

# PRODUCT INTRODUCTION

## MG3700A

### Vector Signal Generator

### Output of Modulation Signal

ANRITSU CORPORATION

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# This document describes how to output modulation signals that comply with various communication systems from MG3700A Vector Signal Generator.

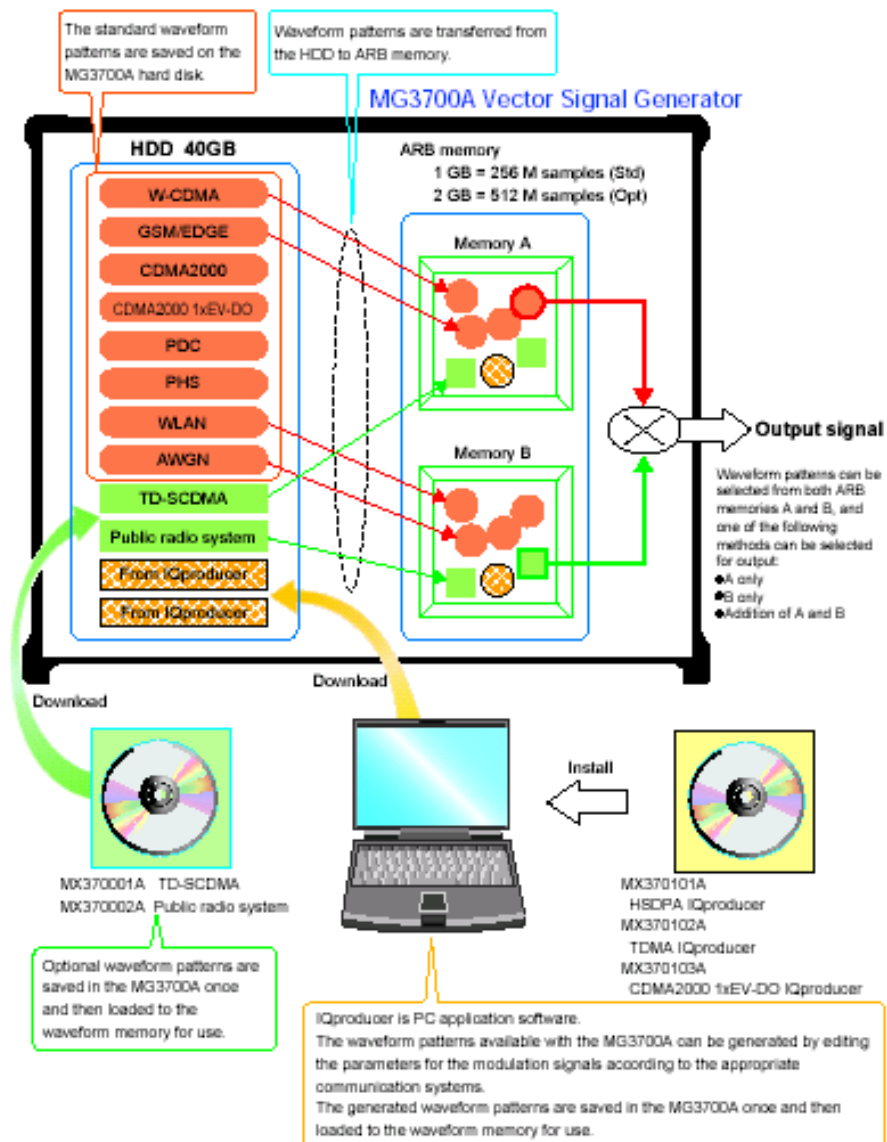
All pre-installed waveform patterns are stored in the built-in hard disk of a mainframe. Optional waveform patterns and the waveform patterns generated by IQproducer or EDA tool are all stored in the hard disk once.

Waveform patterns are outputted according to the following procedure.

1. Load waveform patterns to an arbitrary waveform memory from the internal hard disk of MG3700A.
2. Select one waveform to be outputted from the waveform patterns in the internal waveform memory.

Regardless of its volume, a waveform once loaded to a memory can be switched instantaneously between different communication systems.

Also, the latest waveform pattern is stored in the hard disk before power off and reloaded automatically after the next power on. This eliminates the repetition of the same operation.



**Load from the hard disk to a memory**

- Press [Baseband] on the front panel.
- Press [F1: Load Pattern to Memory].



- Press [F2: Select Wave Memory] and select a memory to which a waveform pattern is loaded.

Hard disk availability

Memory A availability

Memory B availability

Select a memory (Memory A or Memory B) to which a waveform downloaded from the hard disk is stored.

Used when loading a waveform from CF.

- Press [F1: Select Package] and select a Package (communication system folder) of a waveform that is loaded to a memory from the hard disk.

After communication system packages are displayed, select one package that is loaded to a memory from the hard disk.

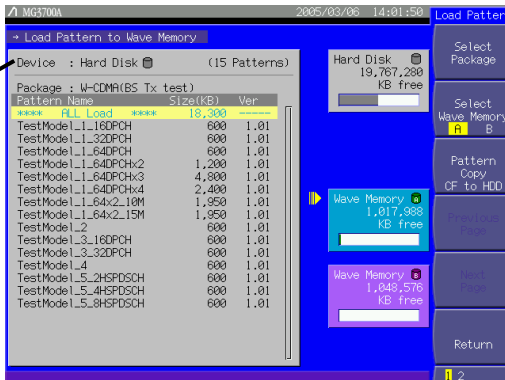
Select Package

**Load to a memory from the hard disk**

- When the waveform patterns included in the selected package are displayed, select any of them and press [Set] to load it to a memory. If [ALL Load] at the top of the list is selected, all waveform patterns in the package are loaded to a memory.

\*If the file size of a waveform exceeds the memory availability, an error message is displayed on the screen saying [Wave memory free area is too small].

Waveform patterns in the selected package are displayed.

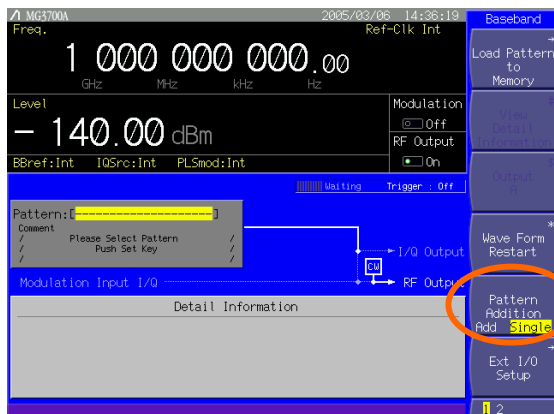


**Select and output a signal from waveform patterns in the memory**

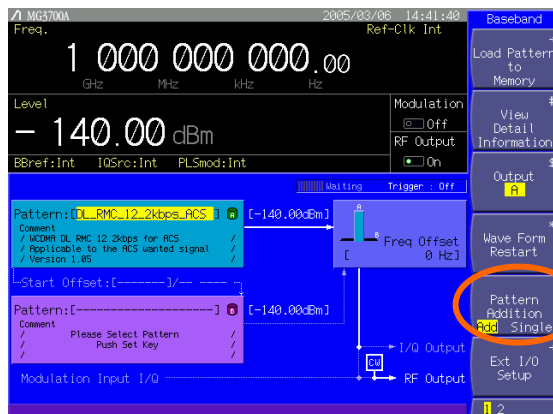
- Press [Baseband] on the front panel.
- Press [F1: Load Pattern to Memory].



- Press [F5: Pattern Addition] and select [Add]. [Add] mode divides a memory into halves and outputs a combined waveform such as wanted signal + interfering signal or respective waveforms. In [Single] mode, Memory A and B are used as one memory (Max.2GB). [Single] mode can select waveforms in both Memory A and B only by the operation on Memory A side even if different waveforms are loaded to each memory.



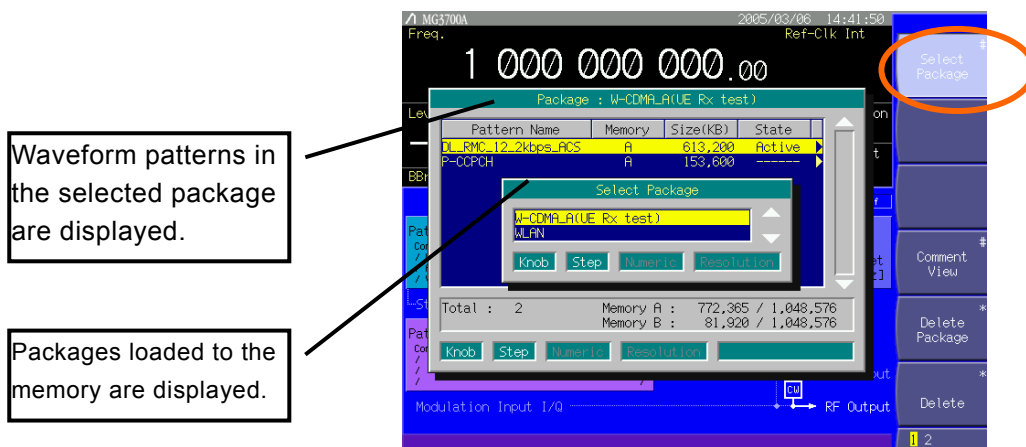
Single mode



Add mode

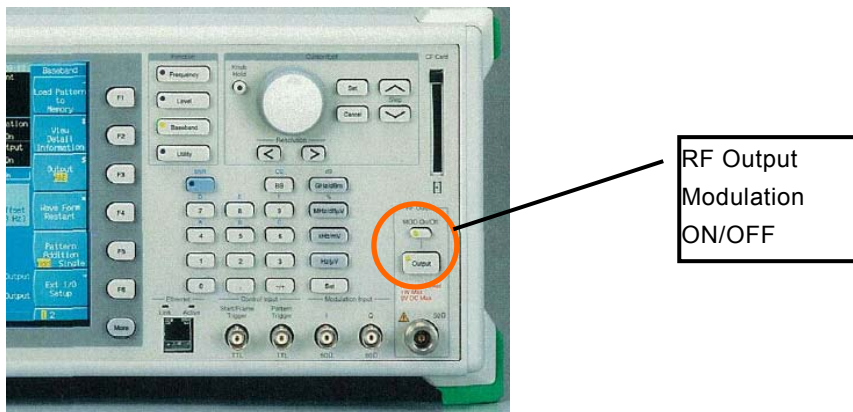
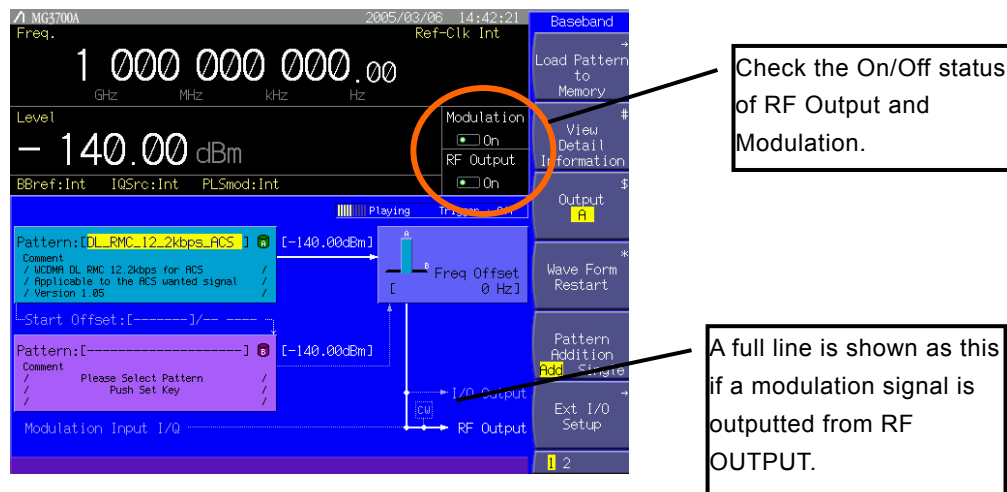
Select and output a signal from waveform patterns in the memory

- Point the cursor to Memory A or B and press [Set].
- Press [F1: Select Package] to display the packages loaded to the memory.



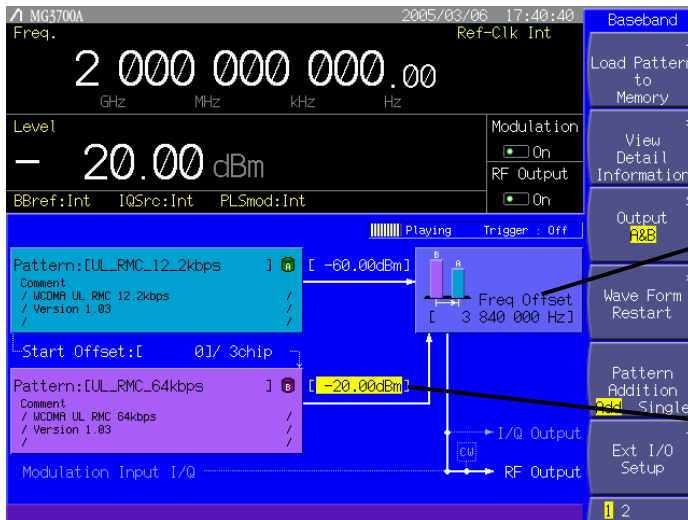
- Select the [Package] of a desired waveform pattern => select [Waveform pattern] and press [Set]. The setting is completed if the desired waveform pattern is selected and displayed in the memory field as shown below.

A desired modulation signal is outputted in the setting of RF Output=On and Modulation=On.



**Waveform combining function: A single instrument outputs the wanted signal and the interfering signal.**

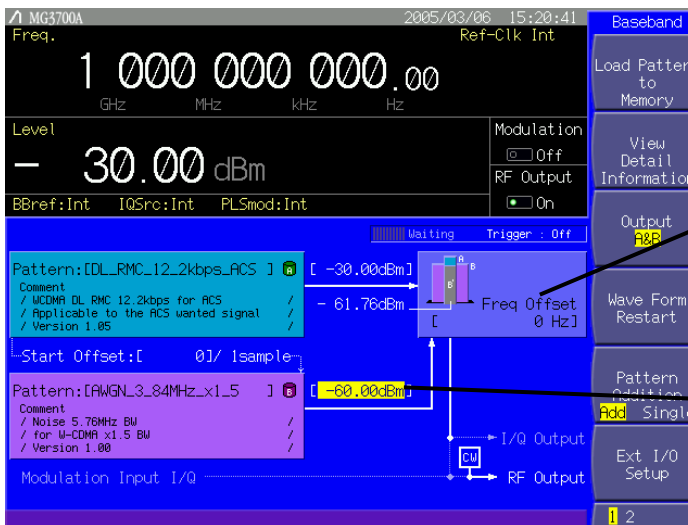
- Press [Baseband] on the front panel.
  - Press [F5: Pattern Addition] and select [Add].
  - Point the cursor to Memory A or B and press [Set].
- The wanted signal is set to Memory A, and the interfering signal to Memory B.



Set the frequency offset.

Set the output level for A and B respectively.

Wanted signal + Mod. interfering signal



Normal frequency offset is 0 Hz.

Set the output level for A and B respectively.

Wanted signal + AWGN

# Anritsu

Specifications are subject to change without notice.

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