

# Outline of the Communications Function

## Outline

The communications function allows you to monitor and set E5EK-T parameters by a program prepared and running on a host computer connected to the E5EK-T controller. This chapter describes operations as viewed from the host computer.

When the communications function is used, the E53-AK01/02/03 communications unit must be added on.

The E5EK-T communications function allows you to carry out the following:

- Read/write parameters
- Instruct operations
- Select the setting level.

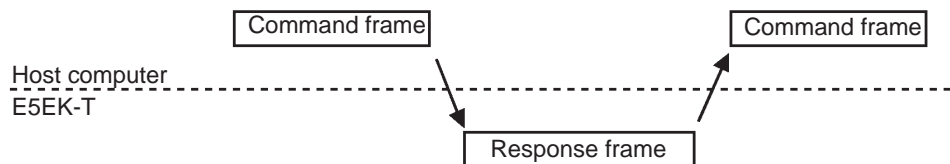
The communications function assumes the following conditions:

- Writing of parameters is possible only during remote operation. Also, parameters cannot be written during execution of auto-tuning.
- Writing of parameters is limited by setting level. Writing conditions are as follows depending on the setting level:
- Setting level 1: No restrictions
- Setting level 0: Writing of parameters in the setup, expansion and operation modes only is prohibited.
- The “remote/local”, “AT execute/cancel”, “hold/hold cancel” and “advance” parameters are set aside from other parameters as special commands for instructing operations.

## Transfer procedure

The host computer sends a “command frame” to the controller, and the controller returns a “response frame” corresponding to the content of the command sent by the host computer. In other words, a response frame is returned for each command frame sent.

The following diagram shows command frame/response frame operations.



## Interface

The host computer carries out communications conforming to the RS-232C, RS-422 or RS-485 interface specifications.

Controllers supporting the RS-232C, RS-422 and RS-485 specifications are as follows:

- Option units
  - E5-AK01: RS-232C
  - E5-AK02: RS-422
  - E5-AK03: RS-485