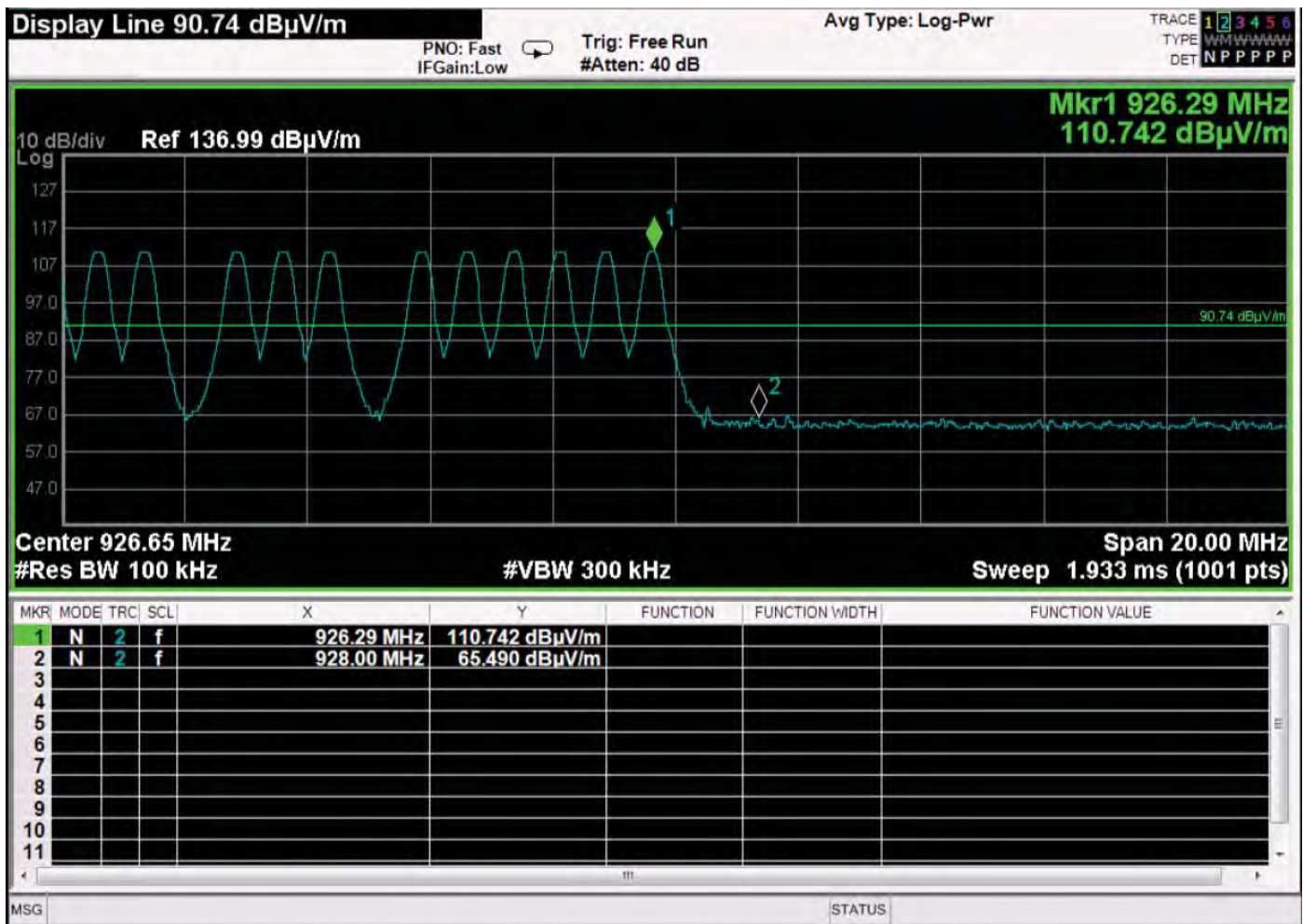
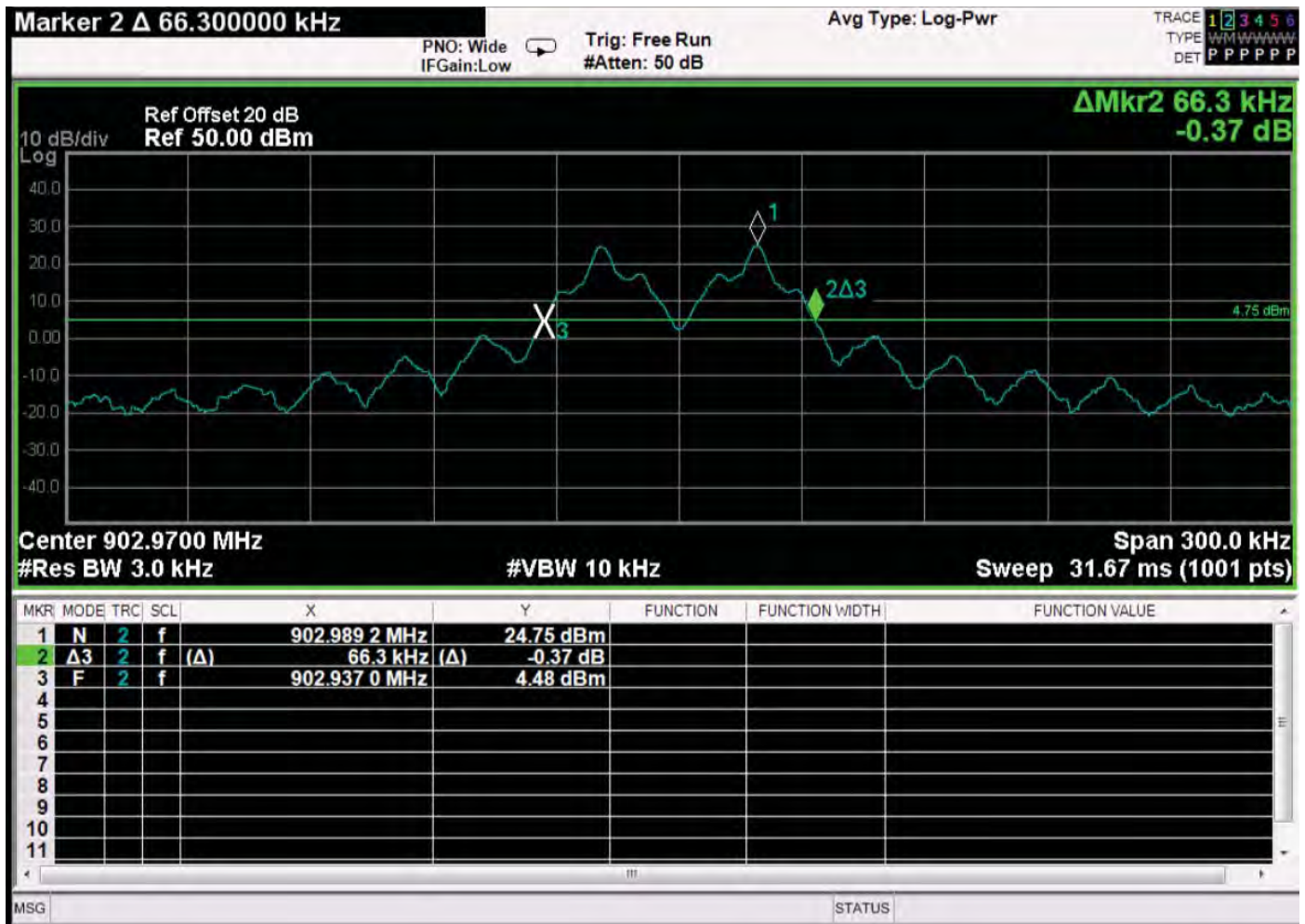




Band Edge – High Channel – uSP Antenna – High Data Rate - Hopping



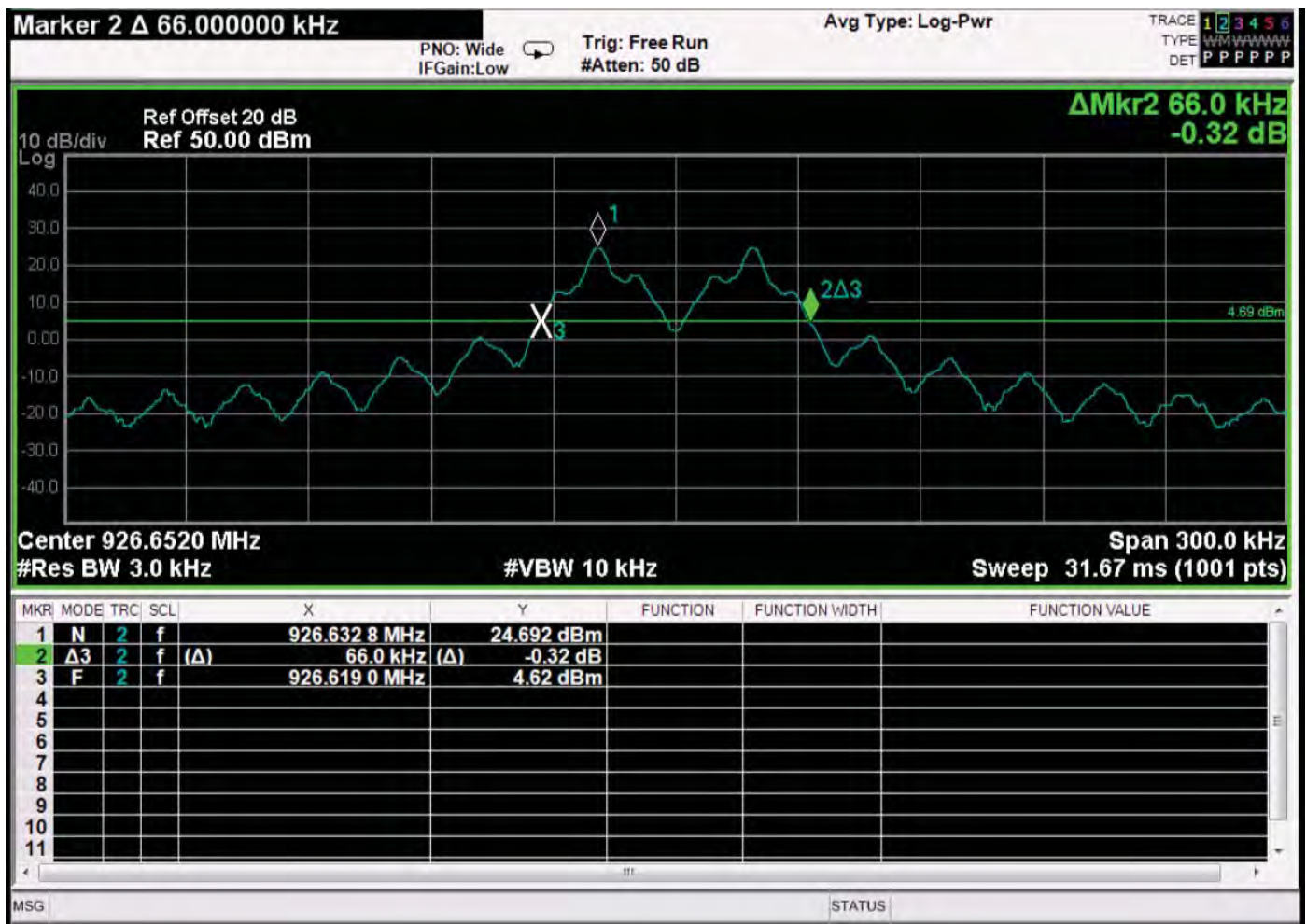
***-20 DB BANDWIDTH  
DATA SHEETS***



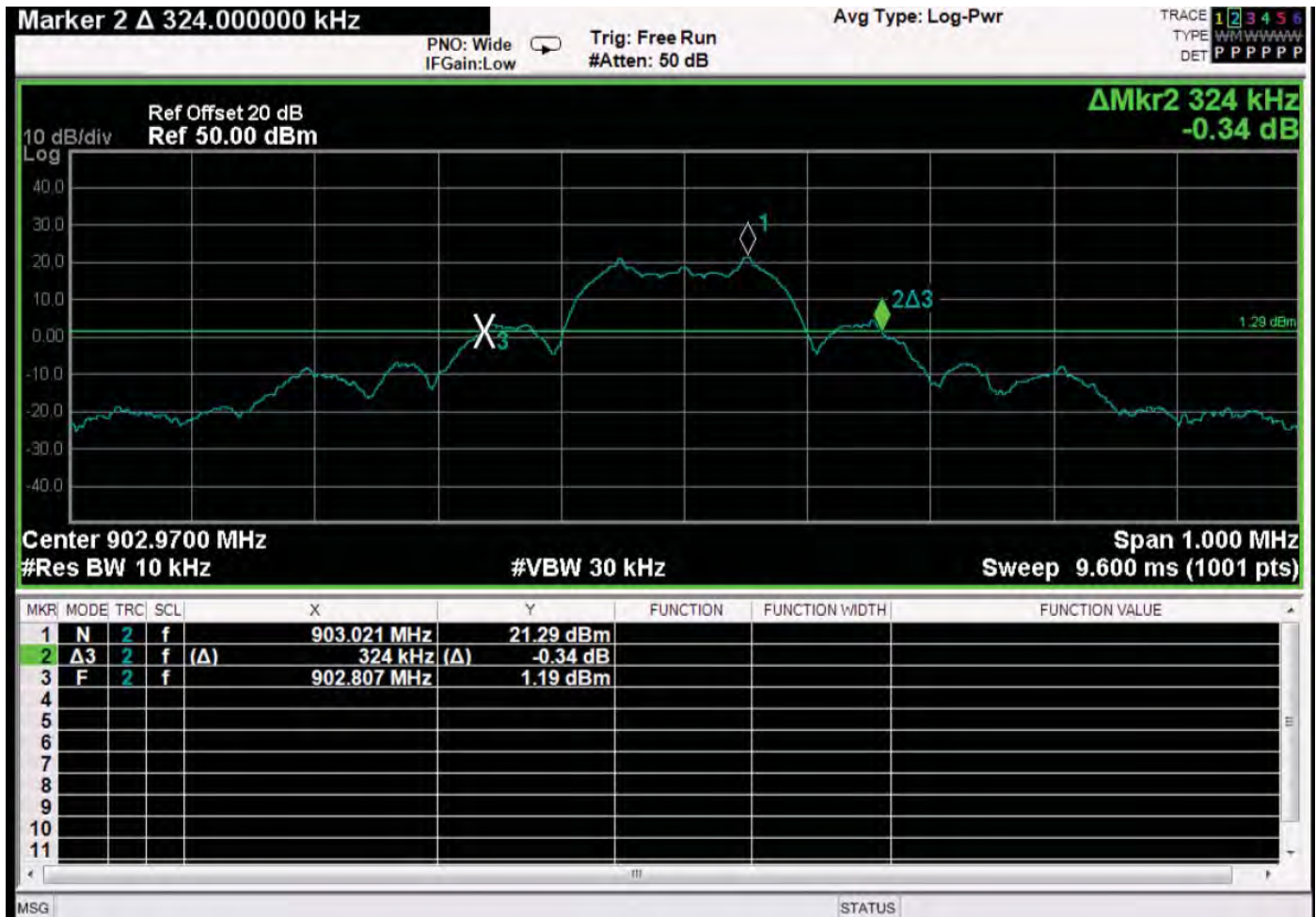
-20 dB Bandwidth – Low Channel – U.FL – Low Data Rate



-20 dB Bandwidth – Middle Channel – U.FL – Low Data Rate



-20 dB Bandwidth – High Channel – U.FL – Low Data Rate



-20 dB Bandwidth – Low Channel – U.FL – High Data Rate



-20 dB Bandwidth – Middle Channel – U.FL – High Data Rate



-20 dB Bandwidth – High Channel – U.FL – High Data Rate



-20 dB Bandwidth – Low Channel – uSP Antenna – Low Data Rate



-20 dB Bandwidth – Middle Channel – uSP Antenna – Low Data Rate



-20 dB Bandwidth – High Channel – uSP Antenna – Low Data Rate



-20 dB Bandwidth – Low Channel – uSP Antenna – High Data Rate



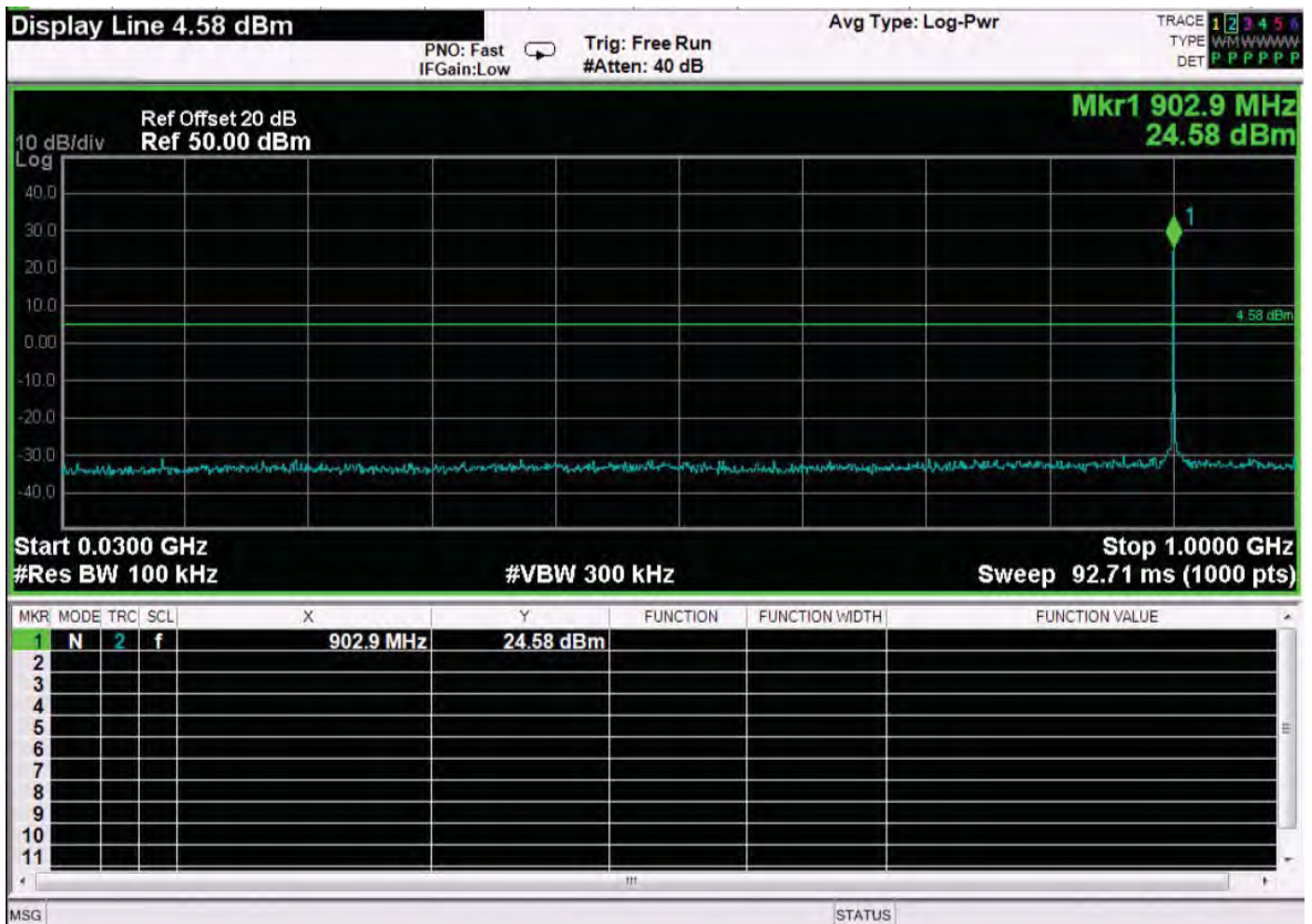
-20 dB Bandwidth – Middle Channel – uSP Antenna – High Data Rate



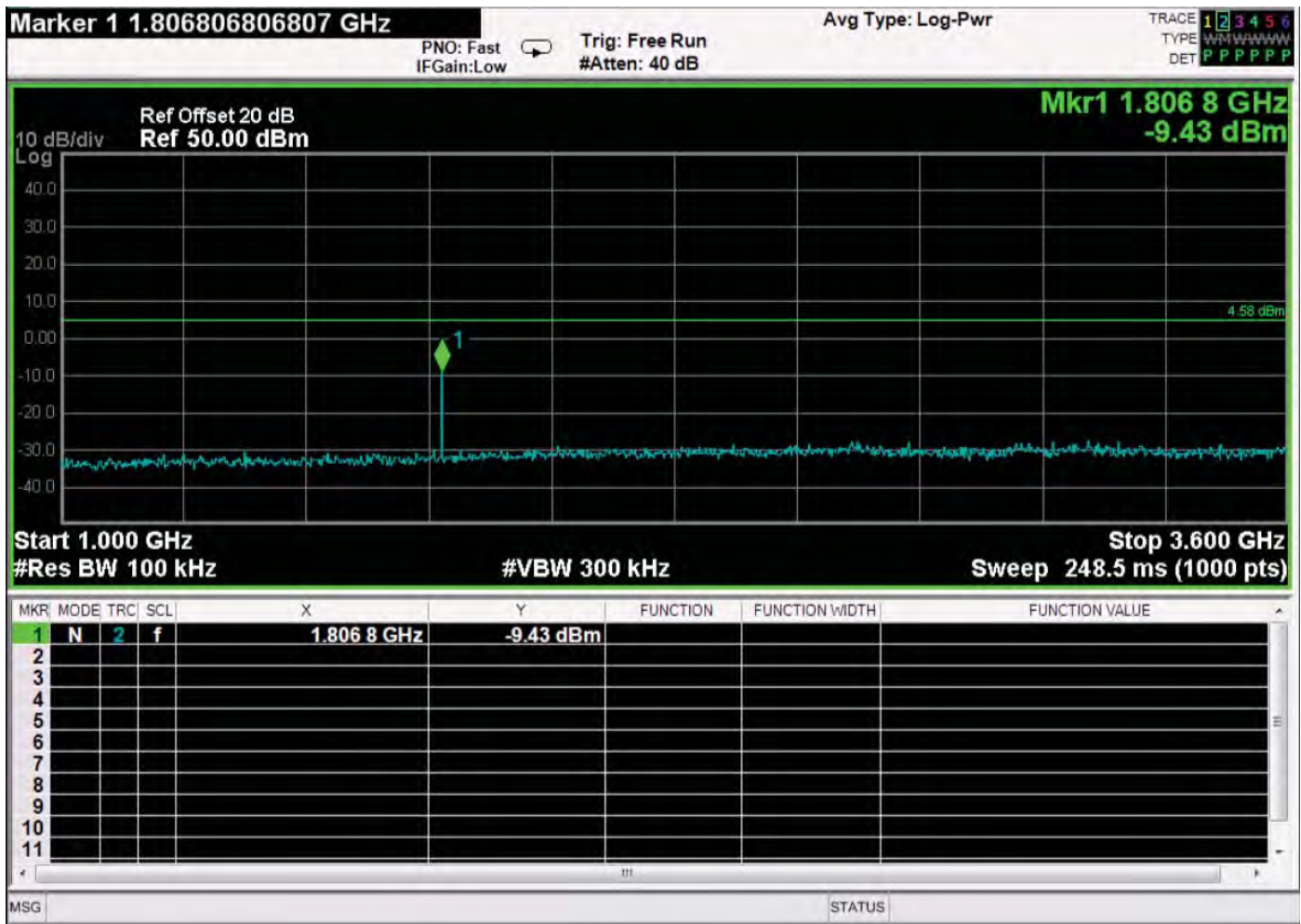
-20 dB Bandwidth – High Channel – uSP Antenna – High Data Rate



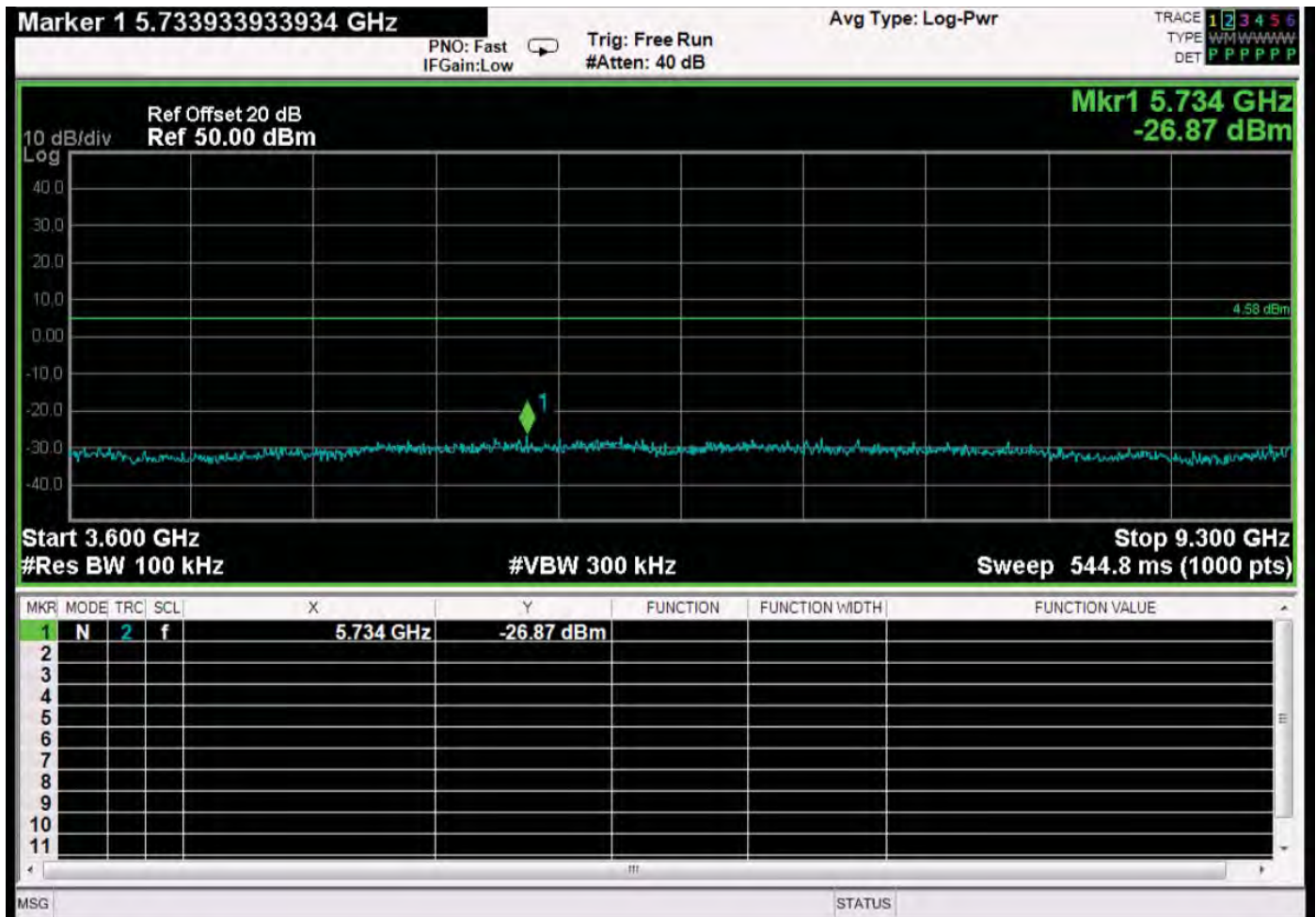
***RF ANTENNA CONDUCTED  
DATA SHEETS***



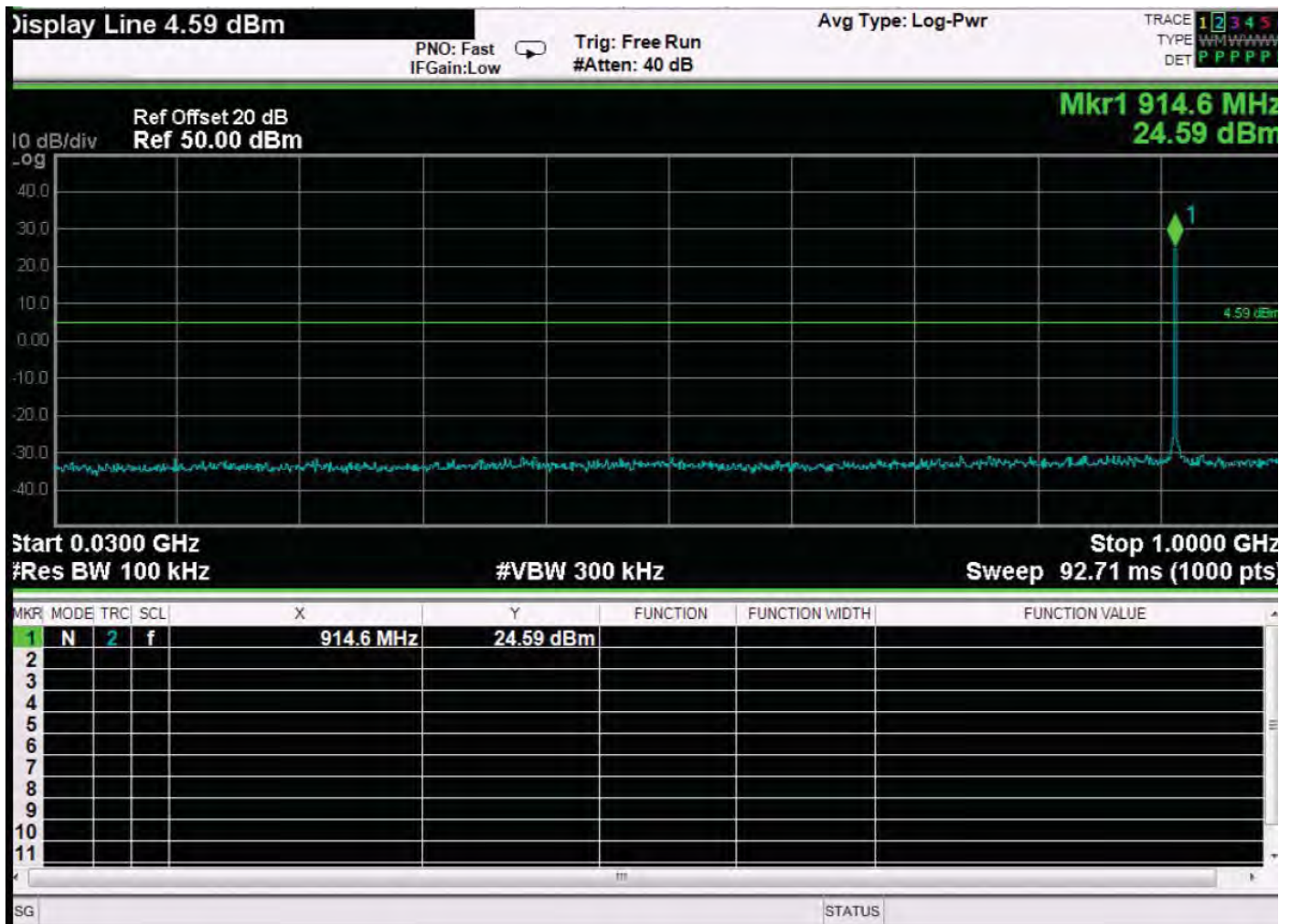
RF Antenna Conducted – Low Channel – 30 MHz to 1 GHz – HUM-A-900-PRO-UFL – Low Data Rate



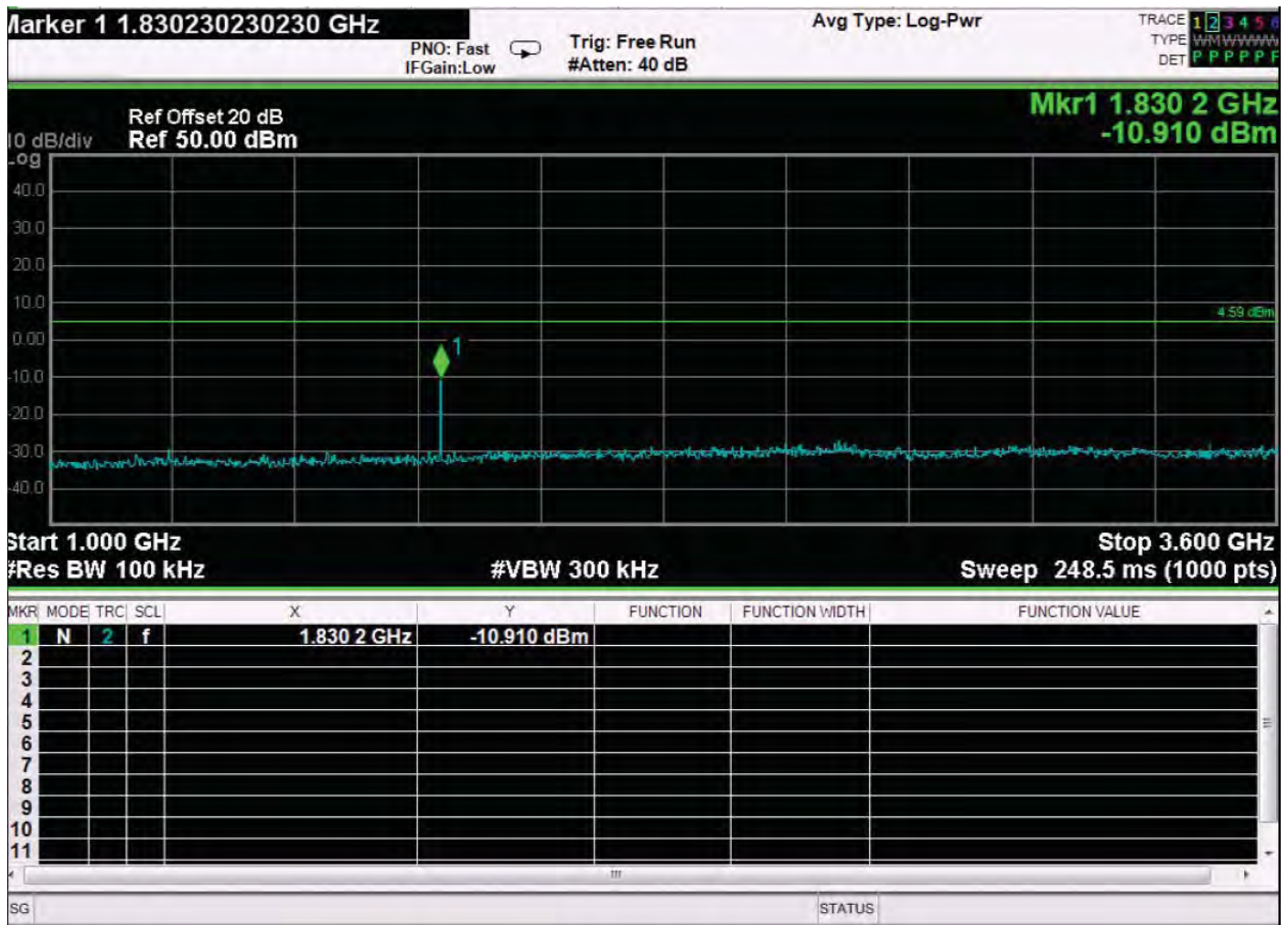
RF Antenna Conducted – Low Channel – 1 GHz to 3.6 GHz – HUM-A-900-PRO-UFL – Low Data Rate



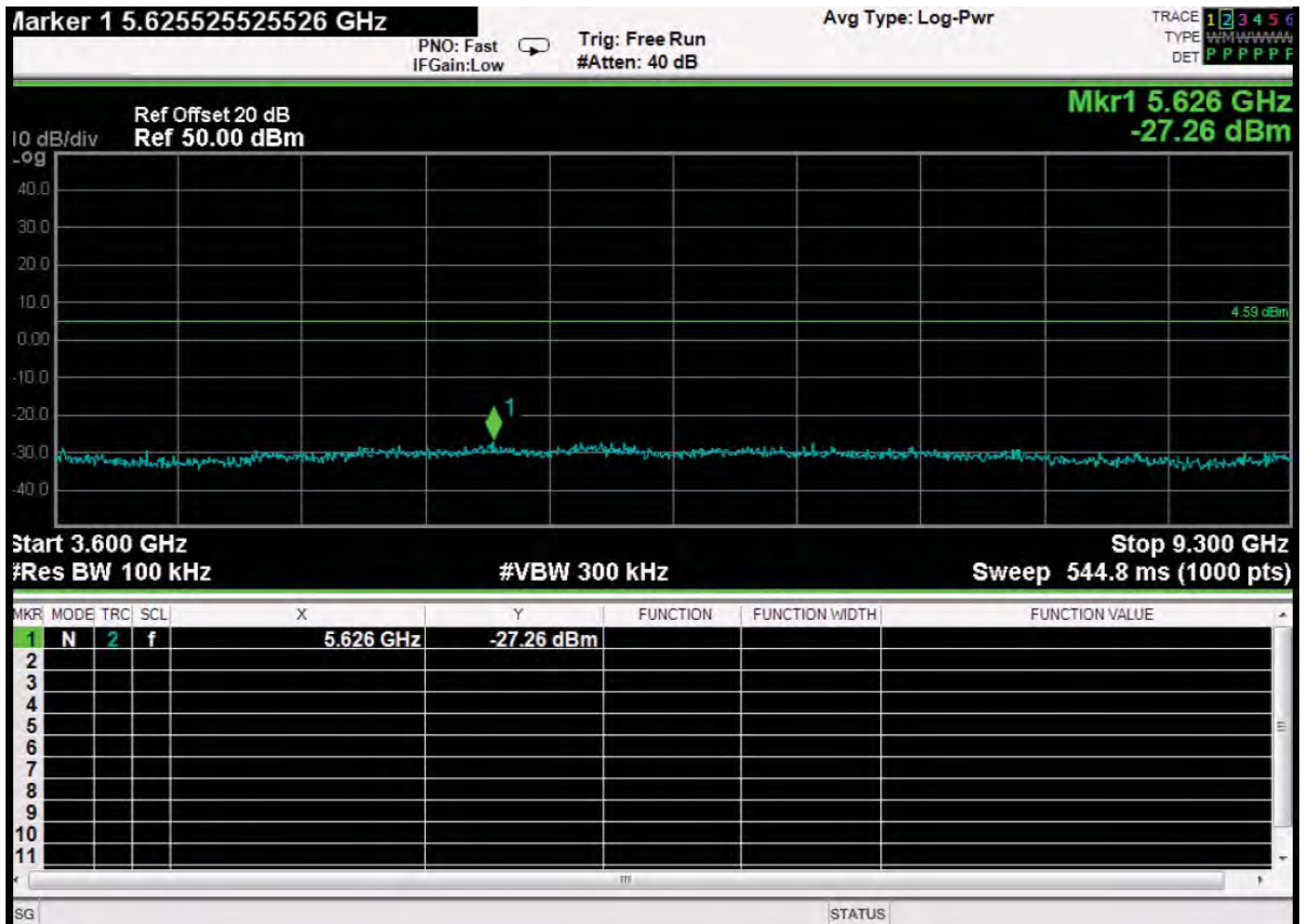
RF Antenna Conducted – Low Channel – 3.6 GHz to 9.3 GHz – HUM-A-900-PRO-UFL – Low Data Rate



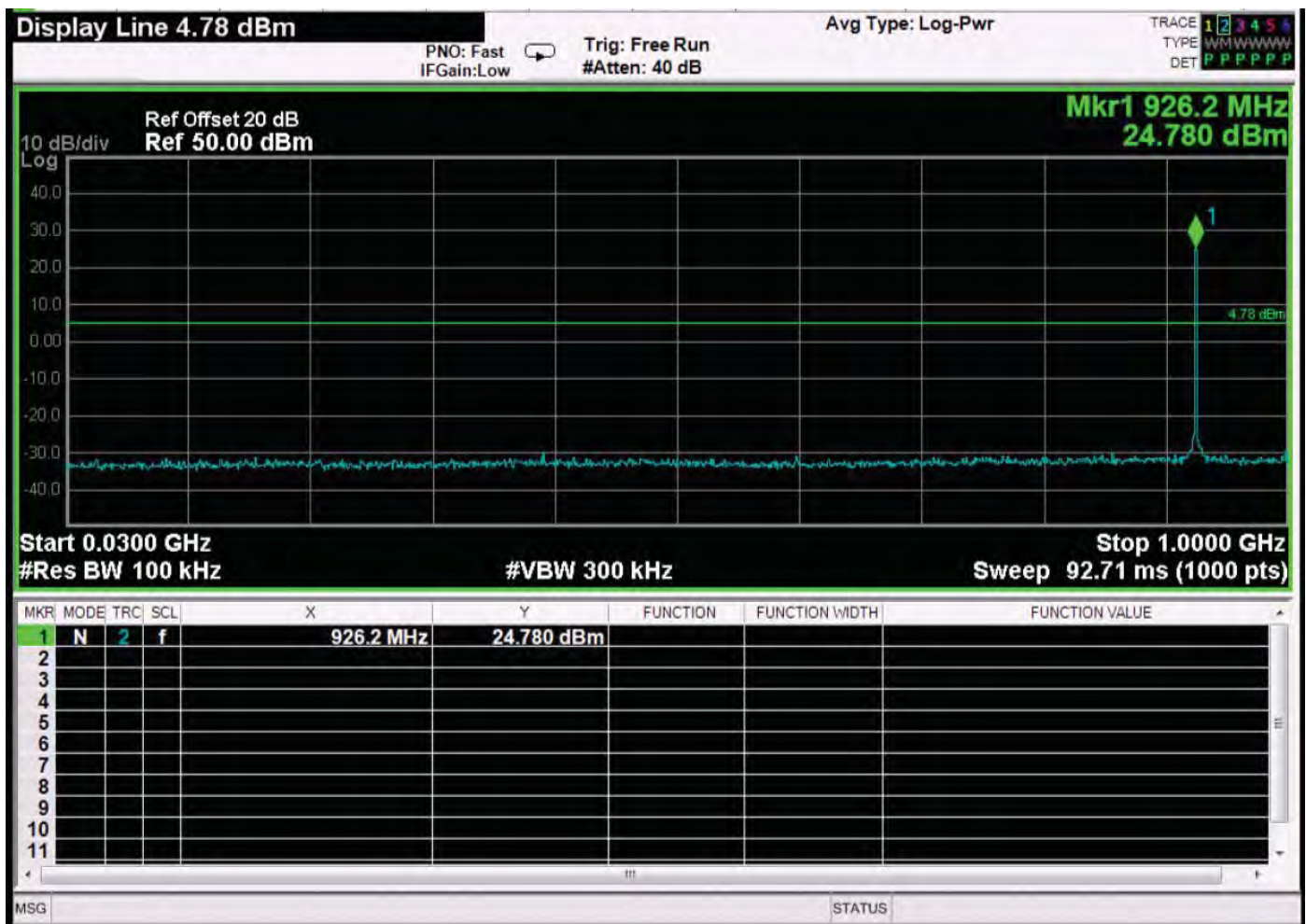
RF Antenna Conducted – Middle Channel – 30 MHz to 1 GHz – HUM-A-900-PRO-UFL – Low Data Rate



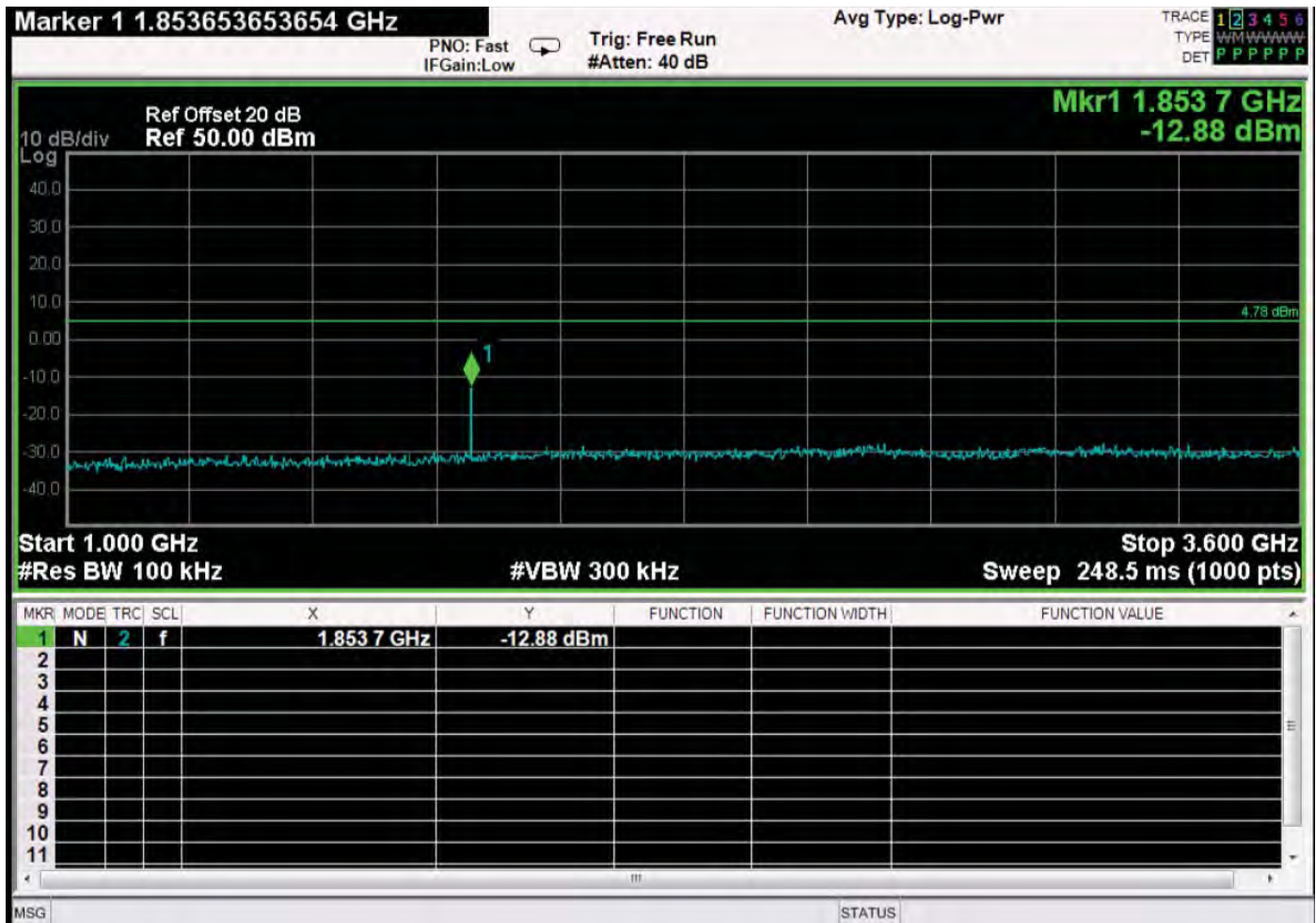
RF Antenna Conducted – Middle Channel – 1 GHz to 3.6 GHz – HUM-A-900-PRO-UFL – Low Data Rate



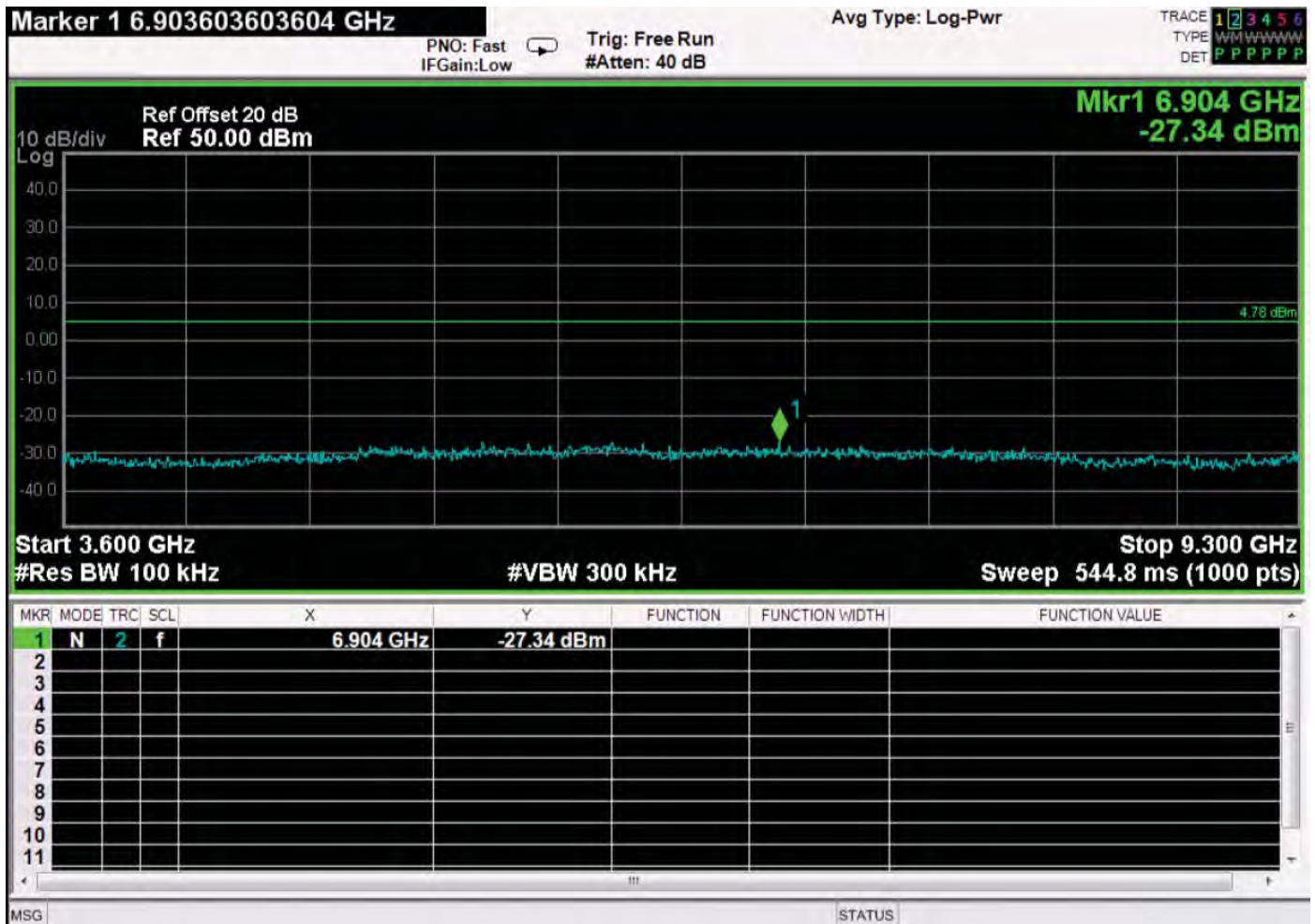
RF Antenna Conducted – Middle Channel – 3.6 GHz to 9.3 GHz – HUM-A-900-PRO-UFL – Low Data Rate



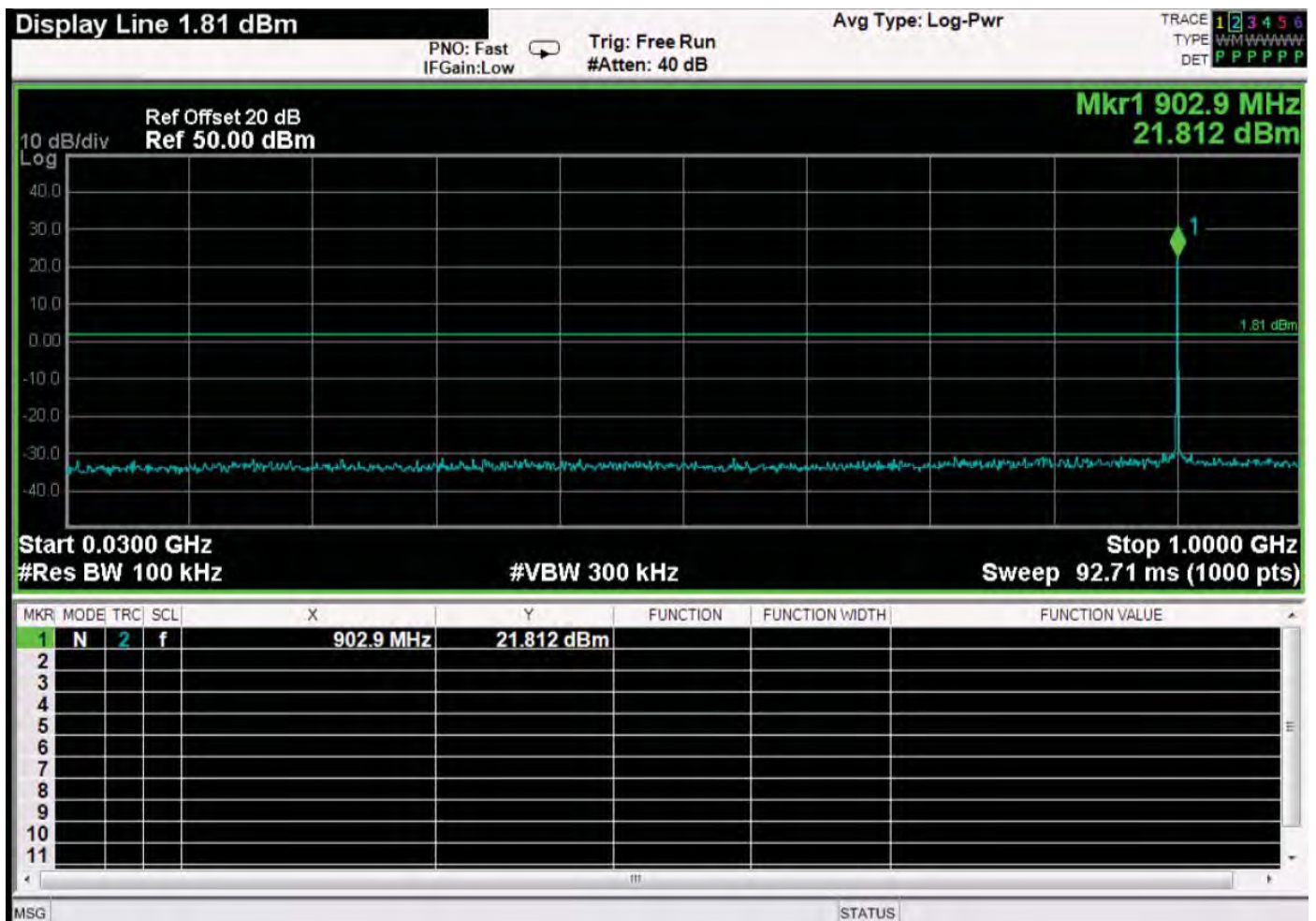
RF Antenna Conducted – High Channel – 30 MHz to 1 GHz – HUM-A-900-PRO-UFL – Low Data Rate



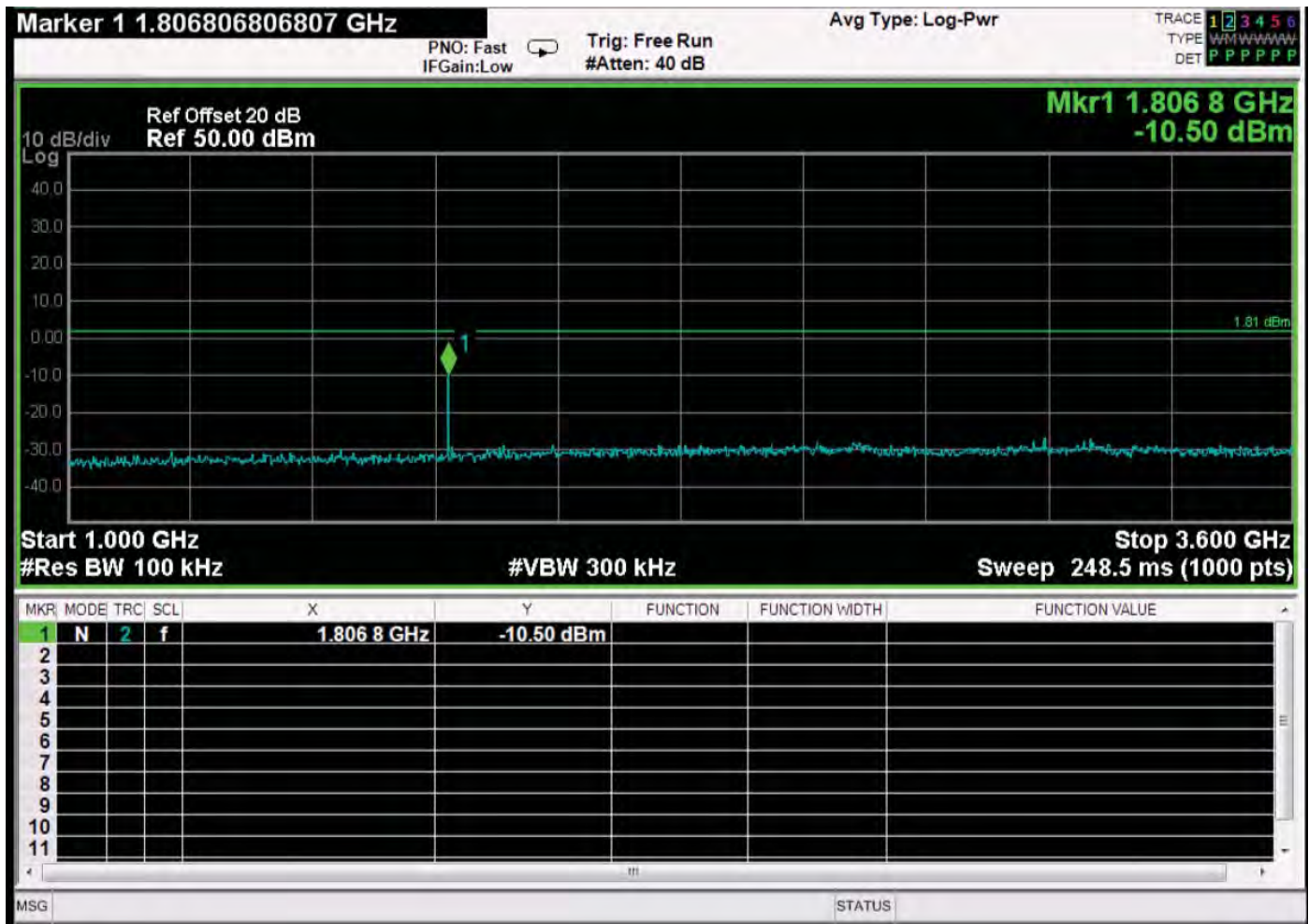
RF Antenna Conducted – High Channel – 1 GHz to 3.6 GHz – HUM-A-900-PRO-UFL – Low Data Rate



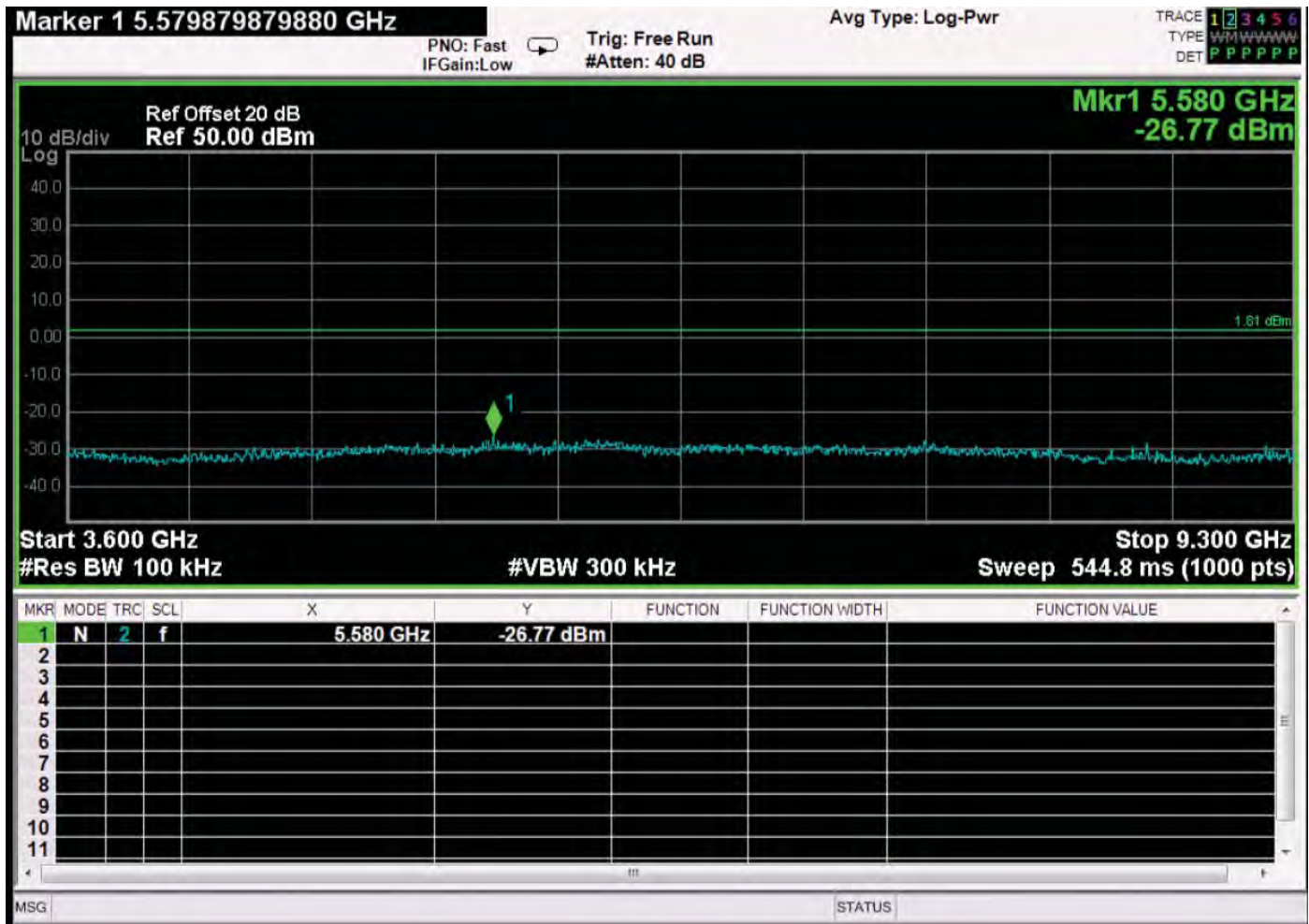
RF Antenna Conducted – High Channel – 3.6 GHz to 9.3 GHz – HUM-A-900-PRO-UFL – Low Data Rate



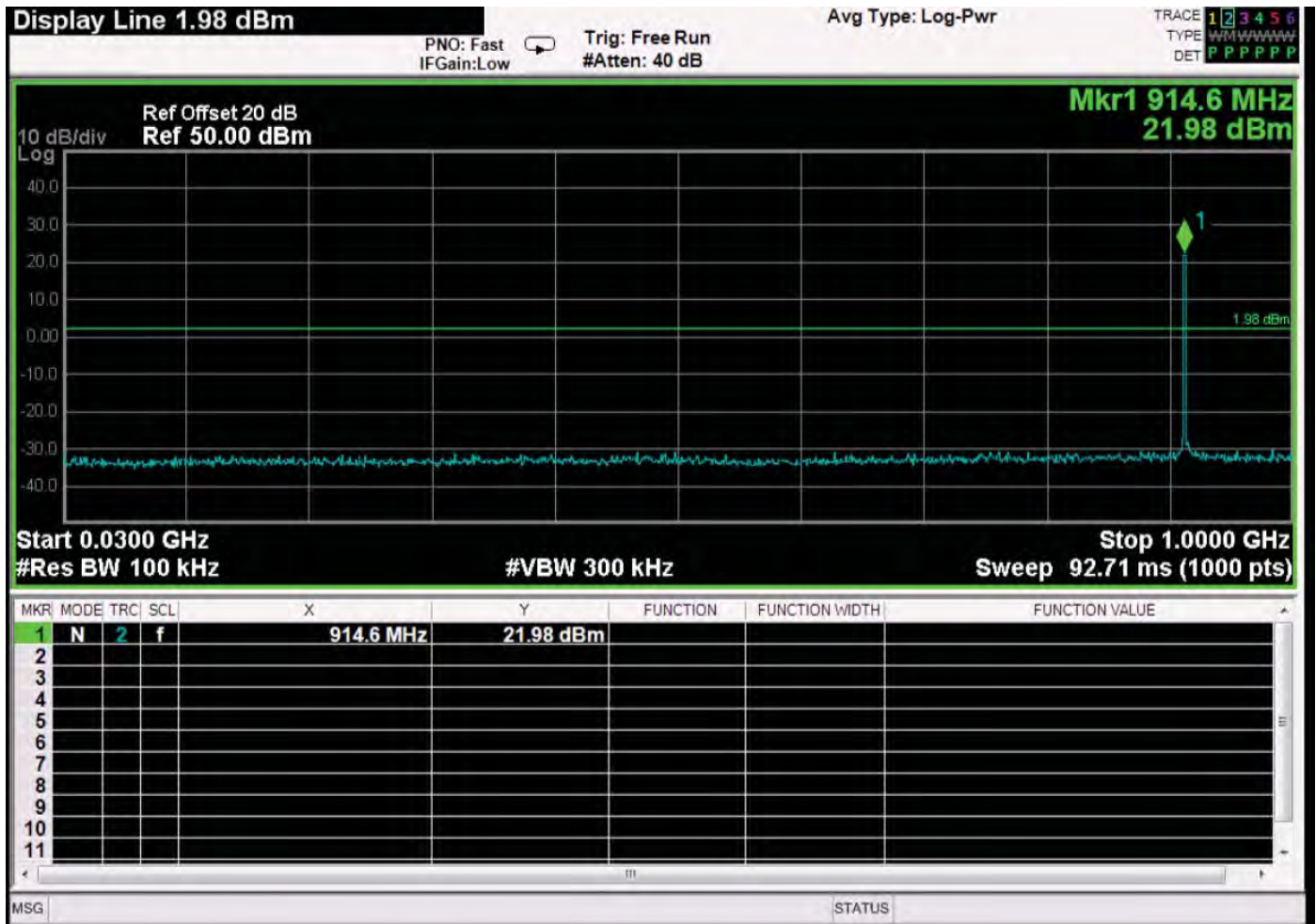
RF Antenna Conducted – Low Channel – 30 MHz to 1 GHz – HUM-A-900-PRO-UFL – High Data Rate



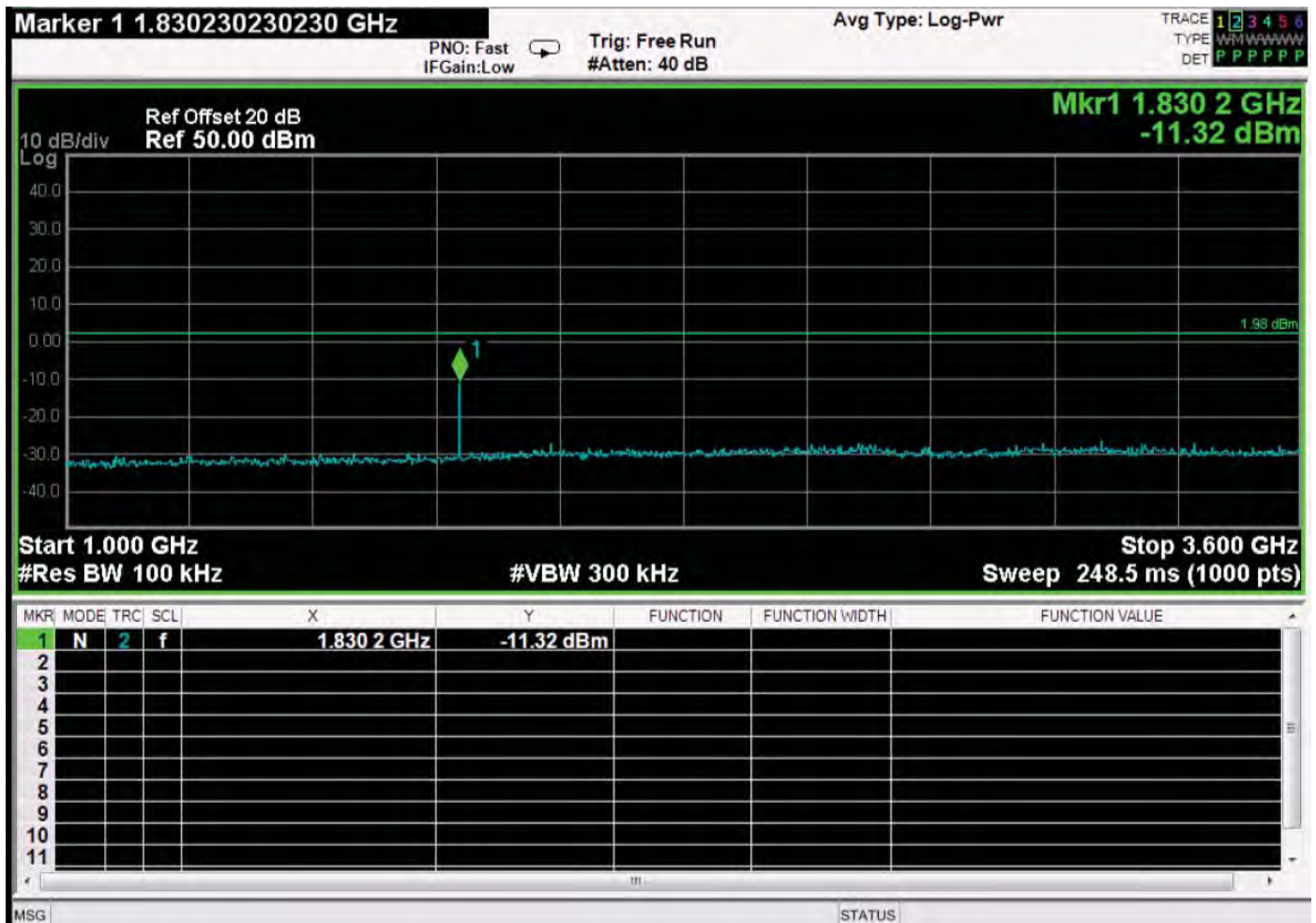
RF Antenna Conducted – Low Channel – 1 GHz to 3.6 GHz – HUM-A-900-PRO-UFL – High Data Rate



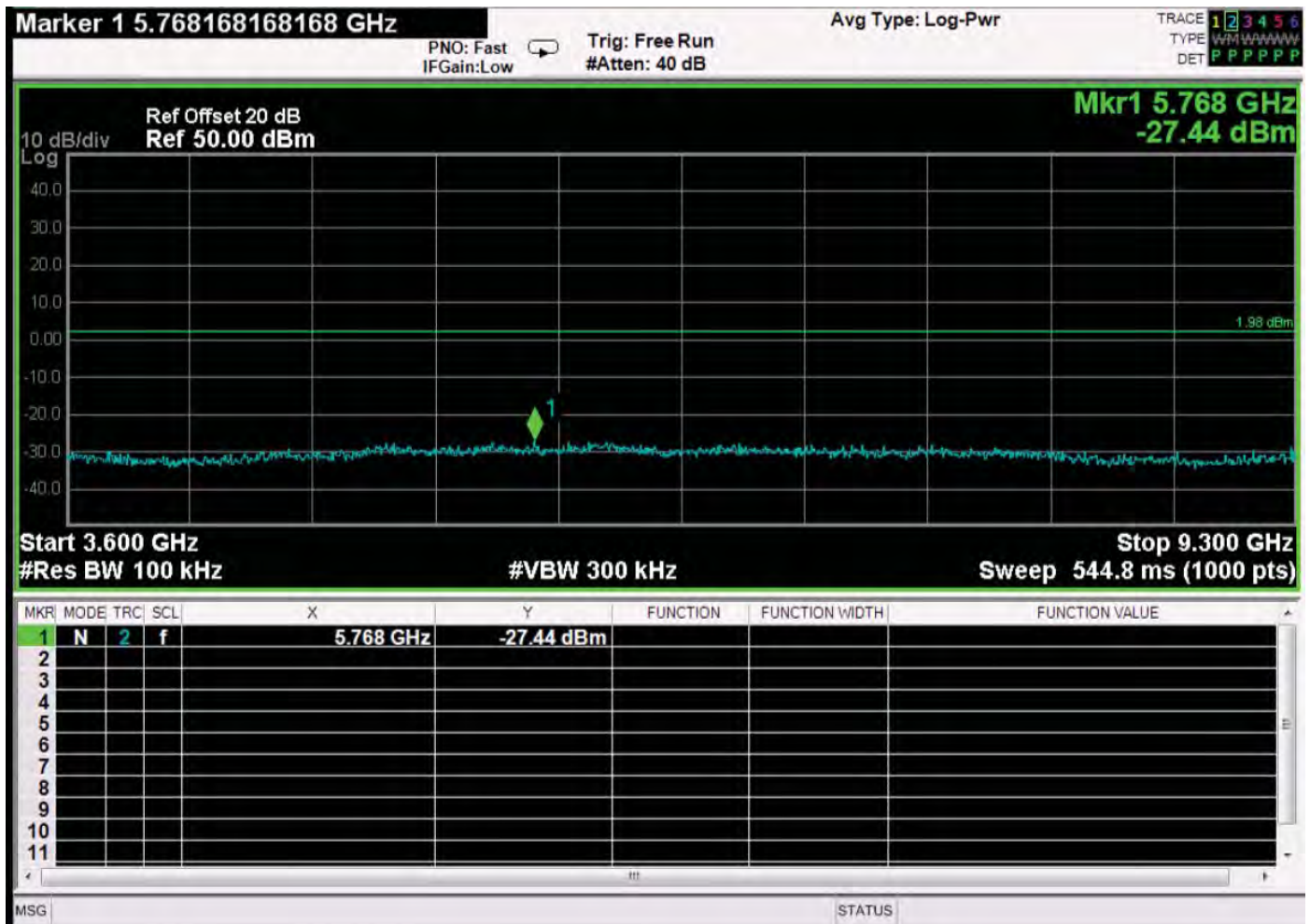
RF Antenna Conducted – Low Channel – 3.6 GHz to 9.3 GHz – HUM-A-900-PRO-UFL – High Data Rate



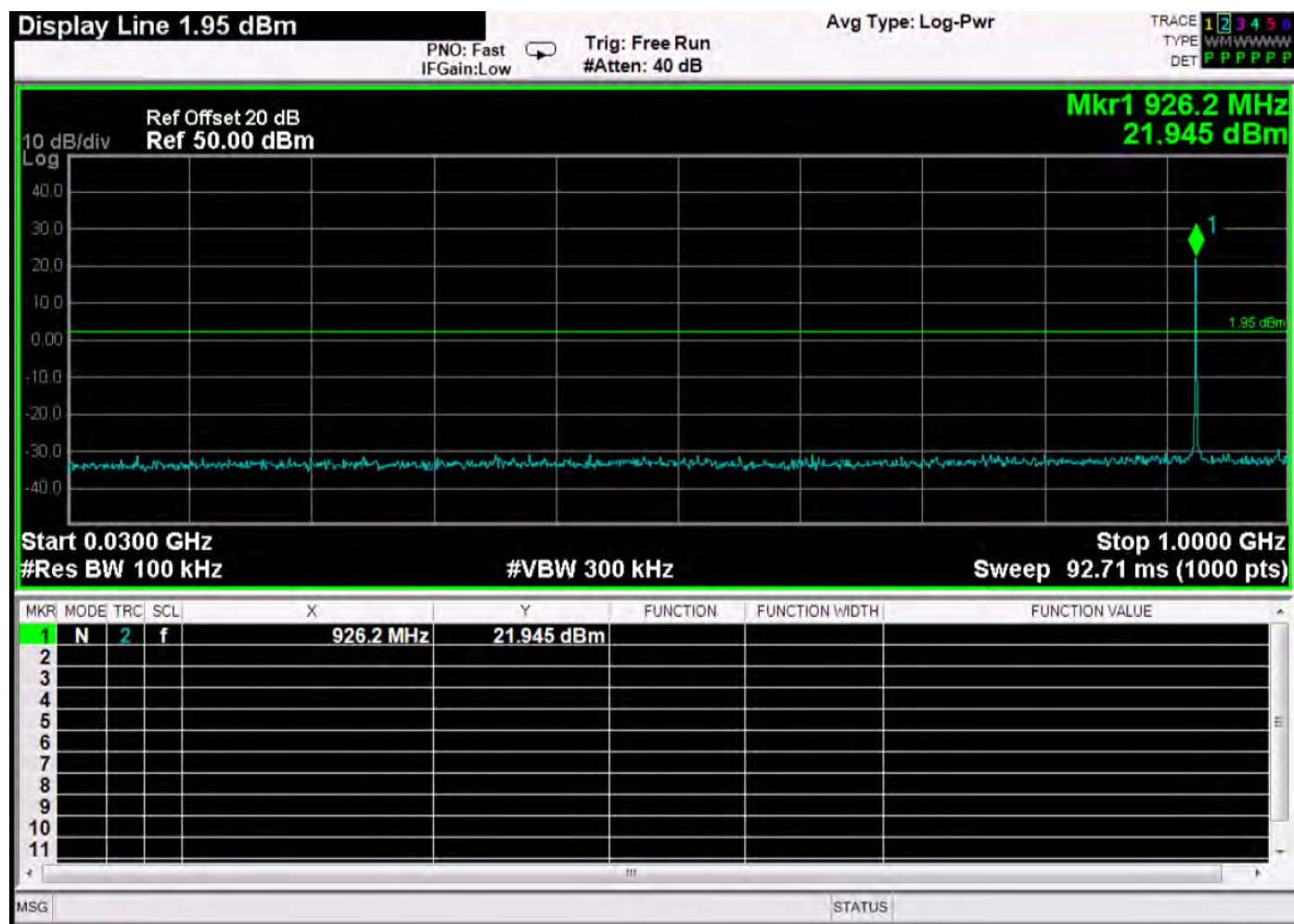
RF Antenna Conducted – Middle Channel – 30 MHz to 1 GHz – HUM-A-900-PRO-UFL – High Data Rate



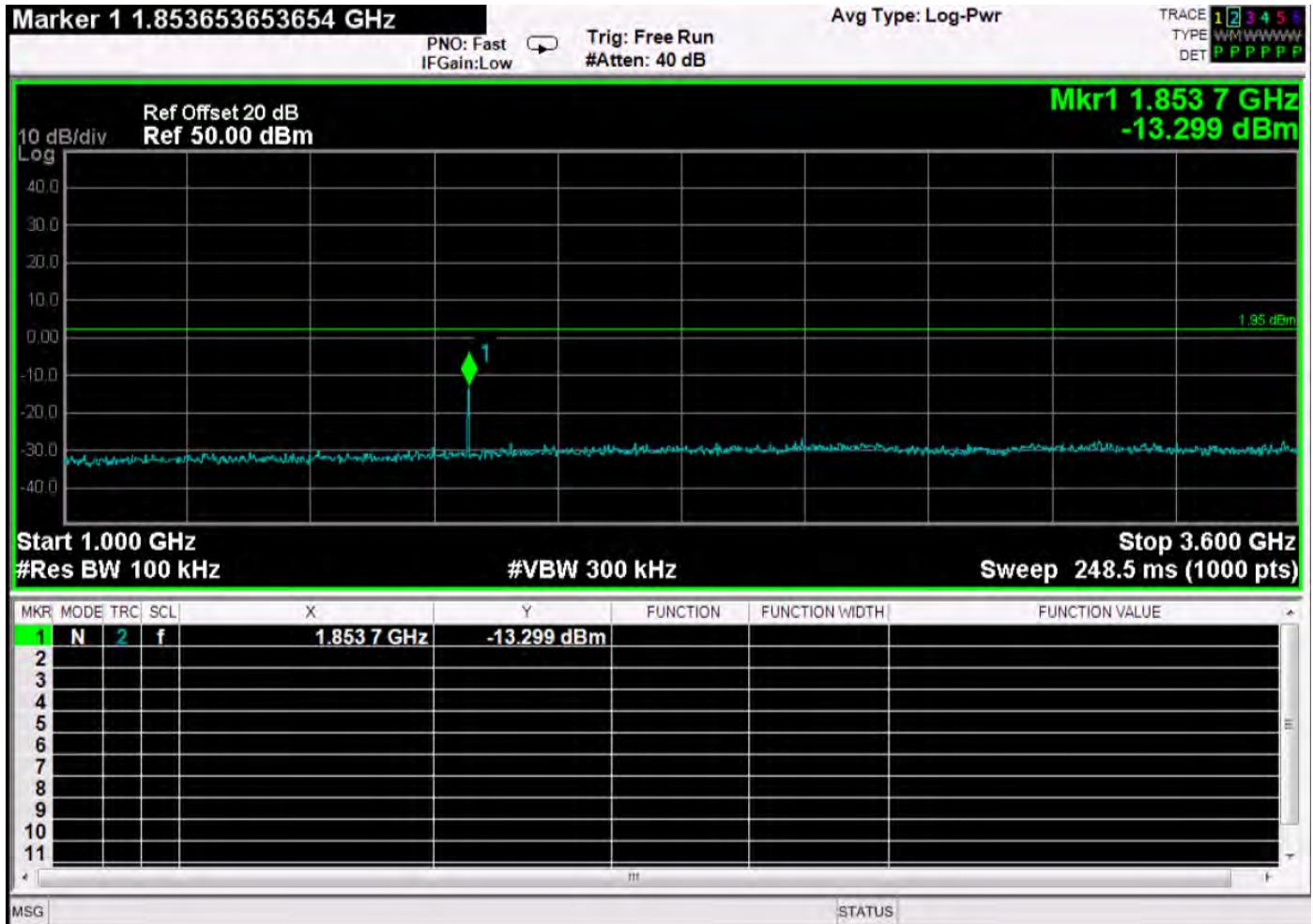
RF Antenna Conducted – Middle Channel – 1 GHz to 3.6 GHz – HUM-A-900-PRO-UFL – High Data Rate



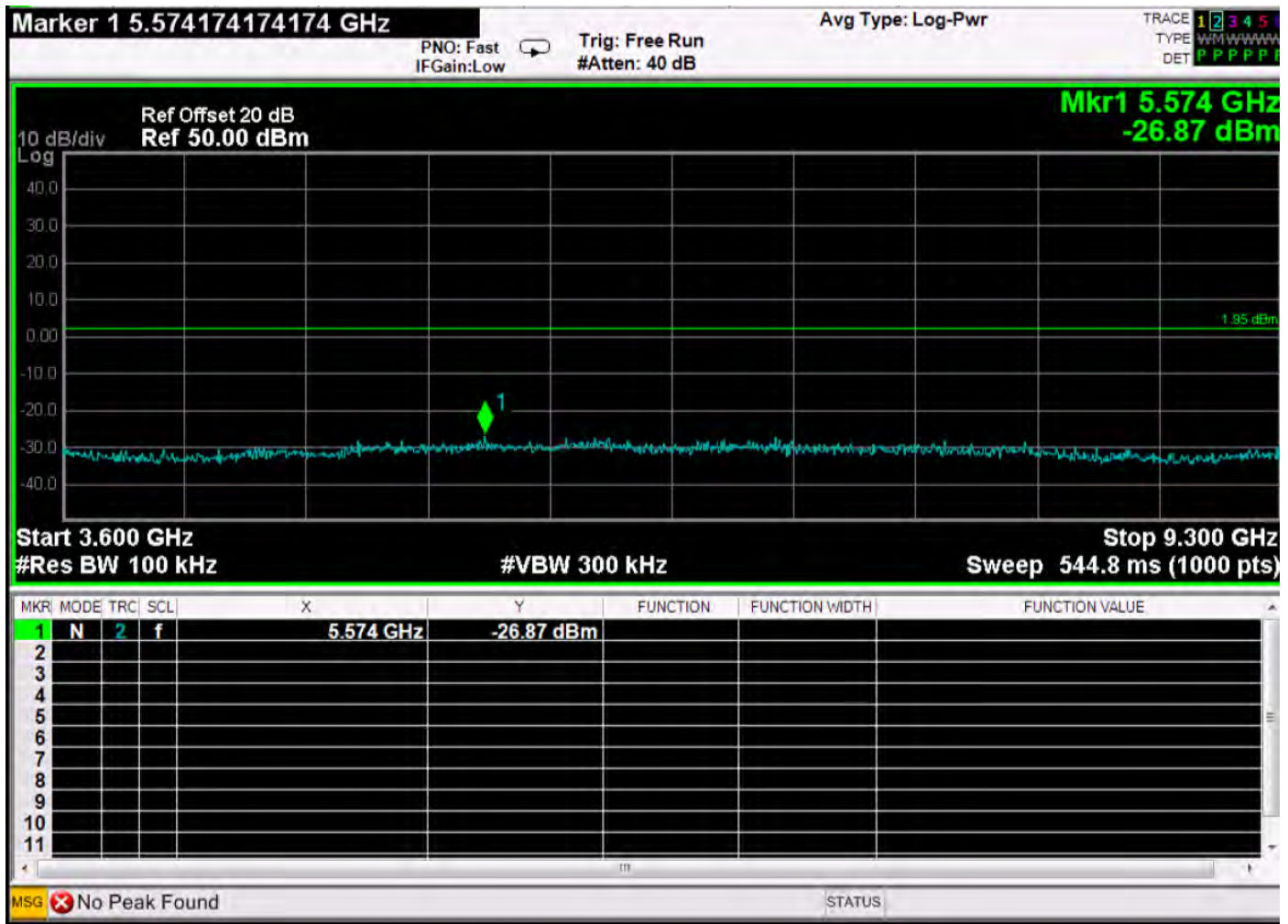
RF Antenna Conducted – Middle Channel – 3.6 GHz to 9.3 GHz – HUM-A-900-PRO-UFL – High Data Rate



RF Antenna Conducted – High Channel – 30 MHz to 1 GHz – HUM-A-900-PRO-UFL – High Data Rate



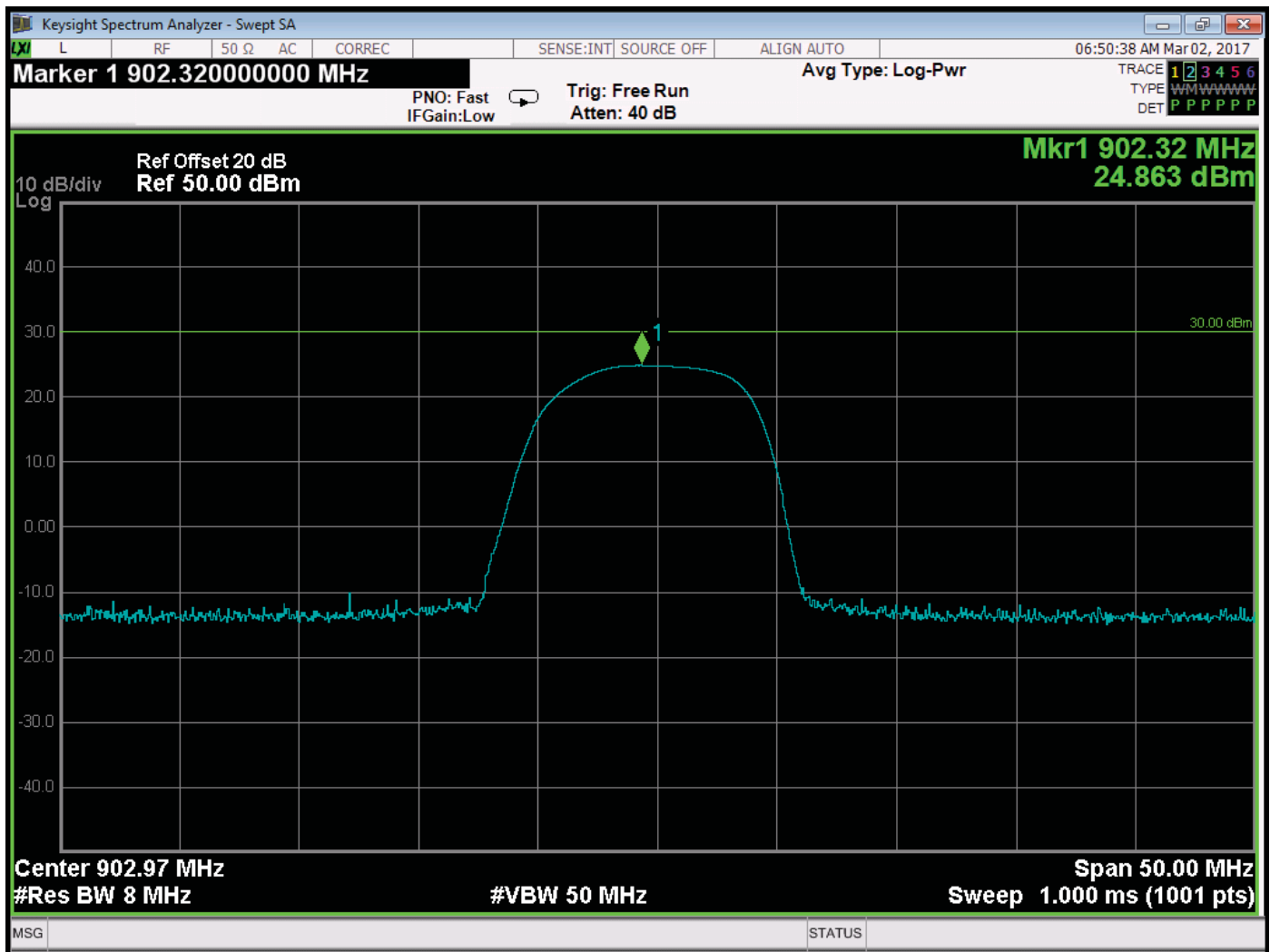
RF Antenna Conducted – High Channel – 1 GHz to 3.6 GHz – HUM-A-900-PRO-UFL – High Data Rate



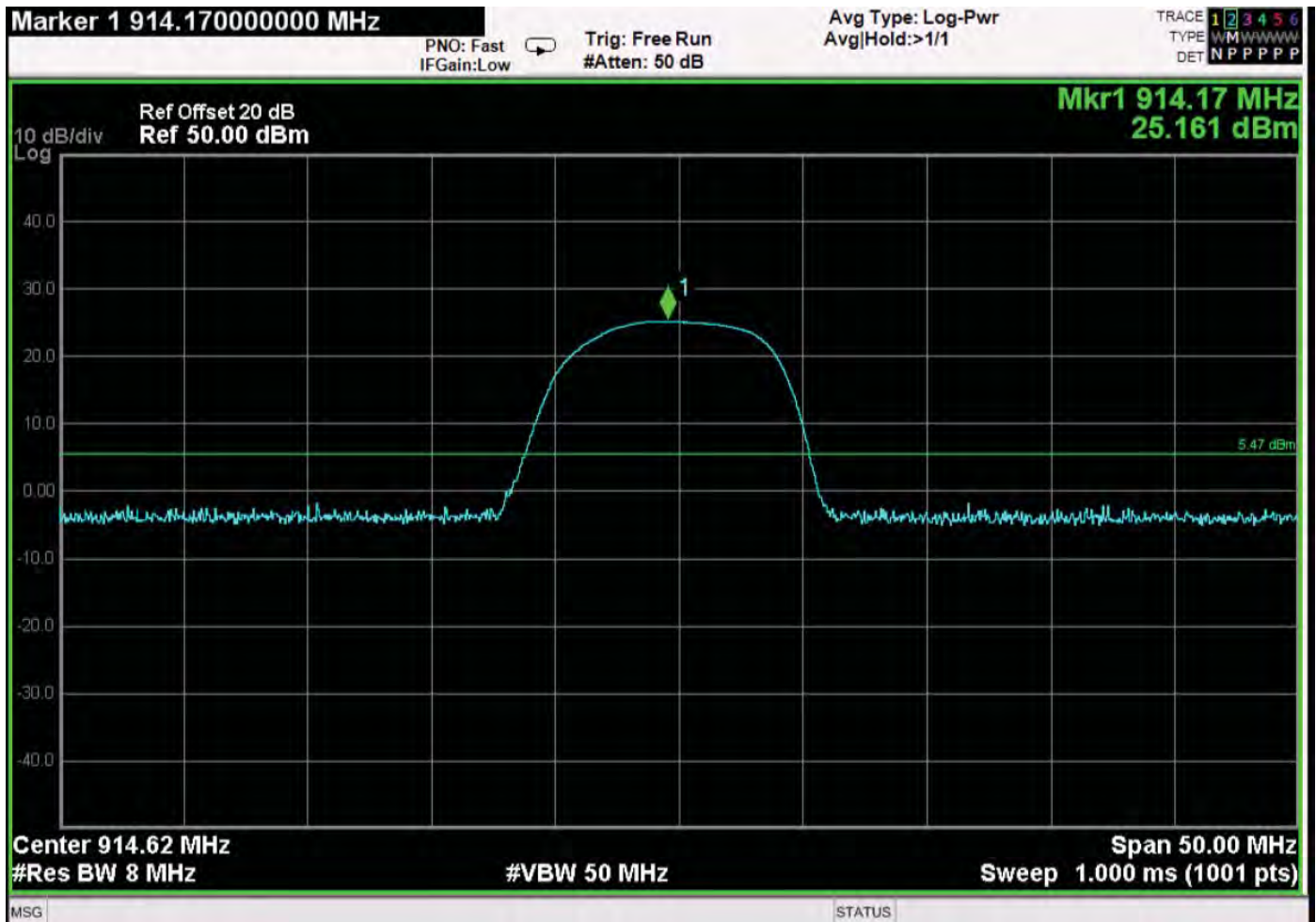
RF Antenna Conducted – High Channel – 3.6 GHz to 9.3 GHz – HUM-A-900-PRO-UFL – High Data Rate



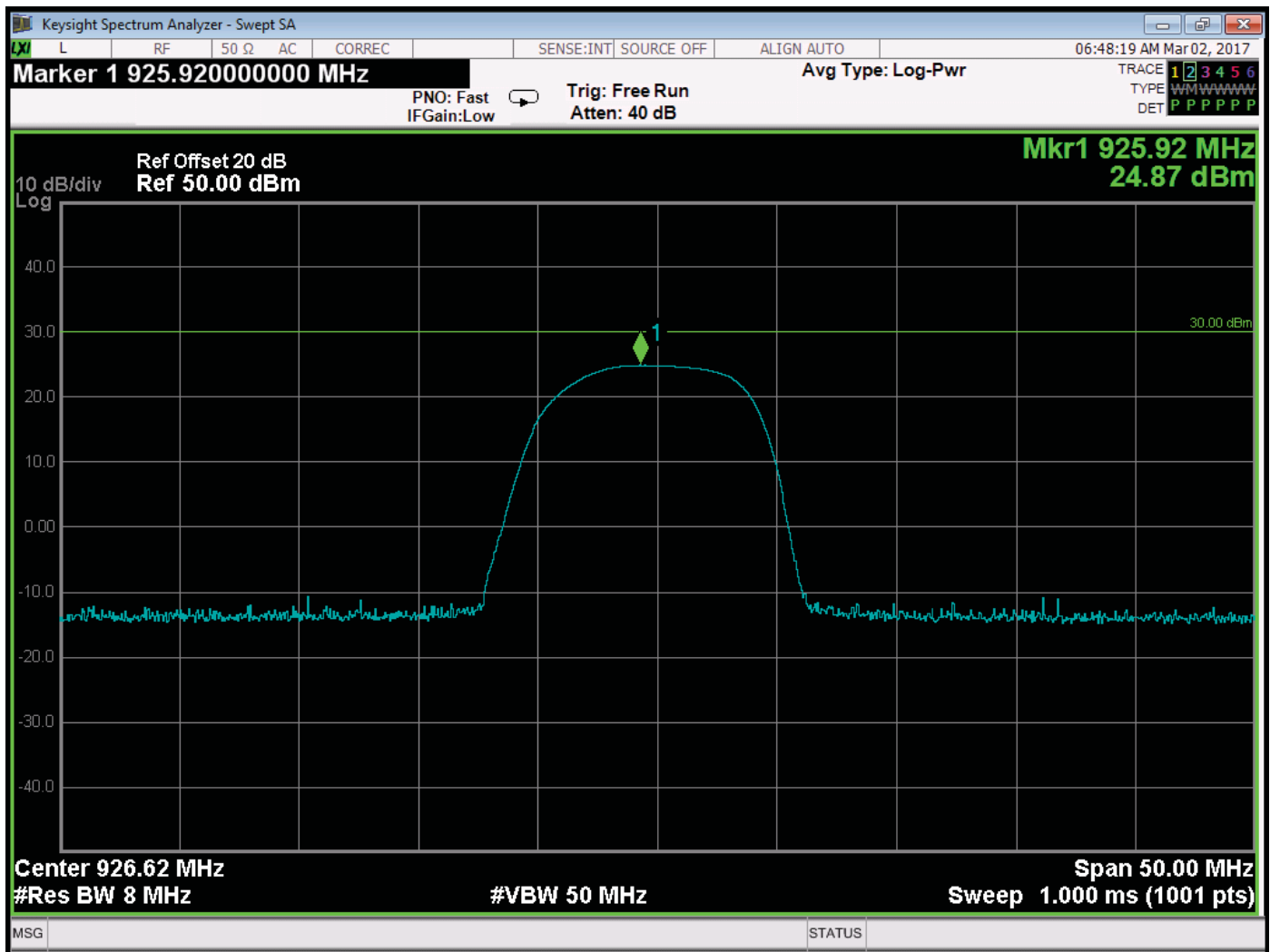
***PEAK POWER OUTPUT  
DATA SHEETS***



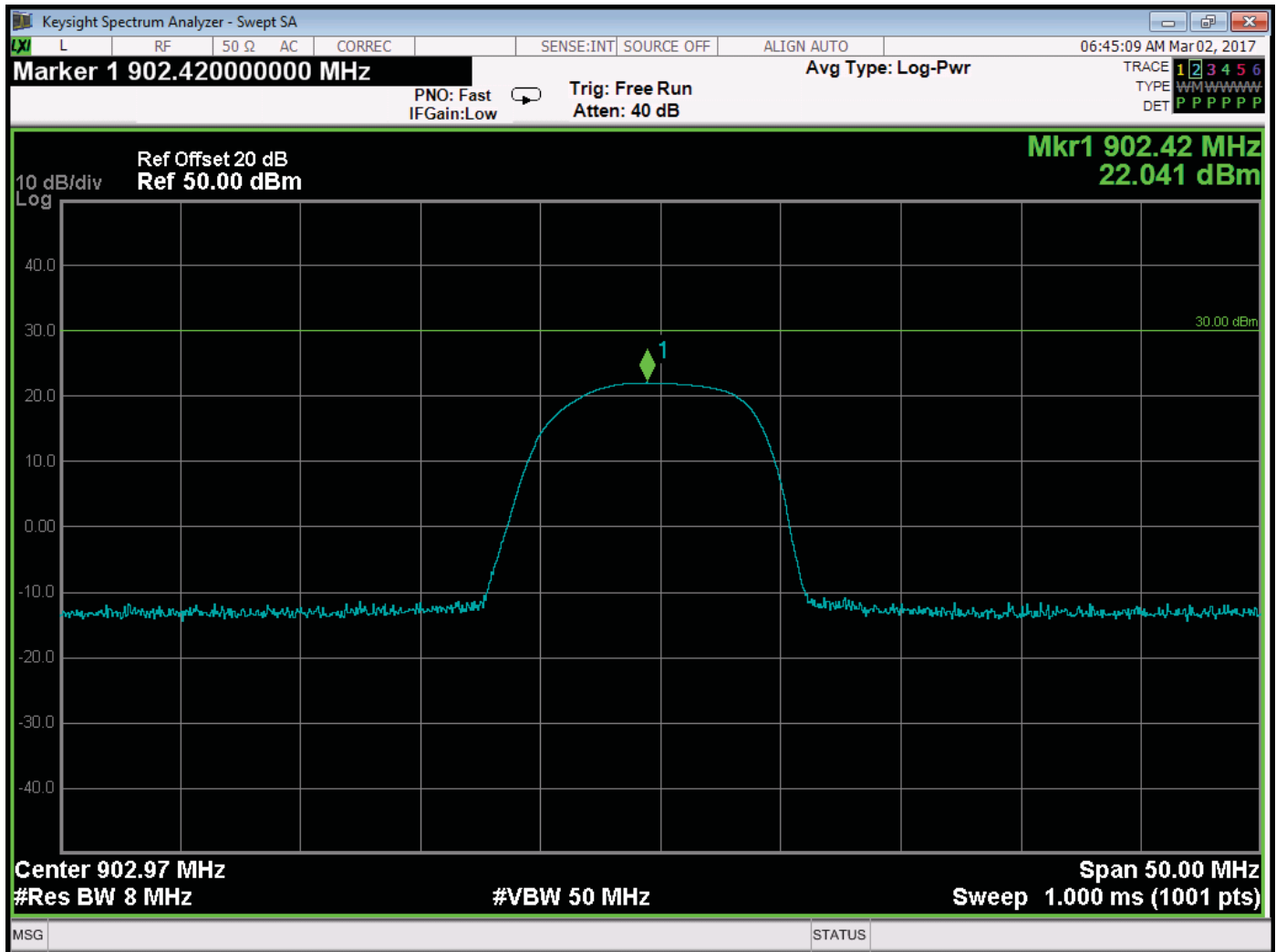
Peak Power Output – Low Channel – HUM-A-900-PRO-UFL – Low Data Rate



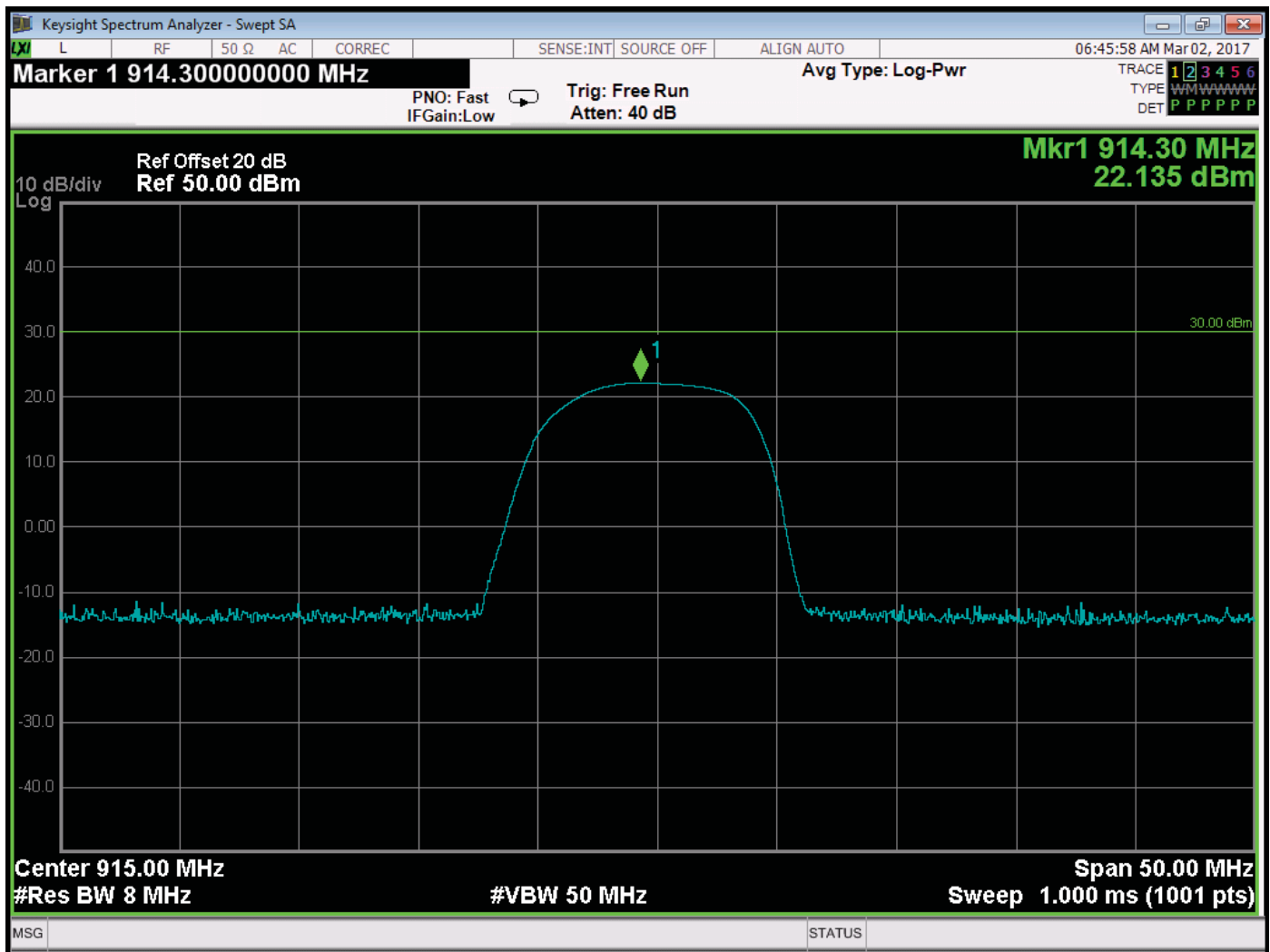
Peak Power Output – Middle Channel – HUM-A-900-PRO-UFL – Low Data Rate



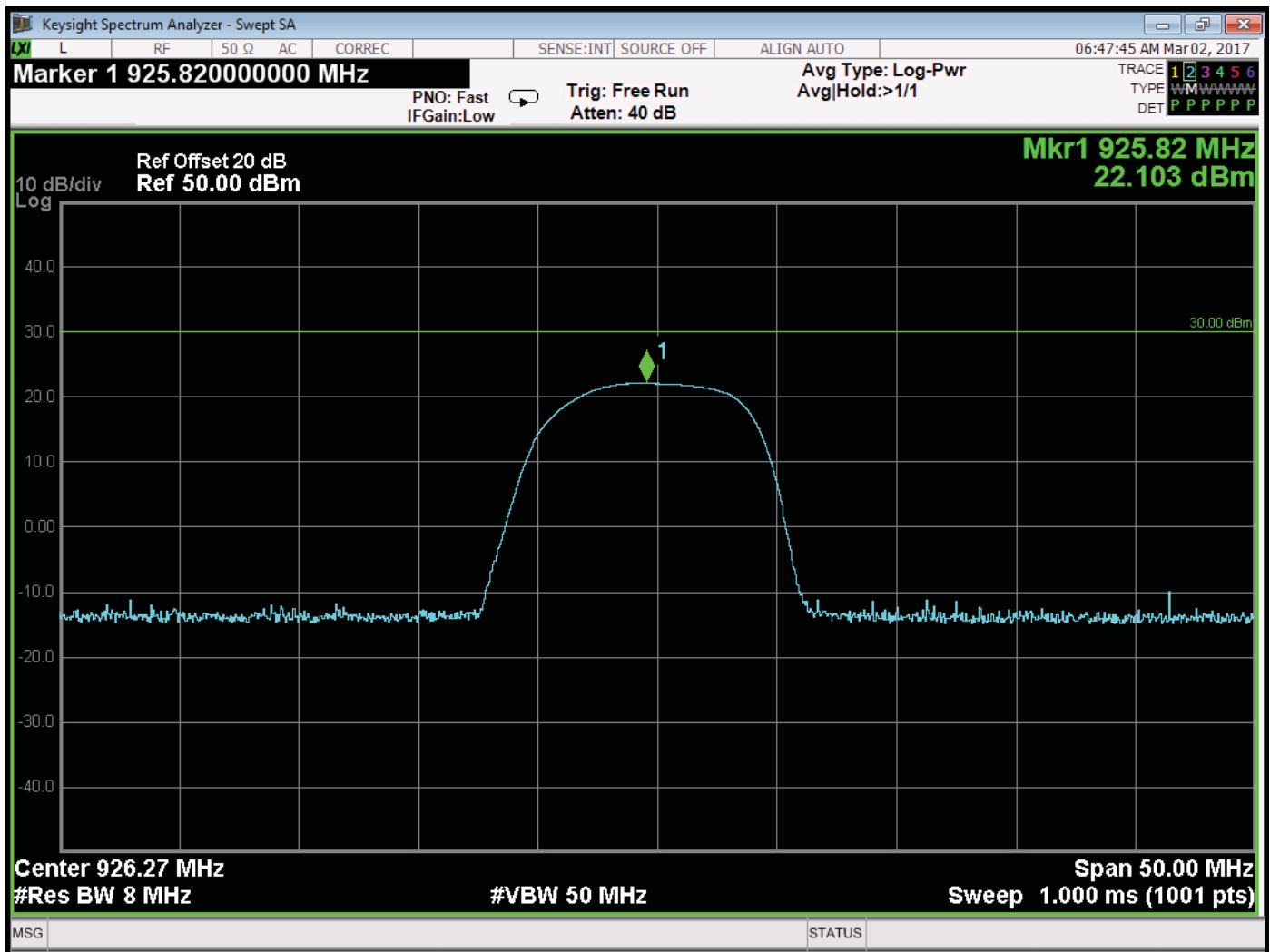
Peak Power Output – High Channel – HUM-A-900-PRO-UFL – Low Data Rate



Peak Power Output – Low Channel – HUM-A-900-PRO-UFL – High Data Rate



Peak Power Output – Middle Channel – HUM-A-900-PRO-UFL – High Data Rate



Peak Power Output – High Channel – HUM-A-900-PRO-UFL – High Data Rate

**FCC 15.247**

Linx Technologies  
HumPro-A Series High Power Data Transceiver  
Model: HUM-A-900-PRO-CAS

Date: 02/22/2017  
Lab: D  
Tested By: Kyle Fujimoto

**Low Data Rate - uSP Splatch Antenna  
Peak Output Power**

| Freq. (MHz) | Level (dBuV/m) | Level (V/m) | Antenna Gain (dBi) | Numeric Gain | Power Output (Watts) | Power Output (mW) | Power Output (dBm) | Comments      |
|-------------|----------------|-------------|--------------------|--------------|----------------------|-------------------|--------------------|---------------|
| 902.971     | 104.52         | 0.1682674   | 0.3                | 1.07152      | 0.0079272            | 7.92723           | 8.99               | Vert. X-Axis  |
| 914.620     | 105.12         | 0.1803018   | 0.3                | 1.07152      | 0.0091017            | 9.10167           | 9.59               | Vert. X-Axis  |
| 926.620     | 105.58         | 0.1901078   | 0.3                | 1.07152      | 0.0101186            | 10.1186           | 10.05              | Vert. X-Axis  |
| 902.971     | 101.58         | 0.1199499   | 0.3                | 1.07152      | 0.0040283            | 4.02829           | 6.05               | Vert. Y-Axis  |
| 914.620     | 97.59          | 0.0757705   | 0.3                | 1.07152      | 0.0016074            | 1.60739           | 2.06               | Vert. Y-Axis  |
| 926.620     | 95.56          | 0.0599791   | 0.3                | 1.07152      | 0.0010072            | 1.00721           | 0.03               | Vert. Y-Axis  |
| 902.971     | 111.26         | 0.3655948   | 0.3                | 1.07152      | 0.0374215            | 37.4215           | 15.73              | Vert. Z-Axis  |
| 914.620     | 112.5          | 0.4216965   | 0.3                | 1.07152      | 0.0497876            | 49.7876           | 16.97              | Vert. Z-Axis  |
| 926.620     | 113.31         | 0.4629137   | 0.3                | 1.07152      | 0.0599959            | 59.9959           | 17.78              | Vert. Z-Axis  |
| 902.971     | 120.48         | 1.0568175   | 0.3                | 1.07152      | 0.3126952            | 312.695           | 24.95              | Horiz. X-Axis |
| 914.620     | 120.12         | 1.0139114   | 0.3                | 1.07152      | 0.2878202            | 287.82            | 24.59              | Horiz. X-Axis |
| 926.620     | 120.01         | 1.001152    | 0.3                | 1.07152      | 0.2806217            | 280.622           | 24.48              | Horiz. X-Axis |
| 902.971     | 102.58         | 0.134586    | 0.3                | 1.07152      | 0.0050713            | 5.07132           | 7.05               | Horiz. Y-Axis |
| 914.620     | 103.64         | 0.1520548   | 0.3                | 1.07152      | 0.0064732            | 6.47323           | 8.11               | Horiz. Y-Axis |
| 926.620     | 104.58         | 0.1694338   | 0.3                | 1.07152      | 0.0080375            | 8.0375            | 9.05               | Horiz. Y-Axis |
| 902.971     | 118.25         | 0.817523    | 0.3                | 1.07152      | 0.1871205            | 187.12            | 22.72              | Horiz. Z-Axis |
| 914.620     | 117.26         | 0.7294575   | 0.3                | 1.07152      | 0.1489777            | 148.978           | 21.73              | Horiz. Z-Axis |
| 926.620     | 118.15         | 0.8081649   | 0.3                | 1.07152      | 0.1828611            | 182.861           | 22.62              | Horiz. Z-Axis |

The Power in Watts is obtained by the following Formula Below:

$$P = [(E \cdot D)^2] / (30 \cdot G)$$

P = Power in Watts

E = The Measured Maximum Field Strength in V/m

G = The Numeric Gain of the Transmitting Antenna over an Isotropic Radiator

**FCC 15.247**

Linx Technologies  
HumPro-A Series High Power Data Transceiver  
Model: HUM-A-900-PRO-CAS

Date: 02/23/2017

Lab: D

Tested By: Kyle Fujimoto

**High Data Rate - uSP Splat Antenna**  
**Harmonic Emissions - Power Level 7**  
**Peak Output Power**

| Freq. (MHz) | Level (dBuV) | Level (V/m) | Antenna Gain (dBi) | Numeric Gain | Power Output (Watts) | Power Output (mW) | Power Output (dBm) | Comments      |
|-------------|--------------|-------------|--------------------|--------------|----------------------|-------------------|--------------------|---------------|
| 902.97      | 101.71       | 0.1217587   | 0.3                | 1.07152      | 0.0041507            | 4.1507            | 6.18               | Vert. X-Axis  |
| 915.00      | 102.54       | 0.1339677   | 0.3                | 1.07152      | 0.0050248            | 5.02483           | 7.01               | Vert. X-Axis  |
| 926.28      | 101.59       | 0.1200881   | 0.3                | 1.07152      | 0.0040376            | 4.03758           | 6.06               | Vert. X-Axis  |
| 902.97      | 104.18       | 0.161808    | 0.3                | 1.07152      | 0.0073303            | 7.33029           | 8.65               | Vert. Y-Axis  |
| 915.00      | 114.21       | 0.5134522   | 0.3                | 1.07152      | 0.073811             | 73.811            | 18.68              | Vert. Y-Axis  |
| 926.28      | 111.59       | 0.3797519   | 0.3                | 1.07152      | 0.0403758            | 40.3758           | 16.06              | Vert. Y-Axis  |
| 902.97      | 106.58       | 0.2133045   | 0.3                | 1.07152      | 0.0127386            | 12.7386           | 11.05              | Vert. Z-Axis  |
| 915.00      | 110.30       | 0.3273407   | 0.3                | 1.07152      | 0.03                 | 30                | 14.77              | Vert. Z-Axis  |
| 926.28      | 111.59       | 0.3797519   | 0.3                | 1.07152      | 0.0403758            | 40.3758           | 16.06              | Vert. Z-Axis  |
| 902.97      | 118.95       | 0.8861352   | 0.3                | 1.07152      | 0.2198474            | 219.847           | 23.42              | Horiz. X-Axis |
| 915.00      | 116.23       | 0.6478881   | 0.3                | 1.07152      | 0.1175226            | 117.523           | 20.70              | Horiz. X-Axis |
| 926.28      | 113.75       | 0.4869675   | 0.3                | 1.07152      | 0.0663928            | 66.3928           | 18.22              | Horiz. X-Axis |
| 902.97      | 109.57       | 0.3009539   | 0.3                | 1.07152      | 0.0253584            | 25.3584           | 14.04              | Horiz. Y-Axis |
| 915.00      | 113.68       | 0.4830588   | 0.3                | 1.07152      | 0.0653313            | 65.3313           | 18.15              | Horiz. Y-Axis |
| 926.28      | 112.59       | 0.4260887   | 0.3                | 1.07152      | 0.0508301            | 50.8301           | 17.06              | Horiz. Y-Axis |
| 902.97      | 116.94       | 0.7030723   | 0.3                | 1.07152      | 0.1383953            | 138.395           | 21.41              | Horiz. Z-Axis |
| 915.00      | 115.00       | 0.5623413   | 0.3                | 1.07152      | 0.0885363            | 88.5363           | 19.47              | Horiz. Z-Axis |
| 926.28      | 115.58       | 0.6011737   | 0.3                | 1.07152      | 0.1011862            | 101.186           | 20.05              | Horiz. Z-Axis |

The Power in Watts is obtained by the following Formula Below:

$$P = [(E \cdot D)^2] / (30 \cdot G)$$

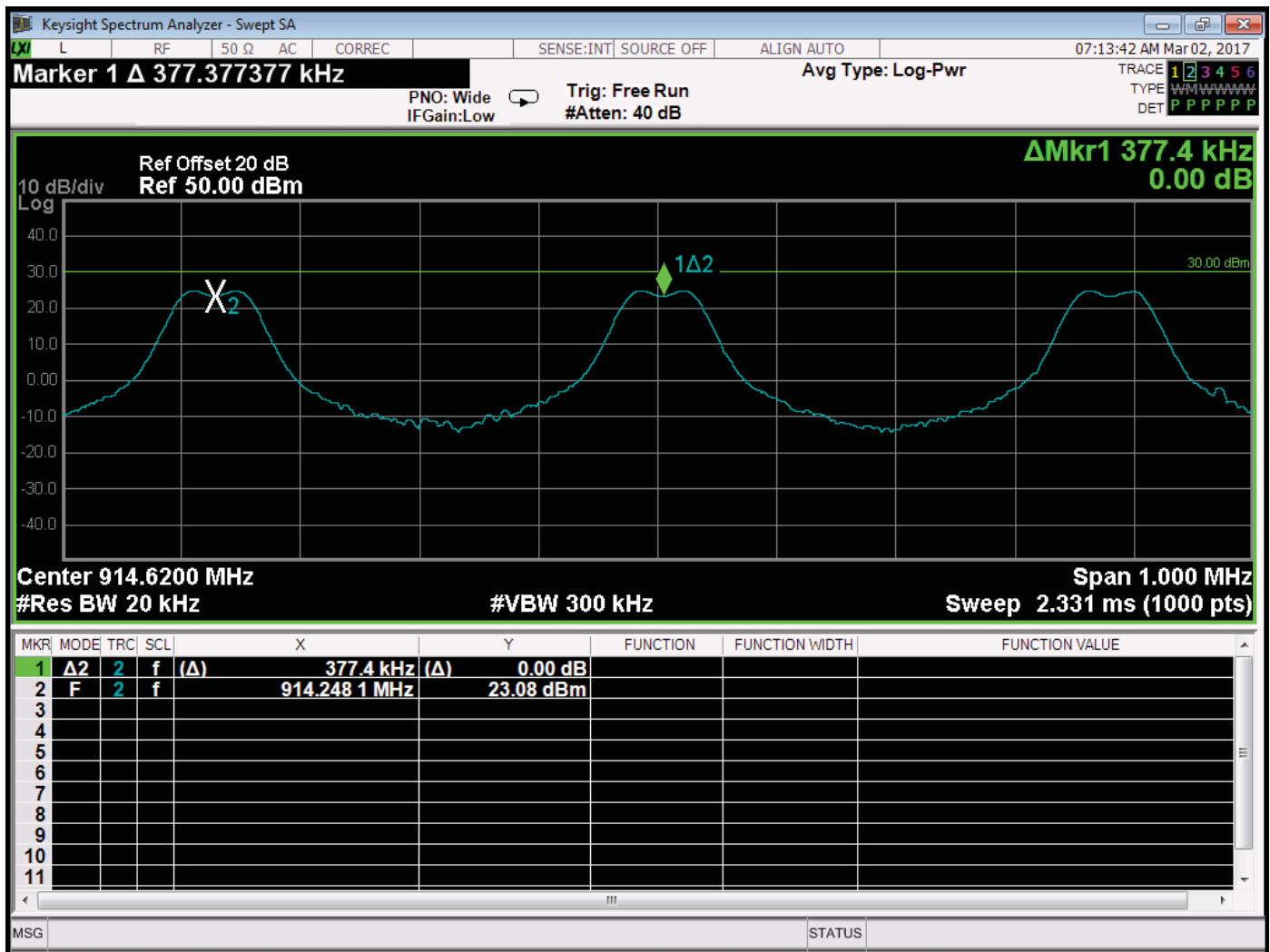
P = Power in Watts

E = The Measured Maximum Field Strength in V/m

G = The Numeric Gain of the Transmitting Antenna over an Isotropic Radiator



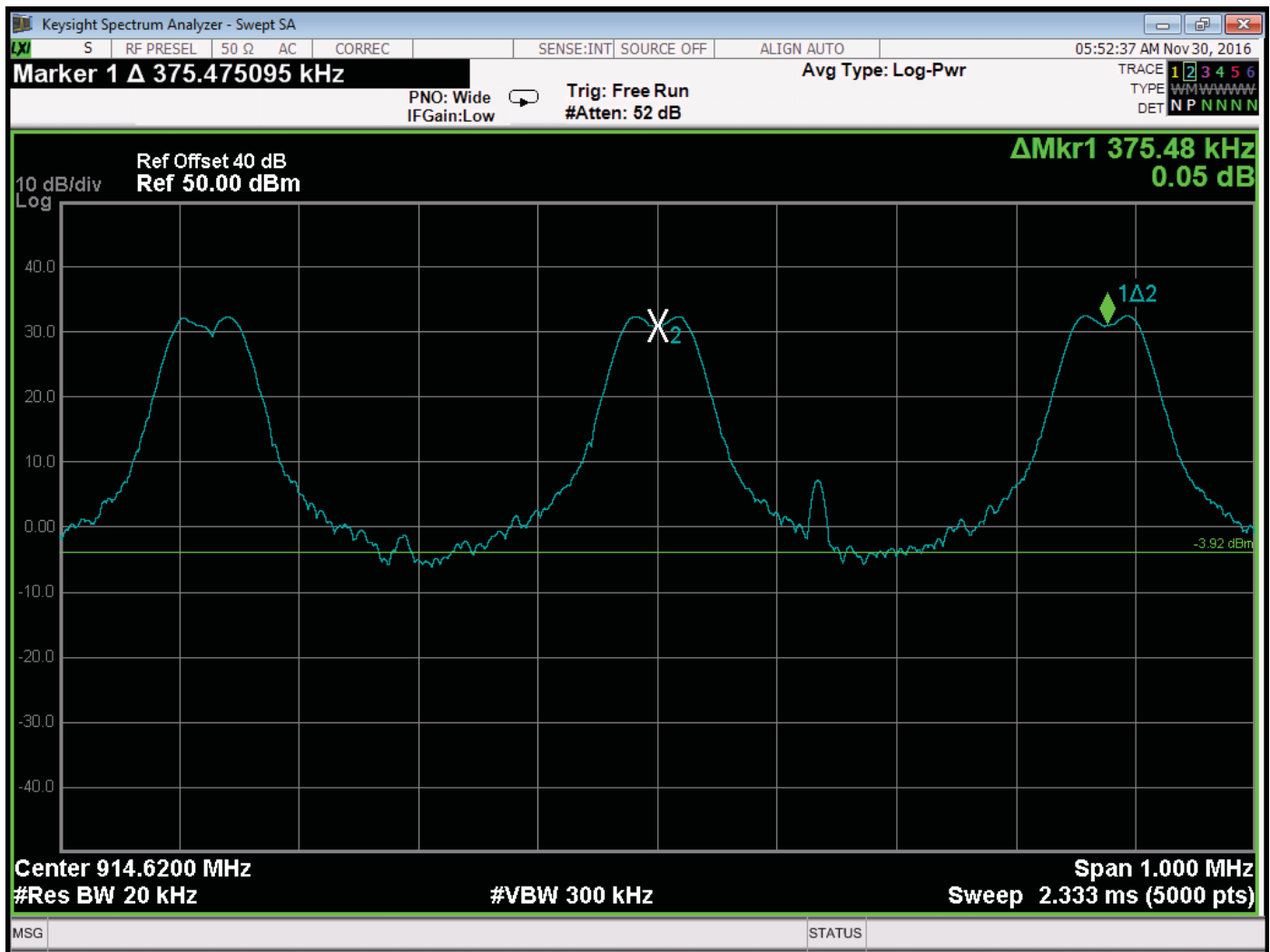
***CHANNEL FREQUENCY SEPARATION  
DATA SHEET***



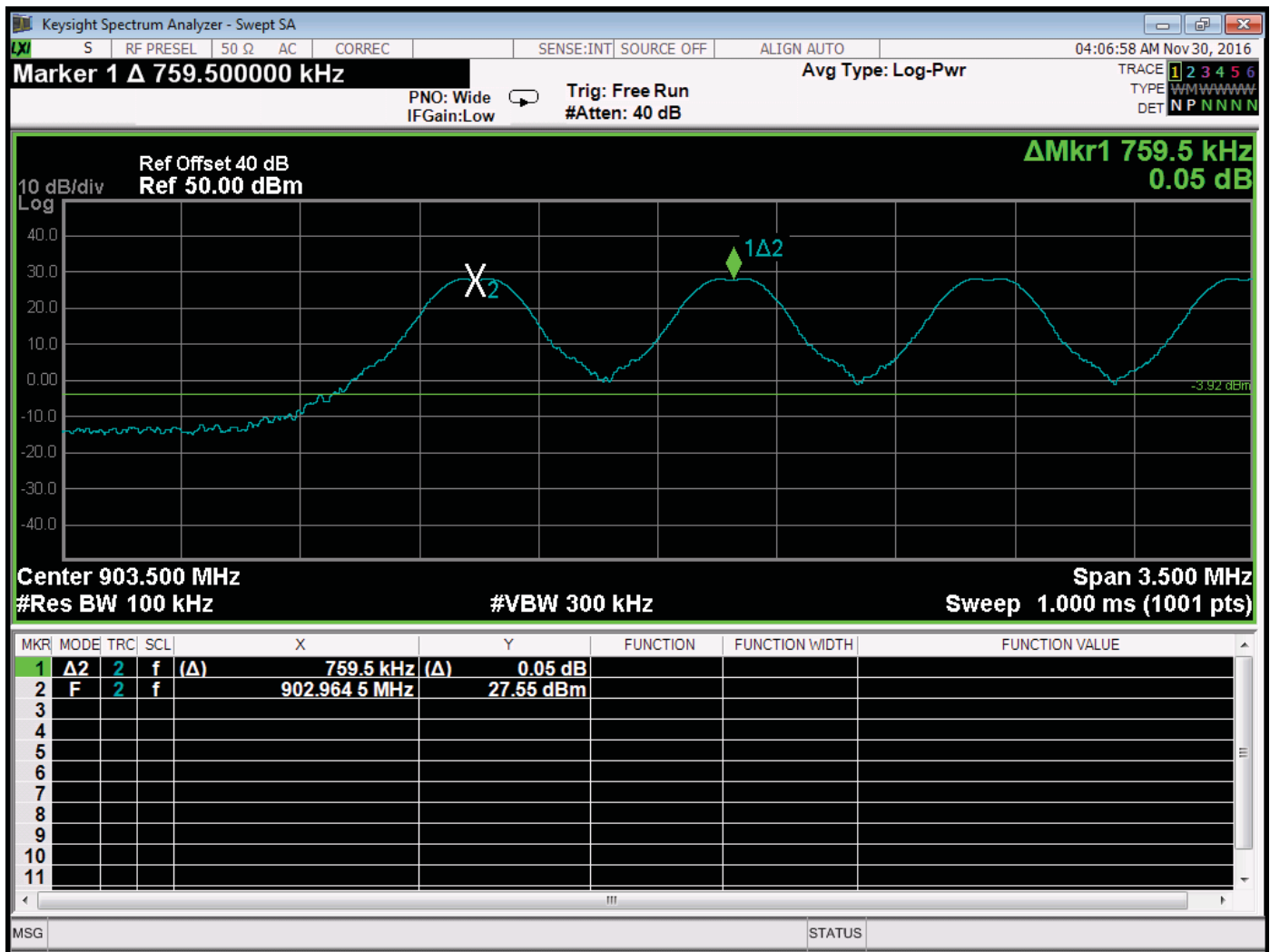
Channel Frequency Separation – HUM-A-900-PRO-UFL – Low Data Rate



Channel Frequency Separation – HUM-A-900-PRO-UFL – High Data Rate



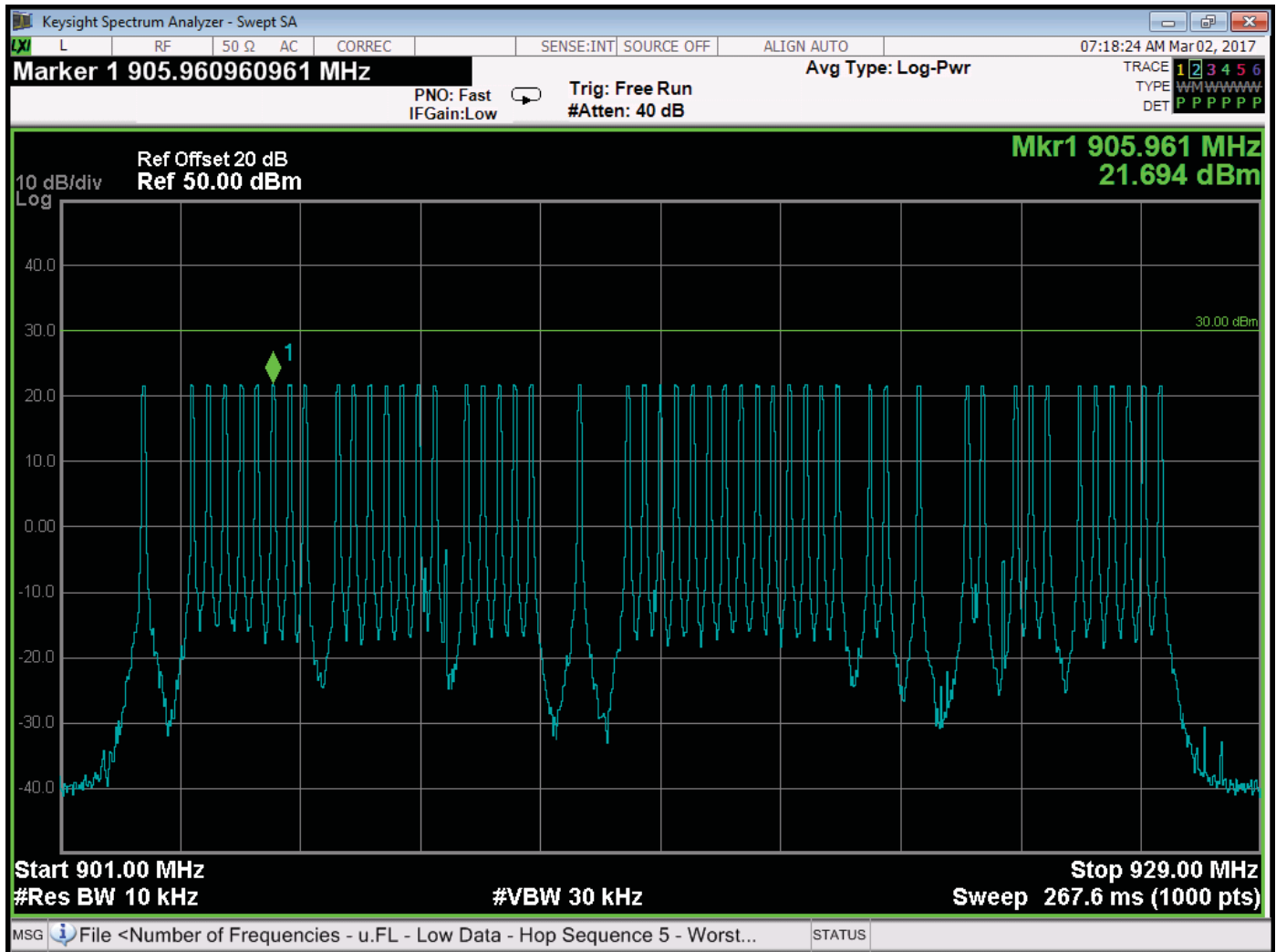
Channel Frequency Separation – HUM-A-900-PRO-CAS – Low Data Rate



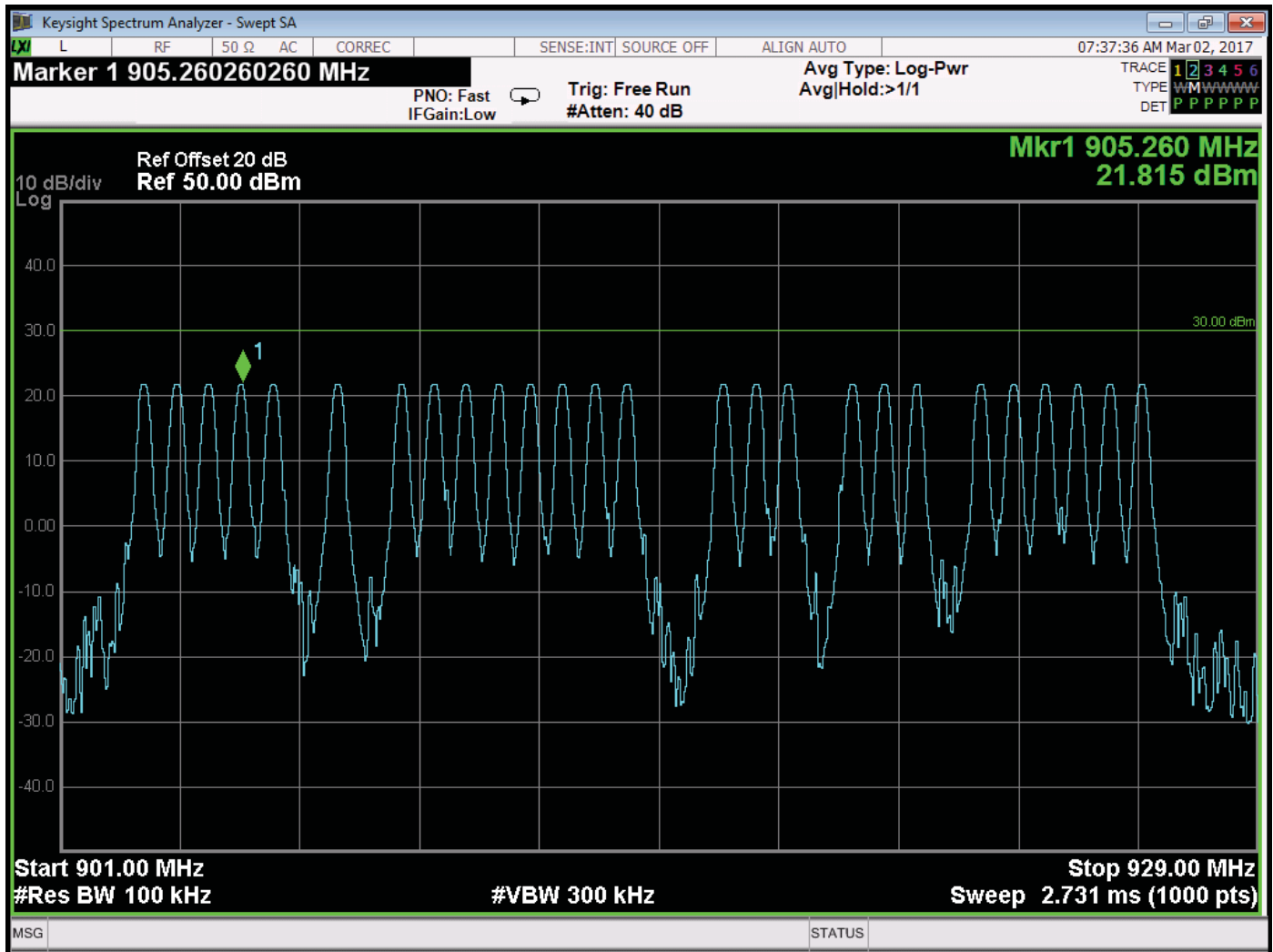
Channel Frequency Separation – HUM-A-900-PRO-CAS – High Data Rate



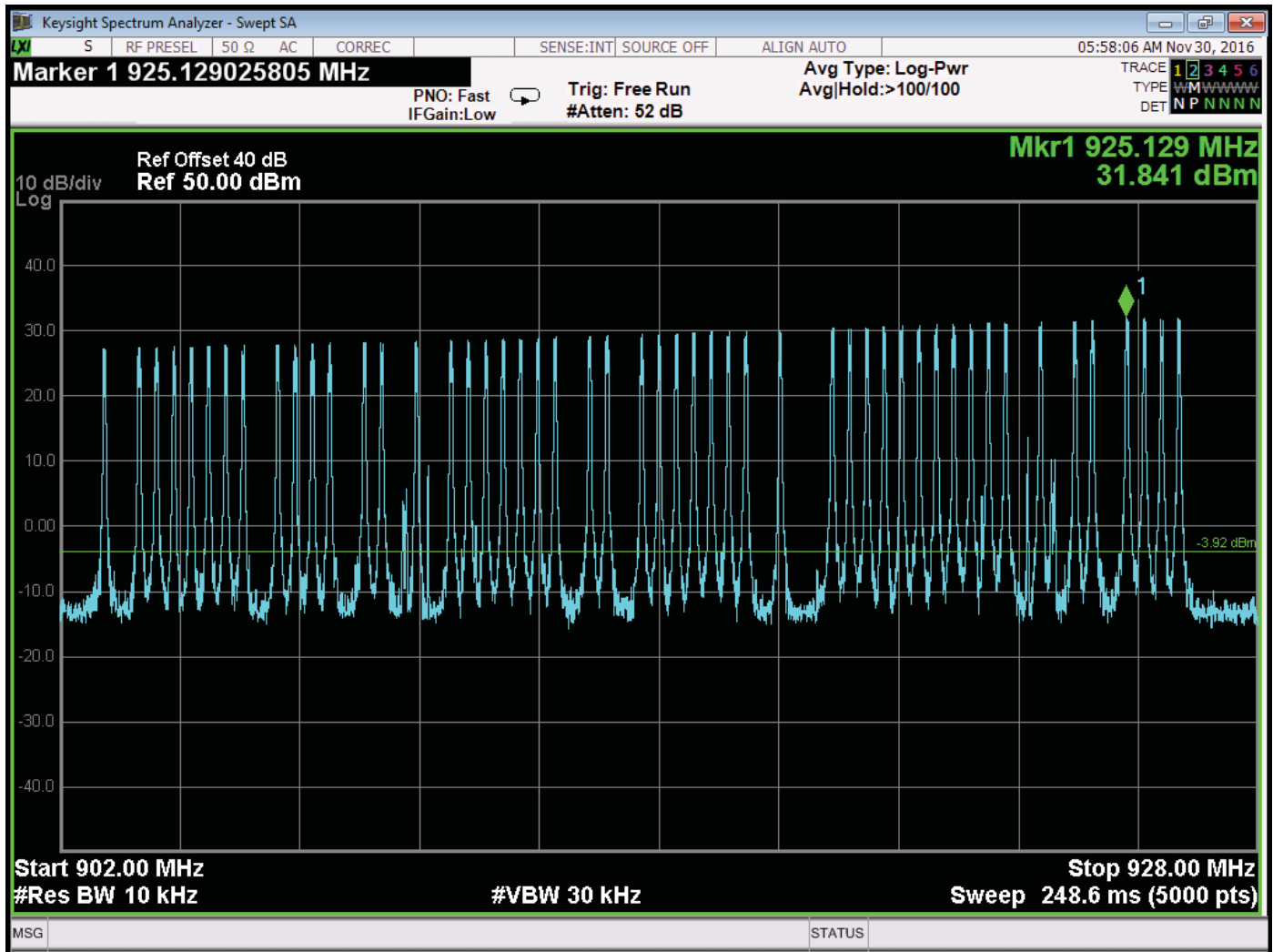
***NUMBER OF FREQUENCIES  
DATA SHEET***



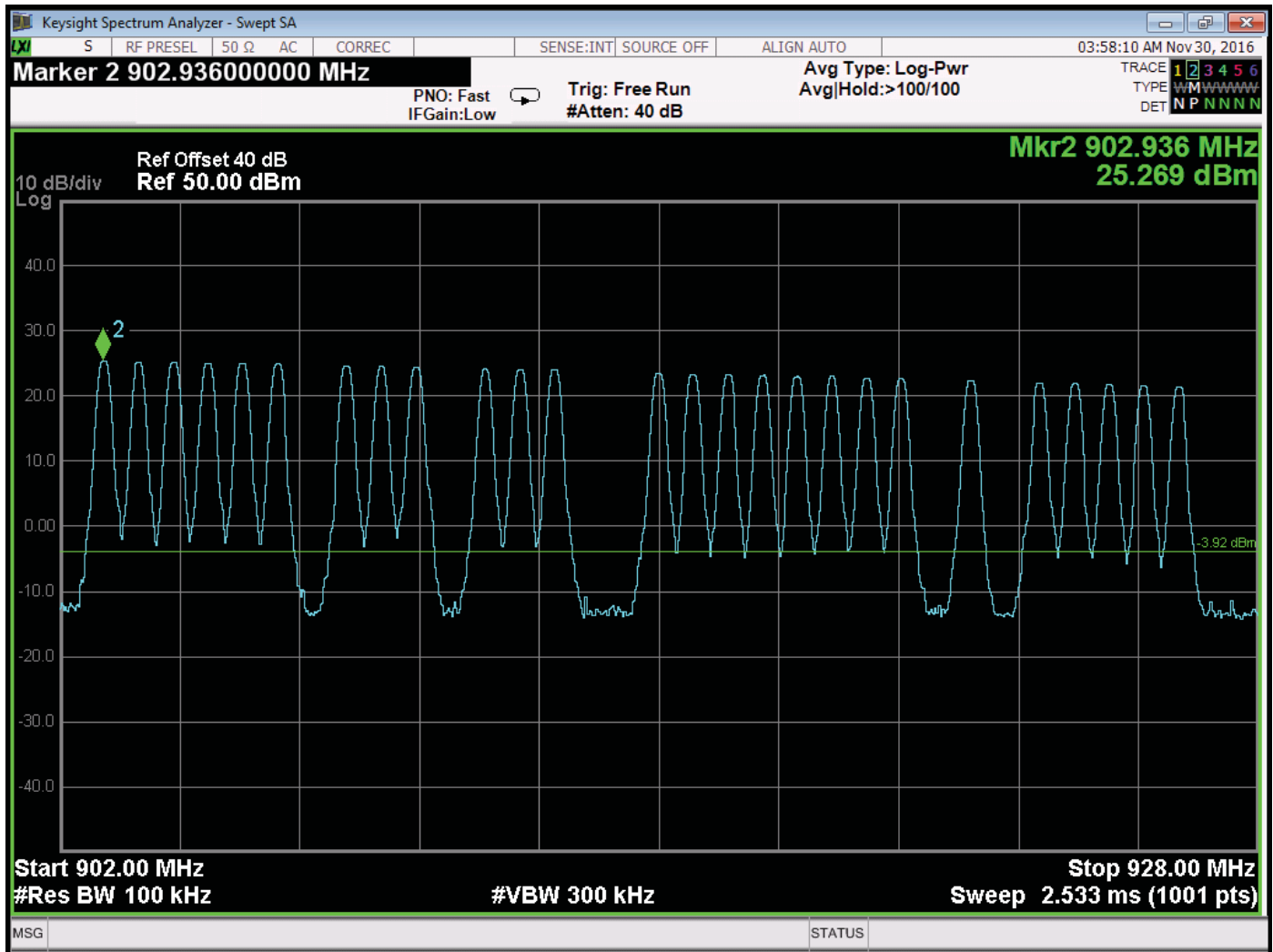
Number of Frequencies – HUM-A-900-PRO-UFL – Low Data Rate



Number of Frequencies – HUM-A-900-PRO-UFL – High Data Rate



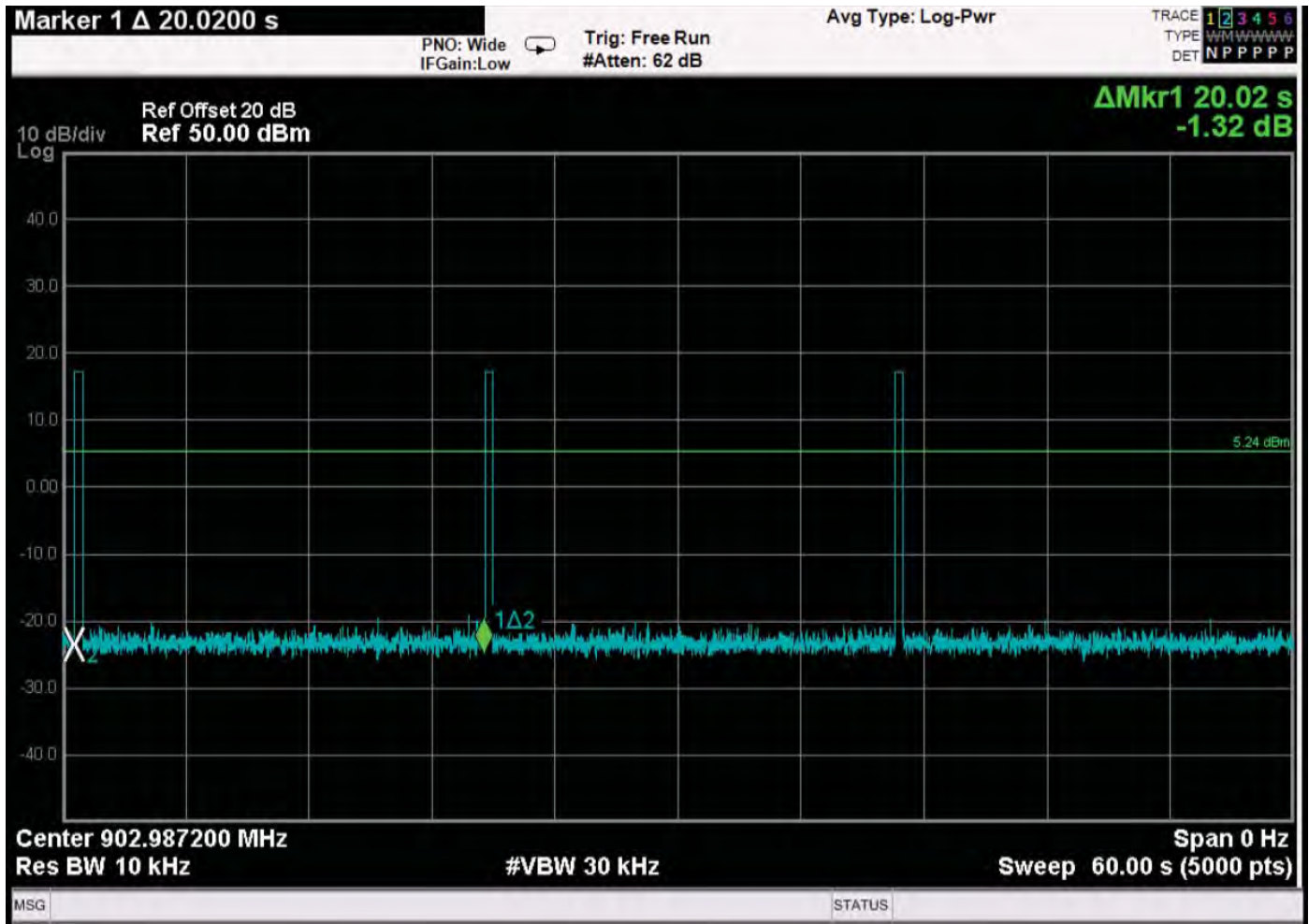
Number of Frequencies – HUM-A-900-PRO-CAS – Low Data Rate



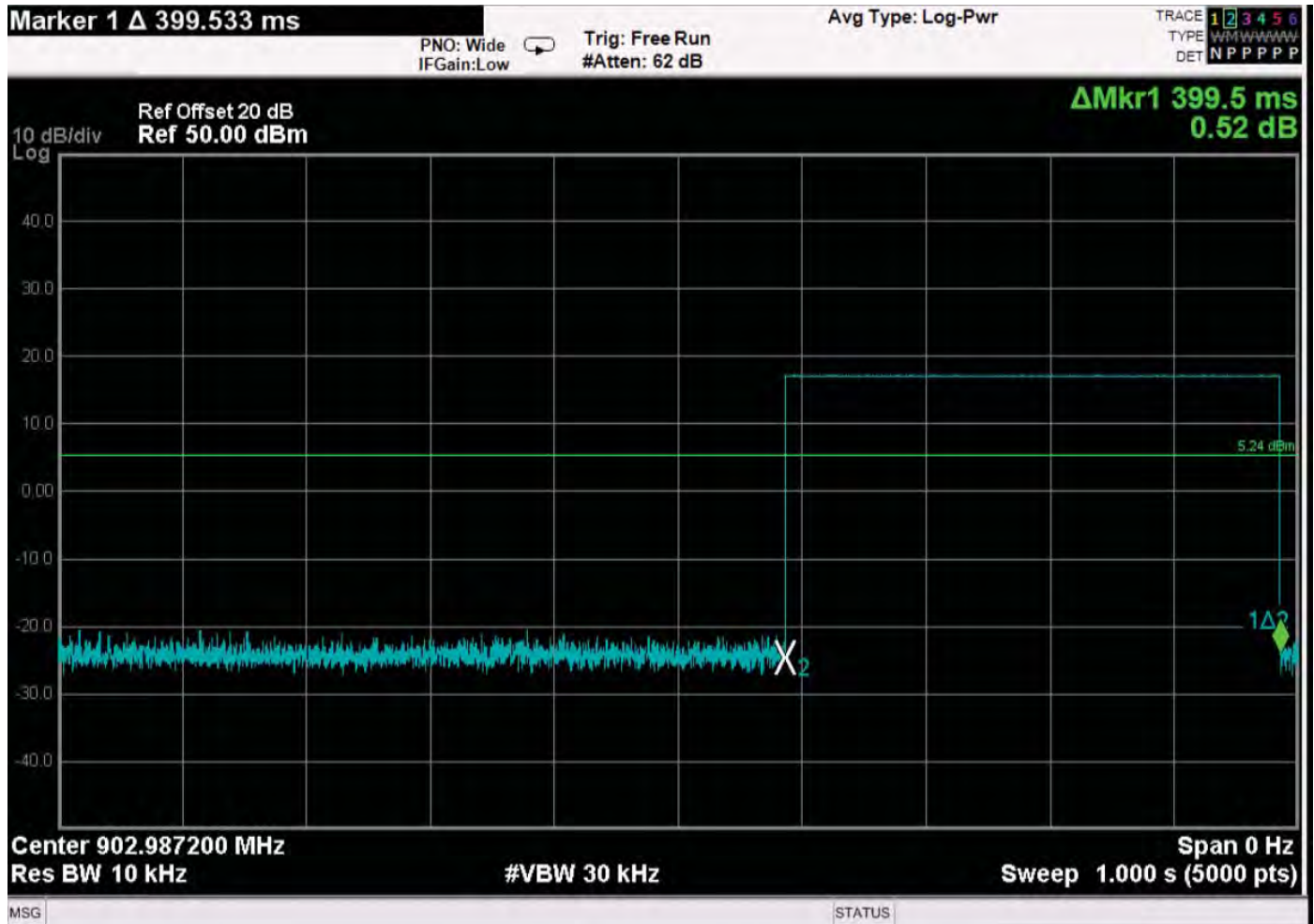
Number of Frequencies – HUM-A-900-PRO-CAS – High Data Rate



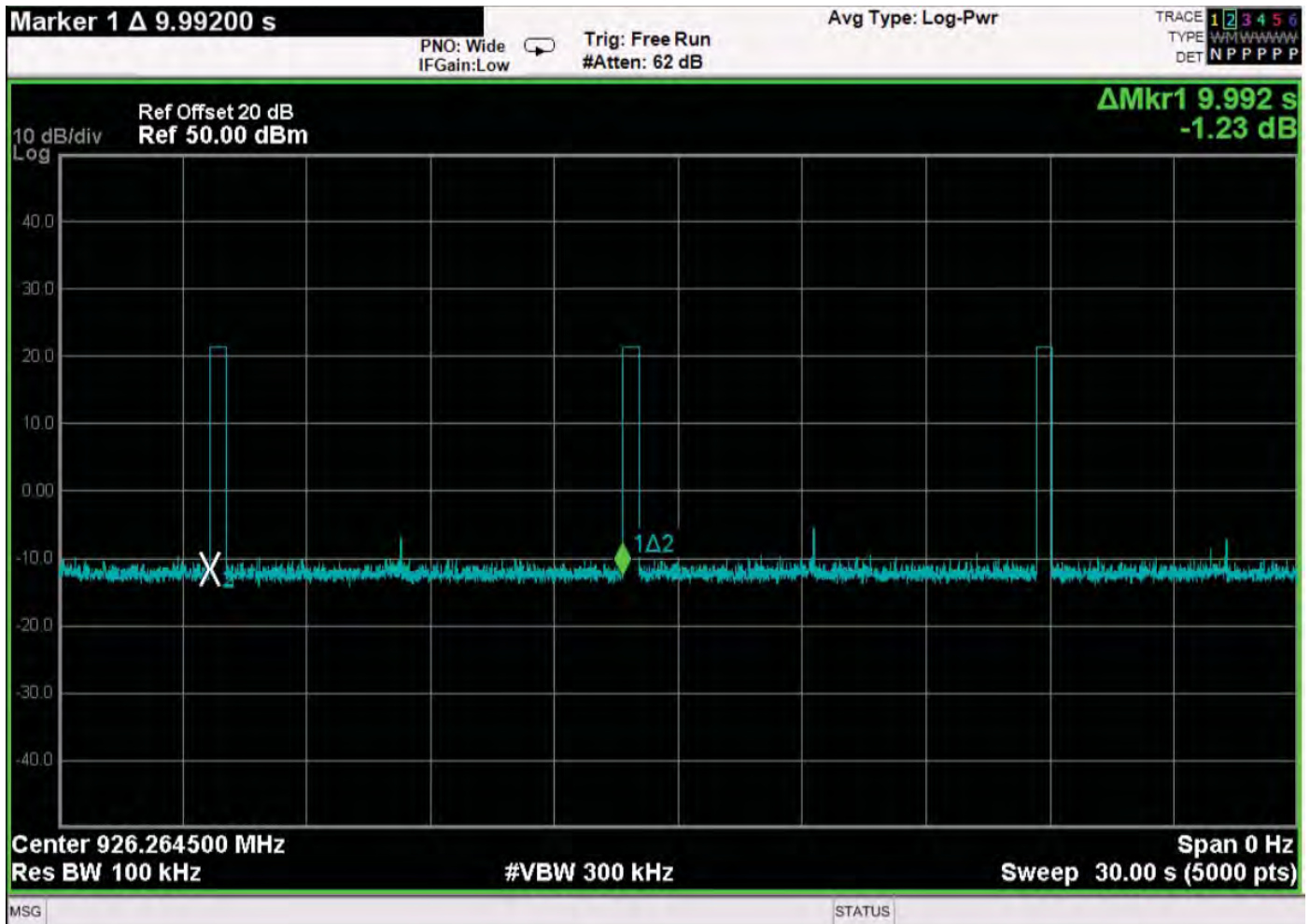
***TIME OF OCCUPANCY  
DATA SHEET***



Time Between Pulses – 20.02 Seconds – HUM-A-900-PRO-CAS – Low Data Rate

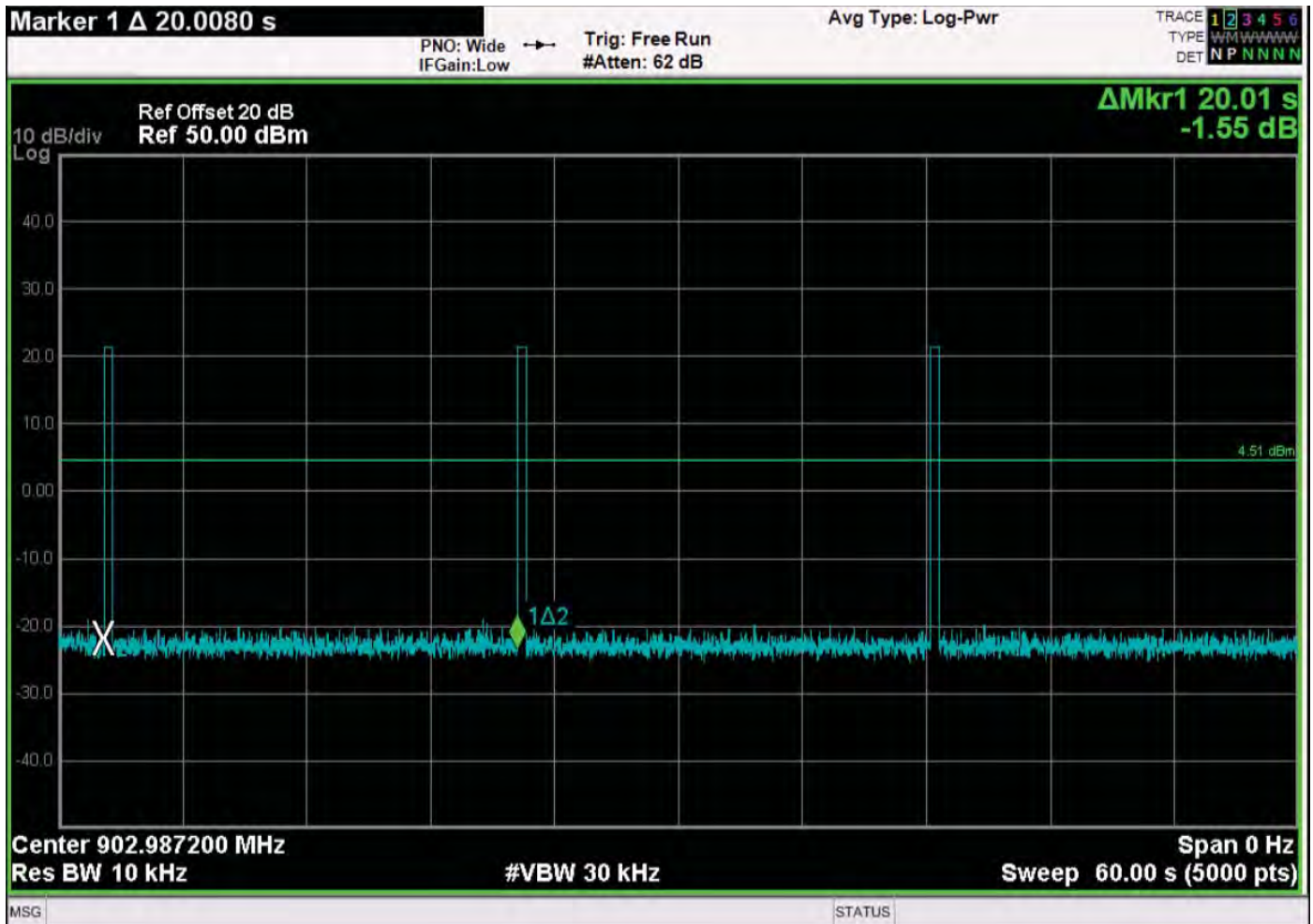


Time of Pulse = 399.5 ms  
Total Dwell Time = 399.5 ms  
Limit = 400 ms in a 20 second period  
HUM-A-900-PRO-CAS – Low Data Rate

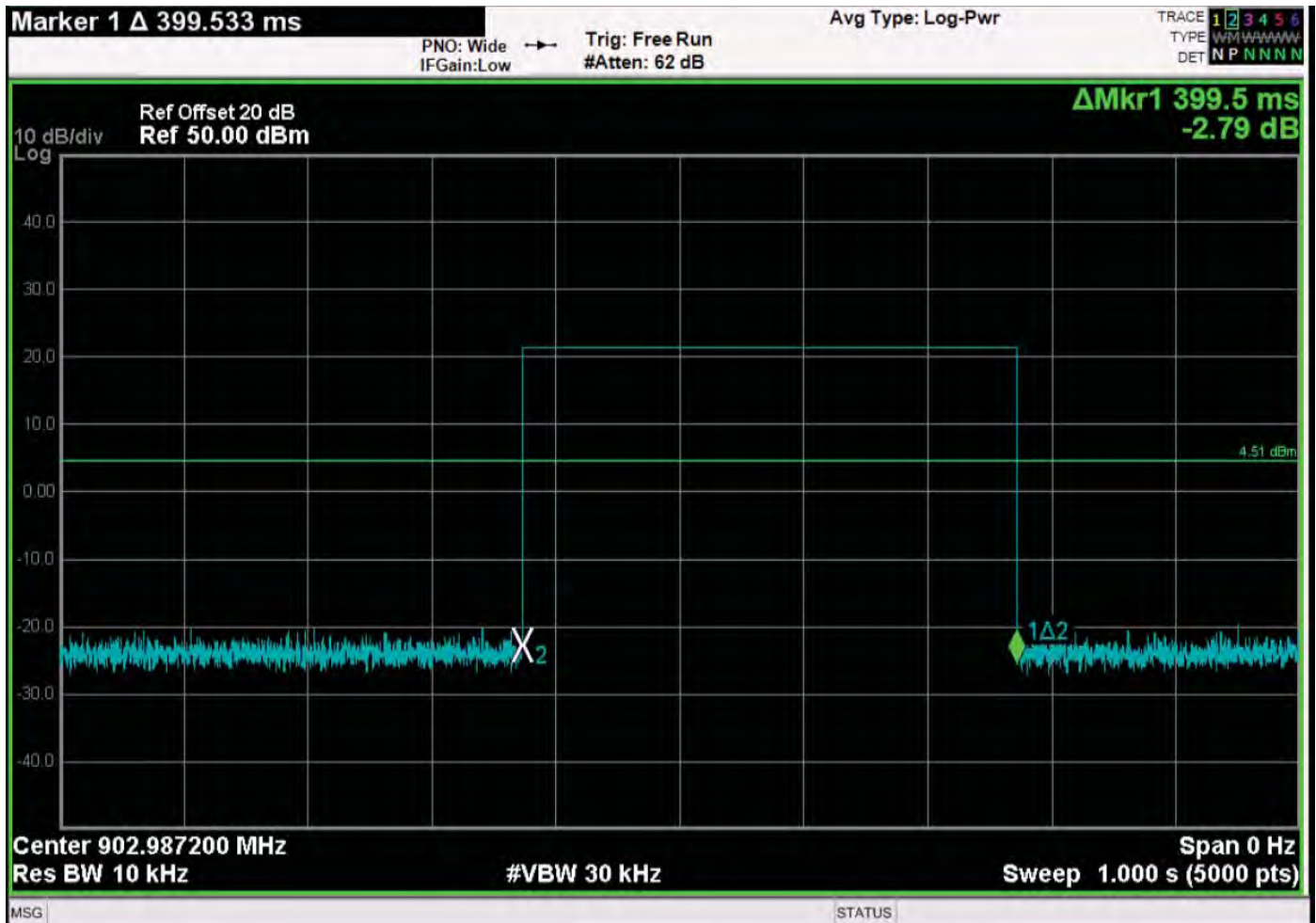


Time Between Pulses – 9.992 Seconds – HUM-A-900-PRO-CAS – High Data Rate

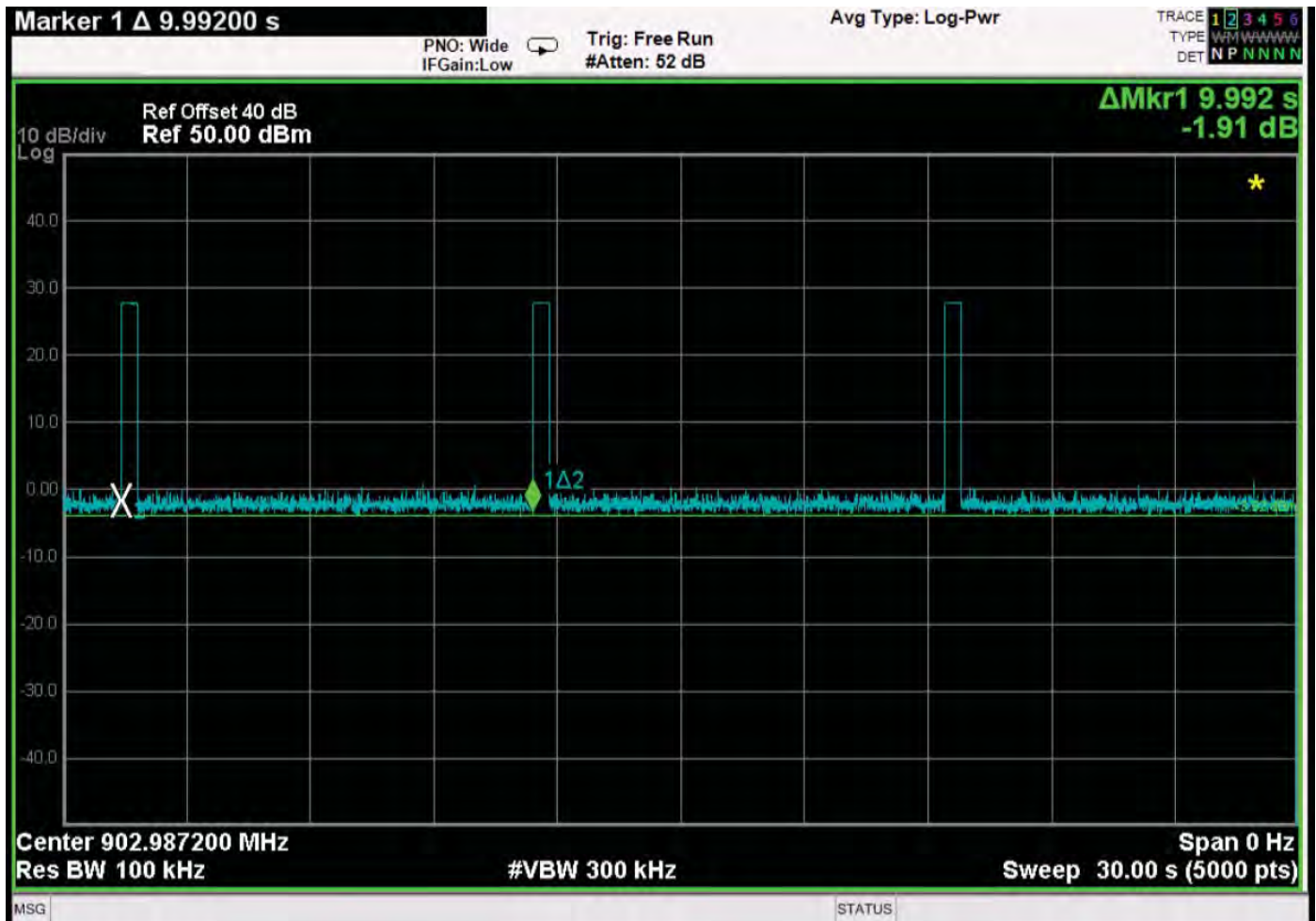




Time Between Pulses – 20.01 Seconds – HUM-A-900-PRO-UFL – Low Data Rate



Time of Pulse = 399.5 ms  
Total Dwell Time = 399.5 ms  
Limit = 400 ms in a 20 second period  
HUM-A-900-PRO-UFL – Low Data Rate



Time Between Pulses – 9.992 Seconds – HUM-A-900-PRO-UFL – High Data Rate



Time of Pulse = 383.7 ms

8 ms of the pulses repeats within the 10 seconds since the time between pulses is 9.992 seconds

Total Dwell Time = 383.7 ms + 8 ms = 391.7 ms

Limit = 400 ms in a 10 second period

HUM-A-900-PRO-UFL – High Data Rate