

BER Measurement Simple Operation Guide

(MG3710A-021/MG3710E-021/MG3740A-021)

Vector Signal Generator MG3710A/MG3710E

Analog Signal Generator MG3740A

This guide outlines operation procedures for the BER Measurement Function option for the Vector Signal Generator MG3710A/MG3710E and Analog Signal Generator MG3740A (with Digital Modulation option).

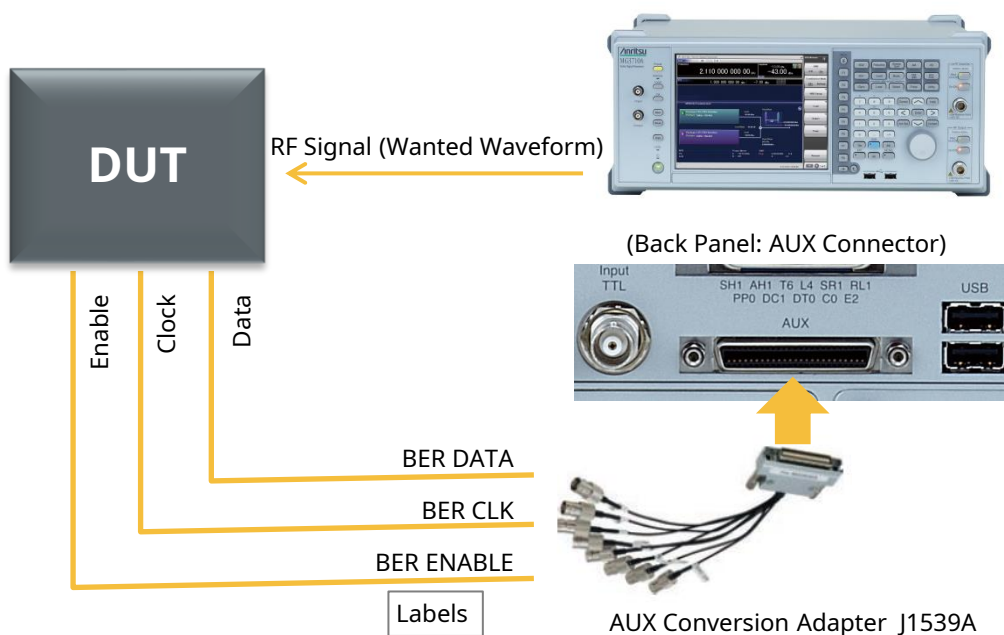
At actual measurement, it may be necessary to modify the settings in accordance with the specifications of the wireless DUT.

Read the following manuals for details of the functions, settings range and procedures.

MG3710A/MG3710E Vector Signal Generator MG3740A Analog Signal Generator
Operation Manual
Chapter 8 BER Measurement

□ BER Measurement Setup

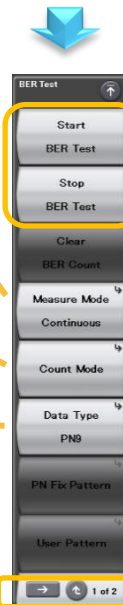
Vector Signal Generator MG3710A/MG3710E
 Analog Signal Generator MG3740A





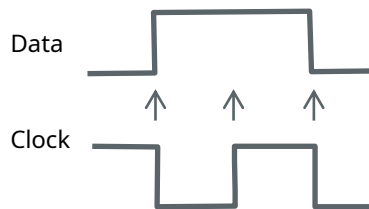
[Procedure]

- ① Press [Aux Fcn].
- ② Press [F2: BER].
- (Page 1)
- ③ Select [F4: Measure Mode] (Ex. Continuous).
- ④ Select [F5: Count Mode] (Ex. Data, 1000 bit).
*The BER result is displayed for each set bit count.
- ⑤ Select [F6: Data Type] (Ex. PN9).
- (Page 2)
- ⑥ Press [F1: Resync Condition].
(Ex. Auto Resync = On, Threshold X = 200 bit, Threshold Y = 500 bit, at Sync Loss = Clear)
*Set as necessary.
- ⑦ Press [F2: BER Interface] *See explanatory note.
(Ex. Clock Edge = Rise, Data Polarity = Positive, Enable Active = Disable)
- (Page 1)
- ⑧ Press [F1: Measure Start] to start measurement.
- ⑨ Press [F2: Measure Stop] to stop measurement.

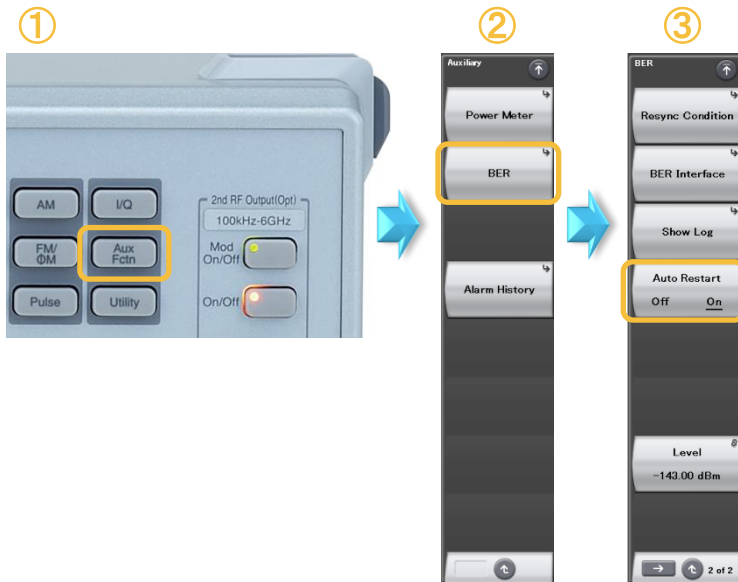


Note: Clock Polarity (See diagram on right.)
When demodulated data is output at the DUT in synchrony with the clock **Falling** edge, the BER measurement is counted at the clock **Rising** edge.

Use an oscilloscope to confirm the data and clock output from the DUT.



Useful Functions ①: Auto Restart



[Procedure]

- ① Press [Aux Fctn].
- ② Press [F2: BER].
(Page 2)
- ③ Press [F4: Auto Restart] = On.

When the output level of the signal generator is switched when Auto Restart = On, the BER measurement result display is cleared automatically and measurement is restarted. This solves the problem of switching between the level and BER screens.

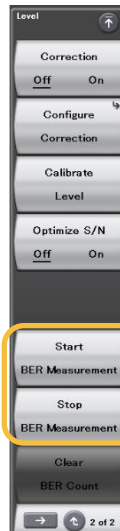
Useful Functions ②: BER and Level Button Layout

BER Measurement Function
(Page 2)



Level Setting

Level Setting Function
(Page 2)



Start BER measurement

Stop BER measurement

The level setting button is on page 2 of the BER measurement function. However, the BER measurement Start/Stop buttons are on page 2 of the settings.

This solves the problem of screen switching at BER measurement while changing the signal generator output level setting.