Installing the Output Module

The DTG5000 Series Data Timing Generator mainframe and output module(s) are shipped separately. The DTGM10, DTGM20 and DTGM30 are output modules that can be used with the DTG5000 mainframe. These modules can be used in any combination and in any slot. There are functional differences between slot A though slot D and slot E though slot H. Refer to *Mainframe and Output Configuration* subsection on page 1-3 in Volume 1 of the DTG5000 User Manual. It is recommended that you user slot A when the only one output module is installed in the mainframe.

Electrostatic Discharge
To prevent electrostatic damage to the DTG5000 Series output modules, follow the precautions described below.

⚠ *CAUTION. Output modules are inherently vulnerable to a static damage. Be sure to operate the output module in a static-controlled environment. If the output module is not going to be in use for an extended priod of time, attach the connector caps and SMA termination(DTGM30) to the output module. Store the output module in the antistatic envelope. The connector caps and SMA terminations(DTGM30) are provided with your output module.*
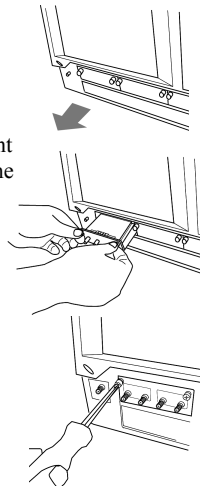
Installing the Output Module
To install the output module, first turn off the instrument using the front panel On/Stanby switch.

⚠ *CAUTION. To prevent damage to the output module or mainframe, never install or remove the output module when the mainframe is powered on.*
Avoid touching the board surface or connectors with your fingers when you handle the module. Attach the blank panel to the slot(s) when the output module(s) are not installed.

1. Verify that the data timing generator mainframe is not powered on.
2. Remove the blank panel from the mainframe slot.
3. Place the output module in a compartment.
4. Gently push the output module into the slot with firm pressure.
5. Once the module is seated, tighten the two screws with either a flat head or a Philips screwdriver to secure the module to the mainframe. To prevent damage to the module, use a torqu screwdriver and tighten the screw to the range of 25 to 35 N-cm(2.2 in lb to 3.1 in lb)

Removing the Output Module
Verify that the data timing generator mainframe is not powered on.

1. Loosen the two screws.
2. Grasp the right and left screws and slowly pull the module out of the the mainframe.
3. Attach a blanck panel to the slot(s).

■ Contents list (accessories)

|	DTGM10	DTGM20	DTGM30
SMA Connector Cap	4	4	2
50 Ω SMA Terminator	none	none	2*

∗50 Ω SMA Terminator part number: 015-1022-01

■Specification
Additional product information is located within the Reference and Technical Reference Manuals that are provided with the mainframe.

	DTGM10	DTGM20	DTGM30
Number of channels When used in DTG5078 When used in DTG5278	4 2(CH1,CH2)	4 2(CH1,CH2)	2 2
Output Signal Type	Single-end	Single-end	Complementary
Output Amplitude 50 Ω Input 1M Ω Input	3.50 Vp-p(∗) 10.00 Vp-p	3.50 Vp-p 7.00 Vp-p	1.25 Vp-p 2.50 Vp-p
Rise/Fall Time (20~80%, at 1Vp-p into 50 Ω)	< 540 ps (Variable)	< 340 ps (Variable)	< 110 ps
Cross Point Control	×	×	○

（∗）The value is limited by the maximum output current (+/− 40mA, maximum).

Signal output Connector
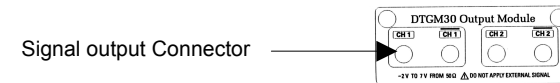
The DTGM30 Output Module

Signal output Connector Care
Never attach a cable to signal output connectors if the cable has a worn or damaged connector because you may damage the Output Module connector. Use extra care when attaching or removing a cable from the connectors. Turn only the nut, not the cable. When attaching a cable to a Output Module connector, align the connectors carefully before turning the nut. Use light finger pressure to make this initial connection. Then tighten the nut lightly with a wrench.

⚠ *CAUTION. For best repeatability and to prolong the life of both connectors, use a torque wrench and tighten the connection in the range of 79-112 N-cm (7 in lb to 10 in lb).*