

0.5

.1k

1k

train step

10k

b) Contrastive feature learning

 f_1'

0.5

.1k

10k

1k

train step

 f_2'

 f_3'

 f_K'

a) Transformer architecture

Nx125ms time bins

2

0.5

.1k

1k

train step

10k