# **Specifications**

# Multiplier unit for DPL-6GF

Model: DMUL-1 /DMUL-2 / DMUL-3



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### 1. General description

DMUL unit is a multiplier unit for the DPL-6GF. The multiple ratio of DMUL-1 is 2, DMUL-2 is 4 and DMUL-3 is 8. Combined with the DPL-6GF, each of the DMUL-1, DMUL-2 and DMUL-3 can generate frequency in the range of 6GHz-33GHz. This product can be easily handled, and the same power supply as that of the DPL-6GF can be used, and the size of the case is same.

2. The format of a part number
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DMUL-1-DDDGF

DMUL-2- GF

DMUL-3-DDDGF

When placing an order, specify the frequency you desire and make a part number as follows.

- Ex.1: In case specified frequency is 10GHz, the part number is DMUL-1-10GF
- Ex.2: In case specified frequency is 18GHz, the part number is DMUL-2-18GF
- Ex.3: In case specified frequency is 28GHz, the part number is DMUL-3-28GF

### 3. Specification

- 3-1. Electrical Specification
- 1) Output frequency

DMUL-1 approximately +/-5% of specified frequency from 6GHz-12GHz

DMUL-2 approximately +/-5% of specified frequency from 12GHz-21GHz

DMUL-3 approximately +/-5% of specified frequency from 21GHz-33GHz

2) Output level +10dBm±3dB

3) Output impedance  $50 \Omega$ 

4) Output connector DMUL-1: SMA, DMUL-2, DMUL-3: 2.92mmK/2J

5) Multiple ratio 2, 4, 8

6) Input frequency range

DMUL−1 3~6GHz DMUL−2 3~5.25GHz

DMUL-3 2.625~4.125GHz

7) Input level +10dBm 8) Input impedance  $50 \Omega$ 9) Input connector SMA-J

10) Harmonic spurious

fo, 2~12fo -10dBc or less than -10dBc (DMUL-1: less than -40dBc)

optional component, using

BPF -60dBc or less than -60dBc

11) Other spurious -60dBc or less than -60dBc

12) Power supply/Current +5V±5% 150mA(DMUL-1) 450mA or less than 450mA(DMUL-2,DMUL-3)

13) Outer Dimensions 50mm × 50mm × 12.5mm

3-2. Environmental Condition

1) Operating temperature range

0 °C to +50 °C

2) Storage temperature range

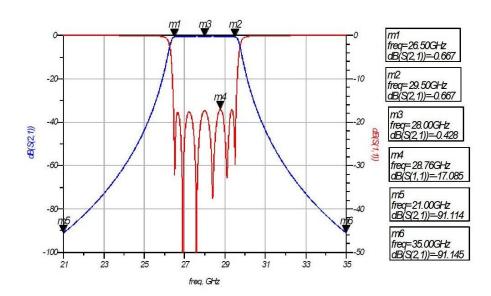
-30°C to +70 °C

## 3-3 Option

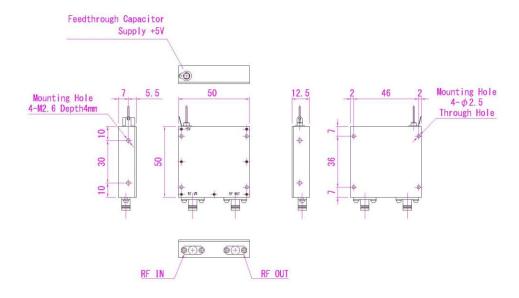
## 1) BPF

Waveform data (simulation data)

In case of BPF combined with DMUL-3-28GF



## 4. Dimensional drawing of installation



### 5. Shipping inspection

100% inspection shall be performed for the electrical specification in 3-1.

### 6. Warranty

If any defects are found due to the DST's improper production or design within one year after delivery, repair or replacement shall be performed under DST's responsibility. But DST assume no liability for damage that may occur as a result of handling by users even if the damage happens within the warranty period.

#### 7. Others

- 8-1. This product employs a CMOS device may be easily damaged by static electricity.
- 8-2. Do not supply overvoltage to power supply, or the module may be damaged. DST assume no liability for damage that may occur as a result of handling by users even when such handling is within the warranty period. You will have to pay for this repair.
  - · Descriptions of this manual are subject to change without notice.
  - · No portion of this manual can be reprinted or reproduced without the permission of DST.
  - · DST assumes no liability for damage that may occur as a result of handling by users.
  - The contents of this manual do not apply to the warranty in executing industrial property or other rights, and DST does not consent to the right of execution.
  - DST assumes no responsibility for the third party's industrial property rights when using the circuits described in this manual.

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