

## Mixed Model Analysis

		Model Dimension <sup>a</sup>		
		Number of Levels	Covariance Structure	Number of Parameters
Fixed Effects	Intercept	1		1
	SNR	3		2
	Program	6		5
	Venting	4		3
	SNR * Program	18		10
	SNR * Venting	12		6
	Program * Venting	24		15
	SNR * Program * Venting	72		30
Random Effects	Audiogram	4	Variance Components	1
Residual				1
Total		144		74

a. Dependent Variable: HASPI.

### Information Criteria<sup>a</sup>

-2 Restricted Log Likelihood	-1102.25823387
Akaike's Information Criterion (AIC)	-1098.25823387
Hurvich and Tsai's Criterion (AICC)	-1098.24709181
Bozdogan's Criterion (CAIC)	-1086.28880123
Schwarz's Bayesian Criterion (BIC)	-1088.28880123

The information criteria are displayed in smaller-is-better form.<sup>a</sup>

a. Dependent Variable: HASPI.

### Coefficients of Determination

Pseudo-R Square Measures	Marginal	.655
	Conditional	.721

### Intraclass Correlation Coefficients

Overall ICCs	Adjusted	.189
	Conditional	.065

## Fixed Effects

**Type III Tests of Fixed Effects<sup>a</sup>**

Source	Numerator df	Denominator df	F	Sig.
Intercept	1	2.977	56.754	.005
SNR	2	1076.991	864.738	<.001
Program	5	1076.991	31.517	<.001
Venting	3	1045.446	15.086	<.001
SNR * Program	10	1076.991	2.873	.002
SNR * Venting	6	1076.991	9.644	<.001
Program * Venting	15	1076.991	3.470	<.001
SNR * Program * Venting	30	1076.991	.322	1.000

a. Dependent Variable: HASPI.

## Covariance Parameters

**Estimates of Covariance Parameters<sup>a</sup>**

Parameter	Estimate	Std. Error
Residual	.018	.001
Audiogram Variance	.004	.003

a. Dependent Variable: HASPI.

## Estimated Marginal Means

### 1. Grand Mean<sup>a</sup>

Mean	Std. Error	df	95% Confidence Interval	
			Lower Bound	Upper Bound
.244	.032	2.977	.140	.347

a. Dependent Variable: HASPI.

### 2. SNR

**Estimates<sup>a</sup>**

SNR	Mean	Std. Error	df	95% Confidence Interval	
				Lower Bound	Upper Bound
-5	.038	.033	3.221	-.063	.139
0	.196	.033	3.221	.095	.297
5	.497	.033	3.221	.396	.598

a. Dependent Variable: HASPI.

**Pairwise Comparisons<sup>a</sup>**

(I) SNR	(J) SNR	Mean Difference (I-J)	Std. Error	df	Sig. <sup>c</sup>	95% Confidence Interval for Difference <sup>c</sup>
						Lower Bound
-5	0	-.158*	.011	1076.991	<.001	-.185
	5	-.459*	.011	1076.991	<.001	-.486
0	-5	.158*	.011	1076.991	<.001	.131
	5	-.301*	.011	1076.991	<.001	-.328
5	-5	.459*	.011	1076.991	<.001	.432
	0	.301*	.011	1076.991	<.001	.274

### Pairwise Comparisons<sup>a</sup>

95% Confidence  
Interval for  
Difference

(I) SNR	(J) SNR	Upper Bound
-5	0	-.131
	5	-.432
0	-5	.185
	5	-.274
5	-5	.486
	0	.328

Based on estimated marginal means<sup>a</sup>

\*. The mean difference is significant at the .05 level.

a. Dependent Variable: HASPI.

c. Adjustment for multiple comparisons:  
Bonferroni.

### Univariate Tests<sup>a</sup>

Numerator df	Denominator df	F	Sig.
2	1076.991	864.738	<.001

The F tests the effect of SNR. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.<sup>a</sup>

a. Dependent Variable: HASPI.

### 3. Program

#### Estimates<sup>a</sup>

Program	Mean	Std. Error	df	95% Confidence Interval	
				Lower Bound	Upper Bound
No_Processing	.182	.034	3.604	.084	.280
Beam	.232	.034	3.604	.134	.331
Beam+NoiseBlock	.231	.034	3.604	.133	.330
DNN	.278	.034	3.604	.180	.377
NoiseBlock	.187	.034	3.604	.089	.286
DNN+Directional	.350	.034	3.604	.252	.449

a. Dependent Variable: HASPI.

**Pairwise Comparisons<sup>a</sup>**

(I) Program	(J) Program	Mean Difference (I-J)	Std. Error	df	Sig. <sup>c</sup>
No_Processing	Beam	-.050*	.016	1076.991	.023
	Beam+NoiseBlock	-.049*	.016	1076.991	.029
	DNN	-.096*	.016	1076.991	<.001
	NoiseBlock	-.005	.016	1076.991	1.000
	DNN+Directional	-.168*	.016	1076.991	<.001
Beam	No_Processing	.050*	.016	1076.991	.023
	Beam+NoiseBlock	.001	.016	1076.991	1.000
	DNN	-.046	.016	1076.991	.059
	NoiseBlock	.045	.016	1076.991	.067
	DNN+Directional	-.118*	.016	1076.991	<.001
Beam+NoiseBlock	No_Processing	.049*	.016	1076.991	.029
	Beam	-.001	.016	1076.991	1.000
	DNN	-.047*	.016	1076.991	.047
	NoiseBlock	.044	.016	1076.991	.084
	DNN+Directional	-.119*	.016	1076.991	<.001
DNN	No_Processing	.096*	.016	1076.991	<.001
	Beam	.046	.016	1076.991	.059
	Beam+NoiseBlock	.047*	.016	1076.991	.047
	NoiseBlock	.091*	.016	1076.991	<.001
	DNN+Directional	-.072*	.016	1076.991	<.001
NoiseBlock	No_Processing	.005	.016	1076.991	1.000
	Beam	-.045	.016	1076.991	.067
	Beam+NoiseBlock	-.044	.016	1076.991	.084
	DNN	-.091*	.016	1076.991	<.001
	DNN+Directional	-.163*	.016	1076.991	<.001
DNN+Directional	No_Processing	.168*	.016	1076.991	<.001
	Beam	.118*	.016	1076.991	<.001
	Beam+NoiseBlock	.119*	.016	1076.991	<.001
	DNN	.072*	.016	1076.991	<.001
	NoiseBlock	.163*	.016	1076.991	<.001

**Pairwise Comparisons<sup>a</sup>**

95% Confidence Interval for  
Difference<sup>c</sup>

(I) Program	(J) Program	Lower Bound	Upper Bound
No_Processing	Beam	-.097	-.004
	Beam+NoiseBlock	-.096	-.003
	DNN	-.143	-.050
	NoiseBlock	-.052	.041
	DNN+Directional	-.215	-.122
Beam	No_Processing	.004	.097

	Beam+NoiseBlock	-.045	.048
	DNN	-.092	.001
	NoiseBlock	-.001	.092
	DNN+Directional	-.164	-.071
Beam+NoiseBlock	No_Processing	.003	.096
	Beam	-.048	.045
	DNN	-.094	.000
	NoiseBlock	-.003	.091
	DNN+Directional	-.166	-.072
	No_Processing	.050	.143
DNN	Beam	-.001	.092
	Beam+NoiseBlock	.000	.094
	NoiseBlock	.044	.138
	DNN+Directional	-.119	-.025
NoiseBlock	No_Processing	-.041	.052
	Beam	-.092	.001
	Beam+NoiseBlock	-.091	.003
	DNN	-.138	-.044
	DNN+Directional	-.210	-.116
DNN+Directional	No_Processing	.122	.215
	Beam	.071	.164
	Beam+NoiseBlock	.072	.166
	DNN	.025	.119
	NoiseBlock	.116	.210

Based on estimated marginal means<sup>a</sup>

\*. The mean difference is significant at the .05 level.

a. Dependent Variable: HASPI.

c. Adjustment for multiple comparisons: Bonferroni.

#### Univariate Tests<sup>a</sup>

Numerator df	Denominator df	F	Sig.
5	1076.991	31.517	<.001

The F tests the effect of Program. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.<sup>a</sup>

a. Dependent Variable: HASPI.

#### 4. Venting

##### Estimates<sup>a</sup>

Venting	Mean	Std. Error	df	95% Confidence Interval	
				Lower Bound	Upper Bound
Occluded	.283	.032	3.021	.180	.386
1mm	.241	.033	3.370	.141	.341
VentedDome	.246	.035	4.123	.149	.342
OpenDome	.205	.035	4.123	.108	.301

a. Dependent Variable: HASPI.

##### Pairwise Comparisons<sup>a</sup>

(I) Venting	(J) Venting	Mean Difference (I-J)	Std. Error	df	Sig. <sup>c</sup>	95% Confidence Interval for Difference <sup>c</sup>
						Lower Bound
Occluded	1mm	.042*	.011	1072.221	<.001	.013
	VentedDome	.037	.016	1054.678	.101	-.004
	OpenDome	.078*	.016	1054.678	<.001	.037
1mm	Occluded	-.042*	.011	1072.221	<.001	-.071
	VentedDome	-.005	.019	1027.855	1.000	-.055
	OpenDome	.036	.019	1027.855	.349	-.014
VentedDome	Occluded	-.037	.016	1054.678	.101	-.078
	1mm	.005	.019	1027.855	1.000	-.045
	OpenDome	.041	.022	1027.855	.376	-.017
OpenDome	Occluded	-.078*	.016	1054.678	<.001	-.119
	1mm	-.036	.019	1027.855	.349	-.086
	VentedDome	-.041	.022	1027.855	.376	-.099

##### Pairwise Comparisons<sup>a</sup>

(I) Venting	(J) Venting	95% Confidence Interval for Difference
		Upper Bound
Occluded	1mm	.071
	VentedDome	.078
	OpenDome	.119
1mm	Occluded	-.013
	VentedDome	.045
	OpenDome	.086
VentedDome	Occluded	.004
	1mm	.055
	OpenDome	.099
OpenDome	Occluded	-.037
	1mm	.014
	VentedDome	.017

Based on estimated marginal means<sup>a</sup>

\*. The mean difference is significant at the .05 level.

a. Dependent Variable: HASPI.

c. Adjustment for multiple comparisons: Bonferroni.

#### Univariate Tests<sup>a</sup>

Numerator df	Denominator df	F	Sig.
3	1056.886	15.086	<.001

The F tests the effect of Venting. This test is based on the linearly independent pairwise comparisons among the estimated marginal means.<sup>a</sup>

a. Dependent Variable: HASPI.

#### 5. SNR \* Program

##### Estimates<sup>a</sup>

SNR	Program	Mean	Std. Error	df	95% Confidence Interval	
					Lower Bound	Upper Bound
-5	No_Processing	.016	.037	5.351	-.078	.110
	Beam	.020	.037	5.351	-.075	.114
	Beam+NoiseBlock	.022	.037	5.351	-.073	.116
	DNN	.057	.037	5.351	-.037	.151
	NoiseBlock	.022	.037	5.351	-.073	.116
	DNN+Directional	.092	.037	5.351	-.003	.186
0	No_Processing	.119	.037	5.351	.024	.213
	Beam	.175	.037	5.351	.080	.269
	Beam+NoiseBlock	.176	.037	5.351	.082	.270
	DNN	.231	.037	5.351	.137	.326
	NoiseBlock	.130	.037	5.351	.035	.224
	DNN+Directional	.345	.037	5.351	.251	.439
5	No_Processing	.411	.037	5.351	.317	.506
	Beam	.503	.037	5.351	.409	.597
	Beam+NoiseBlock	.496	.037	5.351	.402	.591
	DNN	.547	.037	5.351	.452	.641
	NoiseBlock	.410	.037	5.351	.316	.505
	DNN+Directional	.614	.037	5.351	.520	.708

a. Dependent Variable: HASPI.

SNR	(I) Program	(J) Program	Mean Difference (I- J)	Std. Error	df	Sig. <sup>c</sup>	95% Confidence Interval for Difference <sup>c</sup>	
							Lower Bound	Upper Bound
-5	No_Processing	Beam	-.004	.027	1076.99 1	1.000	-.084	.077
		Beam+ NoiseBlock	-.006	.027	1076.99 1	1.000	-.086	.075
		DNN	-.041	.027	1076.99 1	1.000	-.122	.040
		NoiseBlock	-.006	.027	1076.99 1	1.000	-.086	.075
		DNN+ Directional	-.076	.027	1076.99 1	.089	-.157	.005
	Beam	No_Processing	.004	.027	1076.99 1	1.000	-.077	.084
		Beam+ NoiseBlock	-.002	.027	1076.99 1	1.000	-.083	.079
		DNN	-.037	.027	1076.99 1	1.000	-.118	.044
		NoiseBlock	-.002	.027	1076.99 1	1.000	-.083	.079
		DNN+ Directional	-.072	.027	1076.99 1	.132	-.153	.009
	Beam+ NoiseBlock	No_Processing	.006	.027	1076.99 1	1.000	-.075	.086
		Beam	.002	.027	1076.99 1	1.000	-.079	.083
		DNN	-.035	.027	1076.99 1	1.000	-.116	.046
		NoiseBlock	3.256e-5	.027	1076.99 1	1.000	-.081	.081
		DNN+ Directional	-.070	.027	1076.99 1	.162	-.151	.011
	DNN	No_Processing	.041	.027	1076.99 1	1.000	-.040	.122
		Beam	.037	.027	1076.99 1	1.000	-.044	.118
		Beam+ NoiseBlock	.035	.027	1076.99 1	1.000	-.046	.116
		NoiseBlock	.035	.027	1076.99 1	1.000	-.045	.116
		DNN+ Directional	-.035	.027	1076.99 1	1.000	-.116	.046
	NoiseBlock	No_Processing	.006	.027	1076.99 1	1.000	-.075	.086
		Beam	.002	.027	1076.99 1	1.000	-.079	.083
		Beam+	-3.256e-5	.027	1076.99	1.000	-.081	.081



		NoiseBlock			1			
		DNN	-.035	.027	1076.99 1	1.000	-.116	.045
		DNN+ Directional	-.070	.027	1076.99 1	.162	-.151	.011
	DNN+ Directional	No_Processing	.076	.027	1076.99 1	.089	-.005	.157
		Beam	.072	.027	1076.99 1	.132	-.009	.153
		Beam+ NoiseBlock	.070	.027	1076.99 1	.162	-.011	.151
		DNN	.035	.027	1076.99 1	1.000	-.046	.116
		NoiseBlock	.070	.027	1076.99 1	.162	-.011	.151
0	No_Processing	Beam	-.056	.027	1076.99 1	.631	-.137	.025
		Beam+ NoiseBlock	-.057	.027	1076.99 1	.564	-.138	.024
		DNN	-.112*	.027	1076.99 1	<.001	-.193	-.032
		NoiseBlock	-.011	.027	1076.99 1	1.000	-.092	.070
		DNN+ Directional	-.226*	.027	1076.99 1	<.001	-.307	-.145
	Beam	No_Processing	.056	.027	1076.99 1	.631	-.025	.137
		Beam+ NoiseBlock	-.001	.027	1076.99 1	1.000	-.082	.080
		DNN	-.057	.027	1076.99 1	.596	-.137	.024
		NoiseBlock	.045	.027	1076.99 1	1.000	-.036	.126
		DNN+ Directional	-.170*	.027	1076.99 1	<.001	-.251	-.089
	Beam+ NoiseBlock	No_Processing	.057	.027	1076.99 1	.564	-.024	.138
		Beam	.001	.027	1076.99 1	1.000	-.080	.082
		DNN	-.055	.027	1076.99 1	.667	-.136	.026
		NoiseBlock	.046	.027	1076.99 1	1.000	-.035	.127
		DNN+ Directional	-.169*	.027	1076.99 1	<.001	-.250	-.088
	DNN	No_Processing	.112*	.027	1076.99 1	<.001	.032	.193
		Beam	.057	.027	1076.99 1	.596	-.024	.137

	NoiseBlock	Beam+ NoiseBlock	.055	.027	1076.99 1	.667	-.026	.136
		NoiseBlock	.101*	.027	1076.99 1	.003	.021	.182
		DNN+ Directional	-.114*	.027	1076.99 1	<.001	-.195	-.033
		No_Processing	.011	.027	1076.99 1	1.000	-.070	.092
		Beam	-.045	.027	1076.99 1	1.000	-.126	.036
		Beam+ NoiseBlock	-.046	.027	1076.99 1	1.000	-.127	.035
		DNN	-.101*	.027	1076.99 1	.003	-.182	-.021
		DNN+ Directional	-.215*	.027	1076.99 1	<.001	-.296	-.134
	DNN+ Directional	No_Processing	.226*	.027	1076.99 1	<.001	.145	.307
		Beam	.170*	.027	1076.99 1	<.001	.089	.251
		Beam+ NoiseBlock	.169*	.027	1076.99 1	<.001	.088	.250
		DNN	.114*	.027	1076.99 1	<.001	.033	.195
		NoiseBlock	.215*	.027	1076.99 1	<.001	.134	.296
5	No_Processing	Beam	-.092*	.027	1076.99 1	.013	-.173	-.011
		Beam+ NoiseBlock	-.085*	.027	1076.99 1	.030	-.166	-.004
		DNN	-.135*	.027	1076.99 1	<.001	-.216	-.055
		NoiseBlock	.001	.027	1076.99 1	1.000	-.080	.082
		DNN+ Directional	-.203*	.027	1076.99 1	<.001	-.284	-.122
	Beam	No_Processing	.092*	.027	1076.99 1	.013	.011	.173
		Beam+ NoiseBlock	.007	.027	1076.99 1	1.000	-.074	.088
		DNN	-.044	.027	1076.99 1	1.000	-.124	.037
		NoiseBlock	.093*	.027	1076.99 1	.012	.012	.173
		DNN+ Directional	-.111*	.027	1076.99 1	<.001	-.192	-.030
	Beam+ NoiseBlock	No_Processing	.085*	.027	1076.99 1	.030	.004	.166
		Beam	-.007	.027	1076.99	1.000	-.088	.074

				1			
	DNN	-.050	.027	1076.99 1	1.000	-.131	.030
	NoiseBlock	.086*	.027	1076.99 1	.027	.005	.167
	DNN+ Directional	-.118*	.027	1076.99 1	<.001	-.199	-.037
DNN	No_Processing	.135*	.027	1076.99 1	<.001	.055	.216
	Beam	.044	.027	1076.99 1	1.000	-.037	.124
	Beam+ NoiseBlock	.050	.027	1076.99 1	1.000	-.030	.131
	NoiseBlock	.136*	.027	1076.99 1	<.001	.055	.217
	DNN+ Directional	-.067	.027	1076.99 1	.214	-.148	.013
NoiseBlock	No_Processing	-.001	.027	1076.99 1	1.000	-.082	.080
	Beam	-.093*	.027	1076.99 1	.012	-.173	-.012
	Beam+ NoiseBlock	-.086*	.027	1076.99 1	.027	-.167	-.005
	DNN	-.136*	.027	1076.99 1	<.001	-.217	-.055
	DNN+ Directional	-.204*	.027	1076.99 1	<.001	-.284	-.123
DNN+ Directional	No_Processing	.203*	.027	1076.99 1	<.001	.122	.284
	Beam	.111*	.027	1076.99 1	<.001	.030	.192
	Beam+ NoiseBlock	.118*	.027	1076.99 1	<.001	.037	.199
	DNN	.067	.027	1076.99 1	.214	-.013	.148
	NoiseBlock	.204*	.027	1076.99 1	<.001	.123	.284

Based on estimated marginal means<sup>a</sup>

\*. The mean difference is significant at the .05 level.

a. Dependent Variable: HASPI.

c. Adjustment for multiple comparisons: Bonferroni.

### Univariate Tests<sup>a</sup>

SNR	Numerator df	Denominator df	F	Sig.
-5	5	1076.991	2.440	.033
0	5	1076.991	18.363	<.001
5	5	1076.991	16.459	<.001

Each F tests the simple effects of Program within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.<sup>a</sup>

a. Dependent Variable: HASPI.

### 6. SNR \* Venting<sup>a</sup>

SNR	Venting	Mean	Std. Error	df	95% Confidence Interval	
					Lower Bound	Upper Bound
-5	Occluded	.074	.033	3.381	-.026	.174
	1mm	.082	.035	4.149	-.014	.178
	VentedDome	.011	.038	5.913	-.083	.106
	OpenDome	-.016	.038	5.913	-.110	.079
0	Occluded	.264	.033	3.381	.164	.364
	1mm	.210	.035	4.149	.113	.306
	VentedDome	.180	.038	5.913	.086	.274
	OpenDome	.130	.038	5.913	.035	.224
5	Occluded	.511	.033	3.381	.411	.610
	1mm	.431	.035	4.149	.334	.527
	VentedDome	.546	.038	5.913	.452	.640
	OpenDome	.500	.038	5.913	.406	.595

a. Dependent Variable: HASPI.

### 7. Program \* Venting

#### Estimates<sup>a</sup>

Program	Venting	Mean	Std. Error	df	95% Confidence Interval	
					Lower Bound	Upper Bound
No_Processing	Occluded	.184	.035	3.959	.087	.281
	1mm	.175	.038	5.467	.081	.270
	VentedDome	.190	.043	9.194	.093	.287
	OpenDome	.179	.043	9.194	.082	.276
Beam	Occluded	.260	.035	3.959	.164	.357
	1mm	.223	.038	5.467	.129	.317
	VentedDome	.239	.043	9.194	.142	.336
	OpenDome	.207	.043	9.194	.111	.304
Beam+NoiseBlock	Occluded	.249	.035	3.959	.153	.346
	1mm	.223	.038	5.467	.128	.317
	VentedDome	.240	.043	9.194	.143	.337
	OpenDome	.213	.043	9.194	.116	.310
DNN	Occluded	.350	.035	3.959	.253	.447
	1mm	.278	.038	5.467	.183	.372

	VentedDome	.277	.043	9.194	.181	.374
	OpenDome	.208	.043	9.194	.111	.304
NoiseBlock	Occluded	.191	.035	3.959	.094	.288
	1mm	.179	.038	5.467	.085	.273
	VentedDome	.190	.043	9.194	.093	.287
	OpenDome	.189	.043	9.194	.092	.285
DNN+Directional	Occluded	.463	.035	3.959	.366	.559
	1mm	.367	.038	5.467	.273	.461
	VentedDome	.338	.043	9.194	.241	.435
	OpenDome	.233	.043	9.194	.137	.330

a. Dependent Variable: HASPI.

#### Pairwise Comparisons<sup>a</sup>

Venting	(I) Program	(J) Program	Mean Difference (I-J)	Std. Error	df	Sig. <sup>c</sup>	95% Confidence Interval for Difference <sup>c</sup>	
							Lower Bound	Upper Bound
Occluded	No_Processing	Beam	-.077*	.019	1076.99 1	<.001	-.133	-.020
		Beam+ NoiseBlock	-.066*	.019	1076.99 1	.009	-.122	-.009
		DNN	-.166*	.019	1076.99 1	<.001	-.223	-.110
		NoiseBlock	-.007	.019	1076.99 1	1.000	-.064	.049
		DNN+ Directional	-.279*	.019	1076.99 1	<.001	-.335	-.223
	Beam	No_Processing	.077*	.019	1076.99 1	<.001	.020	.133
		Beam+ NoiseBlock	.011	.019	1076.99 1	1.000	-.045	.067
		DNN	-.090*	.019	1076.99 1	<.001	-.146	-.033
		NoiseBlock	.069*	.019	1076.99 1	.005	.013	.126
		DNN+ Directional	-.202*	.019	1076.99 1	<.001	-.259	-.146
	Beam+ NoiseBlock	No_Processing	.066*	.019	1076.99 1	.009	.009	.122
		Beam	-.011	.019	1076.99 1	1.000	-.067	.045
		DNN	-.101*	.019	1076.99 1	<.001	-.157	-.044
		NoiseBlock	.058*	.019	1076.99 1	.035	.002	.115
		DNN+ Directional	-.213*	.019	1076.99 1	<.001	-.270	-.157

	DNN	No_Processing	.166*	.019	1076.99 1	<.001	.110	.223
		Beam	.090*	.019	1076.99 1	<.001	.033	.146
		Beam+ NoiseBlock	.101*	.019	1076.99 1	<.001	.044	.157
		NoiseBlock	.159*	.019	1076.99 1	<.001	.103	.215
		DNN+ Directional	-.113*	.019	1076.99 1	<.001	-.169	-.056
	NoiseBlock	No_Processing	.007	.019	1076.99 1	1.000	-.049	.064
		Beam	-.069*	.019	1076.99 1	.005	-.126	-.013
		Beam+ NoiseBlock	-.058*	.019	1076.99 1	.035	-.115	-.002
		DNN	-.159*	.019	1076.99 1	<.001	-.215	-.103
		DNN+ Directional	-.272*	.019	1076.99 1	<.001	-.328	-.215
	DNN+ Directional	No_Processing	.279*	.019	1076.99 1	<.001	.223	.335
		Beam	.202*	.019	1076.99 1	<.001	.146	.259
		Beam+ NoiseBlock	.213*	.019	1076.99 1	<.001	.157	.270
		DNN	.113*	.019	1076.99 1	<.001	.056	.169
		NoiseBlock	.272*	.019	1076.99 1	<.001	.215	.328
1mm	No_Processing	Beam	-.048	.027	1076.99 1	1.000	-.127	.032
		Beam+ NoiseBlock	-.048	.027	1076.99 1	1.000	-.127	.032
		DNN	-.103*	.027	1076.99 1	.002	-.182	-.023
		NoiseBlock	-.004	.027	1076.99 1	1.000	-.083	.076
		DNN+ Directional	-.192*	.027	1076.99 1	<.001	-.271	-.112
	Beam	No_Processing	.048	.027	1076.99 1	1.000	-.032	.127
		Beam+ NoiseBlock	.000	.027	1076.99 1	1.000	-.079	.080
		DNN	-.055	.027	1076.99 1	.653	-.134	.025
		NoiseBlock	.044	.027	1076.99 1	1.000	-.036	.124
		DNN+	-.144*	.027	1076.99	<.001	-.224	-.064

	Beam+ NoiseBlock	Directional			1			
		No_Processing	.048	.027	1076.99 1	1.000	-.032	.127
		Beam	.000	.027	1076.99 1	1.000	-.080	.079
		DNN	-.055	.027	1076.99 1	.642	-.134	.025
		NoiseBlock	.044	.027	1076.99 1	1.000	-.036	.123
		DNN+ Directional	-.144*	.027	1076.99 1	<.001	-.224	-.065
	DNN	No_Processing	.103*	.027	1076.99 1	.002	.023	.182
		Beam	.055	.027	1076.99 1	.653	-.025	.134
		Beam+ NoiseBlock	.055	.027	1076.99 1	.642	-.025	.134
		NoiseBlock	.099*	.027	1076.99 1	.004	.019	.178
		DNN+ Directional	-.089*	.027	1076.99 1	.015	-.169	-.010
	NoiseBlock	No_Processing	.004	.027	1076.99 1	1.000	-.076	.083
		Beam	-.044	.027	1076.99 1	1.000	-.124	.036
		Beam+ NoiseBlock	-.044	.027	1076.99 1	1.000	-.123	.036
		DNN	-.099*	.027	1076.99 1	.004	-.178	-.019
		DNN+ Directional	-.188*	.027	1076.99 1	<.001	-.268	-.108
	DNN+ Directional	No_Processing	.192*	.027	1076.99 1	<.001	.112	.271
		Beam	.144*	.027	1076.99 1	<.001	.064	.224
		Beam+ NoiseBlock	.144*	.027	1076.99 1	<.001	.065	.224
		DNN	.089*	.027	1076.99 1	.015	.010	.169
		NoiseBlock	.188*	.027	1076.99 1	<.001	.108	.268
VentedDome	No_Processing	Beam	-.049	.038	1076.99 1	1.000	-.161	.064
		Beam+ NoiseBlock	-.050	.038	1076.99 1	1.000	-.163	.062
		DNN	-.088	.038	1076.99 1	.335	-.200	.025
		NoiseBlock	.000	.038	1076.99 1	1.000	-.113	.112

	Beam	DNN+ Directional	-.148*	.038	1076.99 1	.002	-.260	-.035
		No_Processing	.049	.038	1076.99 1	1.000	-.064	.161
		Beam+ NoiseBlock	-.001	.038	1076.99 1	1.000	-.114	.111
		DNN	-.039	.038	1076.99 1	1.000	-.151	.074
		NoiseBlock	.049	.038	1076.99 1	1.000	-.064	.161
		DNN+ Directional	-.099	.038	1076.99 1	.148	-.211	.014
	Beam+ NoiseBlock	No_Processing	.050	.038	1076.99 1	1.000	-.062	.163
		Beam	.001	.038	1076.99 1	1.000	-.111	.114
		DNN	-.037	.038	1076.99 1	1.000	-.150	.075
		NoiseBlock	.050	.038	1076.99 1	1.000	-.063	.162
		DNN+ Directional	-.098	.038	1076.99 1	.162	-.210	.015
	DNN	No_Processing	.088	.038	1076.99 1	.335	-.025	.200
		Beam	.039	.038	1076.99 1	1.000	-.074	.151
		Beam+ NoiseBlock	.037	.038	1076.99 1	1.000	-.075	.150
		NoiseBlock	.087	.038	1076.99 1	.341	-.025	.200
		DNN+ Directional	-.060	.038	1076.99 1	1.000	-.173	.052
	NoiseBlock	No_Processing	.000	.038	1076.99 1	1.000	-.112	.113
		Beam	-.049	.038	1076.99 1	1.000	-.161	.064
		Beam+ NoiseBlock	-.050	.038	1076.99 1	1.000	-.162	.063
		DNN	-.087	.038	1076.99 1	.341	-.200	.025
		DNN+ Directional	-.148*	.038	1076.99 1	.002	-.260	-.035
	DNN+ Directional	No_Processing	.148*	.038	1076.99 1	.002	.035	.260
		Beam	.099	.038	1076.99 1	.148	-.014	.211
		Beam+ NoiseBlock	.098	.038	1076.99 1	.162	-.015	.210
		DNN	.060	.038	1076.99	1.000	-.052	.173



				1			
		NoiseBlock	.148*	.038	1076.99 1	.002	.035 .260
OpenDome	No_Processing	Beam	-.028	.038	1076.99 1	1.000	-.141 .084
		Beam+ NoiseBlock	-.034	.038	1076.99 1	1.000	-.146 .079
		DNN	-.029	.038	1076.99 1	1.000	-.141 .084
		NoiseBlock	-.009	.038	1076.99 1	1.000	-.122 .103
		DNN+ Directional	-.054	.038	1076.99 1	1.000	-.167 .058
Beam		No_Processing	.028	.038	1076.99 1	1.000	-.084 .141
		Beam+ NoiseBlock	-.005	.038	1076.99 1	1.000	-.118 .107
		DNN	.000	.038	1076.99 1	1.000	-.113 .112
		NoiseBlock	.019	.038	1076.99 1	1.000	-.094 .131
		DNN+ Directional	-.026	.038	1076.99 1	1.000	-.138 .087
Beam+ NoiseBlock		No_Processing	.034	.038	1076.99 1	1.000	-.079 .146
		Beam	.005	.038	1076.99 1	1.000	-.107 .118
		DNN	.005	.038	1076.99 1	1.000	-.107 .118
		NoiseBlock	.024	.038	1076.99 1	1.000	-.088 .137
		DNN+ Directional	-.021	.038	1076.99 1	1.000	-.133 .092
DNN		No_Processing	.029	.038	1076.99 1	1.000	-.084 .141
		Beam	.000	.038	1076.99 1	1.000	-.112 .113
		Beam+ NoiseBlock	-.005	.038	1076.99 1	1.000	-.118 .107
		NoiseBlock	.019	.038	1076.99 1	1.000	-.093 .132
		DNN+ Directional	-.026	.038	1076.99 1	1.000	-.138 .087
NoiseBlock		No_Processing	.009	.038	1076.99 1	1.000	-.103 .122
		Beam	-.019	.038	1076.99 1	1.000	-.131 .094
		Beam+ NoiseBlock	-.024	.038	1076.99 1	1.000	-.137 .088

DNN+ Directional	DNN	-.019	.038	1076.99 1	1.000	-.132	.093
	DNN+ Directional	-.045	.038	1076.99 1	1.000	-.157	.068
	No_Processing	.054	.038	1076.99 1	1.000	-.058	.167
	Beam	.026	.038	1076.99 1	1.000	-.087	.138
	Beam+ NoiseBlock	.021	.038	1076.99 1	1.000	-.092	.133
	DNN	.026	.038	1076.99 1	1.000	-.087	.138
	NoiseBlock	.045	.038	1076.99 1	1.000	-.068	.157

Based on estimated marginal means<sup>a</sup>

\*. The mean difference is significant at the .05 level.

a. Dependent Variable: HASPI.

c. Adjustment for multiple comparisons: Bonferroni.

#### Univariate Tests<sup>a</sup>

Venting	Numerator df	Denominator df	F	Sig.
Occluded	5	1076.991	62.010	<.001
1mm	5	1076.991	14.246	<.001
VentedDome	5	1076.991	4.305	<.001
OpenDome	5	1076.991	.498	.778

Each F tests the simple effects of Program within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.<sup>a</sup>

a. Dependent Variable: HASPI.

#### 8. SNR \* Program \* Venting

##### Estimates<sup>a</sup>

SNR	Program	Venting	Mean	Std. Error	df	95% Confidence Interval	
						Lower Bound	Upper Bound
-5	No_Processing	Occluded	.025	.040	6.722	-.069	.120
		1mm	.064	.046	12.531	-.037	.164
		VentedDome	-.006	.057	29.262	-.123	.112
		OpenDome	-.019	.057	29.262	-.137	.098
	Beam	Occluded	.037	.040	6.722	-.058	.131
		1mm	.071	.046	12.531	-.029	.172
		VentedDome	-.006	.057	29.262	-.123	.112
		OpenDome	-.024	.057	29.262	-.141	.094
	Beam+NoiseBlock	Occluded	.043	.040	6.722	-.051	.138
		1mm	.065	.046	12.531	-.035	.166
		VentedDome	-.007	.057	29.262	-.124	.111

0	DNN	OpenDome	-.015	.057	29.262	-.133	.102
		Occluded	.113	.040	6.722	.018	.207
	NoiseBlock	1mm	.101	.046	12.531	.001	.202
		VentedDome	.031	.057	29.262	-.086	.149
		OpenDome	-.017	.057	29.262	-.135	.100
		Occluded	.033	.040	6.722	-.062	.127
		1mm	.064	.046	12.531	-.036	.165
		VentedDome	-.004	.057	29.262	-.121	.114
		OpenDome	-.007	.057	29.262	-.124	.111
	DNN+Directional	Occluded	.193	.040	6.722	.098	.287
		1mm	.127	.046	12.531	.026	.227
		VentedDome	.058	.057	29.262	-.060	.175
		OpenDome	-.011	.057	29.262	-.128	.107
	No_Processing	Occluded	.126	.040	6.722	.031	.220
		1mm	.136	.046	12.531	.036	.237
		VentedDome	.111	.057	29.262	-.006	.229
		OpenDome	.102	.057	29.262	-.016	.219
	Beam	Occluded	.228	.040	6.722	.133	.322
		1mm	.183	.046	12.531	.082	.283
		VentedDome	.161	.057	29.262	.043	.278
		OpenDome	.127	.057	29.262	.010	.245
	Beam+NoiseBlock	Occluded	.238	.040	6.722	.143	.332
		1mm	.172	.046	12.531	.071	.272
		VentedDome	.166	.057	29.262	.049	.284
		OpenDome	.128	.057	29.262	.011	.246
	DNN	Occluded	.328	.040	6.722	.234	.423
		1mm	.249	.046	12.531	.149	.350
		VentedDome	.215	.057	29.262	.097	.332
		OpenDome	.132	.057	29.262	.015	.250
	NoiseBlock	Occluded	.148	.040	6.722	.053	.242
		1mm	.140	.046	12.531	.039	.240
		VentedDome	.115	.057	29.262	-.003	.232
		OpenDome	.117	.057	29.262	-.001	.234
	DNN+Directional	Occluded	.518	.040	6.722	.423	.612
		1mm	.379	.046	12.531	.278	.479
		VentedDome	.312	.057	29.262	.194	.429
		OpenDome	.172	.057	29.262	.054	.289
5	No_Processing	Occluded	.400	.040	6.722	.306	.495
		1mm	.325	.046	12.531	.225	.426
		VentedDome	.464	.057	29.262	.347	.582
		OpenDome	.455	.057	29.262	.338	.573
	Beam	Occluded	.517	.040	6.722	.422	.611
		1mm	.415	.046	12.531	.315	.516
		VentedDome	.561	.057	29.262	.444	.679
		OpenDome	.519	.057	29.262	.401	.636
	Beam+NoiseBlock	Occluded	.467	.040	6.722	.373	.562
		1mm	.432	.046	12.531	.331	.532

		VentedDome	.561	.057	29.262	.443	.678
		OpenDome	.525	.057	29.262	.408	.643
DNN		Occluded	.610	.040	6.722	.515	.704
		1mm	.482	.046	12.531	.382	.583
		VentedDome	.586	.057	29.262	.469	.704
		OpenDome	.508	.057	29.262	.390	.625
NoiseBlock		Occluded	.393	.040	6.722	.298	.487
		1mm	.334	.046	12.531	.233	.434
		VentedDome	.460	.057	29.262	.342	.577
		OpenDome	.455	.057	29.262	.338	.573
DNN+Directional		Occluded	.677	.040	6.722	.583	.772
		1mm	.596	.046	12.531	.495	.696
		VentedDome	.644	.057	29.262	.526	.761
		OpenDome	.539	.057	29.262	.422	.657

a. Dependent Variable: HASPI.

Pairwise Comparisons <sup>a</sup>								95% Confidence Interval for Difference <sup>c</sup>	
SNR	Venting	(I) Program	(J) Program	Mean Difference (I-J)	Std. Error	df	Sig. <sup>c</sup>	Lower Bound	Upper Bound
-5	Occluded	No_Processing	Beam	-.011	.033	1076.991	1.000	-.109	.086
			Beam+Noise Block	-.018	.033	1076.991	1.000	-.115	.080
			DNN	-.087	.033	1076.991	.129	-.185	.010
			NoiseBlock	-.007	.033	1076.991	1.000	-.105	.090
			DNN+ Directional	-.168*	.033	1076.991	<.001	-.265	-.070
		Beam	No_Processing	.011	.033	1076.991	1.000	-.086	.109
			Beam+Noise Block	-.006	.033	1076.991	1.000	-.104	.091
			DNN	-.076	.033	1076.991	.337	-.173	.022
			NoiseBlock	.004	.033	1076.991	1.000	-.093	.101
			DNN+ Directional	-.156*	.033	1076.991	<.001	-.254	-.059
		Beam+Noise Block	No_Processing	.018	.033	1076.991	1.000	-.080	.115
			Beam	.006	.033	1076.991	1.000	-.091	.104
			DNN	-.069	.033	1076.991	.548	-.167	.028

	DNN	NoiseBlock	.010	.033	1076.9 91	1.000	-.087	.108
		DNN+ Directional	-.150*	.033	1076.9 91	<.001	-.247	-.052
		No_Processing	.087	.033	1076.9 91	.129	-.010	.185
		Beam	.076	.033	1076.9 91	.337	-.022	.173
		Beam+Noise Block	.069	.033	1076.9 91	.548	-.028	.167
		NoiseBlock	.080	.033	1076.9 91	.243	-.018	.177
	NoiseBlock	DNN+ Directional	-.080	.033	1076.9 91	.229	-.178	.017
		No_Processing	.007	.033	1076.9 91	1.000	-.090	.105
		Beam	-.004	.033	1076.9 91	1.000	-.101	.093
		Beam+Noise Block	-.010	.033	1076.9 91	1.000	-.108	.087
		DNN	-.080	.033	1076.9 91	.243	-.177	.018
		DNN+ Directional	-.160*	.033	1076.9 91	<.001	-.258	-.063
	DNN+ Directional	No_Processing	.168*	.033	1076.9 91	<.001	.070	.265
		Beam	.156*	.033	1076.9 91	<.001	.059	.254
		Beam+Noise Block	.150*	.033	1076.9 91	<.001	.052	.247
		DNN	.080	.033	1076.9 91	.229	-.017	.178
		NoiseBlock	.160*	.033	1076.9 91	<.001	.063	.258
1mm	No_Processing	Beam	-.007	.047	1076.9 91	1.000	-.145	.131
		Beam+Noise Block	-.001	.047	1076.9 91	1.000	-.139	.136
		DNN	-.037	.047	1076.9 91	1.000	-.175	.100
		NoiseBlock	.000	.047	1076.9 91	1.000	-.138	.138
		DNN+ Directional	-.063	.047	1076.9 91	1.000	-.201	.075
	Beam	No_Processing	.007	.047	1076.9 91	1.000	-.131	.145
		Beam+Noise Block	.006	.047	1076.9 91	1.000	-.132	.144
		DNN	-.030	.047	1076.9	1.000	-.168	.108

					91				
		NoiseBlock		.007	.047	1076.991	1.000	-.131	.145
		DNN+ Directional		-.056	.047	1076.991	1.000	-.194	.082
	Beam+Noise Block	No_Processing		.001	.047	1076.991	1.000	-.136	.139
		Beam		-.006	.047	1076.991	1.000	-.144	.132
		DNN		-.036	.047	1076.991	1.000	-.174	.102
		NoiseBlock		.001	.047	1076.991	1.000	-.137	.139
		DNN+ Directional		-.062	.047	1076.991	1.000	-.200	.076
	DNN	No_Processing		.037	.047	1076.991	1.000	-.100	.175
		Beam		.030	.047	1076.991	1.000	-.108	.168
		Beam+Noise Block		.036	.047	1076.991	1.000	-.102	.174
		NoiseBlock		.037	.047	1076.991	1.000	-.101	.175
		DNN+ Directional		-.026	.047	1076.991	1.000	-.163	.112
	NoiseBlock	No_Processing		.000	.047	1076.991	1.000	-.138	.138
		Beam		-.007	.047	1076.991	1.000	-.145	.131
		Beam+Noise Block		-.001	.047	1076.991	1.000	-.139	.137
		DNN		-.037	.047	1076.991	1.000	-.175	.101
		DNN+ Directional		-.063	.047	1076.991	1.000	-.201	.075
	DNN+ Directional	No_Processing		.063	.047	1076.991	1.000	-.075	.201
		Beam		.056	.047	1076.991	1.000	-.082	.194
		Beam+Noise Block		.062	.047	1076.991	1.000	-.076	.200
		DNN		.026	.047	1076.991	1.000	-.112	.163
		NoiseBlock		.063	.047	1076.991	1.000	-.075	.201
VentedDome	No_Processing	Beam		.000	.066	1076.991	1.000	-.195	.195
		Beam+Noise Block		.001	.066	1076.991	1.000	-.194	.196

	Beam	DNN	-.037	.066	1076.9 91	1.000	-.232	.158
		NoiseBlock	-.002	.066	1076.9 91	1.000	-.197	.193
		DNN+ Directional	-.064	.066	1076.9 91	1.000	-.258	.131
		No_Processing	.000	.066	1076.9 91	1.000	-.195	.195
		Beam+Noise Block	.001	.066	1076.9 91	1.000	-.194	.196
		DNN	-.037	.066	1076.9 91	1.000	-.232	.158
	Beam+Noise Block	NoiseBlock	-.002	.066	1076.9 91	1.000	-.197	.193
		DNN+ Directional	-.063	.066	1076.9 91	1.000	-.258	.131
		No_Processing	-.001	.066	1076.9 91	1.000	-.196	.194
		Beam	-.001	.066	1076.9 91	1.000	-.196	.194
		DNN	-.038	.066	1076.9 91	1.000	-.233	.157
		NoiseBlock	-.003	.066	1076.9 91	1.000	-.198	.192
	DNN	DNN+ Directional	-.064	.066	1076.9 91	1.000	-.259	.130
		No_Processing	.037	.066	1076.9 91	1.000	-.158	.232
		Beam	.037	.066	1076.9 91	1.000	-.158	.232
		Beam+Noise Block	.038	.066	1076.9 91	1.000	-.157	.233
		NoiseBlock	.035	.066	1076.9 91	1.000	-.160	.230
		DNN+ Directional	-.027	.066	1076.9 91	1.000	-.222	.168
	NoiseBlock	No_Processing	.002	.066	1076.9 91	1.000	-.193	.197
		Beam	.002	.066	1076.9 91	1.000	-.193	.197
		Beam+Noise Block	.003	.066	1076.9 91	1.000	-.192	.198
		DNN	-.035	.066	1076.9 91	1.000	-.230	.160
		DNN+ Directional	-.062	.066	1076.9 91	1.000	-.257	.133
		No_Processing	.064	.066	1076.9 91	1.000	-.131	.258
	DNN+ Directional	Beam	.063	.066	1076.9	1.000	-.131	.258

					91		
			Beam+Noise Block	.064	.066	1076.9 91	.259
			DNN	.027	.066	1076.9 91	.222
			NoiseBlock	.062	.066	1076.9 91	.257
OpenDome	No_Processing	Beam		.004	.066	1076.9 91	.199
			Beam+Noise Block	-.004	.066	1076.9 91	.191
			DNN	-.002	.066	1076.9 91	.193
			NoiseBlock	-.013	.066	1076.9 91	.182
			DNN+ Directional	-.009	.066	1076.9 91	.186
Beam		No_Processing		-.004	.066	1076.9 91	.191
			Beam+Noise Block	-.008	.066	1076.9 91	.186
			DNN	-.006	.066	1076.9 91	.188
			NoiseBlock	-.017	.066	1076.9 91	.178
			DNN+ Directional	-.013	.066	1076.9 91	.182
Beam+Noise Block		No_Processing		.004	.066	1076.9 91	.199
			Beam	.008	.066	1076.9 91	.203
			DNN	.002	.066	1076.9 91	.197
			NoiseBlock	-.009	.066	1076.9 91	.186
			DNN+ Directional	-.004	.066	1076.9 91	.190
DNN		No_Processing		.002	.066	1076.9 91	.197
			Beam	.006	.066	1076.9 91	.201
			Beam+Noise Block	-.002	.066	1076.9 91	.193
			NoiseBlock	-.011	.066	1076.9 91	.184
			DNN+ Directional	-.006	.066	1076.9 91	.188
NoiseBlock		No_Processing		.013	.066	1076.9 91	.208



			Beam	.017	.066	1076.9 91	1.000	-.178	.212
			Beam+Noise Block	.009	.066	1076.9 91	1.000	-.186	.204
			DNN	.011	.066	1076.9 91	1.000	-.184	.206
			DNN+ Directional	.004	.066	1076.9 91	1.000	-.191	.199
		DNN+ Directional	No_Processing	.009	.066	1076.9 91	1.000	-.186	.203
			Beam	.013	.066	1076.9 91	1.000	-.182	.208
			Beam+Noise Block	.004	.066	1076.9 91	1.000	-.190	.199
			DNN	.006	.066	1076.9 91	1.000	-.188	.201
			NoiseBlock	-.004	.066	1076.9 91	1.000	-.199	.191
0	Occluded	No_Processing	Beam	-.102*	.033	1076.9 91	.033	-.199	-.004
			Beam+Noise Block	-.112*	.033	1076.9 91	.012	-.209	-.014
			DNN	-.202*	.033	1076.9 91	<.001	-.300	-.105
			NoiseBlock	-.022	.033	1076.9 91	1.000	-.119	.076
			DNN+ Directional	-.392*	.033	1076.9 91	<.001	-.489	-.294
	Beam	No_Processing	No_Processing	.102*	.033	1076.9 91	.033	.004	.199
			Beam+Noise Block	-.010	.033	1076.9 91	1.000	-.107	.087
			DNN	-.101*	.033	1076.9 91	.037	-.198	-.003
			NoiseBlock	.080	.033	1076.9 91	.239	-.017	.177
			DNN+ Directional	-.290*	.033	1076.9 91	<.001	-.388	-.193
	Beam+Noise Block	No_Processing	No_Processing	.112*	.033	1076.9 91	.012	.014	.209
			Beam	.010	.033	1076.9 91	1.000	-.087	.107
			DNN	-.091	.033	1076.9 91	.095	-.188	.007
			NoiseBlock	.090	.033	1076.9 91	.101	-.007	.187
			DNN+ Directional	-.280*	.033	1076.9 91	<.001	-.378	-.183
	DNN	No_Processing	No_Processing	.202*	.033	1076.9	<.001	.105	.300

					91			
		Beam	.101*	.033	1076.9 91	.037	.003	.198
		Beam+Noise Block	.091	.033	1076.9 91	.095	-.007	.188
		NoiseBlock	.181*	.033	1076.9 91	<.001	.083	.278
		DNN+ Directional	-.190*	.033	1076.9 91	<.001	-.287	-.092
	NoiseBlock	No_Processing	.022	.033	1076.9 91	1.000	-.076	.119
		Beam	-.080	.033	1076.9 91	.239	-.177	.017
		Beam+Noise Block	-.090	.033	1076.9 91	.101	-.187	.007
		DNN	-.181*	.033	1076.9 91	<.001	-.278	-.083
		DNN+ Directional	-.370*	.033	1076.9 91	<.001	-.468	-.273
	DNN+ Directional	No_Processing	.392*	.033	1076.9 91	<.001	.294	.489
		Beam	.290*	.033	1076.9 91	<.001	.193	.388
		Beam+Noise Block	.280*	.033	1076.9 91	<.001	.183	.378
		DNN	.190*	.033	1076.9 91	<.001	.092	.287
		NoiseBlock	.370*	.033	1076.9 91	<.001	.273	.468
1mm	No_Processing	Beam	-.046	.047	1076.9 91	1.000	-.184	.092
		Beam+Noise Block	-.035	.047	1076.9 91	1.000	-.173	.102
		DNN	-.113	.047	1076.9 91	.240	-.251	.025
		NoiseBlock	-.003	.047	1076.9 91	1.000	-.141	.134
		DNN+ Directional	-.242*	.047	1076.9 91	<.001	-.380	-.105
	Beam	No_Processing	.046	.047	1076.9 91	1.000	-.092	.184
		Beam+Noise Block	.011	.047	1076.9 91	1.000	-.127	.149
		DNN	-.067	.047	1076.9 91	1.000	-.205	.071
		NoiseBlock	.043	.047	1076.9 91	1.000	-.095	.181
		DNN+ Directional	-.196*	.047	1076.9 91	<.001	-.334	-.058

	Beam+Noise Block	No_Processing	.035	.047	1076.991	1.000	-.102	.173
		Beam	-.011	.047	1076.991	1.000	-.149	.127
		DNN	-.078	.047	1076.991	1.000	-.215	.060
		NoiseBlock	.032	.047	1076.991	1.000	-.106	.170
		DNN+ Directional	-.207*	.047	1076.991	<.001	-.345	-.069
	DNN	No_Processing	.113	.047	1076.991	.240	-.025	.251
		Beam	.067	.047	1076.991	1.000	-.071	.205
		Beam+Noise Block	.078	.047	1076.991	1.000	-.060	.215
		NoiseBlock	.110	.047	1076.991	.292	-.028	.247
		DNN+ Directional	-.129	.047	1076.991	.087	-.267	.008
	NoiseBlock	No_Processing	.003	.047	1076.991	1.000	-.134	.141
		Beam	-.043	.047	1076.991	1.000	-.181	.095
		Beam+Noise Block	-.032	.047	1076.991	1.000	-.170	.106
		DNN	-.110	.047	1076.991	.292	-.247	.028
		DNN+ Directional	-.239*	.047	1076.991	<.001	-.377	-.101
	DNN+ Directional	No_Processing	.242*	.047	1076.991	<.001	.105	.380
		Beam	.196*	.047	1076.991	<.001	.058	.334
		Beam+Noise Block	.207*	.047	1076.991	<.001	.069	.345
		DNN	.129	.047	1076.991	.087	-.008	.267
		NoiseBlock	.239*	.047	1076.991	<.001	.101	.377
Vented Dome	No_Processing	Beam	-.050	.066	1076.991	1.000	-.245	.145
		Beam+Noise Block	-.055	.066	1076.991	1.000	-.250	.140
		DNN	-.104	.066	1076.991	1.000	-.299	.091
		NoiseBlock	-.004	.066	1076.991	1.000	-.198	.191
		DNN+	-.200*	.066	1076.9	.038	-.395	-.005

	Beam	Directional			91			
		No_Processing	.050	.066	1076.9 91	1.000	-.145	.245
		Beam+Noise Block	-.005	.066	1076.9 91	1.000	-.200	.190
		DNN	-.054	.066	1076.9 91	1.000	-.249	.141
		NoiseBlock	.046	.066	1076.9 91	1.000	-.149	.241
		DNN+ Directional	-.151	.066	1076.9 91	.348	-.345	.044
	Beam+Noise Block	No_Processing	.055	.066	1076.9 91	1.000	-.140	.250
		Beam	.005	.066	1076.9 91	1.000	-.190	.200
		DNN	-.049	.066	1076.9 91	1.000	-.244	.146
		NoiseBlock	.051	.066	1076.9 91	1.000	-.144	.246
		DNN+ Directional	-.145	.066	1076.9 91	.425	-.340	.049
	DNN	No_Processing	.104	.066	1076.9 91	1.000	-.091	.299
		Beam	.054	.066	1076.9 91	1.000	-.141	.249
		Beam+Noise Block	.049	.066	1076.9 91	1.000	-.146	.244
		NoiseBlock	.100	.066	1076.9 91	1.000	-.095	.295
		DNN+ Directional	-.097	.066	1076.9 91	1.000	-.292	.098
	NoiseBlock	No_Processing	.004	.066	1076.9 91	1.000	-.191	.198
		Beam	-.046	.066	1076.9 91	1.000	-.241	.149
		Beam+Noise Block	-.051	.066	1076.9 91	1.000	-.246	.144
		DNN	-.100	.066	1076.9 91	1.000	-.295	.095
		DNN+ Directional	-.197*	.066	1076.9 91	.046	-.392	-.002
	DNN+ Directional	No_Processing	.200*	.066	1076.9 91	.038	.005	.395
		Beam	.151	.066	1076.9 91	.348	-.044	.345
		Beam+Noise Block	.145	.066	1076.9 91	.425	-.049	.340
		DNN	.097	.066	1076.9 91	1.000	-.098	.292

Open Dome	NoiseBlock		.197*	.066	1076.9 91	.046	.002	.392
	No_Processing	Beam	-.026	.066	1076.9 91	1.000	-.221	.169
		Beam+Noise Block	-.027	.066	1076.9 91	1.000	-.222	.168
		DNN	-.031	.066	1076.9 91	1.000	-.226	.164
		NoiseBlock	-.015	.066	1076.9 91	1.000	-.210	.180
		DNN+Directional	-.070	.066	1076.9 91	1.000	-.265	.125
	Beam	No_Processing	.026	.066	1076.9 91	1.000	-.169	.221
		Beam+Noise Block	-.001	.066	1076.9 91	1.000	-.196	.194
		DNN	-.005	.066	1076.9 91	1.000	-.200	.190
		NoiseBlock	.011	.066	1076.9 91	1.000	-.184	.205
		DNN+Directional	-.044	.066	1076.9 91	1.000	-.239	.151
	Beam+Noise Block	No_Processing	.027	.066	1076.9 91	1.000	-.168	.222
		Beam	.001	.066	1076.9 91	1.000	-.194	.196
		DNN	-.004	.066	1076.9 91	1.000	-.199	.191
		NoiseBlock	.011	.066	1076.9 91	1.000	-.183	.206
		DNN+Directional	-.043	.066	1076.9 91	1.000	-.238	.152
	DNN	No_Processing	.031	.066	1076.9 91	1.000	-.164	.226
		Beam	.005	.066	1076.9 91	1.000	-.190	.200
		Beam+Noise Block	.004	.066	1076.9 91	1.000	-.191	.199
		NoiseBlock	.016	.066	1076.9 91	1.000	-.179	.210
		DNN+Directional	-.039	.066	1076.9 91	1.000	-.234	.156
	NoiseBlock	No_Processing	.015	.066	1076.9 91	1.000	-.180	.210
		Beam	-.011	.066	1076.9 91	1.000	-.205	.184
		Beam+Noise Block	-.011	.066	1076.9 91	1.000	-.206	.183
		DNN	-.016	.066	1076.9	1.000	-.210	.179

					91			
			DNN+ Directional	-.055	.066	1076.9 91	1.000	-.250 .140
			DNN+ Directional No_Processing	.070	.066	1076.9 91	1.000	-.125 .265
			Beam	.044	.066	1076.9 91	1.000	-.151 .239
			Beam+Noise Block	.043	.066	1076.9 91	1.000	-.152 .238
			DNN	.039	.066	1076.9 91	1.000	-.156 .234
			NoiseBlock	.055	.066	1076.9 91	1.000	-.140 .250
5	Occluded	No_Processing	Beam	-.117*	.033	1076.9 91	.007	-.214 -.019
			Beam+Noise Block	-.067	.033	1076.9 91	.634	-.165 .030
			DNN	-.210*	.033	1076.9 91	<.001	-.307 -.112
			NoiseBlock	.007	.033	1076.9 91	1.000	-.090 .105
			DNN+ Directional	-.277*	.033	1076.9 91	<.001	-.375 -.180
		Beam	No_Processing	.117*	.033	1076.9 91	.007	.019 .214
			Beam+Noise Block	.049	.033	1076.9 91	1.000	-.048 .147
			DNN	-.093	.033	1076.9 91	.077	-.190 .005
			NoiseBlock	.124*	.033	1076.9 91	.003	.026 .221
			DNN+ Directional	-.160*	.033	1076.9 91	<.001	-.258 -.063
		Beam+Noise Block	No_Processing	.067	.033	1076.9 91	.634	-.030 .165
			Beam	-.049	.033	1076.9 91	1.000	-.147 .048
			DNN	-.142*	.033	1076.9 91	<.001	-.240 -.045
			NoiseBlock	.074	.033	1076.9 91	.371	-.023 .172
			DNN+ Directional	-.210*	.033	1076.9 91	<.001	-.307 -.112
		DNN	No_Processing	.210*	.033	1076.9 91	<.001	.112 .307
			Beam	.093	.033	1076.9 91	.077	-.005 .190
			Beam+Noise Block	.142*	.033	1076.9 91	<.001	.045 .240

		NoiseBlock	.217*	.033	1076.9 91	<.001	.119	.314
		DNN+ Directional	-.068	.033	1076.9 91	.626	-.165	.030
	NoiseBlock	No_Processing	-.007	.033	1076.9 91	1.000	-.105	.090
		Beam	-.124*	.033	1076.9 91	.003	-.221	-.026
		Beam+Noise Block	-.074	.033	1076.9 91	.371	-.172	.023
		DNN	-.217*	.033	1076.9 91	<.001	-.314	-.119
		DNN+ Directional	-.284*	.033	1076.9 91	<.001	-.382	-.187
	DNN+ Directional	No_Processing	.277*	.033	1076.9 91	<.001	.180	.375
		Beam	.160*	.033	1076.9 91	<.001	.063	.258
		Beam+Noise Block	.210*	.033	1076.9 91	<.001	.112	.307
		DNN	.068	.033	1076.9 91	.626	-.030	.165
		NoiseBlock	.284*	.033	1076.9 91	<.001	.187	.382
1mm	No_Processing	Beam	-.090	.047	1076.9 91	.823	-.228	.048
		Beam+Noise Block	-.106	.047	1076.9 91	.353	-.244	.032
		DNN	-.157*	.047	1076.9 91	.012	-.295	-.019
		NoiseBlock	-.008	.047	1076.9 91	1.000	-.146	.130
		DNN+ Directional	-.270*	.047	1076.9 91	<.001	-.408	-.132
	Beam	No_Processing	.090	.047	1076.9 91	.823	-.048	.228
		Beam+Noise Block	-.016	.047	1076.9 91	1.000	-.154	.122
		DNN	-.067	.047	1076.9 91	1.000	-.205	.071
		NoiseBlock	.082	.047	1076.9 91	1.000	-.056	.220
		DNN+ Directional	-.180*	.047	1076.9 91	.002	-.318	-.042
	Beam+Noise Block	No_Processing	.106	.047	1076.9 91	.353	-.032	.244
		Beam	.016	.047	1076.9 91	1.000	-.122	.154
		DNN	-.051	.047	1076.9	1.000	-.189	.087

					91					
			NoiseBlock	.098	.047	1076.9 91	.551	-.040	.236	
			DNN+ Directional	-.164*	.047	1076.9 91	.007	-.302	-.026	
DNN		No_Processing	.157*	.047	1076.9 91	.012	.019	.295		
		Beam	.067	.047	1076.9 91	1.000	-.071	.205		
		Beam+Noise Block	.051	.047	1076.9 91	1.000	-.087	.189		
		NoiseBlock	.149*	.047	1076.9 91	.023	.011	.287		
		DNN+ Directional	-.113	.047	1076.9 91	.240	-.251	.025		
		NoiseBlock	No_Processing	.008	.047	1076.9 91	1.000	-.130	.146	
		Beam	-.082	.047	1076.9 91	1.000	-.220	.056		
		Beam+Noise Block	-.098	.047	1076.9 91	.551	-.236	.040		
		DNN	-.149*	.047	1076.9 91	.023	-.287	-.011		
		DNN+ Directional	-.262*	.047	1076.9 91	<.001	-.400	-.124		
		DNN+ Directional	No_Processing	.270*	.047	1076.9 91	<.001	.132	.408	
		Beam	.180*	.047	1076.9 91	.002	.042	.318		
		Beam+Noise Block	.164*	.047	1076.9 91	.007	.026	.302		
		DNN	.113	.047	1076.9 91	.240	-.025	.251		
		NoiseBlock	.262*	.047	1076.9 91	<.001	.124	.400		
		Vented Dome	No_Processing	Beam	-.097	.066	1076.9 91	1.000	-.292	.098
				Beam+Noise Block	-.096	.066	1076.9 91	1.000	-.291	.099
				DNN	-.122	.066	1076.9 91	.983	-.317	.073
NoiseBlock	.005			.066	1076.9 91	1.000	-.190	.200		
DNN+ Directional	-.179			.066	1076.9 91	.103	-.374	.015		
Beam		No_Processing	.097	.066	1076.9 91	1.000	-.098	.292		
		Beam+Noise Block	.000	.066	1076.9 91	1.000	-.194	.195		



	Beam+Noise Block	DNN		-.025	.066	1076.991	1.000	-.220	.170
		NoiseBlock		.101	.066	1076.991	1.000	-.093	.296
		DNN+ Directional		-.083	.066	1076.991	1.000	-.278	.112
		No_Processing		.096	.066	1076.991	1.000	-.099	.291
		Beam		.000	.066	1076.991	1.000	-.195	.194
		DNN		-.026	.066	1076.991	1.000	-.221	.169
		NoiseBlock		.101	.066	1076.991	1.000	-.094	.296
		DNN+ Directional		-.083	.066	1076.991	1.000	-.278	.112
		No_Processing	DNN	.122	.066	1076.991	.983	-.073	.317
	DNN	Beam		.025	.066	1076.991	1.000	-.170	.220
		Beam+Noise Block		.026	.066	1076.991	1.000	-.169	.221
		NoiseBlock		.127	.066	1076.991	.838	-.068	.322
		DNN+ Directional		-.057	.066	1076.991	1.000	-.252	.138
		No_Processing	NoiseBlock	-.005	.066	1076.991	1.000	-.200	.190
		Beam		-.101	.066	1076.991	1.000	-.296	.093
		Beam+Noise Block		-.101	.066	1076.991	1.000	-.296	.094
		DNN		-.127	.066	1076.991	.838	-.322	.068
		DNN+ Directional		-.184	.066	1076.991	.083	-.379	.011
	DNN+ Directional	No_Processing		.179	.066	1076.991	.103	-.015	.374
		Beam		.083	.066	1076.991	1.000	-.112	.278
		Beam+Noise Block		.083	.066	1076.991	1.000	-.112	.278
		DNN		.057	.066	1076.991	1.000	-.138	.252
		NoiseBlock		.184	.066	1076.991	.083	-.011	.379
Open Dome	No_Processing	Beam		-.064	.066	1076.991	1.000	-.259	.131
		Beam+Noise		-.070	.066	1076.991	1.000	-.265	.125

		Block			91			
		DNN	-.053	.066	1076.9 91	1.000	-.248	.142
		NoiseBlock	.000	.066	1076.9 91	1.000	-.195	.195
		DNN+ Directional	-.084	.066	1076.9 91	1.000	-.279	.111
	Beam	No_Processing	.064	.066	1076.9 91	1.000	-.131	.259
		Beam+Noise Block	-.007	.066	1076.9 91	1.000	-.202	.188
		DNN	.011	.066	1076.9 91	1.000	-.184	.206
		NoiseBlock	.063	.066	1076.9 91	1.000	-.131	.258
		DNN+ Directional	-.021	.066	1076.9 91	1.000	-.216	.174
	Beam+Noise Block	No_Processing	.070	.066	1076.9 91	1.000	-.125	.265
		Beam	.007	.066	1076.9 91	1.000	-.188	.202
		DNN	.018	.066	1076.9 91	1.000	-.177	.213
		NoiseBlock	.070	.066	1076.9 91	1.000	-.125	.265
		DNN+ Directional	-.014	.066	1076.9 91	1.000	-.209	.181
	DNN	No_Processing	.053	.066	1076.9 91	1.000	-.142	.248
		Beam	-.011	.066	1076.9 91	1.000	-.206	.184
		Beam+Noise Block	-.018	.066	1076.9 91	1.000	-.213	.177
		NoiseBlock	.052	.066	1076.9 91	1.000	-.142	.247
		DNN+ Directional	-.032	.066	1076.9 91	1.000	-.227	.163
	NoiseBlock	No_Processing	.000	.066	1076.9 91	1.000	-.195	.195
		Beam	-.063	.066	1076.9 91	1.000	-.258	.131
		Beam+Noise Block	-.070	.066	1076.9 91	1.000	-.265	.125
		DNN	-.052	.066	1076.9 91	1.000	-.247	.142
		DNN+ Directional	-.084	.066	1076.9 91	1.000	-.279	.111
	DNN+	No_Processing	.084	.066	1076.9 91	1.000	-.111	.279

Directional	Beam	.021	.066	1076.991	1.000	-.174	.216
	Beam+Noise Block	.014	.066	1076.991	1.000	-.181	.209
	DNN	.032	.066	1076.991	1.000	-.163	.227
	NoiseBlock	.084	.066	1076.991	1.000	-.111	.279

Based on estimated marginal means<sup>a</sup>

\*. The mean difference is significant at the .05 level.

a. Dependent Variable: HASPI.

c. Adjustment for multiple comparisons: Bonferroni.

Univariate Tests <sup>a</sup>					
SNR	Venting	Numerator df	Denominator df	F	Sig.
-5	Occluded	5	1076.991	8.036	<.001
	1mm	5	1076.991	.627	.679
	VentedDome	5	1076.991	.336	.892
	OpenDome	5	1076.991	.017	1.000
0	Occluded	5	1076.991	37.600	<.001
	1mm	5	1076.991	7.767	<.001
	VentedDome	5	1076.991	2.557	.026
	OpenDome	5	1076.991	.249	.941
5	Occluded	5	1076.991	23.881	<.001
	1mm	5	1076.991	9.224	<.001
	VentedDome	5	1076.991	2.349	.039
	OpenDome	5	1076.991	.604	.697

Each F tests the simple effects of Program within each level combination of the other effects shown. These tests are based on the linearly independent pairwise comparisons among the estimated marginal means.<sup>a</sup>

a. Dependent Variable: HASPI.