Signal change from input port

- Duty cycle $D$ of $s_{out}$
- Initial phase $\varphi_0$ of $s_{out}$
- Divider factor $N$

Find main tone (tone with largest amplitude)

- $\omega_{main, out} = \omega_{main} / N$

- $\omega_{sp_{out,i}} = \omega_{sp_{i}} + \omega_{main, out} - \omega_{main}$

- $A_{main,k} = c_k \times \exp(j\varphi_{in}/N)$

- $A_{spur_{out,i}} = \frac{A_{spur_{in,i}}}{N} \times \exp(j\varphi_{in}/N)$

Calculate $\varphi_{in}$ of main tone

Scale to 1

Create $s_{out}$ with frequency and amplitudes information

- Scale to $VDD_{out}$

Write to output port

- $|\omega_{offset, out}| > 2\omega_{main, out}$
  - yes
  - $\omega_{sp_{out,i}} - 2\omega_{main, out}$