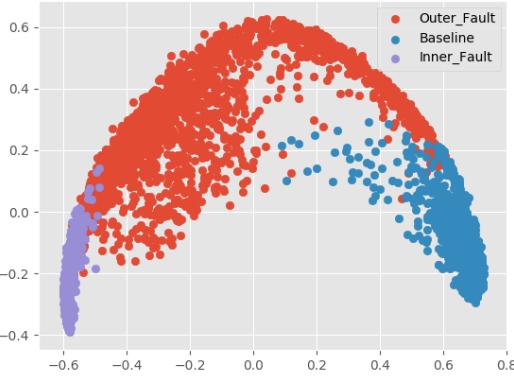
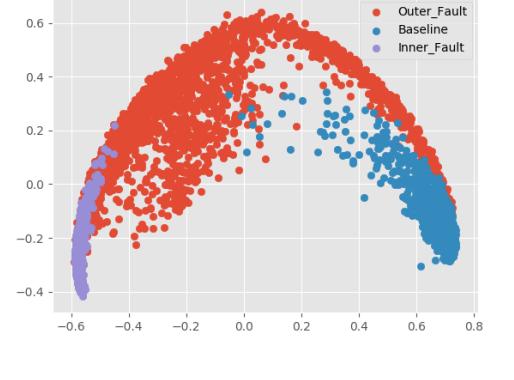
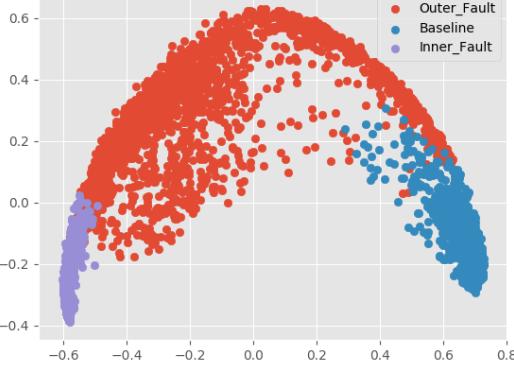
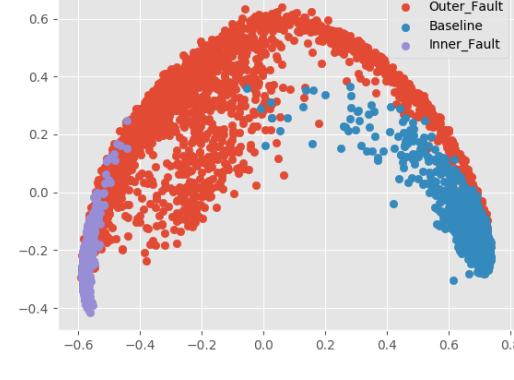
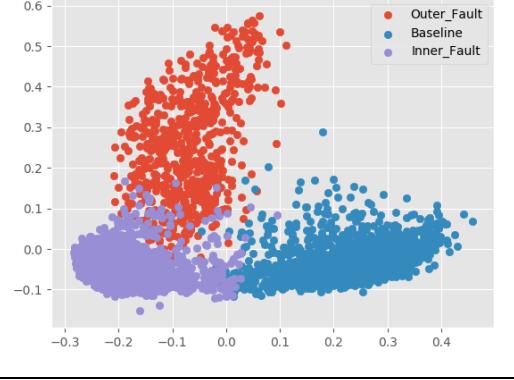
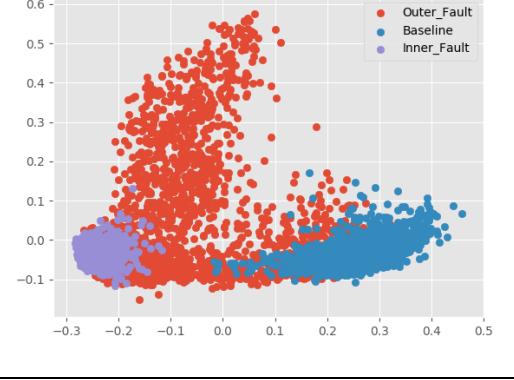
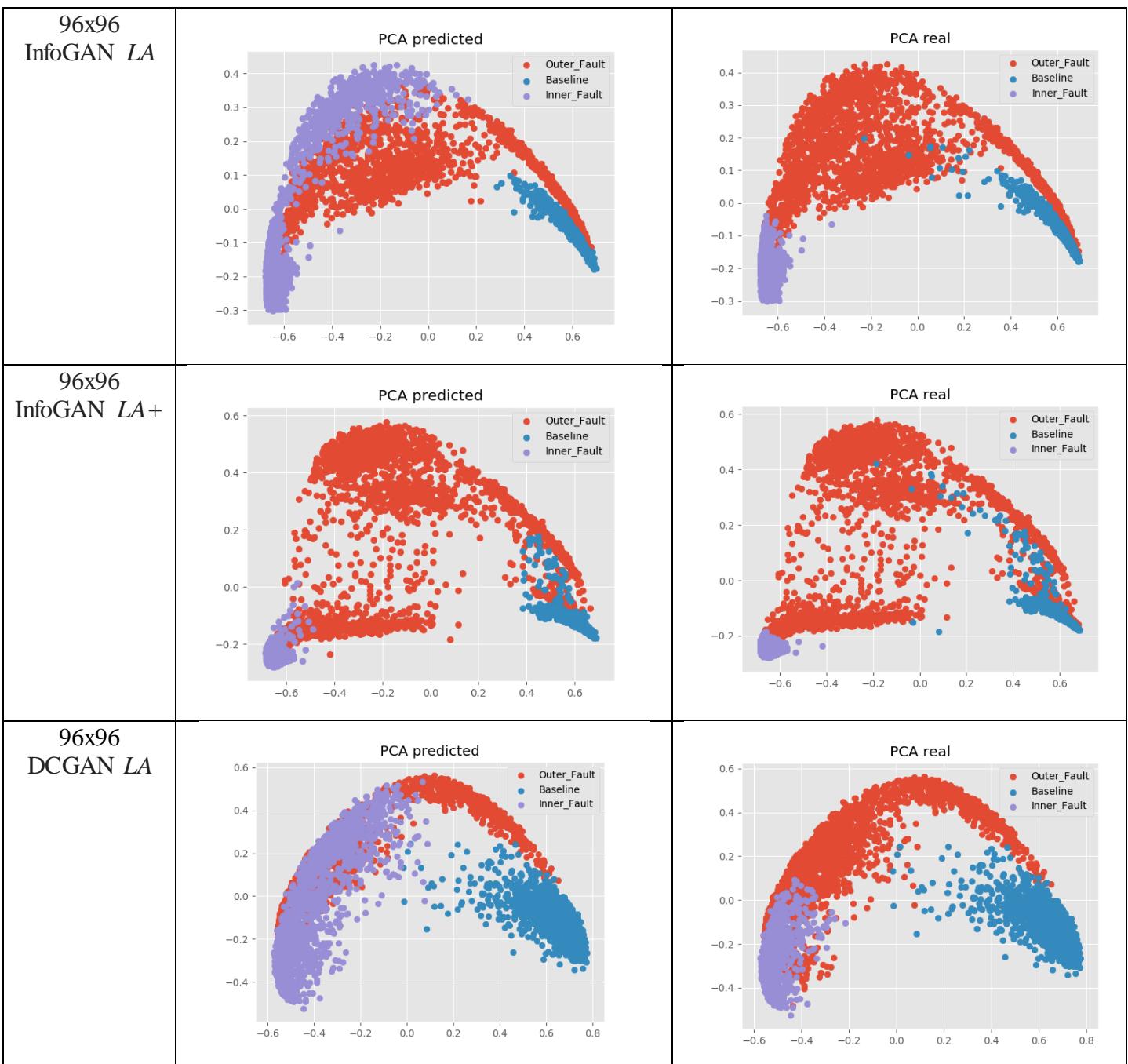


APPENDIX A

Model	Predicted	Real
32x32 InfoGAN LA	<p style="text-align: center;">PCA predicted</p>  <ul style="list-style-type: none"> Outer_Fault Baseline Inner_Fault 	<p style="text-align: center;">PCA real</p>  <ul style="list-style-type: none"> Outer_Fault Baseline Inner_Fault
32x32 InfoGAN LA+	<p style="text-align: center;">PCA predicted</p>  <ul style="list-style-type: none"> Outer_Fault Baseline Inner_Fault 	<p style="text-align: center;">PCA real</p>  <ul style="list-style-type: none"> Outer_Fault Baseline Inner_Fault
32x32 DCGAN LA	<p style="text-align: center;">PCA predicted</p>  <ul style="list-style-type: none"> Outer_Fault Baseline Inner_Fault 	<p style="text-align: center;">PCA real</p>  <ul style="list-style-type: none"> Outer_Fault Baseline Inner_Fault



APPENDIX B

MFPT Results: 0% (Unsupervised)

	ARI	Purity	NMI
LA KMeans++	0.53	0.80	0.62
LA Spectral Clustering *	0.89*	0.96*	0.88*
LA+ KMeans++	0.57	0.83	0.64
LA+ Spectral Clustering *	0.85	0.95	0.86

Table B.1: 32x32* generator output, InfoGAN.

	ARI	Purity	NMI
LA KMeans++	0.50	0.81	0.58
LA Spectral Clustering *	0.61	0.82	0.72
LA+ KMeans++	0.42	0.75	0.53
LA+ Spectral Clustering *	0.84	0.94	0.82

Table B.2: 96x96 generator output, InfoGAN.

	ARI	Purity	NMI
LA KMeans++	0.34	0.72	0.47
LA Spectral Clustering *	0.34	0.72	0.48

Table B.3: 32x32 generator output, DCGAN.

	ARI	Purity	NMI
LA KMeans++	0.50	0.79	0.62
LA Spectral Clustering *	0.59	0.82	0.72

Table B.4: 96x96* generator output, DCGAN.

*: Indicates best results for clustering.

*: Indicates best results for 96x96 or 32x32 output.

*: Indicates best results for ARI, Purity, and NMI.

APPENDIX C

CWR Results: 0% (Unsupervised)

	ARI	Purity	NMI
LA KMeans++*	0.565	0.758	0.647
LA Spectral Clustering	0.353	0.604	0.572
LA+ KMeans++*	0.568	0.760	0.647
LA+ Spectral Clustering	0.309	0.640	0.517

Table C.1: CWR 32x32 output, InfoGAN.

	ARI	Purity	NMI
LA KMeans++*	0.500	0.766	0.578
LA Spectral Clustering	0.382	0.733	0.510
LA+ KMeans++	0.463*	0.657	0.495
LA+ Spectral Clustering	0.358	0.715*	0.598*

Table C.2: CWR 96x96 output, InfoGAN.

	ARI	Purity	NMI
LA KMeans++*	0.523	0.728	0.579
LA Spectral Clustering	0.347	0.594	0.595

Table C.3: CWR 32x32 output, DCGAN.

	ARI	Purity	NMI
LA KMeans++*	0.686*	0.816*	0.781*
LA Spectral Clustering	0.241	0.600	0.467

Table C.4: CWR 96x96 output, DCGAN.

*: Indicates best results for clustering.

*: Indicates best results for ARI, Purity, and NMI.