



**HEMPFIELD SCHOOL DISTRICT
LANDISVILLE MIDDLE SCHOOL**

**340 MUMMA DRIVE
LANDISVILLE, PA**

RF Emissions Testing Results

Engineer: Stephanie Koles
Meter: Narda NBM-550
Calibration Due: April 15, 2023
Probe: EA5091 Electric Field Probe
Calibration Due: April 16, 2023
Test Date: March 18, 2022

Introduction

V-COMM, L.L.C. has been commissioned by the Hempfield School District, to provide RF exposure measurement and reporting. This report provides the EME field study for Landisville Middle School.

EME Field Measurements

The following details the procedure used in collecting EME field measurements. The survey instrument used was setup for recording the field strength at various points around the Landisville Middle School at 340 Mumma Drive, Landisville, Pennsylvania.

The model NBM-550 electric field strength meter and model EA5091 field intensity probe, both manufactured by Narda Safety Test Solutions and L3 Technologies Company, were used to collect all the field measurements.¹ The meter has a dynamic range of 30dB and is capable of calculating percentage with respect to FCC maximum permissible exposure (MPE) limits. The probe used is a broadband (300 kHz to 50 GHz) electric field isotropic shaped probe calibrated for the occupational environment. For exposure to multiple frequencies (broadband), the fraction (or percentage) of the MPE produced by frequency is determined and the addition of these fractions (or percentage) must not exceed unity (or 100 percent of FCC standard) to be in compliance with federal requirements.

The instrumentation and the measurement procedures used are based on the references published by the IEEE document (ANSI/IEEE C95.3-1992) and by the NCRP document (NCRP Report No. 199), all approved references by the FCC. Also, the equipment used conforms to FCC 1997 Regulation 300 kHz – 50 GHz, NCRP Report 86, Occupational Environments 300 kHz - 50GHz and ANSI C95.1 – 1982 300kHz – 50 GHz.

A walk survey was performed around the Landisville Middle School and its immediate vicinity to determine the areas of high field strength. Measurements were also performed inside and outside the school as well as the roof. At multiple emitter sites, the total detected field strength of each emitter (to its limit, at its frequency) is summed within the probe to display the result in “% of Std.”

The measurements for this site were performed utilizing spatial averaging technique, in compliance with FCC requirements. A spatially average measurement is an average value derived by making a series of measurements, either in a straight line or over two-dimensional area that is a representative of the human form. Spatially average RF field levels most accurately relate to estimating the whole body averaged specific absorption rate that will result from the exposure. All the major worldwide standards concerned with human exposure to radio frequency radiation have exposure limits based on field levels averaged over the whole body.

Results

The results of the analysis indicate that the maximum level of RF energy measured in and around Landisville Middle School to which the general public (“general population/uncontrolled”) may be exposed to, is below all federal health and safety limits. Specifically, field measurements show that the maximum level of RF energy at the Landisville Middle School is **7.45 %** of FCC Standard for the public environment, which complies with federal RF safety limits.

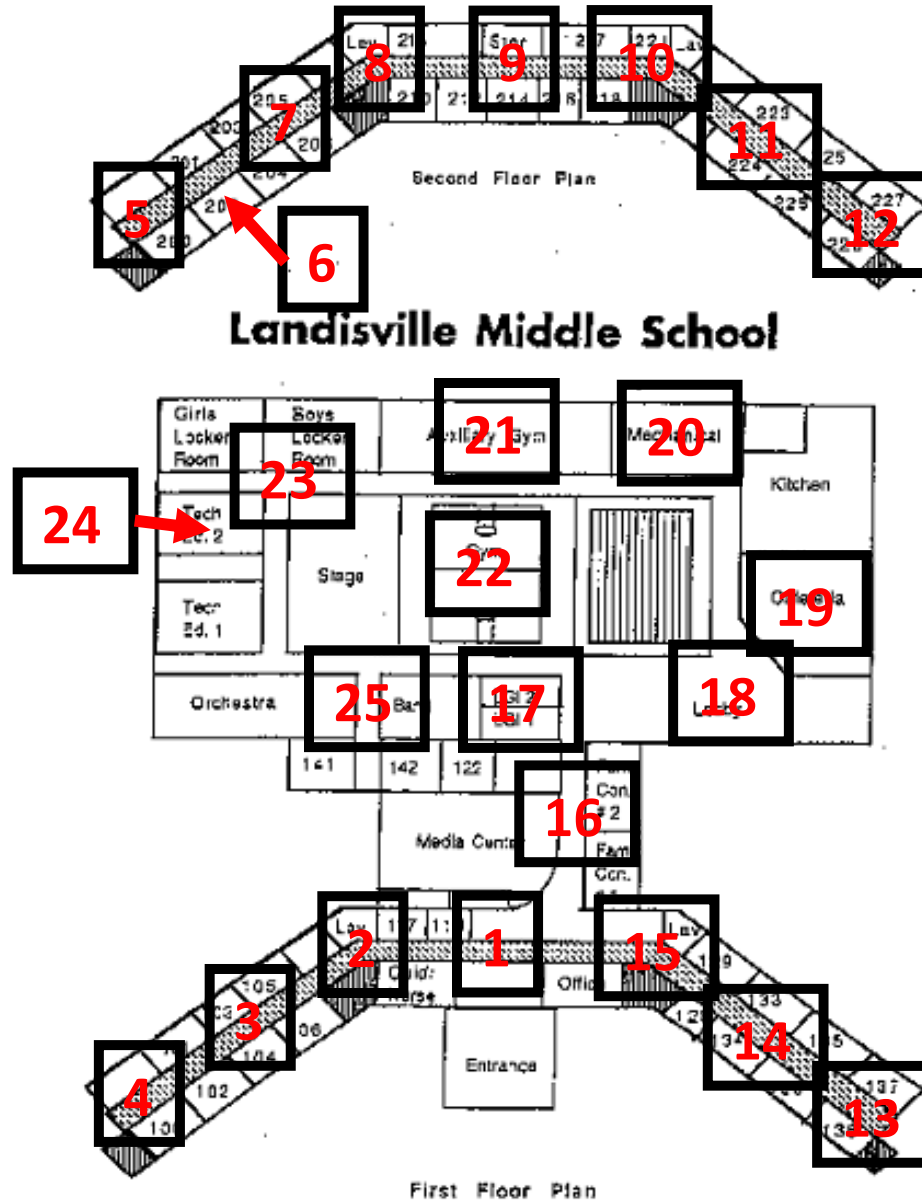
¹ Note: The EA5091 Electric Field Probe is calibrated to the FCC Occupational Standard. The conversion to the FCC General Public Standard is to multiply by Occupational measurement by 5.

Landisville Middle School Outdoor RF Emissions Testing Locations



Landisville Middle School Outdoor RF Emissions Testing Data

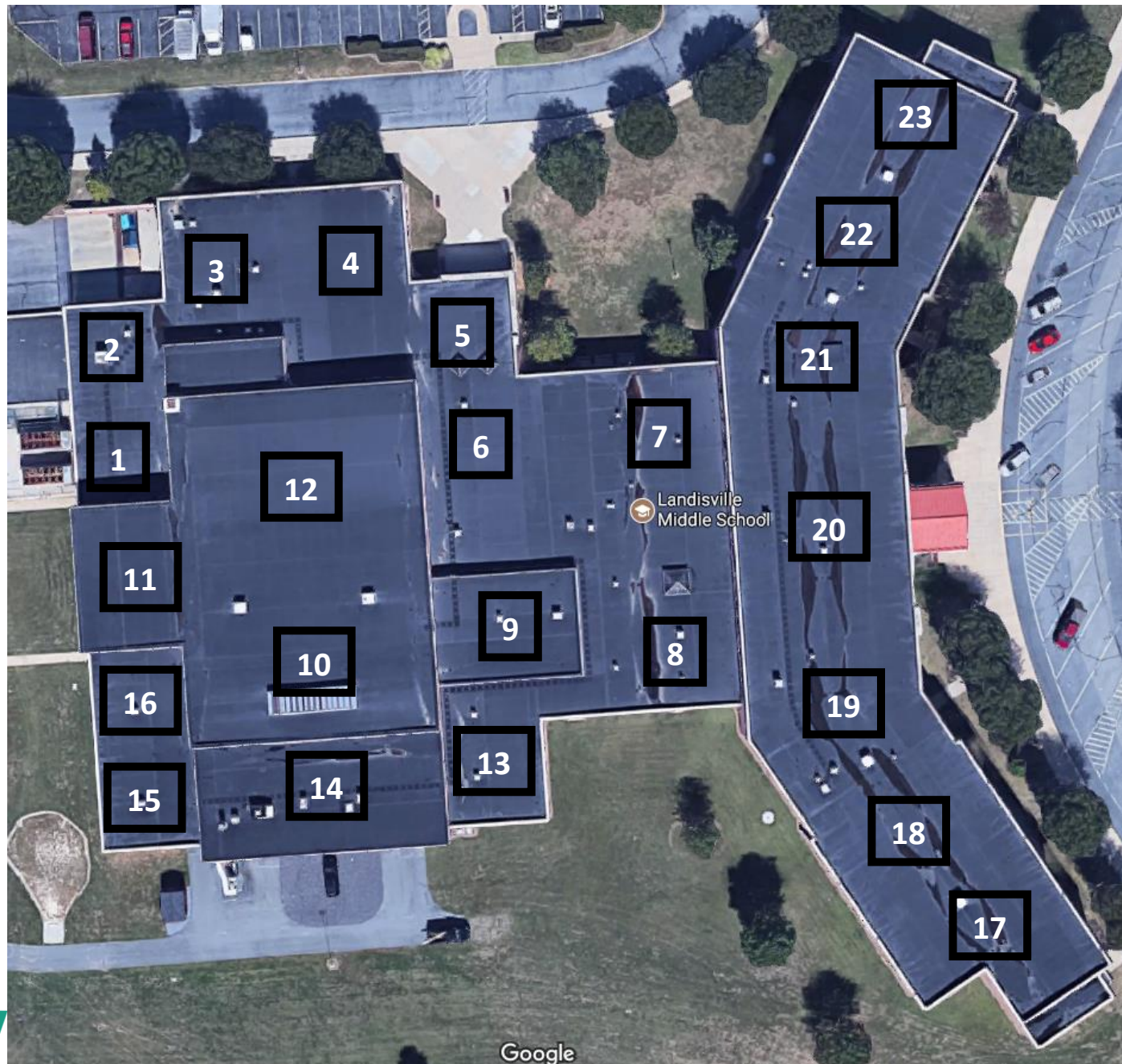
Index	Date	Timestamp	E-Field % Controlled Standard	E-Field % Uncontrolled Standard
1	03/18/22	12:53:18	0.2525	1.2625
2	03/18/22	12:52:16	0.2311	1.1555
3	03/18/22	12:51:09	0.1986	0.9930
4	03/18/22	12:50:05	0.5514	2.7570
5	03/18/22	12:49:07	0.3124	1.5620
6	03/18/22	12:47:51	0.2664	1.3320
7	03/18/22	12:46:33	0.1209	0.6045
8	03/18/22	12:45:21	0.2301	1.1505
9	03/18/22	12:44:11	0.1589	0.7945
10	03/18/22	12:43:07	0.5005	2.5025
11	03/18/22	12:41:51	0.4935	2.4675
12	03/18/22	12:40:36	0.6159	3.0795
13	03/18/22	12:03:48	0.7482	3.7410
14	03/18/22	12:04:52	1.0940	5.4700
15	03/18/22	12:05:45	1.2050	6.0250
16	03/18/22	12:15:10	0.9963	4.9815
17	03/18/22	12:16:39	0.6958	3.4790
18	03/18/22	12:17:53	0.5438	2.7190
19	03/18/22	12:19:29	0.4078	2.0390
20	03/18/22	12:20:43	0.3668	1.8340
21	03/18/22	12:22:10	0.4534	2.2670
22	03/18/22	12:25:46	1.4900	7.4500
23	03/18/22	12:28:02	0.9863	4.9315
24	03/18/22	12:30:24	0.6846	3.4230
25	03/18/22	12:32:01	1.0640	5.3200
26	03/18/22	12:33:22	1.2340	6.1700
27	03/18/22	12:36:27	0.8672	4.3360

Landisville Middle School Indoor RF Emissions Testing Locations

Landisville Middle School Indoor RF Emissions Testing Data

Index	Date	Timestamp	E-Field % Controlled Standard	E-Field % Uncontrolled Standard
1	03/18/22	10:00:57	0.3011	1.5055
2	03/18/22	10:03:09	0.2171	1.0855
3	03/18/22	10:04:16	0.0435	0.2175
4	03/18/22	10:05:12	0.0172	0.0860
5	03/18/22	10:06:52	0.0099	0.0495
6	03/18/22	10:08:02	0.0119	0.0595
7	03/18/22	10:10:14	0.0039	0.0195
8	03/18/22	10:12:38	0.0066	0.0330
9	03/18/22	10:14:05	0.0000	0.0000
10	03/18/22	10:15:17	0.0000	0.0000
11	03/18/22	10:16:26	0.0000	0.0000
12	03/18/22	10:17:54	0.0000	0.0000
13	03/18/22	10:19:03	0.0000	0.0000
14	03/18/22	10:20:17	0.0001	0.0005
15	03/18/22	10:21:35	0.0033	0.0165
16	03/18/22	10:22:46	0.0005	0.0025
17	03/18/22	10:23:57	0.0004	0.0020
18	03/18/22	10:25:47	0.0000	0.0000
19	03/18/22	10:28:10	0.0007	0.0035
20	03/18/22	10:29:35	0.0115	0.0575
21	03/18/22	10:30:51	0.0050	0.0250
22	03/18/22	10:33:41	0.0000	0.0000
23	03/18/22	10:35:19	0.0000	0.0000
24	03/18/22	10:37:02	0.0007	0.0035
25	03/18/22	10:42:45	0.0003	0.0015

Landisville Middle School Rooftop RF Emissions Testing Locations



Landisville Middle School Roof RF Emissions Testing Data

Location	Date	Timestamp	E-Field % Controlled Standard	E-Field % Uncontrolled Standard
1	03/18/22	10:49:05	0.0121	0.0605
2	03/18/22	10:50:02	0.1602	0.8010
3	03/18/22	10:50:51	0.1967	0.9835
4	03/18/22	10:51:37	0.1252	0.6260
5	03/18/22	10:52:30	0.0876	0.4380
6	03/18/22	10:53:15	0.2102	1.0510
7	03/18/22	10:54:21	0.2394	1.1970
8	03/18/22	10:55:53	0.4101	2.0505
9	03/18/22	10:57:57	0.2489	1.2445
10	03/18/22	10:59:28	0.6716	3.3580
11	03/18/22	11:00:29	0.4604	2.3020
12	03/18/22	11:01:22	0.4443	2.2215
13	03/18/22	11:05:22	0.0589	0.2945
14	03/18/22	11:07:06	0.4009	2.0045
15	03/18/22	11:08:24	0.5419	2.7095
16	03/18/22	11:09:01	0.4024	2.0120
17	03/18/22	11:27:06	0.5376	2.6880
18	03/18/22	11:27:57	0.8223	4.1115
19	03/18/22	11:28:40	0.9181	4.5905
20	03/18/22	11:29:29	1.0490	5.2450
21	03/18/22	11:30:26	0.9388	4.6940
22	03/18/22	11:31:02	0.9277	4.6385
23	03/18/22	11:31:44	0.8387	4.1935

