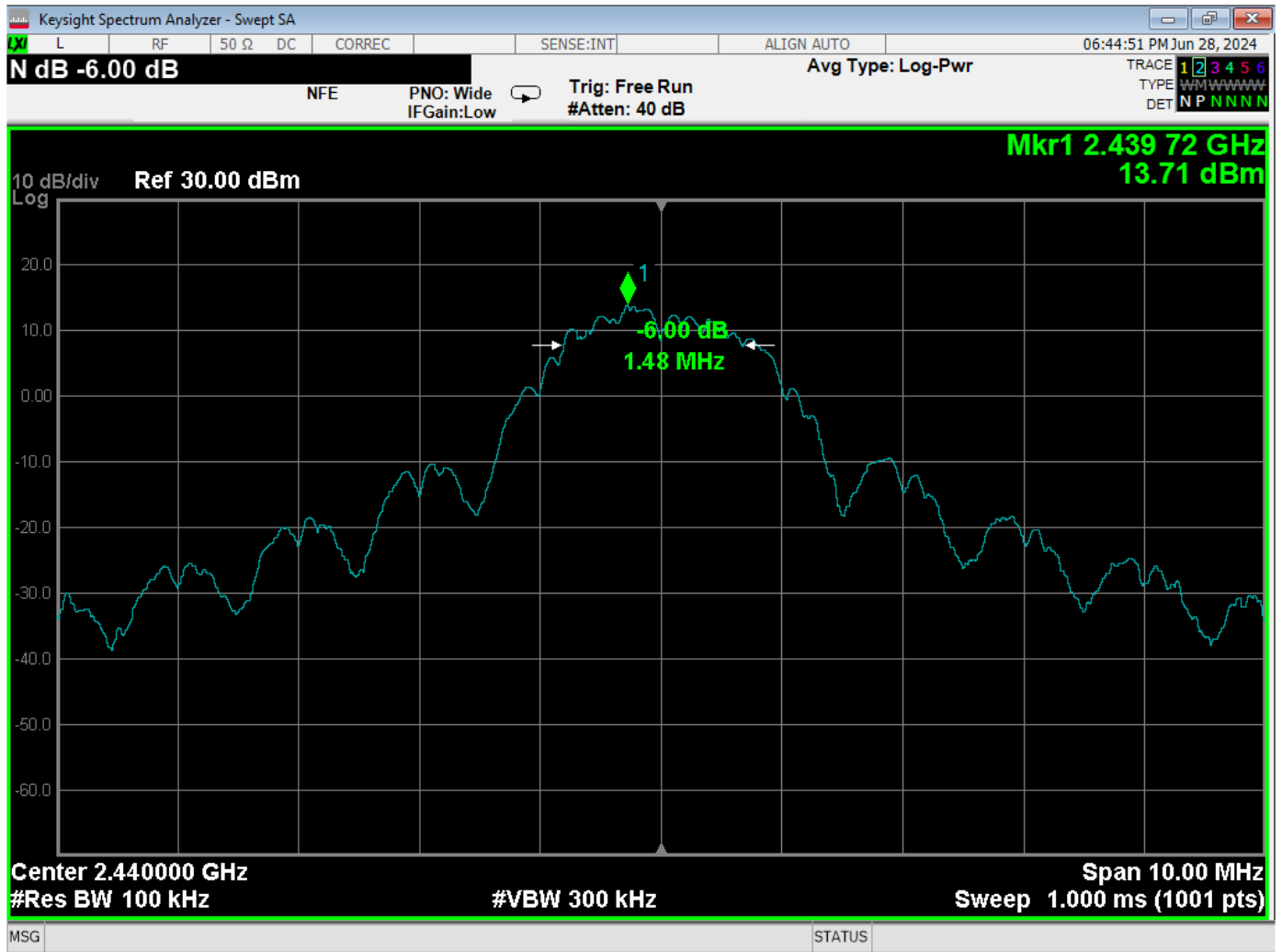
-6 dB Bandwidth – Middle Channel – BLE Mode – Nordic



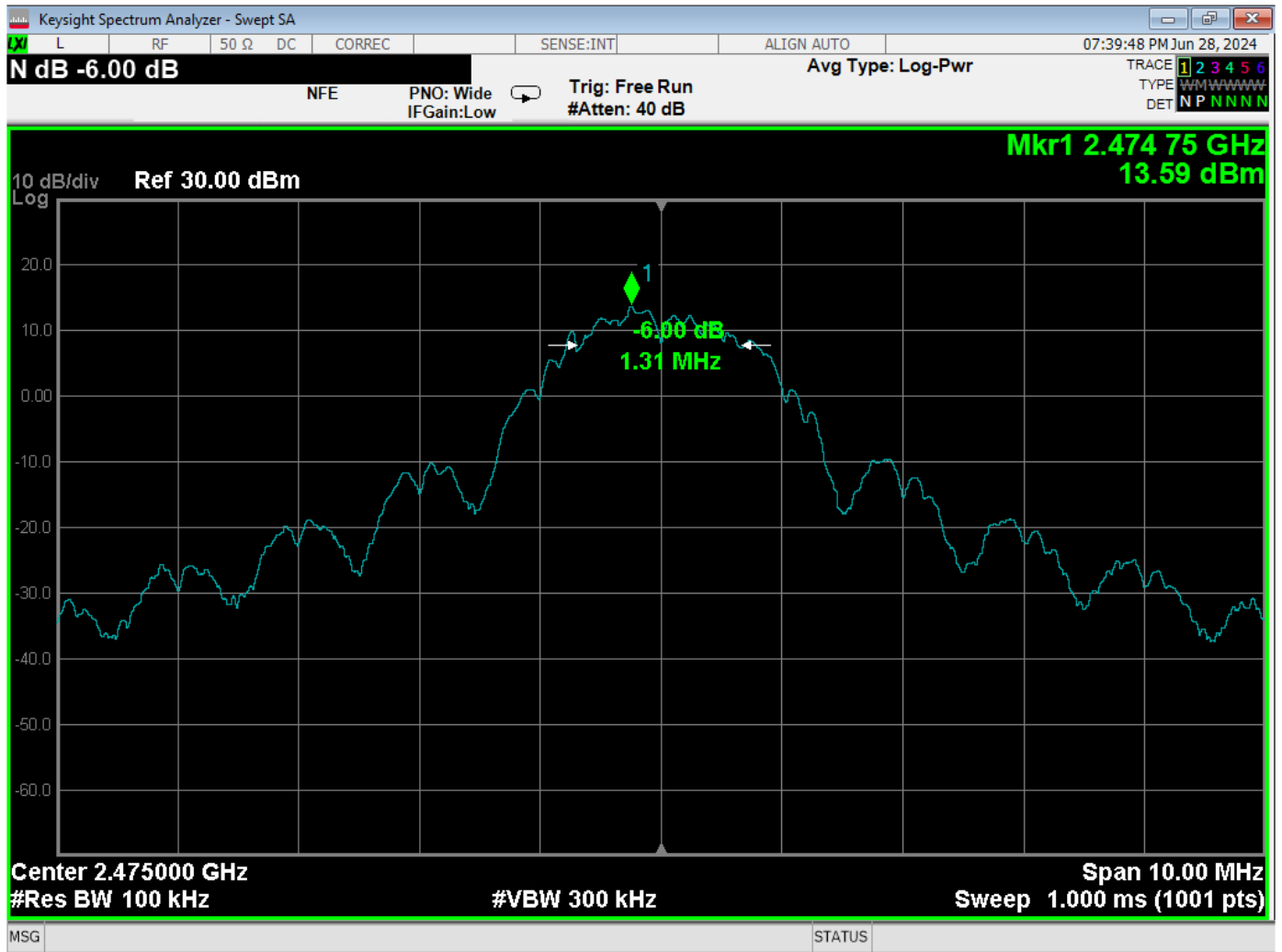
-6 dB Bandwidth – High Channel – BLE Mode – Nordic



-6 dB Bandwidth – Low Channel – Thread Mode – Nordic

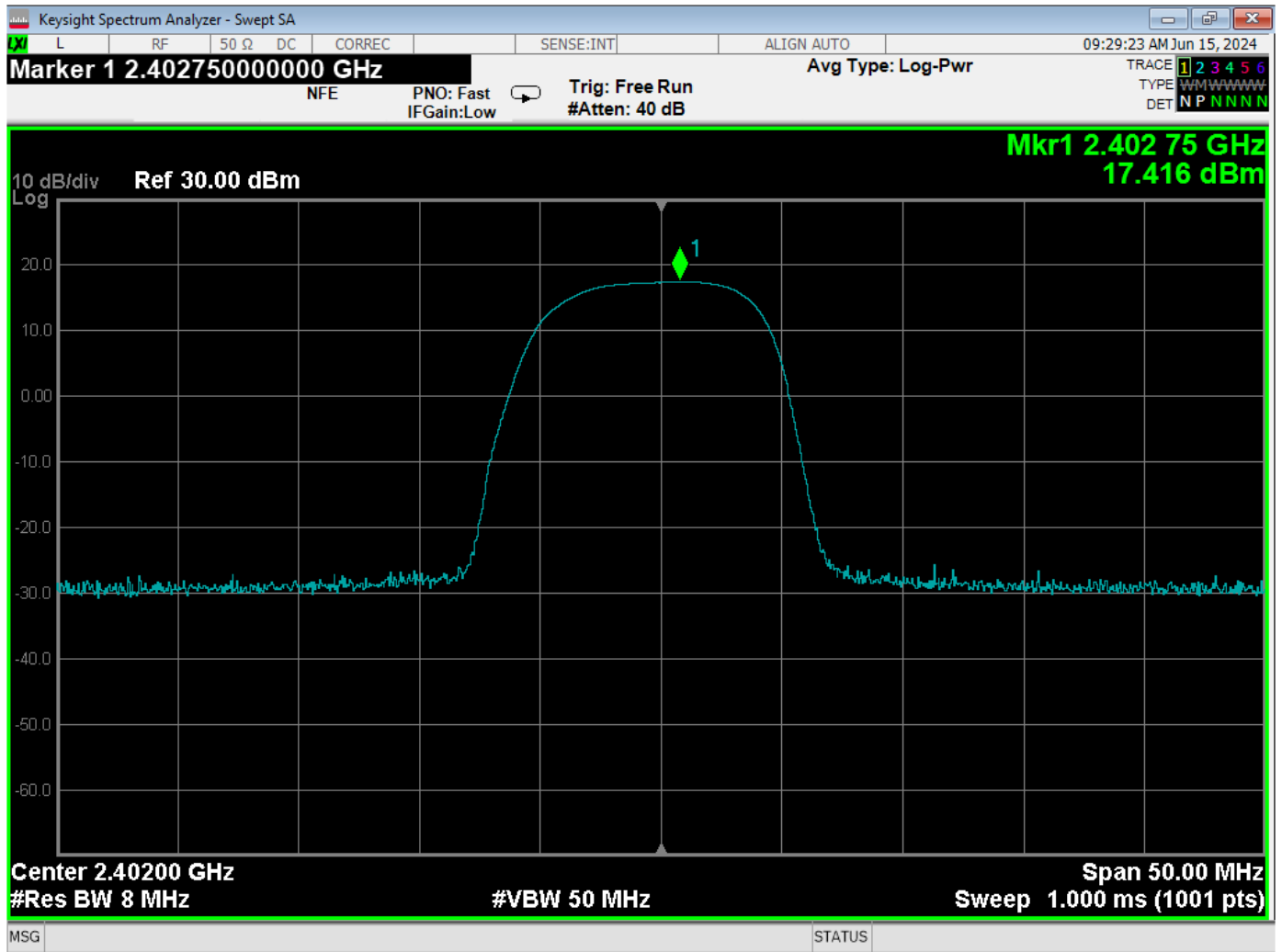


-6 dB Bandwidth – Middle Channel – Thread Mode – Nordic

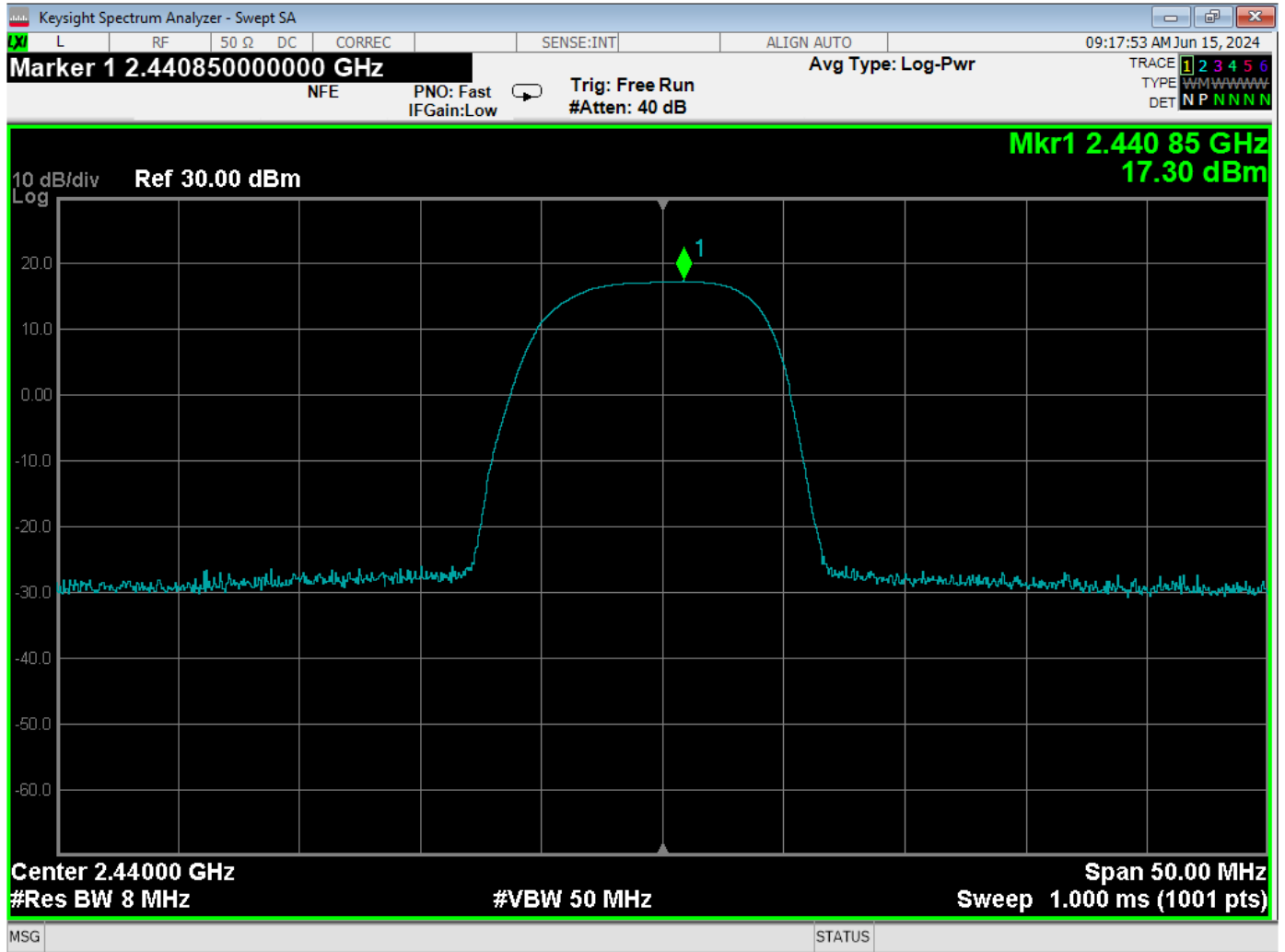


-6 dB Bandwidth – High Channel – Thread Mode – Nordic

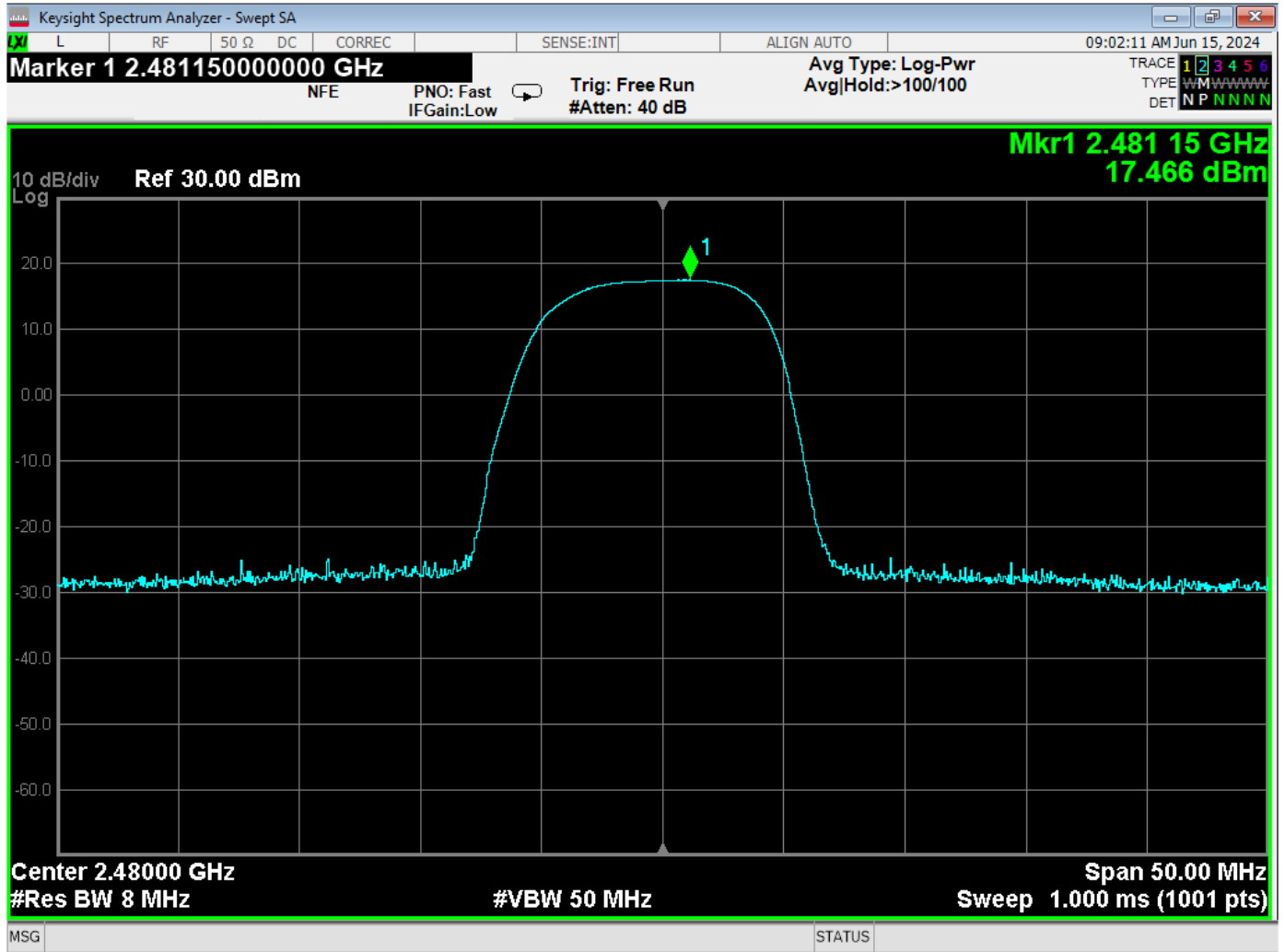
***PEAK POWER OUTPUT
DATA SHEETS***



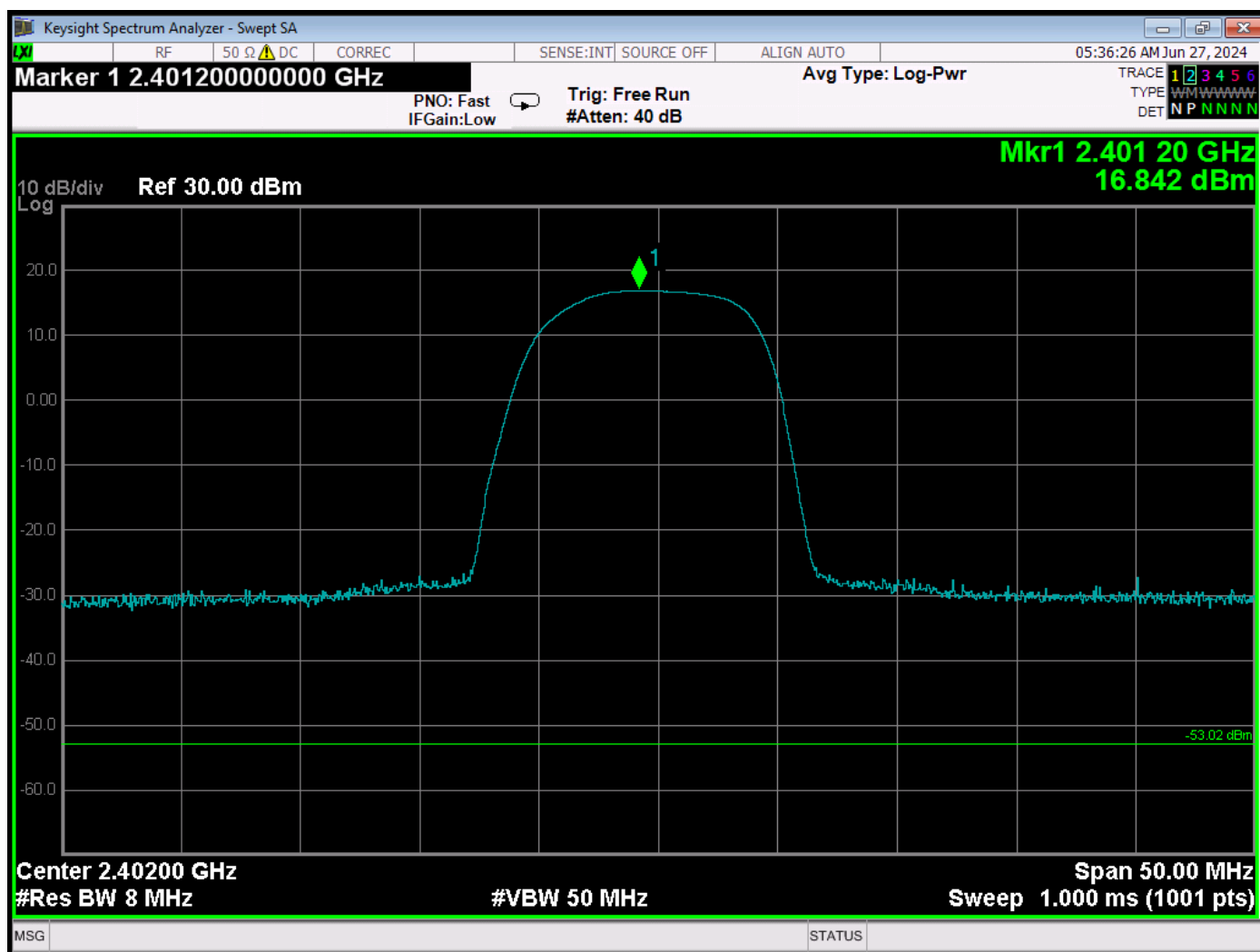
Peak Power Output – Low Channel – BLE Mode – RedPine



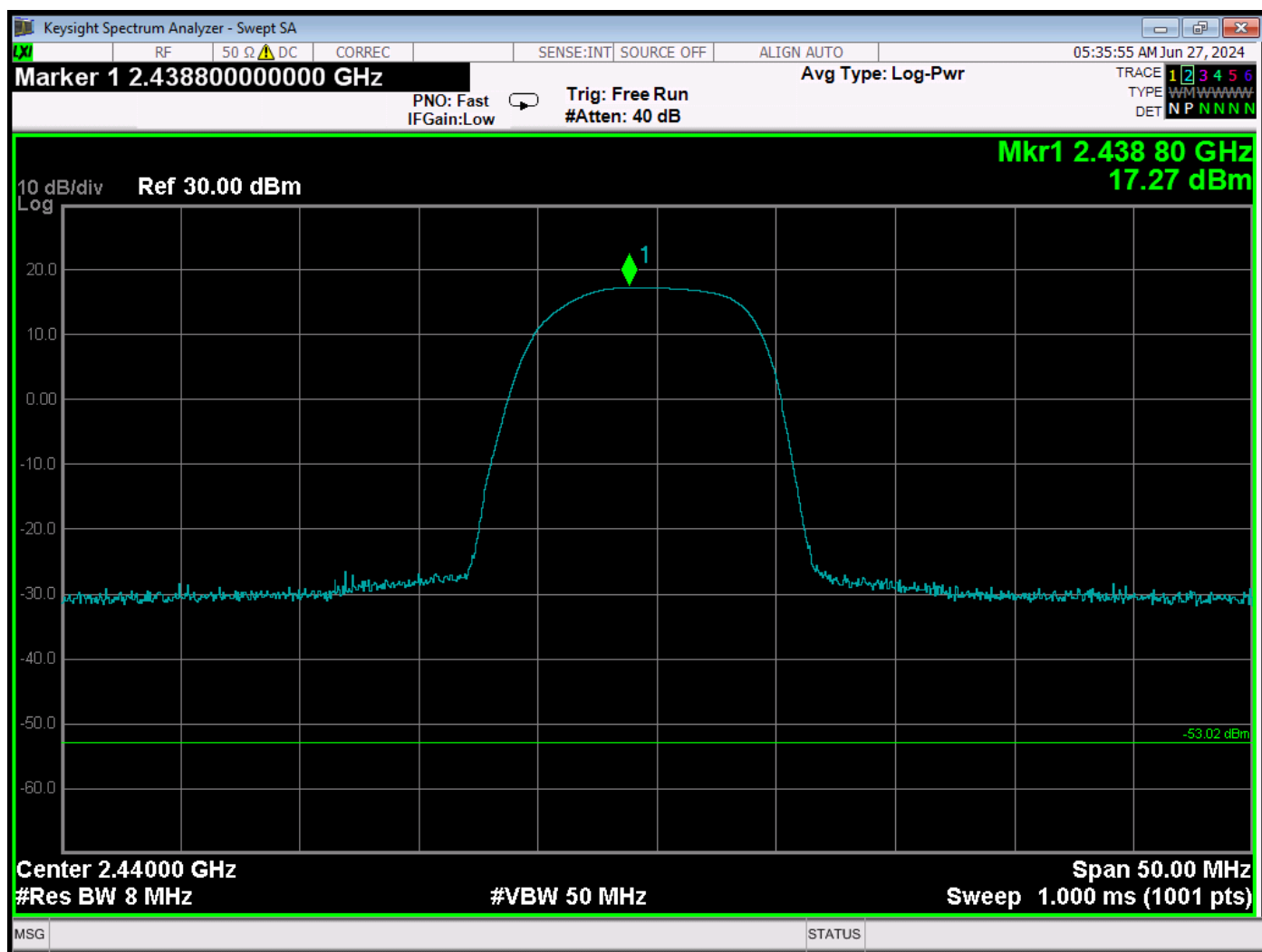
Peak Power Output – Middle Channel – BLE Mode – RedPine



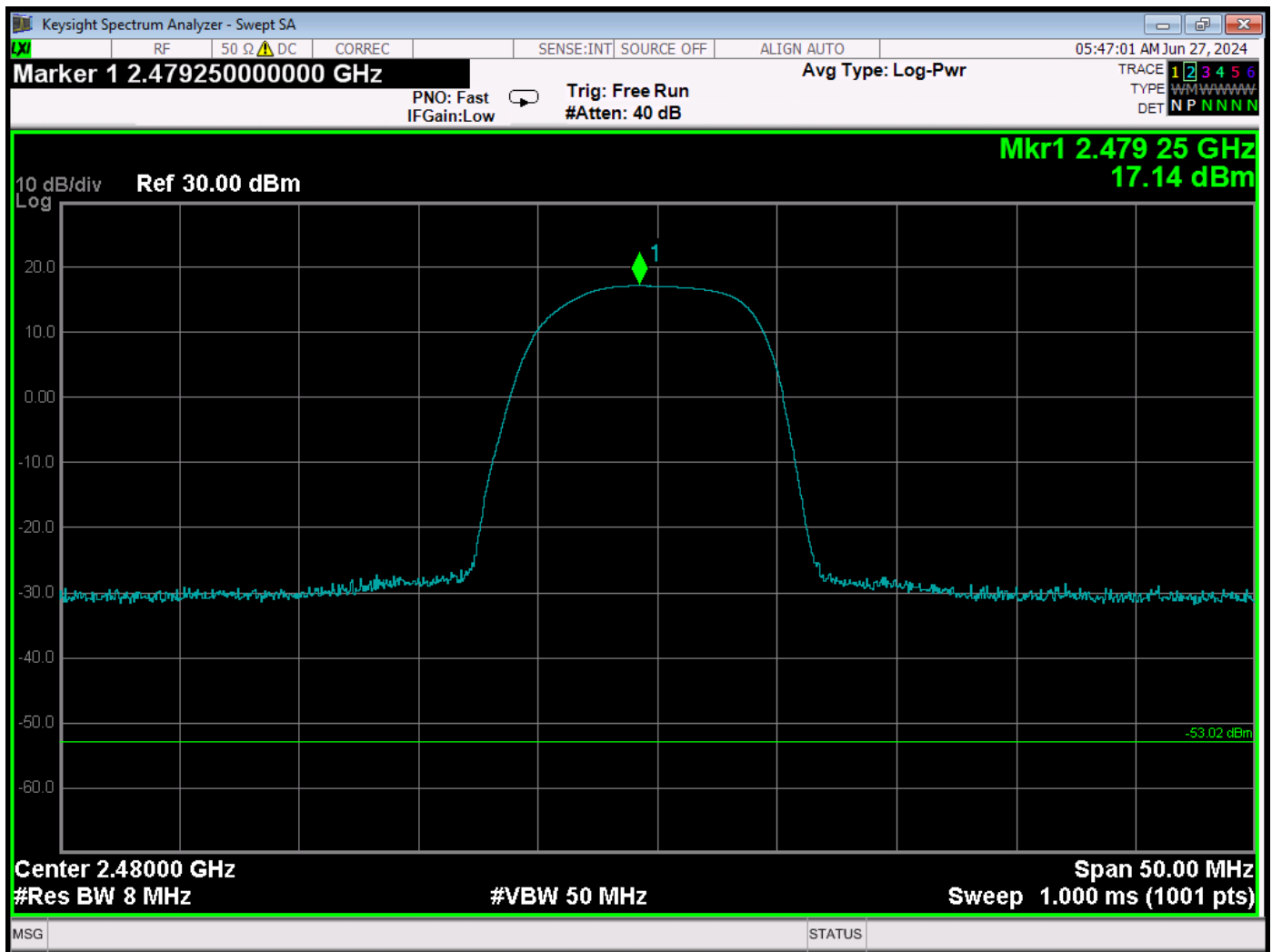
Peak Power Output – High Channel – BLE Mode – RedPine



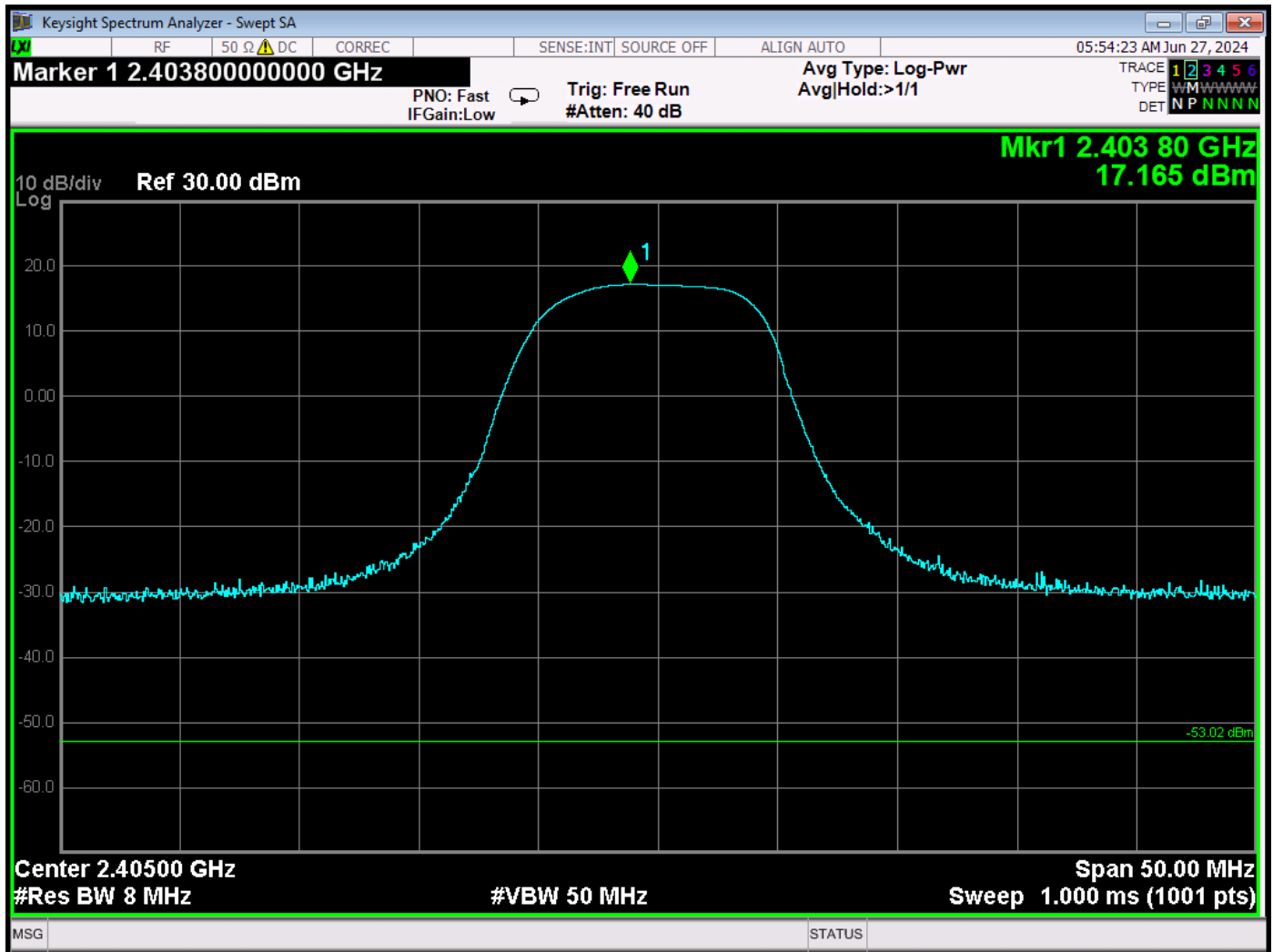
Peak Power Output – Low Channel – BLE Mode – Nordic



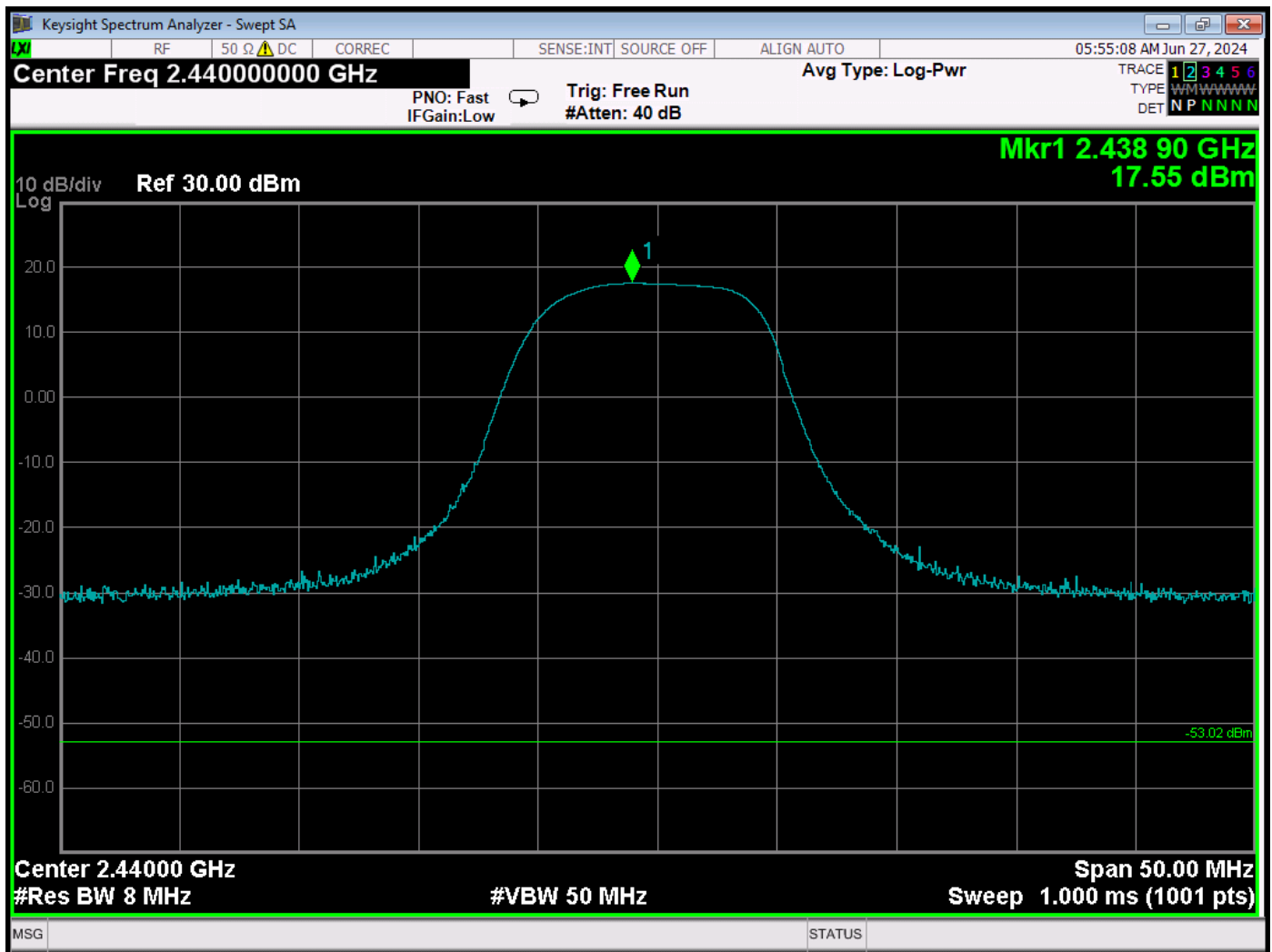
Peak Power Output – Middle Channel – BLE Mode – Nordic



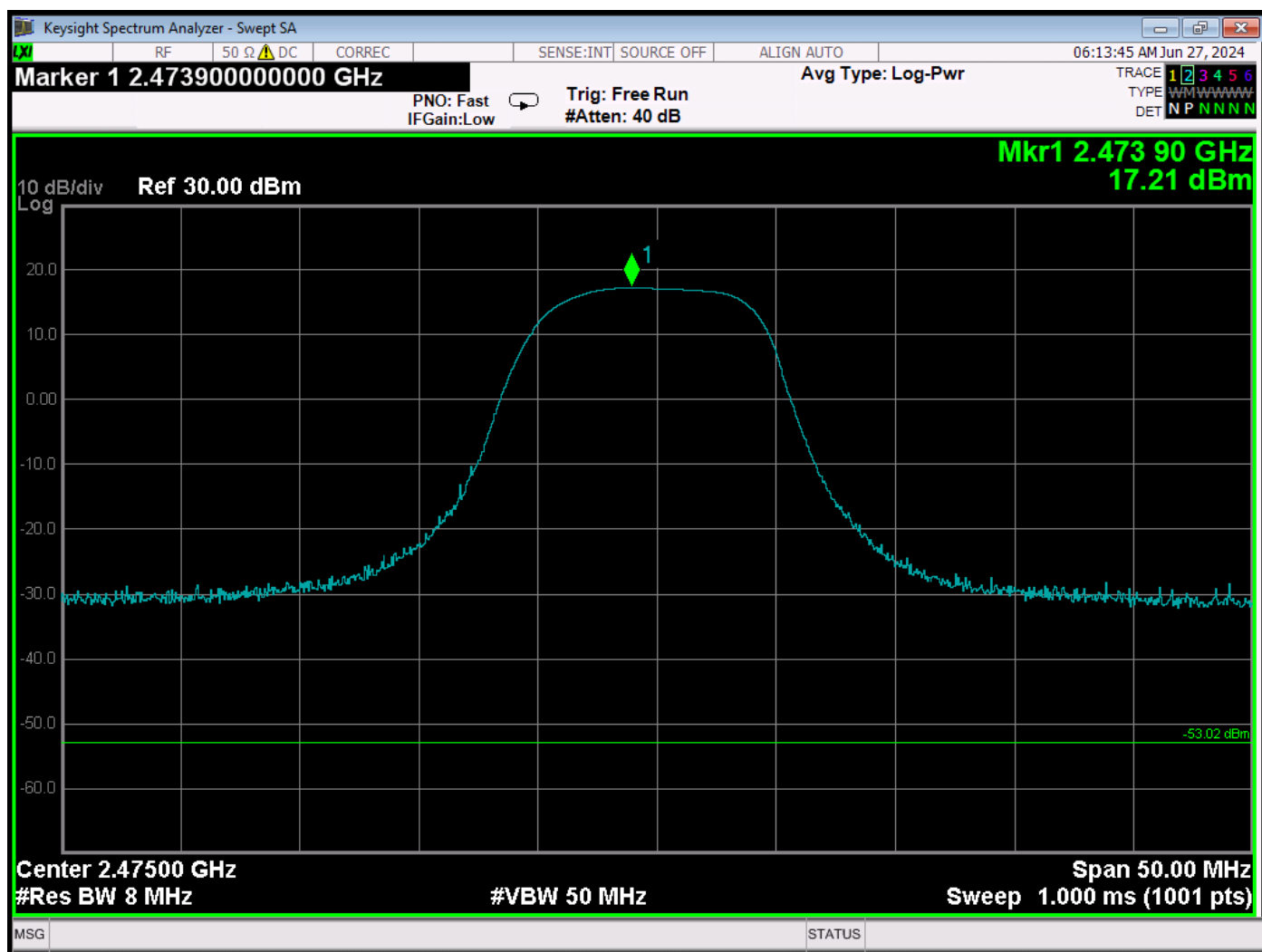
Peak Power Output – High Channel – BLE Mode – Nordic



Peak Power Output – Low Channel – Thread Mode – Nordic



Peak Power Output – Middle Channel – Thread Mode – Nordic



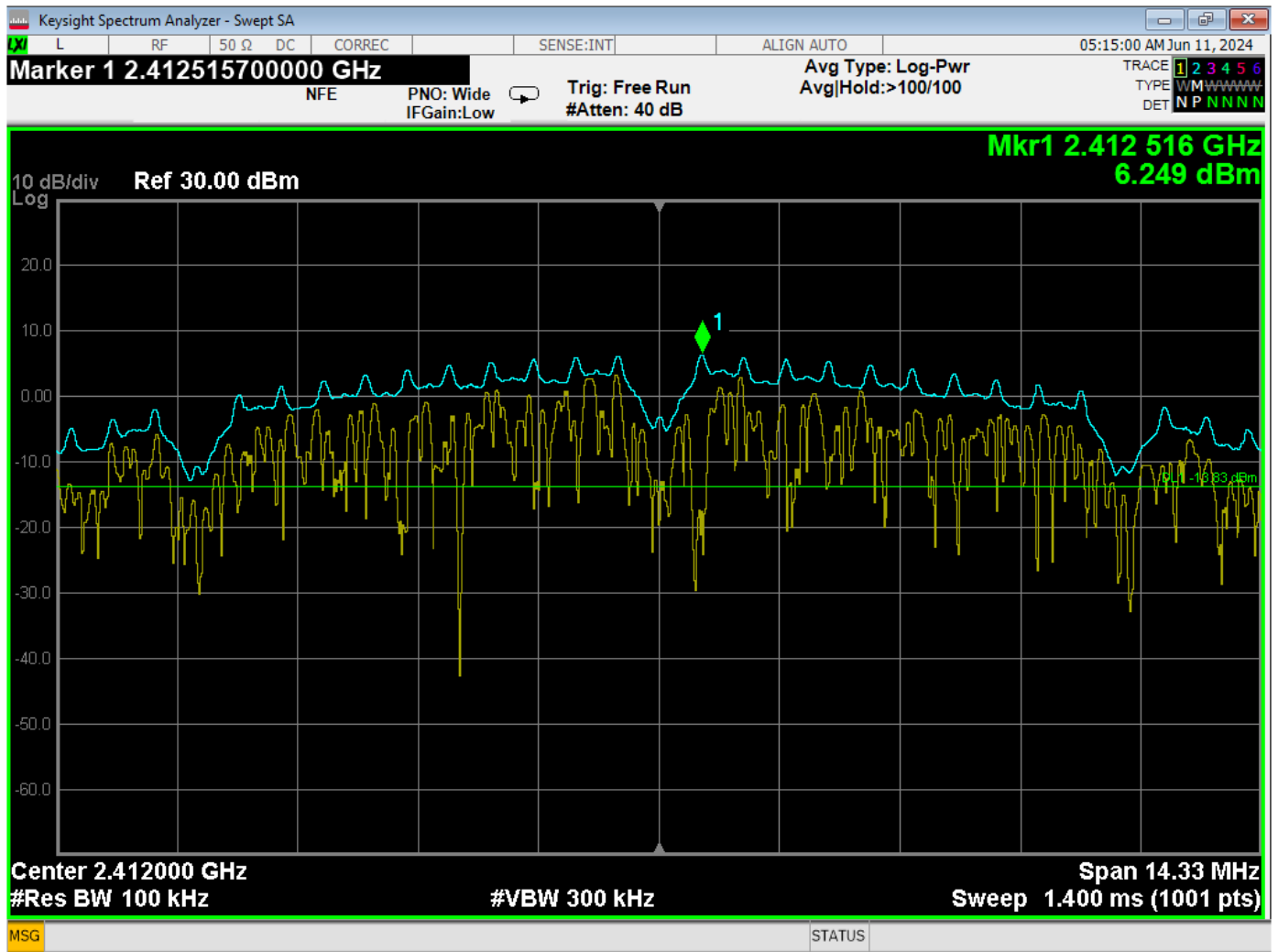
Peak Power Output – High Channel – Thread Mode – Nordic

PEAK OUTPUT POWER

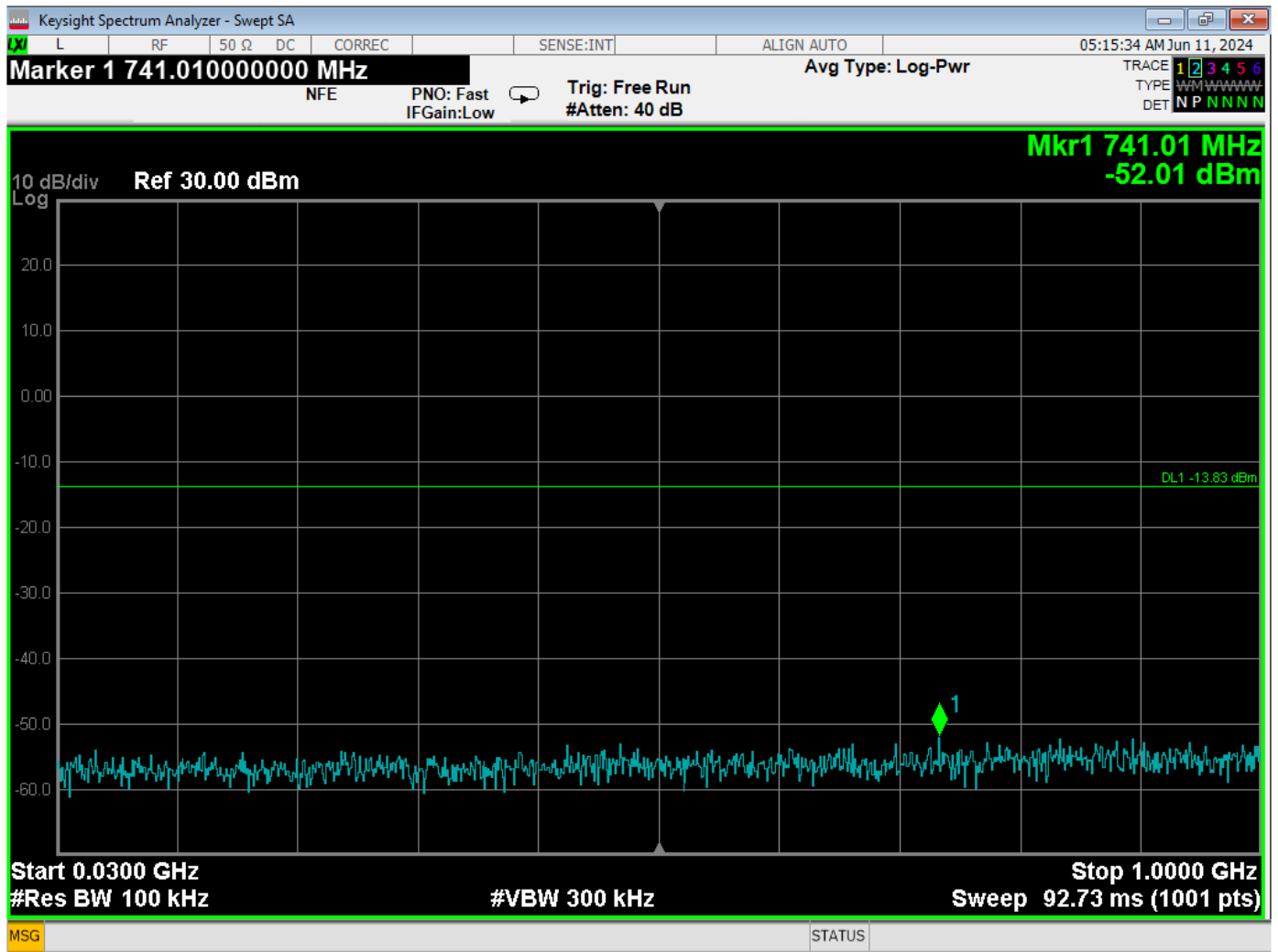
Residential Electronic Deadbolt Model: 9800

FREQUENCY (MHz)	PROTOCOL	DATA RATE	CHIPSET	PEAK POWER (dBm)	LIMIT (dB)	MARGIN (dBm)
2402	BLE	1 Mbit	REDPINE	17.416	30.00	-12.584
2440	BLE	1 Mbit	REDPINE	17.300	30.00	-12.700
2480	BLE	1 Mbit	REDPINE	17.470	30.00	-12.530
2402	BLE	1 Mbit	NORDIC	16.842	30.00	-13.158
2440	BLE	1 Mbit	NORDIC	17.270	30.00	-12.730
2480	BLE	1 Mbit	NORDIC	17.140	30.00	-12.860
2405	THREAD	250 kBit	NORDIC	17.165	30.00	-12.835
2440	THREAD	250 kBit	NORDIC	17.550	30.00	-12.450
2475	THREAD	250 kBit	NORDIC	17.210	30.00	-12.790
2412	802.11b	1 – CCK	REDPINE	14.830	30.00	-15.170
2437	802.11b	1 – CCK	REDPINE	14.110	30.00	-15.890
2462	802.11b	1 – CCK	REDPINE	12.670	30.00	-17.330
2412	802.11g	6 - OFDM	REDPINE	12.390	30.00	-17.610
2437	802.11g	6 - OFDM	REDPINE	17.420	30.00	-12.580
2462	802.11g	6 - OFDM	REDPINE	10.680	30.00	-19.320
2412	802.11n (20 MHz)	MCS0	REDPINE	11.490	30.00	-18.510
2437	802.11n (20 MHz)	MCS0	REDPINE	17.890	30.00	-12.110
2462	802.11n (20 MHz)	MCS0	REDPINE	12.680	30.00	-17.320

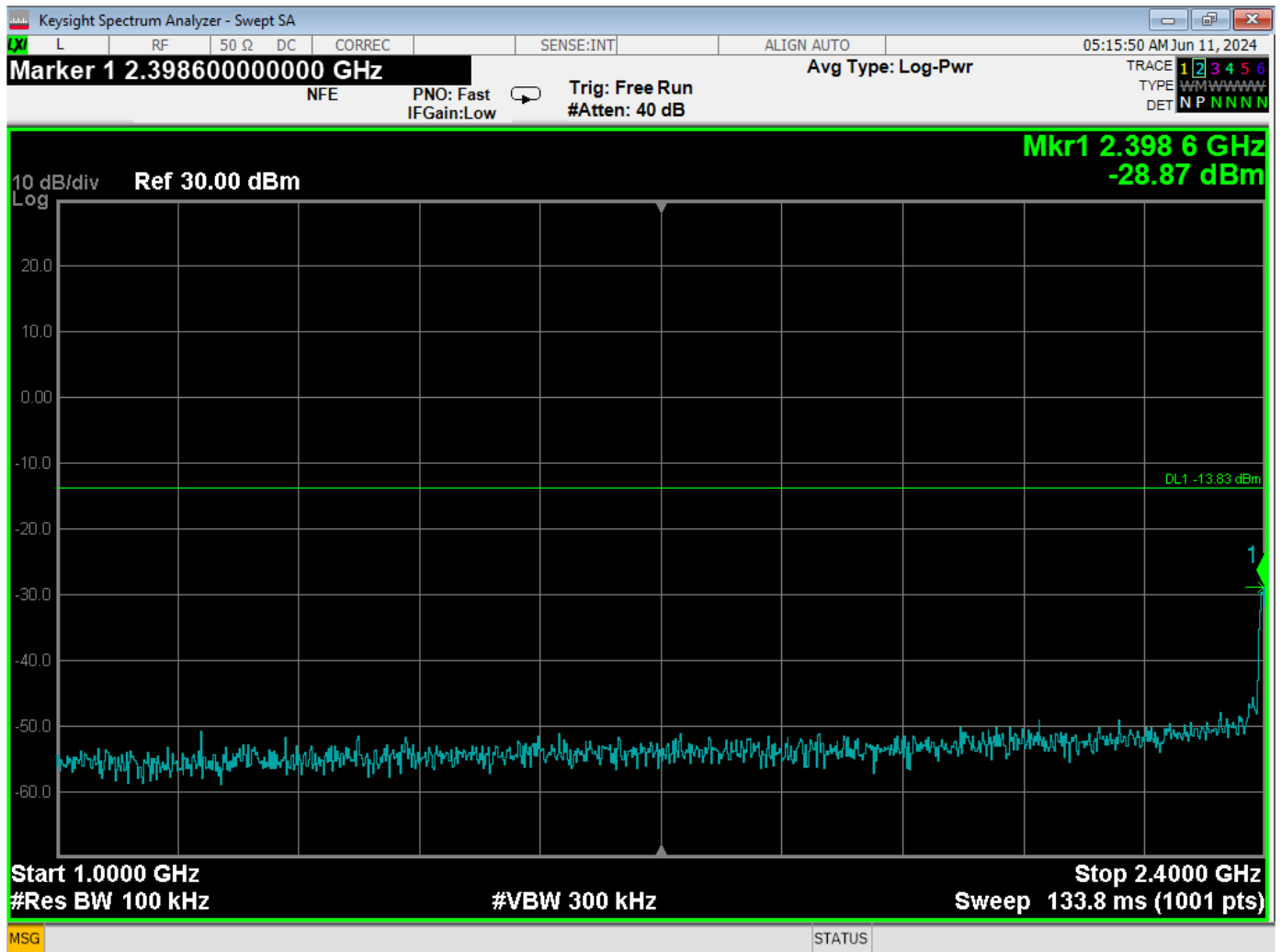
***RF ANTENNA CONDUCTED
DATA SHEETS***



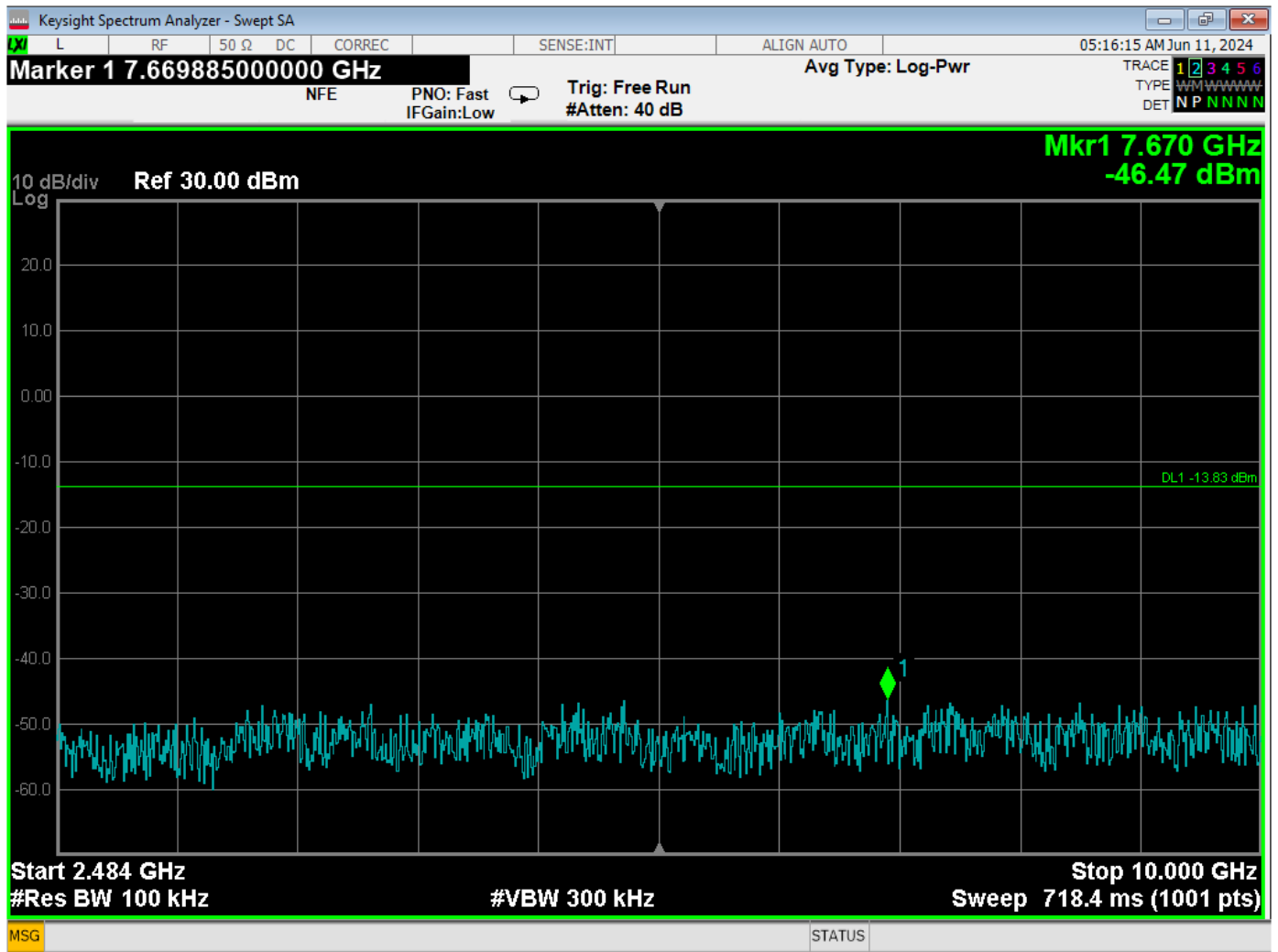
RF Antenna Conducted – Low Channel – 802.11b Mode – Reference Level – RedPine



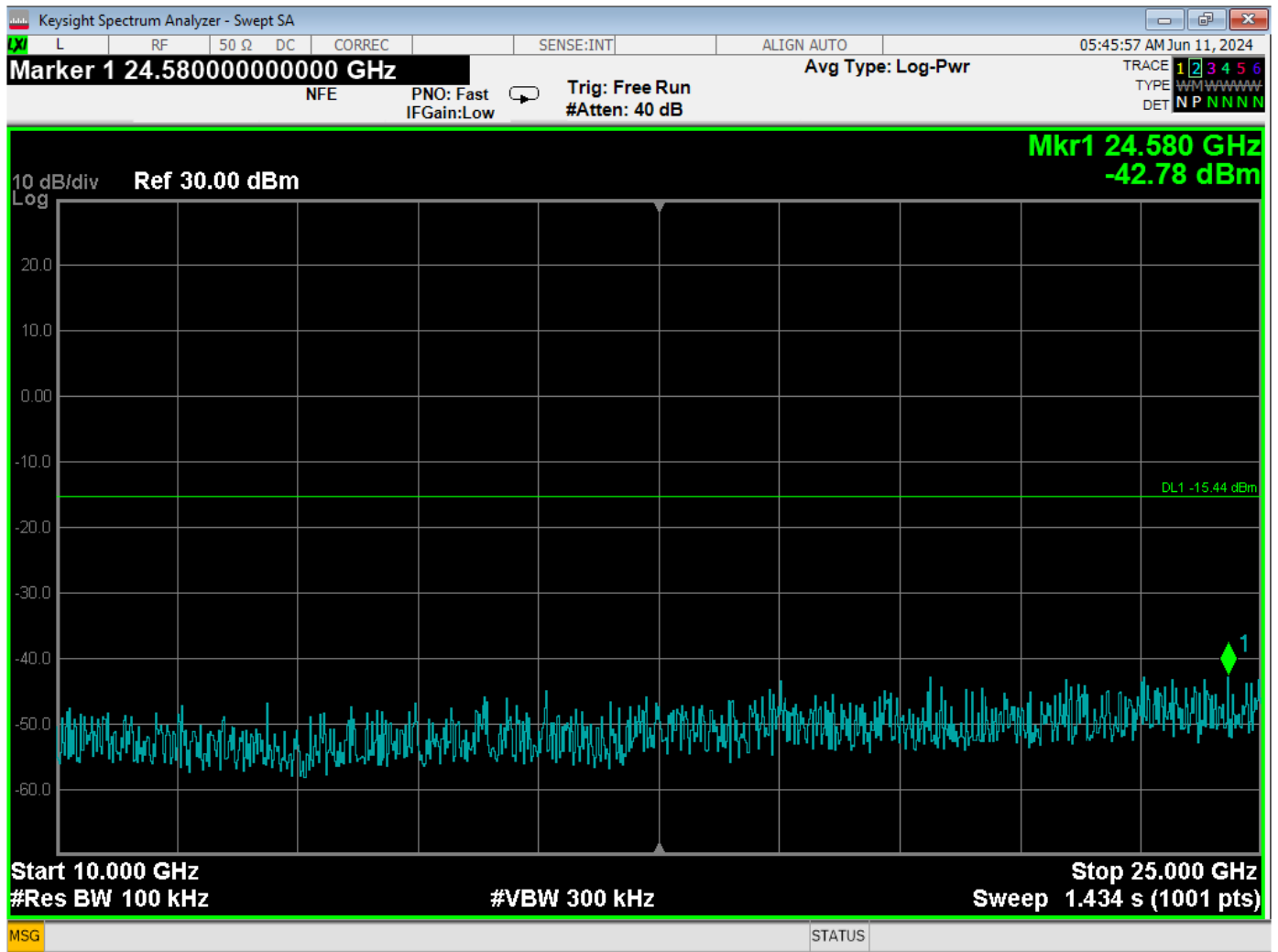
RF Antenna Conducted – Low Channel – 802.11b Mode – 30 MHz to 1 GHz – RedPine



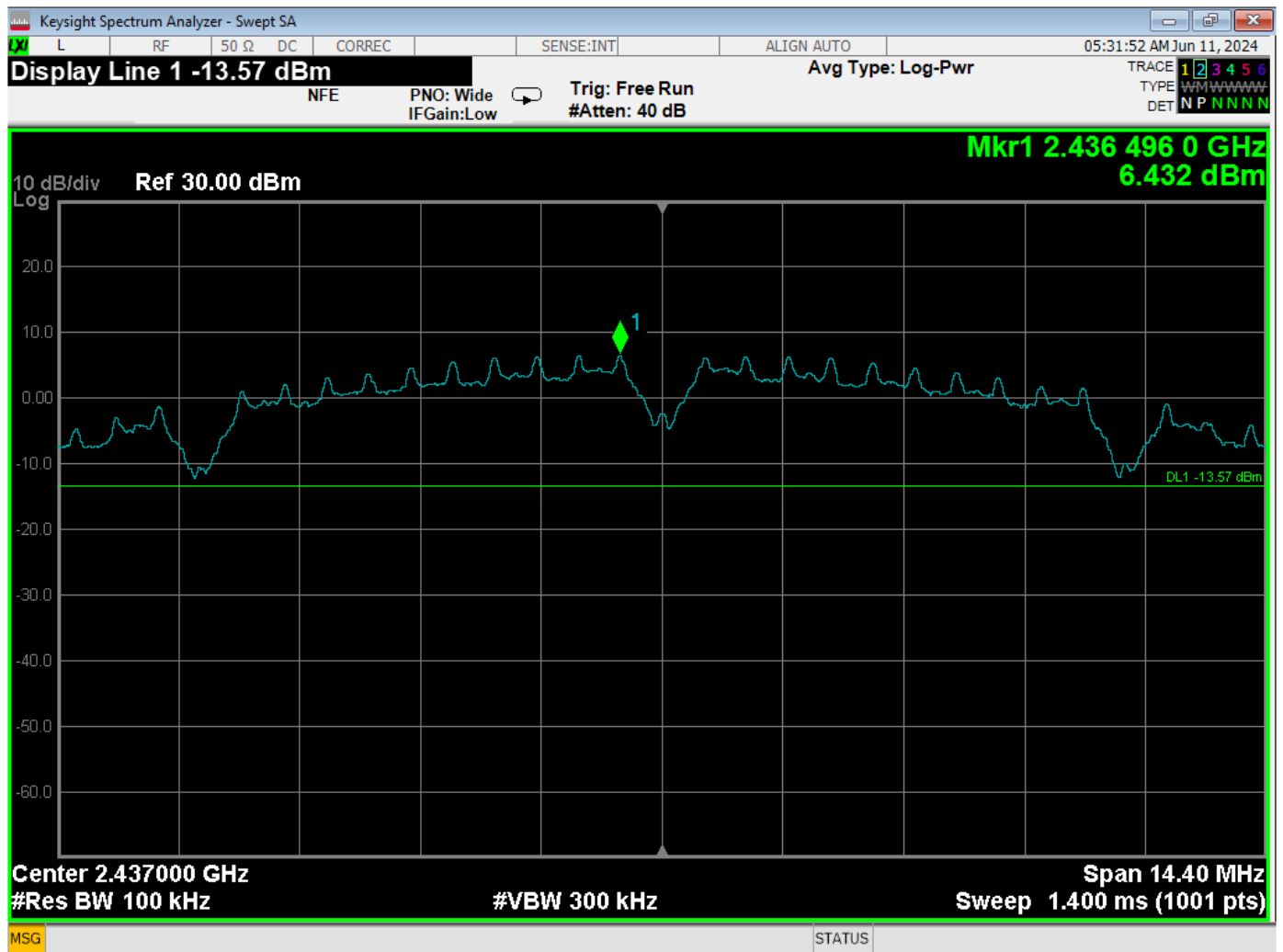
RF Antenna Conducted – Low Channel – 802.11b Mode – 1 GHz to 2.4 GHz – RedPine



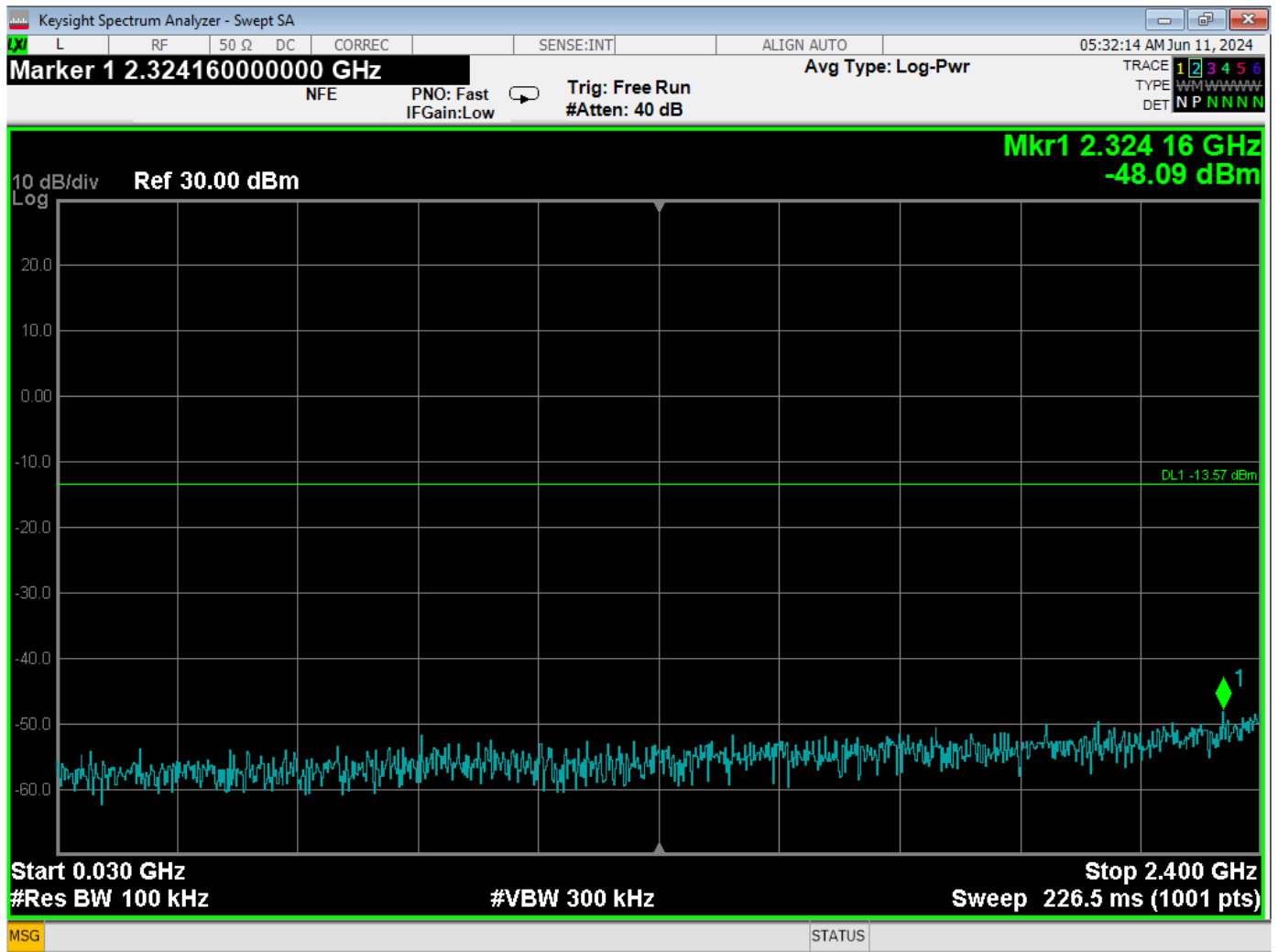
RF Antenna Conducted – Low Channel – 802.11b Mode – 2483.5 MHz to 10 GHz – RedPine



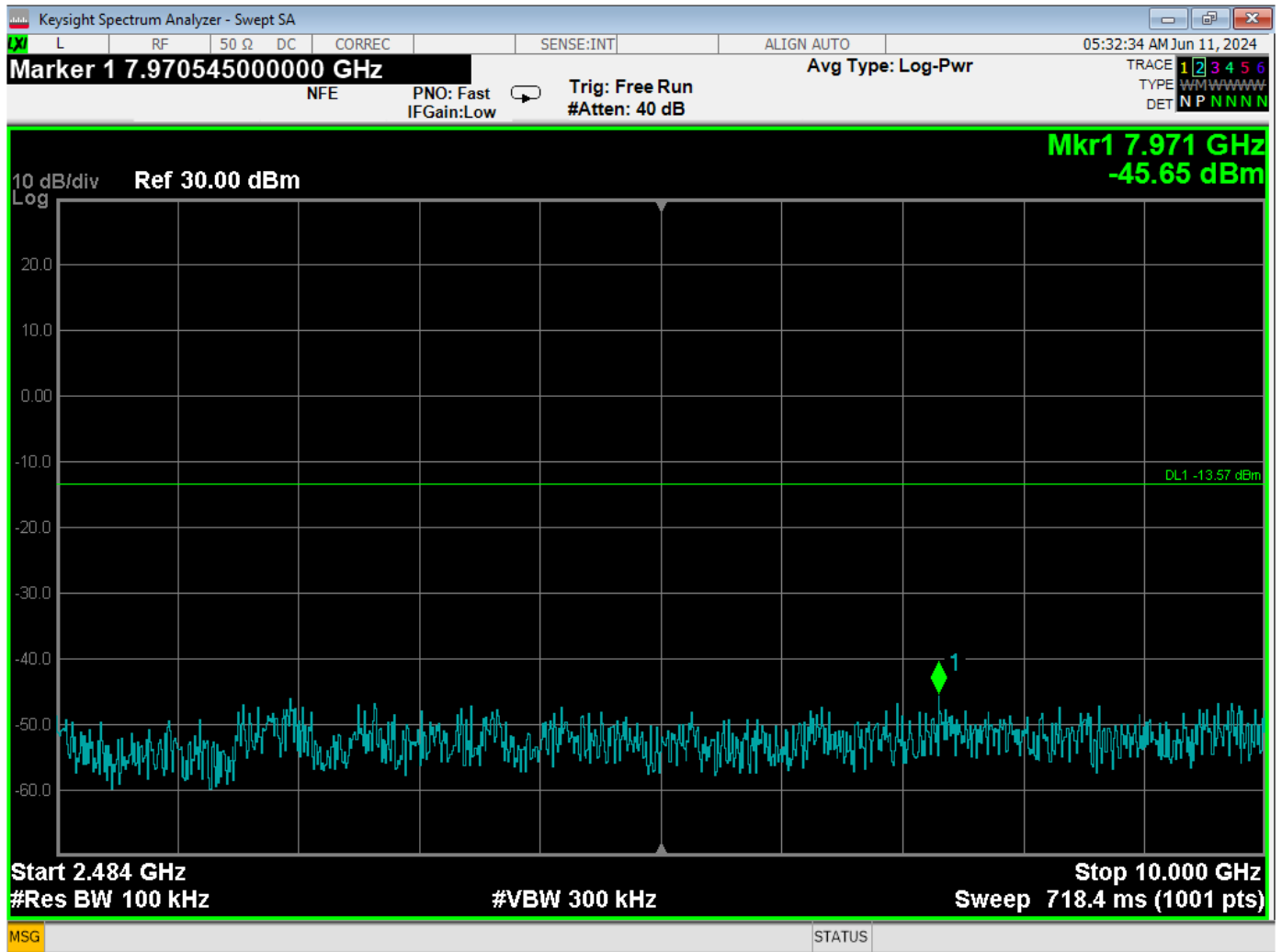
RF Antenna Conducted – Low Channel – 802.11b Mode – 10 GHz to 25 GHz – RedPine



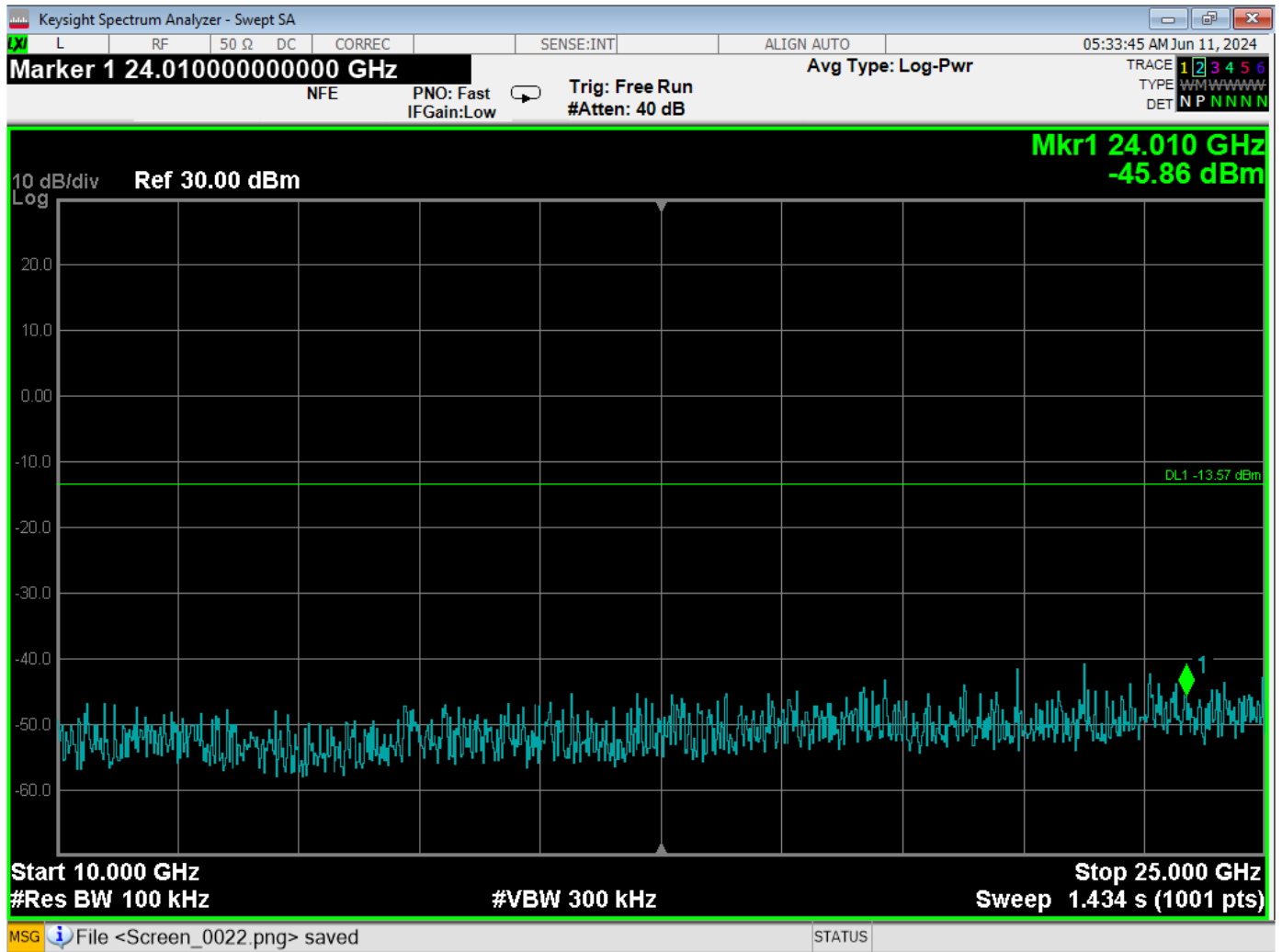
RF Antenna Conducted – Middle Channel – 802.11b Mode – Reference Level – RedPine



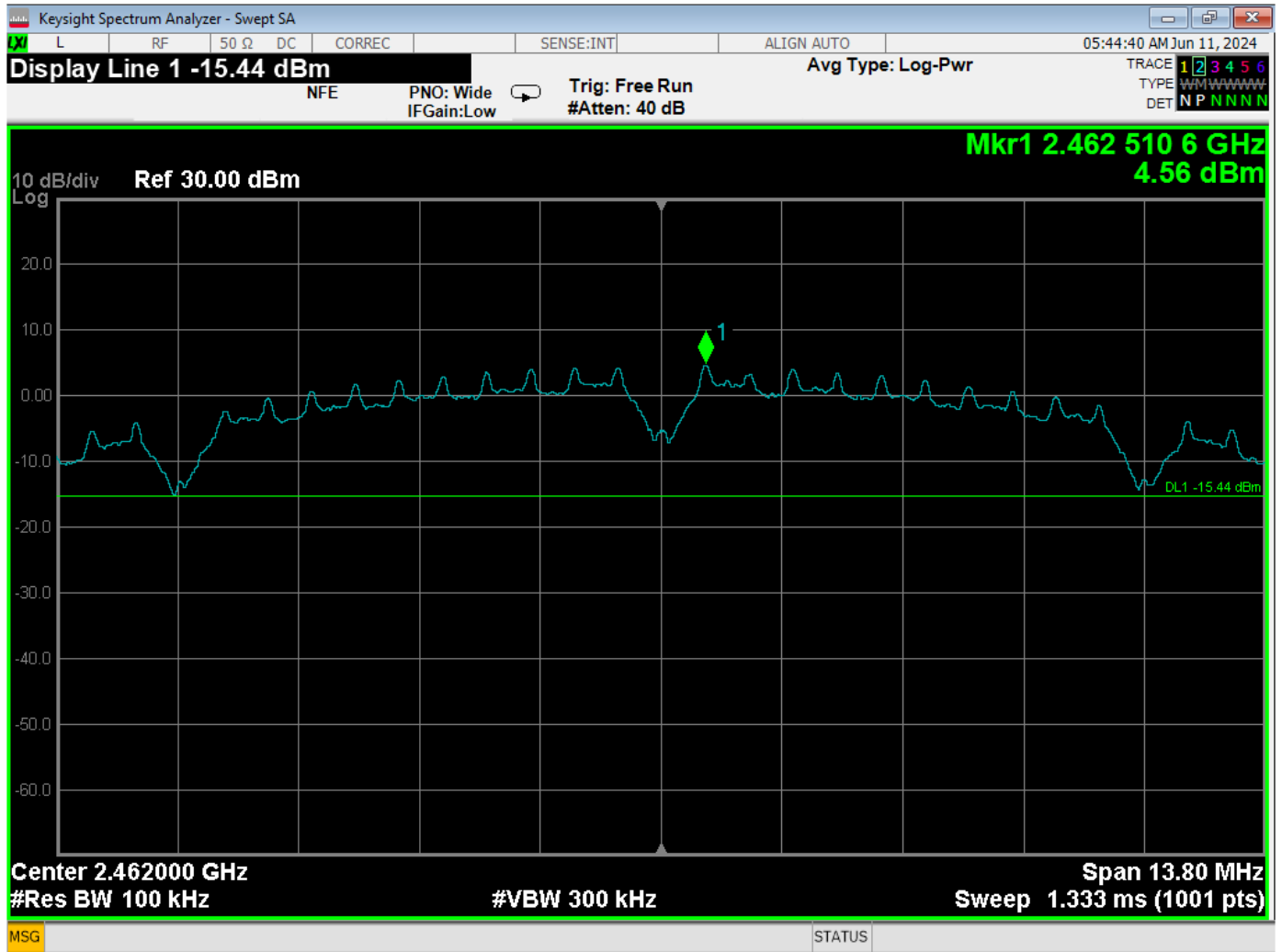
RF Antenna Conducted – Middle Channel – 802.11b Mode – 30 MHz to 2.4 GHz – RedPine



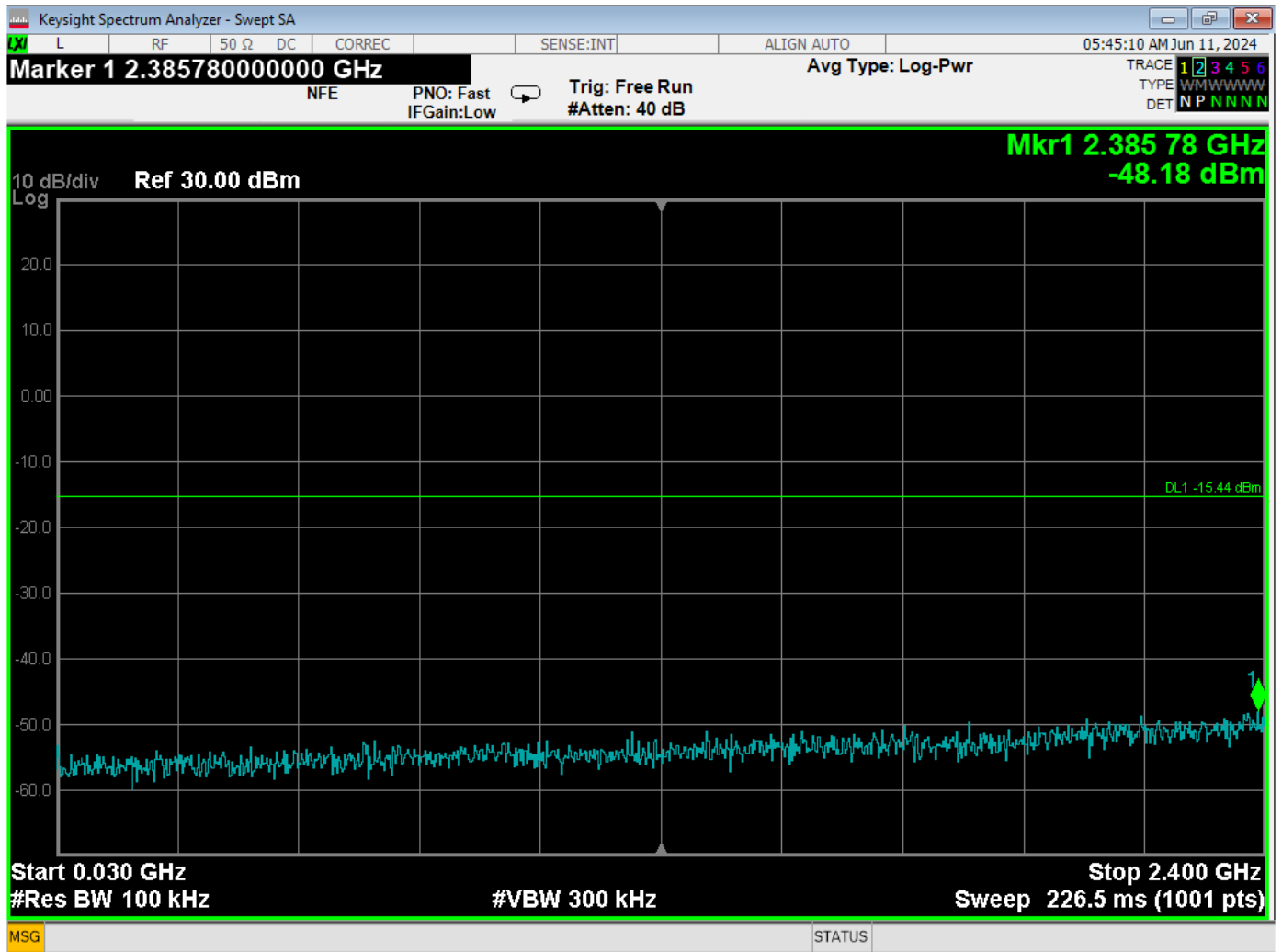
RF Antenna Conducted – Middle Channel – 802.11b Mode – 2485.3 MHz to 10 GHz – RedPine



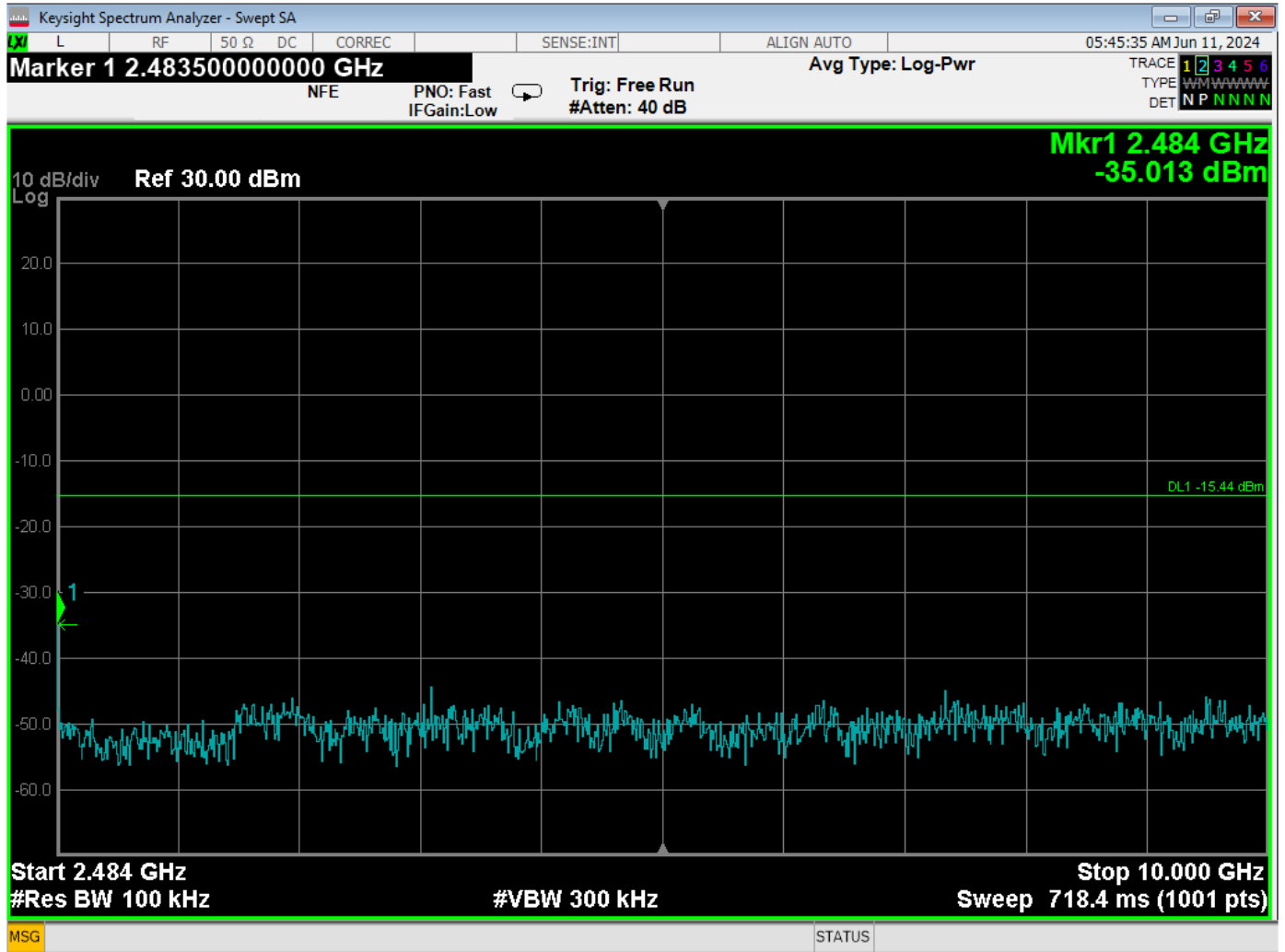
RF Antenna Conducted – Middle Channel – 802.11b Mode – 10 GHz to 25 GHz – RedPine



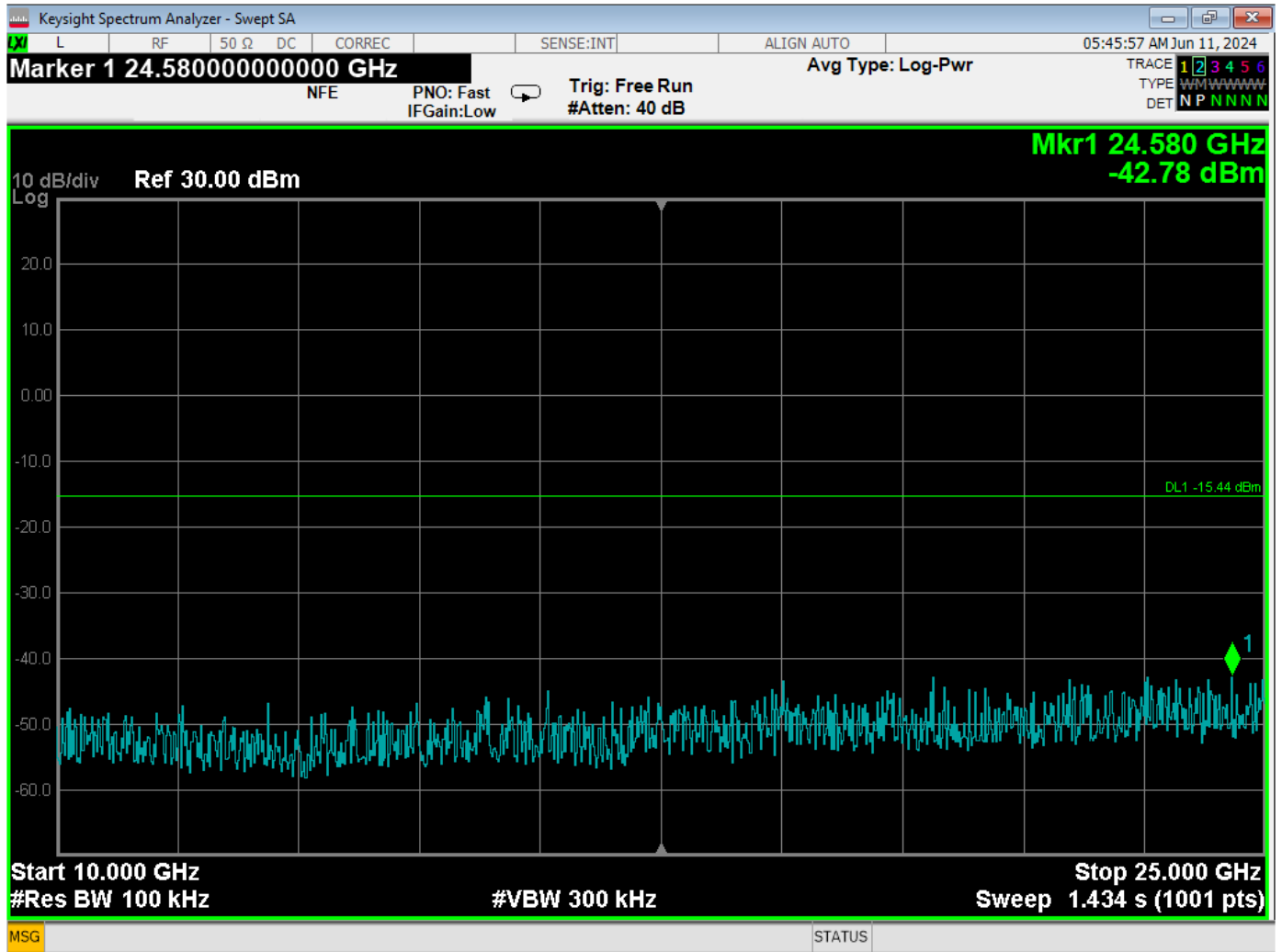
RF Antenna Conducted – High Channel – 802.11b Mode – Reference Level – RedPine



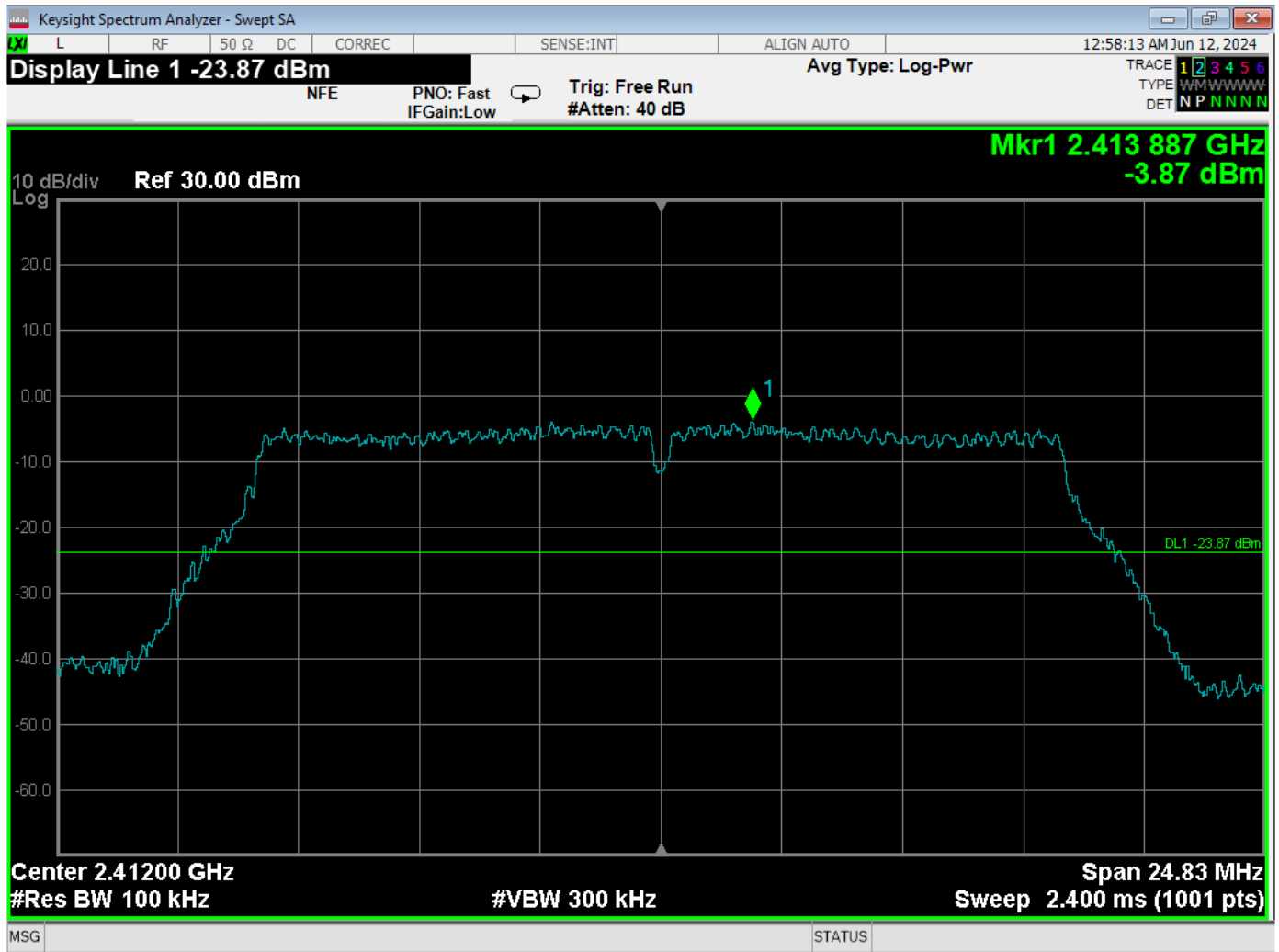
RF Antenna Conducted – High Channel – 802.11b Mode – 30 MHz to 2.4 GHz – RedPine



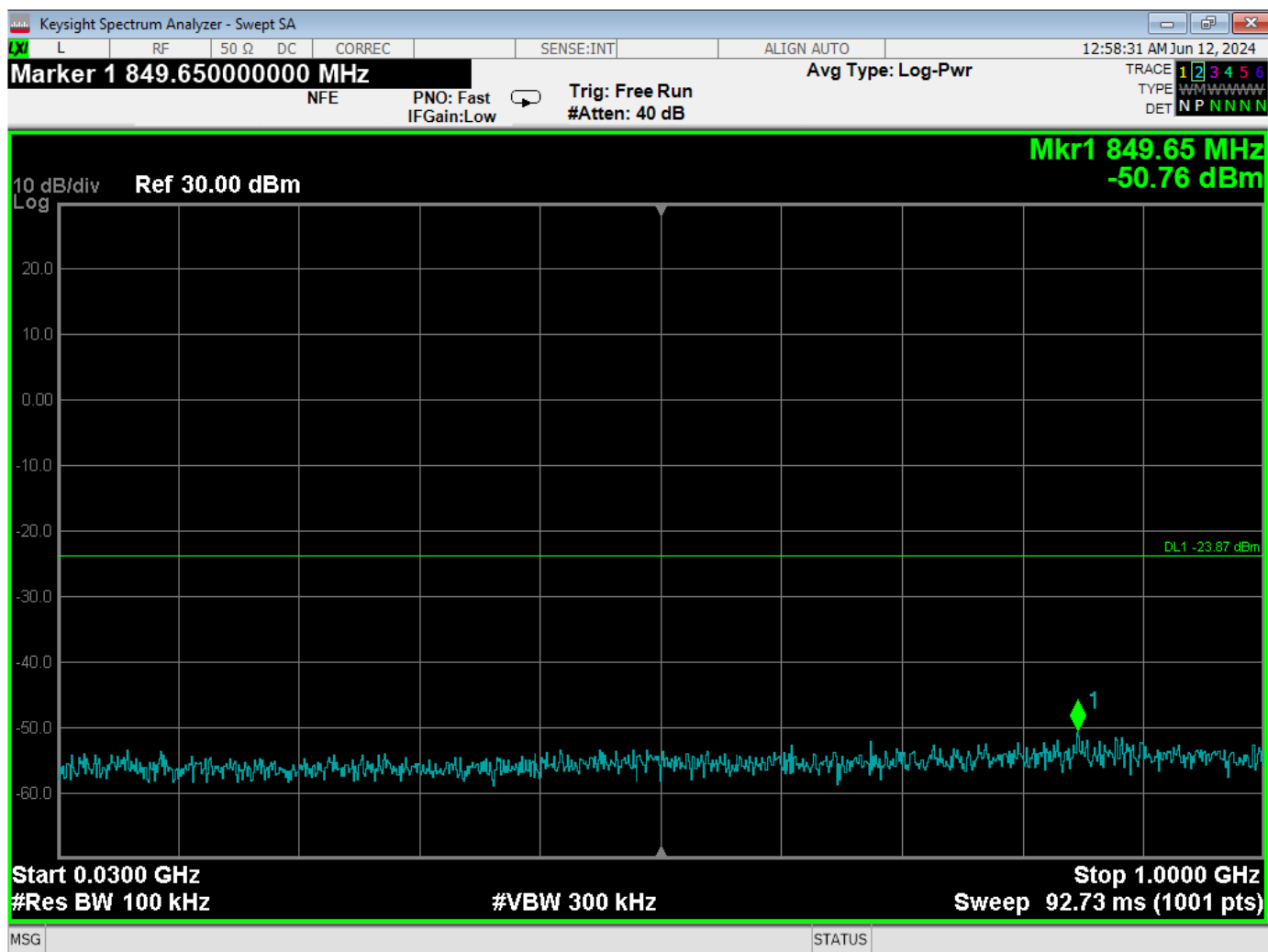
RF Antenna Conducted – High Channel – 802.11b Mode – 2483.5 MHz to 10 GHz – RedPine



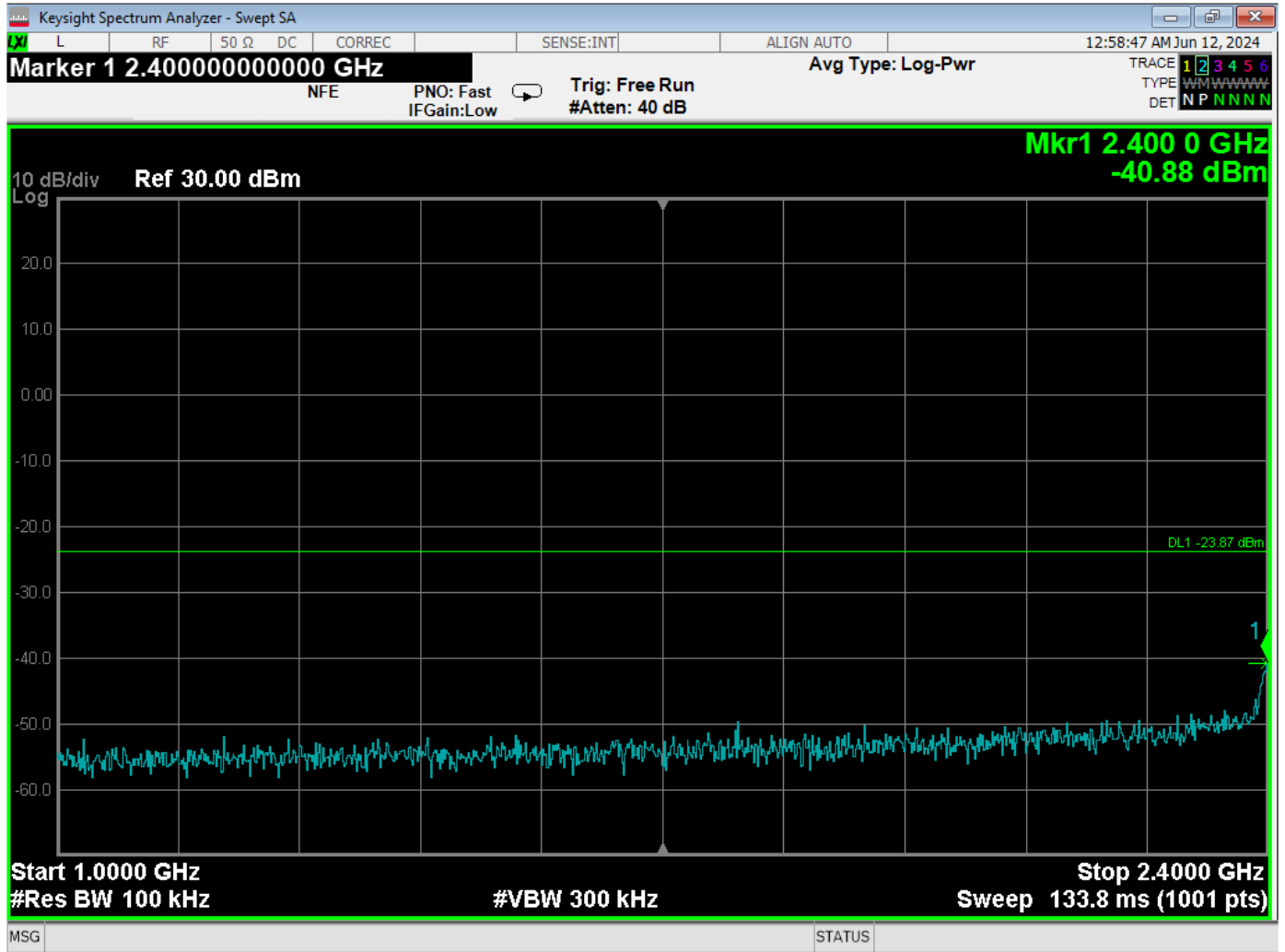
RF Antenna Conducted – High Channel – 802.11b Mode – 10 GHz to 25 GHz – RedPine



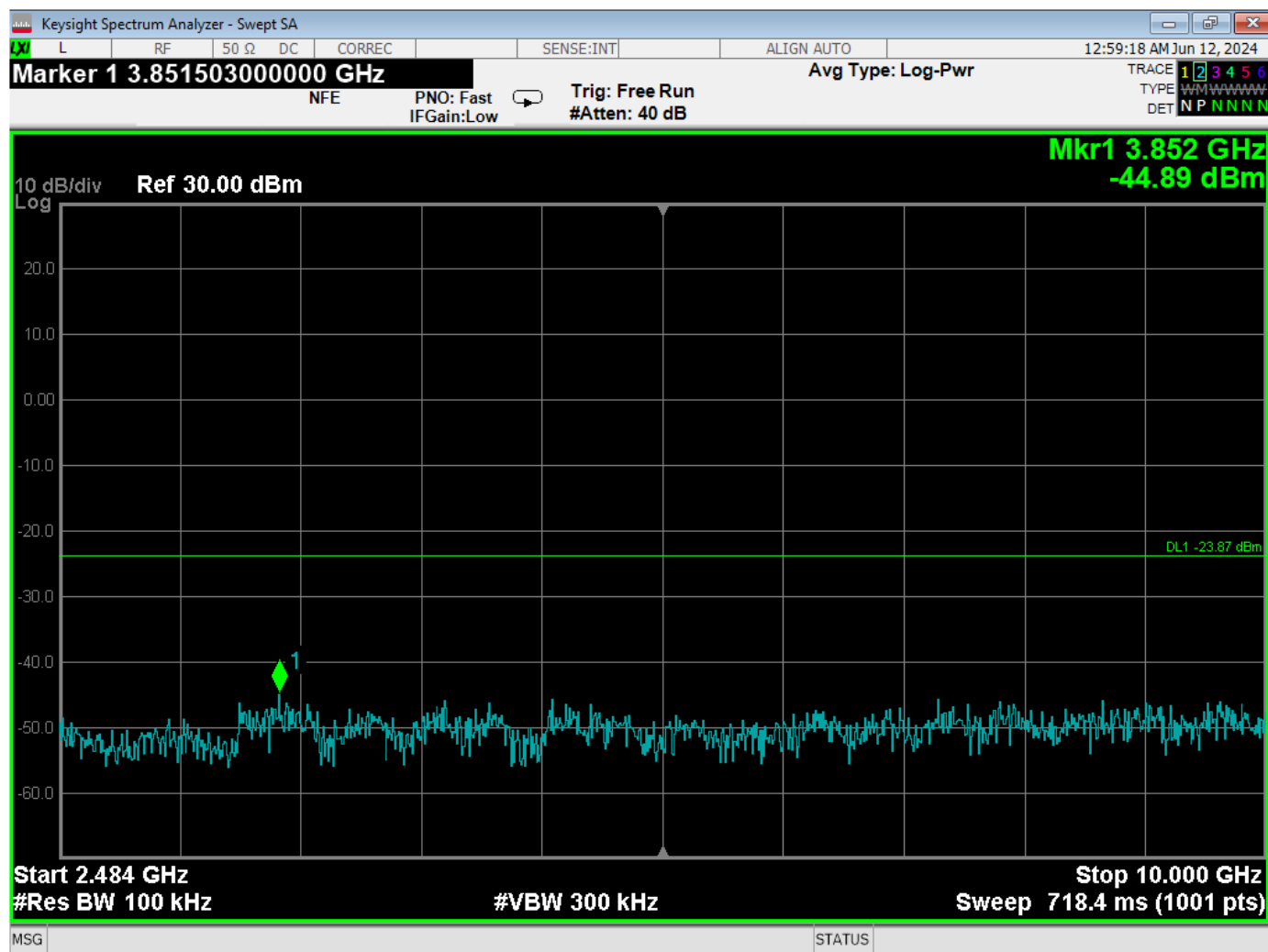
RF Antenna Conducted – Low Channel – 802.11g Mode – Reference Level – RedPine



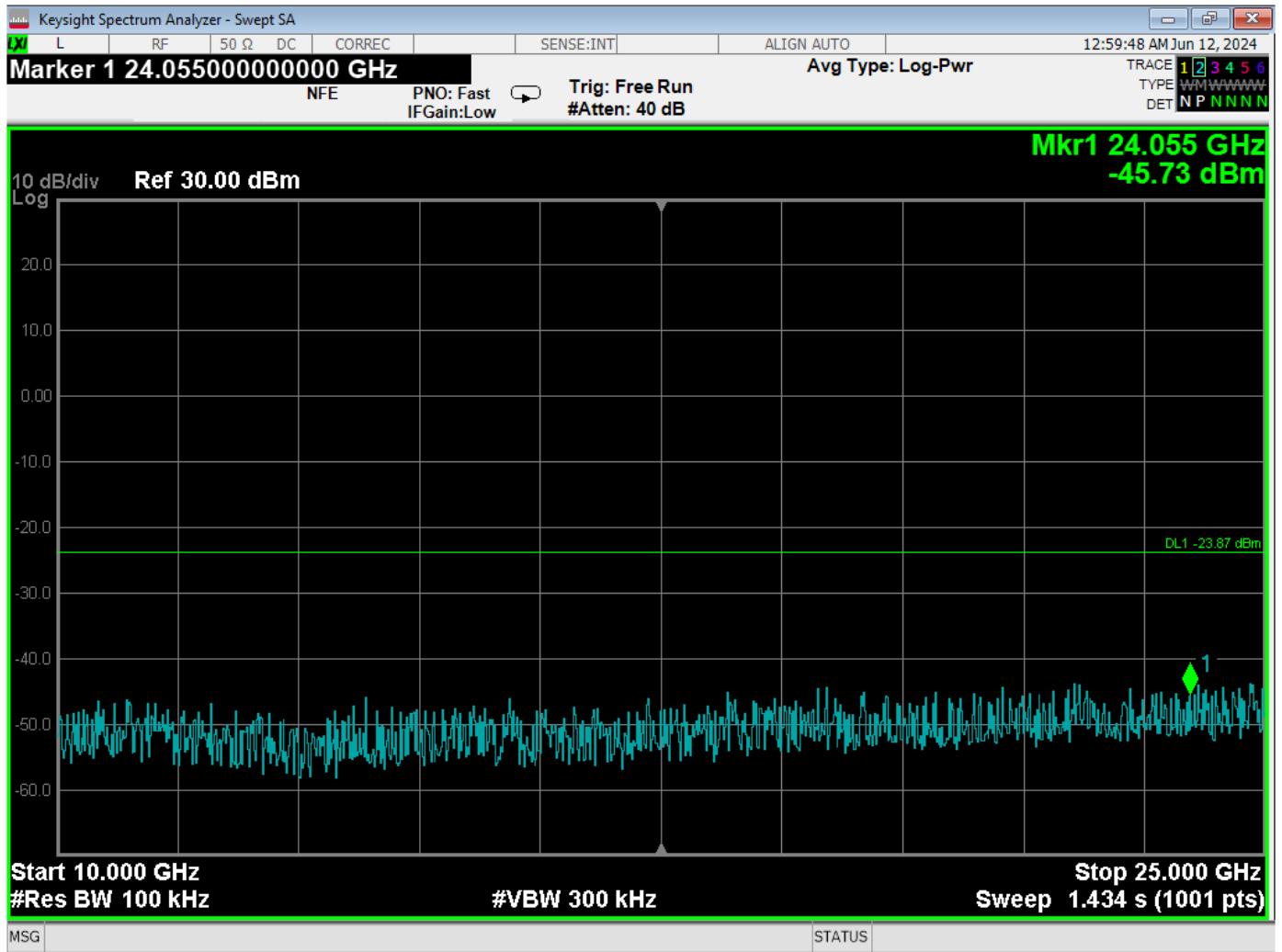
RF Antenna Conducted – Low Channel – 802.11g Mode – 30 MHz to 1 GHz – RedPine



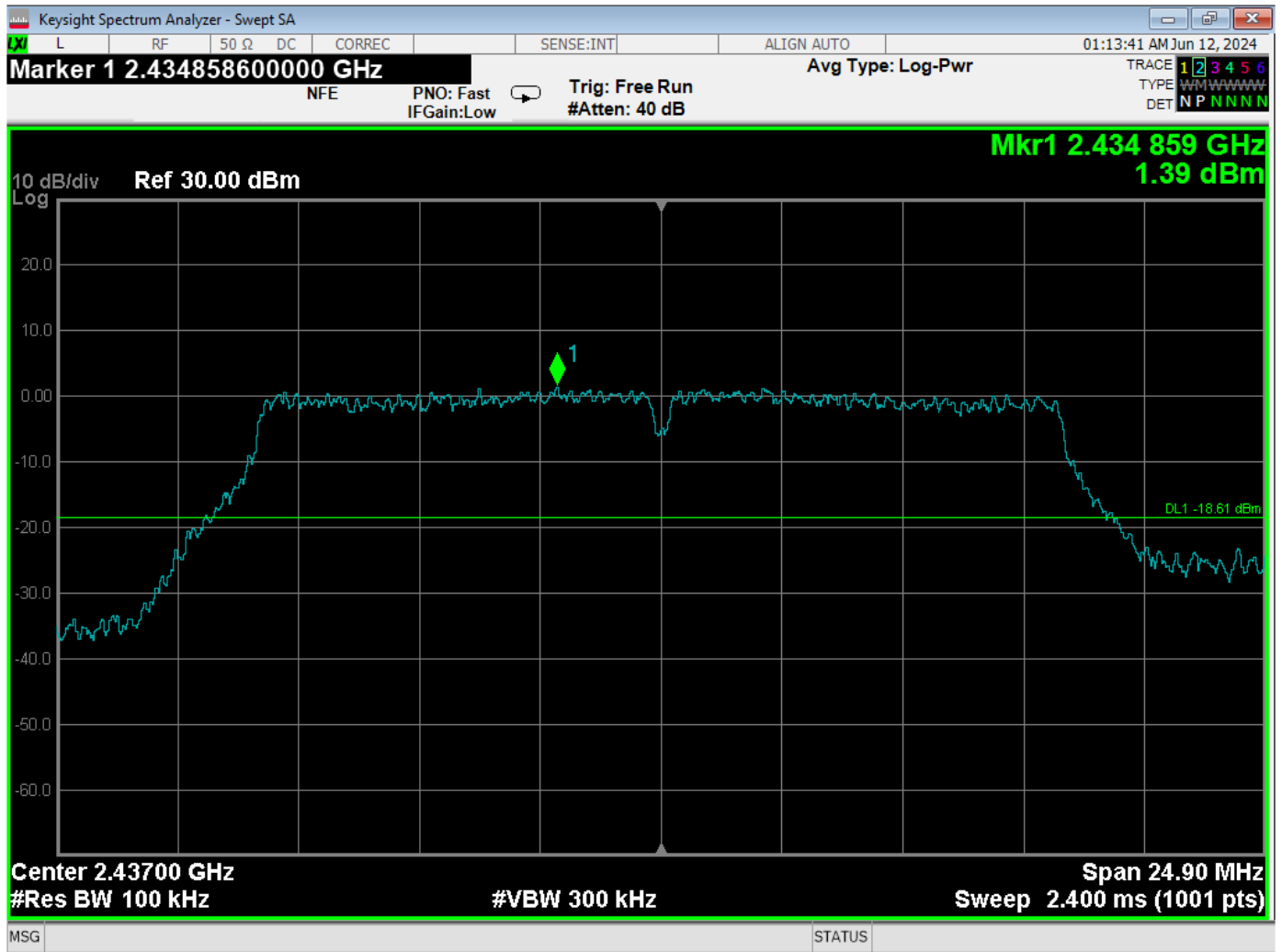
RF Antenna Conducted – Low Channel – 802.11g Mode – 1 GHz to 2.4 GHz – RedPine



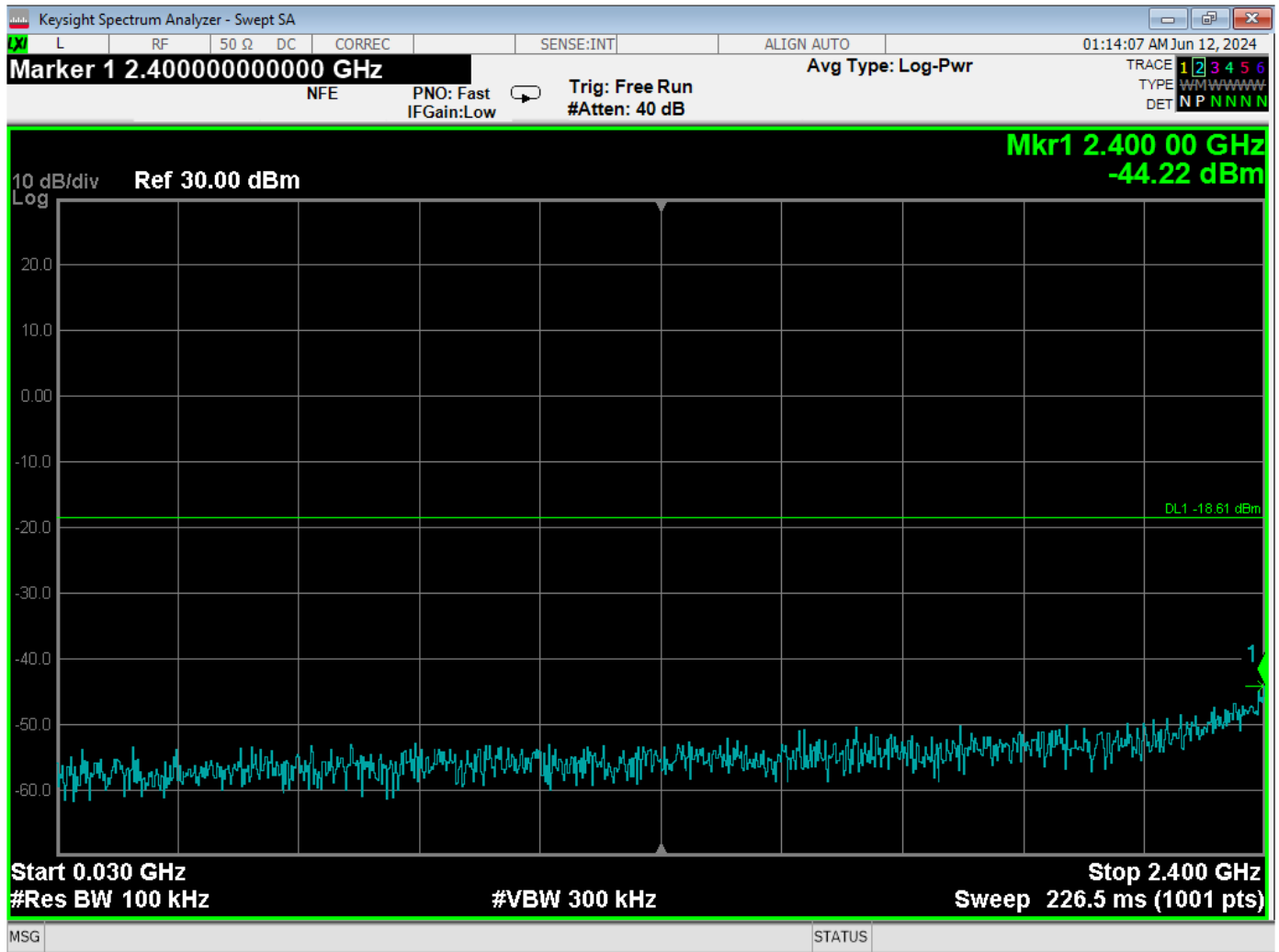
RF Antenna Conducted – Low Channel – 802.11g Mode – 2483.5 MHz to 10 GHz – RedPine



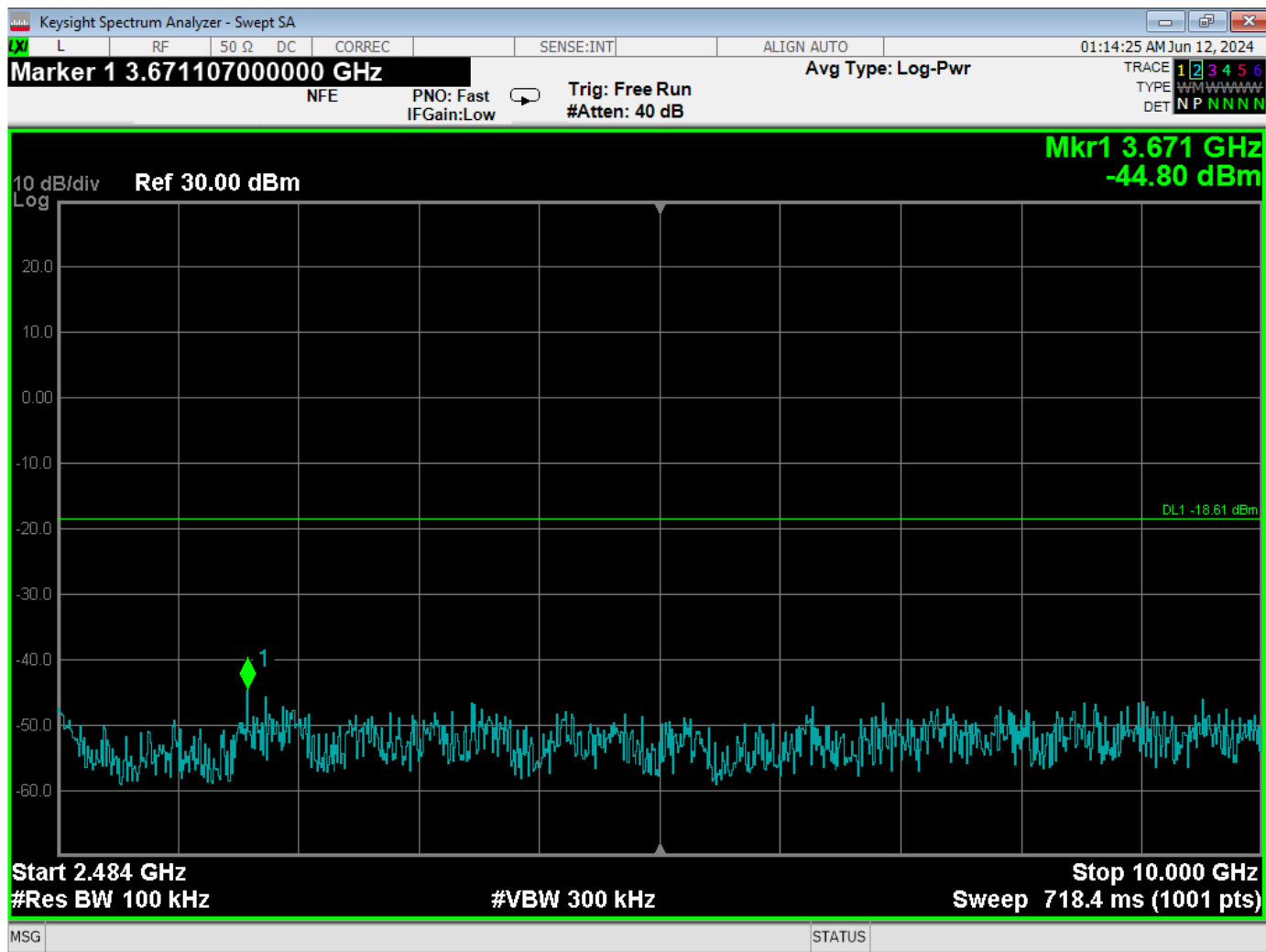
RF Antenna Conducted – Low Channel – 802.11g Mode – 10 GHz to 25 GHz – RedPine



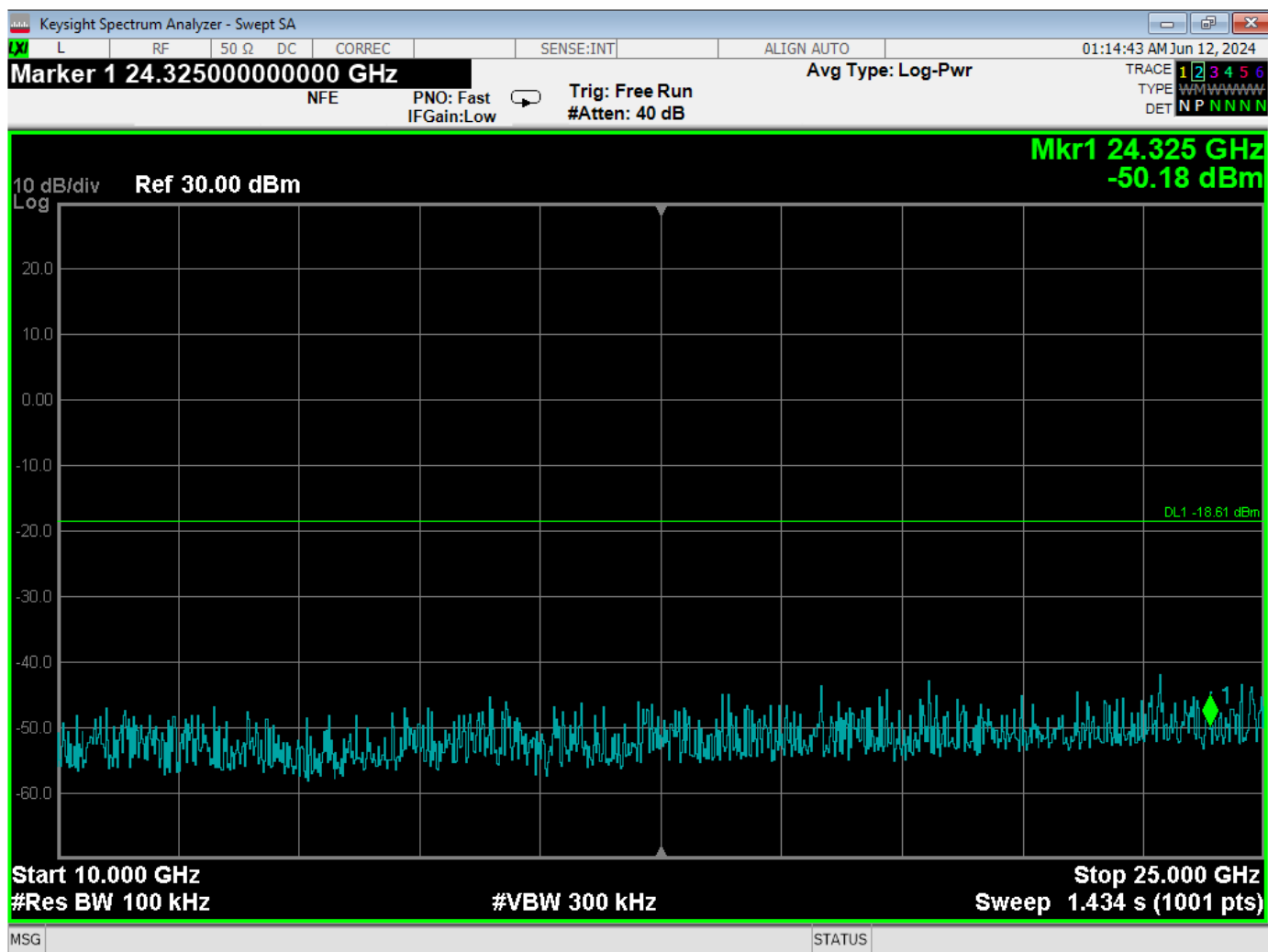
RF Antenna Conducted – Middle Channel – 802.11g Mode – Reference Level – RedPine



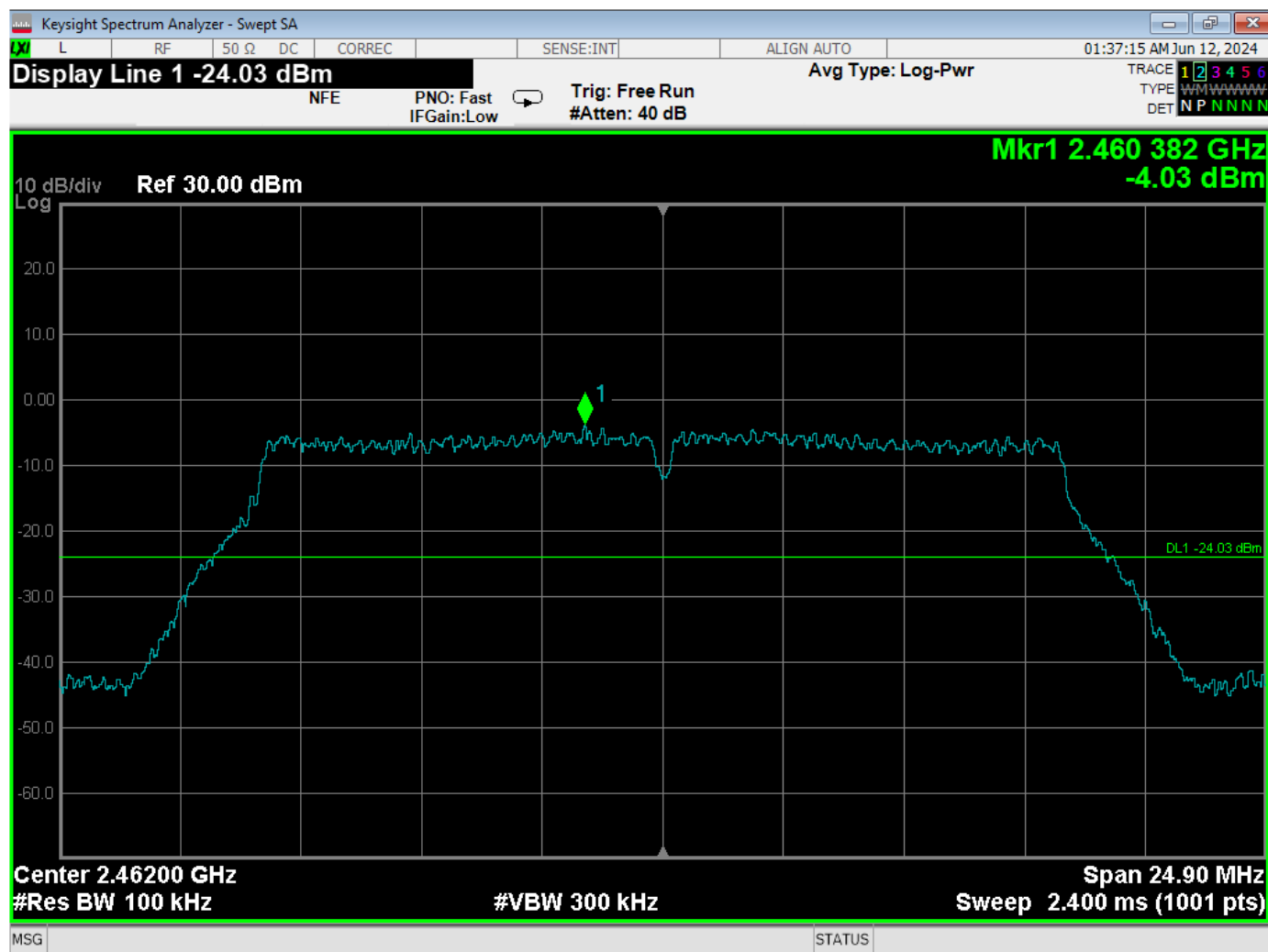
RF Antenna Conducted – Middle Channel – 802.11g Mode – 30 MHz to 2.4 GHz – RedPine



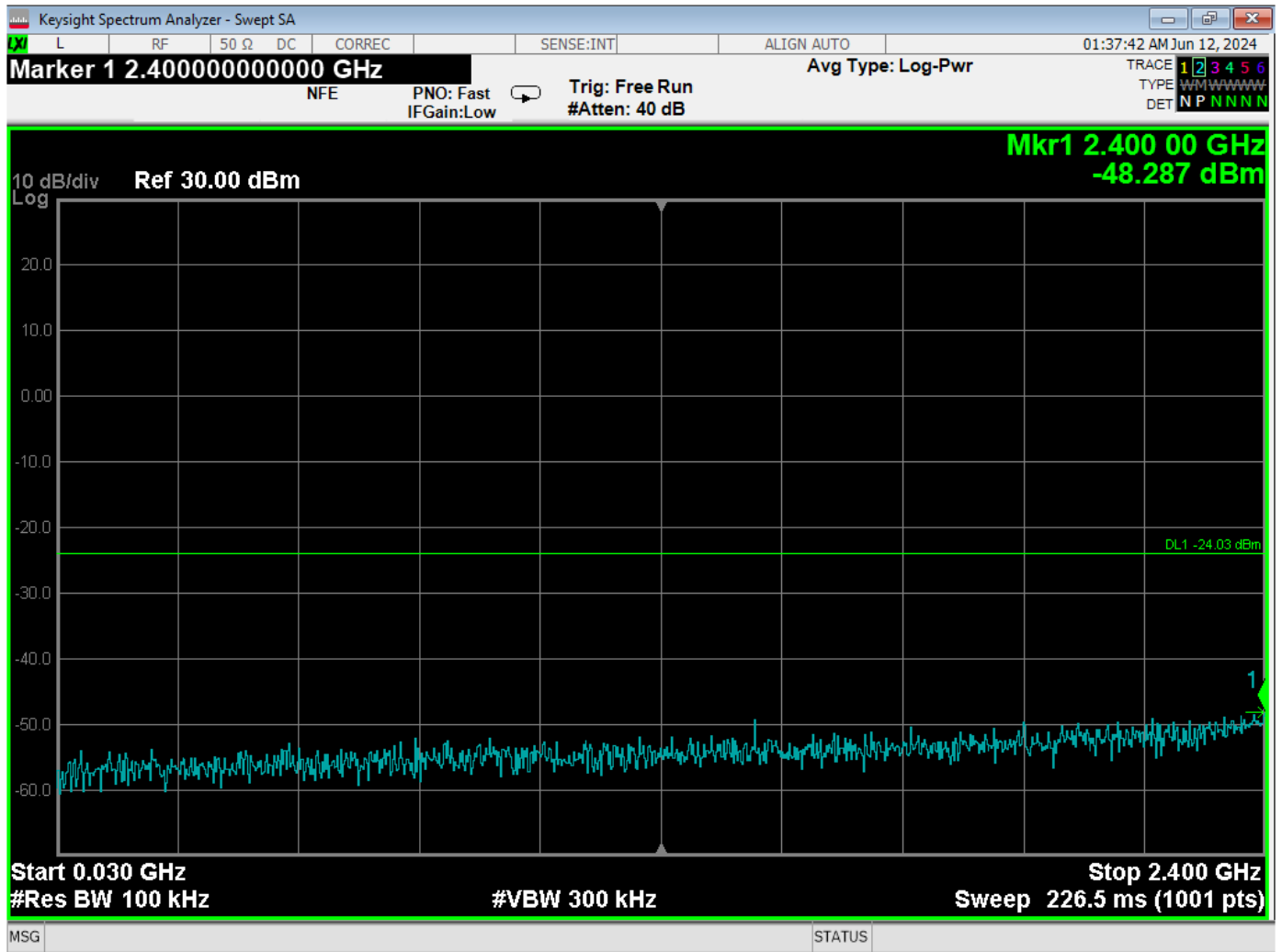
RF Antenna Conducted – Middle Channel – 802.11g Mode – 2483.5 MHz to 10 GHz – RedPine



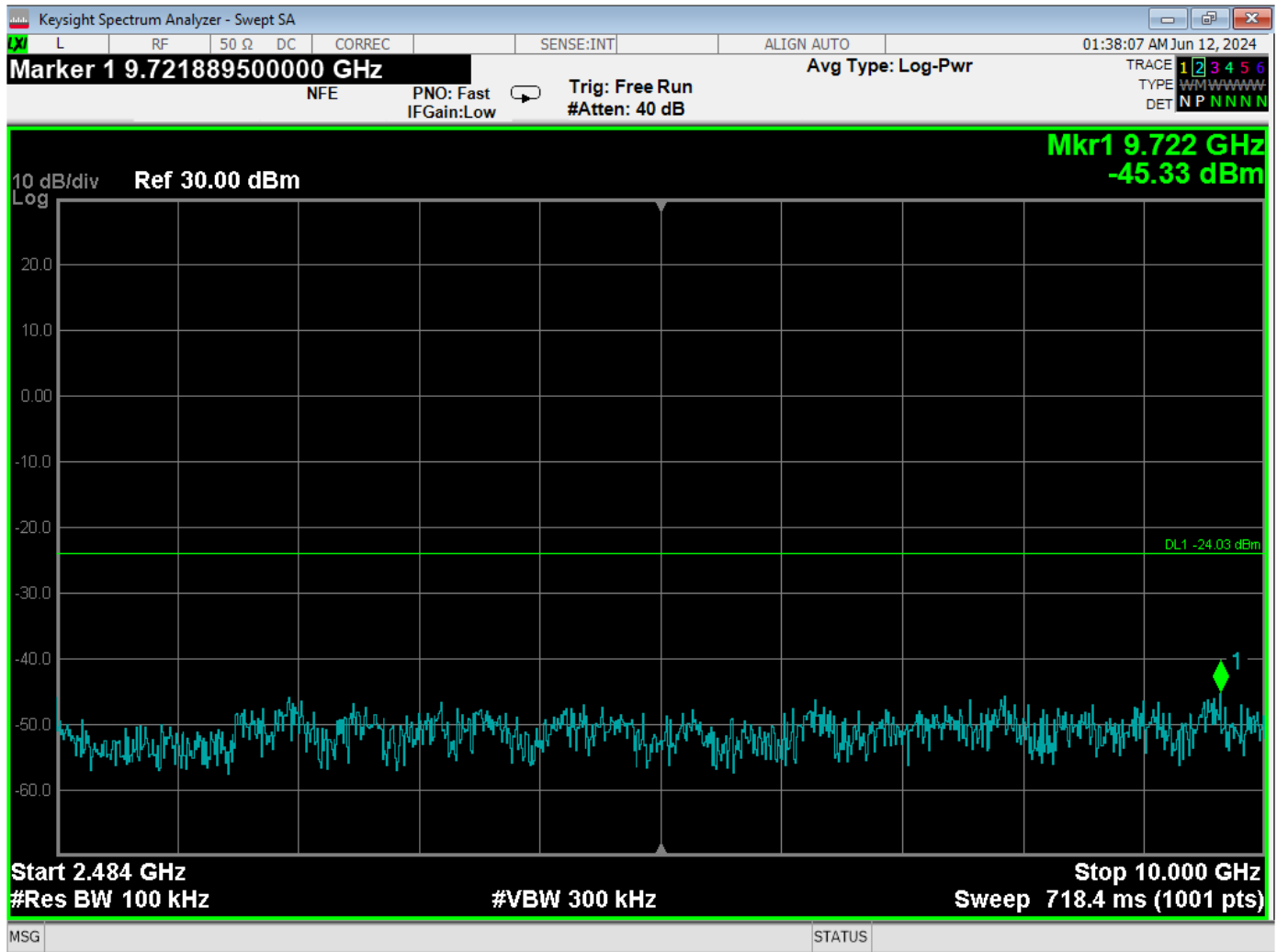
RF Antenna Conducted – Middle Channel – 802.11g Mode – 10 GHz to 25 GHz – RedPine



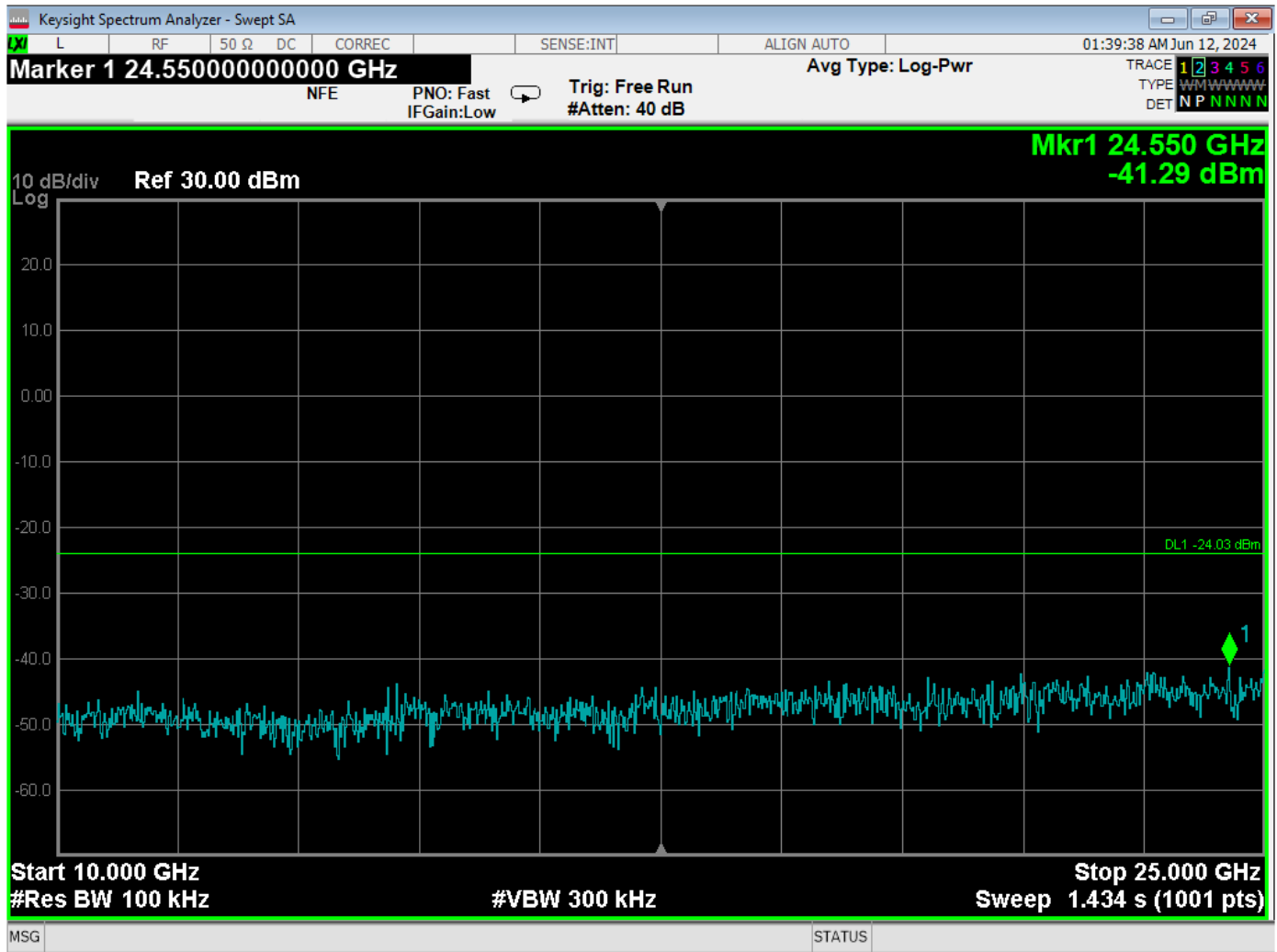
RF Antenna Conducted – High Channel – 802.11g Mode – Reference Level – RedPine



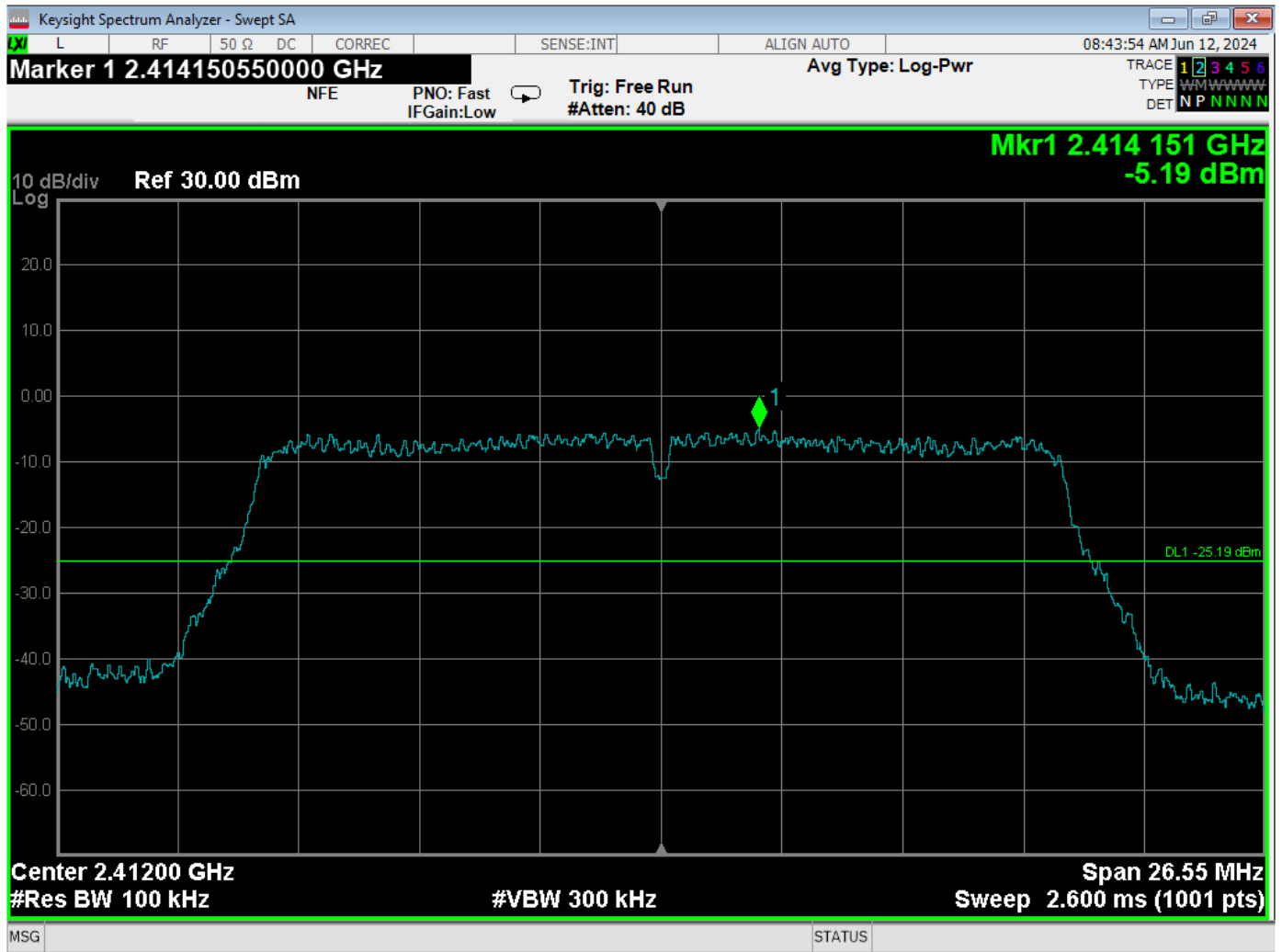
RF Antenna Conducted – High Channel – 802.11g – 30 MHz to 2.4 GHz – RedPine



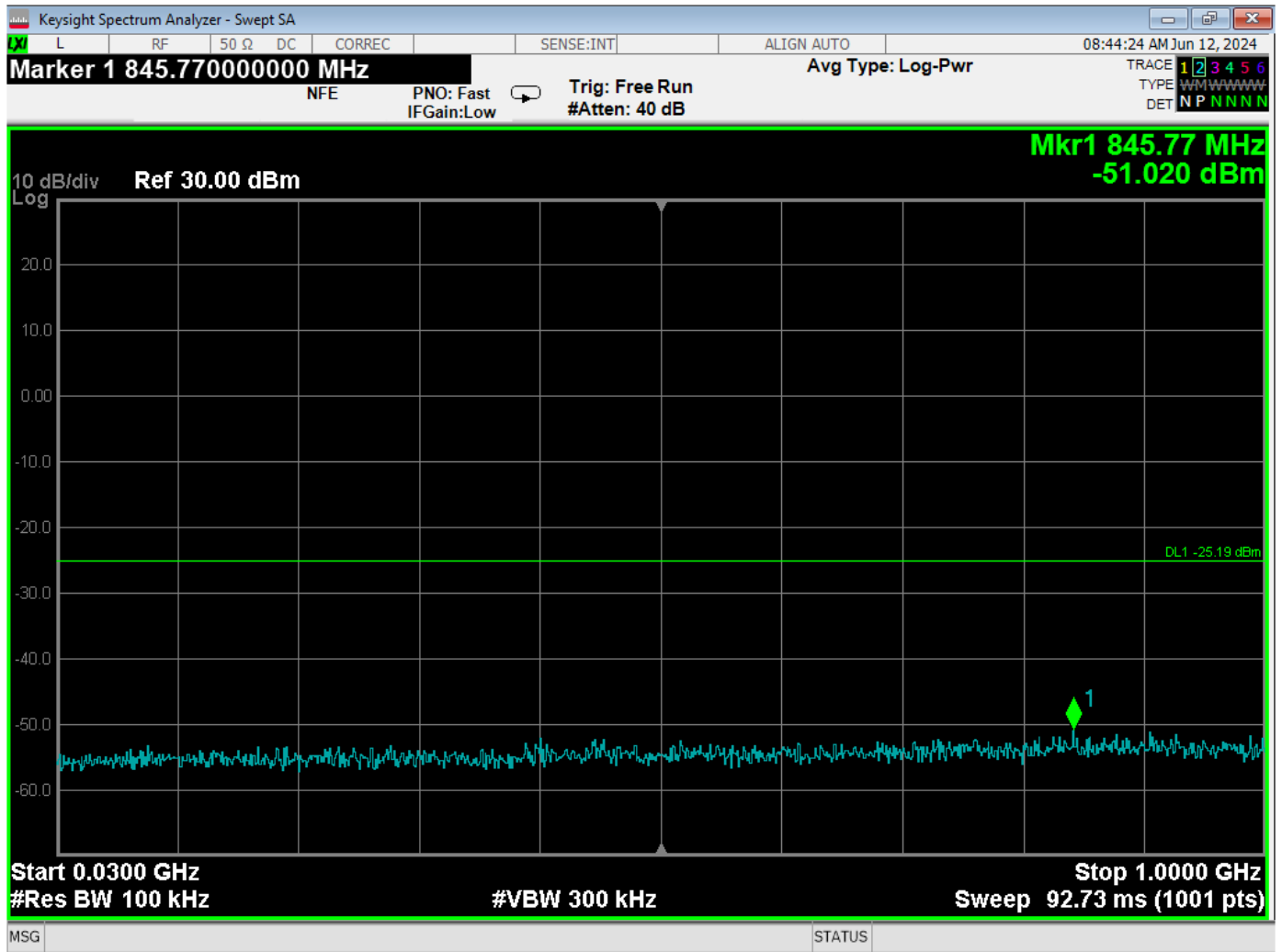
RF Antenna Conducted – High Channel – 802.11g – 2483.5 MHz to 10 GHz – RedPine



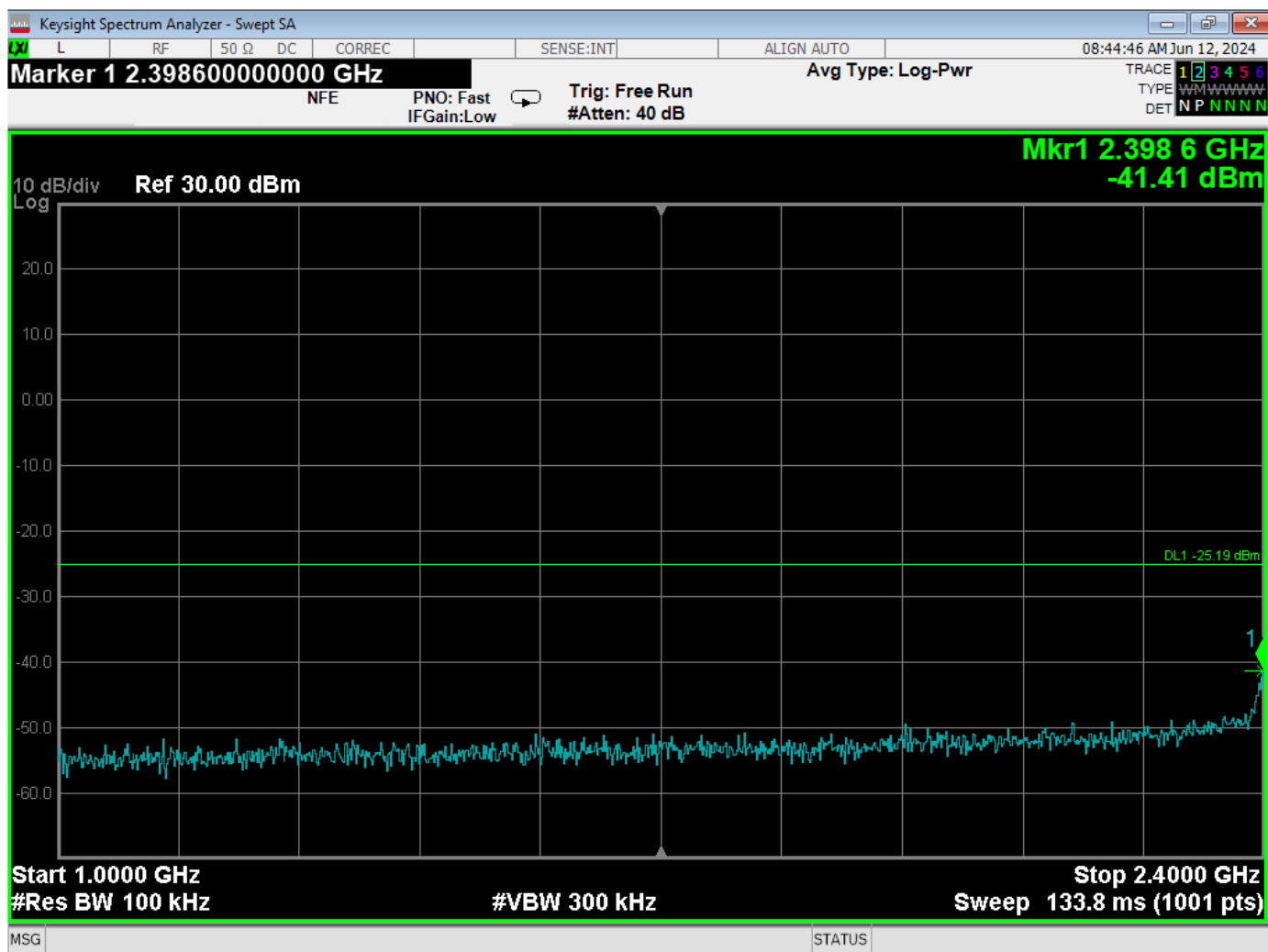
RF Antenna Conducted – High Channel – 802.11g – 10 GHz to 25 GHz – RedPine



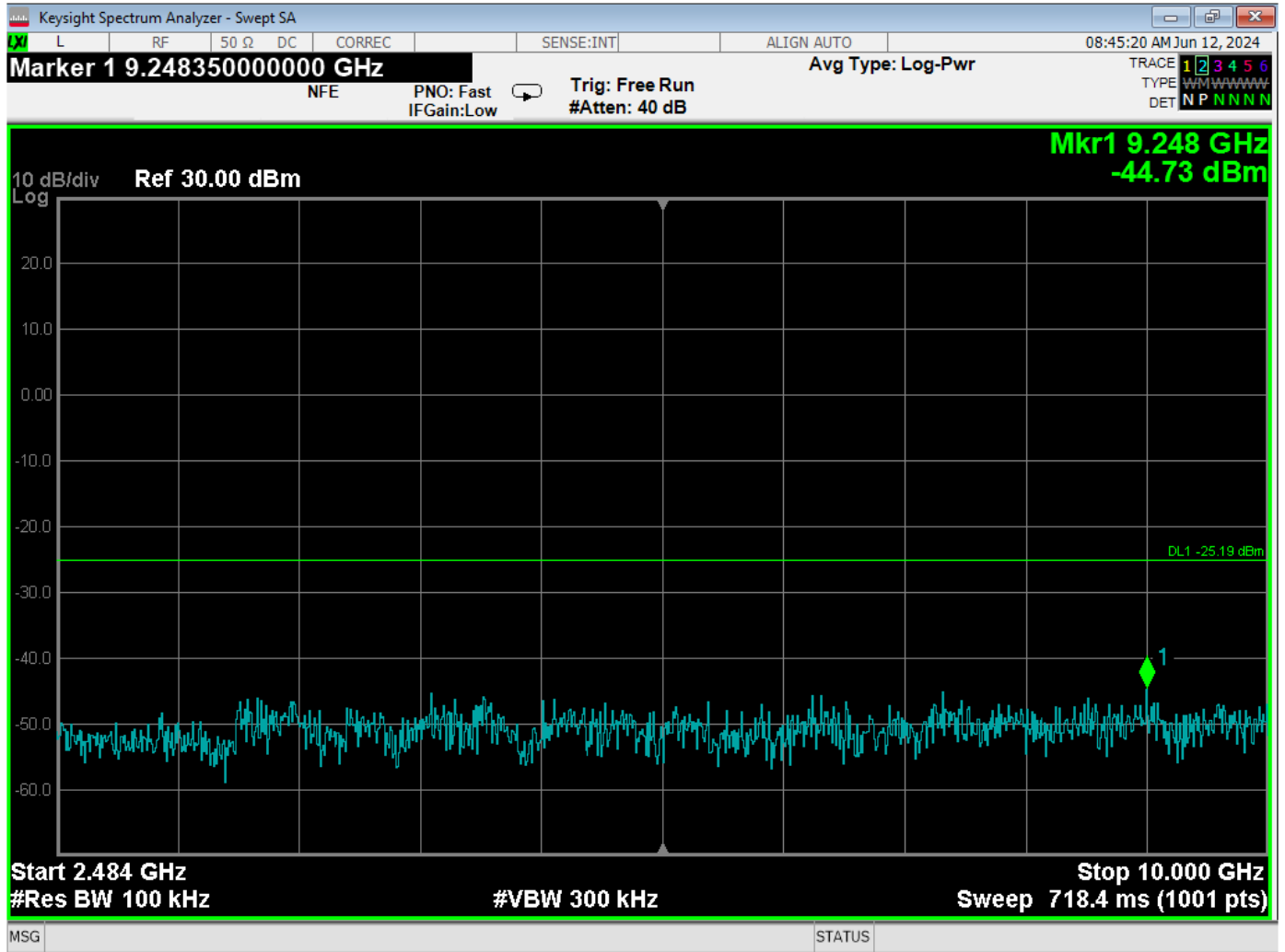
RF Antenna Conducted – Low Channel – 802.11n – Reference Level – RedPine



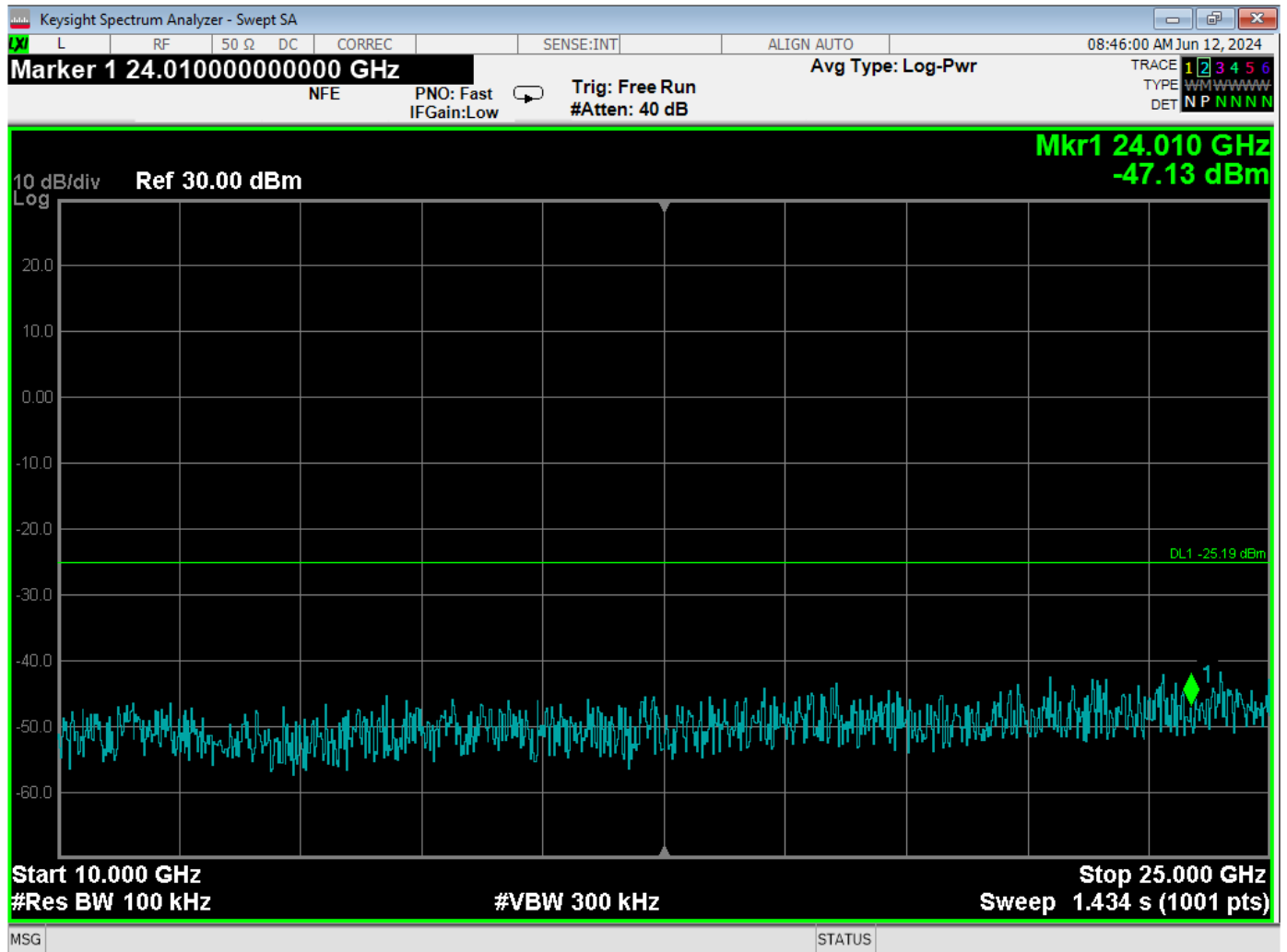
RF Antenna Conducted – Low Channel – 802.11n – 30 MHz to 1 GHz – RedPine



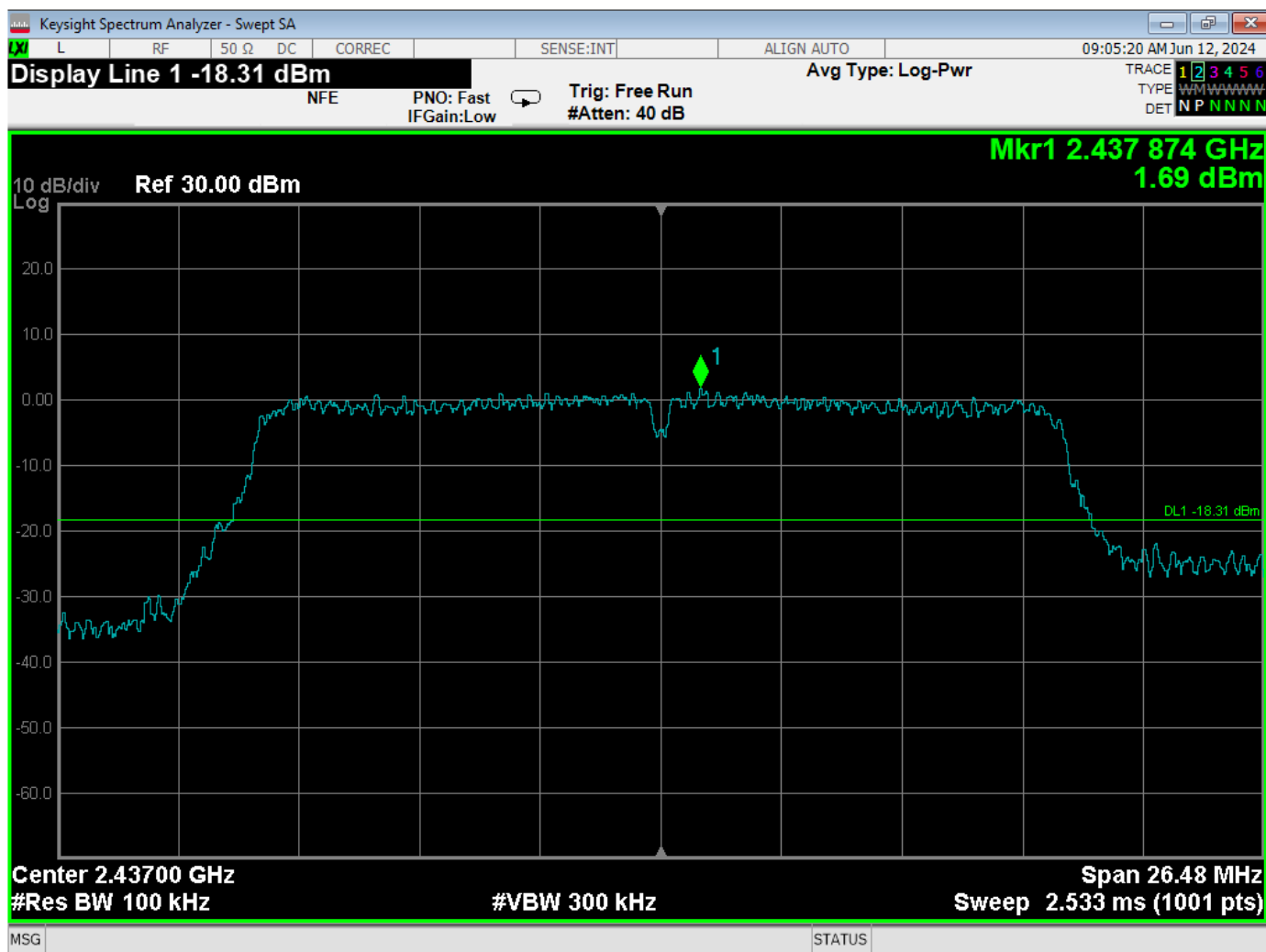
RF Antenna Conducted – Low Channel – 802.11n – 1 GHz to 2.4 GHz – RedPine



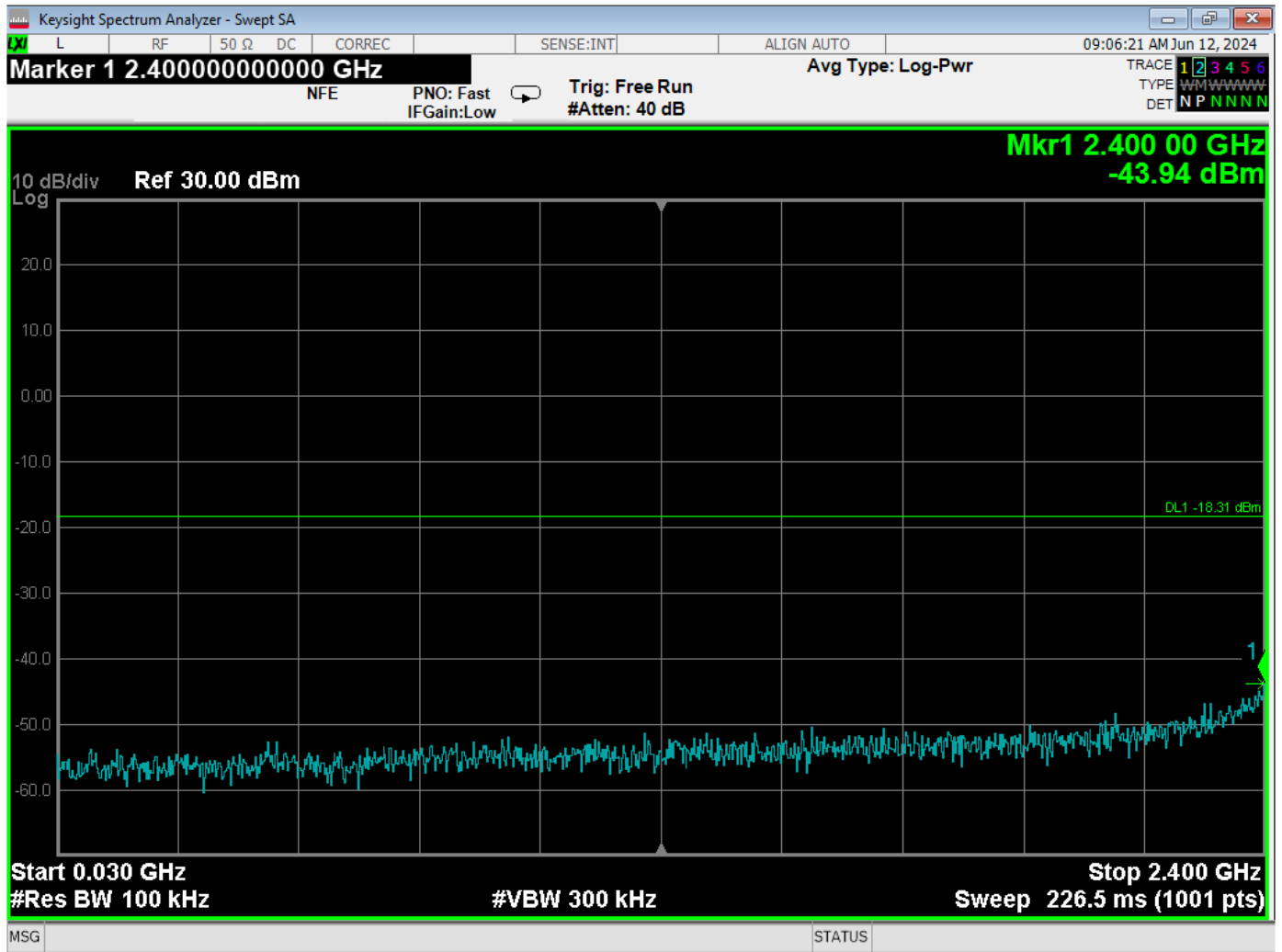
RF Antenna Conducted – Low Channel – 802.11n – 2483.5 MHz to 10 GHz – RedPine



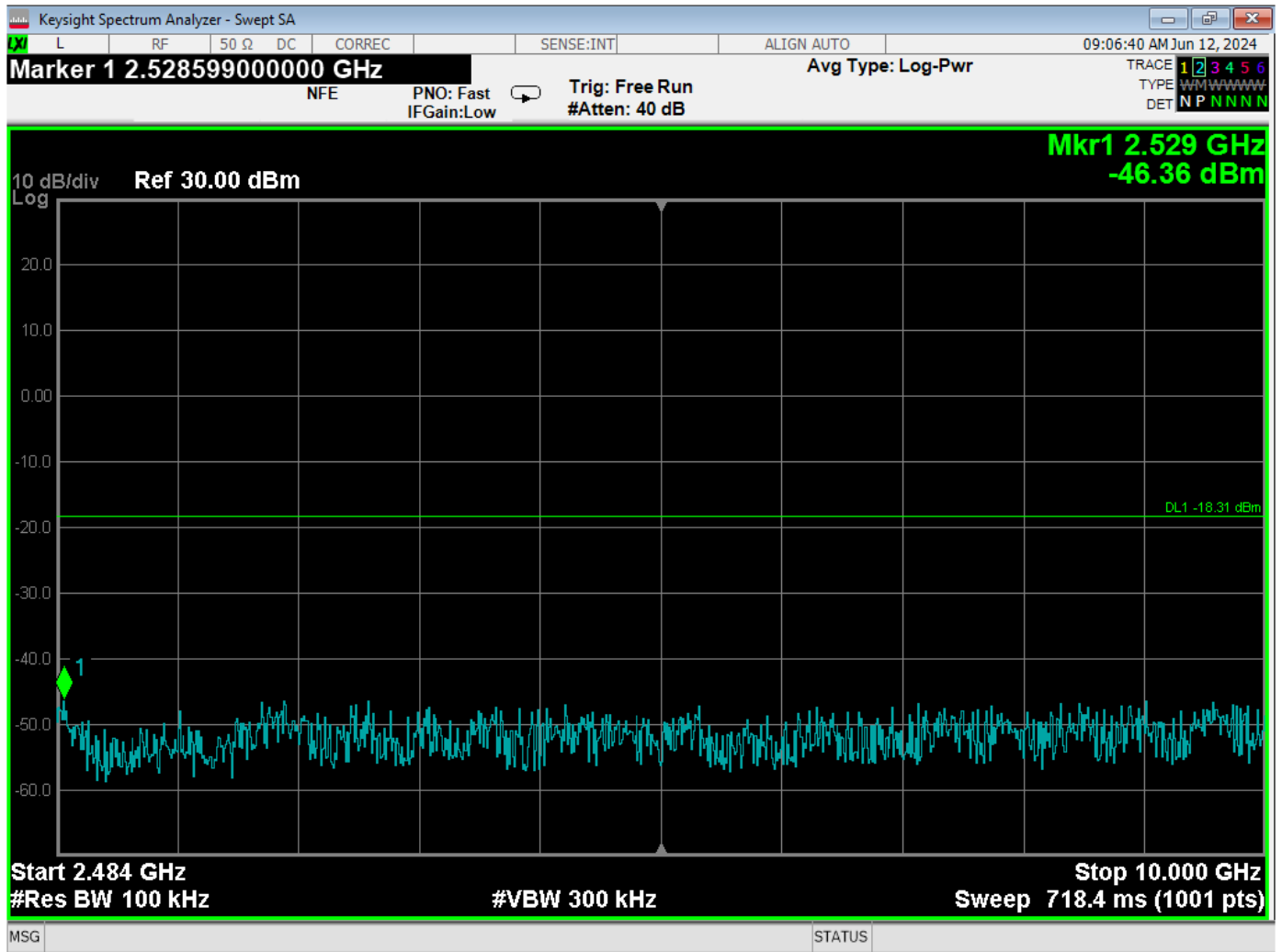
RF Antenna Conducted – Low Channel – 802.11n – 10 GHz to 25 GHz – RedPine



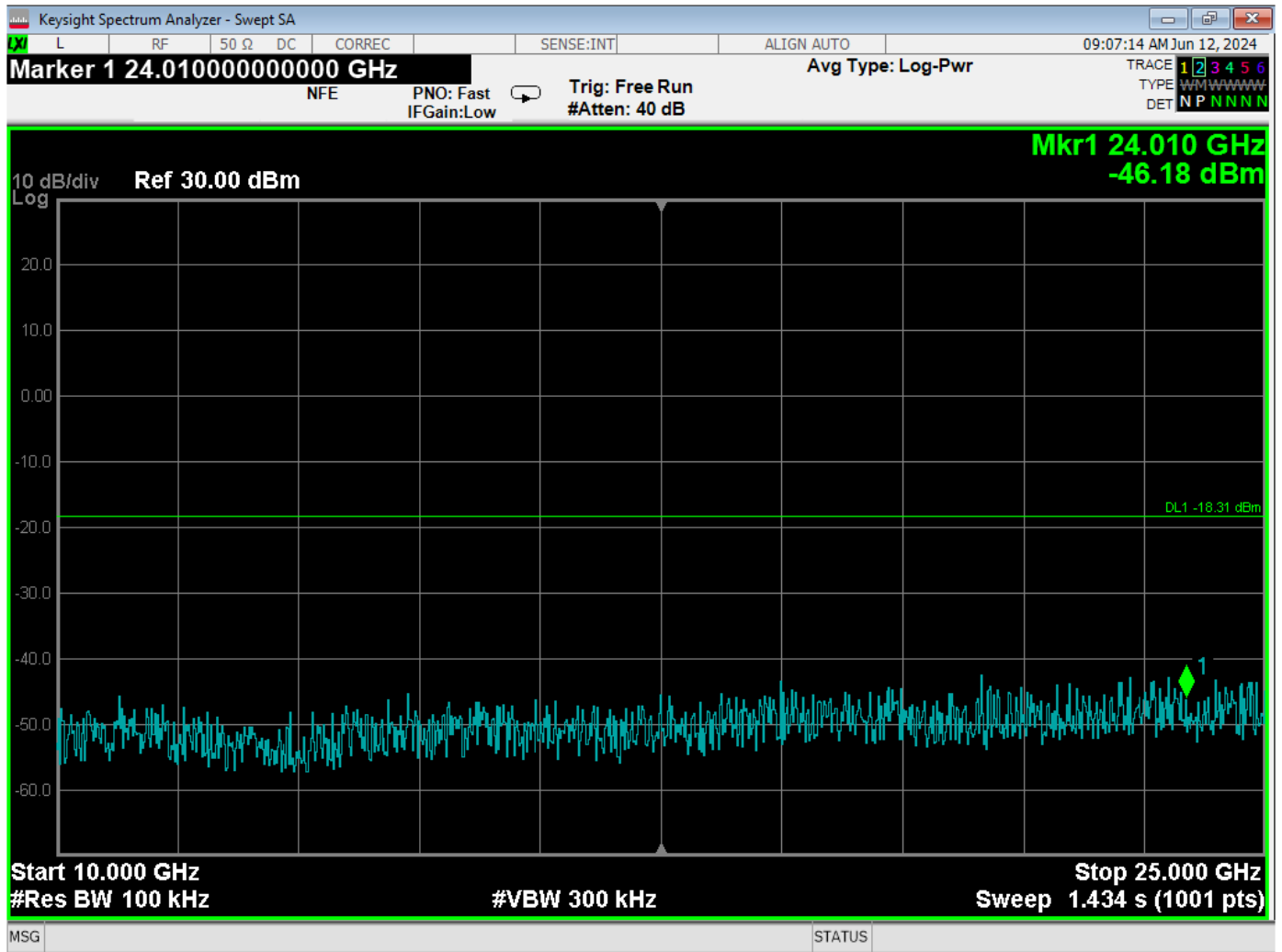
RF Antenna Conducted – Middle Channel – 802.11n – Reference Level – RedPine



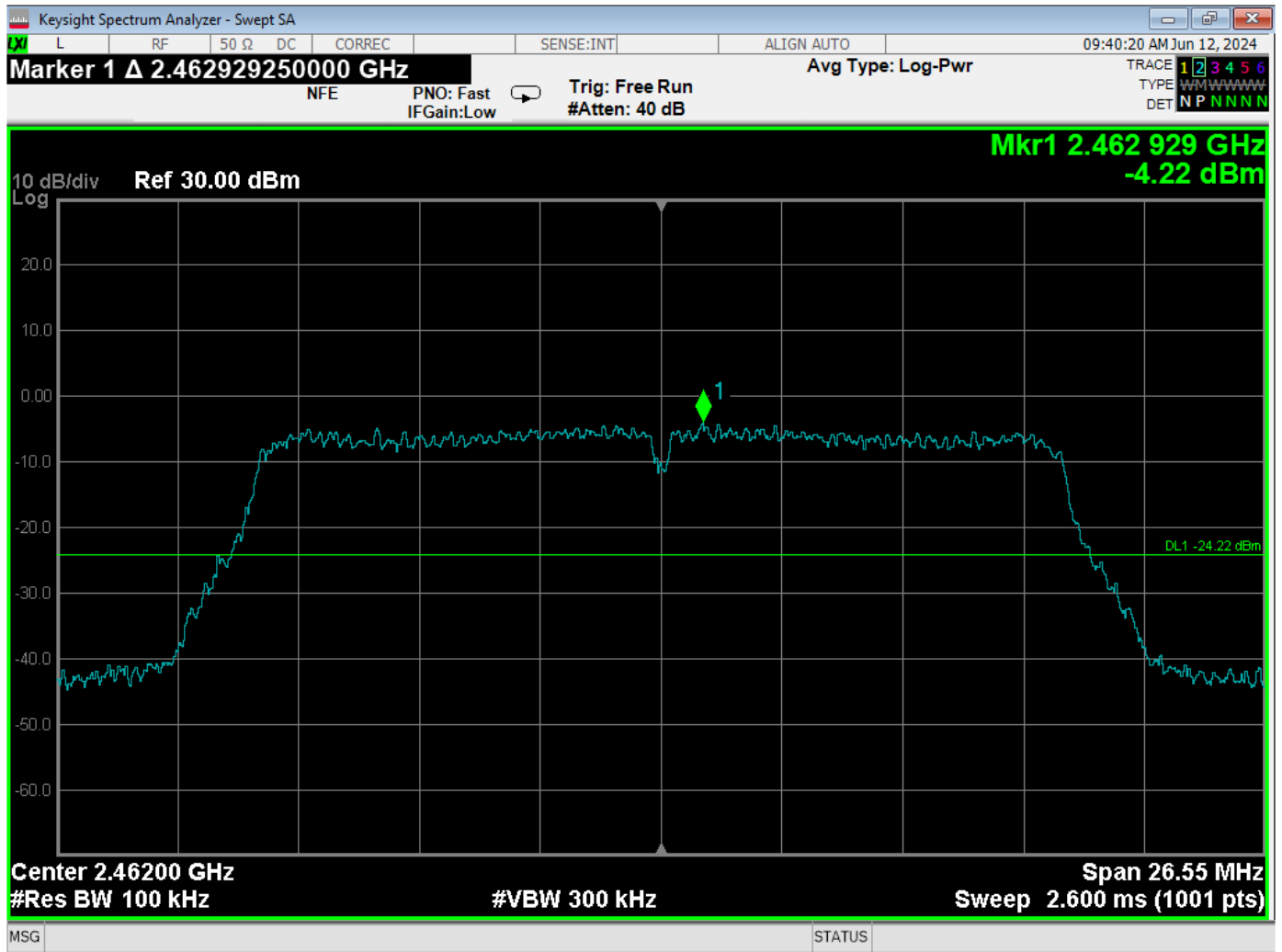
RF Antenna Conducted – Middle Channel – 802.11n – 30 MHz to 2.4 GHz – RedPine



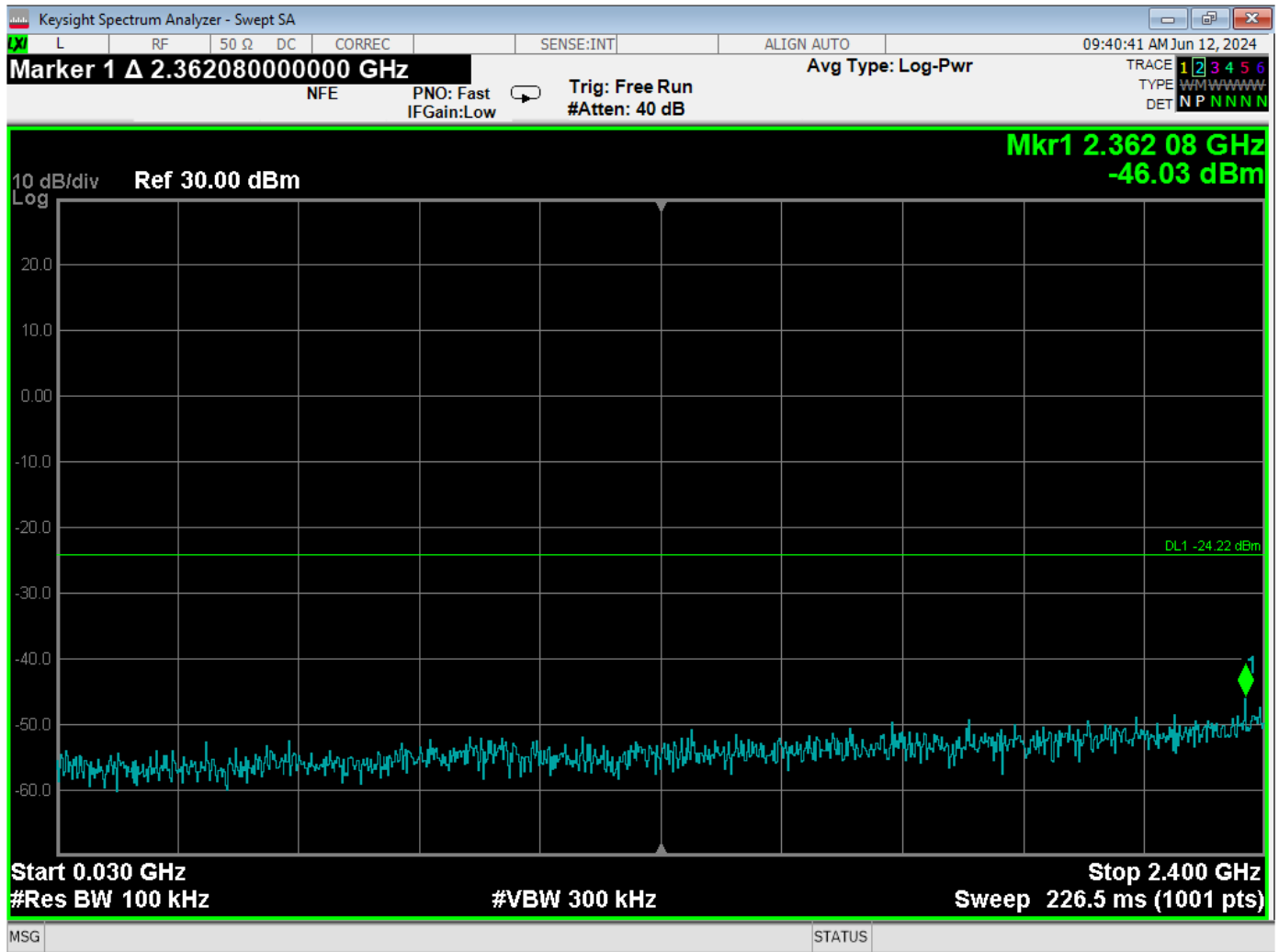
RF Antenna Conducted – Middle Channel – 802.11n – 2483.5 MHz to 10 GHz – RedPine



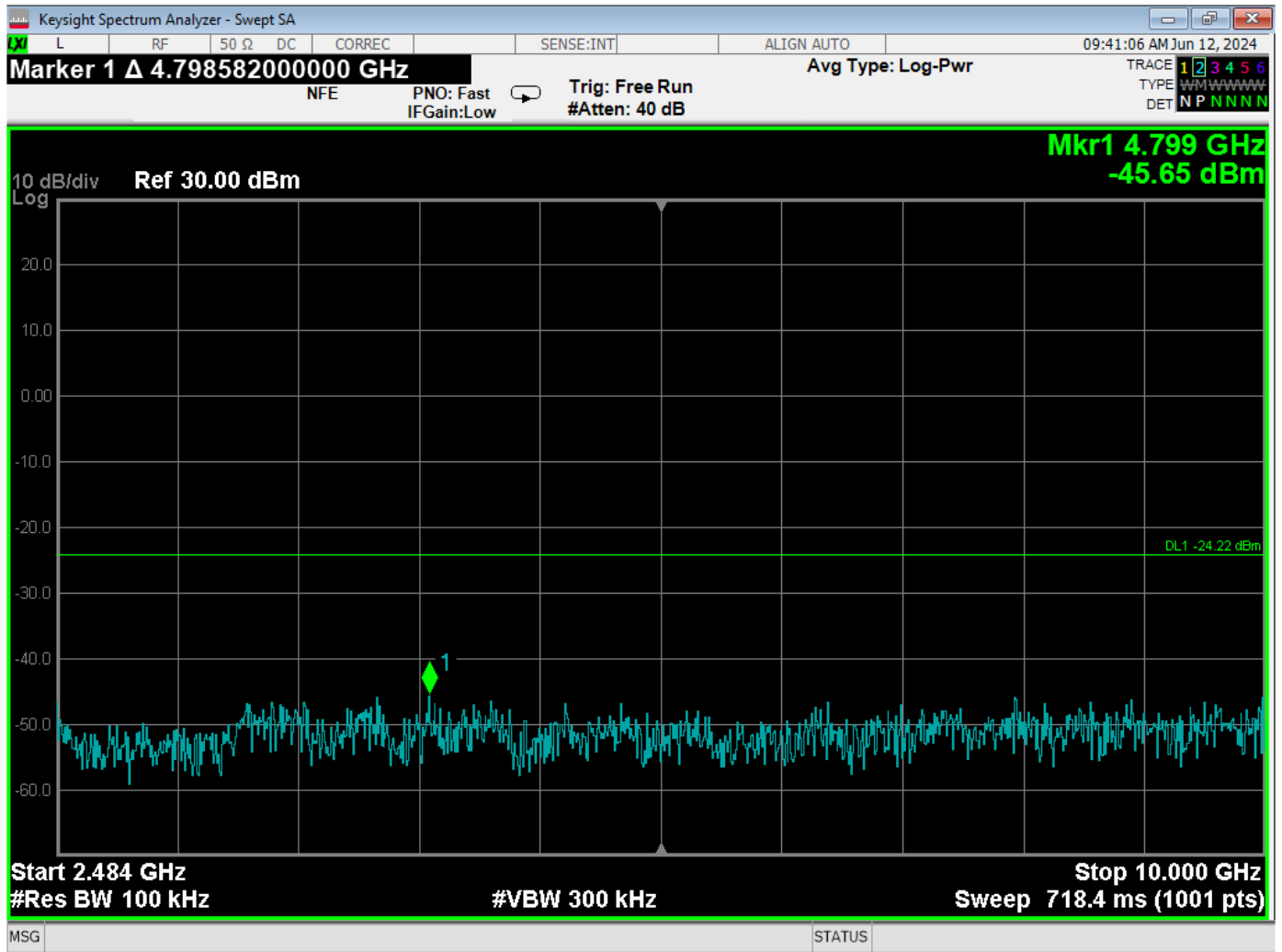
RF Antenna Conducted – Middle Channel – 802.11n – 10 GHz to 25 GHz – RedPine



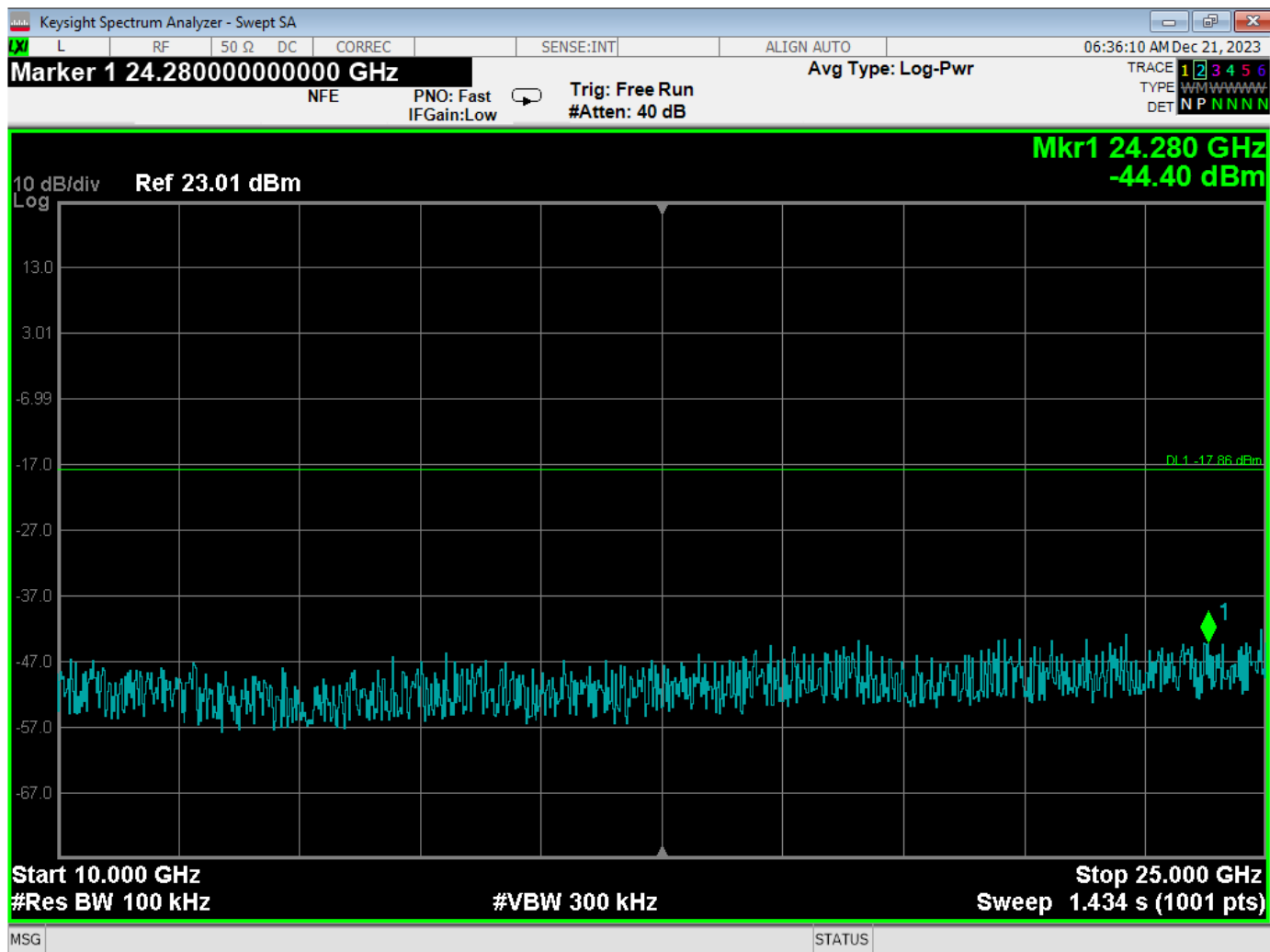
RF Antenna Conducted – High Channel – 802.11n – Reference Level – RedPine



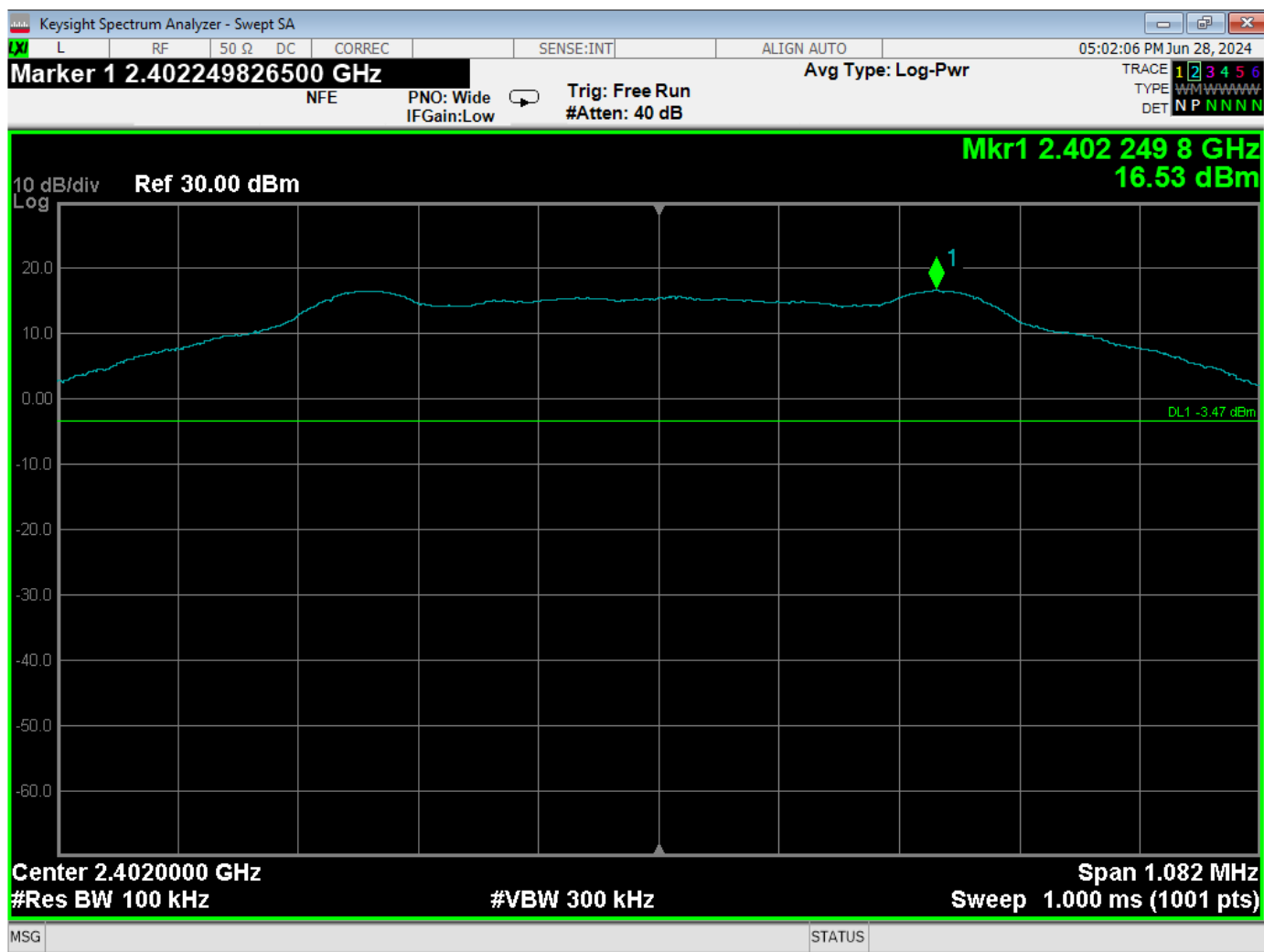
RF Antenna Conducted – High Channel – 802.11n – 30 MHz to 2.4 GHz – RedPine



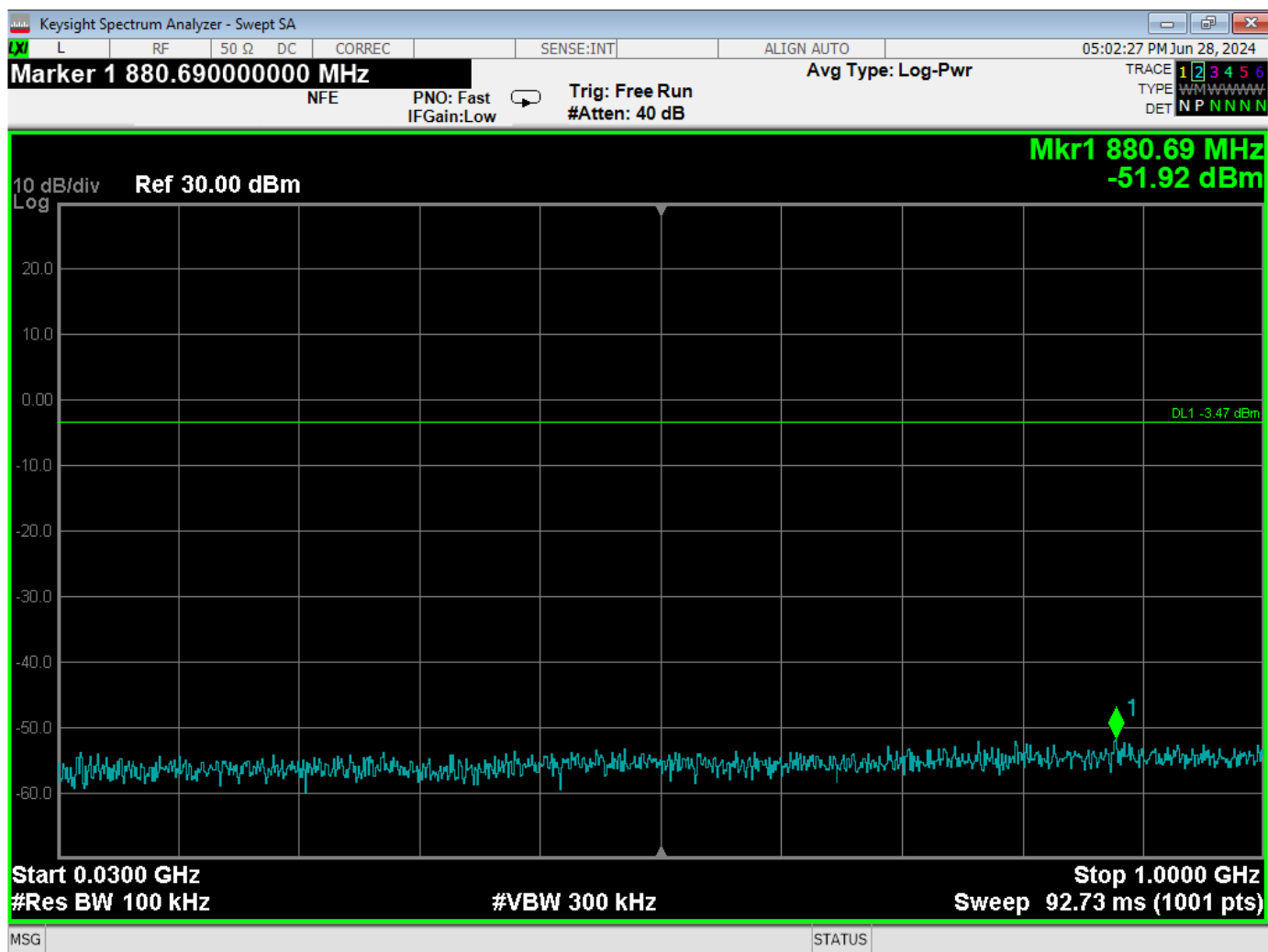
RF Antenna Conducted – High Channel – 802.11n – 2483.5 MHz to 10 GHz – RedPine



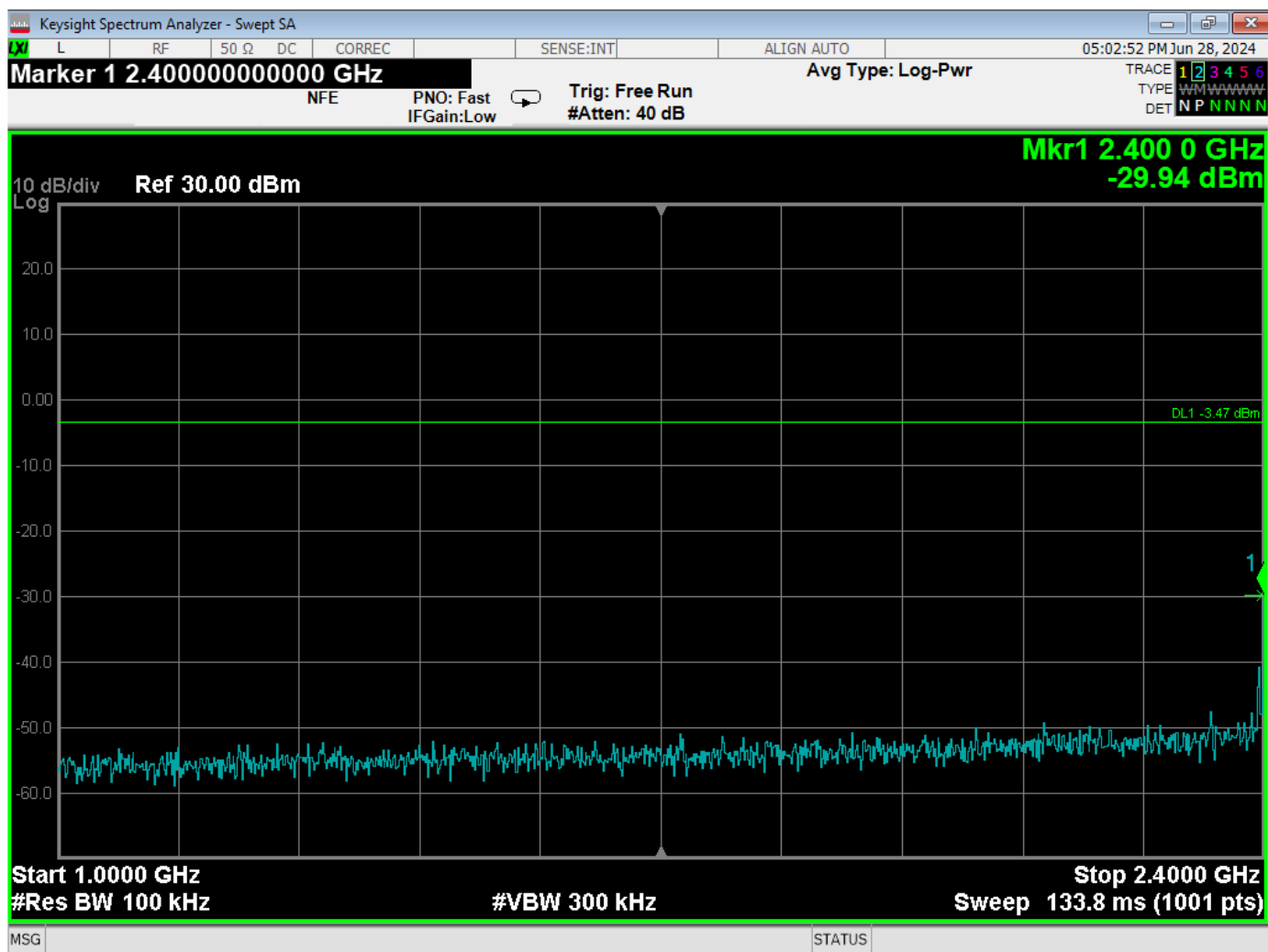
RF Antenna Conducted – High Channel – 802.11n – 10 GHz to 25 GHz – RedPine



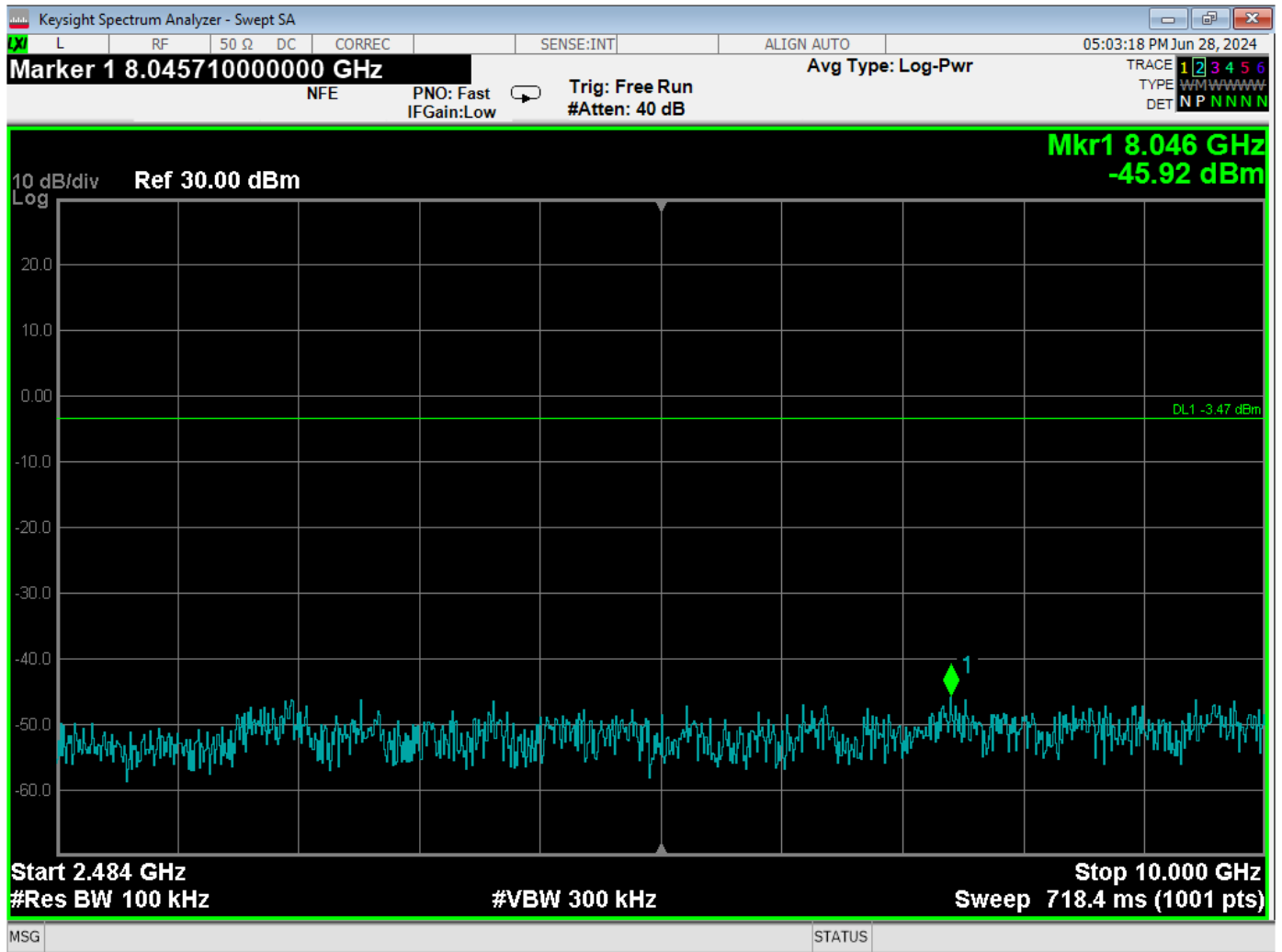
RF Antenna Conducted – Low Channel – BLE – Reference Level – Nordic



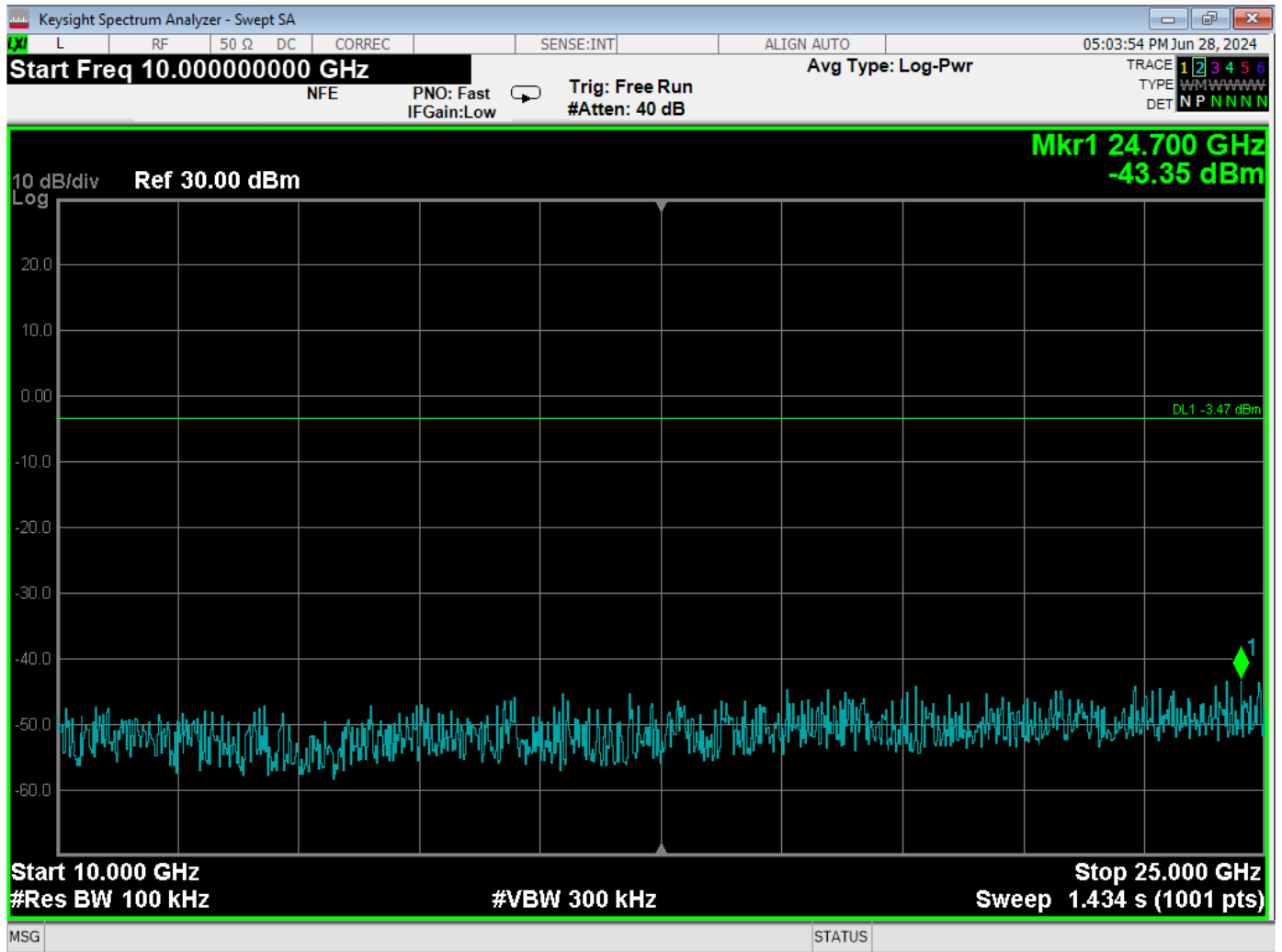
RF Antenna Conducted – Low Channel – BLE – 30 MHz to 1 GHz – Nordic



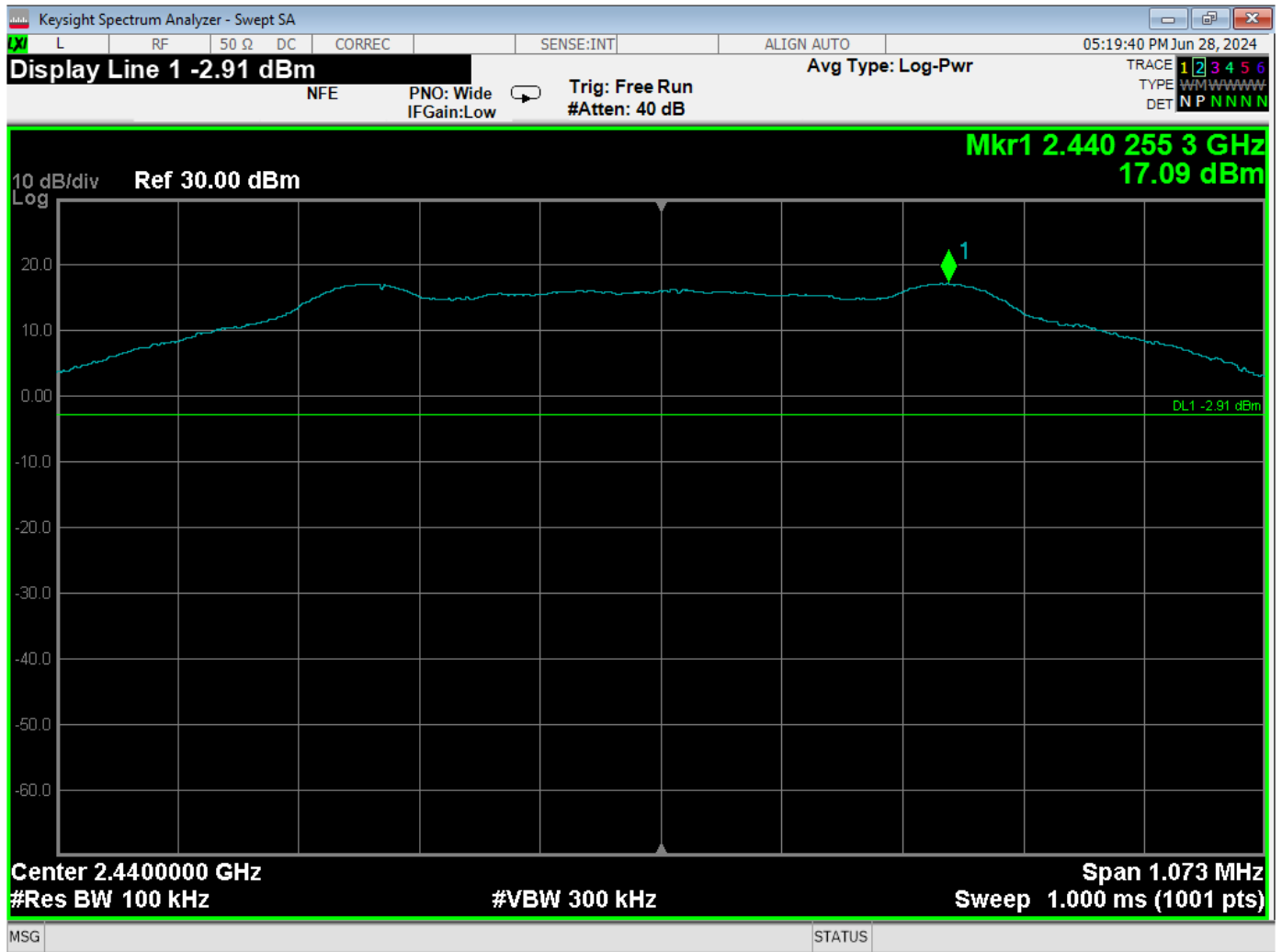
RF Antenna Conducted – Low Channel – BLE – 1 GHz to 2.4 GHz – Nordic



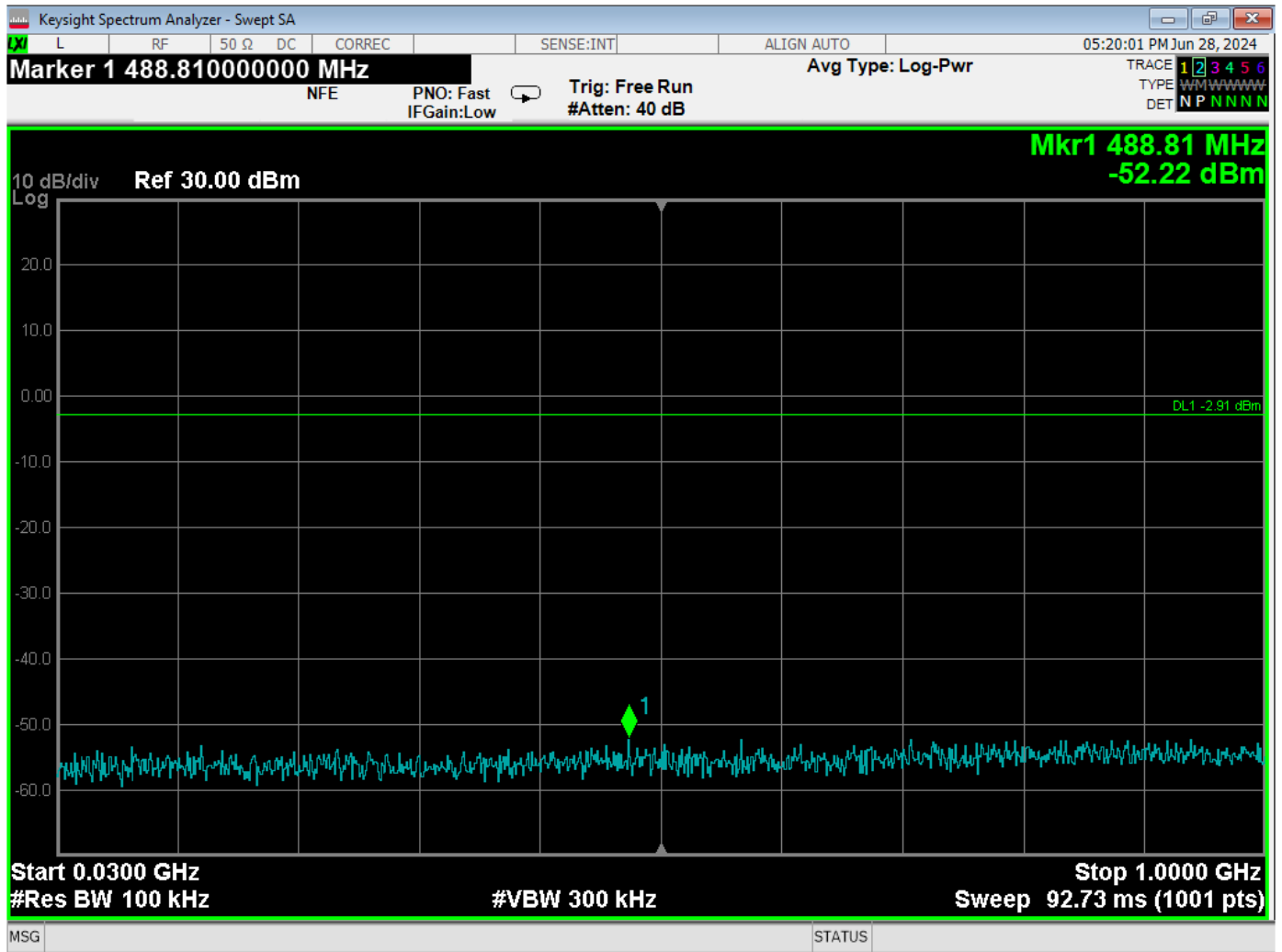
RF Antenna Conducted – Low Channel – BLE – 2483.5 MHz to 10 GHz – Nordic



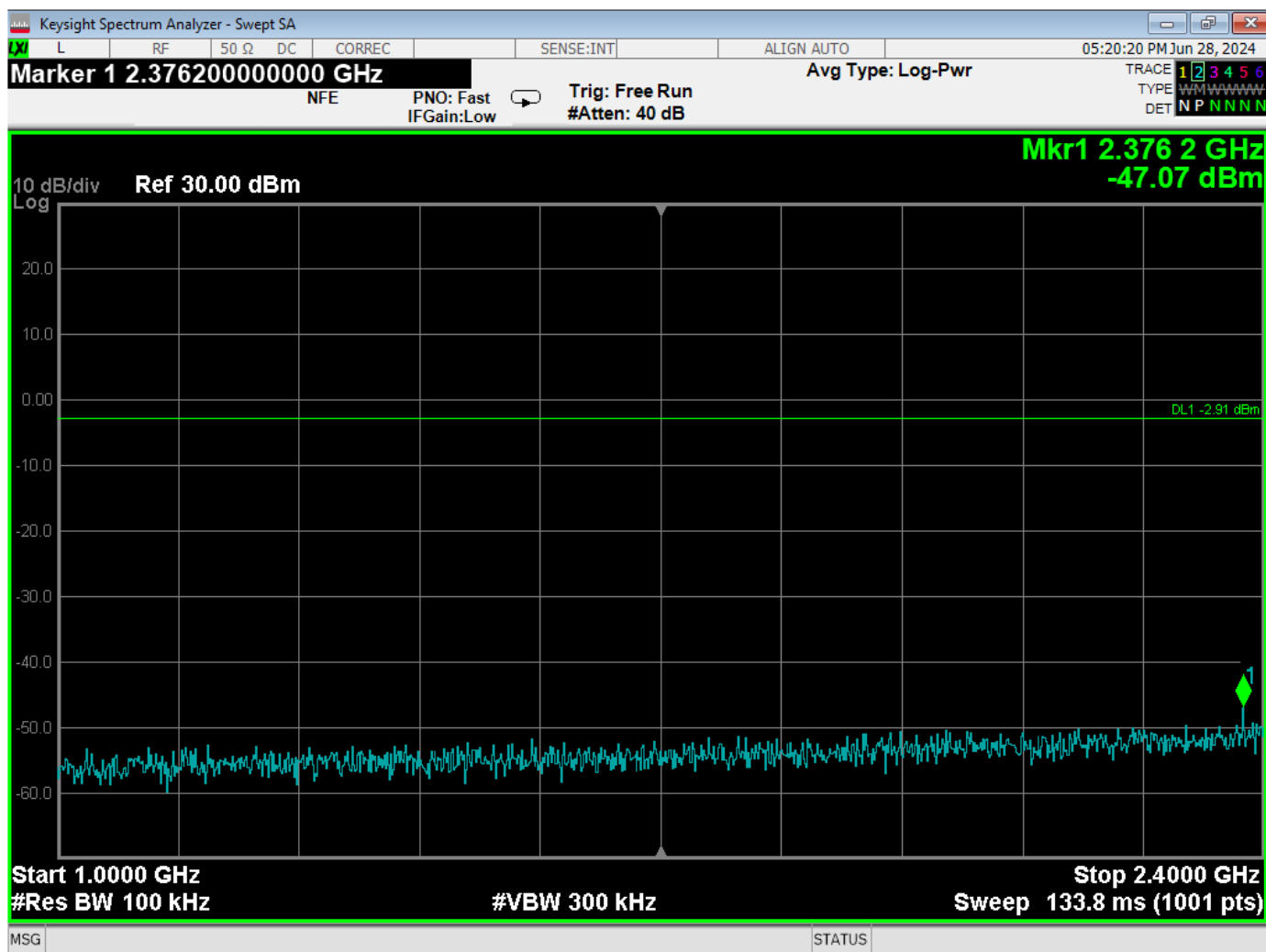
RF Antenna Conducted – Low Channel – BLE – 10 GHz to 25 GHz – Nordic



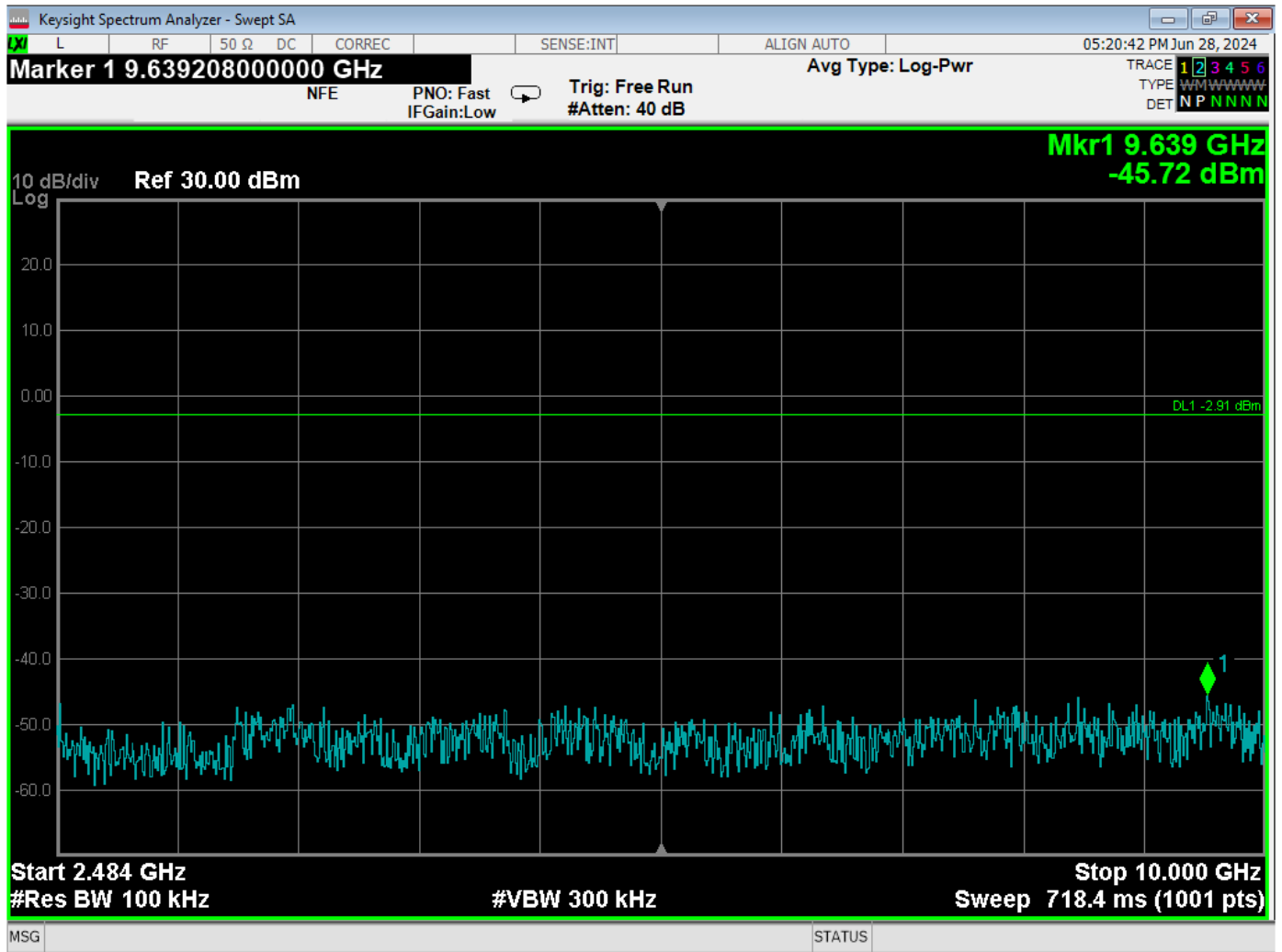
RF Antenna Conducted – Middle Channel – BLE – Reference Level – Nordic



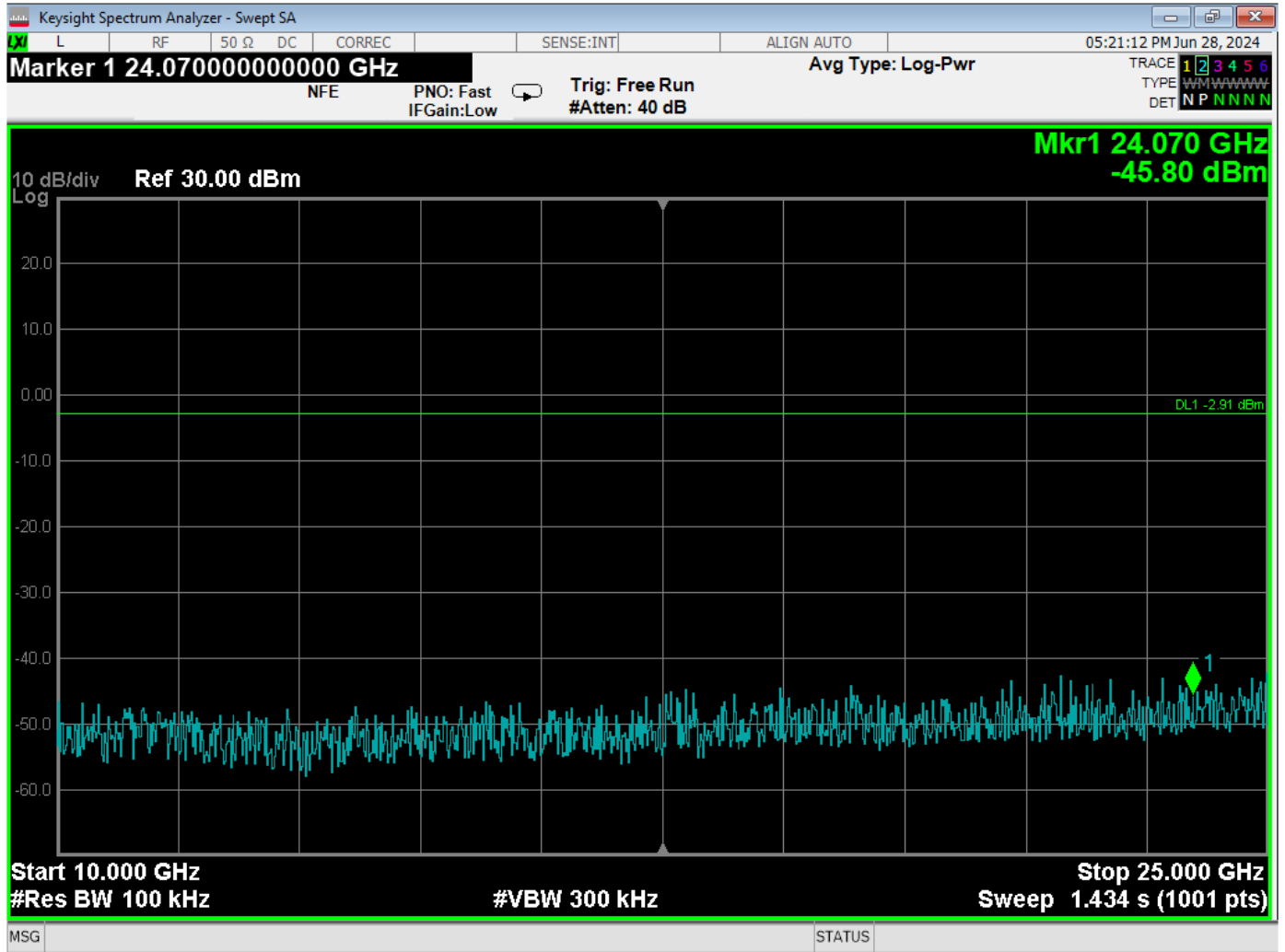
RF Antenna Conducted – Middle Channel – BLE – 30 MHz to 1 GHz – Nordic



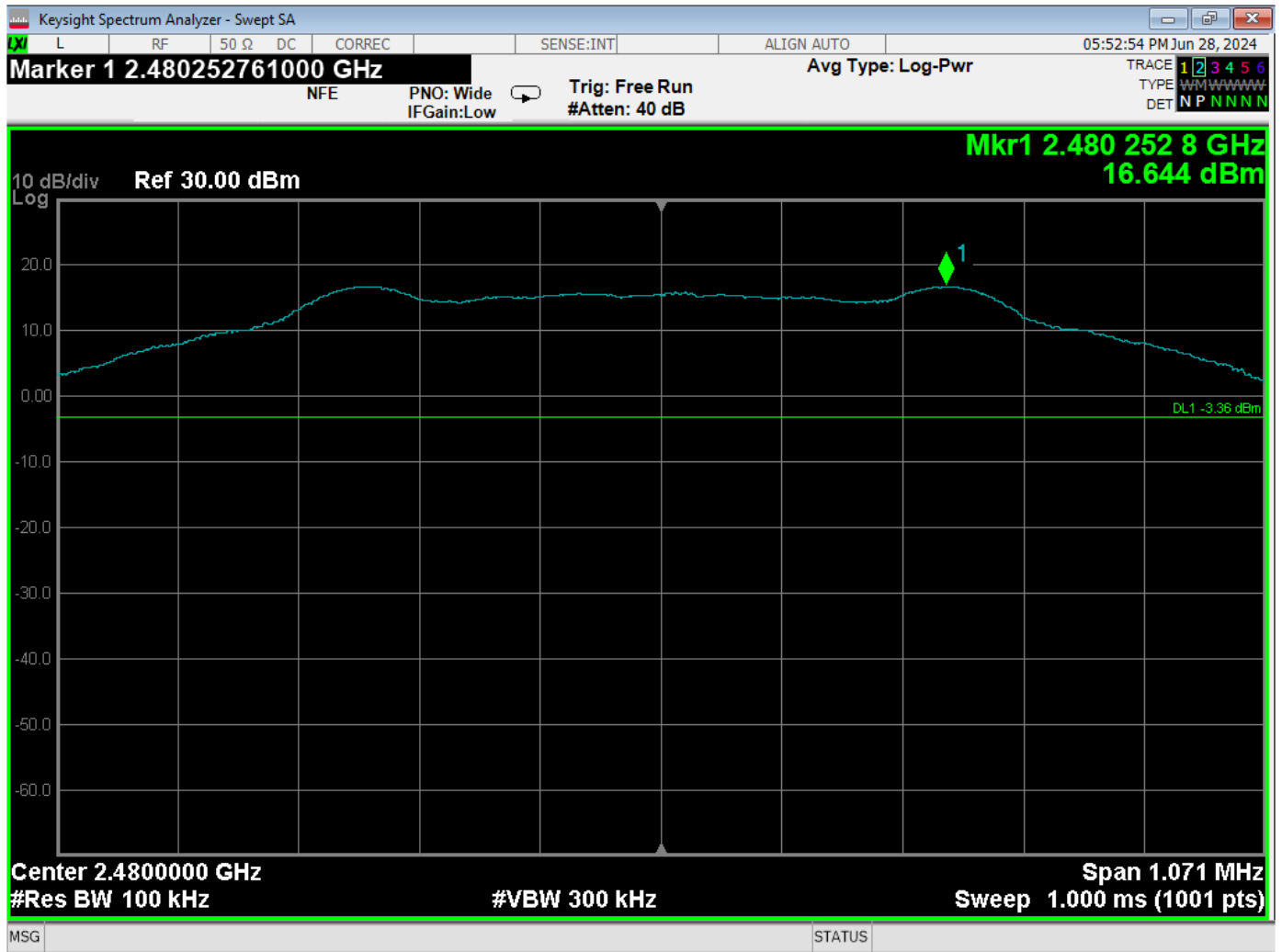
RF Antenna Conducted – Middle Channel – BLE – 1 GHz to 2.4 GHz – Nordic



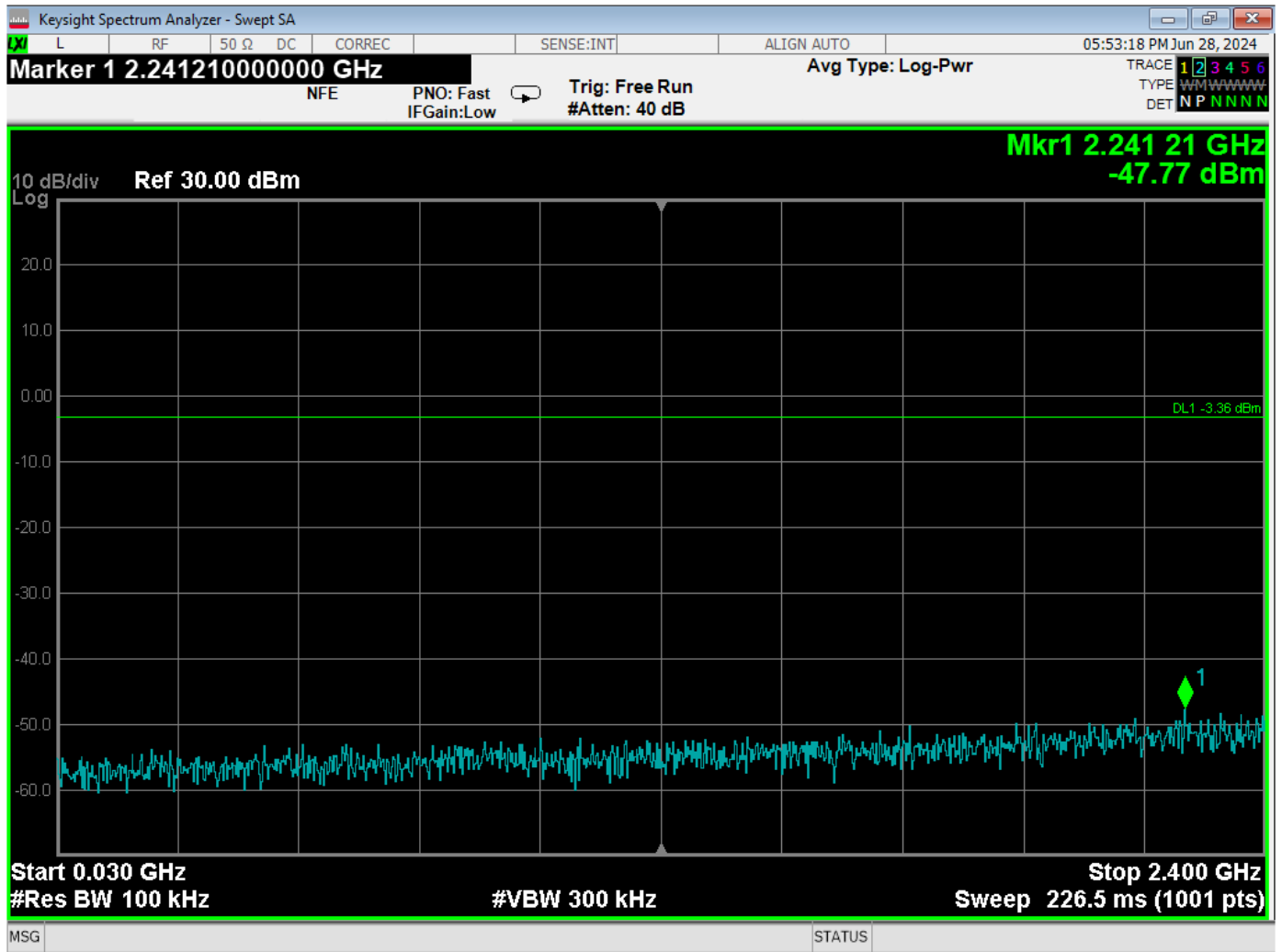
RF Antenna Conducted – Middle Channel – BLE – 2483.5 MHz to 10 GHz – Nordic



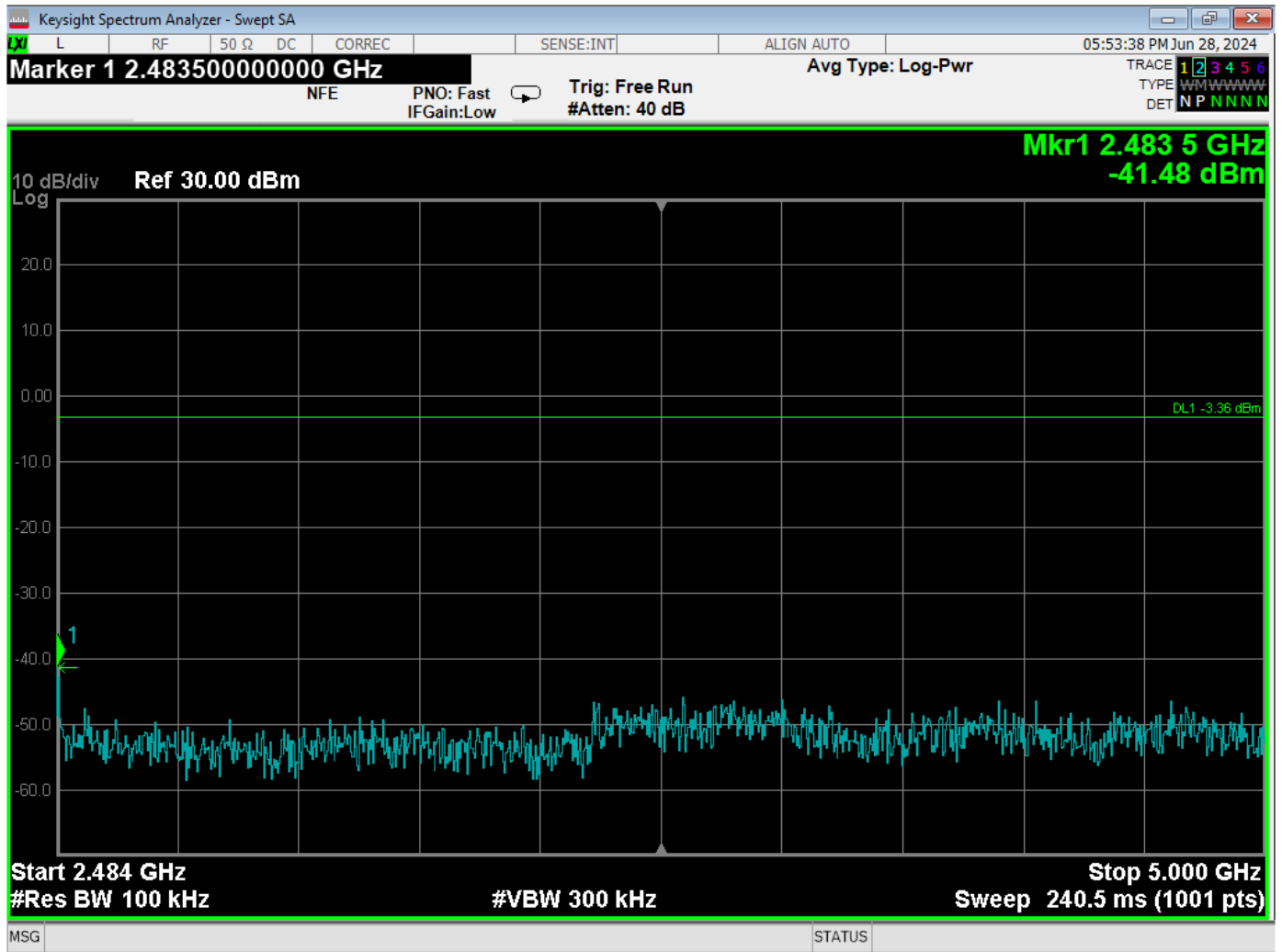
RF Antenna Conducted – Middle Channel – BLE – 10 GHz to 25 GHz – Nordic



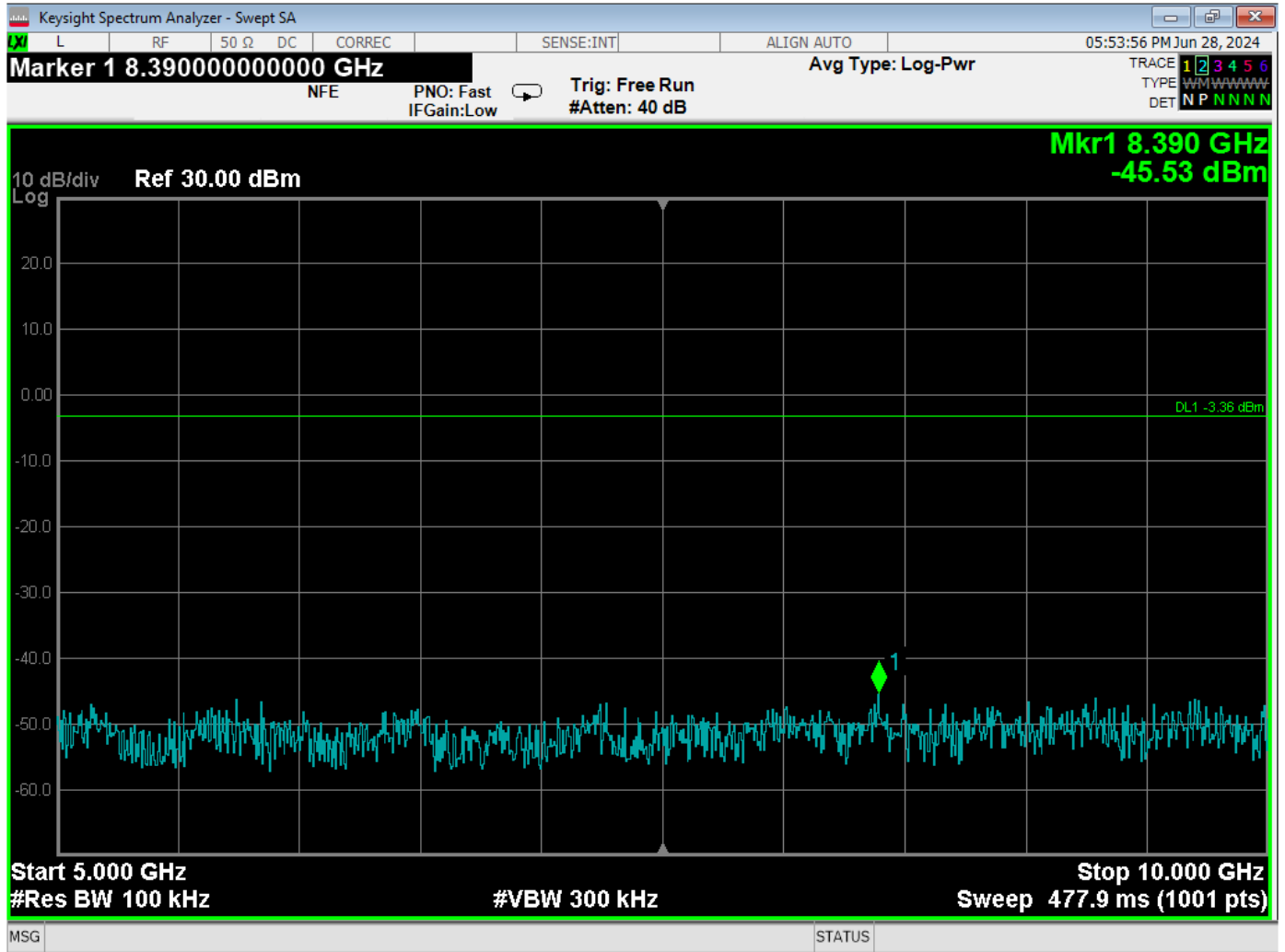
RF Antenna Conducted – High Channel – BLE – Reference Level – Nordic



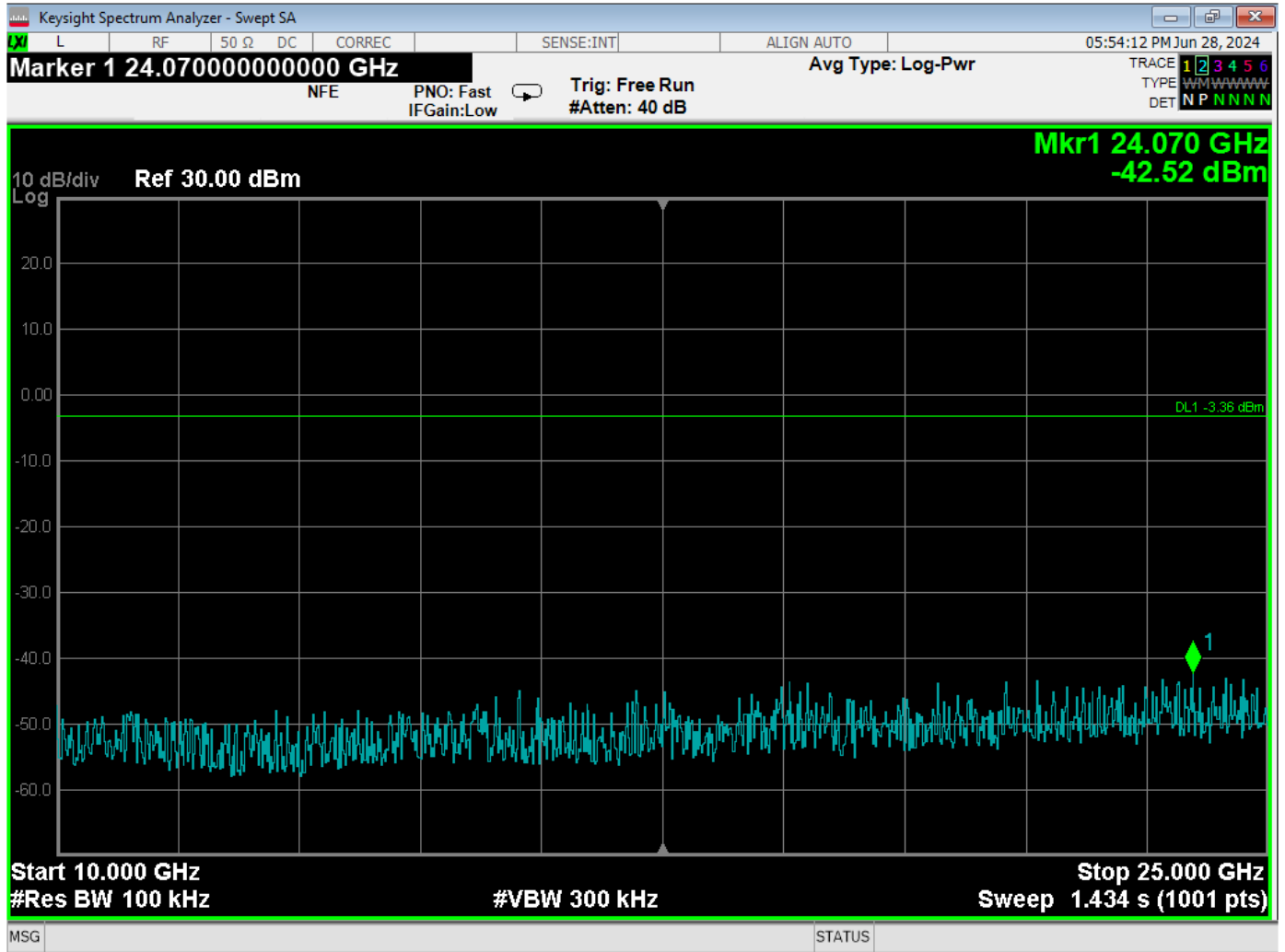
RF Antenna Conducted – High Channel – BLE – 30 MHz to 2.4 GHz – Nordic



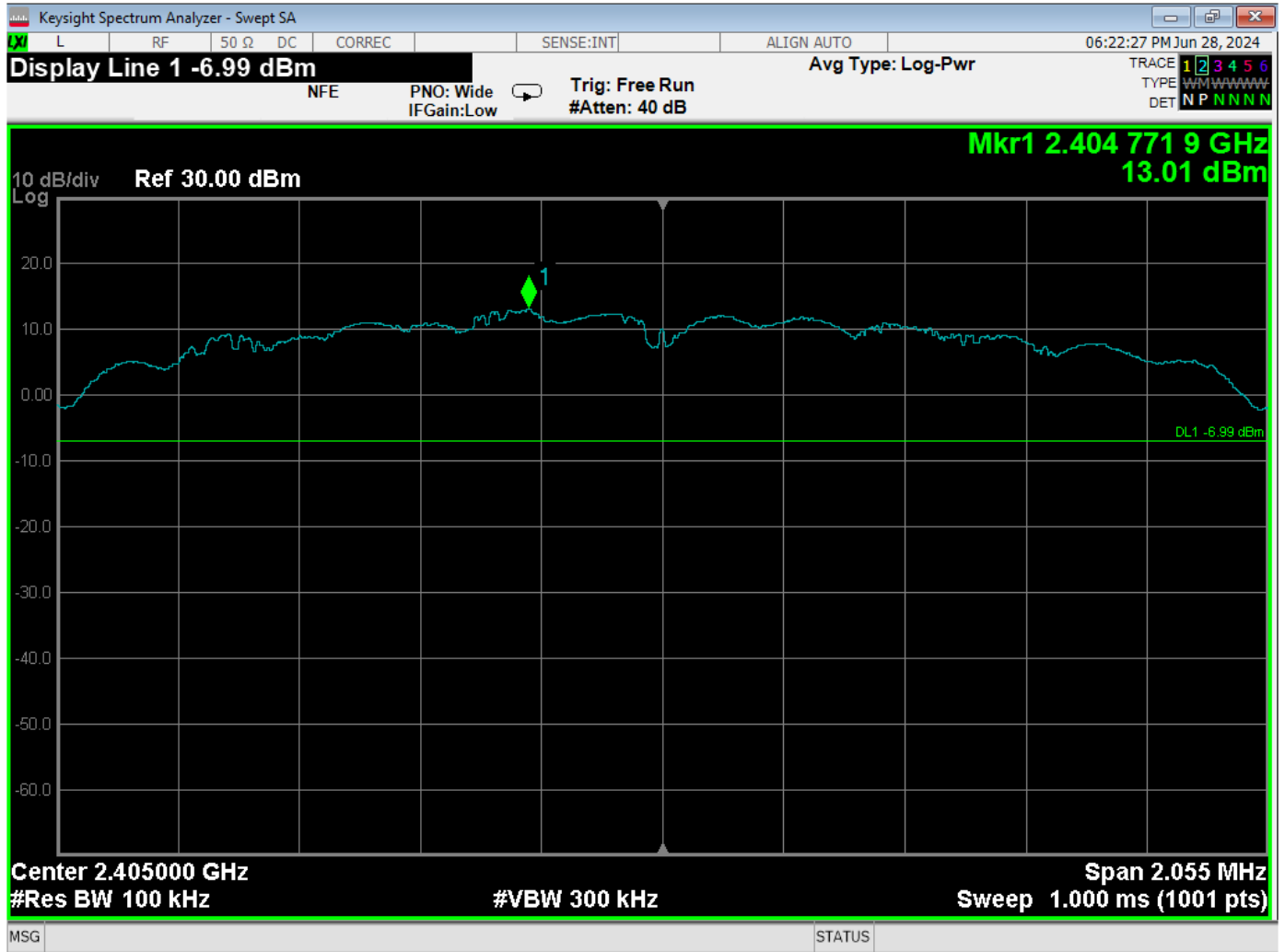
RF Antenna Conducted – High Channel – BLE – 2483.5 MHz to 5 GHz – Nordic



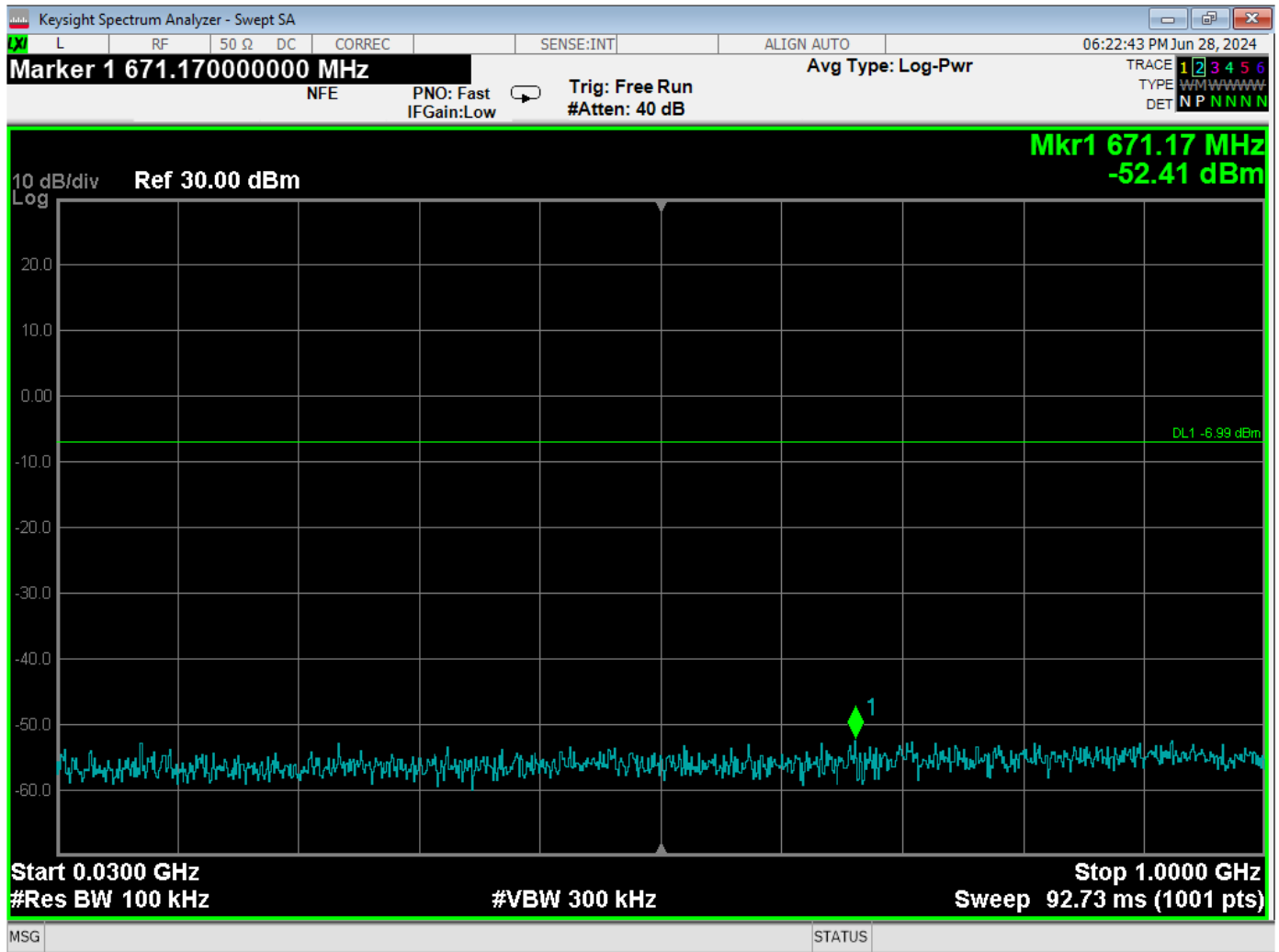
RF Antenna Conducted – High Channel – BLE – 5 GHz to 10 GHz – Nordic



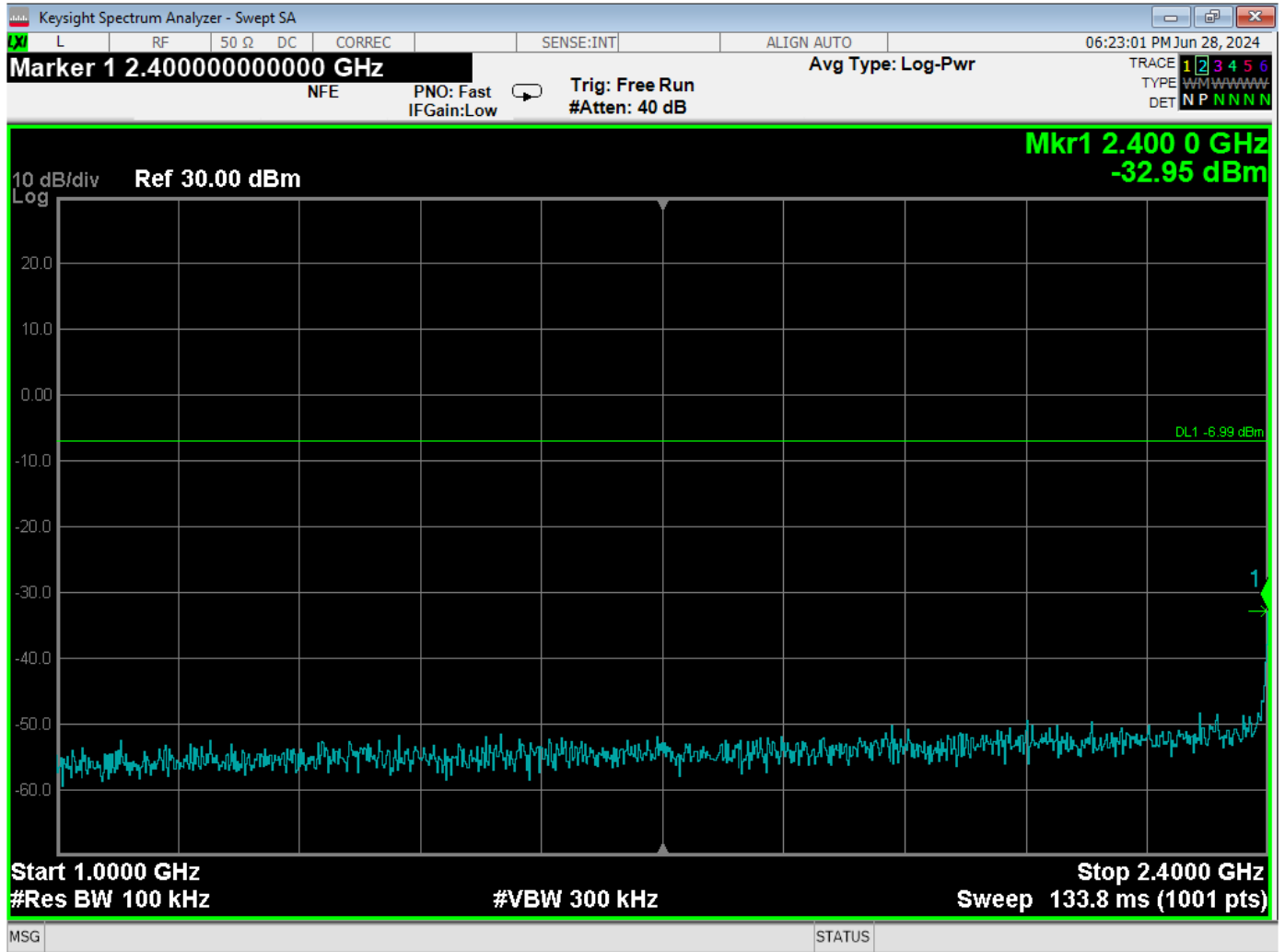
RF Antenna Conducted – High Channel – BLE – 10 GHz to 25 GHz – Nordic



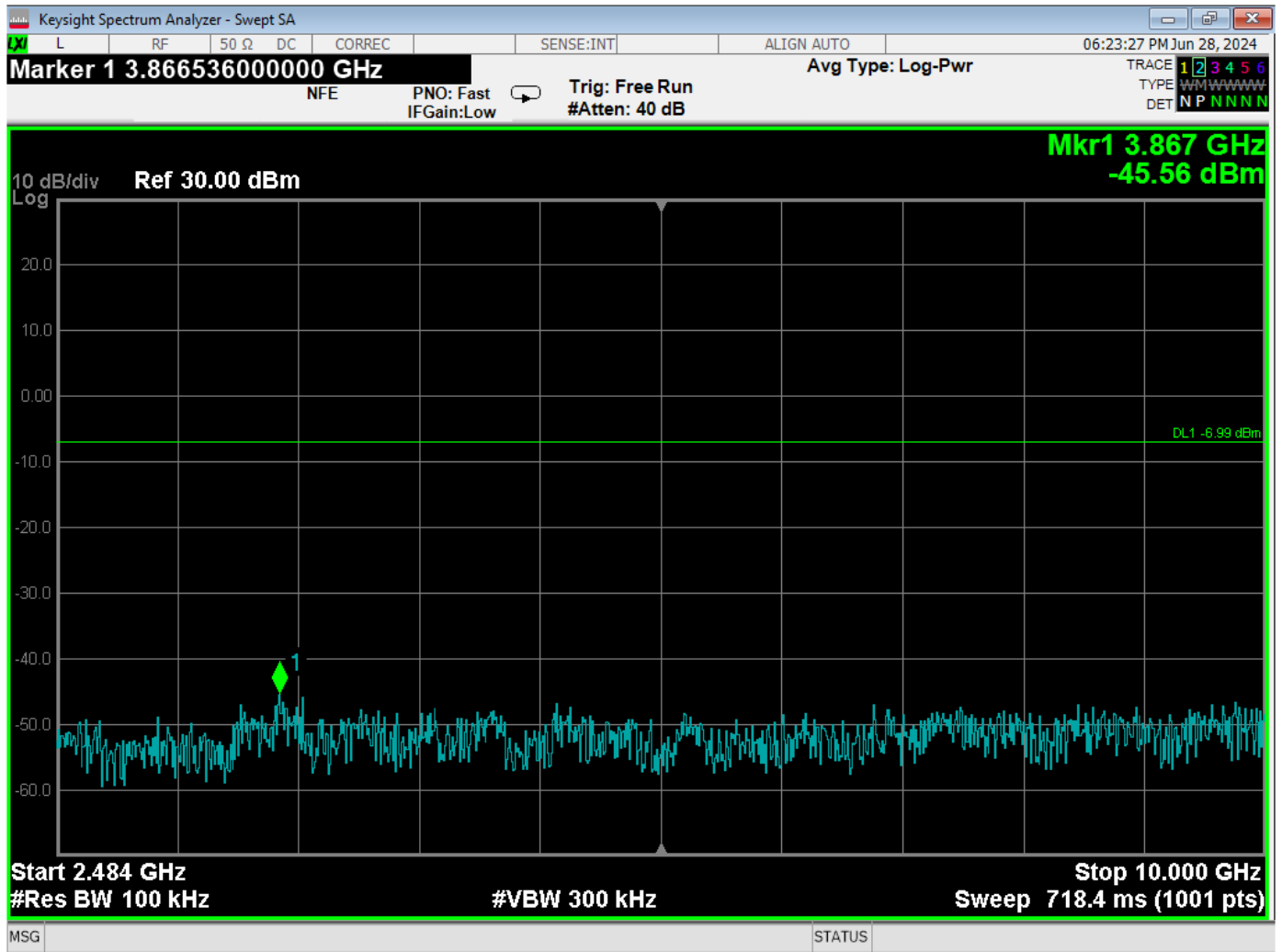
RF Antenna Conducted – Low Channel – Thread – Reference Level – Nordic



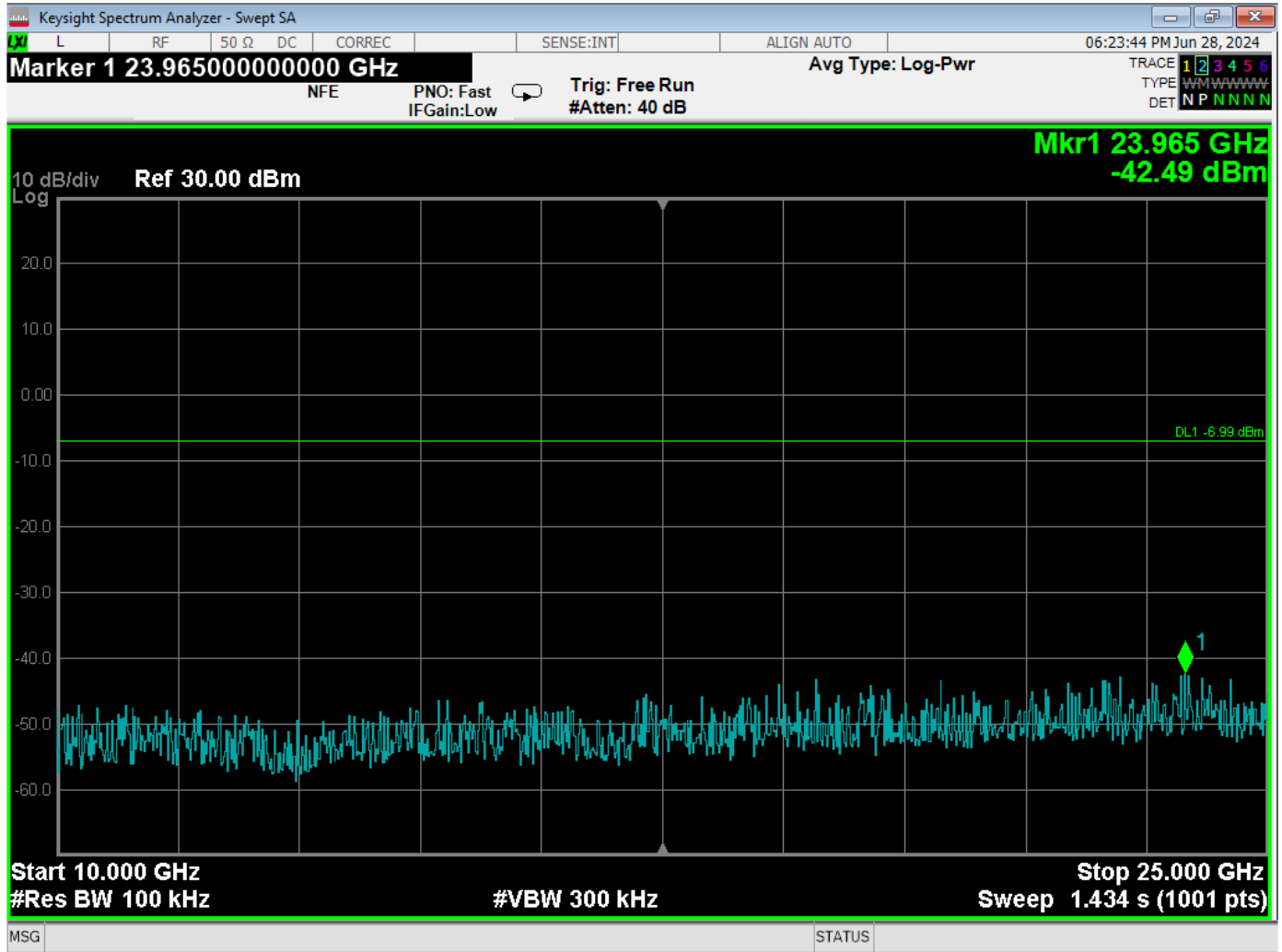
RF Antenna Conducted – Low Channel – Thread – 30 MHz to 1 GHz – Nordic



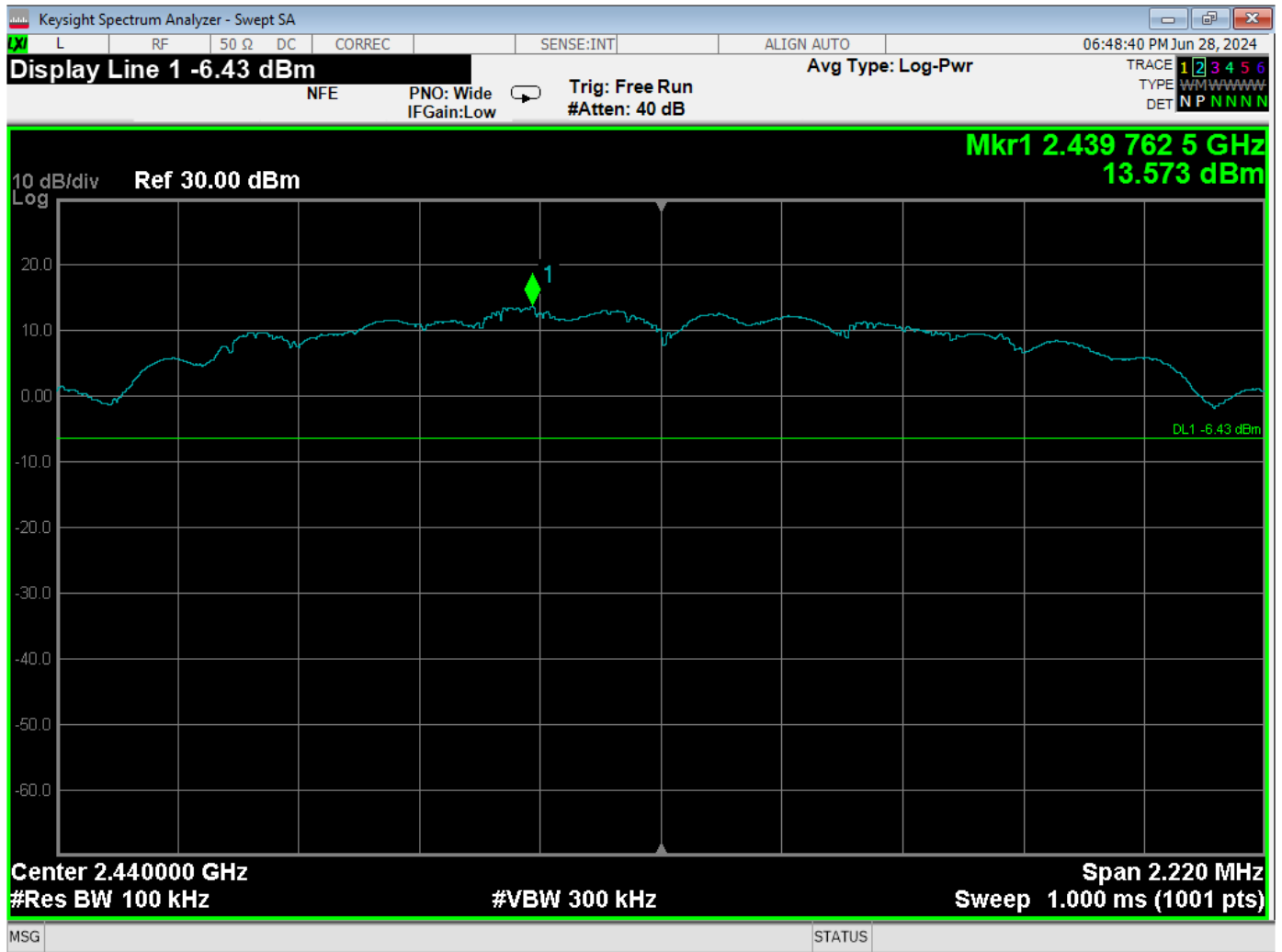
RF Antenna Conducted – Low Channel – Thread – 1 GHz to 2.4 GHz – Nordic



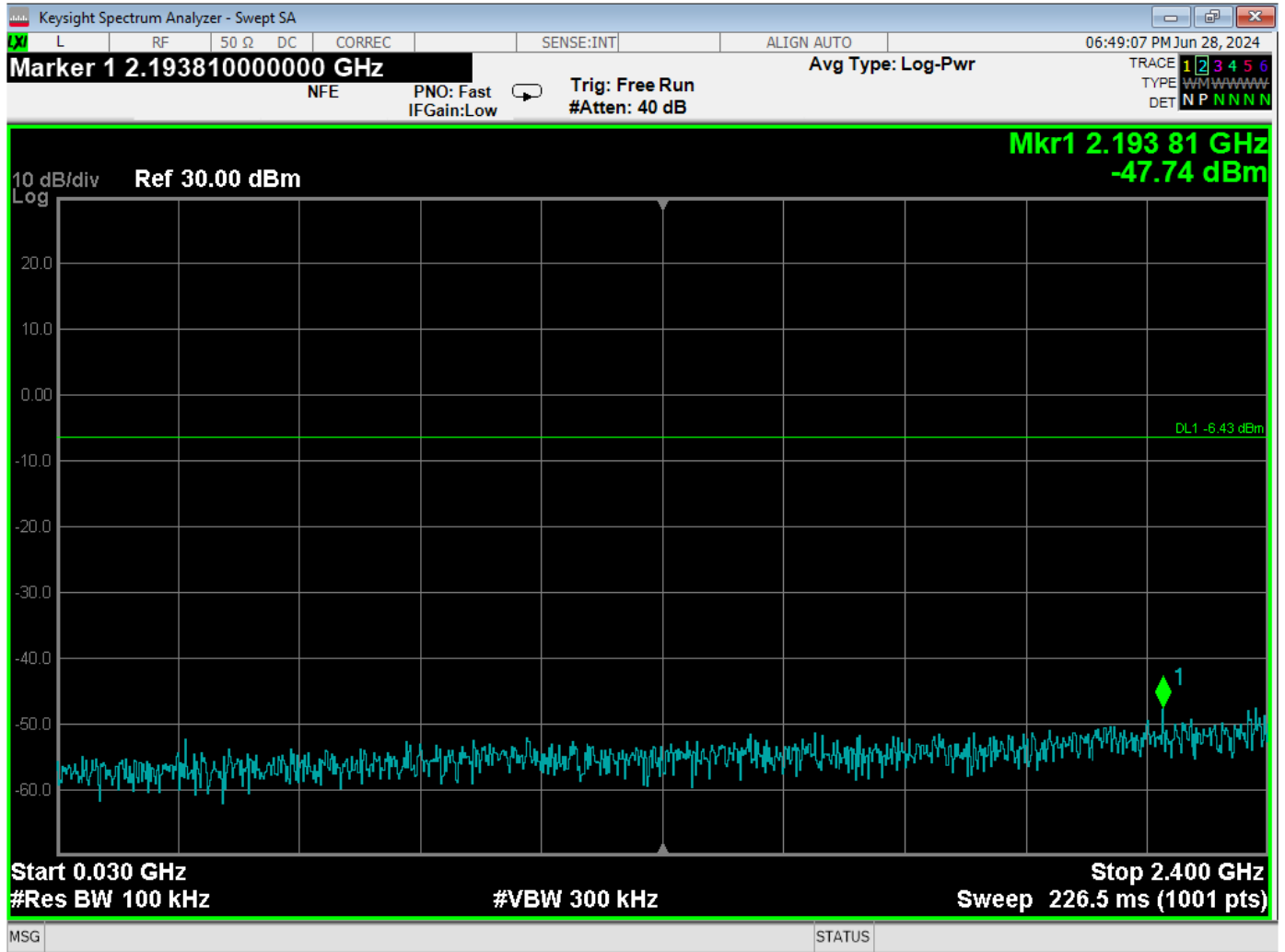
RF Antenna Conducted – Low Channel – Thread – 2483.5 MHz to 10 GHz – Nordic



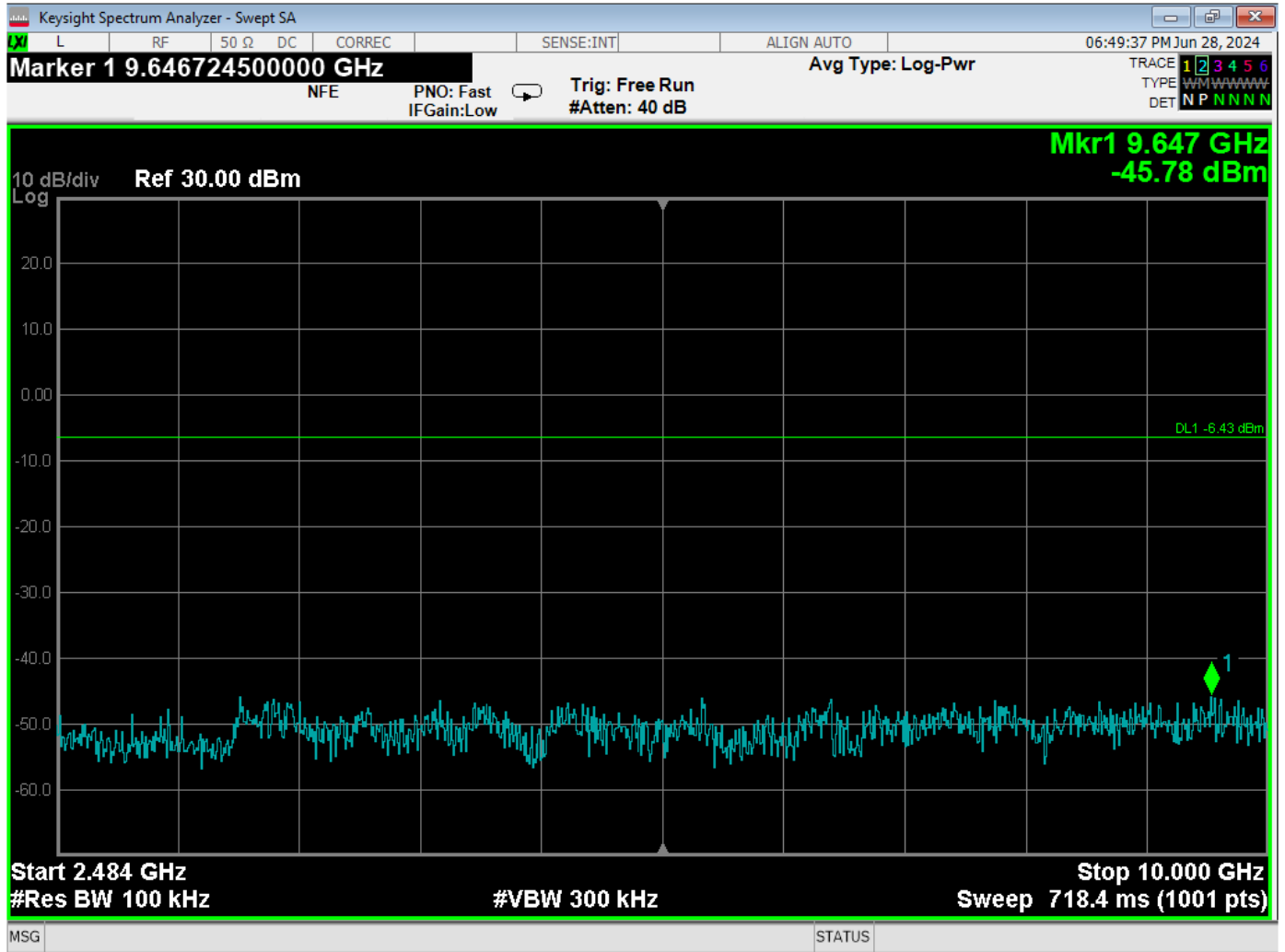
RF Antenna Conducted – Low Channel – Thread – 10 GHz to 25 GHz – Nordic



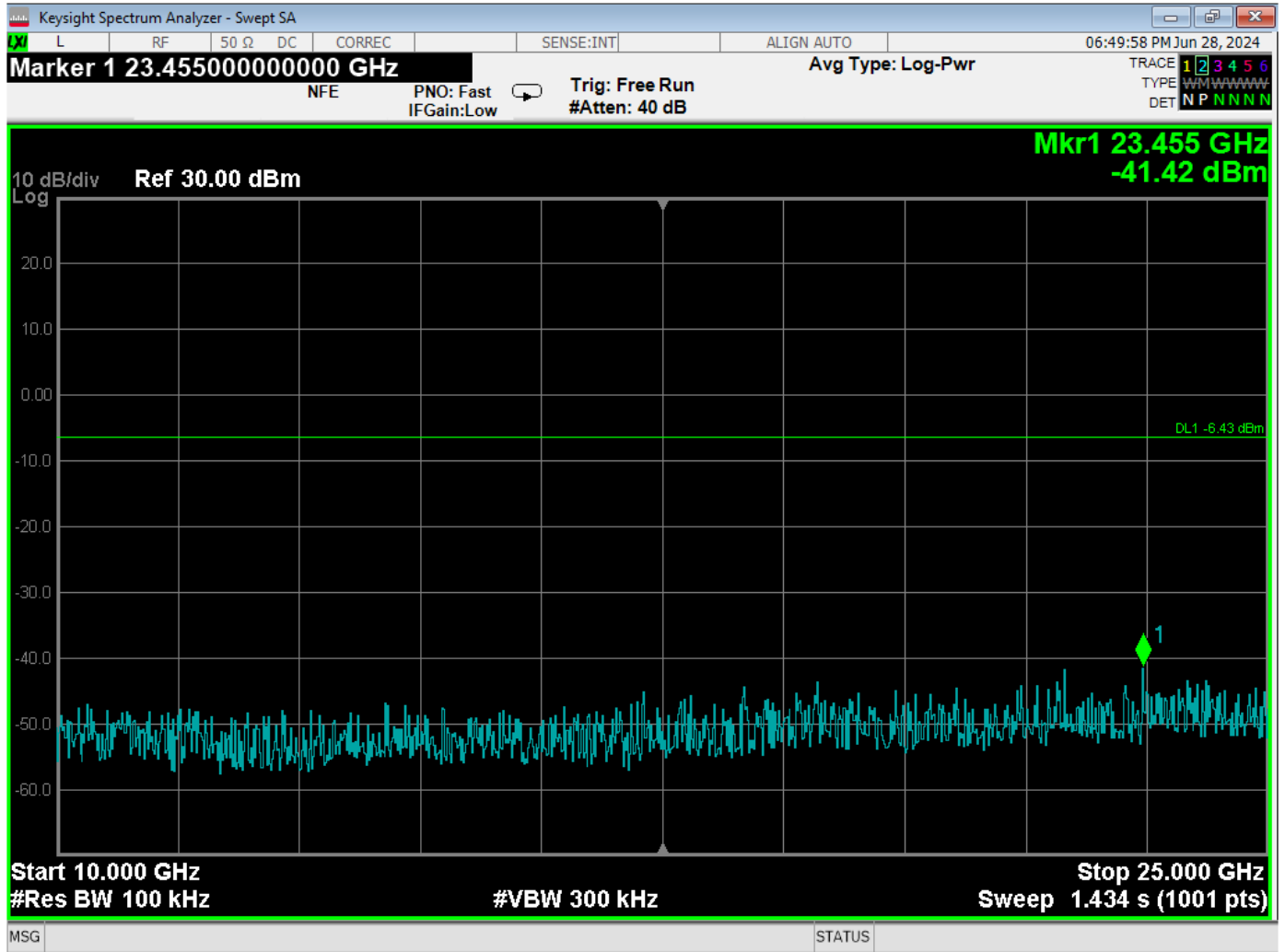
RF Antenna Conducted – Middle Channel – Thread – Reference Level – Nordic



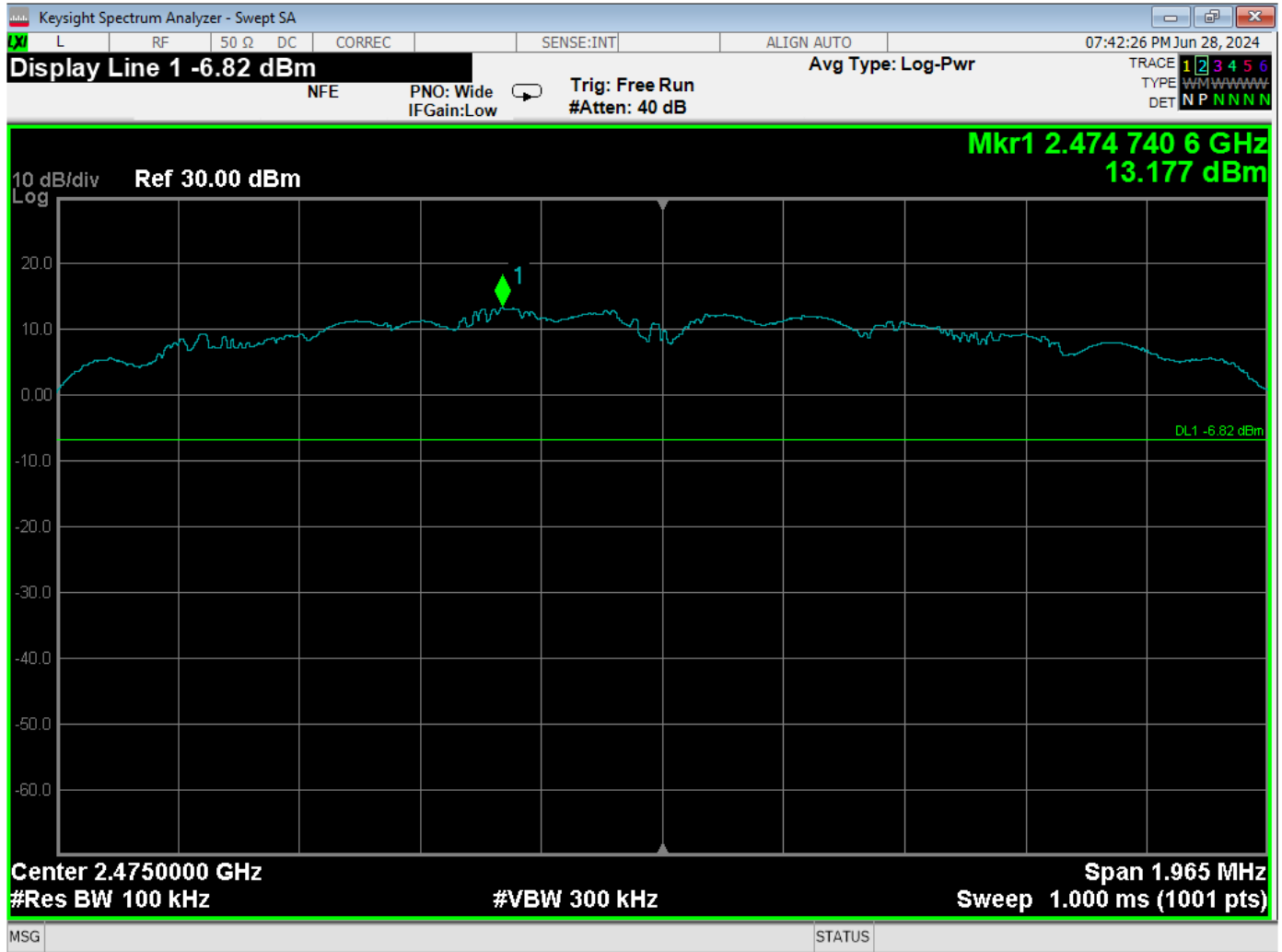
RF Antenna Conducted – Middle Channel – Thread – 30 MHz to 2.4 GHz – Nordic



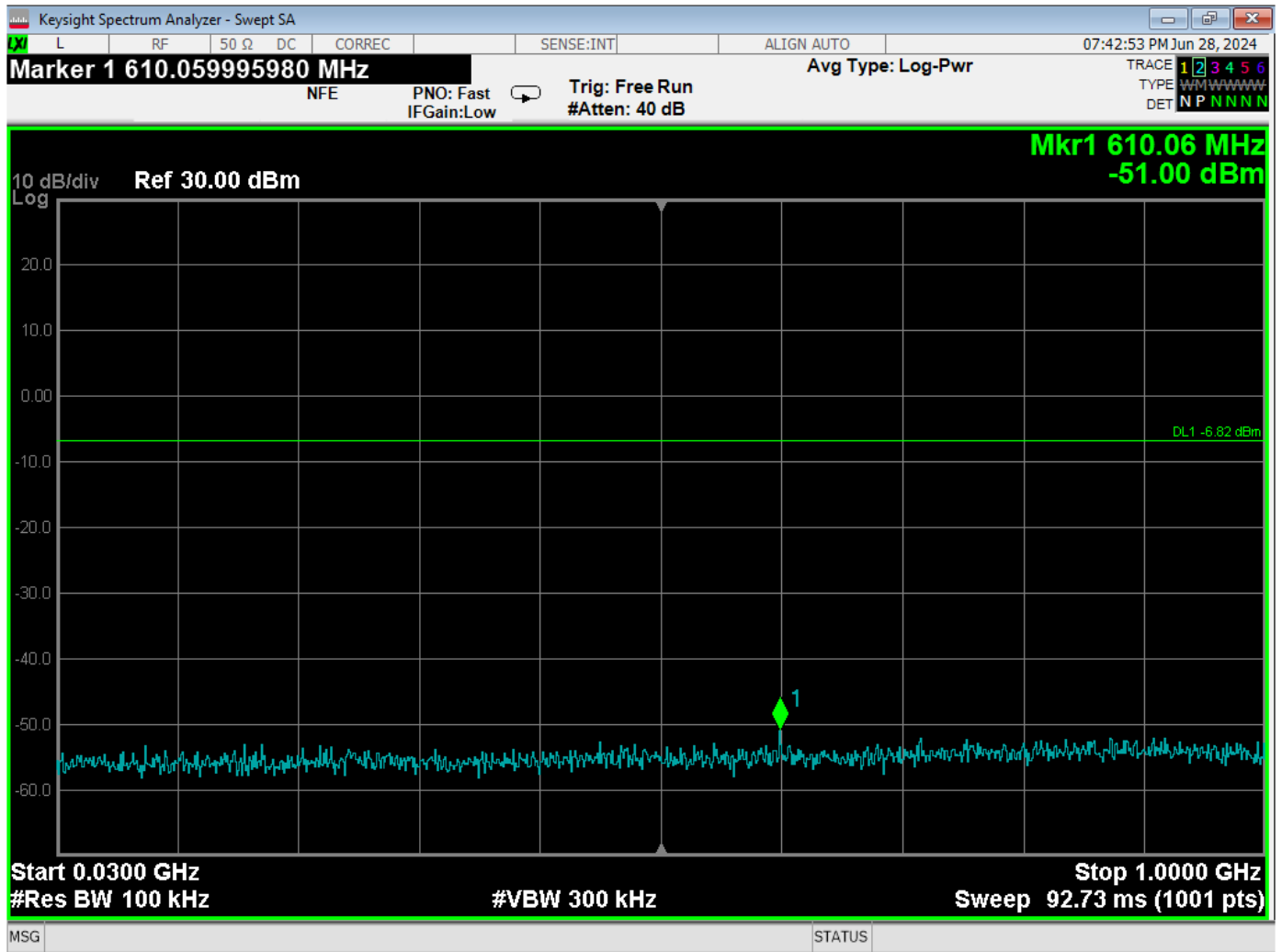
RF Antenna Conducted – Middle Channel – Thread – 2483.5 MHz to 10 GHz – Nordic



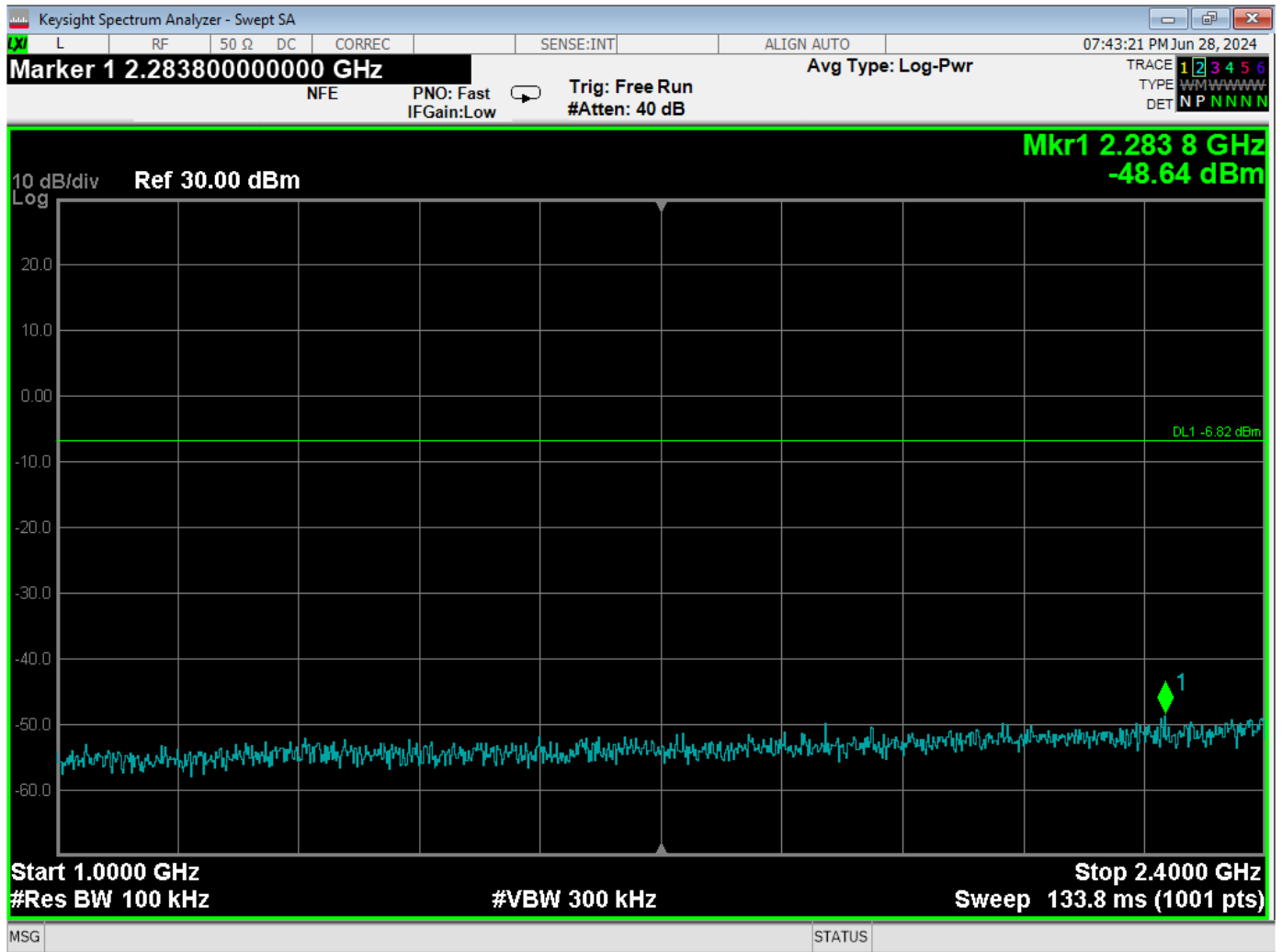
RF Antenna Conducted – Middle Channel – Thread – 10 GHz to 25 GHz – Nordic



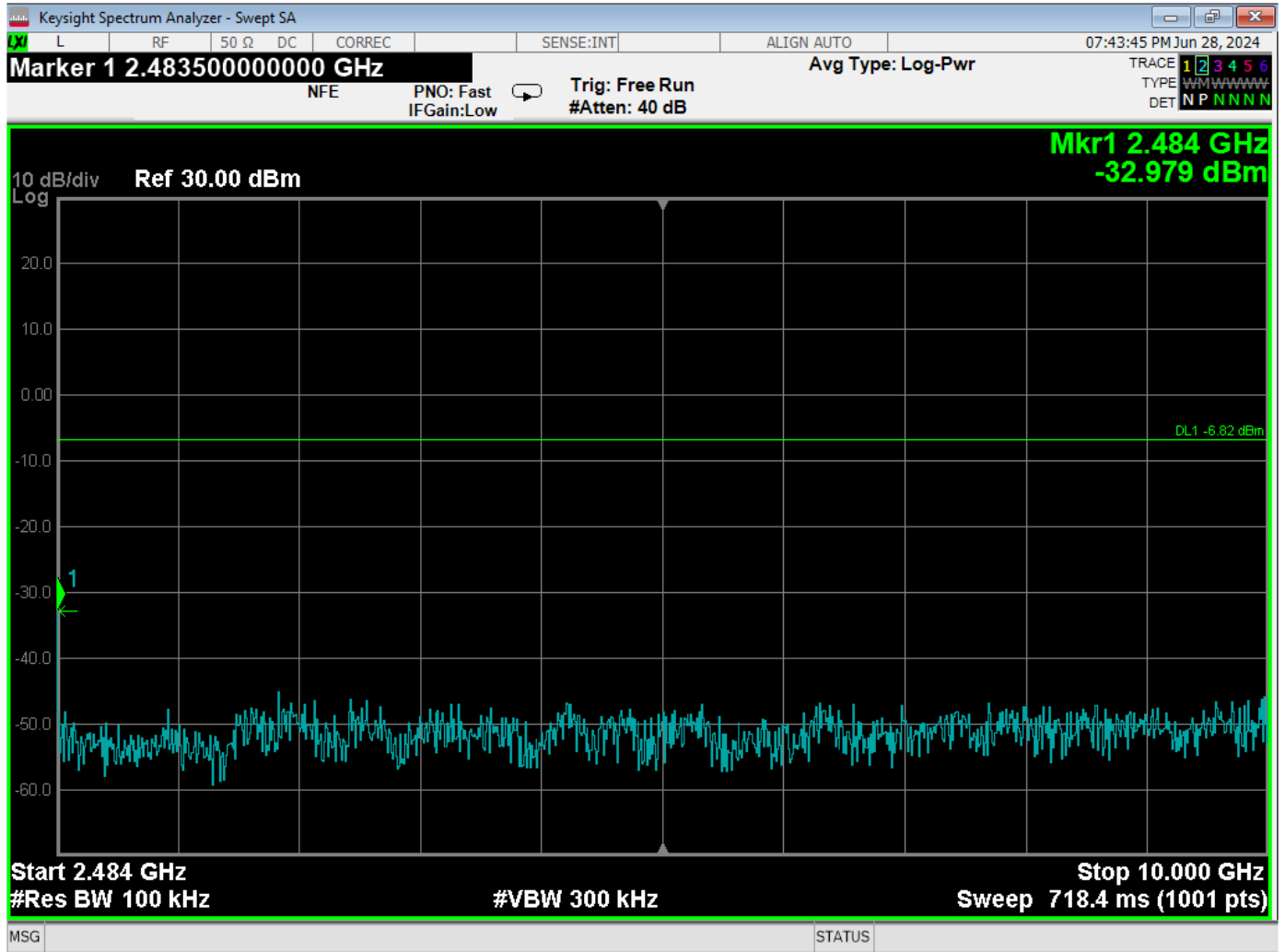
RF Antenna Conducted – High Channel – Thread – Reference Level – Nordic



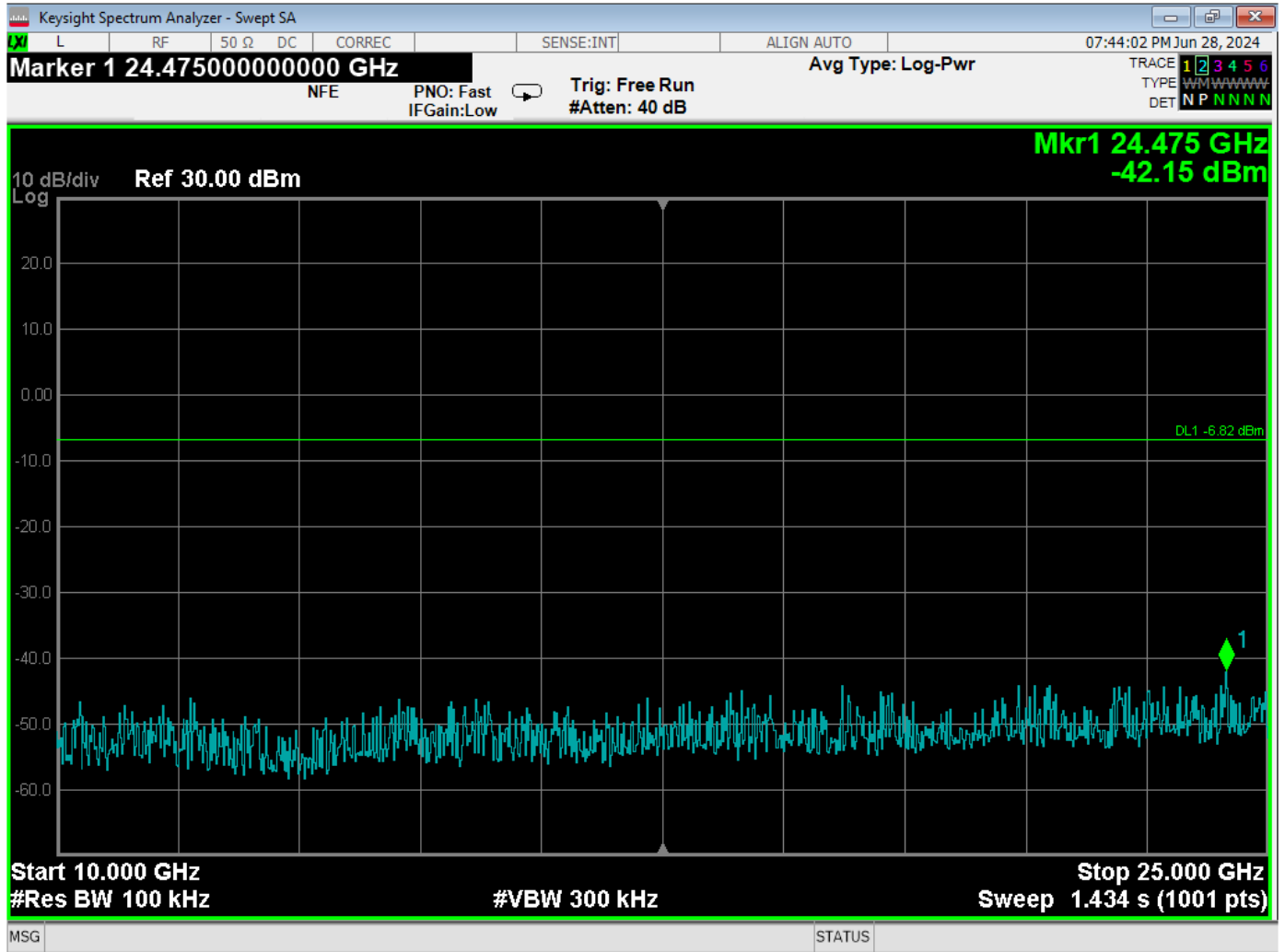
RF Antenna Conducted – High Channel – Thread – 30 MHz to 1 GHz – Nordic



RF Antenna Conducted – High Channel – Thread – 1 GHz to 2.4 GHz – Nordic



RF Antenna Conducted – High Channel – Thread – 2483.5 MHz to 10 GHz – Nordic



RF Antenna Conducted – High Channel – Thread – 10 GHz to 25 GHz – Nordic

SPECTRUM BRANDS, INC.

RESIDENTIAL ELECTRONIC DEADBOLT

MODEL: 9800

EMISSIONS IN NON-RESTRICTED BANDS

BLE MODE – REDPINE

FREQUENCY (MHz)	LEVEL (dBm)	Limit* (dBm)	Margin (dB)
2400.00 (BLE) (2Mbit)	-25.656	-5.17	-9.476
2400.00 (802.11g)	-27.440	-5.17	-9.360
2400.00 (802.11n) (20 MHz)	-28.566	-5.17	-10.746

*Per ANSI C63.10 section 11.11.2, the channel found to contain the maximum level can be used to establish the reference level.

SPECTRUM BRANDS, INC.

RESIDENTIAL ELECTRONIC DEADBOLT

MODEL: 9800

EMISSIONS IN NON-RESTRICTED BANDS

802.11b – REDPINE

FREQUENCY (MHz)	LEVEL (dBm)	Limit* (dBm)	Margin (dB)
23986.00	-28.87	-13.57	-15.30
24580.00	-42.78	-13.57	-29.21
7971.00	-45.65	-13.57	-32.08

*Per ANSI C63.10 section 11.11.2, the channel found to contain the maximum level can be used to establish the reference level.

SPECTRUM BRANDS, INC.
RESIDENTIAL ELECTRONIC DEADBOLT
MODEL: 9800
EMISSIONS IN NON-RESTRICTED BANDS

802.11g – REDPINE

FREQUENCY (MHz)	LEVEL (dBm)	Limit* (dBm)	Margin (dB)
2400.00	-40.88	-18.61	-22.27
9722.00	-45.33	-18.61	-26.72
24055.00	-43.73	-18.61	-25.12

*Per ANSI C63.10 section 11.11.2, the channel found to contain the maximum level can be used to establish the reference level.

SPECTRUM BRANDS, INC.

RESIDENTIAL ELECTRONIC DEADBOLT

MODEL: 9800

EMISSIONS IN NON-RESTRICTED BANDS

802.11n – REDPINE

FREQUENCY (MHz)	LEVEL (dBm)	Limit* (dBm)	Margin (dB)
24025.00	-42.41	-18.31	-24.10
9248.00	-44.73	-18.31	-26.42
2529.00	-46.36	-18.31	-28.05

*Per ANSI C63.10 section 11.11.2, the channel found to contain the maximum level can be used to establish the reference level.

SPECTRUM BRANDS, INC.

RESIDENTIAL ELECTRONIC DEADBOLT

MODEL: 9800

EMISSIONS IN NON-RESTRICTED BANDS

BLE – NORDIC

FREQUENCY (MHz)	LEVEL (dBm)	Limit* (dBm)	Margin (dB)
24070.00	-42.52	-2.91	-39.61
24700.00	-43.35	-2.91	-40.44
9639.00	-45.72	-2.91	-42.81

*Per ANSI C63.10 section 11.11.2, the channel found to contain the maximum level can be used to establish the reference level.

SPECTRUM BRANDS, INC.

RESIDENTIAL ELECTRONIC DEADBOLT

MODEL: 9800

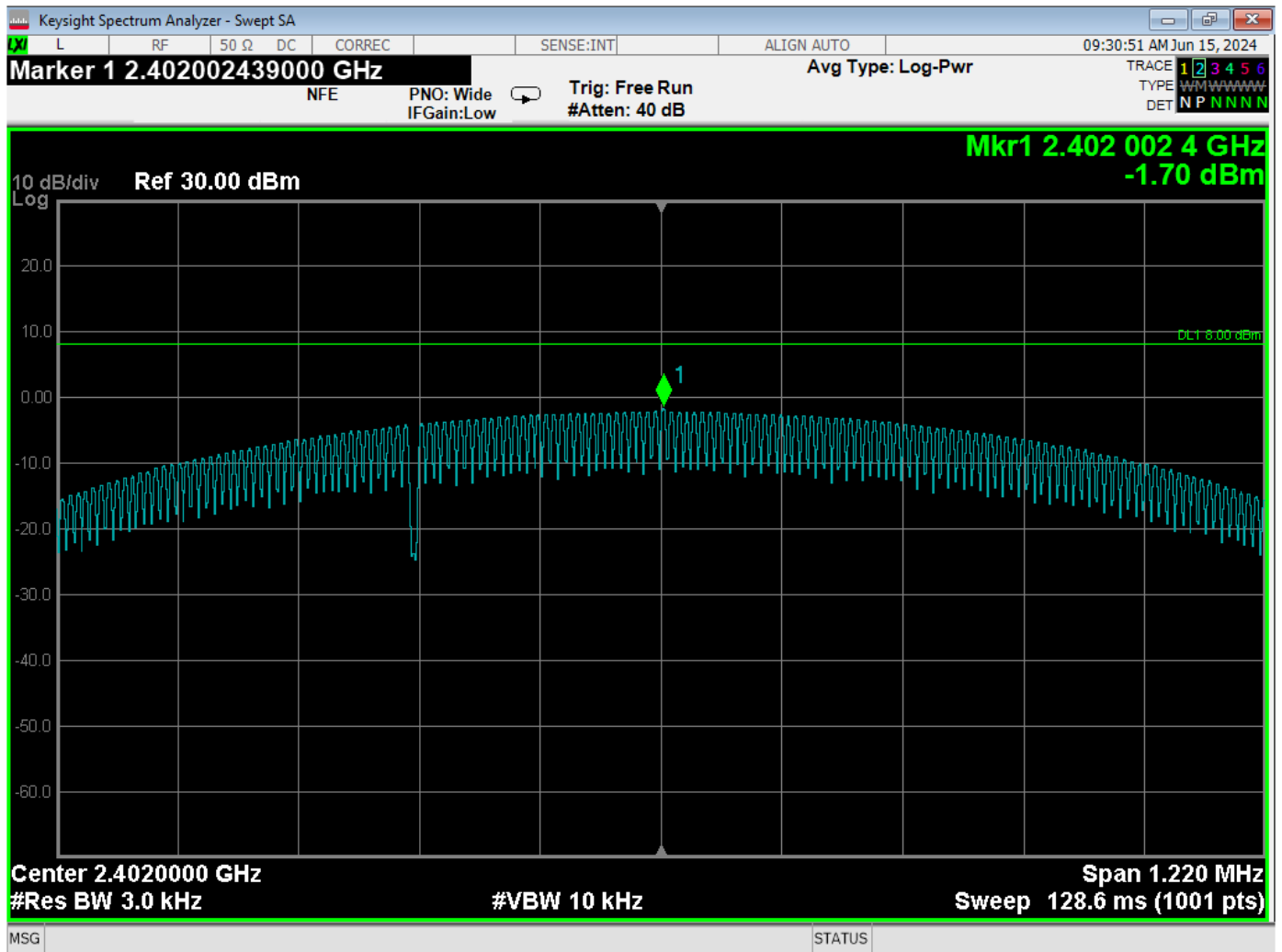
EMISSIONS IN NON-RESTRICTED BANDS

BLE – THREAD

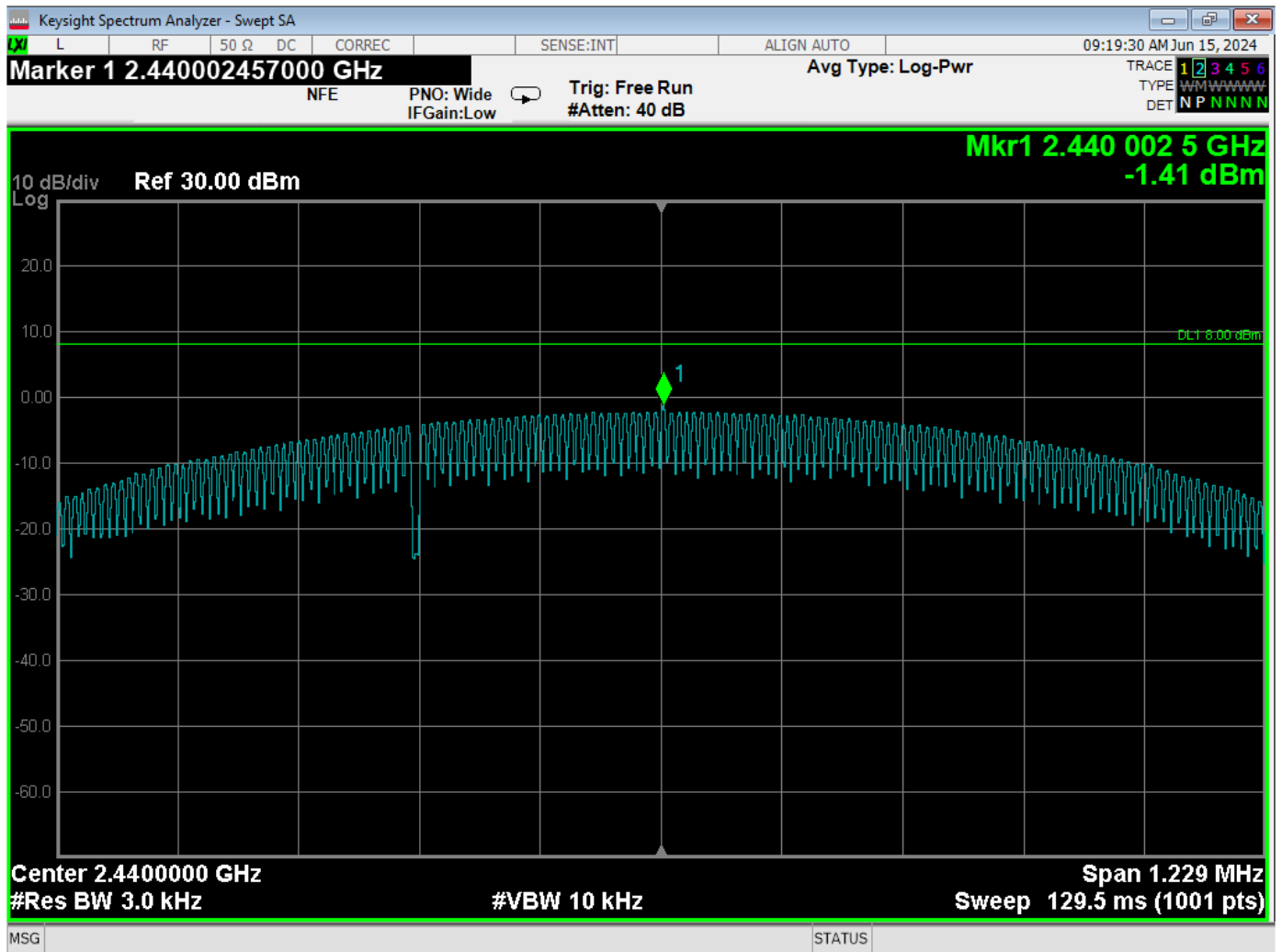
FREQUENCY (MHz)	LEVEL (dBm)	Limit* (dBm)	Margin (dB)
2400.00	-32.95	-6.43	-26.52
23455.00	-41.42	-6.43	-34.99
9647.00	-45.78	-6.43	-39.35

*Per ANSI C63.10 section 11.11.2, the channel found to contain the maximum level can be used to establish the reference level.

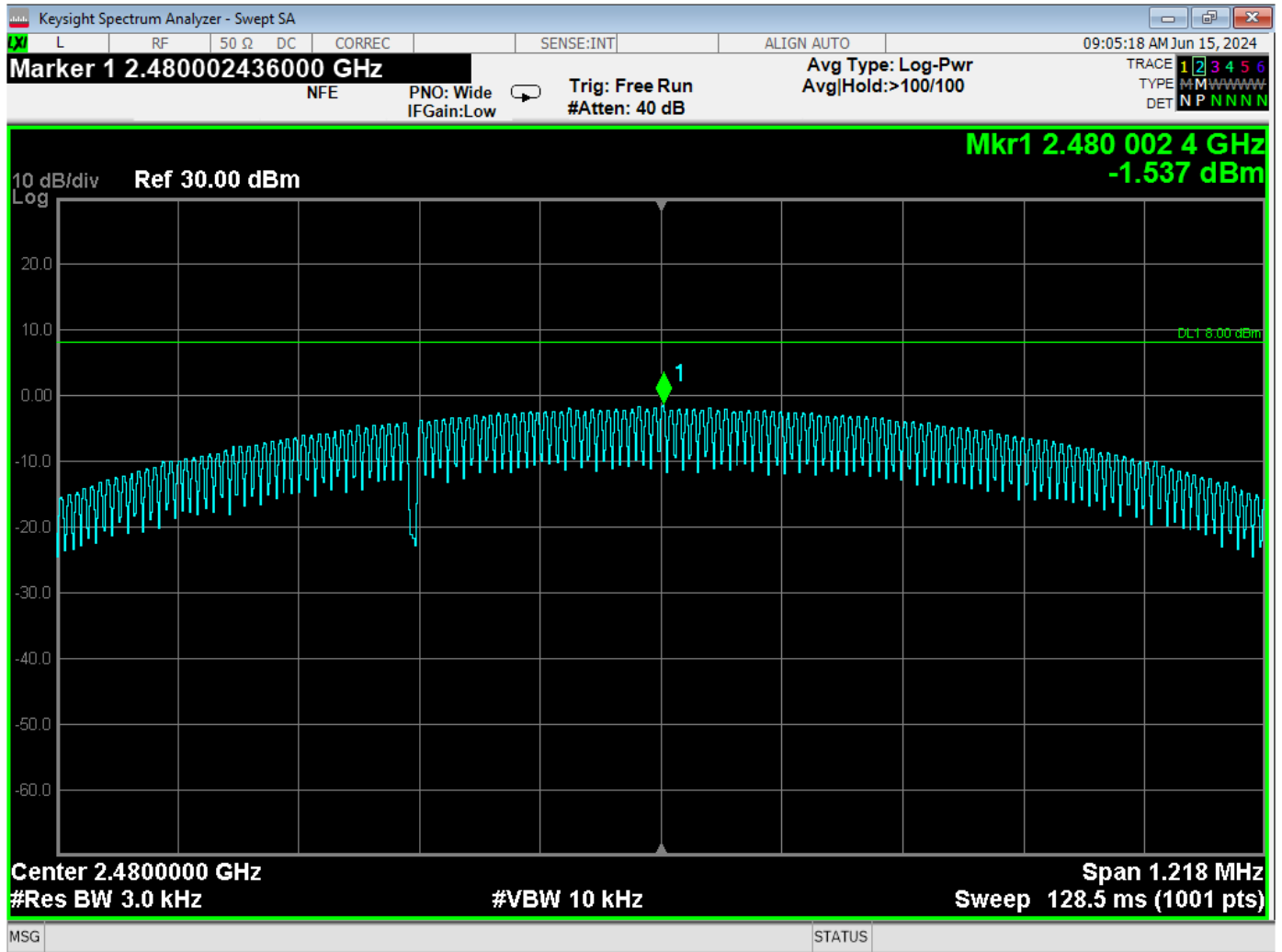
***PEAK POWER SPECTRAL DENSITY
DATA SHEETS***



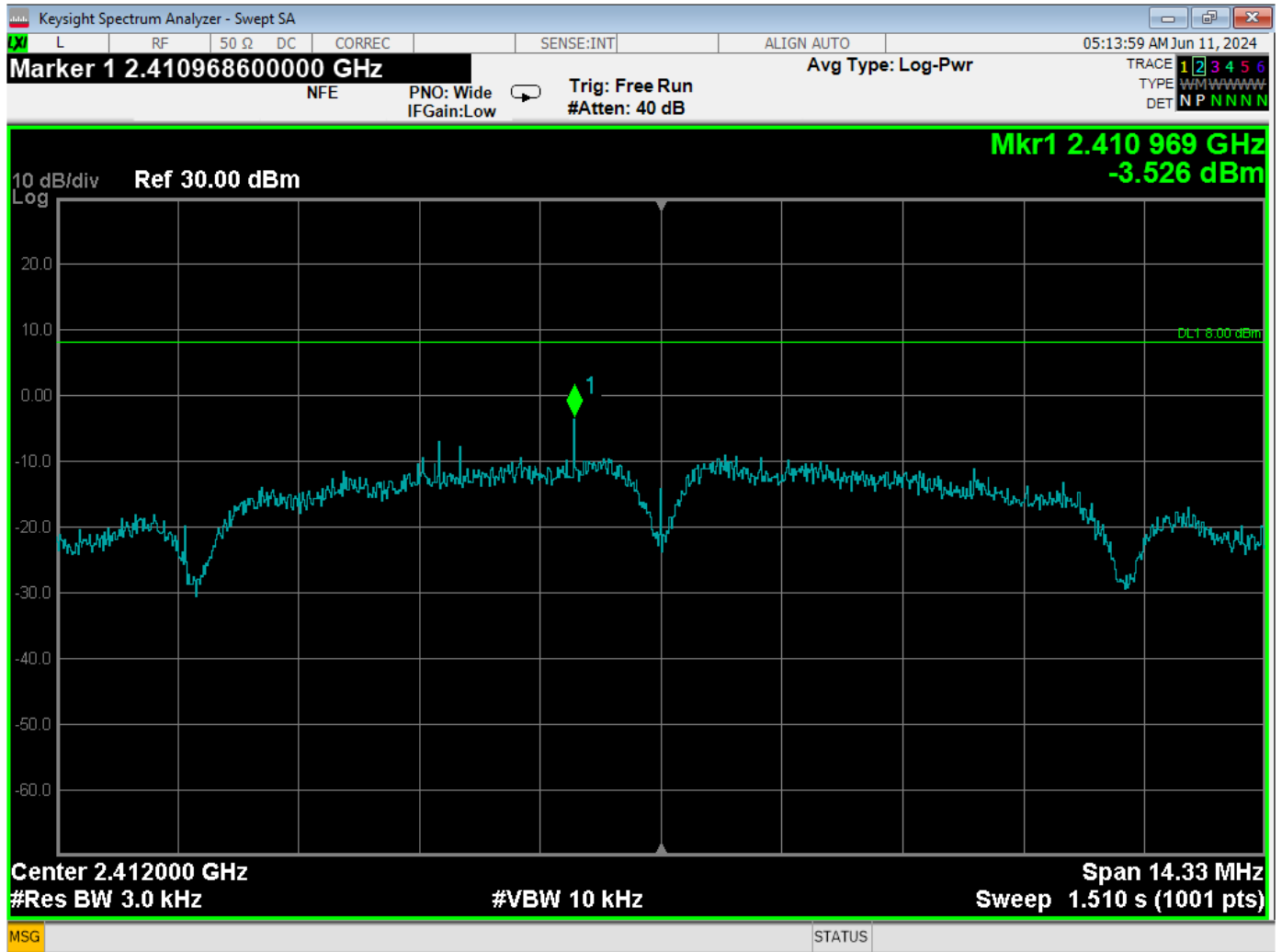
Peak Power Spectral Density – Low Channel – BLE Mode – RedPine



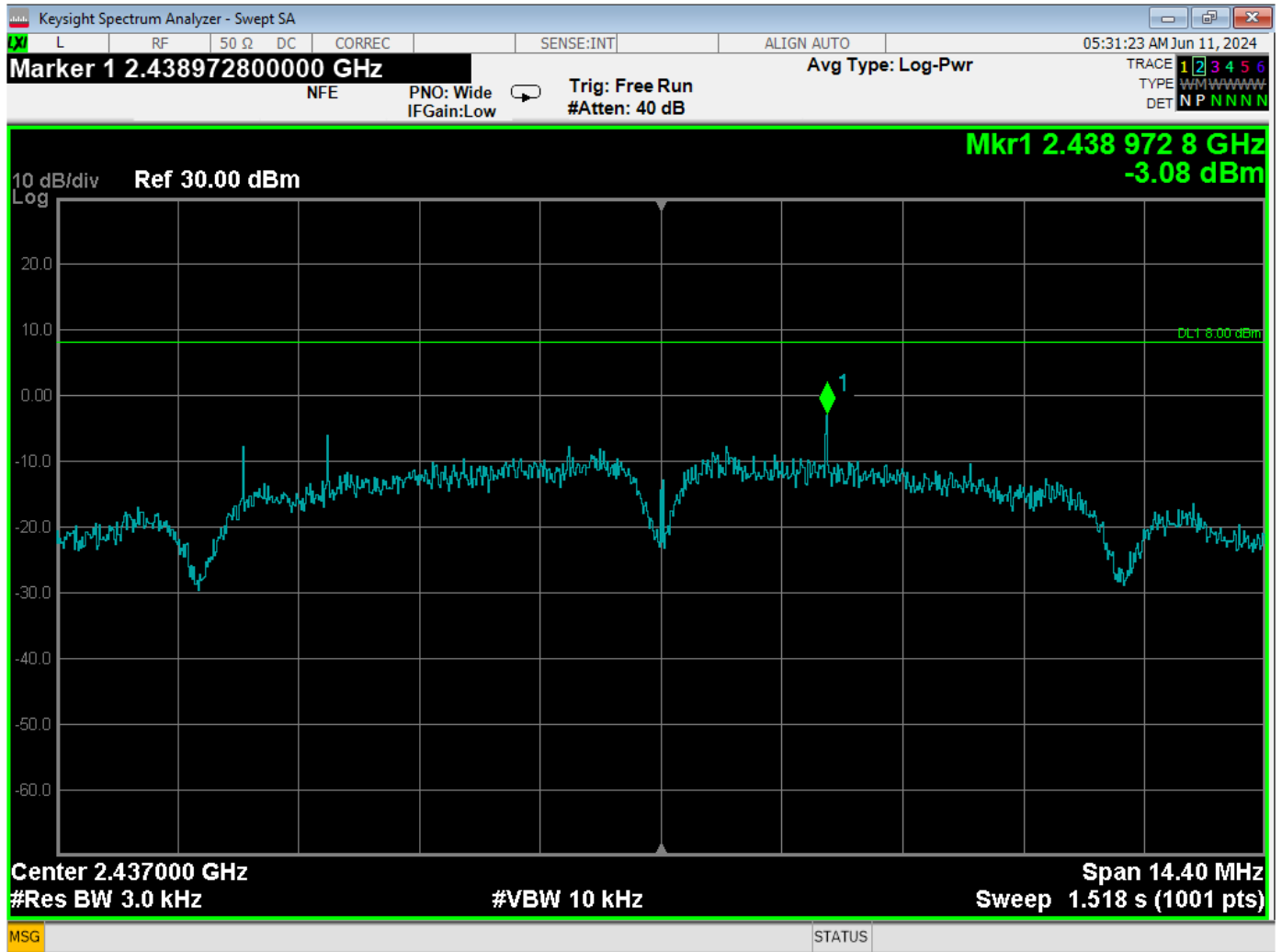
Peak Power Spectral Density – Middle Channel – BLE Mode – RedPine



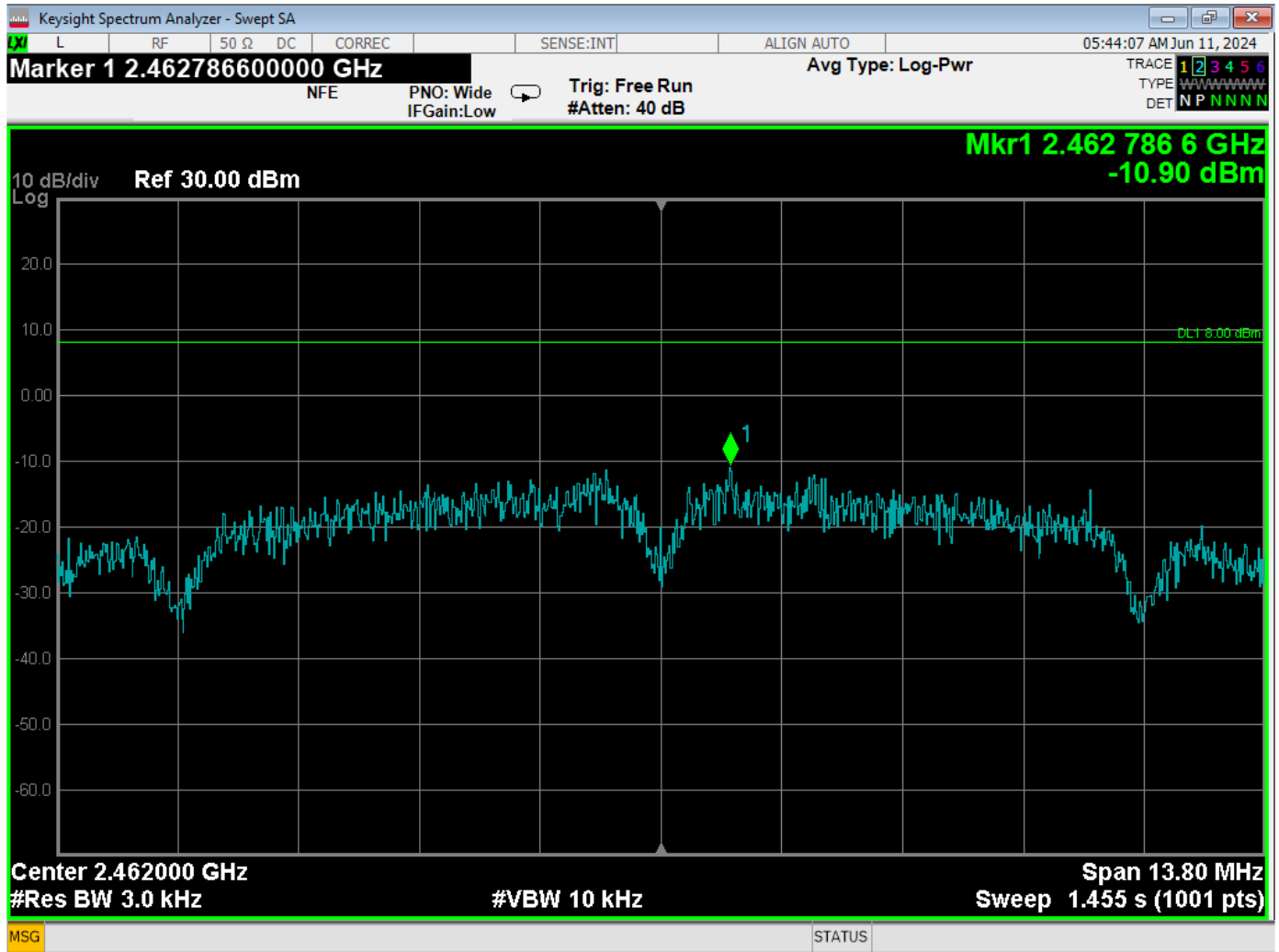
Peak Power Spectral Density – High Channel – BLE Mode – RedPine



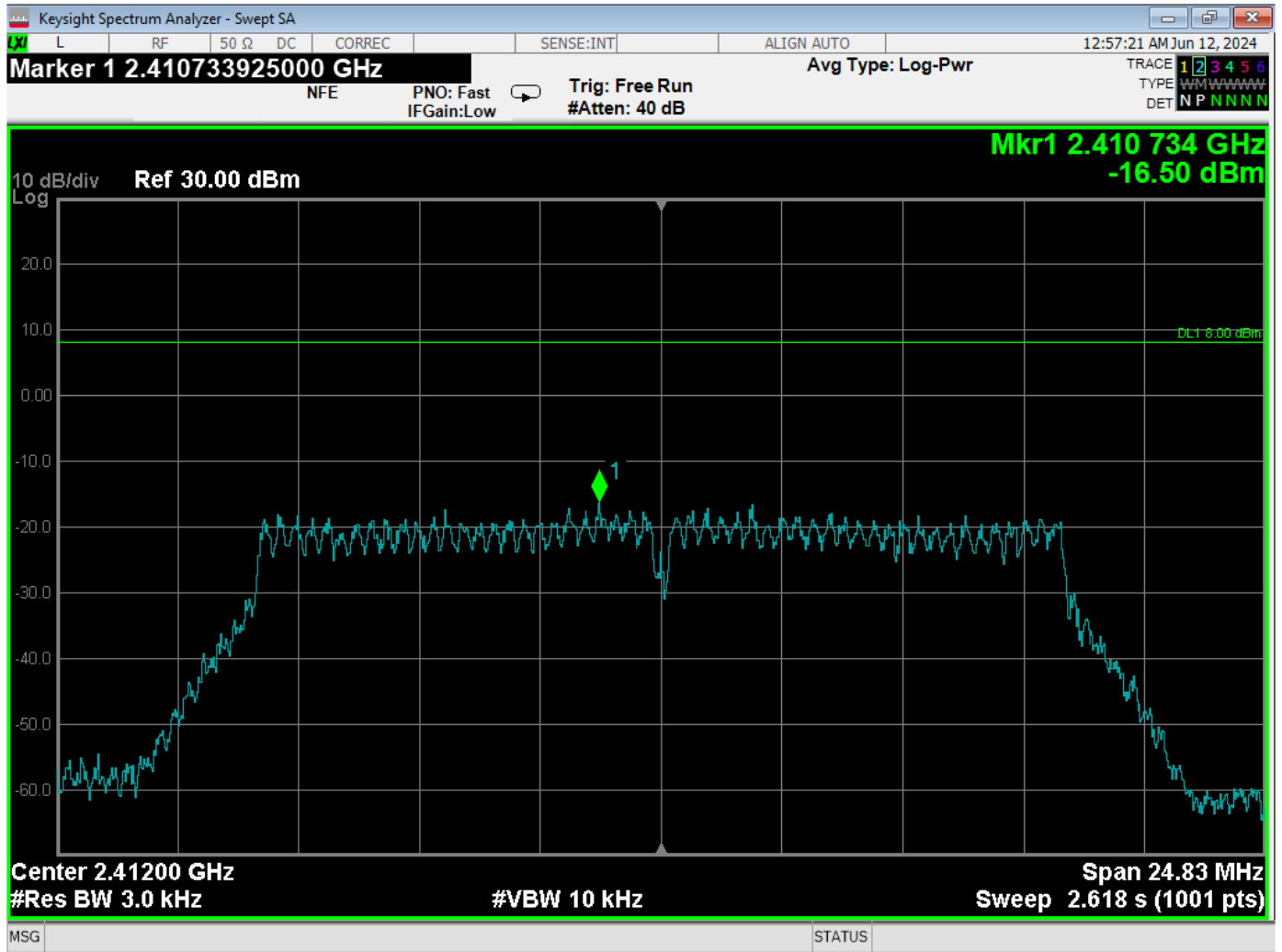
Peak Power Spectral Density – Low Channel – 802.11b Mode – RedPine



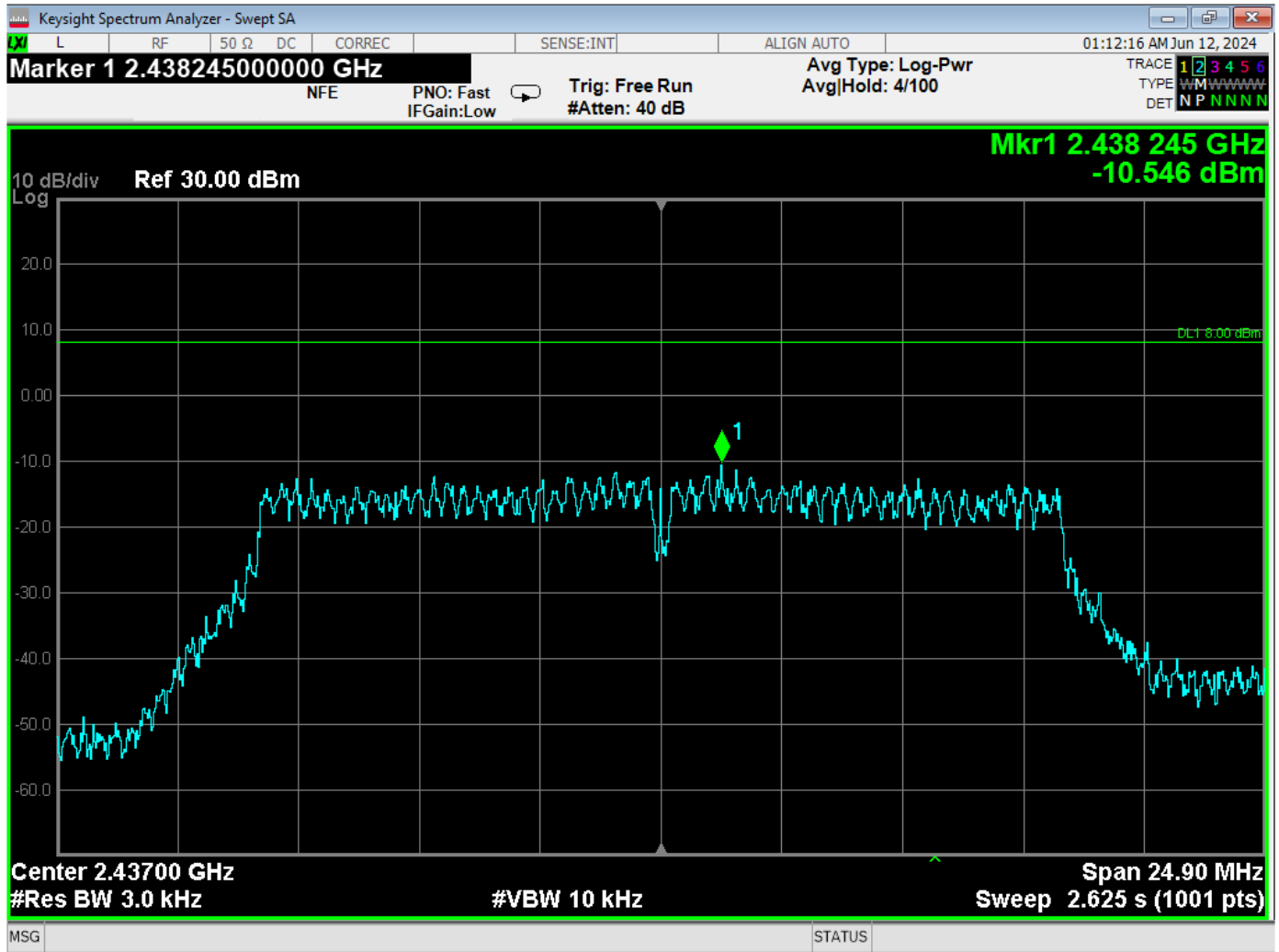
Peak Power Spectral Density – Middle Channel – 802.11b Mode – RedPine



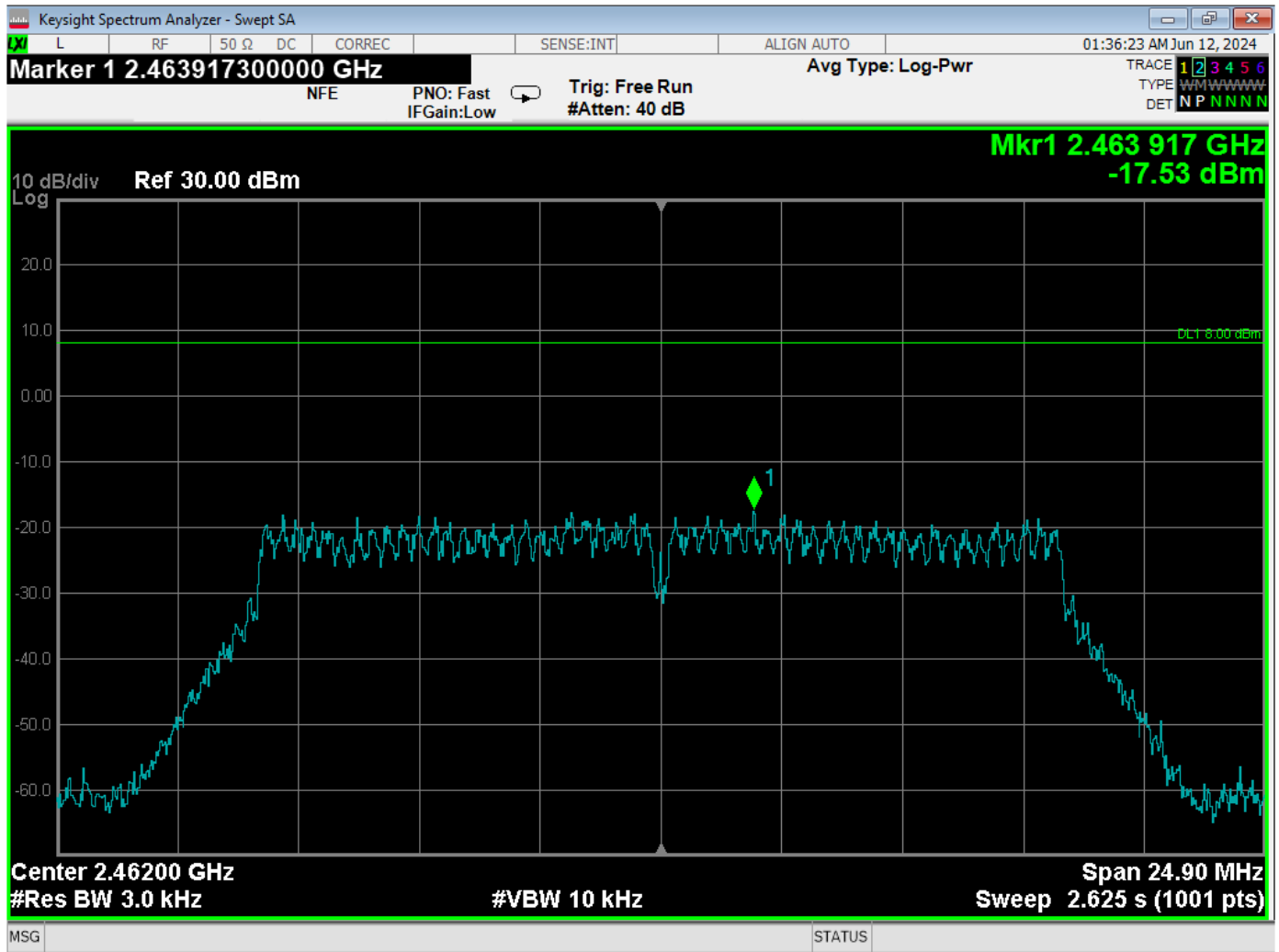
Peak Power Spectral Density – High Channel – 802.11b Mode – RedPine



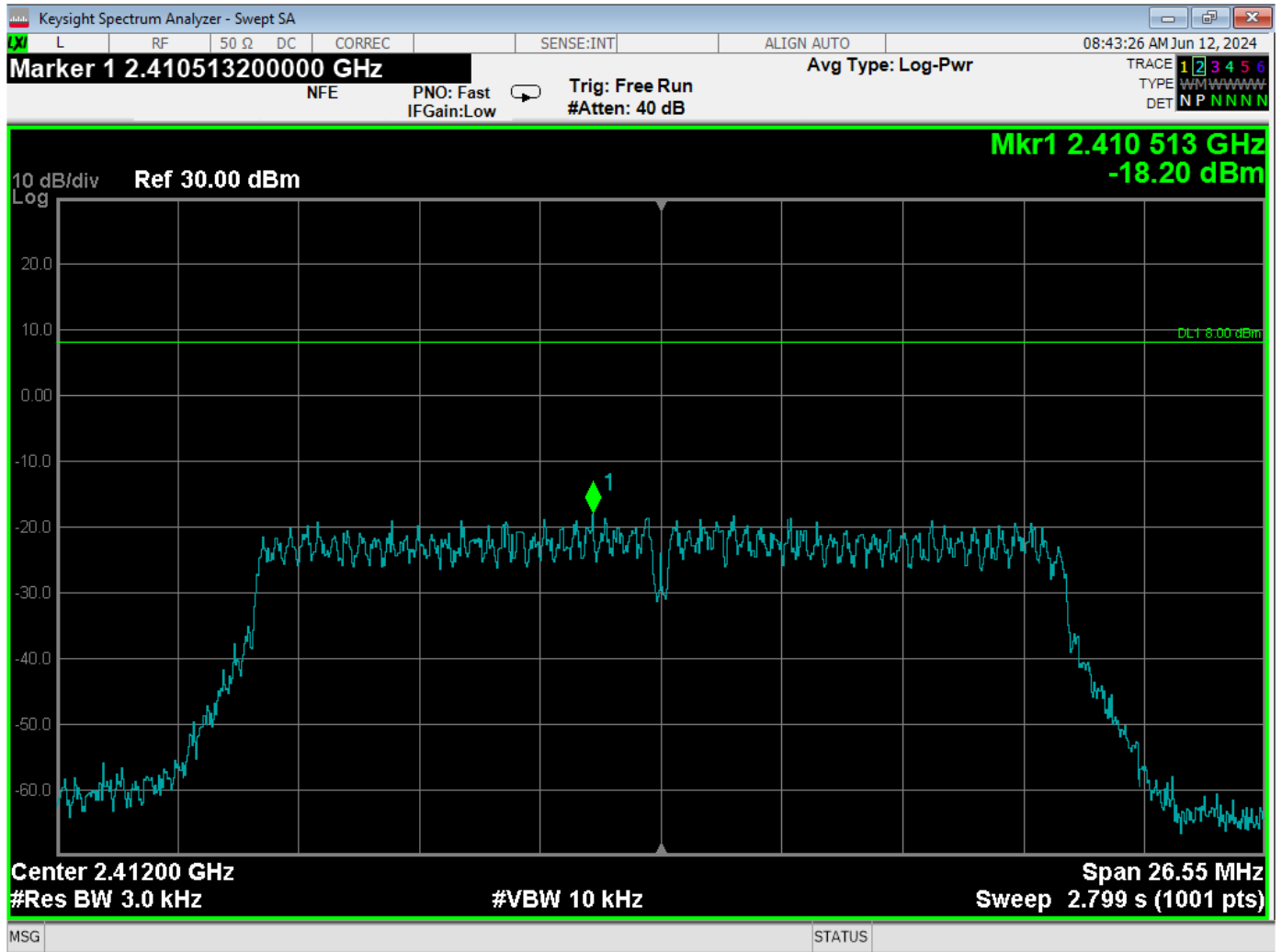
Peak Power Spectral Density – Low Channel – 802.11g Mode – RedPine



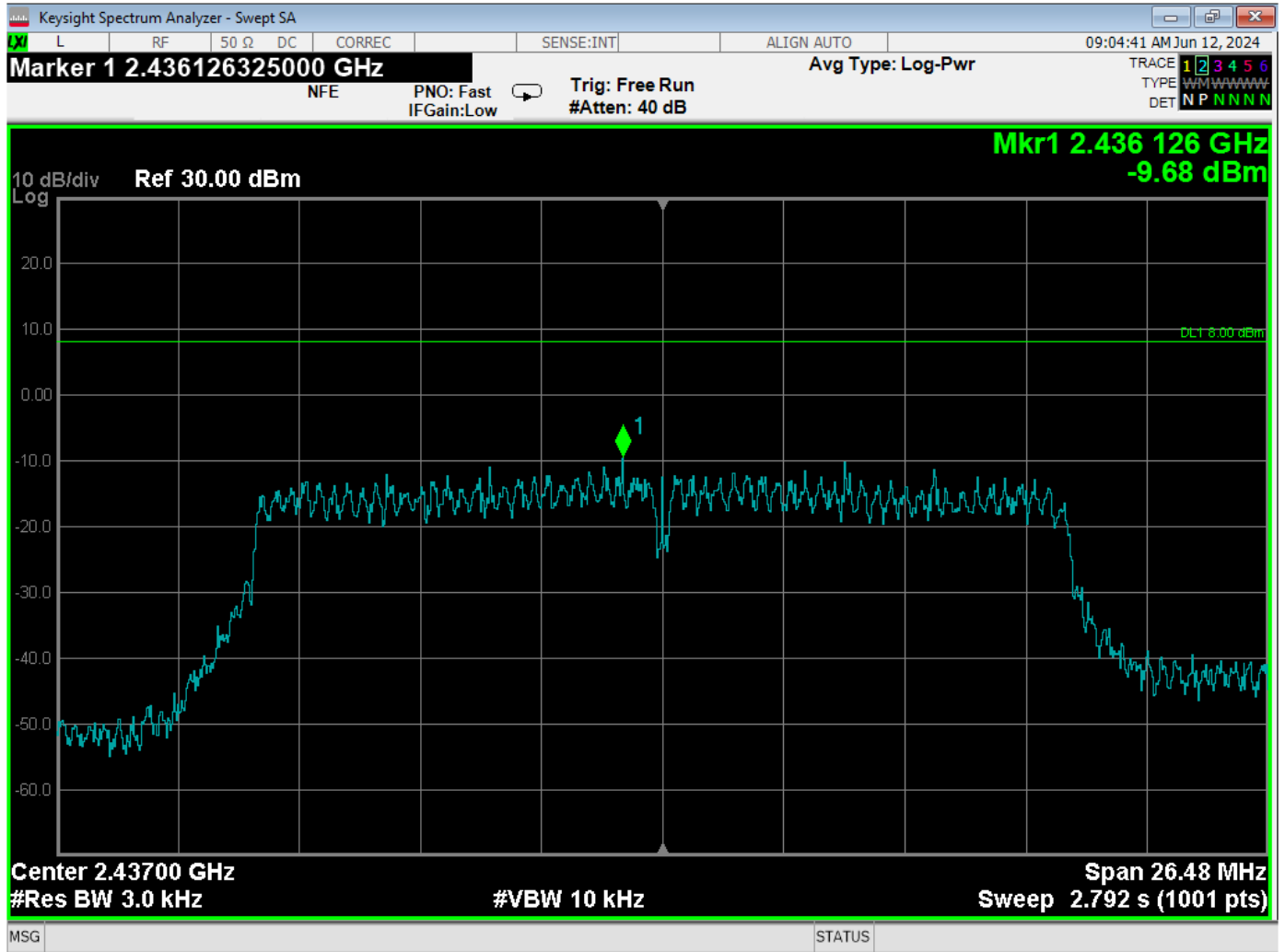
Peak Power Spectral Density – Middle Channel – 802.11g Mode – RedPine



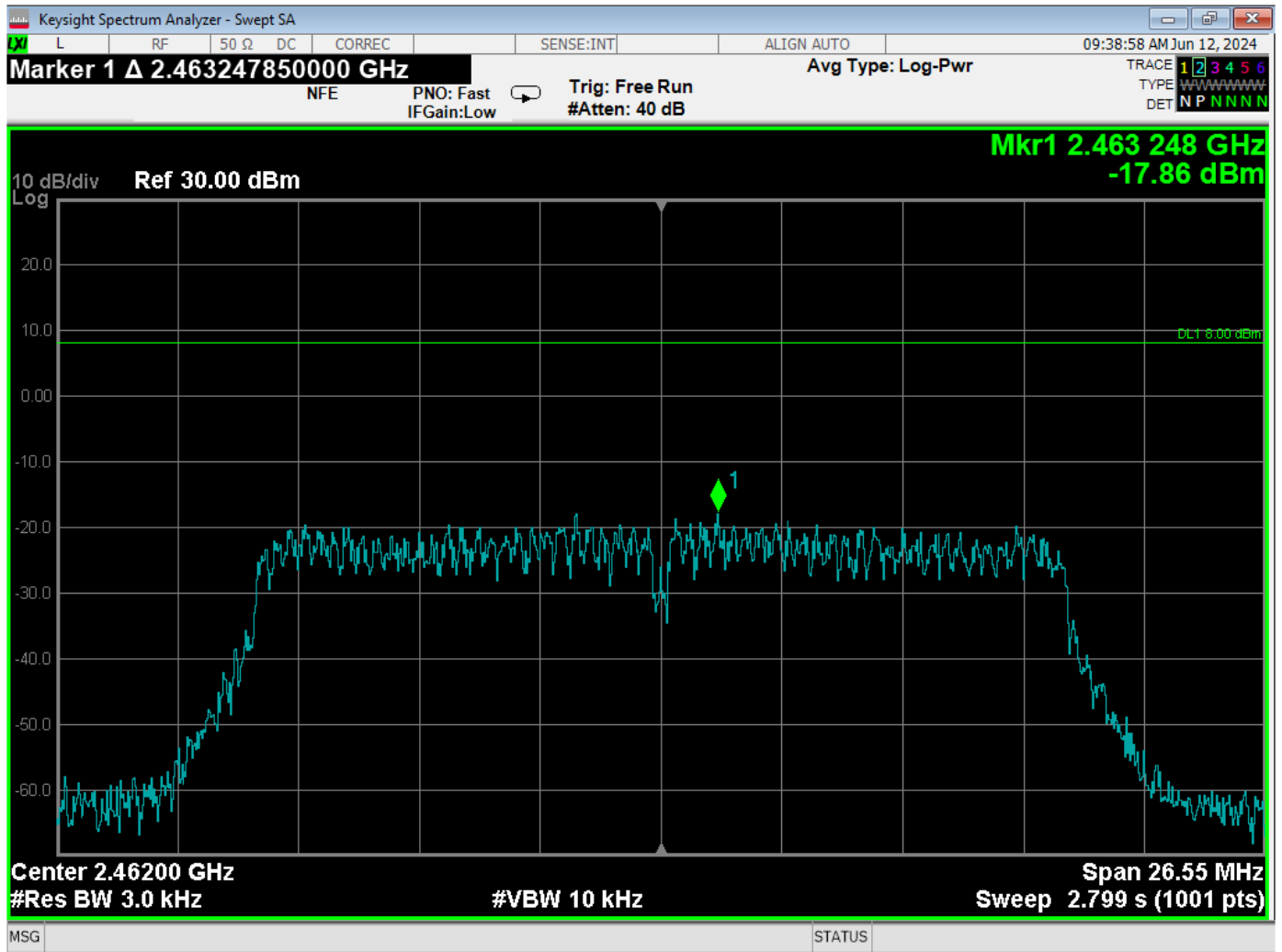
Peak Power Spectral Density – High Channel – 802.11g Mode – RedPine



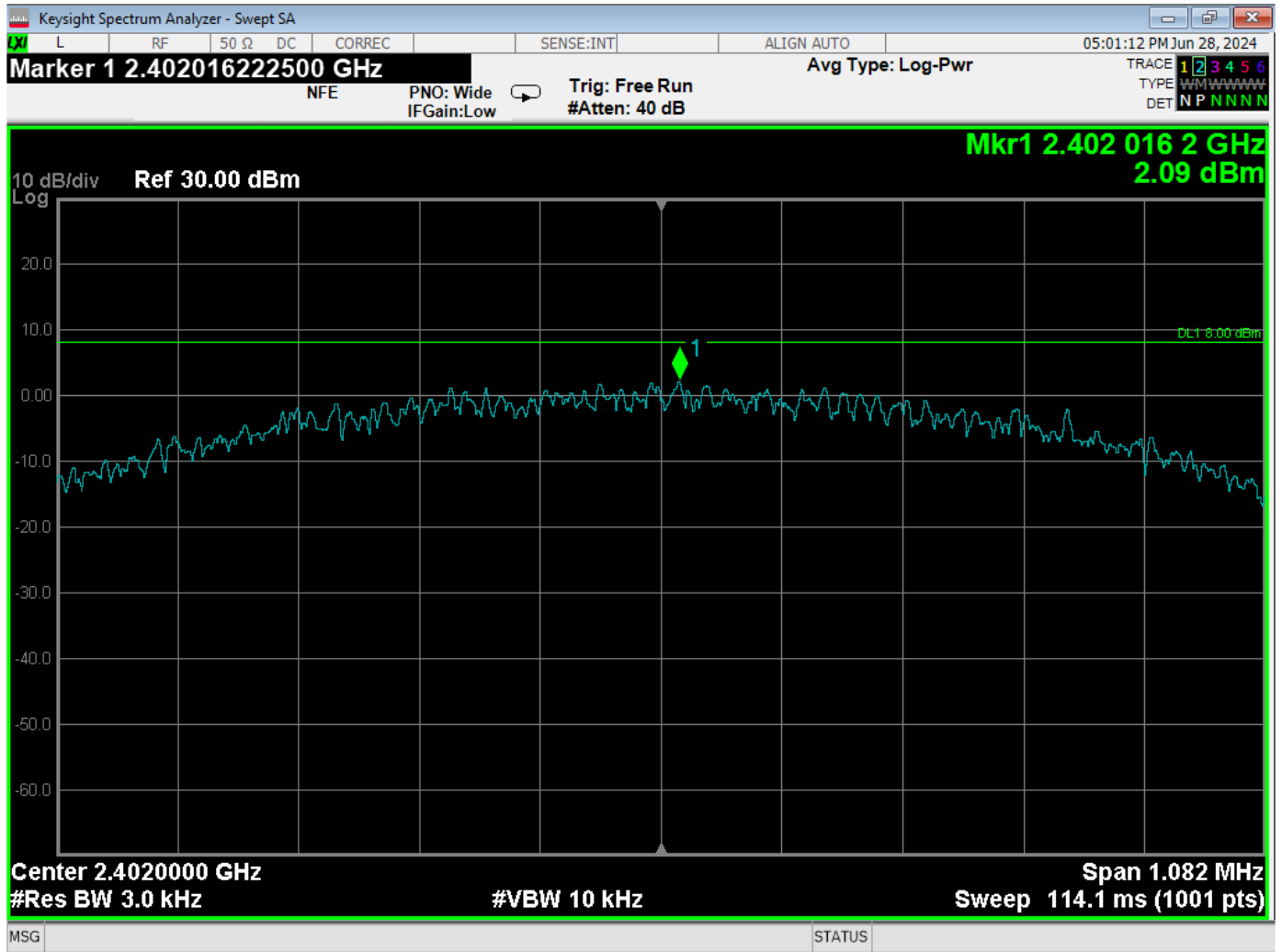
Peak Power Spectral Density – Low Channel – 802.11n Mode



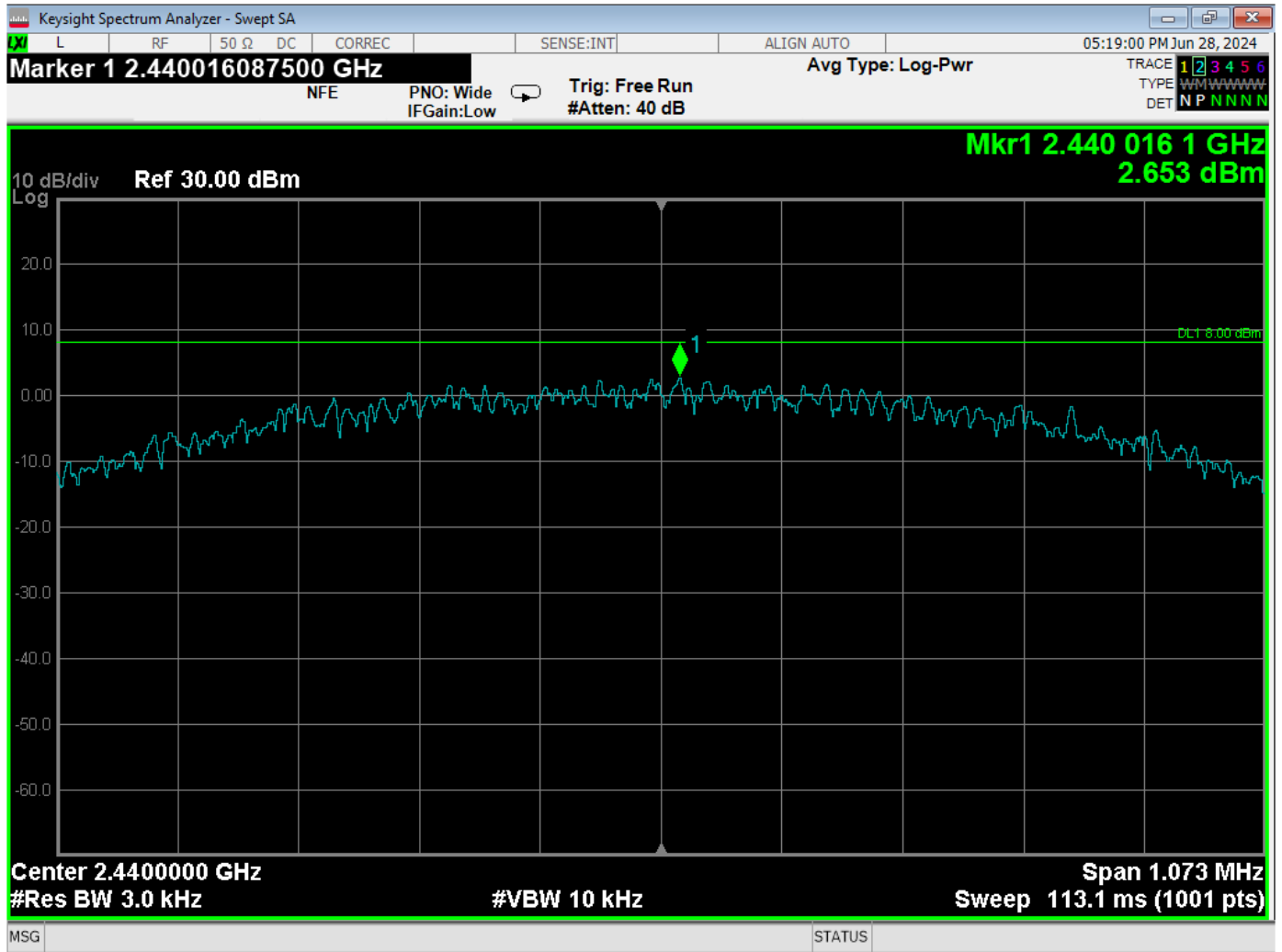
Peak Power Spectral Density – Middle Channel – 802.11n Mode



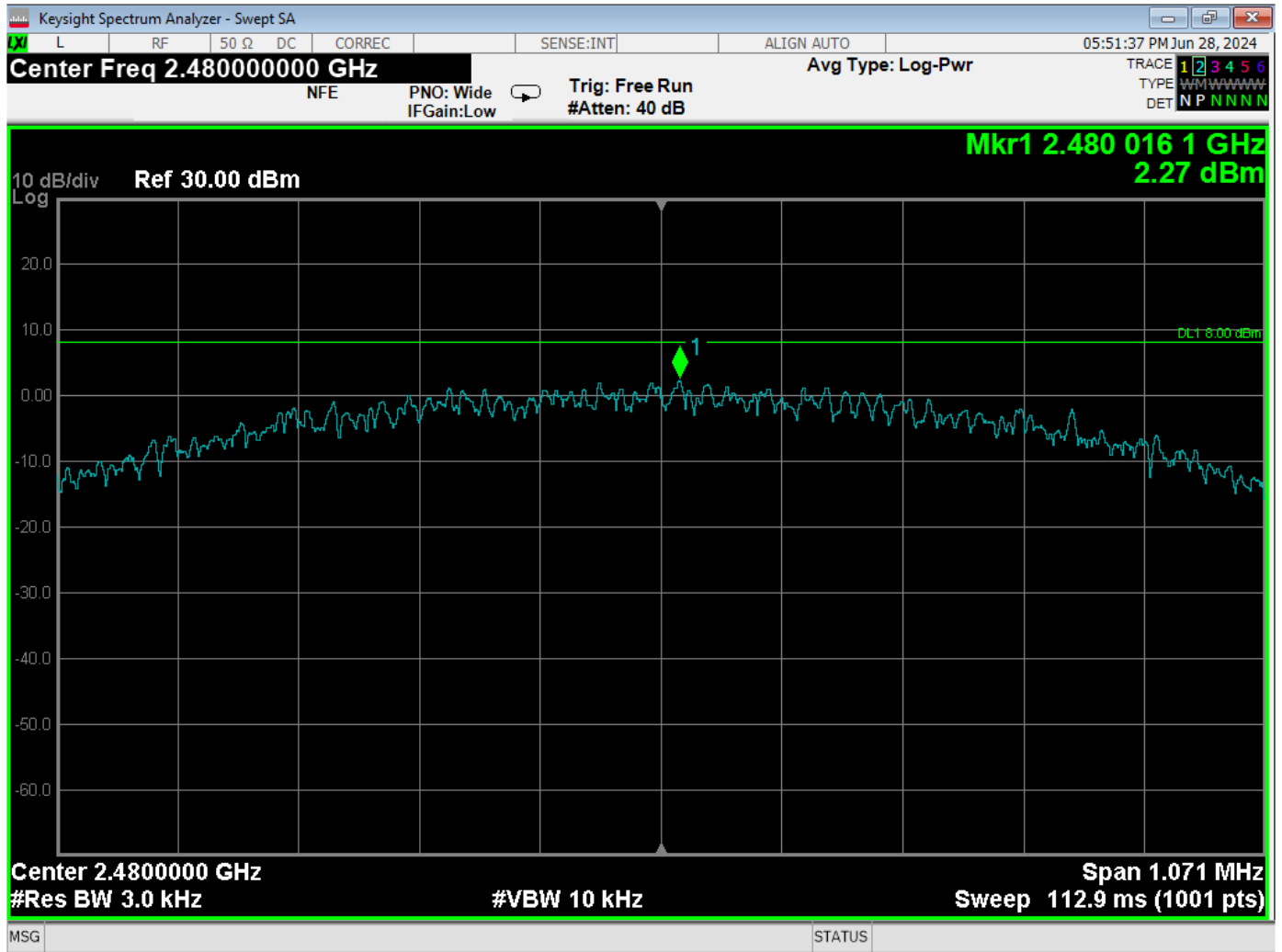
Peak Power Spectral Density – High Channel – 802.11n Mode



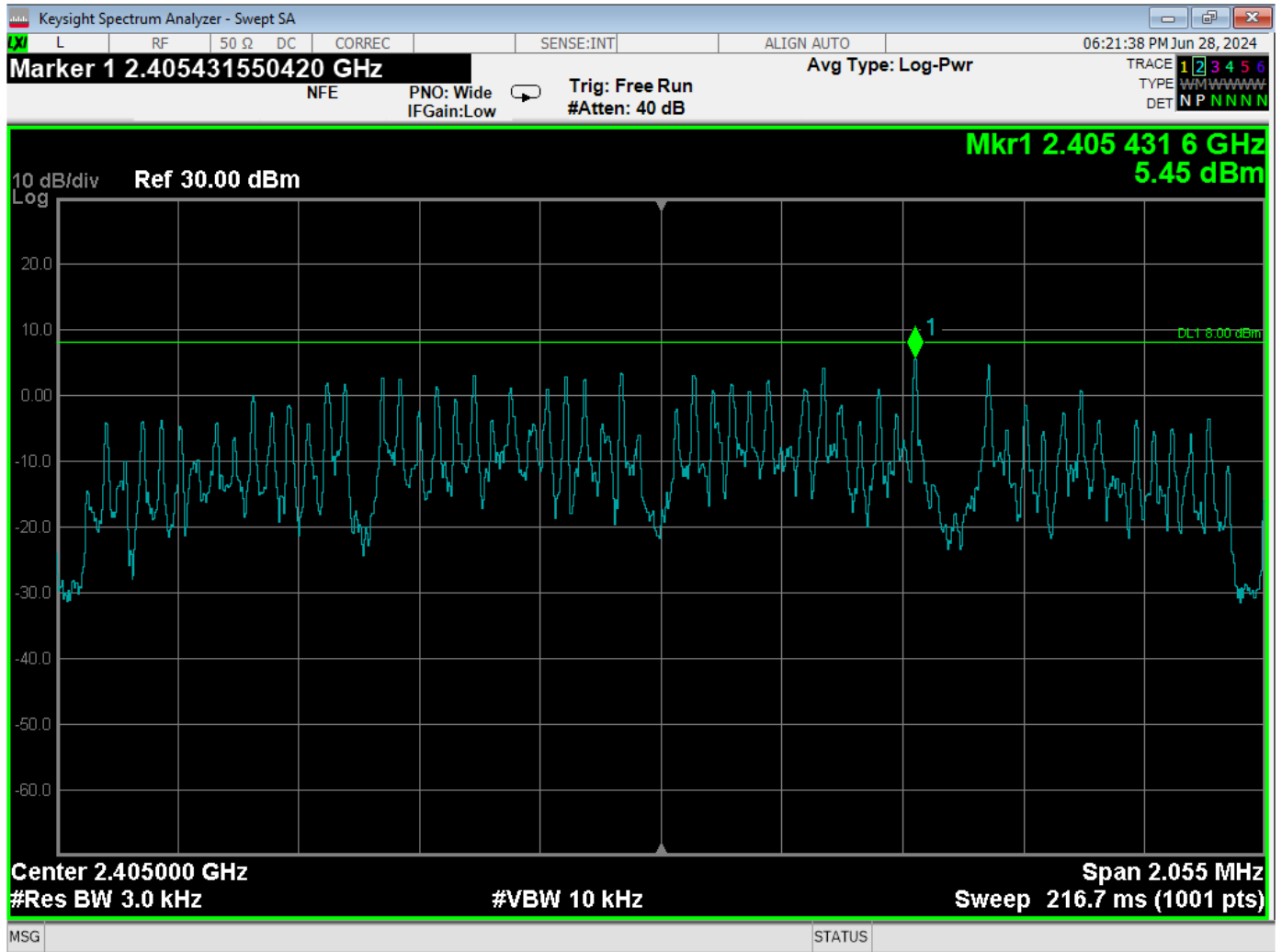
Peak Power Spectral Density – Low Channel – BLE – Nordic



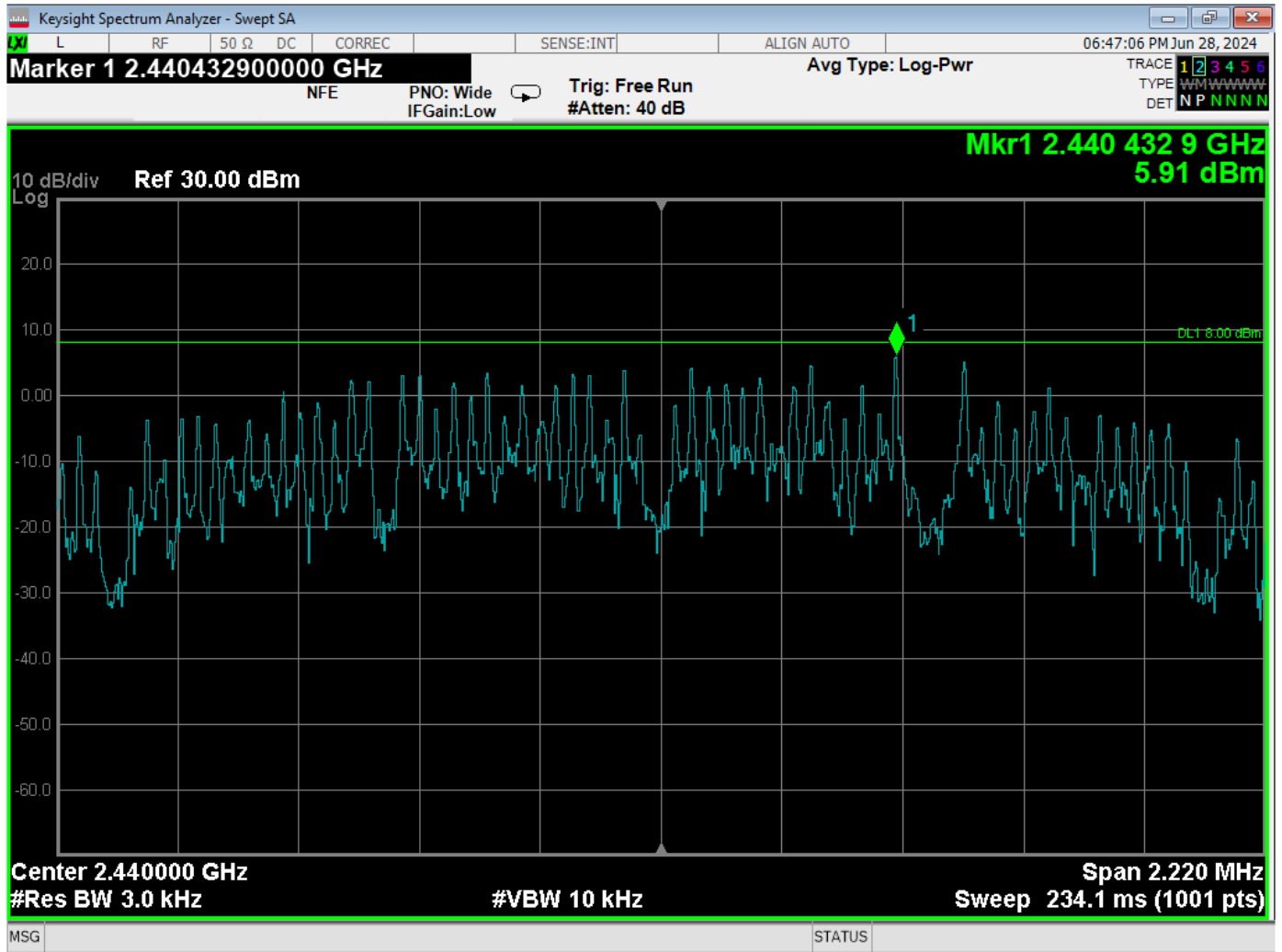
Peak Power Spectral Density – Middle Channel – BLE – Nordic



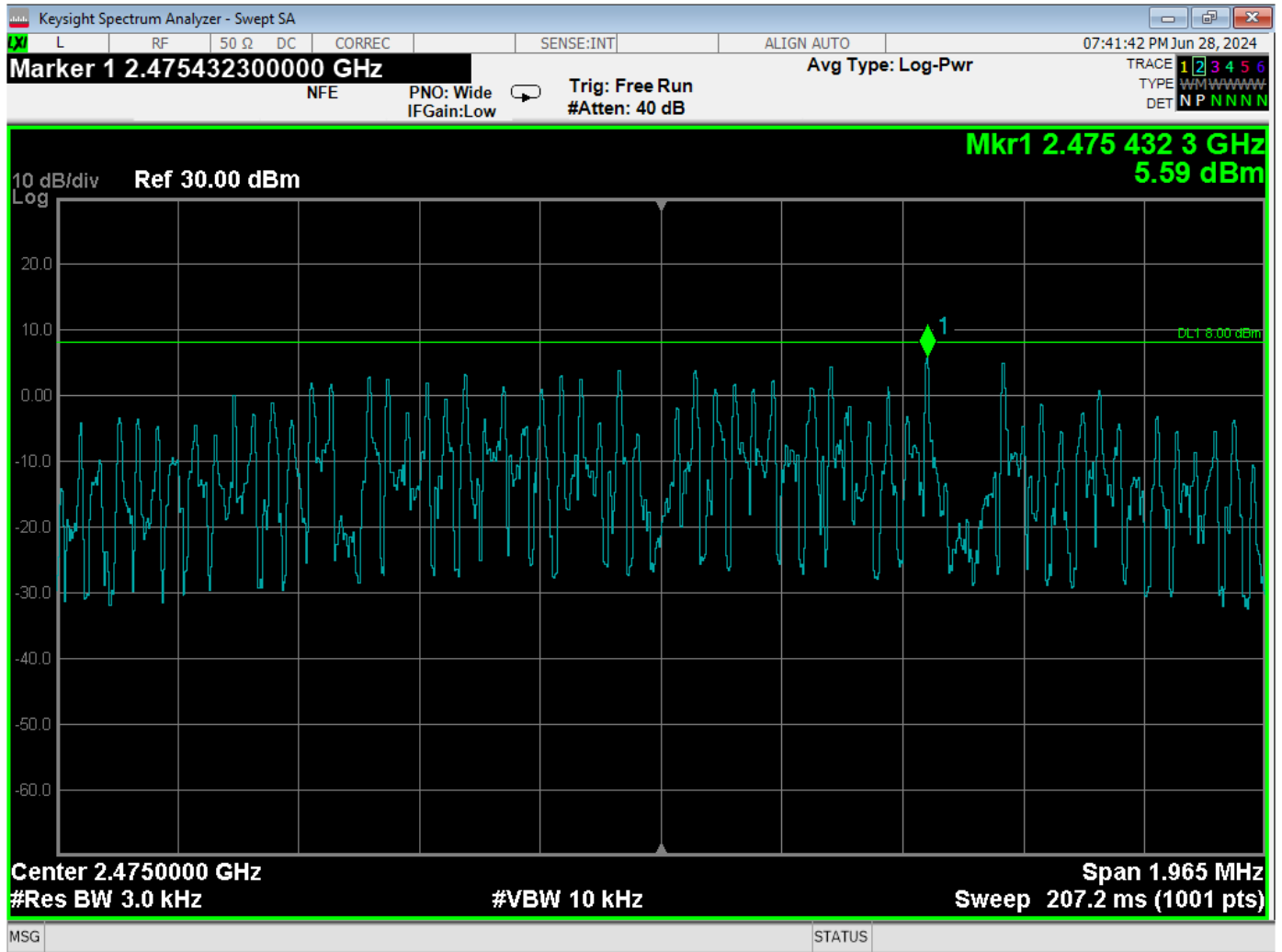
Peak Power Spectral Density – High Channel – BLE – Nordic



Peak Power Spectral Density – Low Channel – Thread – Nordic



Peak Power Spectral Density – Middle Channel – Thread – Nordic

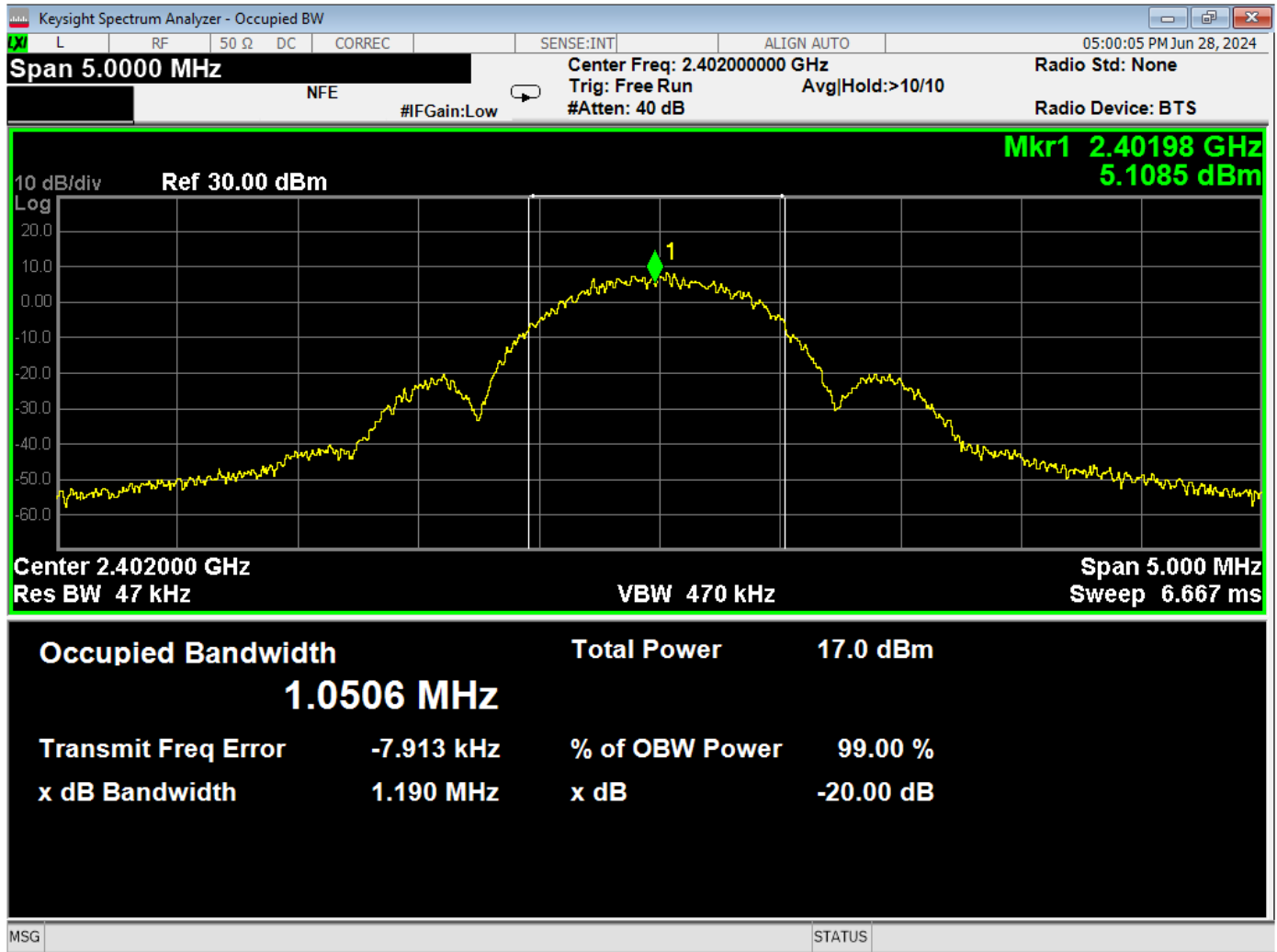


Peak Power Spectral Density – High Channel – Thread – Nordic

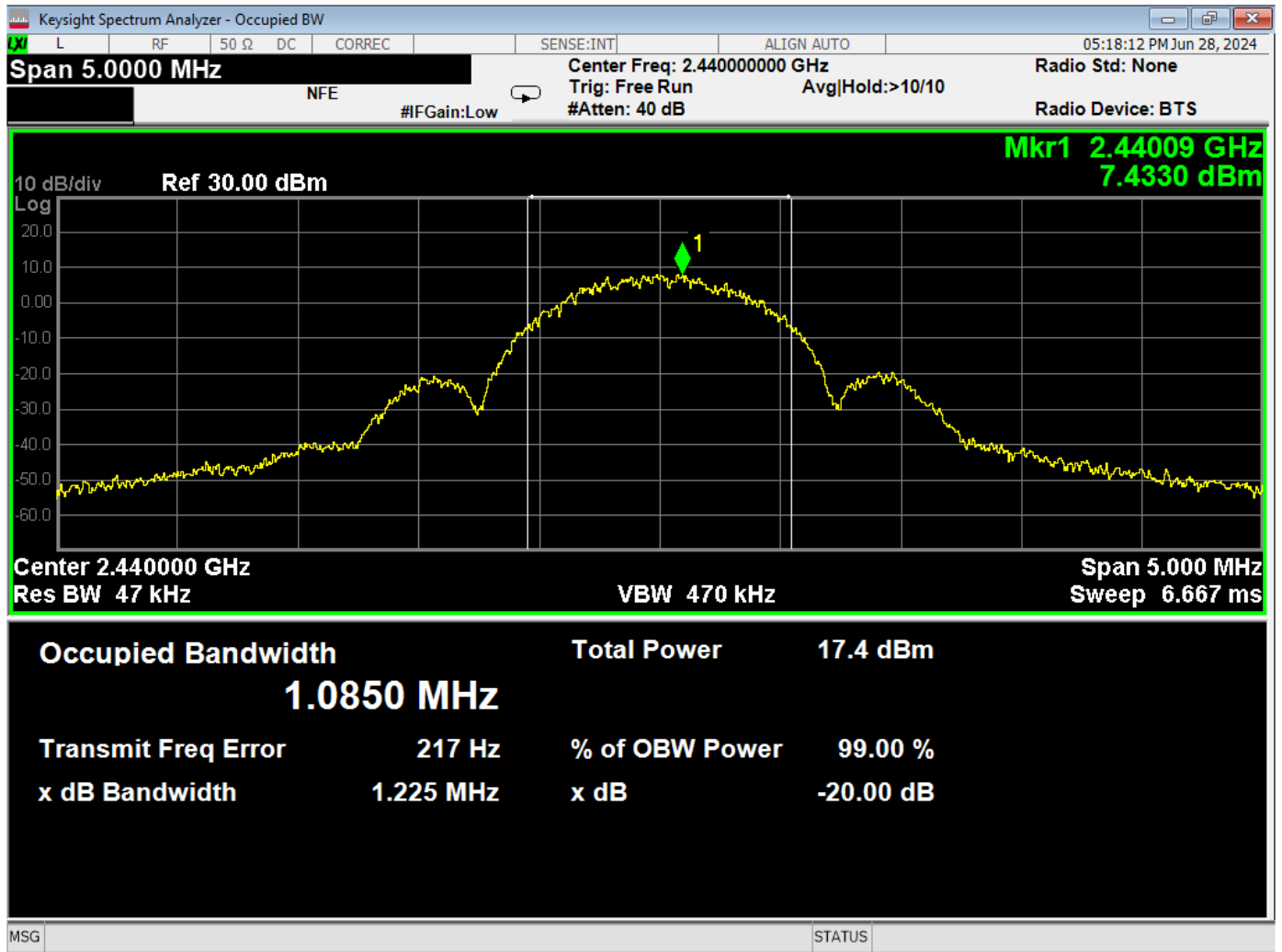


99% BANDWIDTH

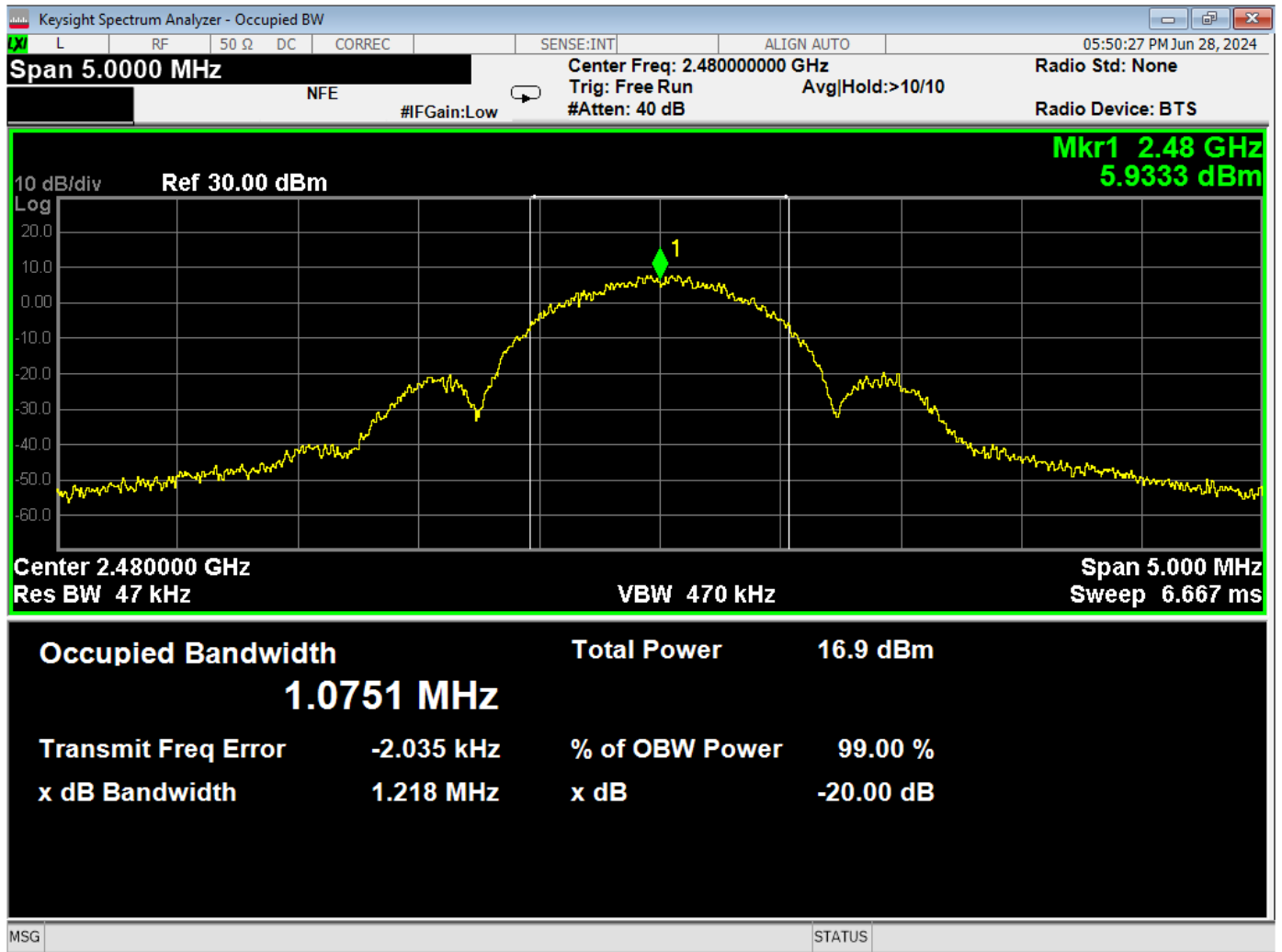
DATA SHEETS



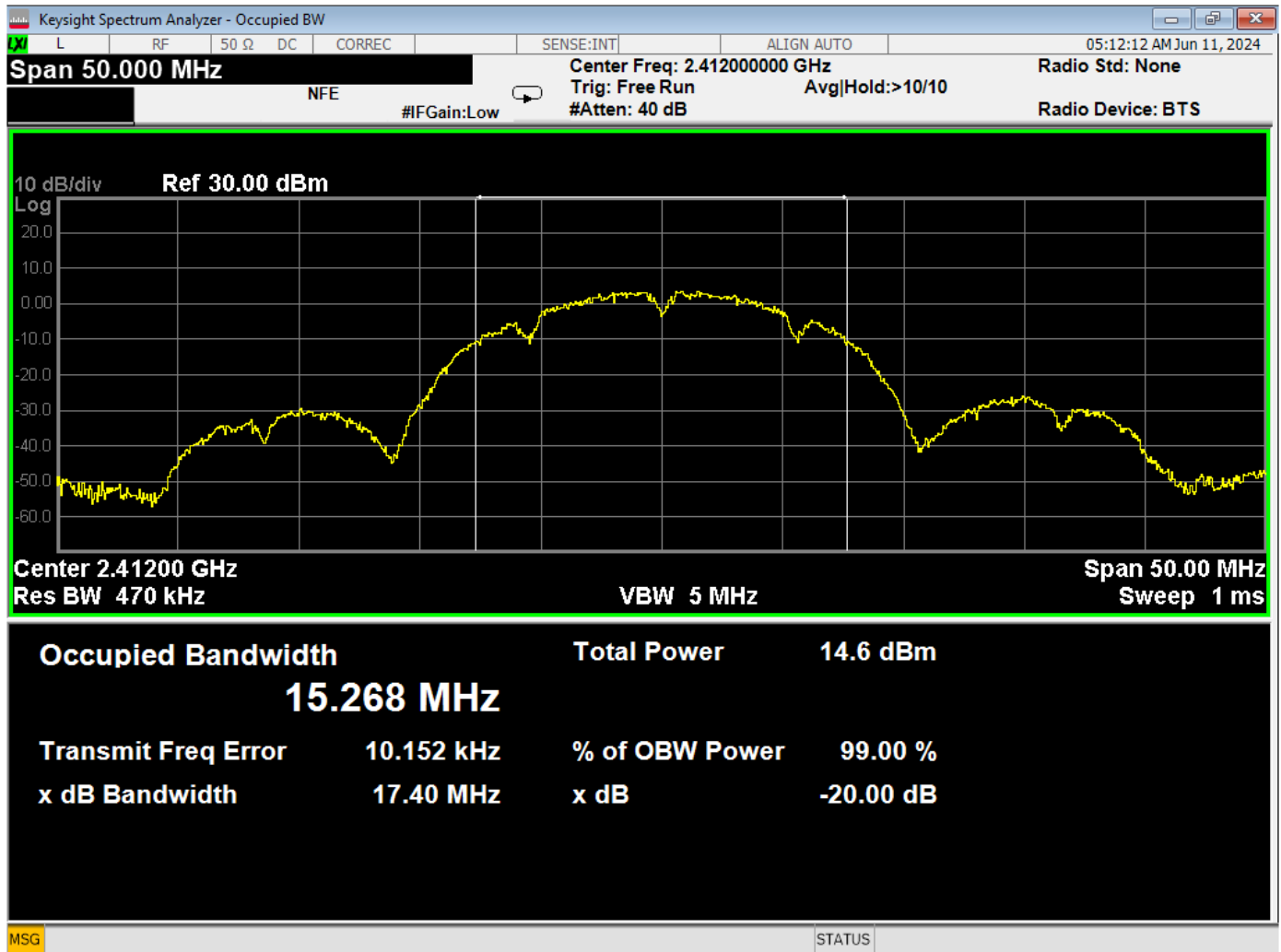
99% Bandwidth – Low Channel – BLE Mode – RedPine



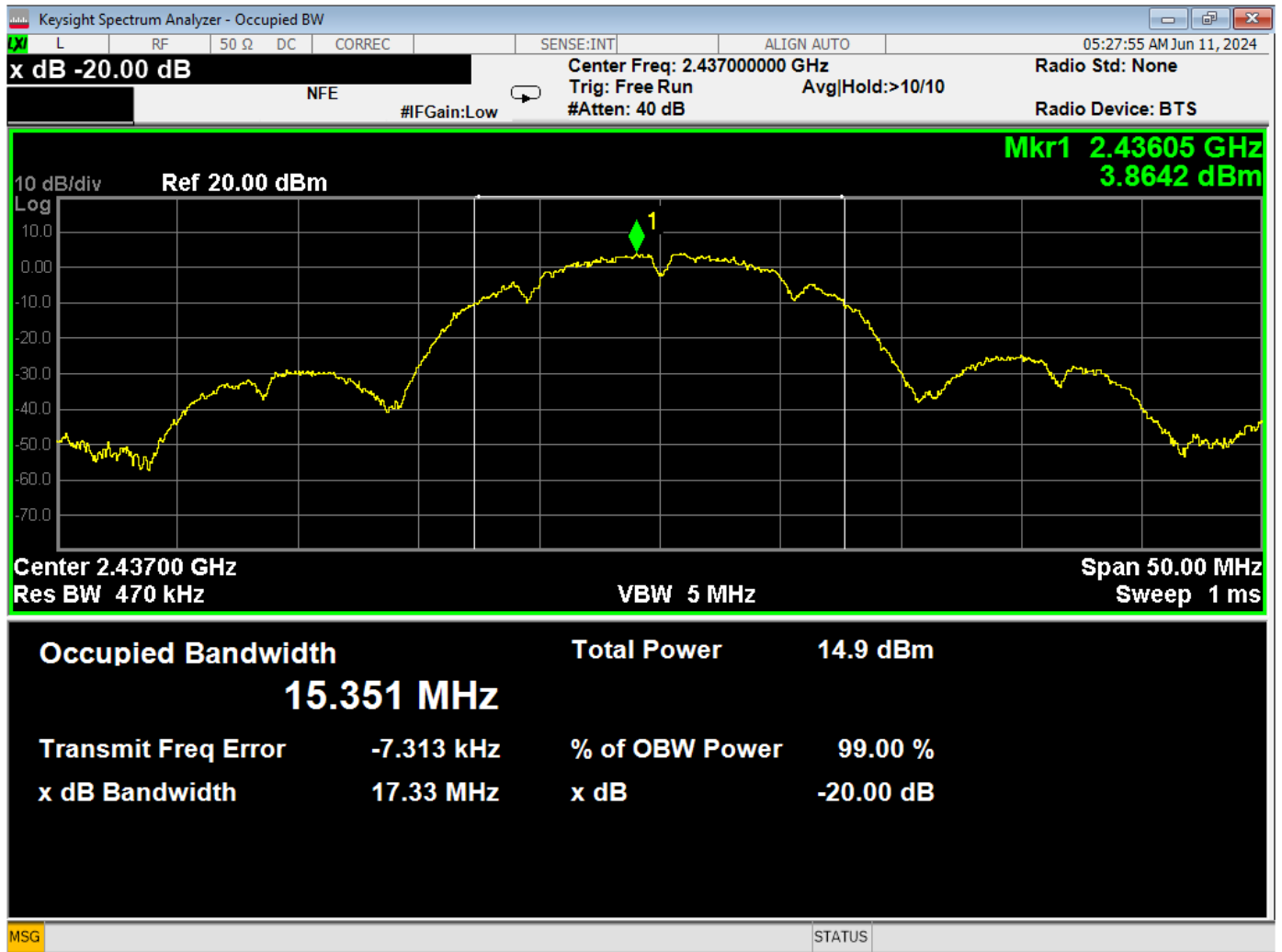
99% Bandwidth – Middle Channel – BLE Mode – RedPine



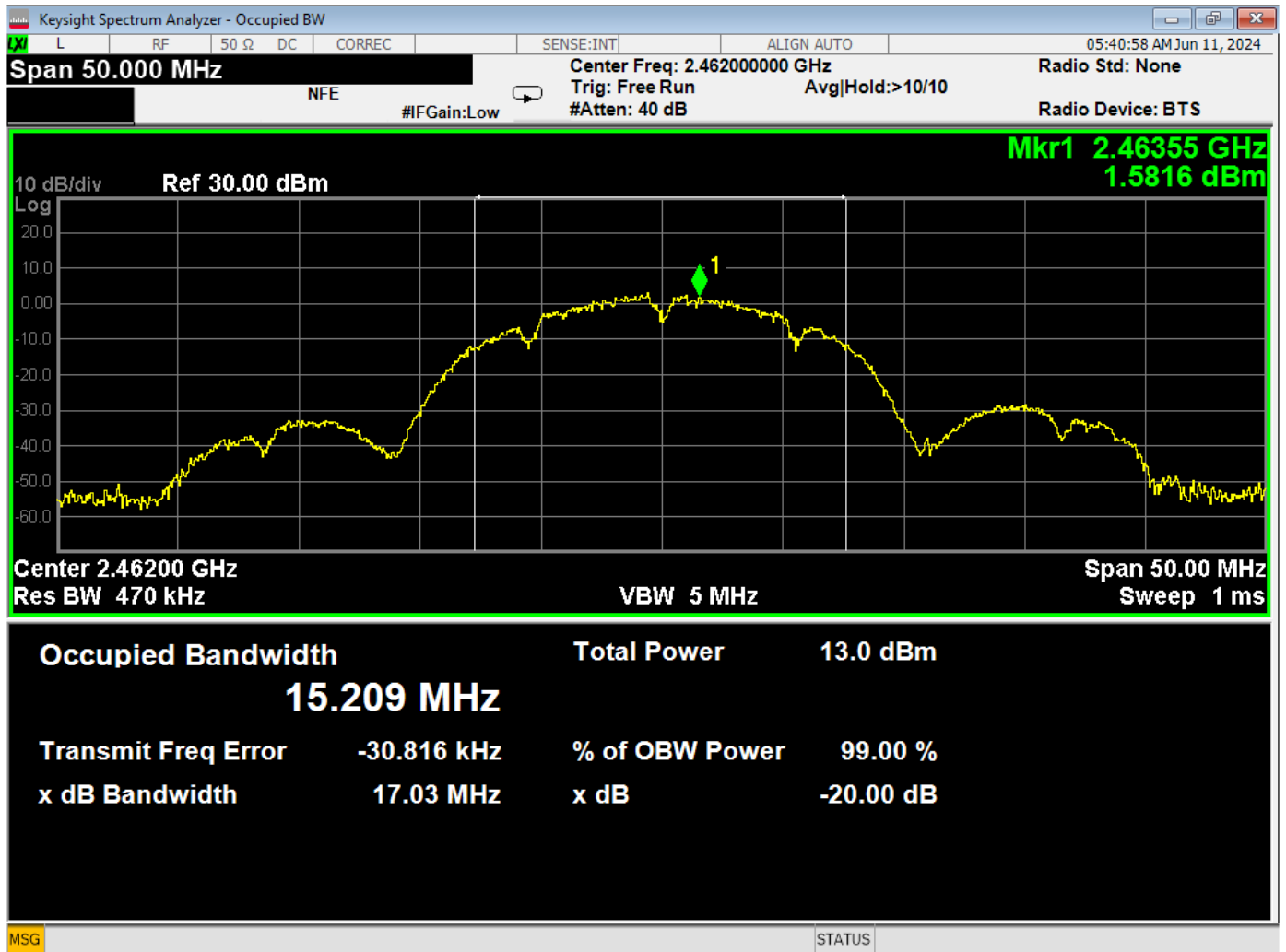
99% Bandwidth – High Channel – BLE Mode – RedPine



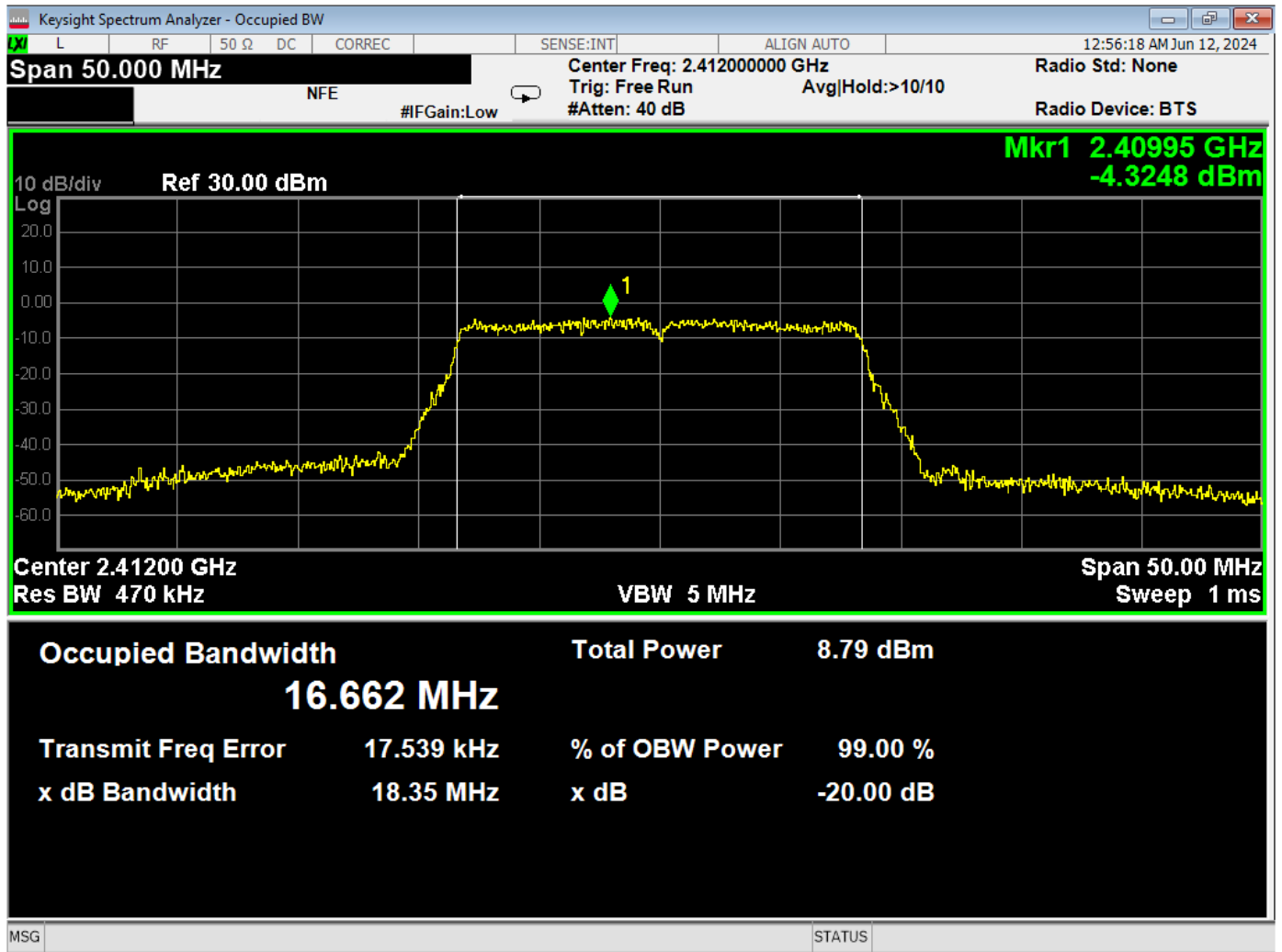
99% Bandwidth – Low Channel – 802.11b Mode – RedPine



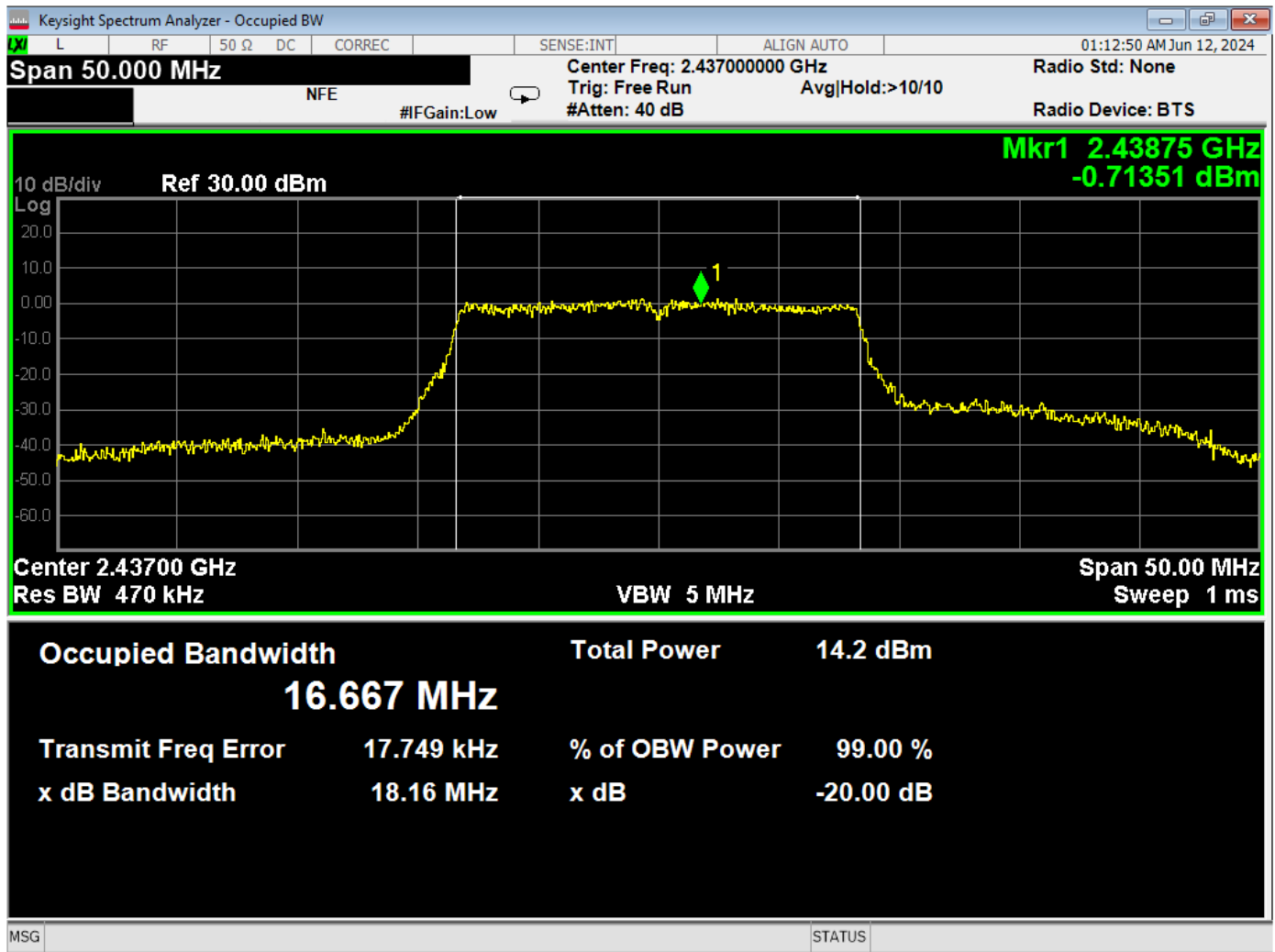
99% Bandwidth – Middle Channel – 802.11b Mode – RedPine



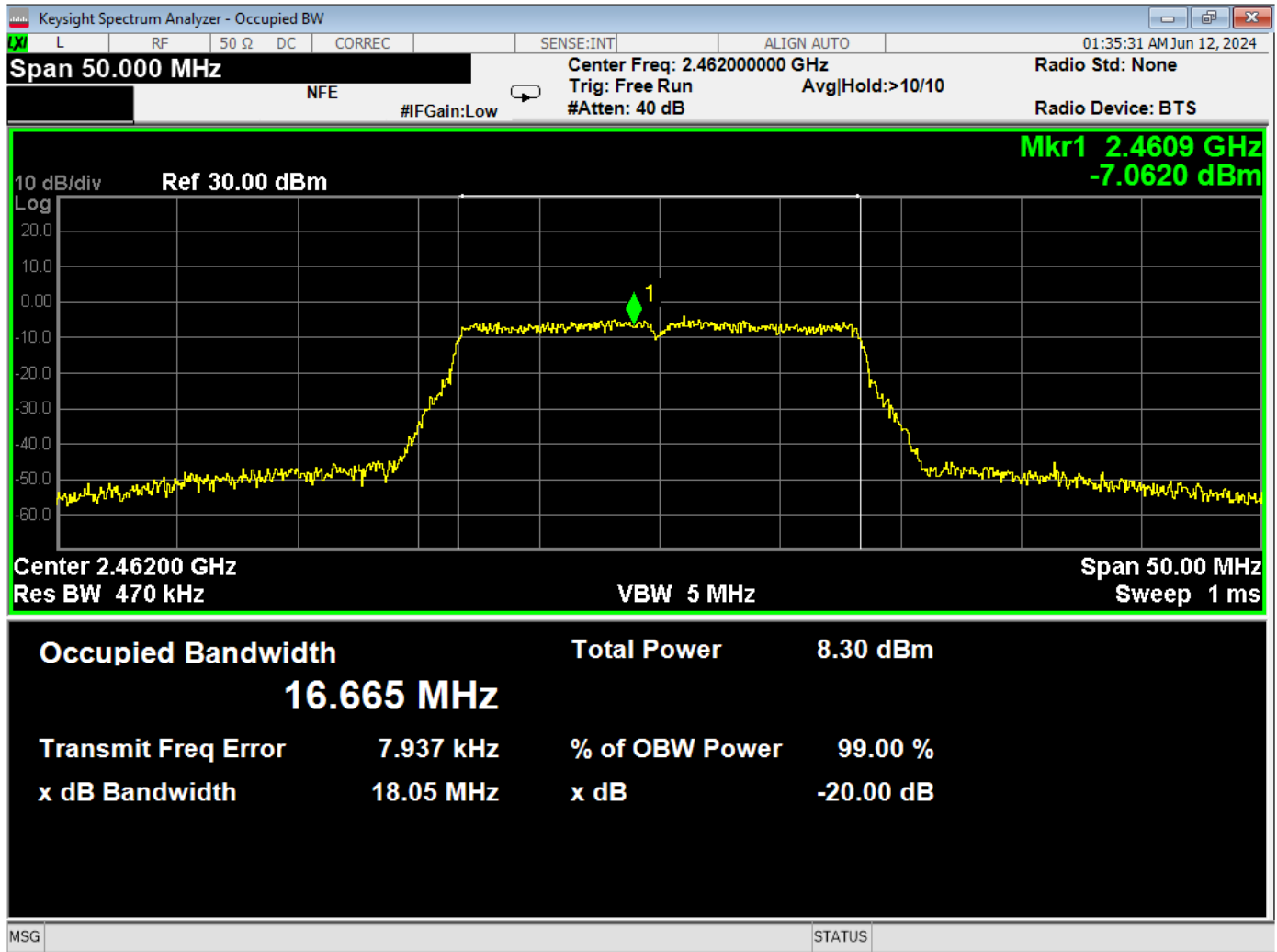
99% Bandwidth – High Channel – 802.11b Mode – RedPine



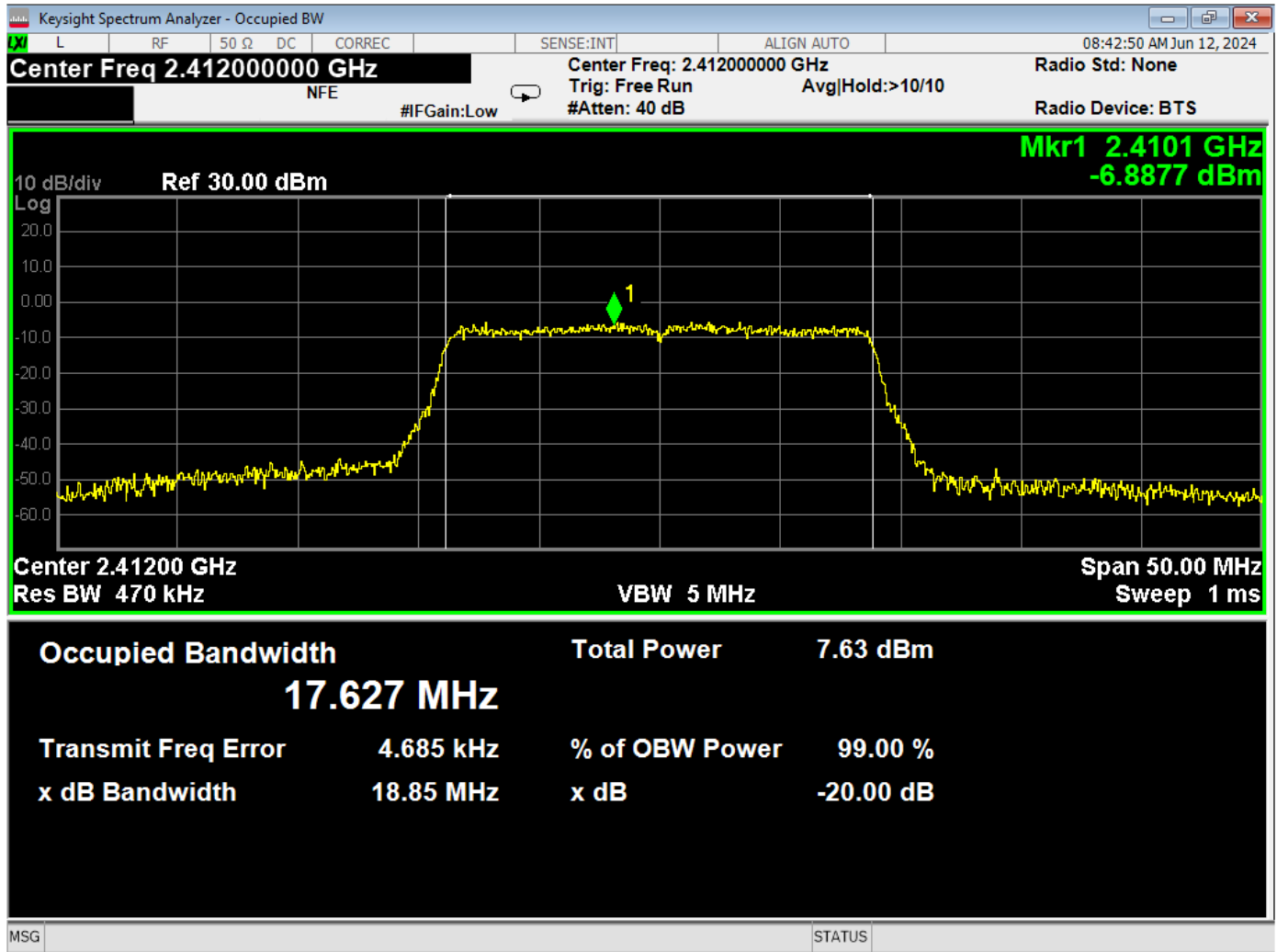
99% Bandwidth – Low Channel – 802.11g Mode – RedPine



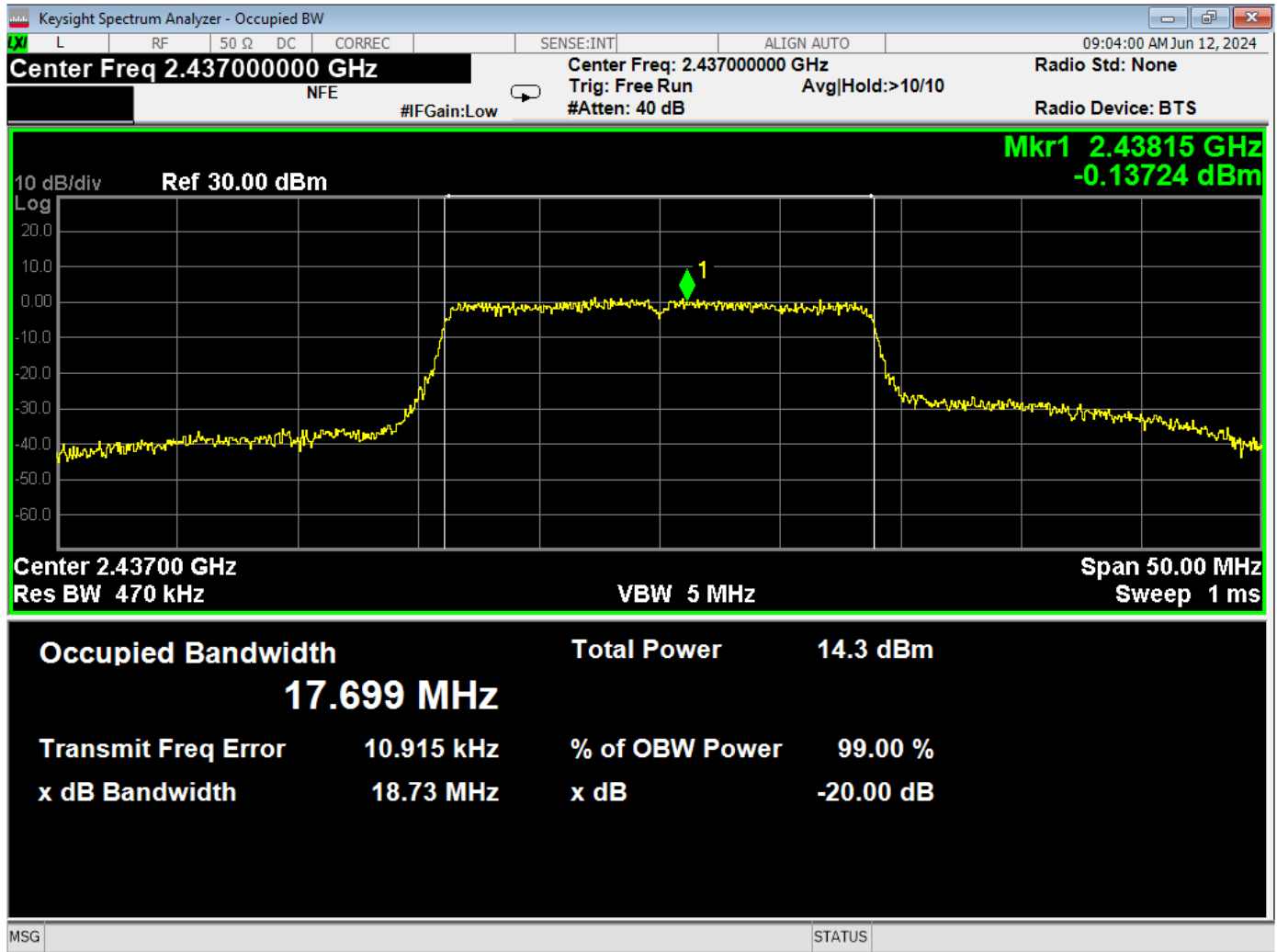
99% Bandwidth – Middle Channel – 802.11g Mode – RedPine



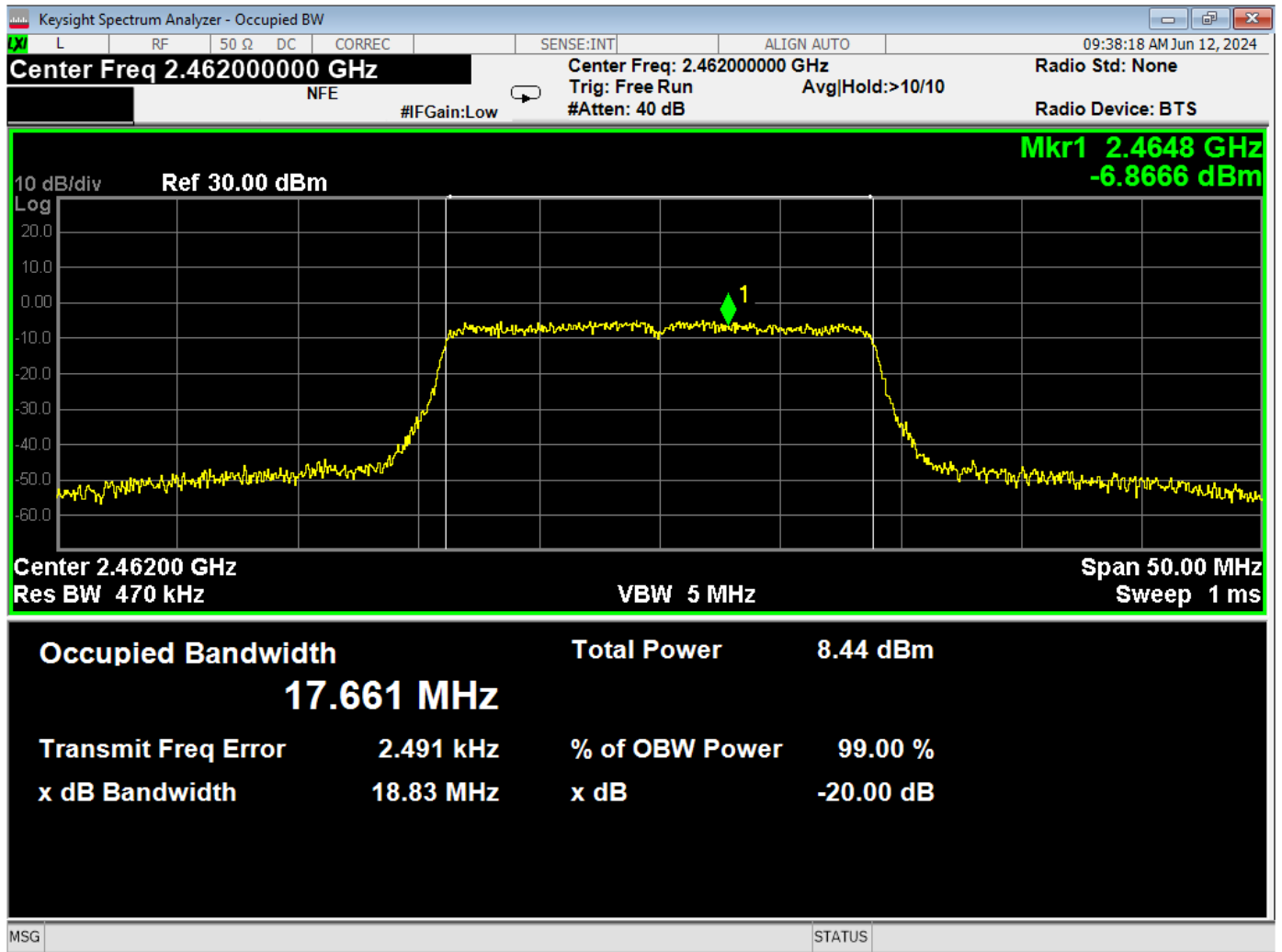
99% Bandwidth – High Channel – 802.11g Mode – RedPine



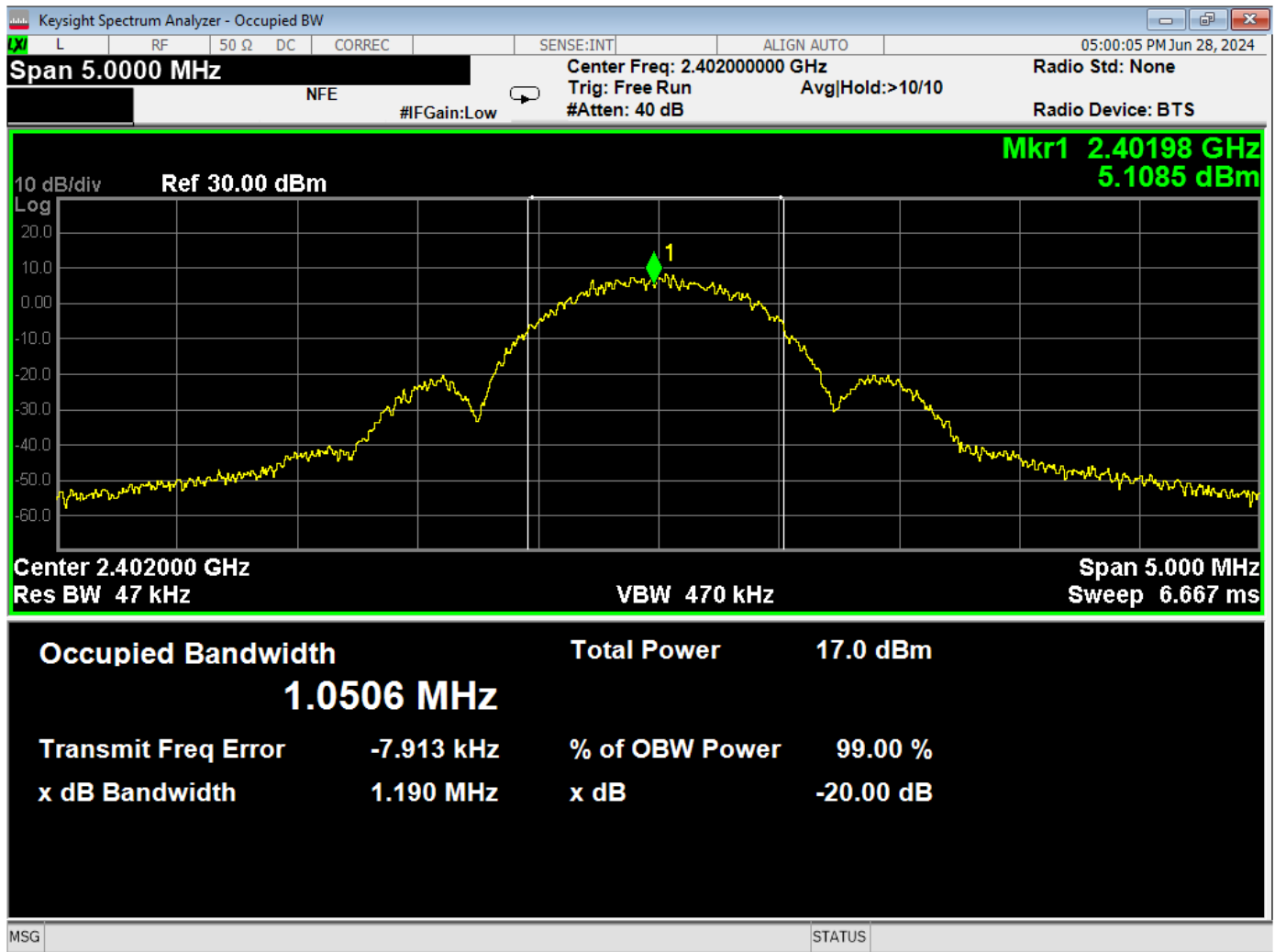
99% Bandwidth – Low Channel – 802.11n Mode – RedPine



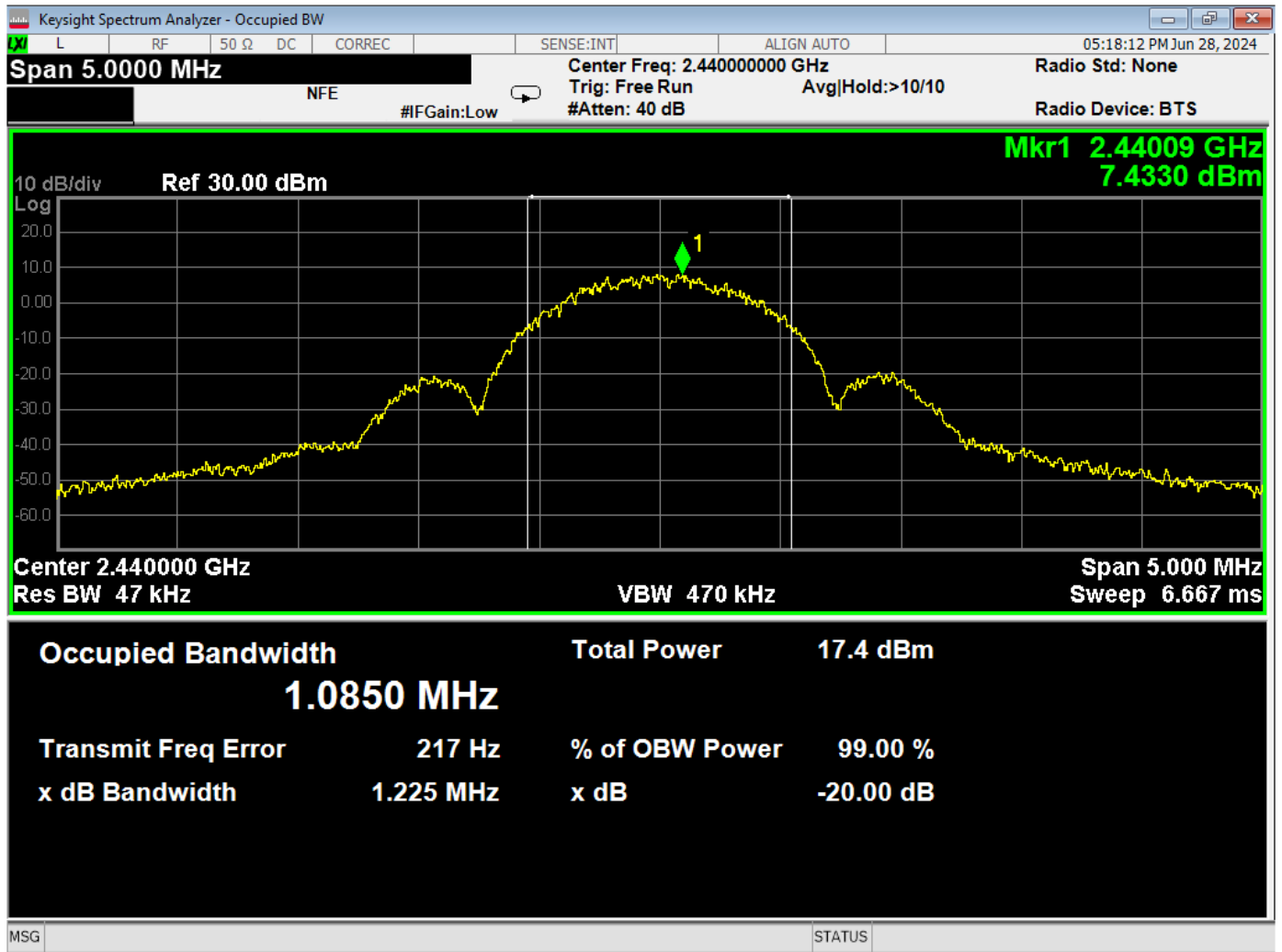
99% Bandwidth – Middle Channel – 802.11n Mode – RedPine



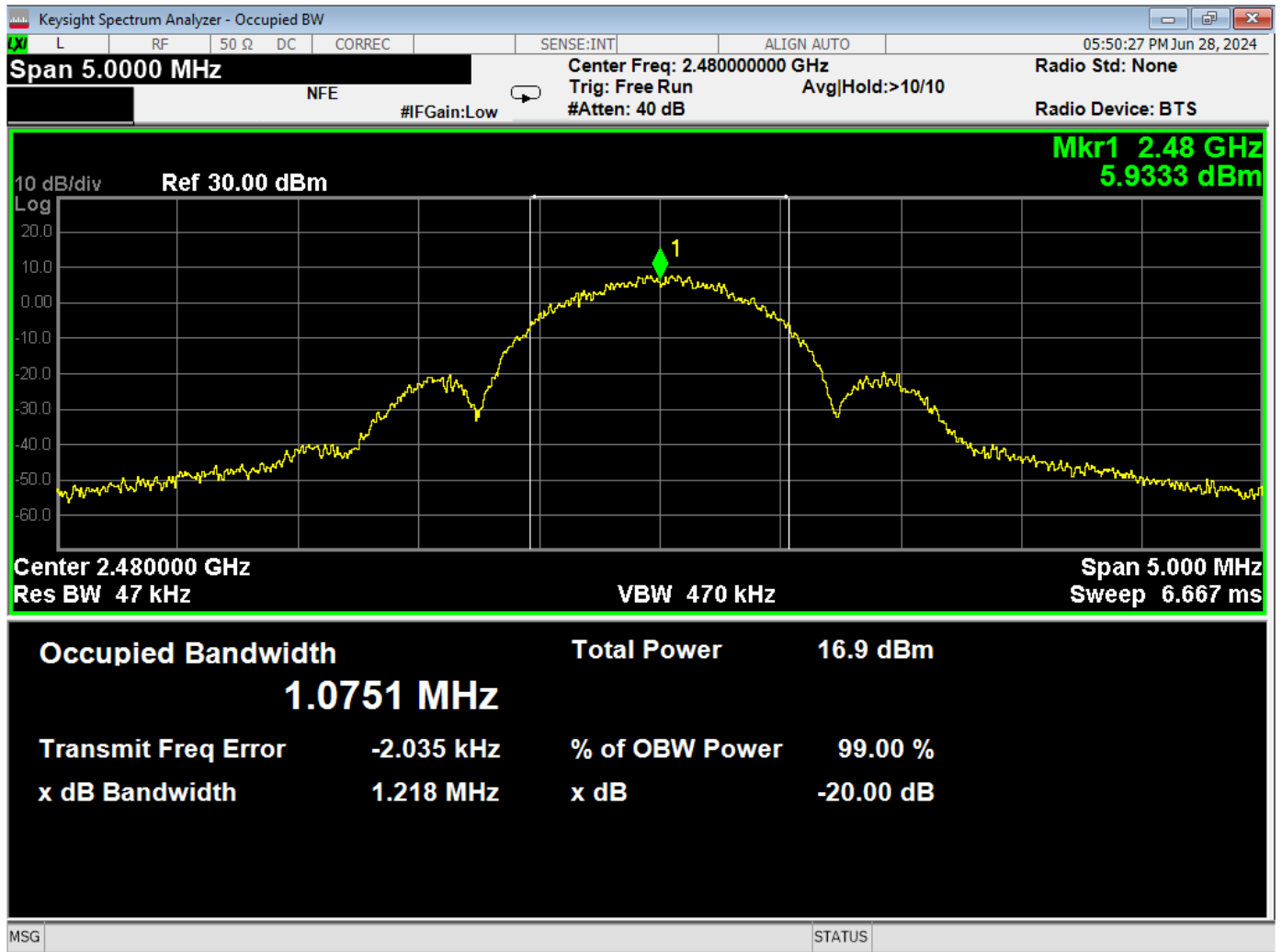
99% Bandwidth – High Channel – 802.11n Mode – RedPine



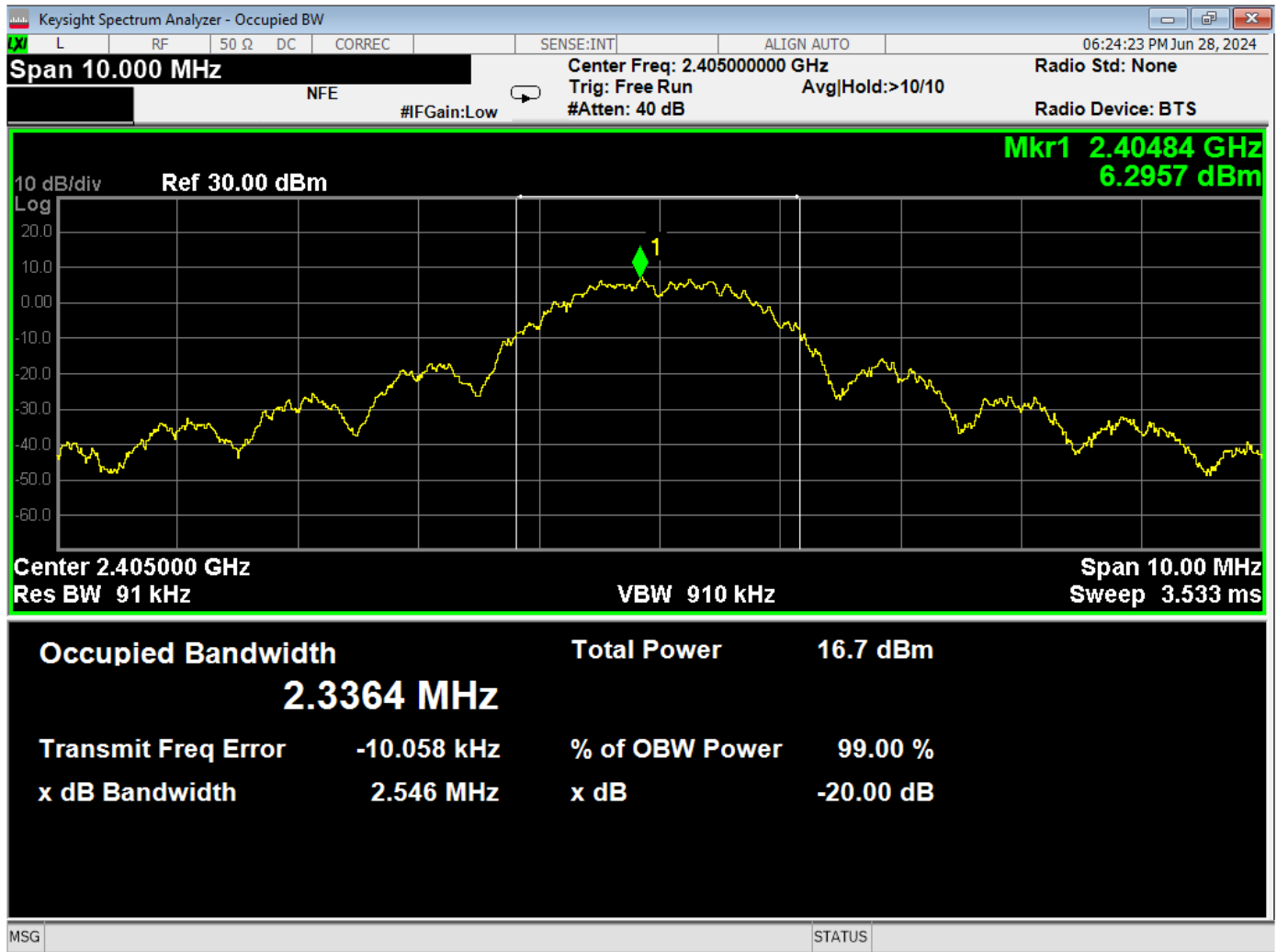
99% Bandwidth – Low Channel – BLE – Nordic



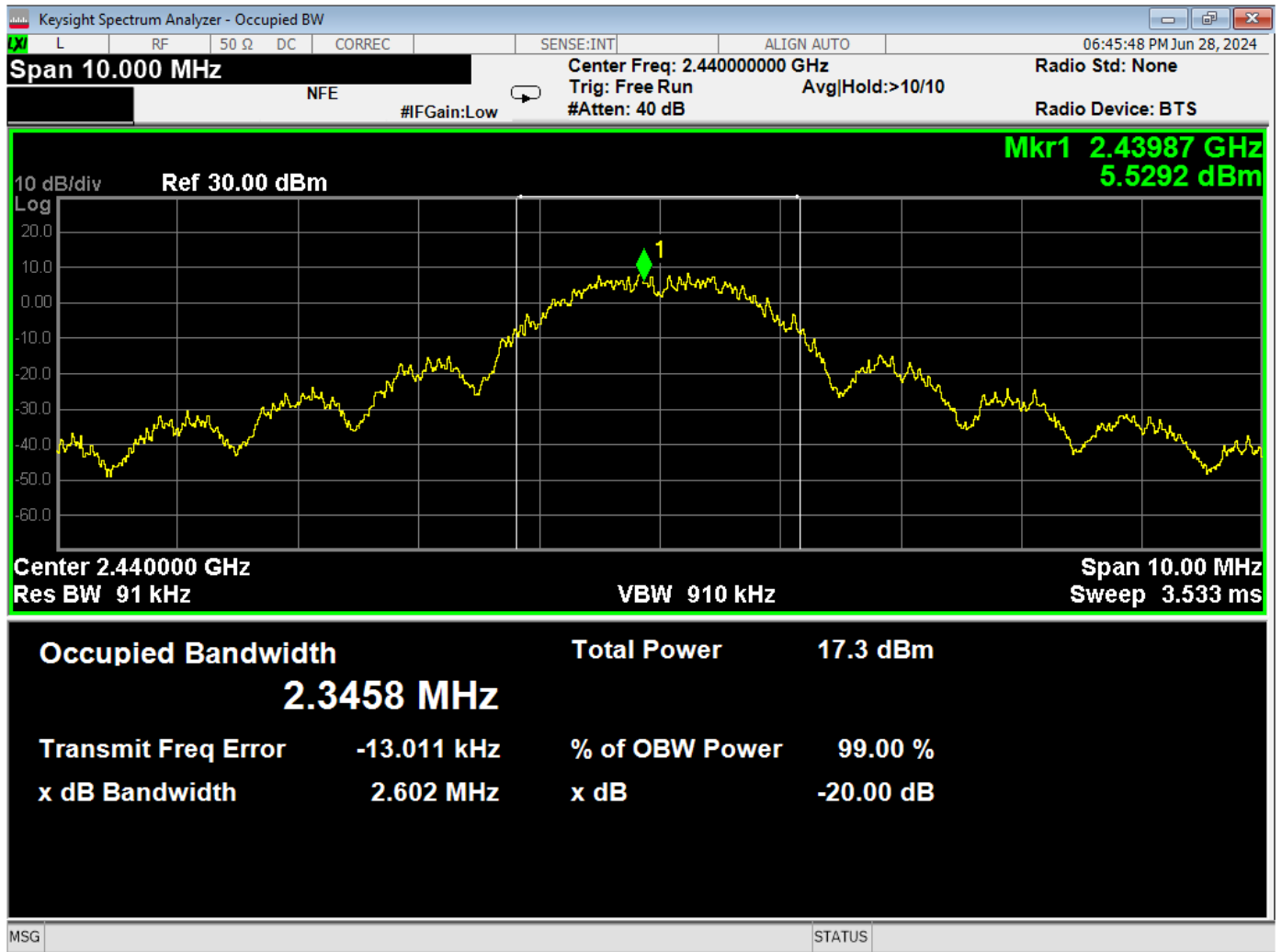
99% Bandwidth – Middle Channel – BLE – Nordic



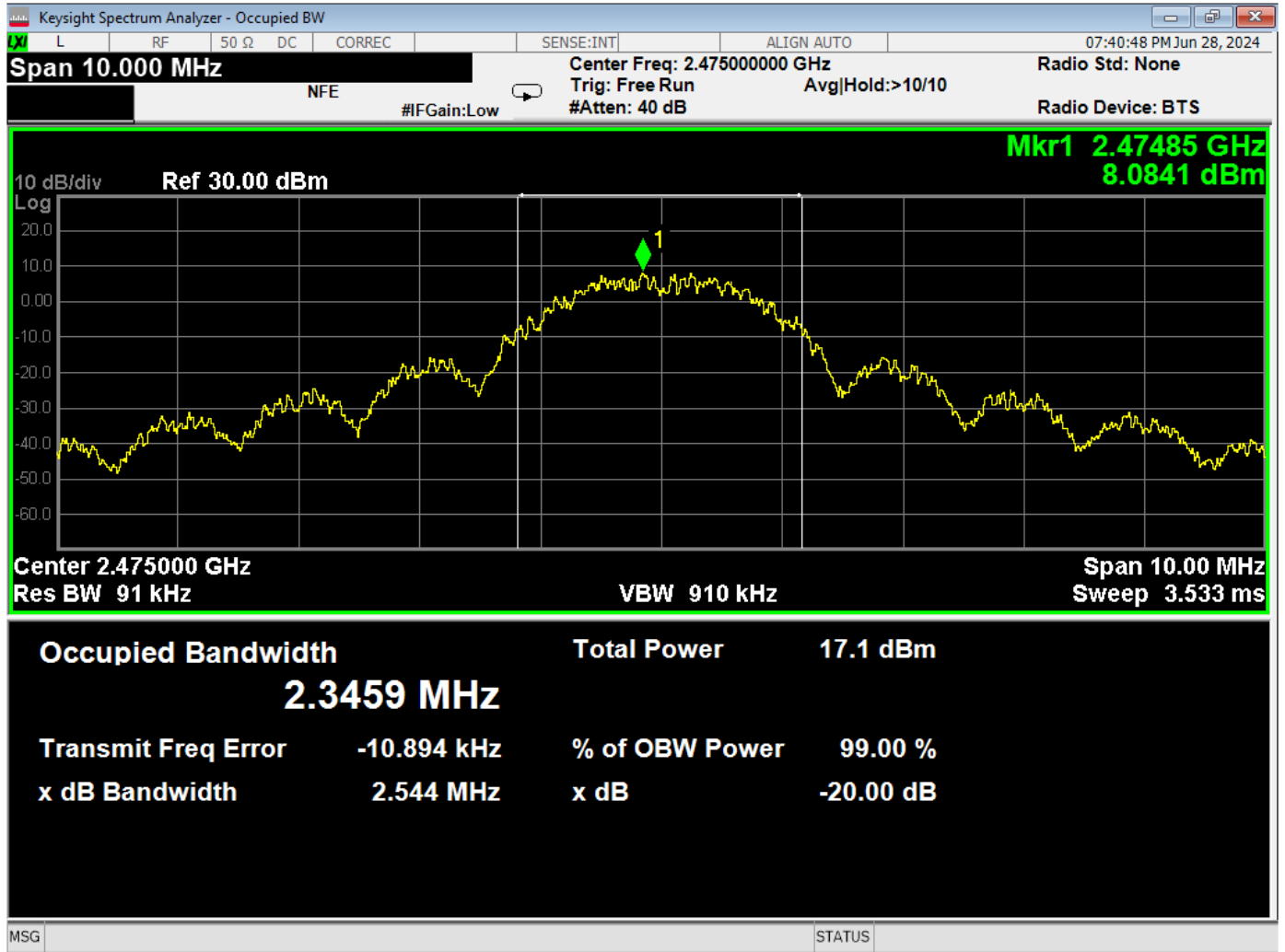
99% Bandwidth – High Channel – BLE – Nordic



99% Bandwidth – Low Channel – Thread – Nordic



99% Bandwidth – Middle Channel – Thread – Nordic



99% Bandwidth – High Channel – Thread – Nordic