

**Context Module**

```
inv : self.out.size() <= 1
```

**Context VCO**

```
inv : in->size() <= 1 and  
      in->collect(p : Port | p.name = « pitch_in »)->size() <= 1 and  
      out->collect(p : Port | p.name = « sig_out »)->size() = 1  
inv : parameters->collect(cp : ContinuousParameter | cp.name = « pitch »)->size() = 1 and  
      parameters->collect(dp : DiscreteParameter | dp.name = « shape »)->size() = 1
```

**Context VCF**

```
inv : in->size() = 2 and  
      in->collect(p : Port | p.name = « sig_in »)->size() = 1 and  
      in->collect(p : Port | p.name = « cut_off »)->size() = 1 and  
      out->collect(p : Port | p.name = « sig_out »)->size() = 1  
inv : parameters->collect(cp : ContinuousParameter | cp.name = « cut_off »)->size() = 1 and  
      parameters->collect(cp : ContinuousParameter | cp.name = « resonance »)->size() = 1
```

**Context VCA**

```
inv : 1 <= self.in->size() <= 2 and  
      in->collect(p : Port | p.name = « sig_in »)->size() = 1 and  
      in->collect(p : Port | p.name = « gain »)->size() = 1 and  
      out->collect(p : Port | p.name = « sig_out »)->size() = 1  
inv : parameters->collect(cp : ContinuousParameter | cp.name = « gain »)->size() = 1 and
```

**Context ADSR**

```
inv : in->size() = 1 and  
      in->collect(p : Port | p.name = « sig_in »)->size() = 1 and  
      out->collect(p : Port | p.name = « sig_out »)->size() = 1  
inv : parameters->collect(cp : ContinuousParameter | cp.name = « attack »)->size() = 1 and  
      parameters->collect(cp : ContinuousParameter | cp.name = « decay »)->size() = 1 and  
      parameters->collect(cp : ContinuousParameter | cp.name = « sustain »)->size() = 1 and  
      parameters->collect(cp : ContinuousParameter | cp.name = « release »)->size() = 1
```

**Context OUT**

```
inv : in->size() = 1 and  
      in->collect(p : Port | p.name = « sig_in »)->size() = 1
```

**Context MIXER**

```
inv : in->size() >= 2 and  
      in->forall(p : Port | parameters->exists(cp : ContinuousParameter | cp.name = p.name)) and  
      out->collect(p : Port | p.name = « sig_out »)->size() = 1
```