Yokogawa SB311 S1

Event acquisition architecture

Yokogawa SB311 S1 sits between the FCS event-input path and the SOE server. In the documented SEM arrangement, time stamps originate in the SOE input module before data passes through the SB311 interface.

SOE field inputs

ADV151-E timestamps

FCS / SB311 interface

Ethernet SOE server

Capture and forwarding are separate functions

The SOE input module captures plant event changes and applies time stamps. SB311 carries those records from the field control station to the server over Ethernet; the server stores them for later viewing and analysis. The interface module is not the field-input card, so input count and input electrical limits belong to the separate ADV151-E.

Station interface pairing

In the specified SEM configuration, each supported FCS contains two SB311 modules and one IRIG-B branch unit. An SB311 Ethernet port connects toward the SOE server, while its RS-422 port reaches the external master clock through the branch unit. Both paths are part of the event-recording design and must be checked separately.

Interface role	FCS-to-SOE-server data interface
Module arrangement	Dual-redundant pair in specified FCS
Server connection	Ethernet
Clock interface	RS-422
Clock distribution	IRIG-B branch unit in FCS

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Interfaces and timing boundaries

Synchronization belongs to the whole SEM chain

The SOE system uses external IRIG-B synchronization for 1 ms event resolution. That resolution describes the synchronized SEM chain, not an independently specified switching or timing rating of the S1-marked module. During replacement, retain the installed pairing, FCS assignment and clock distribution, then confirm module status and event ordering.

External timing source	IRIG-B master clock
Documented FCS examples	AFS30D-HE; AFG30D-HE; AFS40D-HE; AFG40D-HE
SOE server capacity	Up to 16 FCS per server in specified SEM design
SOE system resolution	1 ms with external IRIG-B synchronization
Status monitoring	SB311 operating status in SEM

Technical scope

Yokogawa CENTUM CS 3000 Technical Information, TI 33Q01B10-01E, June 2006. The SB311 interface architecture is described for the CENTUM CS 3000 Sequence of Events Manager. The S1 suffix remains part of the offered marking and does not itself establish a different electrical rating or system fit.

Replacement decision

Retain the installed FCS model, dual-redundant SB311 arrangement, Ethernet SOE-server path and RS-422 clock connection when evaluating a replacement.

Related product references

Yokogawa ADV151-P50 S2

Yokogawa CP451-10 S2

Separate product references; no interchangeability is implied.