# ADS Model
# Intelligent Power Module
# MITSUBISHI ELECTRIC Corporation
# PSS75SA2FT

## Model Information

| | |
|---|---|
| **Model** | A macro model |
| **Call Name** | MDC_PSS75SA2FT_AD |

**Pin Assign**    1:UP  2:NC_1  3:VP1_1  4:VUFB  5:NC_2  6:VUFS  7:VP  8:NC_3  9:VP1_2  10:VVFB  11:NC_4  12:VVFS  13:WP  14:VP1_3  15:VPC  16:VWFB  17:NC_5  18:VWFS  19:VSC  20:NC_6  21:VN1  22:VNC  23:VOT  24:CIN  25:CFO  26:FO  27:UN  28:VN  29:WN  30:NC_7  31:NC_8  32:NC_9  33:NC_10  34:NW  35:NV  36:NU  37:W  38:V  39:U  40:P  41:NC_11  42:NC_12

**File List**    Model Library    MDC_PSS75SA2FT_AD.zip
Model Report    MDC_PSS75SA2FT_AD.pdf(this file)

**Verified Simulator Version**          ADS version 2019 Update2

**Note**

**References**

The information which was used for modeling is as follow:

[Data Sheet]
- ●Date/Version        2020.2
- ●Product name        PSS75SA2FT
- ●Company name        MITSUBISHI ELECTRIC Corporation

[Characteristics listed]
- ●Characteristics        Switching time(P-side)
  Switching time(N-side)
  UVLO(P-side)
  UVLO(N-side)
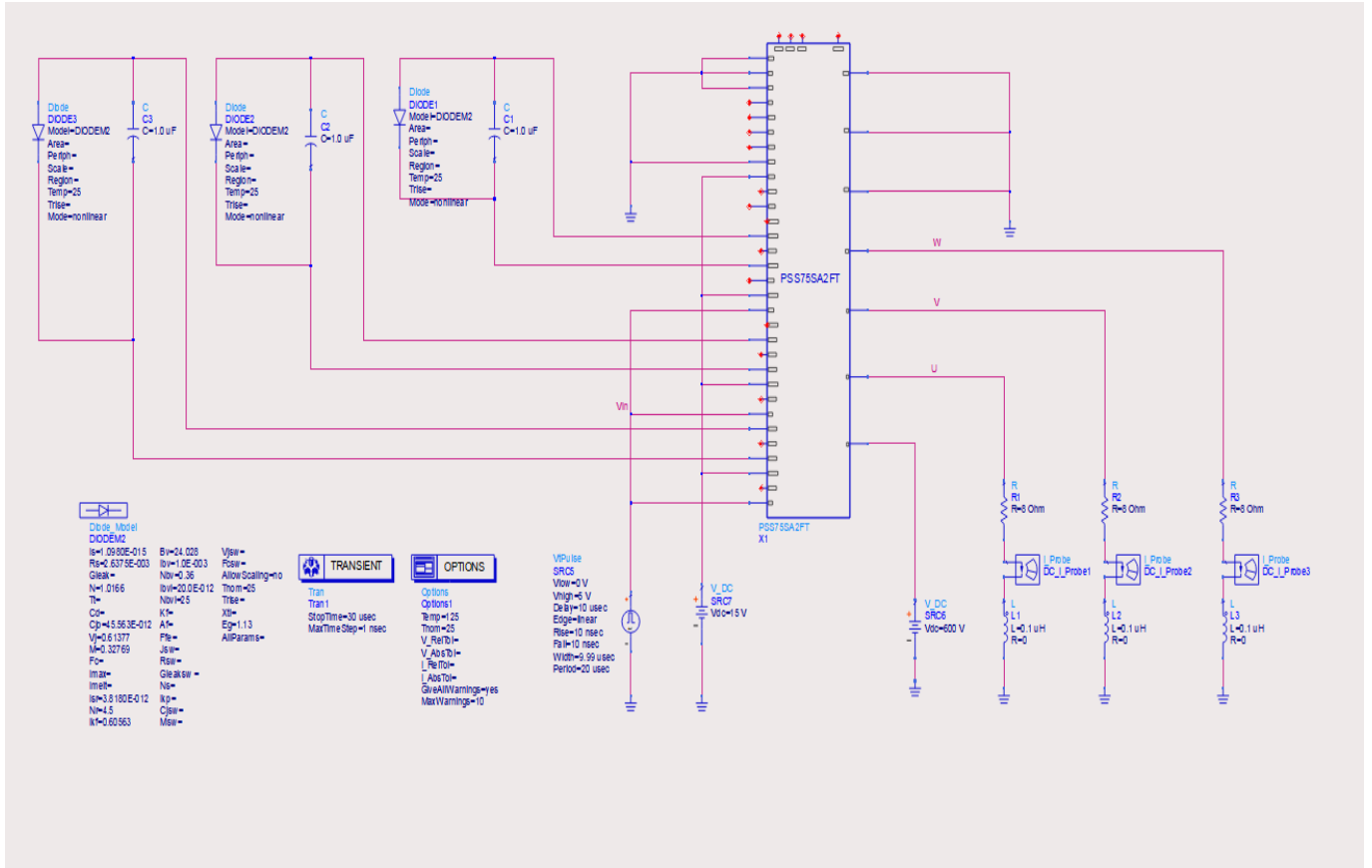  Three-phase AC output(reference data)

**Simulation Condition**

This table shows the range of evaluated simulation range that was not occurs any convergence problems in this area.

| Item | Condition | Unit |
|---|---|---|
| Temperature | 25 | deg C |

**Model Functions Table**

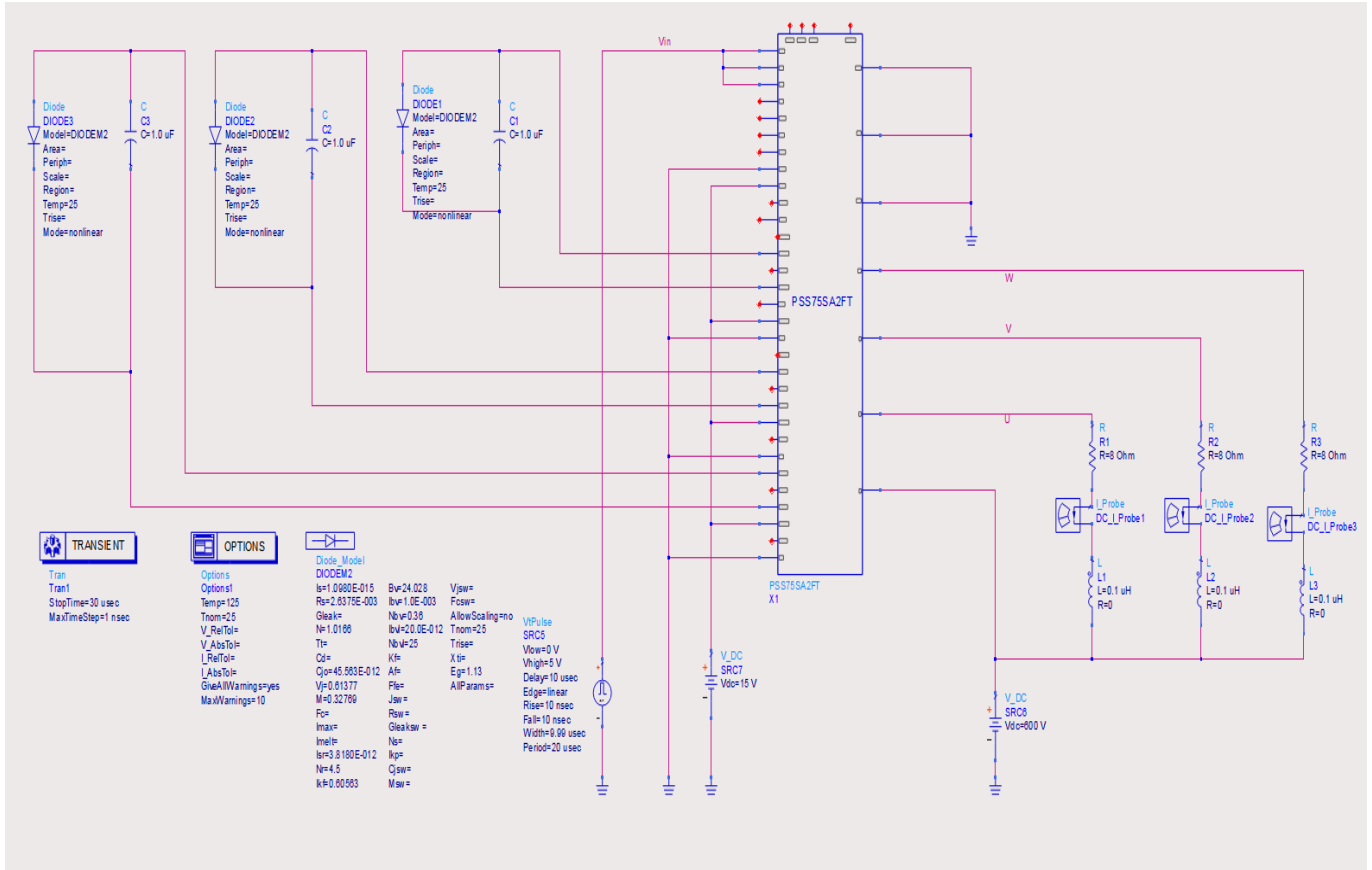| Functions | Implemented |
|---|:---:|
| Collector-emitter saturation voltage | ○ |
| FWD forward voltage drop | ○ |
| Switching time | ○ |
| UVLO(P-side) | ○ |
| UVLO(N-side) | ○ |
| Input ON / OFF threshold voltage | ○ |

**Switching time(P-side) Testbench**



Simulation results are following.
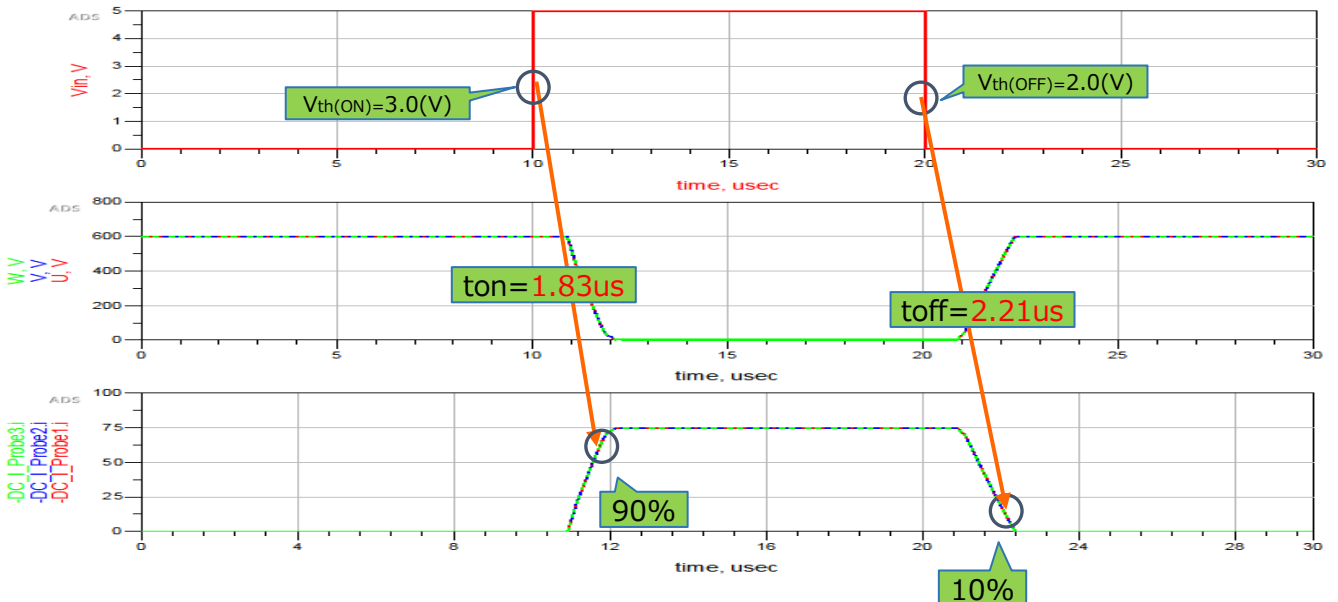Explanatory notes　ー : simulated
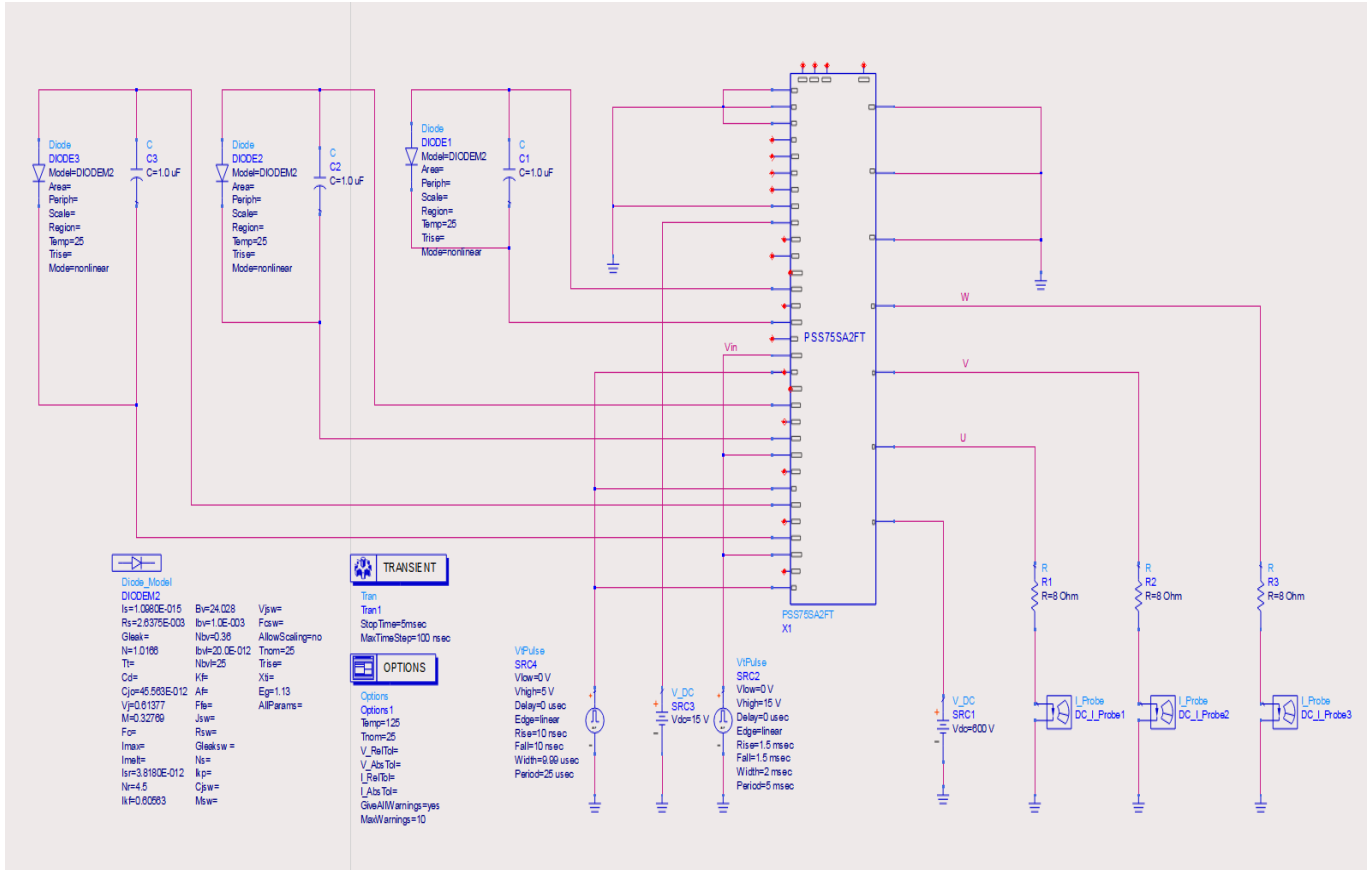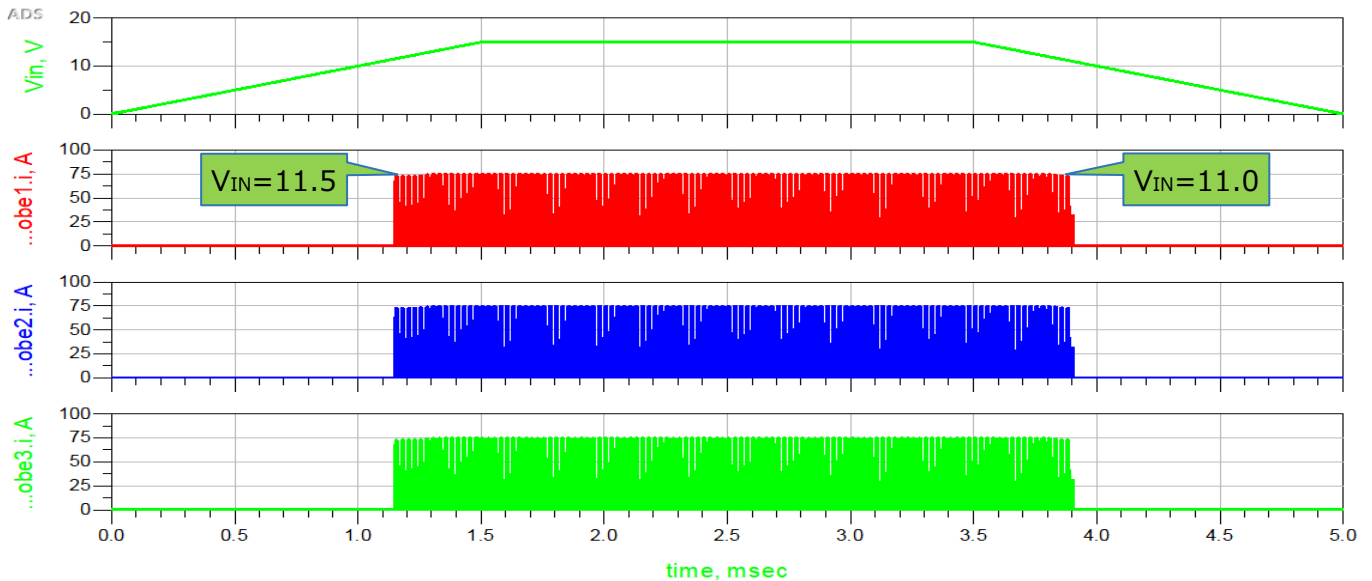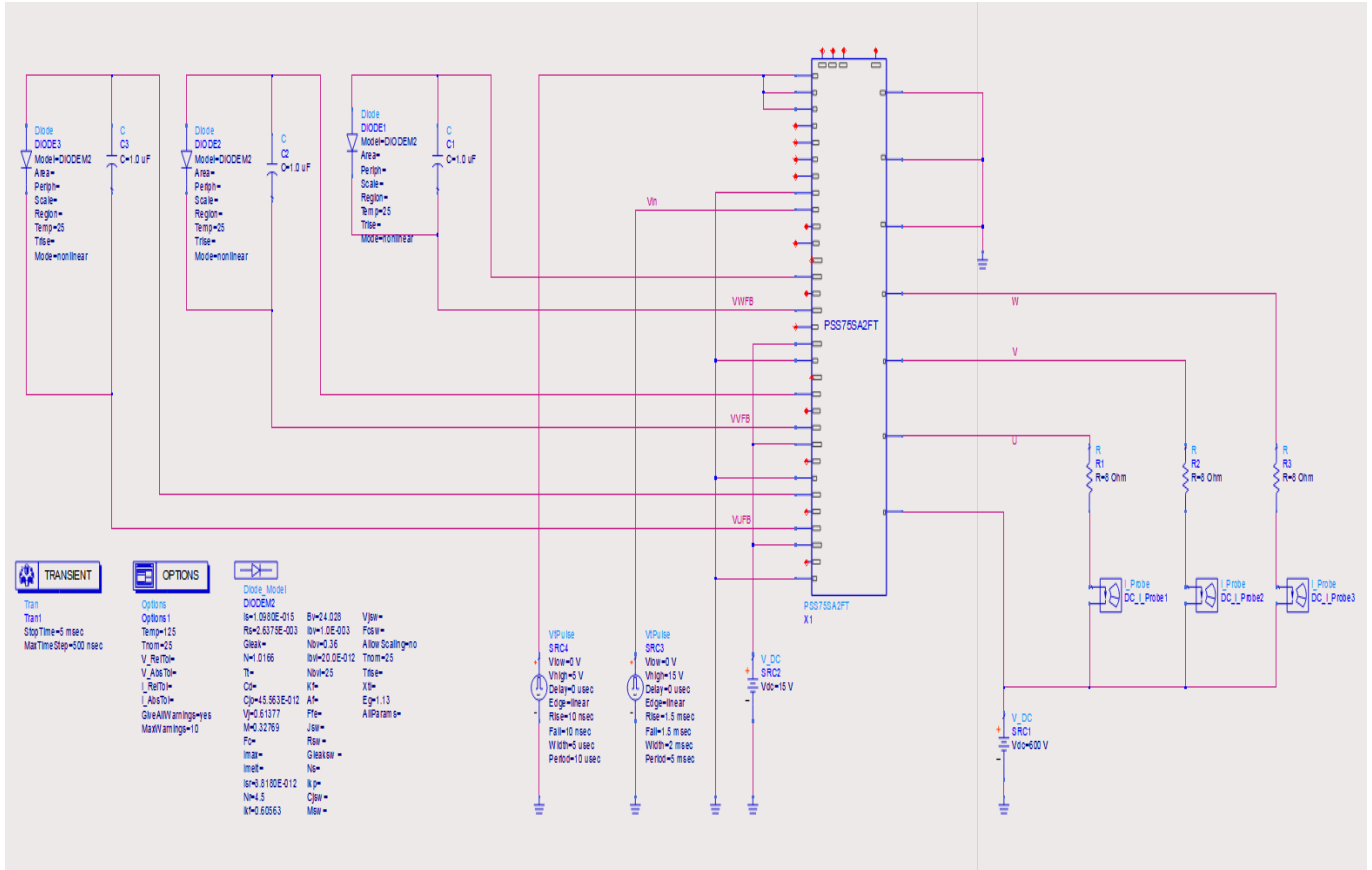
**Switching time(P-side)**
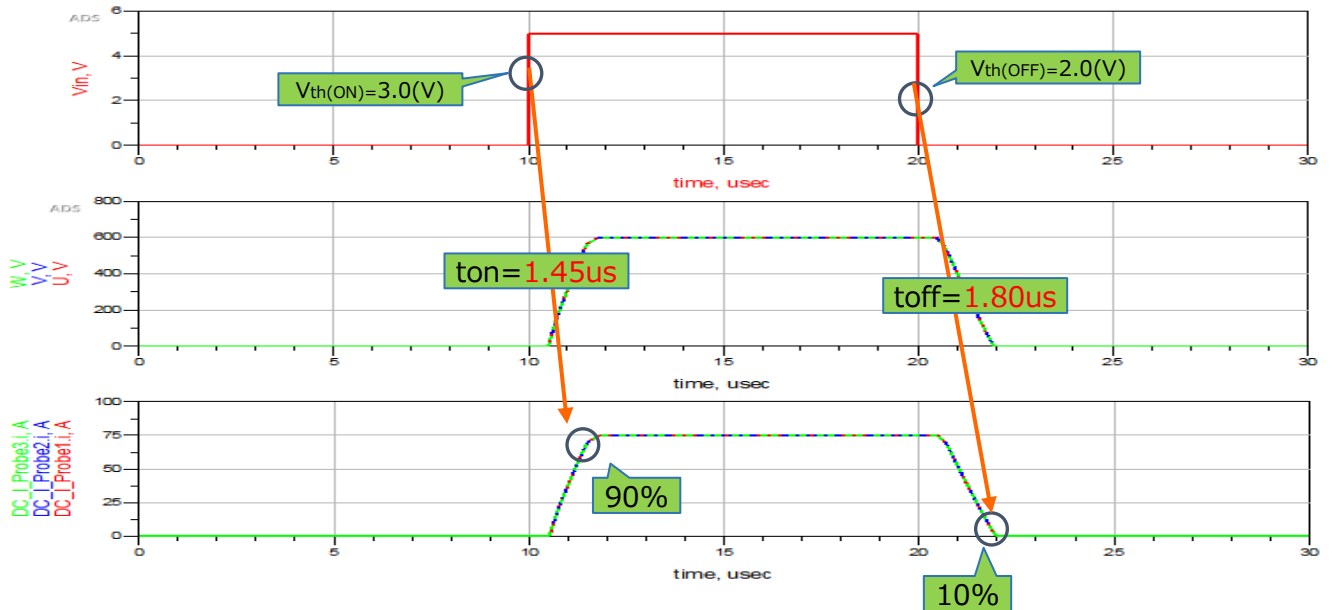
## Switching time(N-side) Testbench



Simulation results are following.
Explanatory notes 　－ : simulated

### Switching time(N-side)

## UVLO(P-side) Testbench



Simulation results are following.
Explanatory notes　　—　: simulated
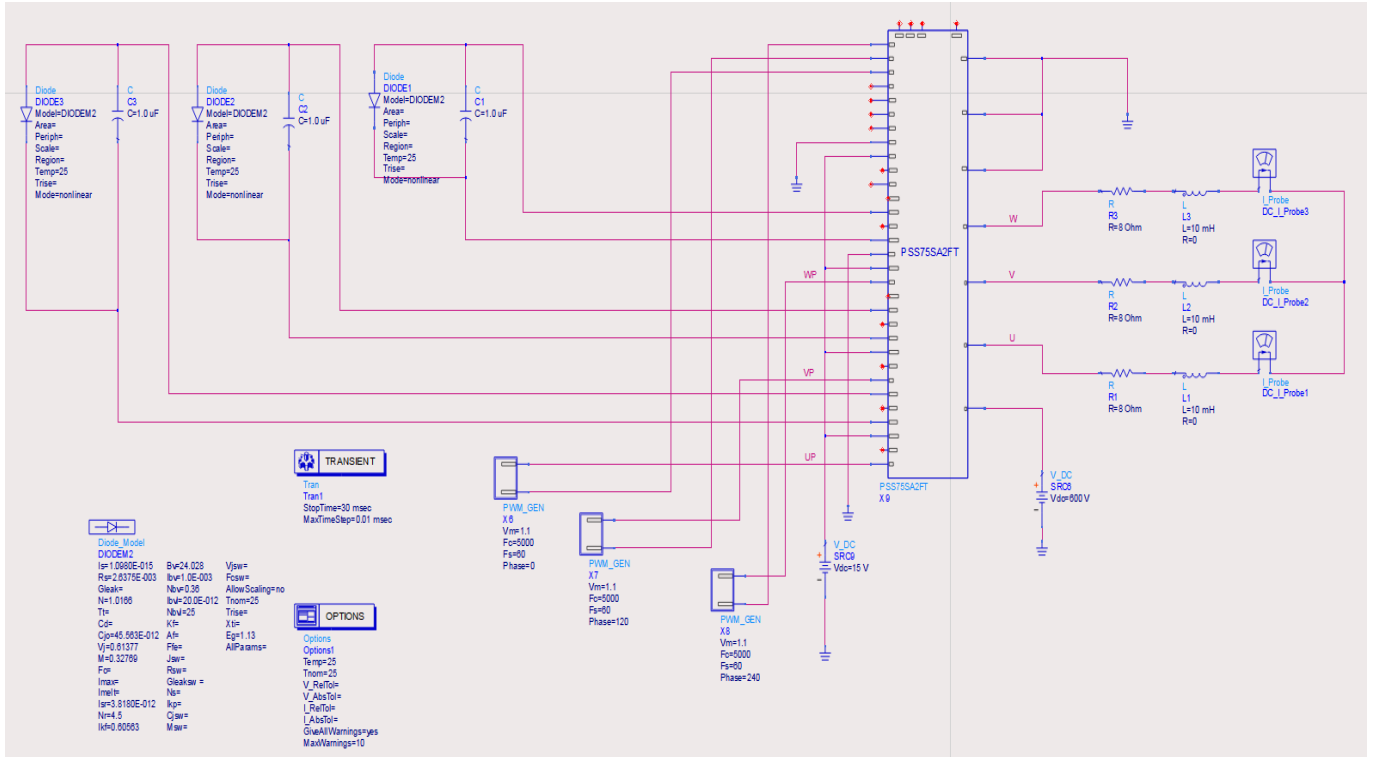
### UVLO(P-side)

## UVLO(N-side) Testbench



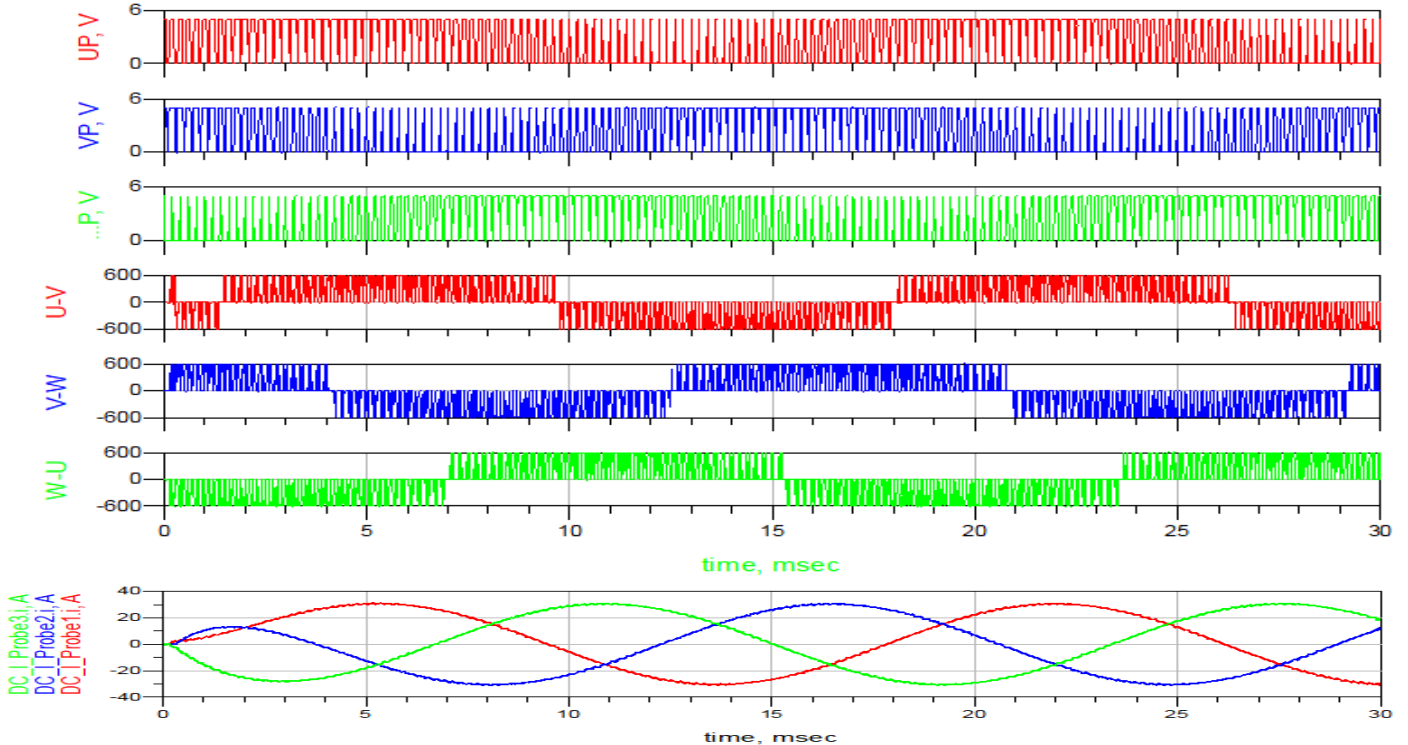Simulation results are following.
Explanatory notes  — : simulated

### UVLO(N-side)
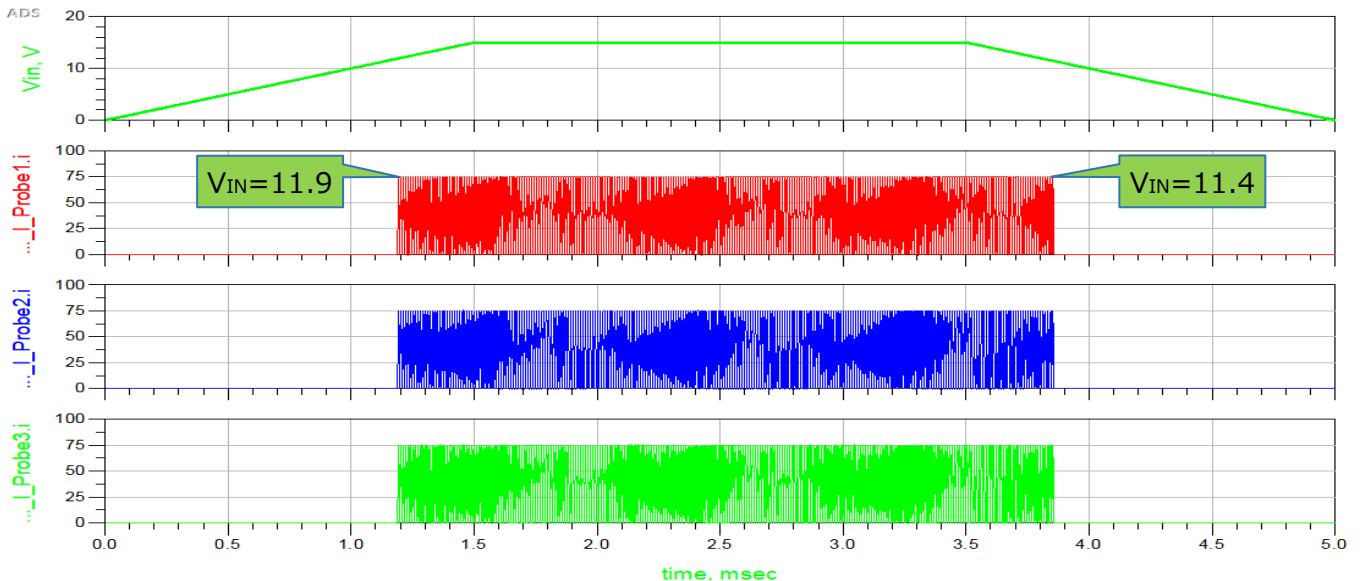
**Three-phase AC output (reference data) Testbench**



Simulation results are following.
Explanatory notes　　— : simulated

**Three-phase AC output (reference data)**

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MoDeCH Inc.

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