MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

YOKOGAWA

VF701 S3

VNET PCI INTERFACE CARD

Used with the applicable Yokogawa Vnet configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: Yokogawa IM 32Q06C10-31E; V net VF701/VF702 host interfaces and redundancy.

6. Control Bus Interface Card

In a ProSafe-RS system, a safety engineering PC (SENG) is connected to safety control stations (SCSs) via the control bus interface card installed in the SENG. A control bus interface card is a communication card that is installed in PC/AT-compatible PCs.

- For V net, use a control bus interface card (Model: VF702/VF701) that supports connections to V net. The VF701 is supported in a PCI bus and the VF702 is supported in a PCI Express. The VF701 and the VF702 have the same functions so the following explanation is based on the VF702. The VF702 has two ports to support V net dual-redundancy. To perform engineering and maintenance tasks for SCSs from a SENG via V net, install a VF702 in the slot of a PC installed with SENG software, and connect V net cables (Model: YCB141) to the VF702.
- For Vnet/IP, use a Vnet/IP interface card (Model: VI702/VI701) that supports connections to Vnet/IP. The VI701 is supported in a PCI bus and the VI702 is supported in a PCI Express. The VI701 and the VI702 have the same functions so the following explanation is based on the VI702. The VI702 has two ports to support Vnet/IP dual-redundancy. To perform engineering and maintenance tasks for SCSs from a SENG via Vnet/IP, install a VI702 in the slot of a PC installed with SENG software, and connect cables to the VI702.

6.1 Front Panel of the Control Bus Interface Card

The control bus interface card (Model: VF702) can be used for control communication on V net.

- Control bus interface card VF702: PCI Express

Configuration

- RCV lamp
  This lamp illuminates when a signal is received.
- SND lamp
  This lamp illuminates when a signal is sent.
- BNC connector
  This connector is used to connect the V net cable to the VF702

  It is necessary to connect a T-type connector to this BNC connector.

The front panel of VF702 is shown as follows:

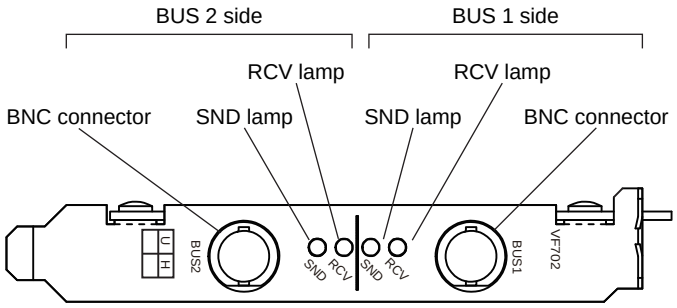

Figure 6.1-1 Control Bus Interface Card (VF702)

6.2 Setting Control Bus Interface Card Station Address

The station address is defined by a combination of a domain number and a station number.

The DIP switches for setting the domain number and the station number are located at the same position on the printed circuit board of the VF702, as shown in the following figure.

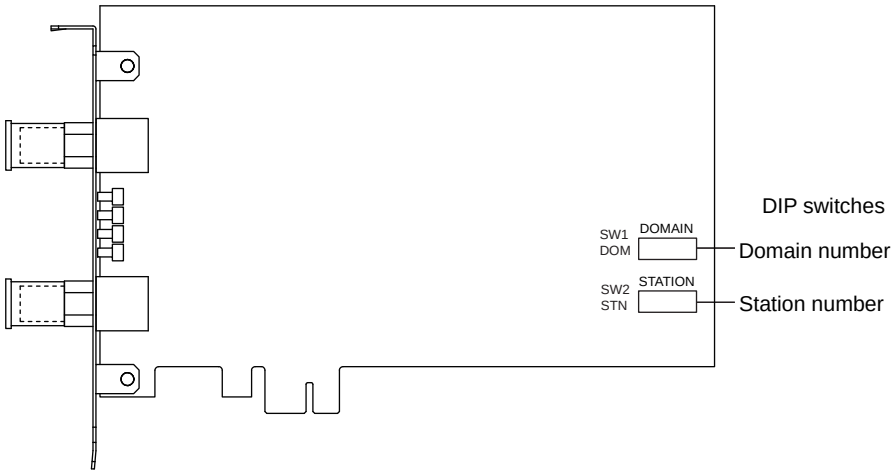

Figure 6.2-1 Location of DIP switches on VF702

Set the domain number and station number using the following DIP switches.

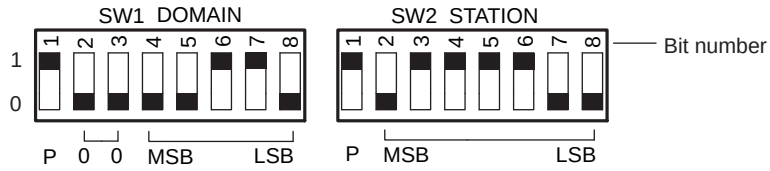

Figure 6.2-2 DIP Switches for Station Address Setting

Setting the Domain Number

Unless other specified, all bits are set to 0 (OFF) at shipment from the factory.

Domain is a range of stations connected by the single V net. Set the domain number in the range of 1 to 31. Set the DIP switches as shown in the following table to set the necessary domain number.

- Setting DIP switches
  0: The switch is flipped down in the following diagram.

  1: The switch is flipped up in the following diagram.

Bit 2 and 3 of the DIP switches are always 0.

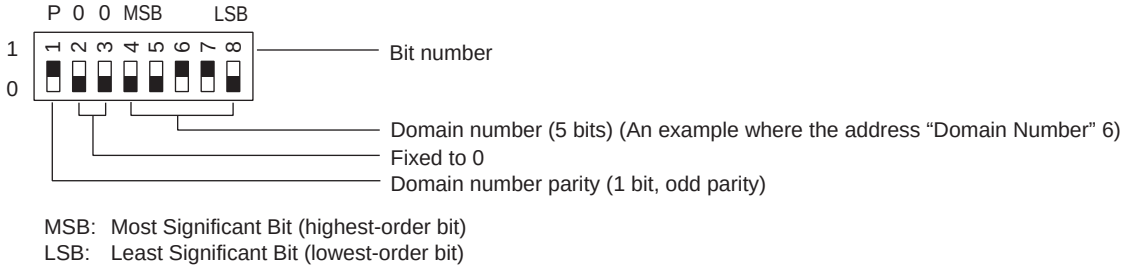

Figure 6.2-3 DIP Switches for Domain Number Setting

Table 6.2-1 Domain Numbers and Switch Positions

Domain number	DIP switch bit number							
	1	2	3	4	5	6	7	8
1	0	0	0	0	0	0	0	1
2	0	0	0	0	0	0	1	0
3	1	0	0	0	0	0	1	1
4	0	0	0	0	0	1	0	0
5	1	0	0	0	0	1	0	1
6	1	0	0	0	0	1	1	0
7	0	0	0	0	0	1	1	1
8	0	0	0	0	1	0	0	0
9	1	0	0	0	1	0	0	1
10	1	0	0	0	1	0	1	0
11	0	0	0	0	1	0	1	1
12	1	0	0	0	1	1	0	0
13	0	0	0	0	1	1	0	1
14	0	0	0	0	1	1	1	0
15	1	0	0	0	1	1	1	1
16	0	0	0	1	0	0	0	0
17	1	0	0	1	0	0	0	1
18	1	0	0	1	0	0	1	0
19	0	0	0	1	0	0	1	1
20	1	0	0	1	0	1	0	0
21	0	0	0	1	0	1	0	1
22	0	0	0	1	0	1	1	0
23	1	0	0	1	0	1	1	1
24	1	0	0	1	1	0	0	0
25	0	0	0	1	1	0	0	1
26	0	0	0	1	1	0	1	0
27	1	0	0	1	1	0	1	1
28	0	0	0	1	1	1	0	0
29	1	0	0	1	1	1	0	1
30	1	0	0	1	1	1	1	0
31	0	0	0	1	1	1	1	1

Setting the Station Number

Set the station number in the range of 1 to 64. To set a station number, set the DIP switches as shown in the following table.

- Setting DIP switches
  0: The switch is flipped down in the following diagram.

  1: The switch is flipped up in the following diagram.