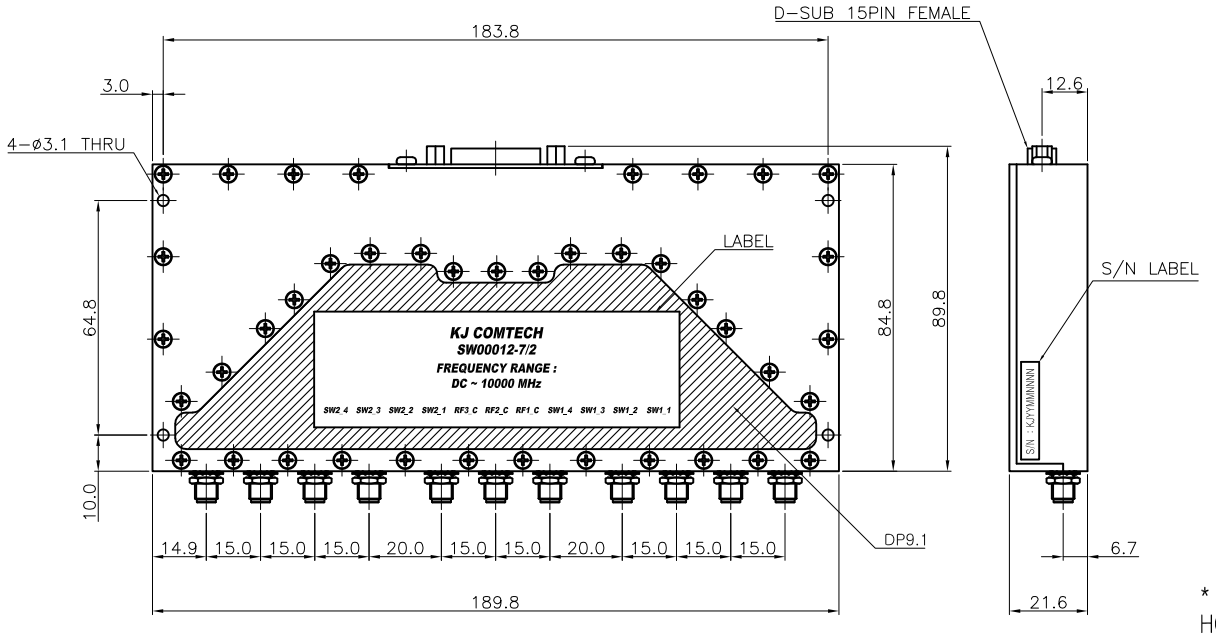
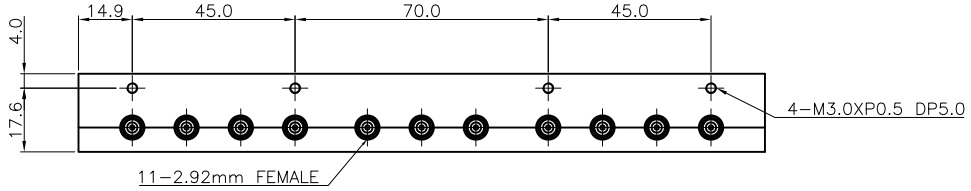
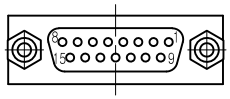
| REVISION | | | | |
|---|---|---|---|---|
| REV | DESCRIPTION | DRAWN | APPR | DATE |
| 1 | Initial Registration | K.S.KIM | S.L.SON | 2022.05.25. |
| 2 | 특성개선 Rev. | K.S.KIM | S.L.SON | 2023.03.06. |




* 15 Pin D-SUB Pin Map
(Female)




| Pin Number | Pin Map | Voltage |
|---|---|---|
| 1 | VDD | 3.3V |
| 2 | VCRTL_U1 | 3.3V |
| 3 | LS_U2 | 3.3V |
| 4 | V1_U4 | 3.3V |
| 5 | V2_U4 | 3.3V |
| 6 | GND | GND |
| 7 | NC | - |
| 8 | VSS | -3.3V |
| 9 | VSS | -2.5V |
| 10 | V1_U5 | 3.3V |
| 11 | V2_U5 | 3.3V |
| 12 | V1_U6 | 3.3V |
| 13 | V2_U6 | 3.3V |
| 14 | V1_U7 | 3.3V |
| 15 | V2_U7 | 3.3V |

* MECHANICAL SPECIFICATIONS
HOUSING : A6061 (White Chromate)
CONNECTORS : MBsBD (Gold Plate)
CONNECTORS PINS : BeCu (Gold Plate)
INSULATORS : TEFLON

* DETAIL LABEL
Serial No : KJYYMMNNNN
- YY : 제조 년
- MM: 제조 월
- NNNN : Serial No
*Date: 생산일 기준

* ELECTRICAL SPECIFICATIONS

| Parameters | | | Electrical Specifications |
|---|---|---|---|
| Frequency Range | | | DC ~ 10GHz |
| Characteristic Impedance | | | 50Ω |
| Switch Box Voltage | | | DC 5V |
| Insertion Loss (MAX.) | DC~3GHz | | 4.5dB |
| | 3GHz~6GHz | | 5.0dB |
| | 6GHz~9GHz | | 7.0dB |
| | 9GHz~10GHz | | 8.2dB |
| Isolation (Min.) | RF1 TO RF2<br>RF2 TO RF3 | DC~3GHz | 35dB |
| | | 3GHz~6GHz | |
| | | 6GHz~10GHz | 30dB |
| | RF1 TO RF3 | DC~3GHz | 70dB |
| | | 3GHz~6GHz | 70dB |
| | | 6GHz~10GHz | 60dB |
| | SW1,2,3,4 TO SW1,2,3,4<br>SW5,6,7,8 TO SW5,6,7,8 | DC~3GHz | 35dB |
| | | 3GHz~6GHz | |
| | | 6GHz~10GHz | 28dB |
| | SW1,2,3,4 TO SW5,6,7,8 | DC~3GHz | 70dB |
| | | 3GHz~6GHz | 70dB |
| | | 6GHz~10GHz | 55dB |
| VSWR (MAX.) | DC~3GHz | | 1.7 : 1 |
| | 3GHz~6GHz | | 1.8 : 1 |
| | 6GHz~10GHz | | RF Port : 2.0 : 1 / SW Port : 2.3 :1 |
| Power Handling (Max.) | DC ~ 10GHz | | 1.0W |

* Truth Table

| | Logic Input | | | | | | | | | | RF Path | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | VCTRL_U1 | LS_U2(VDD) | V1_U4 | V2_U4 | V1_U5 | V2_U5 | V1_U6 | V2_U6 | V1_U7 | V2_U7 | SW1-1 | SW1-2 | SW1-3 | SW1-4 | SW2-1 | SW2-2 | SW2-3 | SW2-4 |
| :PORT11 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ON | OFF | OFF | OFF | OFF | OFF | OFF | OFF |
| :PORT12 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | OFF | ON | OFF | OFF | OFF | OFF | OFF | OFF |
| :PORT13 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | OFF | OFF | ON | OFF | OFF | OFF | OFF | OFF |
| :PORT14 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | OFF | OFF | OFF | ON | OFF | OFF | OFF | OFF |
| :PORT15 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | OFF | OFF | OFF | OFF | ON | OFF | OFF | OFF |
| :PORT16 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | OFF | OFF | OFF | OFF | OFF | ON | OFF | OFF |
| :PORT17 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | OFF | OFF | OFF | OFF | OFF | OFF | ON | OFF |
| :PORT18 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | OFF | OFF | OFF | OFF | OFF | OFF | OFF | ON |
| :PORT21 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | ON | OFF | OFF | OFF | OFF | OFF | OFF | OFF |
| :PORT22 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | OFF | ON | OFF | OFF | OFF | OFF | OFF | OFF |
| :PORT23 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 1 | OFF | OFF | ON | OFF | OFF | OFF | OFF | OFF |
| :PORT24 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | 1 | 1 | OFF | OFF | OFF | ON | OFF | OFF | OFF | OFF |
| :PORT25 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | OFF | OFF | OFF | OFF | ON | OFF | OFF | OFF |
| :PORT26 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | OFF | OFF | OFF | OFF | OFF | ON | OFF | OFF |
| :PORT27 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | OFF | OFF | OFF | OFF | OFF | OFF | ON | OFF |
| :PORT28 | 1 | 1 | 0 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | OFF | OFF | OFF | OFF | OFF | OFF | OFF | ON |
| :PORT31 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | ON | OFF | OFF | OFF | OFF | OFF | OFF | OFF |
| :PORT32 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | OFF | ON | OFF | OFF | OFF | OFF | OFF | OFF |
| :PORT33 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | OFF | OFF | ON | OFF | OFF | OFF | OFF | OFF |
| :PORT34 | 1 | 0 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | OFF | OFF | OFF | ON | OFF | OFF | OFF | OFF |
| :PORT35 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | OFF | OFF | OFF | OFF | ON | OFF | OFF | OFF |
| :PORT36 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 0 | 0 | 0 | OFF | OFF | OFF | OFF | OFF | ON | OFF | OFF |
| :PORT37 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 1 | 0 | 0 | OFF | OFF | OFF | OFF | OFF | OFF | ON | OFF |
| :PORT38 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 0 | 0 | OFF | OFF | OFF | OFF | OFF | OFF | OFF | ON |

| | | | |
|---|---|---|---|
| TOLERANCE | Decimal ±0.3 | DATE | 2023. 03. 06. |
| | Angle ±1° | APPROVED BY | S.L.SON |
| | | CHECKED BY | S.L.SON |
| MATERIAL | A6061 T6 | DRAWN BY | K.S.KIM |
| FINISH | White Chromate | SCALE 1/1 | UNIT mm |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TITLE: SWITCH 3P8T

A2 | DWG NO. SW00012-7/2 | REVISION 2 | SHEET 1 of 1